



A LOOK AT THE LAKE

THE NEWSLETTER OF THE BURT LAKE PRESERVATION ASSOCIATION

SPRING

2023

No Thanks

Jim Burke, President

That's what our Lake said. "No Thanks".

While driving through our neighborhood recently I couldn't help but notice several properties with these little "Caution: Pesticide application Keep Off..." signs posted.

I'm not one that sees the need to fertilize the grass; never have. Drawing Burt Lake water into our irrigation system seems to keep our grass green enough. Besides, this is Northern Michigan, not Bloomfield Hills. That's how I feel about fertilizer, but this article isn't about that; it's more about pesticides.

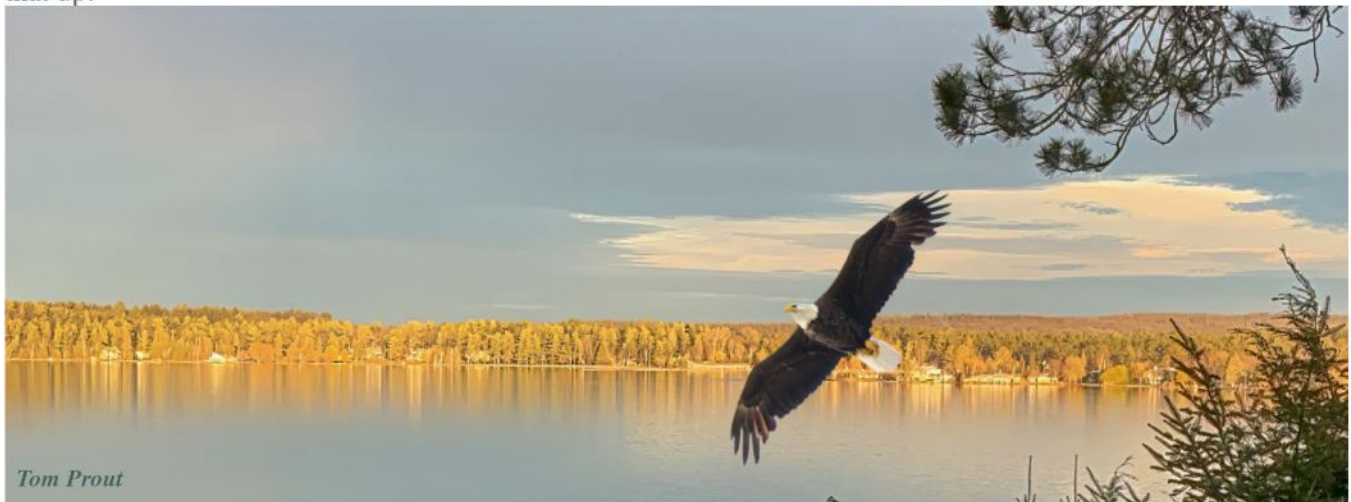
HooBoy. Where do I begin? What would Burt Lake say? "No Thanks." What goes on your lawn eventually finds a way into our lakes and streams.

Honestly, What's with our obsession with killing bugs and little critters? They're part of the ecosystem that Mother Nature created and it works when mankind doesn't intervene and screw it up. Have you ever read the label on a bag of lawn weed killer? Quinclorac. Sulfentrazone. Dicamba. These are just the pronounceable ingredients. Try this one: Methylchlorophenoxypropionic acid. I didn't make that up.

So, we put this juju on our grass to create a "Beautiful Lawn". Whenever I see one of these "beautiful" lush weed free lawns I just shake my head, knowing that folks are just not seeing the bigger picture. That's not how I would describe a beautiful lawn. Our kids play on it. Our dogs play on it, sniff it, eat it, and track it in the house. It gets into our wells and our neighbors' wells. We drink it. You get the picture. I'm not going to pontificate or judge you, but in my simple mind this is bad juju and completely unnecessary.

Tuscarora Township Parks recently stopped using pesticides on their many acres of grass and they only use weed killer when absolutely necessary. They're saving money too.

