



# QUARTERLY

THREE LAKES ASSOCIATION

SERVING LAKE BELLAIRE, CLAM LAKE AND TORCH LAKE IN NORTHWEST MICHIGAN

FEBRUARY 2020



*Photos courtesy of Art Zelenak*

## Looking forward to the Chain of Lakes Water Trail

Our partner organization, Paddle Antrim, recently celebrated achievement of their fundraising campaign to open the Chain of Lakes Water Trail! We want to extend our congratulations on meeting their \$275,000 fundraising goal, thank everyone who contributed, and wish Paddle Antrim great success with opening the Trail this year!

A water trail is the aquatic equivalent of a hiking trail, providing paddlers practical information on how to make decisions on where to travel along and between waterways. In December 2018, the Chain of Lakes Water Trail became one of the first state-designated water trails in Michigan. Over the past five years, Paddle Antrim has worked with seventeen jurisdictions to



identify and approve 80 access sites that link over 80 miles of water trail. Thanks to many generous donors, including Three Lakes Association, Paddle Antrim can develop a waterproof trail guide for paddlers to use while on the water, and install education and navigation signs at approved access sites throughout the Chain of Lakes. Three Lakes Association was instrumental in developing one of the signs that explains the importance of trees and other large woody debris in

rivers. Other signs will convey information on stewardship, water ecology, safety, and the surrounding community. Paddle Antrim wants paddlers to have a safe and enjoyable adventure and to learn how to protect our waters by leaving no trace, reducing the spread of aquatic invasive species, and to clean, drain, and dry their watercraft after every journey. For more information on the Chain of Lakes Water Trail, go to [www.paddleantrim.com](http://www.paddleantrim.com)

### *Sneak peek*

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## THREE LAKES ASSOCIATION

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### Executive Director

**Jeanie Williams**

### Administrative Assistant

**Lois MacLean**

The TLA Quarterly is published by the Three Lakes Association  
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# President's Message

As we enter the New Year, and look back on another calendar year, many of us ask where the year has gone and reflect on the programs that we accomplished.

No matter how well we organize ourselves there is always something that takes us in a different direction. And such was the case this year.

Since the beginning of our organization in 1966 we have grown to over 500 members. Torch Lake Protection Alliance and Paddle Antrim were started in recent years. Torch Conservation Center, Grass River Natural Area, Friends of Clam Lake, Friends of Thayer Lake, Friends of Cedar River and the Bellaire Conservation Club are also newer groups that have developed followers. And there are other groups out there as well.

It behooves us to join hands when the opportunity arises. Access to funds whether they are grants, federal or state dollars is becoming less available. Thus TLA has to seize the opportunity to work with other groups when we discover common projects. The challenge is to establish communication lines that identify mutual projects and to sort out how we can leverage the respective associations' skill sets and financial resources to tackle new and existing issues. TLA's mission begins with a commitment "to provide leadership to preserve, protect, and improve..." We will continue to pursue this leadership style in a collaborative spirit, without losing our identity, through 2020 and look forward to this year with excitement. We hope that, as a member, you share our passion. This board continues to meet with our fellow partners who have common interests in protecting, preserving and improving the environmental quality of our lakes.

This newsletter will update you on our

Cooperative Lakes Monitoring Program (CLMP). CLMP is a cost-effective method for citizens to monitor water quality and to document changes in lake quality over time. You will also read about new partnerships with our neighboring lake associations, and a final summary of our summer

internship program. In 2020 you can look forward to our Science Education Outreach Program (which begins in this newsletter with a call out to our local schools to apply for our education grants), Swimmers itch outreach, and of course, our annual meeting in August. This is just the beginning. Finally, you will note in this newsletter a brief article on my winter pastime, ice fishing, which sadly,

is not happening so much this year due to the warmer weather.

Our new Executive Director, Jeanie Williams, will provide you with an introduction and brief biography. She joined us in October. We are pleased to have Jeanie on board.

Coming in our spring newsletter, we will have our 2020 initiatives outlined, which we hope you follow as we progress through the year. As always, there will be many opportunities to participate in our projects. See what project really spikes your interest, and volunteer to be part of it.

