



For The Sake of Maine's Lakes

Fall 2021 Volume 51

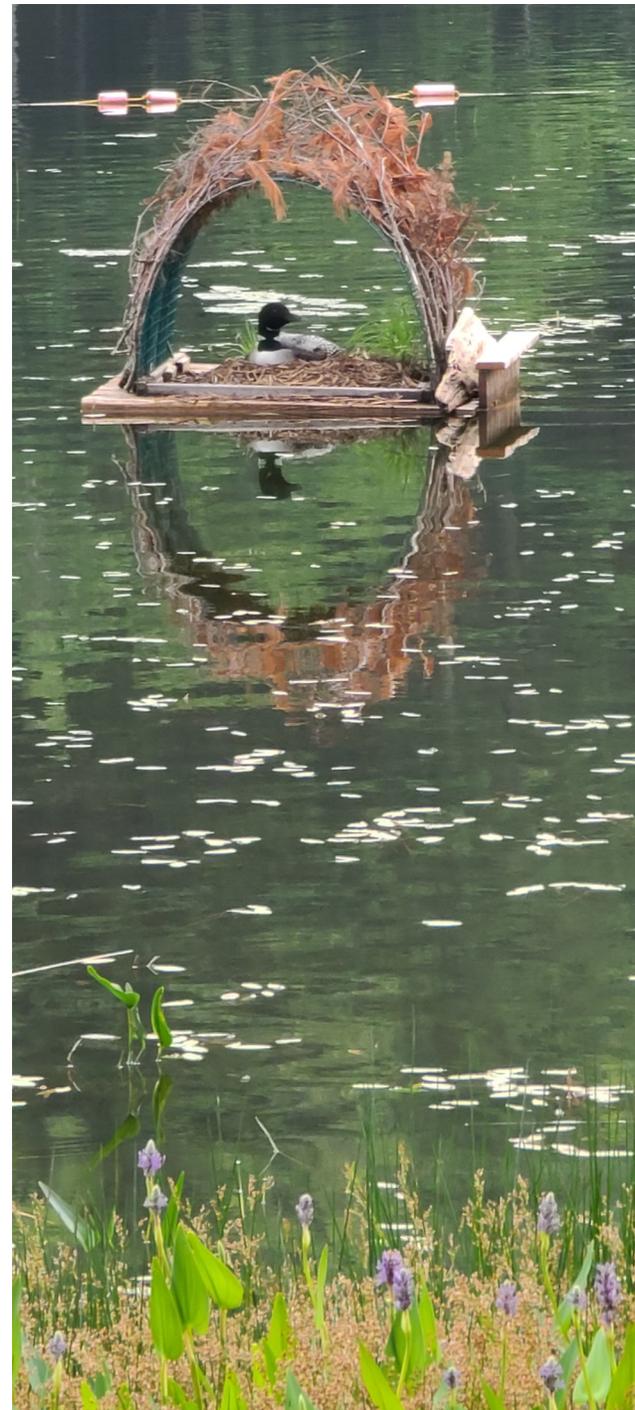
Recovering Loon Years Lost

Maine's New Loon Stewardship Project

On the afternoon of Sunday, April 27, 2003, just south of Westport, Mass., an oil tanker operated by the Bouchard Transportation Company passed on the wrong side of a navigational marker and struck rocks underwater, gouging a 12-foot hole in its hull. In the hours that followed, 98,000 gallons of heavy #6 fuel flowed into Buzzards Bay. The damage to natural resources was extensive and far reaching. Oil washed up along 100 miles of beaches, rocky shoreline, marshes and tidal flats. Shellfish, migratory birds, marine mammals, fish and invertebrates died directly because of the spill, with longer-term damage to their habitat and to water quality affecting survival for decades to come. The U.S. Fish and Wildlife Service (USFWS) estimated that 531 Common Loons over-wintering or migrating through the area of the spill died as a result of the spill. Since loons that breed in Maine are known to winter offshore along the New England coast, many suspected some of the of the dead loons were from Maine's breeding population. This was confirmed when oiled loons were discovered in Maine following the spill. More than 18 years later, a project funded by the responsible party will finally attempt to recover the "loon years lost" from Maine's breeding population of Common Loons.

Maine Lakes is excited to be part of this effort over the next four years, and we hope you can join us to help boost loon production and reduce loon deaths throughout the state. Jump to page 4 to learn more!

The loons using this artificial nest platform on the south end of Echo Lake on Mount Desert Island in Acadia National Park deal with crowds, noise and disturbance all summer long. The floating raft gives them a reliable nesting place, helping with sun, avian predators, and changing water levels. Photo credit: Bill Helprin





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Your Business Can Support Maine Lakes!

Maine Lakes is looking to build up our base of business support. Why? Because we know that so many Maine businesses rely on clean water and healthy lakes to bring customers to their restaurants, stores, gas stations, tackle shops, marinas and rental agencies. Even without a direct lake connection, we know that the economic benefits of clean lakes ripple deeply through our economy (for more on that, see p. 9). Here are a few ways your business can support Maine Lakes.

BUSINESS SPONSORSHIP

No matter the size of your business, Maine Lakes has a sponsorship level for you. Each level comes with tiers of benefits, from “sponsor spotlights” on social media to recognition in newsletters to certificates/window stickers for your business and complimentary registrations and tabling opportunities at the Maine Lakes Conference. For a link to our Business Sponsorship brochure, visit lakes.me/donate.

LAKE BOOK SPONSORSHIP

Maine Lakes newest publication, *The Lake Book* (see p. 8), provides a wealth of information on lake science, wildlife and lake health. Your sponsorship lets us add your logo and a description of your business or services on the back cover. Amount for sponsorship varies with the number of books printed. You can distribute books within your community, or we can help distribute statewide. A great opportunity for real estate professionals, marinas and others who want to reach lake residents and visitors. FMI, email info@lakes.me.

PROGRAM SPONSORSHIP

Would you like your business to be in front of an audience of lakefront homeowners? Support the LakeSmart program and we'll include your business logo on program materials shared with more than 1,000 lakefront homeowners. Are you interested in supporting freshwater education or the new loon restoration project (see pp 4-5)? Maine Lakes is working on programming and outreach opportunities for lake stewards of all ages. Let us know your interest and we'll find a program that engages and inspires your audience.