I have a money saving (lifesaving?) idea: STOP IT! Everyone can do something. Why not start this year? Mother Nature will thank you.



Tom Prout

Visit www.blpa.org or facebook.com/burtlakepreservation association.

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BLPA Shoreline Survey 2022 Results

Anna Watson, Tip of the Mitt Watershed Council

Shorelines are dynamic places. They are important transitional zones that can help or harm water quality, and improve or decrease wildlife habitat, often determined by human influence. Shorelines endure forces of wind, ice, and waves, which are expected to cause some natural erosion. However, it is often the actions of humans that escalate erosion and cause the greatest impact. Severe erosion can threaten waterfront infrastructure, degrade water quality and aquatic habitat, diminish fish spawning areas, and intensify the issue of nutrient pollution which gives rise to unwanted growth of algae and aquatic plants. Among the public, it is often thought that the best way to preserve and protect the shoreline is by armoring it with materials like sea walls or larger boulders. These approaches actually harm the shoreline by increasing erosion at the base of the structure and scouring out the lake bottom in front of the structure, which can lead to seawalls failing, increased erosion, and even less habitat for aquatic life.

Tip of the Mitt Watershed Council in partnership with the Michigan Natural Shoreline Partnership (MNSP) promotes a softer and more natural approach to protecting shorelines, by installing or maintaining greenbelts. Greenbelts are a buffer strip of natural vegetation that runs along the shoreline to help filter pollutants, stabilize the shoreline, and provide habitat for aquatic life. They can be designed like any other garden to beautify the landscape, but also serve an important purpose. The Watershed Council conducts periodic shoreline surveys to assess lake wide approaches to shoreline protection and provide understanding of water quality trends and changes in lakes. Prior to 2022, Burt Lake's shoreline was surveyed in 2001, and the last shoreline survey conducted on Burt Lake by the Watershed Council was in 2009. Considering 2009 was fourteen years ago, it was time for another look at the Burt Lake shoreline. The Watershed Council received funds from the Michigan Department of Environment Great Lakes and Energy's (EGLE) Nonpoint Source Pollution Implementation Program for a shoreline survey. This project was a priority in the Burt Lake Watershed Management Plan and necessary for maintaining high water quality in Burt Lake.

In 2022, the shoreline survey on Burt Lake prioritized a few different parameters including development along the shoreline, meaning if parcels had any kind of structure, or pavement development. Greenbelts were scored based on their length and depth along the shoreline. The presence and density of Cladophora, a filamentous alga used as a bio-indicator of nutrient pollution, was also a priority in this survey. Shoreline alterations, including sea-walls, large boulders, etc.,

were documented, as well as the severity of erosion present at each parcel.

Results from the shoreline survey showed that some kind of development, including houses, barns, sheds, etc., along the Burt Lake shoreline has increased from 57% in 2009, to 92% in 2022. Greenbelt scores improved following the 2001 survey likely due to Burt Lake Preservation Association's collaborative effort with the Watershed Council to address the greenbelt problem found during the 2001 survey. Unfortunately, this improvement trend did not last, as greenbelt results now show a worsening trend. Between 2009 and 2022 the number of properties with very poor (absent) greenbelts increased by 26%, while properties with excellent greenbelts decreased by 7%. In addition, the percentage of altered shorelines, meaning altered from their natural state, has increased from 46% in 2009, to 72% in 2022. The most common alteration, rip-rap (boulders, rock), has increased from 250 properties in 2009, to 565 properties in 2022. This means the shoreline overall has hardened, or become more armored since 2009. Erosion has also increased along the shoreline since 2009, with 4% more shorelines being recorded as eroding in 2022. Cladophora levels have improved overall. In 2009, 53% of properties were documented as having no signs of the filamentous algae, and this percentage increased to 77% in 2022. This could be an indication that there are less nutrients polluting Burt Lake.