We are blessed to have so many members, whether they provide boots on the ground in the summer time or monetary donations. We appreciate your crucial support of our mission.

Please feel free to contact us if you have questions, thoughts, or suggestions. And remember to renew your membership, as memberships are the foundation that allows us to continue our lake protection work. Have a terrific New Year. Sincerely Mike Bertram President Three Lakes Association



## Your Three Lakes Association Membership

Membership dues cover the calendar year, January-December 2020. If you haven't yet renewed your membership for 2020, we encourage you to do so today.

A donor membership for \$100 will support both our ongoing administrative costs and our programs. You may also want to consider a different level, including our

Basic rate, which is \$60. Renew by mailing in the membership renewal form in this newsletter or use the website: 3lakes.com/pay-your-dues/. We use PayPal for credit card processing, but you do not need a PayPal account to use it. If you have recently renewed your membership, **we thank you for your support!**

# Jeanie Williams, newest addition to Three Lakes Association

It is such an honor to serve Three Lakes Association as their executive director. May this introduction help you get to know me and form an idea of where I come from. When we meet, let me know that you read this introduction by answering my question at the end.

I was born and raised in Cadillac, and therefore am a proud Michigan native. The two lakes there, Cadillac and Mitchell, planted in me an abiding love for water bodies, and a dependence on regular visits with them. In all the places I have lived, water has been an integral part of my life and my work. I have lived on the Root River in Minnesota, the Ashulot River in New Hampshire, the Winooski River in Vermont, Tamarindo Bay in Costa Rica, and the Bay of Fundy in New Brunswick. South Carolina is the one place I lived where water was scarce and I believe I survived that experience because there was a pool at our rental! Today I reside on the shores of Suttons Bay and am daily grateful for the gift of being so close to the beauty and the power of such big water.

I love to cross country ski, hike, road bike, swim and stand up paddleboard. All winter I have been dreaming about exploring by SUP all of the waters in the Elk River Chain of Lakes.

I have spent most of my professional life as an educator. I was trained in environmental education by the Kalamazoo Nature Center and Eagle Bluff Environmental Learning Center. Later I received training in secondary science education at Antioch University New England, where I also received a Master's in Environmental



Jeanie Williams

Science. I have worked with people of all ages to bring them into closer relationship with nature and science. The majority of this work occurred outdoors: on ships in the Atlantic Ocean and Great Lakes, in bogs and tidepools and rivers, and through forests and meadows and gravel pits. I have also served in the classroom; mostly as a community college professor in Vermont where I taught biology, environmental science, botany, sustainability, and the like. I have also done extensive training and mentoring with teachers throughout the Great Lakes region as they worked to involve their students in community-based stewardship actions.

I love to teach and engage with people in the outdoors, but I also require a healthy dose of field investigation so I can get to know the creatures and patterns of land and water first hand. So, in between all of these teaching gigs, I also practiced field research in Vermont, North Carolina, South Carolina, Costa

Rica, and most recently as the Lead Scientist at Inland Seas Education Association. I hold a Bachelor's degree in Biology from Kalamazoo College and am a Senior Fellow with the Environmental Leadership Program.

In addition to being an educator and a scientist, I am also passionate about organizational structure and function, and this job is allowing me to splash around in all of that. I carry a joy for collaboration and a passion for water protection. I know that Three Lakes Association has a critical role to play in the protection of our water, and I am here to make our organization as strong as it can be in the time I have with you. I look forward to meeting you, and learning about your passions and skills. What special experiences are in your background that you could share with Three Lakes Association? Feel free to reach out. I want to hear from you. 802-310-2285 or [jwilliams.threelakes@gmail.com](mailto:jwilliams.threelakes@gmail.com)



## Antrim Conservation District Trail

### Tuesdays:

Hike the Cedar River Natural Area every Tuesday through April 7, Noon-12:30 p.m. Meet at the ACD office at 4820 Stover Road in Bellaire.

