



Spring 2022

Issue No. 196



*Twilight skate on Thompson (Photo by Isaac Hayes).*

## **President's Message**

(From Co- Presidents Marcia Matuska and Kathy Cain)

Greetings to all! Spring is upon us, the ice on the lake is gone, the loons are back, the sun feels brighter and lingers along the horizon at the end of the day. We are emerging not only from winter, but also from the isolation of COVID-19. It will be so good to see everyone out and about Thompson Lake again this summer.

We had a busy winter, planning our programs for the summer. Our LakeSmart project will be entering its second year. This is an essential part of our non-point source pollution (NPS) program, which is designed to reduce soil erosion along our watershed. Erosion causing the runoff of phosphorous and nitrogen is the major contributor to algae growth and loss of oxygen in lakes. Our LakeSmart evaluators were trained last year by the instructors from Maine Lakes. We were instructed about the importance vegetated buffers along the shore, crushed stone or erosion control mulch on down slopes, rain gardens and swales, as well as the avoidance of lawns that drain unabated to the water. Our instructors will be available in 2022 to evaluate properties and offer advice as to how you can reduce erosion. We certify the properties that have adequate erosion control as "LakeSmart". Other properties are eligible for re-inspection after recommended erosion control projects are performed. This program is voluntary, non-regulatory and free. We are excited about this new program.

We are also happy to announce that YCC is back! This is another component to our NPS program. This was on hold through COVID, but we now have hired a new Coordinator, Chris Stoeher, he will be working with his crew of local high school students, planning and working on erosion control projects, such as installing razor bars, box culverts, rain gardens, buffer planting and ditch digging. This is designed to complement our LakeSmart evaluations, as some of the erosion control projects that are recommended can be performed by YCC. This very important program is described in more detail later in the Observer.

Alex Bernardy and his milfoil crew will be back on the "Hippo" this summer, suction harvesting and hand pulling plants, as well as surveying the lake for any re-growth of any invasive plant species. We are entering the 5<sup>th</sup> year of our intensive

program to remove milfoil from the Pine Point and Pismo beach area. We are proud to say that most of milfoil has been removed. During this time over 500 tons of milfoil was removed or eliminated from the lake! Thank you to all who supported this program. This will be a long-term effort, however, as re-growth and introduction of plants from watercraft is an ever-present threat.

We have recognized the increasing threat of introduction of invasive species, so we have dedicated funds to expand the hours of our Courtesy Boat Inspectors (CBI). Many inspectors in our immediate area have detected invasive plants and animals on watercraft entering or leaving lakes. The Thompson Lake milfoil infestation that we have worked so hard on, to great expense, appears to have been caused by introduction of plant fragments on a boat in the 1980's. As they say, an ounce of prevention.....

As you can see, TLEA is hard at work protecting the resource of Thompson Lake. We thank all of you who have supported us over the years. Your generosity helps us fund the environmental programs that help keep this lake one of the cleanest in the state. We are always looking for new board members to bring new ideas and energy to our association. The future of TLEA and its programs depends on participation from those who love the lake. *If you are interested in serving on our board, please contact us at [mmtlea@gmail.com](mailto:mmtlea@gmail.com).* If you are reading this and you are not a TLEA member at all, please sign up. Membership info is on our website: [thompsonlake.org](http://thompsonlake.org). or at the above email address. Enjoy your summer!

## **Annual Meeting 2022**

The Thompson Lake Environmental Association Annual meeting is planned to be held at the Oxford Recreational Hall, King St., on Saturday, August 6 from 9:00-11:00 AM. We will be following the current CDC recommendations for this meeting. We will have progress reports on our programs and elections for board directors and we plan to have speaker on an environmental topic. New nominees for the board are: Candace Nelson and Hobart Hardej. The directors up for re-election are: Jim Skinner, Marcia Matuska, Paul Cain, Peggy Dorf, Ron Armontrout, Stan Tetenman, Paul Rausch and Tim Worden. Mark this date on your calendar to hear about the association, environmental issues involving the lake, and once again meet up with your neighbors and friends. As usual, there will be an assortment of baked

goods and treats. What a great way to celebrate the lake and our emergence from COVID-19 restrictions! See you there.