Individual property results will be available to shoreline property owners in June, via a WebApp created by the Watershed Council. By sharing results this way, it ensures scores are kept private and only accessible to the appropriate property owner/s. The WebApp will be posted on the Watershed Council's website. A unique ID code will be sent to shoreline property owners in the mail, which will be necessary to access results.

If you are wondering if there is something you can do to increase your shoreline protection, the answer is yes! Shoreline property owners should complete the Michigan Shoreland Stewards survey to rate your own shoreline. Specific questions about property management practices will help you understand the impact of your actions. Additionally, as a part of the EGLE 319 grant, we are offering a greenbelt cost-share program for those who live on Burt, Douglas, Crooked and Pickerel Lakes. This is an opportunity for homeowners to partner with the Watershed council to create greenbelts, rain gardens, bioswales, or other

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An Ice Fisherman's Fantasy

David Steenstra, Burt Lake Sturgeon Club



Eroded shoreline property with no greenbelt present.

infiltration practices. Cost-share program dollars will be distributed based on priority parcels determined based on greenbelt scores from the 2022 survey, as well as Michigan Shoreland Stewards survey results. Program dollars will also be on a first-come, first-serve basis. In order to receive funding, property owners must be willing to pay 50%% of the project cost. This is a unique opportunity that does not come along often, so keep your eye out for applications coming out in June. Once funds are distributed, Tip of the Mitt Watershed Council will work with awarded property owners to develop aesthetic, as well as functional plans using native plants. Once the designs have been created, they will be handed over to recommended contractors for installation.

This project has been funded wholly or in part by the Michigan Department of Environment, Great Lakes, and Energy's Nonpoint Source Program through a grant under PA 166 2020.



Improved shoreline after greenbelt installation.

Many of you head to warmer climates over the winter and don't experience a frozen Burt Lake. For those who remain "up north" for the winter, you know that ice fishing is one of the favorite activities January through March. I'm one of those that remain, and I love setting tip ups on the hard water. I try to fish every day, but probably average 4 times a week.

First, we get our gear ready – often tip ups. Then get a few minnows from Pat and Gary's (they kept their basement open for ice fishermen to get their minnows self-serve). Now it's out on the ice, drill three holes and set your tips ups. The wait begins. The anticipation builds. How long will I have to wait. Maybe an hour. Maybe all day. Maybe no action at all today. That's fishing.

But when a flag finally does go up, so does your heart rate. Is it a false alarm? Maybe the wind tripped the flag. Maybe a crayfish grabbed your minnow. And when you finally get to the hole and lift the tip up, you realize "it's spooled". That means a fish grabbed your bait and ran with it. The fun begins. Imagine pulling in a five-pound Walleye or Rainbow Trout on a hand line. Foot by foot you pull in the line. Hand over hand. It seems like an eternity. And then you can see a fish darting back and forth beneath your hole. You work the fish into your hole and pull it up to near the surface where you can grab it and get it on the ice. What a thrill. That one fish makes your day, and becomes a topic of conversation for many days to come.

Fishing season closes on March 15 for most species. It's spawning time. So John Bergsma, Cody Sems, and Andrew Hendrickson headed out for the final "hurrah" for the season. After catching several nice Perch, a flag went up. They ran over to it, hearts pounding, imagination running wild, and when they lifted the tip up, it was "spooled". One pull on the line confirmed what they already knew. "Someone was home". But wait a minute. This was not a five-pound Walleye. It was something much bigger, much heavier, and not giving way. It was a Sturgeon. And for those of you who are now asking, "but how do you know?", once you catch just one, you know.



While John tried to retrieve the fish, Andrew carefully drilled several more holes touching the first hole. A typical hole in the ice is about 8 inches. A large Sturgeon could be 20 inches or more in circumference. 30 minutes pass. It seems like a life-time. And then it appears. Their assertions were confirmed. This huge image floats through the hole just inches below their feet. It was indeed a Sturgeon. Carefully, they guided her into the now much larger hole, and gently brought her up. It took all three to lift her out of the hole, remove the hook, take a photo, do a measurement (55 inches), and carefully release her. They confirmed that she swam back down into the deep as if nothing had ever happened.