## Grass River Natural Area, Signs of River Otter Hike:

February 22, 1-2 p.m. at the Grass River Natural Area on Alden Hwy, \$5 per person.

## Michigan Waterfront Alliance conference:

"Assessing the Value of the Contributions of Inland Lakes to Michigan's Economy" March 13, in Lansing. Register at [michiganwaterfrontalliance.com/2020/01/10/719/](http://michiganwaterfrontalliance.com/2020/01/10/719/)

## Tip of the Mitt Ice Breaker Speakers on Green Infrastructure

February 27, Noon-1 p.m. at Tip of the Mitt offices in downtown Petoskey.

## The Growing Threat of PFAS

March 26, Noon-1 p.m. at Tip of the Mitt offices in downtown Petoskey.

## MI Lakes and Streams Association Annual Conference:

May 1 and 2, 2020, at the Crystal Mountain Resort in Thompsonville, MI. Check out the Tentative Agenda and register at [mymlsa.org](http://mymlsa.org)



# Paying it forward with TLA's Science Education Outreach Program

By Tina Norris Fields  
Education Committee Chair

If you are reading this, you are probably already committed to being a thoughtful steward of our beautiful world and its precious waters. Have you thought much about how you learned to care about the health of our lakes and streams? If you do, you are likely to realize that you were taught to care.

About fourteen years ago, Patricia Roush joined the TLA Board of Directors. She came to us, not with a degree in chemistry or physics, but with a background in teaching. Seeking how to best use her talents and skills in this new setting, she accepted the position of Chair of the Education Committee. In that role, she asked herself what assistance she would have liked to receive during her teaching career. Quoting from Patricia's recent letter to the board, her answer was that she would have liked "to be able to provide my students with experiences or materials that would enhance their learning experience." From that simple question and answer came the creation of TLA's Science Education Outreach Program (SEOP). The SEOP offers "science teachers in the four school districts bordering our three lakes; Bellaire Schools, Central Lake Schools, Kalkaska Schools and Mancelona Schools, an opportunity to apply for a grant to provide their science students with enhancements to the science curriculum not within their districts' budgets."

For the past eleven years, TLA's SEOP has provided "a wide variety of experiences,



**Patricia Roush**

equipment, guest speakers, field trips, memberships in education organizations, teacher education, etc." to the teachers of our four school districts. In Patricia's own words, the students have reaped the benefits. "Our partnerships with the schools; the TLA summer internship program for high school students and the K-12 SEOP, are very popular with our membership and have increased awareness of the precious resources of our lakes and lands for hundreds of students over the years."

When the SEOP first began, it was funded entirely from contributions solicited from our membership. Recognizing the value of the program, The Dockside pledged support with a grant of \$9,000 to be disbursed over three years (2013, 2014, and 2015), and matched by donations from the TLA membership and the general public. The Dockside then continued this commitment to education by extending the offer for an additional year beyond the initial three-year commitment. This unanticipated, but truly

energizing and deeply appreciated gift from a member of the local world of commerce, propelled the SEOP into the awareness of the community at large. The SEOP is now a line item of the TLA annual budget, supported always at the \$6,000 level per year. Designated gifts from the public can provide additional funds to increase the amount available for grants to our science teachers.

The 2020 SEOP grant application will come out soon and will be due mid April. Watch our website and social media for an announcement. Teachers of science, K-12, in Bellaire, Central Lake, Kalkaska, and Mancelona are eligible to apply.

Patricia Roush recently retired from the TLA Board of Directors, after some fourteen years of service to the mission of the organization to provide leadership in preserving, protecting, and improving the environmental health of our precious waters. Her letter of departure concluded with these words:

It bears repeating that the children in our schools today are the future stewards of our lands and lakes. Their knowledge and appreciation of our precious resources will pay forward. The TLA board and membership had the vision to support SEOP and other outreach project that are fostering good stewardship.

As the new Education Committee Chair, in recognition of how I, too, have benefited from Patricia's vision, I say a grateful THANK YOU and pray that I may follow faithfully in her footsteps.