BUSINESS PARTNERSHIPS

If you'd like to go beyond sponsorship, Maine Lakes is looking to build solid, long-term relationships with businesses whose brands align with our mission and with whom we can develop mutually beneficial programming and partnerships over the long-term. FMI, email sgallo@lakes.me.

Visit lakes.me/business-sponsor for a secure online donation form or email info@lakes.me with questions. We look forward to working with you and your business to help keep Maine's lakes clean and healthy for decades to come.

President's Message

Masks, shots and social distancing aside, it is still great to live in or vacation in Maine. For those reading this newsletter, you are especially blessed by living on or near some of the nation's most pristine lake resources – Maine lakes.



A significant number of lakefront properties have sold over the past year and a half to a new generation of owners - most of whom now experience what many of us have enjoyed our whole lives – clean, clear, fresh lake water. Many will continue to respect their new role of helping to preserve lake resources for future generations. But some might need assistance.

This new cohort of owners offer us an opportunity to share what we have been building for 50 years. Many of you are incredible stewards. Many of you are lake water quality monitors or own LakeSmart properties. Many of you are lake association members and leaders. You are in a great position to reach out to new owners and share what being a good lake steward means for future generations. Here is a simple way to do that.

The 4th edition of the *The Lake Book* will be available by the first of the year and we know it's the best yet (see sneak peek on p. 8). The first edition was pretty darn good, and each edition since is more readable, relevant and informative. We hope lake associations will share the electronic version with members. Many of you probably know a new homeowner on or near a lake. Send them a digital copy of *The Lake Book*! They will undoubtedly appreciate it and for lake associations, it's a great introduction to membership. Strengthening lake associations strengthens the commitment to keeping clean, clear, fresh lake waters.

Earlier this year, we held a celebration to honor Maggie Shannon. It was well attended and a wonderful tribute to one of the finest and most effective professionals I have met. The Board voted to set up the Maggie Shannon Fund for Lake Education (see p. 15 FMI) and the fund was populated with over \$15,000 of donations from many of you. The Maine Lakes board allocated an additional \$10,000 to the Fund, a great start to assuring Maggie's legacy will reach well into the future. Thanks to all of you who helped seed this fund, and for getting *The Lake Book* out to new visitors and residents in 2022!

Dick Tinsman, President

Notes from the Executive Director

This month marks my third anniversary with Maine Lakes. It's sobering to realize that over half of my tenure here has been spent in "pandemic times", adapting our programming and activities to the virtual world and trying to figure out what will work for Maine Lakes in the hopefully post-pandemic years to come.



We know that continuing to get information about conserving lake health to our members is important, but we also know that if we want behavior to change, we must do more. In 2022, we'll be putting our heads together for ways to better incorporate community-based social marketing into our education and outreach programming in order to move information into action. We have lots of great information (see the Lake Library at lakes.me/library for our most recent publications) but we need to take additional steps to deliver that information in ways that ensure action.

We also know that increasing equity and access to lake programming is incredibly important to our success in the years ahead. Our past education programming focused largely on Lakes Alive!, our on-boat programming for kids and adults aboard the *Melinda Ann*. While this was a transformative experience for those who were able to experience it, that was a very limited audience. And the programming was not cost-effective or economically sustainable. The *Melinda Ann* was sold this past summer and Maine Lakes is shifting direction in our education programming to consider ways to reach youth more equitably across the state. Look for news on the Freshwater Education Collaborative, a coalition of educators and lake groups from across the state lead by Maine Lakes who will work in 2022 to design a framework for delivering freshwater education accessible to all across the state.

If we are successful in our 2022 endeavors, we know that our lakes will benefit. Thank you for supporting our work in the past, and for all you do for Maine's lakes. Happiest of Holidays, and best wishes for a year ahead filled with peace and joy.

Susan Gallo, Executive Director

Maine's New Loon Stewardship Project

(cont'd from p. 1)

Who is leading this project?

Maine Lakes is partnering with Maine Audubon, the lead organization, as well as Lakes Environmental Association and the Penobscot Nation. Biodiversity Research Institute also received funding for loon productivity work primarily in northern and downeast Maine. Funding for the project provided by the responsible party and administered by USFWS.

What are the goals of the project?

- To increase loon productivity across Maine by engaging volunteers to place, monitor, and maintain loon nesting rafts;
- To conduct outreach and exchange programs that reduce the use of lead tackle;
- To engage volunteers in outreach to lake users and in direct nest protection efforts that reduce disturbance to nesting loons and lethal collisions between boats and loon families.

What will the project do?

There are three main components of the project:

- **Artificial Nest Rafts:** In the right place, floating artificial nest rafts can increase the chance of loon eggs successfully hatching. Floating rafts go up and down with water level changes, so they are especially effective on lakes where water level changes consistently flood lakeside nests, causing them to fail. They also offer protection from predators. Floating nest rafts on lakes where hatching success is low has the potential to boost the number of loon eggs hatched.
- **Lead Tackle Outreach:** Despite bans on lead sinkers and lead-headed jigs, lead remains one of the leading causes of deaths for adult loons in Maine. This project funds continued outreach to anglers and angler groups, including lead tackle exchanges and lead tackle buy-back programs with retailers.
- **Loon Rangers:** This project supports volunteers who will conduct outreach to lake users about

loon safety and responsible boating practices near loons through lakeside interactions, signage, distribution of educational materials, and public presentations.

How long does the project last?

This project will continue through 2026. Maine Lakes hopes to work with volunteer groups to launch eight rafts each year, and with at least four groups interested in launching lead sinker outreach programming in their communities each summer.

Which lakes will be involved with the raft deployment part of the project?

Maine Lakes has contracted with Maine Audubon to support raft deployment on a total of 34 lakes in 11 counties over the next four years of the project. We will focus on lakes where loon chick production is



The Loon Preservation Committee in New Hampshire floats about 80 artificial rafts each spring to boost hatching success.

low and where rafts have the potential to increase hatching success. We will also be looking for lakes where we have established members who are likely volunteers for this project. See the list on pages 5-6 for our initial list of 99 lakes that fit these criteria. If you are on or near one of these lakes and want to be involved, let us know (see QR code/website in the "Interested?" note to right).