What a thrill! If any of you should ever happen to have the same good fortune to get one on your line, you now have some ideas on how to proceed. One thing we did not mention was to never grab a Sturgeon by the gills to bring it up onto the surface. Hands and arms around the body.

The Sturgeon Club will continue to monitor the populations of Sturgeon in the inland lakes system. We are committed to seeing this beautiful creature once again thrive in our waters. Someday, the population of Sturgeon could be at a sustainable level, and we may be able to have a brief season again on Burt and Mullet Lakes.

In the interest of disclosure, Andrew Hendrickson is my nephew, and also owns Northstar Fishing Adventures.



Sturgeon at Inland Lakes Elementary School

Gina Burke, Secretary

Back in July 2022 at the BLPA annual meeting, a discussion took place with Kris Dey, Little Traverse Bay Band of Odawa Indians (LTBB) Hatchery Manager. The discussion focused on ways to improve the rearing system at Inland Lakes School for their sturgeon in the classroom program. Shortly after that discussion, BLPA met with the school administrator and teacher, Jenny VanDaele, who runs the sturgeon in the classroom program. They were asked to coordinate with Kris as to what was needed to make this project and system better for a fingerling sturgeon. Jenny and Kris worked on an equipment list and cost associated with it. A very detailed proposal; including a new 150 gallon tank and monitoring equipment which is connected to wi-fi to monitor conditions in the tank was presented at the August 2022 BLPA board meeting. Needless to say the BLPA board unanimously approved to support this endeavor.

Fast forward, the equipment gets ordered with an anticipated December delivery. The hiccup happened when Florida was bombarded with some big hurricanes and manufacturing was halted for a while. And then the tank shipped, only to get lost. A second tank was ordered and arrived mid-winter 2023. Kris and his team from LTBB set up the tank and tested it out. Finally the day came to deliver a fingerling sturgeon. On March 9, 2023 an approximately 75 gram fish arrived at the school. As Kris says, he looks for weight of the fish and not necessarily length of the fish. Both teacher and students were very excited to place it in its' temporary home. The fish named Spikes by Jenny's first grade students will stay at Inland Lakes until later in the spring before Jenny and the students release it into the river system, potentially the Black River during Sturgeon Guard. This trip provides the students as well as some parent chaperones a great educational opportunity to go down to the river and see sturgeon that have developed into large fish.

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Next steps for Inland Lakes is to receive another fingerling in the fall of 2023 for rearing. And looking into the crystal ball, the hope would be to allow for (2) fish to be placed together at Inland Lakes in the future.

A lot of thanks should go out to both Kris for his time and efforts and to Jenny VanDaele who takes a great amount of pride in providing her students with this learning opportunity.





Sturgeon Advisory Council

The momentum continues to build to preserve and protect the last living fossil of the dinosaur age: the Lake Sturgeon. This species has been in Burt Lake since Genesis 1. BLPA has been focusing on revitalizing this important and endangered species. But we are not alone.

Once a year, members representing the inland lakes, DNR, Tribes, Sturgeon For Tomorrow, and other stakeholders gather to discuss the current “state of play” for Lake Sturgeon. We also discuss future plans and initiatives. Our most recent meeting was held on March 29 at Tuscarora Township Hall. Jim and Gina Burke represented BLPA and the Burt Lake Sturgeon Club. Dozens of other very passionate stakeholders were also in attendance.

Here is a brief summary of some of the topics that were discussed.

- 2023 Lake Sturgeon Harvest on Black Lake
- 2022 Research Summary: DNR and Michigan State University

- Hatchery plans and needs
- Saginaw Bay Sturgeon stocking plans
- Sturgeon For Tomorrow action plans
- Spring spawning and Sturgeon guarding programs
- Sturgeon in the classroom
- SFT scholarships
- May 13 Earth Week; Sturgeon viewing on the river

Sturgeon For Tomorrow is very enthused about possible opportunities specific to Burt and Mullett Lakes, and will be evaluating the possibility of establishing a presence on the Sturgeon River in the near future.