## Are you interested in volunteering?

1. We are preparing for our field season and could use some folks to collect water samples, especially in rivers and tributaries.

2. We also could use help with annual water sample collections and measurements in the deepest portions of all three Lakes. We have dedicated volunteers for 2020, but an extra hand makes the work easier, and it is always good to have some trained folks who can be called in should the need arise.

3. Are you skilled with communication? Newsletters, postcards, emails, news articles, radio stories, videos, social media; all of these platforms are vehicles for

getting our message to the public. If you have an interest in building even a single article or message, we could use your help.

4. Do you want to help, but aren't sure how? Jeanie would love to talk to you about your interests and can likely find a way to involve you.

5. We have open positions for Zone Directors in Helena, Custer, and Torch Lake Townships. If you live there, and love us, please reach out!



Contact: [3lakes.info@gmail.com](mailto:3lakes.info@gmail.com) with your name, phone number and a good time to reach you.

# Cooperative Lakes Monitoring Program

The Cooperative Lakes Monitoring Program (CLMP) is a collaborative program between several environmental organizations, Michigan Lakes & Streams Association and the Michigan Department of Environmental Quality (MDEQ, now EGLE), under the MiCorps umbrella. Three Lakes Association (TLA) volunteers collect water samples for spring and summer phosphorus levels, Chlorophyll a levels, and water clarity with Secchi disk readings throughout the summer months. Temperature, dissolved oxygen, aquatic plant and shoreline survey protocols are also available through CLMP. Over 300 Michigan Lakes participate in CLMP, creating an invaluable picture of the health and variability of Michigan Lakes. TLA has participated in this monitoring program for many years with a succession of devoted volunteers, some of whom have served for over twenty years.

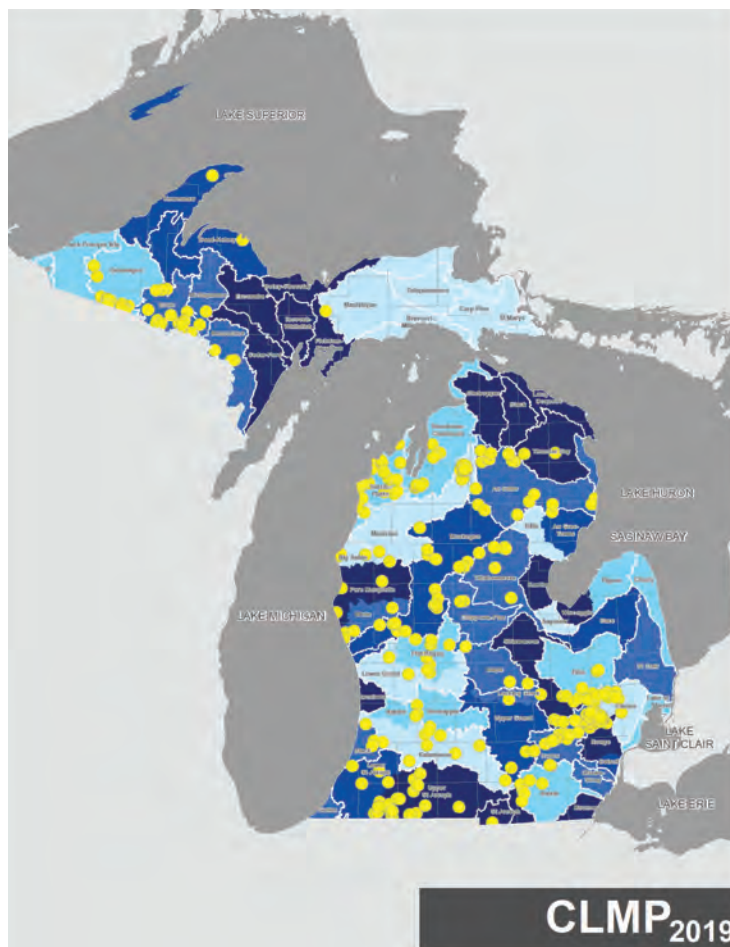
Funding for the CLMP program has until recently been provided through the Clean Michigan Initiative bond, which ran out in 2017. Line item budget allocations have supported the cost of running the program for the past two years, and budgetary wrangling at the State level has left the CLMP program unfunded for 2020.