My lake isn't listed here. Can I still be involved?

Yes! The lake list shared here is from a preliminary screening. All lakes will have to be fully vetted with local loon counters and others keeping a close eye on loon productivity. If your lake is not on this list, please reach out to us to find out how loons on your lake are doing and what loon data we will need to make an informed decision about the likelihood of loon raft success. Also, regardless of loon productivity, volunteers will be needed throughout the state to help with lead sinker outreach and exchange programs, and lake user outreach.

Why can't I just put a loon raft out regardless of the status of breeding loons on my lake?

Artificial rafts can negatively impact loons and reduce productivity if they are put in the wrong place or if the cause of nest failure is not one addressed by floating rafts. Since they mimic islands, rafts may lure loons away from more sheltered and hidden shoreline nesting locations, or attract multiple loon pairs that fight over the raft. A raft inadvertently placed near the boundary of two territorial pairs can cause disruptive territorial disputes and nest failures. Rafts also need continuous maintenance and monitoring to succeed.

How can I get involved with raft deployment?

We are looking for teams of 3-4 people (or more) on lakes where hatching success is routinely low and where an artificial raft has a good chance of improving loon nesting success. Maine Lakes will confirm the lake is a good candidate for a raft and help determine where the raft should go. Maine Lakes will also supply teams with either materials to build a raft or pre-cut raft parts to assemble; training and assistance getting the rafts assembled and launched; and training for nest monitors with a protocol for measuring nesting success. The timeline for launching rafts is right after ice out, with nest monitoring starting as soon as loons return and continuing through the summer.

What about other volunteer opportunities?

There are many other ways to get involved if you don't live on or near a lake identified as a priority for raft deployment. You can help by putting out a lead tackle collection bin, hosting a lead tackle exchange in your community, working with a local tackle shop on a tackle buy-back program, or becoming a Loon Ranger to help spread the word about identifying loon stress behaviors and reducing alarm to increase nesting success.

Interested? We'd love to hear from you. Please fill out a short form using the QR Code here (focus your phone camera on the code and then click the link that pops up on your screen) or you can find the form at forms.office.com/r/mz60TcHcvm.

FMI, email info@lakes.me.

We hope to hear from you soon, and look forward to working with you on this project!

This project is funded by the U.S. Fish and Wildlife Service on behalf of the Bouchard Barge 120 Buzzards Bay Oil Spill Trustees.



Candidate Lakes for the Maine Loon Stewardship Project:

Alford Lake
Allen Pond (Greene)
Androscoggin Lake
Annabessacook Lake
Auburn Lake
Basin Pond (Fayette)
Berry Pond (Wayne)
Bickford Pond
Big Bear & Little Bear Pond
Branch Lake
Bryant Pond (Lake Christopher)
Bunganut Pond
Cargill Pond
Cedar Lake
Chemo Pond
Chickawaukie Pond
Clary (Pleasant) Lake
Clemons Pond
Cold Stream Pond (Enfield)
Coleman Pond
Craig Pond
Crystal Lake (Dry Pond)
Cushman Pond
David Pond
Fish Pond (Hope)
Flying Pond
Forest Lake (Goose Pond)
Georges Pond
Great East Lake
Great Pond (Franklin)
Green Lake
Hobbs Pond
Hosmer Pond
Howard Pond
Indian Pond (Greenwood)
Jimmy Pond
Kimball Pond (Vienna)
Lake Anasagunticook (Canton Lake)
Lawry Pond
Lermond Pond
Little Ossipee Lake
Little Pond (Liberty)
Little Pushaw Pond
Lovejoy Pond (Fayette)
Lovewell Pond
Lower (& Middle) Lead Mtn Pond
Lower Range Pond
Maranacook Lake
McCurdy Pond
McGrath Pond
(cont'd next page)

Candidate Lakes for the Maine Loon Stewardship Project:

Megunticook Lake
Messalonskee Lake
Molasses Pond
Nicatous Lake
No Name Pond
North Pond (Greenwood)
Panther Pond
Panther Pond
Parker Pond (Casco)
Parker Pond (Fayette)
Pattee Pond
Pennesseewassee (Norway) Lake
Phillips (Lucerne) Lake
Pleasant Lake (Casco)
Pocasset Lake
Quantabacook Lake
Sabbathday Lake
Salmon Pond (Ellis Pond)
Sand Pond (Tacoma Lakes)
Saturday Pond
Sebasticook Lake
Sennebec Pond
Sheepscot Pond
South (Round) Pond
Square Pond
St George Lake
Stevens Pond
Swan Lake (Goose Pond)
Taylor Pond
Thompson Lake
Three Cornered Pond
Threemile Pond
Tripp Pond
Trues Pond
Unity Pond (Winnecook Lake)
Upper Cold Stream Pond
Upper Range Pond
Walker Pond
Webber Pond (Muscongus)
West Pond
Wilson Lake
Wilson Pond (Wayne)
Woodbury Pond (Tacoma Lakes)
Worromontogus Lake
Worthley Pond (Peru)

Note: This list is based on preliminary screening from Maine Audubon Loon Count data. All lakes must be fully vetted before a raft plan is approved.

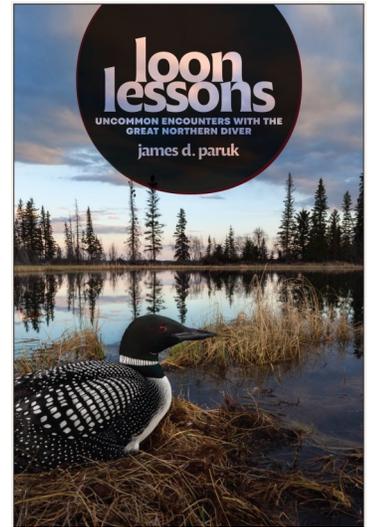
Please join us for a virtual
Author Talk with

Dr. James Paruk

Loon Lessons: Uncommon Encounters with the Great Northern Diver

Thursday, December 9

6:30 p.m.



Join us in welcoming Jim Paruk, Professor of Biology at St. Joseph's College in Maine, as he talks about his newly published book that covers the past 28 years he studied the Common Loon across North America.