Michigan is the only U.S. state without a statewide septic code

Hundreds of thousands of leaking septic systems foul Michigan's waters. After repeated failures to craft statewide regulations, lawmakers are again proposing comprehensive regulations to prevent septic systems from polluting its waters.

**THE BLPA ENCOURAGES YOUR SUPPORT OF CONSTRUCTIVE LEGISLATION
TO ADDRESS THIS ISSUE SINCE FAILING SEPTIC SYSTEMS
HAVE SUCH A NEGATIVE EFFECT ON BURT LAKE**



U-M Biological Station 2023 Summer Lecture Series

*Christine Billau, U-M Communications
Specialist*

The University of Michigan Biological Station is excited to welcome our neighbors for the 2023 Summer Lecture Series. Please join us on mostly Wednesdays from 7 to 8 p.m. to hear from leading experts across the country at the free, public events.

Topics range from “slow birding” and scientific art to Indigenous science and infectious diseases in wild animal populations.

Lectures will take place outdoors under a large tent along the shore. We are located at 9133 Biological Rd. in Pellston.

For 114 years, students, faculty and researchers from around the globe have studied and monitored the impact of environmental changes of northern Michigan ecosystems.

“We are honored to welcome an incredible lineup of distinguished scientists to our historic, world-class field station,” said Aimée Classen, director of the U-M Biological Station and a professor in the Department of Ecology and Evolutionary Biology. “Families are always invited to visit and explore our exciting work, but on summer evenings they also have the opportunity to hear directly from leading experts in the U.S. focused on critical environmental issues and learn how the science impacts all of us.”

Speakers include:

- **Wednesday, June 14: Vanessa Ezenwa**, a professor of ecology and evolutionary biology at Yale University and an American Association for the Advancement of Science (AAAS) fellow, will give the Pettingill Lecture in Natural History. Ezenwa studies the ecology and evolution of infectious diseases in wild animal populations, such as deer, gazelle and buffalo. Her lab work explores interesting questions such as whether group living and migration increase or decrease the negative effects of parasites in the wild.
- **Wednesday, June 28: Robin Clark**, an assistant professor at Lake Superior State University, plans to talk about northern white cedar trees, or “Giizhik,” their projected decline, and Indigenous knowledge and practices that can inform forest management and growth.
- **Wednesday, July 5: Joan Strassmann**, an evolutionary biologist, U-M Biological Station alumna, the Charles Rebstock Professor of Biology at Washington University in St. Louis, member of the National Academy of Sciences and author of “Slow Birding: The Art and Science of Enjoying Birds in Your Own Backyard,” will give the Hann Endowed Lecture in Ornithology. She will explain the fascinating world of common, everyday birds, such as blue jays, cardinals, robins and sparrows.
- **Monday, July 17: Callie Chappell**, a graduate student researcher and professional scientific illustrator, graphic designer and biomaterials artist, is an artist in residence at the U-M Biological Station in July. Chappell is a Ph.D. candidate at Stanford University’s Department of Biology. She will discuss science communication and art.
- **Wednesday, July 26: Melissa Duhaime** is an assistant professor in the U-M Department of Ecology and Evolutionary Biology and instructor of “Microbes in the Wild” at the U-M Biological Station. She will explore the fascinating world of viruses and microplastics.

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- **Wednesday, Aug. 9: Jennifer (JP) Pett-Ridge**, a senior staff scientist at the U.S. Department of Energy's Lawrence Livermore National Laboratory in California, will give the Bennett Lecture in Mycology and Plant Biology. Pett-Ridge, a leading soil scientist, examines natural land solutions and emerging carbon-friendly technologies designed to reduce carbon dioxide in the atmosphere. Her talk will highlight her work building interdisciplinary teams to shed light on how soil organisms impact the global carbon cycle.