However, a five-year contract is in the works that will provide funding for 2021 – 2026 through the Renew Michigan Initiative. We are delighted to know that funding is secure through 2026. However, the funding gap for 2020 requires us to get creative.

Dedicated environmental organizations, TLA included, are not willing to skip our important monitoring in 2020 and are working to fill this gap. Tip of the Mitt Watershed Council is able to provide the necessary supplies and equipment and TLA has been invited to continue its activities under their umbrella. MiCorps is working to continue at least some portion of the monitoring activities for 2020 although the plans have not been finalized as of this writing.

Monitoring is most effective when it is practiced every year in exactly the same way. Three Lakes is committed to annual monitoring of Lake Bellaire, Clam Lake, and Torch Lake to keep an eye on water quality and to inform future generations about the quality of our water at the beginning of the millennium.

The reports of our monitoring efforts in 2019 are expected in March 2020. They will be published here: <https://micorps.net/lake-monitoring/individual-lake-reports/> along with the results for all Michigan lakes that participate in CLMP.



TLA truly appreciates efforts of the volunteers who systematically collect water samples and make and record the water quality data. These data provide a historical record of the condition of the lakes. If this cost-effective screening of

lake water quality were to show unexpected findings, then follow-up, more comprehensive testing would be triggered. If you would like to help collect samples for CLMP lake monitoring in 2020, please contact us. We'd love to get you out on the water with us.

## New Members and Donations

**We'd like to welcome these new and returning members to TLA for 2020. We are so grateful for your participation in our mission!**

Jeff & Susan Alexandrowicz	John Mach
Chris & Francine Bergstrom	Mickey & Martha McGuire
Jeff & Stephanie Bigelow	Eric & Maria Morgan
Alan Bliss & Janet McNish	Rick Newton
William Christensen	Katie Roth
Pat & Judy Corso	Tom & Marisa Rowe
Deborah Ehrlich	Jonathan Schmidt
Delisa Hinterman	Val & Sara Simone
Heather Irvine	Alan & Stacy Sollenberger
Fred & Gloria Janke	Paul & Mary VanHese
Lysle & Agneta Johnston	Don & Susan Venburg
Wayne Lancaster	Steve & Kathleen Young
Bruce Leech	Scott Zimpher

**A big thank you to these generous donors who gave above and beyond their membership to support water protection in Lake Bellaire, Clam Lake, and Torch Lake.**

Richard & Susan Bingham	\$2,500	Charles & Chris Ward	\$500
Brad & Margaret Baxter	\$500	Ken & Kathy Masck	\$400
Chris & Cindy Coble	\$500	William & Judith Owen	\$300
Duane & Jill Meyer	\$500	Rick & Sandy Doornbos	\$250
Eric & Maria Morgan	\$500	Thomas & Elizabeth Irwin	\$250
Schuss Mtn. POA	\$500	Tom & Deborah Southworth	\$250
Alan & Stacy Sollenberger	\$500		

**We are honored to be recognized through memorial contributions and have so much gratitude for contributions made in the name of these individuals:**

Lynn Collins	Hazel Johnson	Hugh McDiarmid
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# Ice Fishing Lake Bellaire

My favorite winter pastime usually kicks off in January on Lake Bellaire and is possible because of TLA's diligence over the last 54 years to maintain high water quality in Lake Bellaire, Clam Lake and Torch Lake. Our lakes have excellent color and clarity for an activity we all can enjoy: ice fishing from a fish shanty.

My fish shanty is 4 feet by 6 feet and framed with 1x4 and 1x2 cedar boards cut from trees grown on my farm in Antrim county. Quarter inch particleboard covers the sides, floor, and roof, with a door cut out and hinged on one side. Very simple. We cut a hole 2 feet by 2 feet in the floor of the shanty and cover it with a trap door. This door can be removed and used as a front step when the shanty is on the ice. A wood stove with damper is installed, which exhausts through a pipe stack that goes through the roof. We paint the whole inside of the shanty black and seal off any gaps so no light can get inside. It must be dark because if the fish see light or reflections coming from above, they will spook and never come near the hole. We also paint our address on all four outside walls per regulation. We make a sled of old skis, wax them well, and place the shanty on them, so it can be pulled onto the ice.