## **Thompson Lake Water Quality Report**

Scott Williams performed sampling and analysis of the lakes water quality on September 16, 2021. We have contracted Scott, a licensed limnologist and former president of President of the Maine Congress of Lake Associations (now Maine Lakes), to perform water quality analysis for several years. Sampling this year was conducted at the “deep hole” station, located west of Hayes Point in Oxford where the greatest volume of historical data has been gathered. Scott reports that overall, the water quality of Thompson Lake appears to have been above average in 2021 based on: clarity of the water, the concentration of the nutrient phosphorus, and the concentration of planktonic algae in the lake (measured by chlorophyll samples) during the summer monitoring period. Scott noted this assessment was based on a single set of data gathered in mid-September.

On September 12, lake clarity, as measured by the distance one can see a Secchi disc from the water surface, was 10.7 meters. This is substantially higher than 9.1-meter historical average for the lake. The historical water clarity average for Maine lakes has varied in the 5.0-5.75-meter range for the past few decades. Thompson lake has consistently remained one of Maine’s clearest lakes.

A total phosphorus integrated water column sample taken in September measured 4 parts per billion (micrograms per liter). The historical average for the lake is 5 ppb. And the average for Maine lakes is significantly higher. Phosphorus is the critical “limiting nutrient” that most influences the growth of algae in Maine lakes. Thompson Lake is substantially lower than most of Maine lakes.

Chlorophyll-a (CHL) sample taken in August and September measured 2.0 ppb. This is a very low concentration, indicating low density algae growth in the lake at the time. The historical annual CHL concentration for Thompson is 2.4 ppb.

Temperature and dissolved oxygen profiles were also taken on September 16. The lake was strongly thermally stratified on both dates, with temperatures ranging from 21.6 degrees C at the surface, to 9.1C at 32 meters, and the oxygen levels measured 8.7 mg/l (aka PPM) at the surface and 6.1 mg/l at 32 meters depth. The relatively

high late summer oxygen levels in the deepest area of Thompson Lake in September continue to support a healthy coldwater fishery through the most critical period of the year, when the lake is stratified and oxygen is not able to be replenished until the lake mixes in October or November.

The *Gloeotrichia echinulata* concentration in Thompson Lake in September, 2021 was very low, (0.5 on a scale from 0-6), typical of what has been observed in the lake during late summer for more than four decades. “Gloeo” is a colonial cyanobacteria (aka: bluegreen algae) that has been present at low densities in Thompson Lake for decades.

Scott pointed out that increased densities of blue-green algae, such as Gloeo, has been recently recognized in some New England lakes. The presence of Gloeo in lakes does not appear to be tied to lake productivity or anthropogenic influences in lake watersheds. High density Gloeo has been documented in several lakes throughout the country where there is virtually no human activity in the watersheds of the lakes. There has been speculation that some aspect of climate change may be involved in the phenomenon. The increase in the presence and abundance of this organism in lakes is the subject of ongoing research. Fortunately, Thompson Lake continues to have relatively low levels of this algae.

Scott says, in summary:

*Water quality of Thompson Lake continues to appear to be relatively stable, well above the average for Maine lakes. However, during the past decade, several otherwise healthy Maine lakes have experienced a rapid and unanticipated decline in water quality. Climate warming is likely to have been a factor in this phenomenon. Water quality conservation practices, including maximization of vegetated buffers along the shoreline, tributary streams, and throughout the watershed can help to mitigate the effects of climate warming on lakes. Ongoing efforts by TLEA to protect the lake should continue to focus on buffer enhancement, the prevention and control of soil erosion, and the treatment of stormwater runoff associated with both existing and new development throughout the watershed.*

*Thompson Lake has sustained excellent water quality during the past several decades, due in no small part to the exceptional diligence and persistence of*

*watershed-based conservation measures and public education initiatives undertaken by TLEA. Such efforts to protect the fragile ecology of Thompson Lake are more important now than ever.*

## **LakeSmart Program**

Ron Armontrout, Coordinator for TLEA's LakeSmart program reported that the team performed 27 site inspections in 2021, 9 of which received the LakeSmart certification. The other property owners were advised as to how they could improve their erosion control and will be considered for certification in the future. The team plans to do more this coming year.

The LakeSmart program is:

- Voluntary for participants
- Free
- Not coordinated or associated with policing of lakeshore zoning laws
- Without obligation for the owner to act on its suggestions
- Each participating owner allows a volunteer evaluator to walk their property to assess its lake friendliness.
- The evaluator debriefs with the owner about the assessment and suggests methods to minimize storm water runoff (called "Best Management Practices" or "BMPs").
- The evaluator follows up with a written report about the assessment and suggested BMPs.
- If the property is particularly lake-friendly, it will receive a LakeSmart Award with two signs. It is hoped that the owner will display one sign on her road and one at the lakeshore.