His book, *Loon Lessons: Uncommon Encounters with the Great Northern Diver*, takes an evolutionary approach to understanding loon behavior and life history strategy.

Registration is free and easy, just focus your phone camera on the code to the right and then click the link that pops up on your screen, or visit www.lakes.me/events-calendar.

Hope to see you there!



Membership Reminder

Are you a member? If you have donated to Maine Lakes in the last 12 months, we consider you a member. Thanks for your support!

Am I a member if my association joins? Lake association benefits are different from those we give to individuals. Unfortunately we do not extended individual membership benefits to lake association members, though associations do have their own suite of valuable member benefits.

What are member benefits? Members receive two issues of *For The Sake of Maine's Lakes* (fall and spring), as well as a discounted registration for the Maine Lakes Conference. Members also benefit by knowing their membership dollars go to programming efforts that help keep Maine's lakes clean and clear.

Join or renew today!

Renewing your membership is easy! For a secure link visit www.lakes.me/jump-in today!

Maine Lake Hero:

Ginger Eliasberg Georges Pond Franklin



Ginger has been coming to Georges Pond in Franklin, Maine every year since she was 15 months old. To say that she loves Georges is an understatement.

She joined the Georges Pond Association Board of Directors in 2018, the year of Georges Pond's fourth, worst and most heartbreaking algal bloom. The GPA started LakeSmart that year, which was its only organized, constructive watershed management response at that time. Ginger jumped in feet first to lead and coordinate the LakeSmart program.

In the more than three years since, 70 properties have been surveyed, representing more than 50 percent of all lakeshore owners. Ginger's LakeSmart feedback to camp owners is personal and informative, often complimenting outstanding property features, explaining the benefits of suggested Best Management Practices, and reinforcing suggestions with illustrated photographs of the owner's property. The contacts and information gained through LakeSmart streamlined GPA's successful 319 Grant efforts.

Always wanting to learn, this past winter, Ginger and friends planted more than 100 live stakes on multiple properties to beef up shorelines. In July, she offered free, native plants at a public workshop. And, after obtaining her water monitoring certification this year, Ginger recorded the clearest water in Georges Pond on record in May. Ginger believes that keeping Georges Pond beautiful depends heavily on continuing to expand the LakeSmart program and Best Management Practices throughout its watershed.

Save the Date!

52nd Annual

Maine Lakes Conference

Saturday, June 19th

9 a.m. to 3 p.m.

Location TBD

While we have made lemonade out of our COVID lemons the last two years, we are hoping that 2022 will be the year that gets us back to an in-person conference. The Maine Lakes staff and board will be working diligently over the next couple of months on plans for the 2022 Maine Lakes Conference. We have our fingers crossed for a safe in-person gathering and have already started lining up some terrific speakers and workshops for attendees. Look for more information to come after the new year.

In the meantime, we are looking for feedback on topics of interest to our members.

- Are there lake topics you would like to learn more about?
- Do you have suggestions for a speaker?
- Do you have suggestions for "table topics" that would be appropriate for small-group, lunch-time discussions?

We'd love to hear your thoughts on what you'd like to see at the Maine Lakes Conference.

Email info@lakes.me. Look for more information in the spring newsletter or check our website (www.lakes.me) for updates. Thanks and hope to see you there!

Do you know a Lake Hero?

Is there someone you know who has gone the extra mile for your lake? Is your association making great strides in lake protection? Is there someone who stands out as a lake advocate, LakeSmart volunteer, plant patroller, lake monitor or loon counter? We would love to hear about them!

Send us a short paragraph (fewer than 500 words) along with a high resolution photo of the person you have in mind to info@lakes.me. We'll honor them with a post on social media and an article in the next newsletter.

Check our website www.lakes.me/mainelakes-heroes for the growing list of Lake Heroes recognized so far.

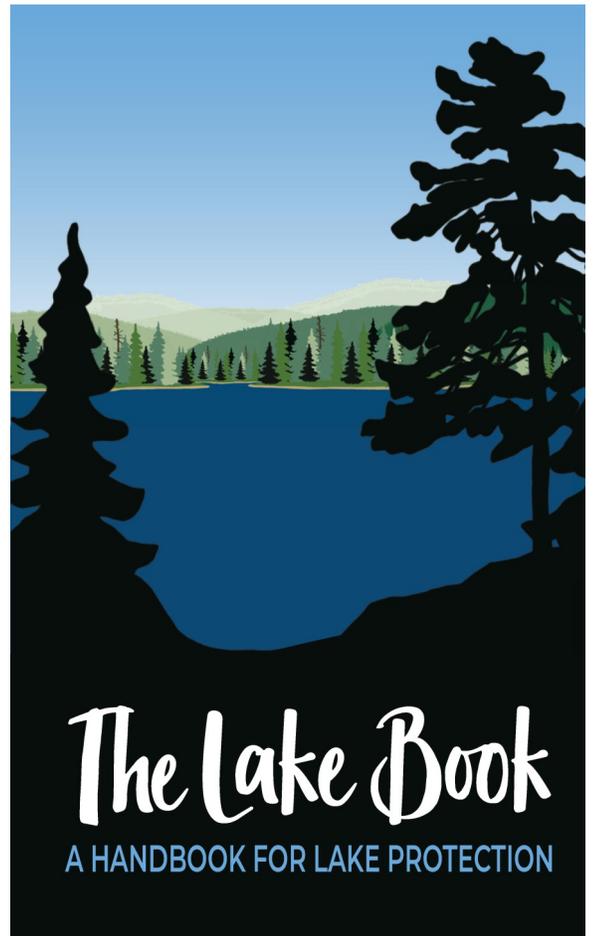
Lake Book Sneak Peek

The *Lake Book* is packed with helpful information and action items for anyone who lives on or uses Maine's lakes. We are excited to announce that *The Lake Book* will be printed in January of 2022 and we believe it will be the best edition ever!

A limited number of printed copies will be available this winter for our members and associations at a deep discount. To reserve copies, send an email to info@lakes.me with the following information:

- Name of your lake association
- Numbers of copies you would like to reserve
- Would you like a custom edition for your lake association that includes a page of association information?
- Do you have ideas for a local business sponsor who could help with printing costs? (FMI see page 2)

Thank you for getting *The Lake Book* out to your community!