Volunteers plow snow from Fisherman's Paradise Access Site on the eastern shore of Lake Bellaire, which is a great location to enter the lake. Two of us can pull the shanty with a rope to our "secret location." When we get there, we spud (aka cut) a two feet by two feet hole in the ice, and slide the shanty over the hole while pulling the sled out from under. We then open the trap door and wiggle the shanty until it lines up with the hole. Once set,

we place 1x3 blocks under the corners to elevate the structure so that any water that comes up through the hole cannot touch the shanty and freeze it to the ice. To keep wind from blowing in from under the shanty, we shovel a barricade of snow all the way around the perimeter.

Anglers are secretive about their choice spots for catching fish, hence my "secret location," but I'm going to let our TLA membership in on the secret. My father-in-law never worried about sharing his fishing spots and neither do I. Once on the lake, we line up the shanty with the Antrim County Courthouse, the Water Tower at Shanty Creek, and Fisherman's Paradise Rd. Some call this spot, "The Sunken Island." In this spot, the lake is clear and the color is perfect, so you can see all the way down to the weedy bottom, 12 feet below. We drop about half a box of raw macaroni noodles into the hole, which contrast with the weeds. The macaroni makes approaching muskie and pike easier to see in the weeds, otherwise they'd blend right in. Also, crayfish eat the pasta after we leave, so no pollution is created.

Now the excitement begins. We like to arrive at the shanty before first light, early in the morning. We start the wood-burning stove, remove the floor hatch, and scoop out any ice that accumulated in the hole since the previous time we were there. Attached to the center of the roof is a Zebco Reel, to which we attach a fishing line with a hook on the end. The hook goes through the dorsal fin of live



12-inch sucker, or to the back of a homemade wooden bait (see picture).

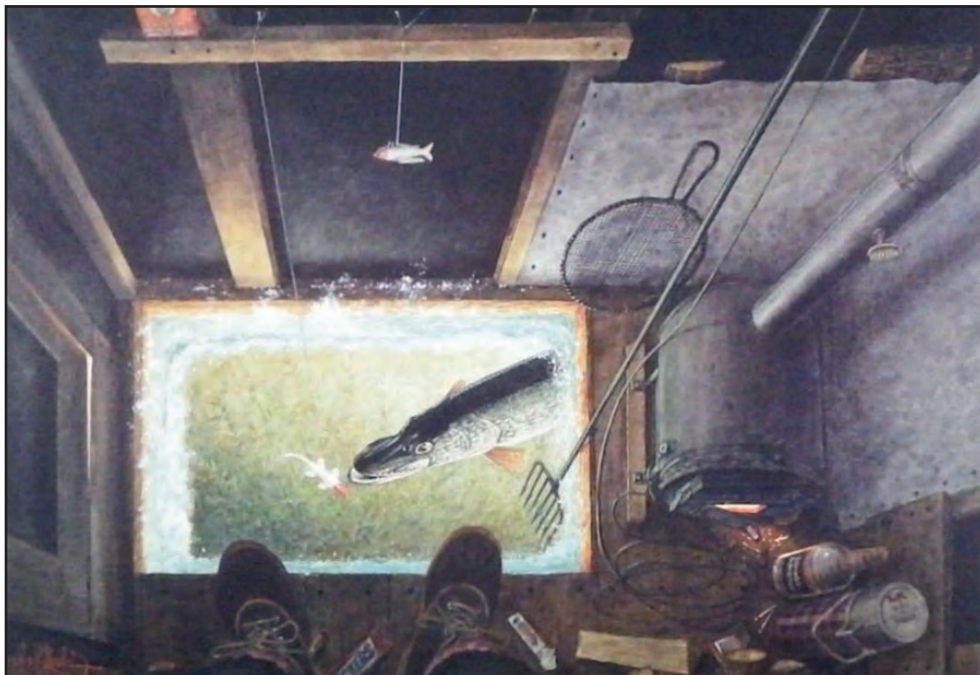
The bait lures the fish in, but the actual catch happens with a spear. We set up a spear on the edge of the hole so the entire head of the spear is in the water. Attached to the spear is a rope, coiled on the floor and secured to the wall. Why submerge the spear in advance? This way when the spear is pushed down towards the pike there will be no splash.