The board of TLEA is excited to offer this program to property owners along Thompson lake. For further information about this program, visit the Maine Lakes website and go to Programs>Lakesmart>Training Videos.

*This program may become the most significant contributor to water quality of the lake, depending on participation. Contact us at [mmtlea@gmail.com](mailto:mmtlea@gmail.com) or call (207) 539-4535 if you have questions or are interested in learning from this program.*

## **Youth Conservation Corps Redux**

TLEA is pleased to announce that our Youth Conservation Corps (YCC) program will be back in service this summer! This program was on hold due to the restrictions necessary for COVID-19, but we are now back in action. We recruited a new Coordinator, Chris Stoeher, an instructor at the Oxford Hills Community High School. Chris will be planning erosion control projects, obtaining the necessary permits, and directing a 2-member crew of local high school students. We have number of projects that are pending, we will be looking for more opportunities this season to cut down on shoreside erosion. The program will also be available for some erosion control work recommended by our LakeSmart inspections. Our crew will be available for work such as placing mulch and plants along areas of drainage, installing diversion trenches, razor bar, ditches and retention pools. They will not be placing rip rap This program is subsidized through membership dues and donations, so we can offer discounted rates to property owners. See the back page photo of the Observer for an example of the type of work that the YCC can do.

As we have pointed out, lakeside erosion is the biggest threat to the water quality of Thompson Lake. This program should be one of our most effective ways to address this problem. We also believe there is substantial benefit in educating local students on the importance of watershed maintenance.

If you have a concern about erosion on your property and would like information about the YCC program, contact us at: [mmtlea@gmail.com](mailto:mmtlea@gmail.com).

## **Milfoil Removal**

Crew leader Alex Bernardy reports that they are gearing up for another season of invasive plant surveys and removal. The crew has done amazing work over the last few years, accomplishing the removal of over 500 tons of milfoil form the lake. The plan for this coming season will be to continue to monitor and remove any regrowth of invasive plants in the coves of Otisfield, Edwards, Serenity, Hancock, and Pine Point. The crew will also perform their annual survey of the lake towards the end of the season, with an emphasis on the high-risk areas of the lake looking for signs of recurrent or new infestations.

Alex expects that majority of their time will be spent in the northern end of the lake, from Briggs Island to the Oxford dam. There are currently nine areas the milfoil team is actively monitoring and managing in this northern region. These infested areas can range from a few individual milfoil colonies to hundreds of plants sparsely dispersed throughout the cove, as is the case at Pine Point. Last year the crew identified nine small to medium milfoil colonies at Pine Point that were growing past the mouth of the cove. Each colony was removed with their diver assisted suction harvester (DASH) and recorded by GPS, which will allow them to locate the area easier in subsequent years.

Our Capital Campaign for milfoil was initiated in 2017. This funded an ambitious program of laying down benthic barriers (tarps) throughout the Pine Point area, hand pulling or suctioning plants as needed, as well as surveying problem areas of the lake to develop a long term plan to mitigate the future threat of invasive species in the lake. Over the past 4 years we have effectively removed over 500 tons of milfoil from the lake. Invasive plants species are a growing threat to Maine lakes. Presently, the growth of milfoil in Thompson Lake has been drastically reduced. However, the threat of re-growth or new invasive species will always exist, so our program will continue to address this problem in the future.

### **Courtesy Boat Inspection**

Courtesy boat inspections (CBI) are the first step in preventing further invasive plant or animal infestations. Our CBI program inspects at the four commonly used boat launches for Thompson Lake: Pismo Beach, the Landing, Robinson's Marina and at the Thompson Lake Marina in Casco. TLEA plans to expand the hours for inspections throughout the boating season. We feel the importance of detecting invasive species entering or leaving the lake is worth the increased expense. TLEA board members recently met with Oxford Town Manager Adam Garland, and he has agreed to have the park attendants at Pismo Beach be trained so they can perform inspections at the town boat ramp.

We presently have 3 CBI inspectors returning from last year and we are recruiting for a fourth. This is a paid, part time position, with weekend hours. *If you, or someone you know, would be interested in this position please contact us at [mmtlea@gmail.com](mailto:mmtlea@gmail.com).*



Maine has been invaded by 6 non-native plant species and 2 identified animal species (Chinese Mystery Snails and Northern Pike). The Zebra mussel is the latest threat heading our way. This is a very destructive invasive species that originated in the great lakes area and has migrated to the east. It is now established in Lake Champlain in Vermont. This is spread primarily by watercraft leaving an infested area and entering a new body of water. We need to be vigilant to prevent this, and all invasive animals and plants from entering the lake. Our inspectors will be doing their part by not only inspecting boats, but also educating boat owners on this threat. If you have a chance, please express your gratitude to these workers and remember to inspect, drain and dry your boat every time you leave a lake.