PHOSPHORUS & EUTROPHICATION

PHOSPHORUS is an essential nutrient for plant growth that occurs naturally in rocks, soils, and organic material. The right amount of phosphorus helps plants, including algae, grow and thrive as part of a healthy, balanced ecosystem. Too much phosphorus causes excess algae or cyanobacteria growth, leading to ALGAL BLOOMS that make the water cloudy, green, and smelly. Severe blooms of cyanobacteria may be classified as Harmful Algal Blooms when they dramatically reduce water clarity. Some can produce toxins harmful to humans and pets.

Lakes naturally become more productive or "age" with the accumulation of nutrients and organic matter over thousands of years, a process known as EUTROPHICATION. In recent geologic time, humans have increased the rate at which this nutrient enrichment happens, accelerating natural processes by tens or hundreds of years. As large amounts of algae and plants die and sink to the bottom, especially after a bloom, tiny animal decomposers break down plant matter and consume oxygen, potentially reducing available oxygen in the water at the bottom of the lake. When these waters reach low levels of oxygen, or ANOXIA, a chemical reaction occurs at the interface between the water and lake sediment. During this reaction, phosphorus bound to the sediments is released into the water column, which feeds even more algae and plant growth in a process called INTERNAL LOADING.

ALUM TREATMENTS: NOT AN EASY OPTION

Some lakes in Maine with chronic blooms have had alum treatments, especially where internal loading is shown to be a major source of phosphorus. With this treatment, a mix of aluminum and other chemicals is released into the lake that forms a "blanket" on the lake bottom and traps phosphorus. While alum treatments may seem like an easy fix, they can cost millions of dollars. Even with assistance from the Department of Environmental Protection, the Environmental Protection Agency, and research institutions, alum treatments often require significant fundraising on the part of lake residents. And while successful treatments can get up to 20

ALGAE I.D.

While small amounts of algae indicate a lake has a healthy and functional food web and is safe for swimming, "blooms" of excess algae should be avoided. A good rule of thumb is to get out of the water if you are knee deep and water is so murky that you can't see your feet.



METAPHYTON are filamentous algae that typically appear in shallow areas and often resemble greenish cotton candy. They tend to appear early in the season but may persist throughout the summer. The size of the "pillows" can vary from a few inches to several feet. They are most commonly seen below the water, though sometimes they float on the surface. Local observations of metaphyton growth have increased over the last decade.



CYANOBACTERIA are bacteria that are on the rise in Maine during warmer temperatures. Look for water as individual, often acyclophyton, highly toxic to



GLOEOTRICH that form tiny, without magnification, appears to be, much of New occurring early

If you observe or suspect a... Call the Maine Department of Environmental Protection at (207)287-3901 or (800)452-1942. A person in the Division of Environmental Protection will provide you with a DEP report form, visit www.lakes.me

MANAGE EROSION

Erosion needs to be managed any time there is an impervious surface or bare soil. There are many options to help manage erosion around structures and yards. For details on these and other ideas, including fact sheets, visit lakes.me/BMPs.

DRIPLINE TRENCHES (right) are stone-filled trenches under the roof drip line that collect runoff from the roof, allowing it to soak into the ground. These systems also reduce wear on your house by reducing back splash on the foundation.



GARDEN is a depression in the planted with water-loving native plants and shrubs. Water from a out or other source flows into the den, where it slowly soaks into the Rain gardens are beneficial for the wildlife, and for pollinators.

TAKE A BREAK, RETIRE YOUR RAKE! Don't rake the duff! This layer of decomposing leaves, pine needles, and other organic material acts as a sponge, absorbing rainfall, slowing runoff, and reducing erosion.

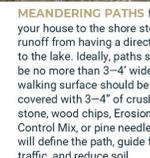
FOCUS FOOT TRAFFIC by defining pathways. When the ground is compacted by foot traffic, water doesn't soak in, but runs over the surface, carrying soil to the lake.



Planting vegetation on the downside of the paths and mulching the path will provide opportunities for runoff to disperse and soak into the ground. Additionally, by not walking in some areas, plants can re-establish and roots help hold soil in place.



INFILTRATION STEPS are built with timbers and backfilled with crushed stone to slow runoff and allow water to soak into the ground. Existing steps can be retrofitted into infiltration steps.



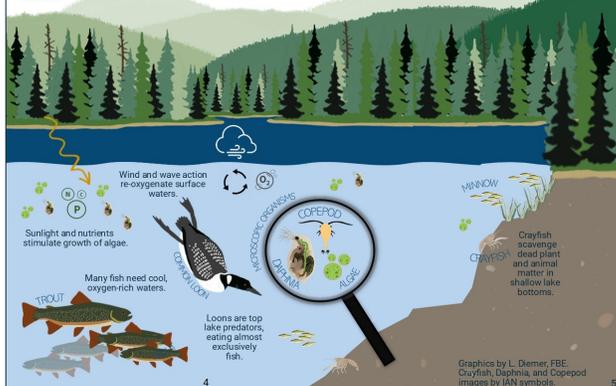
MEANDERING PATHS from your house to the shore stop runoff from having a direct route to the lake. Ideally, paths should be no more than 3'-4" wide. The walking surface should be covered with 3'-4" of crushed stone, wood chips, Erosion Control Mix, or pine needles. This will define the path, guide foot traffic, and reduce soil compaction and erosion.

WORKING IN THE SHORELAND ZONE Check with your local Code Enforcement Officer and Maine DEP if you plan to stabilize a shoreline, create a new path, or otherwise disturb the soil within 250' of your lake. Even if projects are planned with the intent of protecting the environment, contact the DEP and town to determine if a permit is needed.

LAKES ARE LIVING ECOSYSTEMS

Organisms that live in lakes—from microscopic algae to top predators like loons—interact with many forces, including wind, sunlight, rain, snow, nutrients, oxygen, temperature, and alkalinity to create vibrant, balanced, but ever-changing ecosystems. A lake's water quality is determined by the interactions among the many living and non-living parts of a lake ecosystem.

Maintaining a healthy population of microscopic organisms (including plants such as algae that use the sun to produce energy and animals such as copepods and daphnia that eat plants or other animals to survive) are the basis for a balanced food web. These tiny creatures feed larger animals who feed even larger animals in and around the lake. Keeping the food web in balance, with enough (but not too much) food for plants and animals that live there is key to long-term lake health.