When everything is ready to go, we sit on our benches and watch for the pike. This is by far the most challenging part of shanty fishing: waiting and watching. Our waiting period is usually filled with snacking on Snickers or Babe Ruth candy bars and tipping a bottle of Kessler's into Coke to help pass the time. We often set up a couple of tip-ups about 10 feet from the shanty, and open the door every once in awhile to check on them. Also, the wood stove keeps it toasty, so we have to take off our coats to avoid overheating. It could probably be worse.

Yet, when a pike comes in and grabs the bait, the adrenaline flow increases. Your heart takes off, your eyes bug out. There is so much excitement, and if we are quick enough to let the spear go, it zips towards the pike and lands right behind the head. You might wonder, with everything happening so quickly, how could we know the fish was of legal length? We have a built-in tool for that: if it's longer than the two-foot hole it's fine.

Once, while I was ice fishing with my father-in-law in 2003, a 42-inch muskie took off with a spear embedded in its back and before we knew it, the fish pulled the rope almost to the end. Usually a foot on the rope coil will stop the fish, but not with this one. We had to pull it in hand over hand, and slowly so the spear didn't break off. When we finally got the fish to the surface, I kicked open the door and tossed the fish, spear and all, onto the ice. Within minutes the fish froze, and we removed the spear.

The clarity and color of the lake is essential for this activity. Spear fishing happens by watching for the fish themselves through the water, not by eyeing a tip-up or feeling the tug on a line. The eventual ambush is vastly easier when the water is crystal clear. And even if no spear is dropped, simply seeing a pike or perch swimming along makes the adrenaline flow and the heart swell. Ice fishing is a terrific pastime in the winter and I hope you get to try it sometime. I really appreciate all of you as members for continuing to support TLA, so that we can enjoy this wintertime recreation activity. If you have questions about ice fishing, feel free to let me know. Happy winter. Mike



"Darkhouse Spearing" by Les Kouba

# Addressing Swimmer's Itch in Torch and Bellaire Lakes

By Dean Branson

Not many people think about Swimmer's Itch in the winter, but Three Lakes Association (TLA) does. In 2019, TLA responded to your concerns about swimmer's itch in Torch Lake and Lake Bellaire in three ways.

First, our 2019 summer high school intern program evaluated whether a new DNA-based technology (qPCR) could become a practical tool for detecting swimmer's itch parasites in water samples from our lakes. The answer: Yes it can.

The good news: swimmer's itch was not detected in the north arm of Lake Bellaire, or in North Torch Lake. The bad news: Some areas of high swimmer's itch concentration occurred on the western shore of Lake Bellaire. Check our website for the full intern report, which also contains a discussion of enteric bacteria testing in our lakes and streams. <http://3lakes.com/projects/summer-intern-reports/>

More on the impact of our intern program and the students who participated in 2019 will be shared in our next newsletter.

The second way TLA responded to your concerns about swimmer's itch in 2019 was to retain the services of Freshwater Solutions LLC, to conduct a Comprehensive Assessment on the root causes of swimmer's itch in the northern and southern halves of Torch Lake and in Lake Bellaire.

These Comprehensive Assessments surveyed three major components of the swimmer's itch life cycle at ten locations around each study area: (1) the waterfowl, (2) the snails, and (3) the swimmer's itch cercariae. Cercariae are the microscopic "worms" that actually cause swimmer's itch by triggering an immune response as the microscopic larvae (worms) bury into the human swimmer's skin.