## **Membership Report**

Bill Booth of our Membership Committee reports that we ended 2021 with 525 TLEA members, which is a record. Our annual membership renewal mailing went out in early January, and as of mid-February 63% of our 2021 332 members had renewed their membership for 2022. This is slightly less than the renewals for the comparable time last year, but this could be due to the timing of the renewal mailing and receipts. If you haven't had a chance to renew, we hope to hear from you soon.

Active TLEA members receive the Observer in spring, summer and fall. Non-members receive only the spring Observer but are encouraged to join to be informed about the many issues affecting Thompson Lake.

With over 1000 homes on the lake, we are continually working to attract members, especially new homeowners. If you are not a member of TLEA, please join up! If your renewal is due, please send in your dues.

Membership dues can be sent to: TLEA, PO Box 25, Oxford, Maine 04270. Membership levels are: Individual-\$35, Family-\$55 and Benefactor-\$105.

## **TLEA Website**

Board member Sarah Rice has worked hard this past year to revamp our website. If you have not visited it recently you should, the site has a new format and updated

information about environmental programs, milfoil control, announcements, fishing and a detailed lake map. There is a photo gallery with some amazing shots of the natural beauty of the lake. We hope to be capable of receiving online payment of dues and donations through PayPal by the end of the year. If you have any suggestions regarding the website, or any photos you would like to submit, contact Kathy Cain at cainkathryn37@gmail.com. We would like the website to become a way for members to connect, learn about our association, and share their appreciation of the lake.

## **Oxford Dam**

The TLEA Ad Hoc Dam Committee met with James Pellerin of the Maine Department of Inland Fisheries and Wildlife in January to discuss the Oxford dam and its effect on the fisheries and erosion control at Thompson Lake. Mr. Pellerin had done some impressive research regarding the dam, including a compilation of historical water levels, outflow capacity, the effects of the present fish screens, and other data points. His findings and recommendations were presented to the Oxford Board of Selectman in January. Specifically, he recommended a more formal water level plan and an operation manual. The town has taken this under consideration.

TLEA will continue to work with the town of Oxford in an advisory capacity regarding the maintenance and future renovations of the dam. We would like to engage all four towns bordering the lake on this issue.

### ***Briefly Noted:***

**Ice Out Winners:** Congratulations go out to our ice out contestants Catherine/James Brady, Denis Hanson/Norma Cameron, Dick/Patty Stevens, Rob/Rachel Lutts, Paul/Kathy Cain, Steven/Vicki Dapolikto, Joseph Massarella, Kathryn Sayrbock and Mitchell Skinner. They picked the date of April 10. Ice out is officially when a boat can be navigated through the middle portion of the lake, from the Casco boat launch to Pismo Beach, Oxford.

**Community Partners:** TLEA would like to recognize Jim Pitman of the Robinson Marina in Oxford. Jim generously allows us to use a slip for the Hippobottomus and provides storage for the winter. Thank you, Jim.

**Loon Count:** Our loon count for the lake will be held on Saturday, July 16. This is coordinated through the Maine Audubon Society to assess the health of the loon population statewide. Contact Peggy Dorf at [peggydorf@ymail.com](mailto:peggydorf@ymail.com) if you can help as a counter.

**Clynck Program:** Support TLEA programs through our Clynck program. The pre-labeled, green Clynck bags can be picked up at the TLEA office, May- November, or at 37 Black Island Rd, Oxford, year round. The bags with empties should be brought to participating Hannafords to be scanned and credited.



*YCC Erosion Control Project. This includes placement of a box culverts, crushed stone and mulch along a right of way in Casco.*

For comments or submissions for the Observer contact: [paulrcain67@gmail.com](mailto:paulrcain67@gmail.com).

Visit our website at:  
[www.thompsonlake.org](http://www.thompsonlake.org)

Thompson Lake Environmental Association  
P.O. Box 25  
Oxford, ME 04270

ELECTRONIC SERVICE REQUESTED



**Complimentary Copy**

TLEA Members receive three Editions of the OBSERVER yearly.

**Join Today!**

- \$35 Individual
- \$50 Family
- \$105 Benefactor