WIND helps oxygen mix into surface layers, and promotes lake mixing, especially in spring and fall, bringing nutrients up and oxygen down into the water column to replenish the entire lake.

SUNLIGHT provides energy for plants to grow, and drives seasonal temperature shifts that trigger new growth. The amount of sunlight varies by season and with the depth and clarity of water.

RAIN AND SNOW replenish water throughout the watershed, transporting nutrients needed for growth of aquatic organisms and plants.

NUTRIENTS and organic matter (from dead, decaying plants and animals) are critical elements required for growth for all life.

OXYGEN is necessary to all animal life, including fish, which "breathes" oxygen from through their gills. Oxygen in lake water is replenished by wind action and plant photosynthesis.

TEMPERATURE of water affects where organisms live in a lake and how productive they are. For instance, cold water fish seek deeper, colder waters in late summer when surface temperatures are too warm.

ALKALINITY is a measure of a lake's capacity to buffer against major swings in acidity or **PH**. Many Maine lakes are naturally low in alkalinity, making them sensitive to acid rain, mercury contamination, and acidification due to increases in carbon dioxide in the atmosphere.

Business Sponsors Needed

Do you know of a business that could benefit from advertising on the back cover of this edition of *The Lake Book*? We need sponsors to help us cover the cost of printing and this is a great way for a business to get their information in front of a great lake audience. See page 2 FMI.

How Valuable are Maine's Lakes?

An Updated Economic Analysis for the 21st Century

Maine's lakes are credited with being one of the state's top economic drivers, and rightfully so. Tourist dollars are vital to employment and tax revenue; and are estimated to bring \$5 billion per year in direct and indirect sales to the state. Overall, the economic value of the state's Great Ponds is estimated to be \$11 billion annually in today's dollars. But that value is woefully outdated. It was first generated in an economic analysis by the Great Ponds Task Force, which was established by the Maine Legislature in 1995 to develop a strategic management plan that addressed emerging lake issues. In the 25 years since, there have been significant changes on the economic landscape. Climate change, invasive species, property values (and taxes), water clarity and recreational expenditures all look very different today. The \$11 billion figure has been adjusted from 1995 dollars, but it is built on an outdated economic framework.

"A lot has changed since the 1990s," said Melissa Genoter, a sophomore at UMaine Orono who has been hired as an undergraduate research assistant to help take a new look at the economic value of Maine's Great Ponds in the 21st century. The updated study will evaluate the same categories as the original study conducted by UMaine, thereby allowing a systematic comparison between the studies. UMaine's Dr. Adam Daigneault, Associate Professor of Forest Policy and Economics, will lead the study jointly with Maine Lakes' Executive Director Susan Gallo. A majority of the funding will come from the Maine Outdoor Heritage Fund with some in-kind contributions from UMaine and Maine Lakes.

"I'm excited to see how things have changed," Genoter recently said. "There have been a lot of initiatives over the past 25 years, and I'm curious to see how these have affected water quality and the economic value of Maine lakes. This data is much more accessible to us today because most of the data is posted online. That's a big change from the first time the study was done."

Genoter, who at age 20 is younger than the original study, has a lifetime connection to Maranacook Lake in Winthrop. Originally from Townsend, Mass., she frequents her grandfather's camp on Maranacook. And in 2019, she started working with the Friends of Cobbossee Watershed helping to restore shoreline as a member of the Youth Conservation Corps and as a Courtesy Boat Inspector.

"When I saw the job posting for the research assistant position to study the economic value of Maine's lakes, I knew that was a perfect fit for me," she said. "I have a lot of experience in the field, but I'm always looking for more. This will be my first experience with economic and environmental data. I'm excited. It's something I care about."

Summaries of the initial economic and environmental data will be completed by the summer of 2022, and the project should continue beyond that, digging deeper into regional and climate issues with additional funding. Maine Lakes is excited to take the work that Melissa and others are doing and bring it to policy makers. The economy is always a top priority for decision makers. Demonstrating the value of clean lakes for our communities helps elevate support for strong lake protection policies.

"We want to show lakes' economic value in concrete terms. There are so many pieces of economic data to pull together to make a complete and up-to-date economic picture," said Gallo. "We need that picture to remind decision makers that protecting lake health is not only good for the environment, it's good for the economy, too".



Melissa Genoter is currently a sophomore at UMaine Orono majoring in Ecology and Environmental Science.



The Maine Outdoor Heritage Fund is supported by lottery ticket sales and funds critical wildlife and conservation projects throughout Maine.

LakeSmart 2021: A Challenging (and Successful) Year!

By Mary Wicklund, LakeSmart Program Manager



Heading into the holiday season, it's traditional to look back at the accomplishments of the past year. The LakeSmart Program definitely has many, which is impressive considering the number of big transitions the program underwent during the last year as well as the uncertainty of the ongoing pandemic.

Having joined the Maine Lakes team in May, and jumping feet first into the busiest time of the year for the program, I'm happy to now have a chance to step back and reflect upon an incredibly successful and productive LakeSmart season. Everyone who supports LakeSmart—from members to staff to the amazing teams of volunteers who give so generously of their time to the more than 200 homeowners who welcomed LakeSmart evaluations in 2021—should be proud of what we have accomplished.

As you likely know, countless hours were spent developing, reviewing, and updating the new LakeSmart 2.0 evaluation standards. This update addresses the growing risks to lakes from climate change, development pressure, and changing ownerships. Not surprisingly, changes to a program never happen without a few growing pains. With feedback from evaluators early in the season, we

made some minor adjustments, then LakeSmart 2.0 hit the ground running in June.

During the months of May and June, Maine Lakes held eight virtual LakeSmart training workshops for more than 100 new and returning LakeSmart volunteers. Experienced LakeSmart teams were updated on the changes for LakeSmart 2.0. New LakeSmart volunteers attended a two-part training, with the first part taught online through Zoom, followed by an on-site field training session. Both new and returning evaluator trainings were recorded and posted on our website for review throughout the season.