Since snails host a portion of the cercaria life cycle, the Comprehensive Assessments also determined which species of potential snail hosts are present in our lakes, and which of them actually contained cercariae. Finally the Assessments included analysis of water samples from a total of thirty sites to quantify the swimmer's itch cercariae. Quantification gives an indication of how likely it would be to contract swimmer's itch in a particular location. More cercariae = higher risk.

The data in this table are based on the findings from ten sites per assessed area. The low incidence of sites that exceed 100 cercariae/25 Liters of water sampled is not consistent with the numerous reported cases

Assessed Area	Total Waterfowl Birds per mile of shoreline	Common Mergansers Birds per mile	Snails Stagnicola sp./m <sup>2</sup>	Cercariae Number of sites with >100 Cer/25L
<b>N. Torch Lake</b>	12.1	3.67	0.9	2
<b>S. Torch Lake</b>	6.3	0.55	0.85	1
<b>Lake Bellaire</b>	4.0	0.00	3.63	2

of swimmer's itch in the assessed areas. One possible explanation is that, by chance, the infected snails were not triggered to produce cercariae on the days that water samples were collected: July 19<sup>th</sup> (N. Torch), July 23<sup>rd</sup> (S. Torch), July 23<sup>rd</sup> (Lake Bellaire). Another possible, although unlikely, explanation is that a new species of the swimmer's itch parasite may be the organism that is causing swimmer's itch in these lakes, and therefore our tools were unable to detect it. Yet another possible explanation is that the direction of the wind relative to the location of the infected snails, on the days of swimming and/or the days the water samples were collected, pushed the cercariae either toward or away from shore, respectively.

The conflict between reported experiences on the lake and our sampling results suggest that there is great variability in the presence of cercariae in our lakes. Therefore, in the near term, testing is unlikely to be definitive on where it is "safe" and "unsafe" to swim if you want to avoid swimmer's itch. Swimmer's itch is annoying, but generally not harmful. Look for our tips on how to minimize your risk of encountering swimmer's itch in future newsletters.

These assessments were part of a larger study conducted on several lakes in northern Michigan, and partially funded by the Michigan Swimmer's Itch Partnership and the Dole Family Foundation. Freshwater Solutions is the leading swimmer's itch research organization in the US and Canada. Freshwater Solutions is under the leadership of Ron Reimink, and his partner, Professor Patrick Hanington of the University of Alberta. This testing was invaluable for the advancement of Mr. Reimink's and Dr. Hanington's understanding of how to advise us about minimizing our risk of exposure, while also protecting our water and wildlife. Copies of the Reports from these Comprehensive Assessments are posted on TLA's Website: [www.3lakes.com/](http://www.3lakes.com/)

In an effort to reduce the incidence of swimmer's itch in their lakes, some lake associations have pursued DNR permits that allow for the capture and relocation of broods

of common mergansers, major intermediate hosts of the organism that causes swimmer's itch. However, TLA's Water Quality Team has not been convinced of the effectiveness of this practice. The data from these Assessments and observations from other lake associations were less-than convincing that the incidence of swimmer's itch might be noticeably reduced by removing broods of common mergansers. Given the results of these assessments, and the guidance from Freshwater Solutions, TLA will be offering helpful tips on how to avoid getting swimmer's itch by minimizing contact with cercariae in 2020.

The third way that TLA addressed swimmer's itch in 2019 was to collaborate with seven other organizations to develop and distribute educational rack cards that provide helpful hints on how to minimize the chances of getting swimmer's itch. These rack cards included a Quick Response (QR) code so people with cell phones can easily report the specific location in each lake where they got swimmer's itch, <http://3lakes.com/swimmers-itch/> Keep your eyes out in 2020 for an updated version of this rack card.

## Swimmer's Itch Cercariae Locations



Red = more  
Green = less



The mission of the Association is to provide leadership to preserve, protect, and improve the environmental quality of the Elk River Chain of Lakes Watershed for all generations with emphasis on Lake Bellaire, Clam Lake, Torch Lake and their tributaries.

Three Lakes Association  
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## Membership counts!

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