For a full list of speakers in the Summer Lecture Series or more information about our campus and your proud neighbors in the Northwoods, visit the U-M Biological Station website.



Environmental and Land Use Committee

Mike Supernault

After a winter hiatus, the committee is once again meeting monthly. A multitude of topics concerning the health of the Burt Lake watershed have been discussed. Among these topics are:

1. The harm done by pesticide, herbicide, and fertilizer especially phosphorous, which often increases the amount of blue-green algae. This cyanobacteria is primarily sourced from agricultural use.
2. Septic system problems
3. The chloride from road salt
4. Decreasing biodiversity

The above conditions affect our ecosystem. As a lake association and individual members, we have a responsibility to work on solutions.

Other topics include the grayling project, the Boat Wash in June (if you are able to help with this, please contact Elijah at Tip of the Mitt), possible sturgeon research with LTC on the Bair property, U of M Biocamp study of road salts in aquatic environments, and currently are reviewing the shoreline survey done by Tip of the Mitt. We are working on a comparison of past and present Secci disk readings, as well as temperatures.

We as a committee, and BLPA as a lake association will do all possible to maintain a healthy watershed. We appreciate the support and participation of our membership.

Please contact me with any concerns or questions you may have... msupernault@hotmail.com.



Northern Inland Lakes Citizens Fishery Advisory Committee

David Steenstra

On May 1, Jim Burke and Dave Steenstra attended the semi-annual meeting of the Northern Inland Lakes Citizens Fishery Advisory meeting at Tuscarora Township Hall. This is an amazing group, representing many of the stakeholders throughout Northern Michigan. The group was started in 2010 when the DNR thought they needed to close down the Walleye season in Mullett Lake because almost all the Walleyes had “disappeared”. NILCFAC was born, and co-chaired by Frank Krist from Hammond Bay Anglers and Tim Cwalinski, Michigan DNR. The meetings are chaired by a citizen, Frank Krist, rather than the DNR. Obviously this generates a high level of ownership from all the lake associations in our area. The first success of NILCFAC was to keep the Walleye season open in Mullett Lake, with a 3 fish limit for a few years.

Attendees at the most recent meeting included: BLPA, Crooked-Pickerel Association, Mullett Lake Preservation, Black Lake Association, US Fish & Wildlife, US Geological Service, Natural Resource Commission, DNR, LTBB, Sturgeon for Tomorrow, Trout Unlimited, Michigan Muskie Association, Hammond Bay Anglers, Tip-of-the-Mitt, Long Lake Association, and Outdoor News. What an amazing group of passionate stakeholders.

Some of the topics discussed at this meeting included:

- Walleye population and Census data
- PFAS Contamination, and fish consumption of PFAS
- Walleye recruitment index
- Sturgeon stocking and census

- Walleye stocking
- Reintroduction of Arctic Grayling

We also looked at the “Chapman Peterson Population Estimates” model. It is very sophisticated and is steeped in math and statistics. In short, it helps us determine fish populations. You can check the formula out on-line. The formula calculated the Walleye population in Burt Lake to be around 60,000. I know some of you don’t believe this, but that boils down to about 3 Walleye per acre. That sounds reasonable.

A few other topics discussed at this meeting was shoreline bioengineering and the importance of natural waterfronts. This has a huge impact on water quality and fish populations. We also discussed the impact that chloride from road salt and other sources is having on the inland waterways.

The last major discussion we had was on efforts to control Sea Lamprey – a major invasive species in the in-land waterways. Did you know that the USGC and US fish & Wildlife estimate there are 20,000 to 30,000 sea lampreys that are caught at the Cheboygan River locks each Spring? The “Sterile Male Program” is quite ingenious and has reduced the populations in Mullett and Burt to less than 300 lampreys.

If any of you would like to attend a meeting, you are more than welcome. Our next meeting is around the middle of October. Please contact our office if you are interested in attending. We should have that date set in the next few months.



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Al Sickinger