I was fortunate to travel the state this summer and meet so many of you in person during presentations, workshops, and site visits. I headed north to Shin Pond in Patten, south to Long Pond in Parsonsfield, and logged 2,300 miles visiting numerous lakes in between.

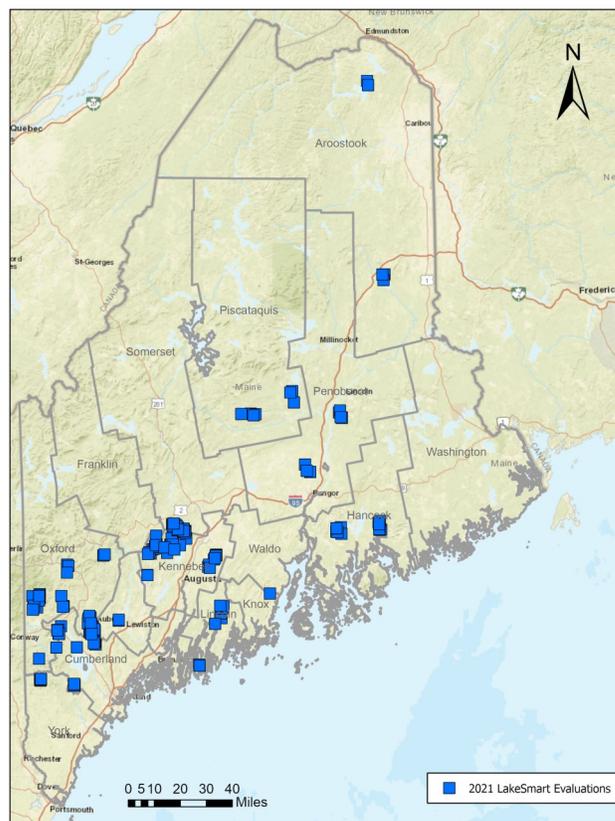
In total, the LakeSmart program extended into 75% of the counties in Maine – that's 12 out of 16! With the support of lake associations and partner watershed

What is LakeSmart?

LakeSmart is Maine Lakes' flagship program that supports teams of lake association volunteers who work with homeowners and others around lakes to reduce erosion and protect lake health. The program relies on passionate volunteers who visit homeowners in their community and conduct evaluations of their property. Owners of properties that meet LakeSmart standards receive a beautiful award sign that shares the message that they value lake protection with their neighbors and friends. Owners of properties that don't meet the standards receive recommendations on what can be done to become LakeSmart in the future.

LakeSmart is free, nonregulatory and completely voluntary.

If your association would like to get involved with LakeSmart, now is the time to get the ball rolling for the 2022 season. Email mwicklund@lakes.me FMI.



organizations who are LakeSmart “hubs”, 215 LakeSmart Evaluations occurred at 42 lakes across the state, one of the busiest field seasons since the program began more than 15 years ago! To date, 84 property owners earned LakeSmart Awards and were presented with our new signs. Considering that with all things COVID, it was unclear how, or even if, onsite evaluations would take place this summer, that’s quite an accomplishment.

Additionally, three lakes in Maine achieved LakeSmart Gold status. Georges Pond (Franklin), Long Pond (Parsonsfield), and Clemons Pond (Hiram) have 15% of their lakeshore properties with LakeSmart awards. This is an impressive accomplishment, as it highlights lake friendly landscapes around their lakes, while increasing visibility of the LakeSmart program. Well done!

LakeSmart by the Numbers: 2021

- 62 New Evaluators Attending Virtual Trainings
- 215 LakeSmart Evaluations Completed
- 84 LakeSmart Awards Granted
- 42 Lakes Receiving LakeSmart Evaluations

Heading into the fall, we shifted our focus to a “LakeSmart Primer”, an outreach effort for interested individuals, lake associations, and conservation commissions. With an introduction to the LakeSmart program and an overview of the evaluation process, the primer helps these groups learn more about the program. We are excited that many whom we’ve spoken with so far plan to recruit volunteers and organize in preparation for full trainings in 2022.

Speaking of future trainings, whether you love it or are experiencing “Zoom fatigue”, some hybrid form of virtual and in-person gatherings are here for the foreseeable future. This is actually beneficial for the LakeSmart program as many of our LakeSmart volunteers live out of state during the colder months and virtual trainings are a great way to connect with them before they return to Maine.

Over the winter, we are improving plans for 2022 trainings. Recognizing the mental overload of long virtual meetings, we are developing a three-part LakeSmart training program, each around two hours in length. The first (lake science and a LakeSmart overview) will be virtual, and the last (onsite evaluation training) will be in-person. The middle part (the LakeSmart evaluation process) can be either,



Cindy Ripley, LakeSmart coordinator, presented Bob and Sharon l’Anson the first LakeSmart Award on Flying Pond.

depending on conditions, distance and size of the training class. We’ll also be working on a final tweak to the evaluation standards, based on valuable feedback from coordinators, evaluators, and our “hub” partners.

We also have teams working to create more informational pieces for homeowners, and on a report template to simplify homeowner report writing. Our biggest priority is to produce a LakeSmart training manual, covering basic lake science, a program overview, directions for evaluating each LakeSmart standard, recommended Best Management Practices overviews and homeowner report templates. 2022 is going to be an exciting year for LakeSmart!

As we head into the darker months of winter, let’s take a moment to reflect on the gifts of our lakes.



Scott Pierz, Executive Director of the China Region Lakes Alliance, sponsored a “LakeSmart Primer” informational evening in October for local lake associations and conservation commissions to expand LakeSmart efforts in the region.

Whether year-round residents or seasonal visitors, we are fortunate to share our piece of "Vacationland." As more folks discover "The Way Life Should Be" here in Maine, your dedication to protecting our amazing lakes is as important as ever. I shared this quote in the last newsletter, but I'll share it again:

"Never underestimate the power of a small group of committed people to change the world. In fact, it is the only thing that ever has." ~ Margaret Mead.

Have a restful winter, and see you all in 2022!

Thank You, Roy Lambert!

Roy Lambert left the Board earlier this year after serving several terms, for the past few years as our Secretary. Roy will be especially missed for his incredible professionalism and his passion for Maine Lakes. Roy headed the LakeSmart Committee and was instrumental in bringing the next generation of LakeSmart standards and processes (affectionately named LakeSmart 2.0) into being. Roy is a retired attorney and has a keen eye for process and legal requirements. Roy developed revisions to several of the guidance documents that the Board lives by and was the initiator of processes that now provide the foundation for establishing endowment and investment funds to support Maine Lakes programs. Though Roy has left the Board, he remains active with the Lakes Environmental Association LakeSmart program and continues to organize the Board "Thanking Initiative" where donors receive calls from Board members thanking them for their contribution.

Roy contributed mightily to Maine Lakes and is missed for his humor, professionalism and witty mannerisms. There is a Naval saying when celebrating a person's retirement or departure that applies well to Roy. Wishing him "Fair Winds and Following Seas"

Dick Tinsman, Maine Lakes President



Thank You LakeSmart Teams!

New LakeSmart Teams

Thompson Lake Environmental Association
Flying Pond Association
Kezar Lake Watershed Association

Experienced LakeSmart Teams

Abrams Pond Association
Belgrade Lakes Association
Branch Lake Association
China Lake Association
China Region Lakes Alliance
Clemons Pond Association
Cold Stream Pond Campowners Association
Community Lakes Association
Crescent Lake Watershed Association
East Pond Association
Friends of Cross Lake
Georges Pond Association
Greater Pushaw Lake Association
Hancock and Sand Pond Association
Island Falls Lake Association
Keoka Lake Association
Kezar Lake Watershed Association
Kimball Pond Association
Long Pond Association (Parsonsfield)
McGrath Pond/Salmon Lake Association
Megunticook Lake Watershed Association
North Pond Association
Damariscotta Lake Association
Sebec Lake Association
Taylor Pond Association
Watchic Lake Association
West Harbor Pond Watershed Association
Woods Pond Water Quality Association
Worthley Pond Association

Our Hub Partners

7 Lakes Alliance
30 Mile River Watershed Association
Lakes Environmental Association
Midcoast Conservancy
Piscataquis Soil & Water Cons. District

The LakeSmart Program depends on teams from communities across the state who deliver the LakeSmart message from trusted friends and neighbors in the community. Thank you for all you do to make the program thrive and grow!

Update from Long Pond's LakeSmart Program

By David Infascelli

In our continued efforts to protect the waters of Long Pond, the Long Pond Association LakeSmart team of David Infascelli, Judy Ingram and Herb Brockert began the season with three days of training, both by Zoom and in person with LakeSmart program manager Mary Wicklund. In June, LakeSmart information packets were distributed to all of the camps around the pond. The packets included an introductory letter and homeowner questionnaire as well as valuable information about the LakeSmart program and tips to help property owners protect the waters of Long Pond. The information contained in the packet highlighted areas of concern and corrective measures to address the problem of runoff and pollutants entering the pond. It is important to remember that the LakeSmart evaluation program is voluntary, nonregulatory and free.

This year the evaluation team performed 15 site evaluations. Each evaluation took approximately one hour, examining areas starting at the driveway and ending at the shoreline. All evaluations conducted contained suggestions and recommendations to better control runoff on the property. The LakeSmart evaluation scoresheets were filled out and a report was generated regarding the evaluation and all information was forwarded to LakeSmart staff for consideration.

Of the 15 evaluations conducted, 9 qualified to receive a LakeSmart Award. Those who didn't qualify

were given recommendations and guidance as to how to meet LakeSmart requirements in the future. The team looks forward to returning to these properties to reevaluate them after corrective measures have been completed.

I would like to point out that corrective measures do not always mean a large landscaping project. These corrective measures can be something as small as a bag of mulch here and a planting there, or a load of stone or erosion control mix being spread. At present we have five more property owners who have requested a LakeSmart evaluation. We plan to continue evaluations in the spring.

On August 27th, Mary Wicklund came to Long Pond to present LakeSmart awards to those who qualified. Award winners were given newly designed LakeSmart signs to display on their property. At the gathering to present the awards Mary was pleased to see how the Long Pond community has embraced the LakeSmart program.

I was notified this week that because of Long Pond's great start and participation in the LakeSmart program we have earned a Gold LakeSmart award. These signs will be placed around the watershed to inform people that they are entering an area that requires great care and to be aware that their actions do impact the pond. The most rewarding part of our efforts this spring is to hear from property owners that have had evaluations and called us to let us

know they have corrected problems we found. Raising everyone's awareness regarding runoff on roads, driveways, roofs and walkways is key to protecting the water of Long Pond. We all have the responsibility to protect the waters of Long Pond and protect this jewel we are so lucky to enjoy and preserve it for our children and grandchildren.

Does Your Association Have News to Share?

We'd love to hear what your association is doing! If you've written something up for your newsletter, please send to us for inclusion in a future issue of our newsletter. Email to info@lakes.me.



David Infascelli hosted a celebration at his home on August 27, 2021 to present LakeSmart Awards to this year's recipients.

Celebrating Maggie Shannon

On the afternoon of August 13, a standing-room-only crowd gathered at the Village Inn and Tavern in Belgrade Lakes to belatedly celebrate the many contributions Maggie Shannon has made to lake conservation over the last 20 years. It was abundantly clear from the people who spoke at the event that Maggie's connections to others, from LakeSmart volunteers to lake association members to agency staff to colleagues at other lake non-profits, have been both long and deep. There was no shortage of admiration, respect and love for all that Maggie has done to keep Maine lakes healthy.

For our organization, Maggie has been many things...an intrepid and determined leader, a visionary, and a passionate spokesperson for the Maine lakes she has worked so hard for over the last two decades. It was a joy to see her amongst the many people who appreciate her passion and dedication. Thank you, Maggie, for everything you have done for our lakes and our organization. We would not be the organization we are today without your leadership and passion.

Photo credits: Betsy Bass.



Thank You to Kate and the staff at Village Inn and Tavern for hosting this terrific event!

If you ever find yourself in Belgrade Lakes Village, this is a fantastic place to stop for a meal, a drink, or an overnight stay. FMI, visit www.villageinnandtavern.com, email villageinnandtavern@gmail.com or call (207) 495-3553.

The **MAGGIE SHANNON FUND** for **LAKE EDUCATION**

We are excited to share that the Maggie Shannon Fund for Lake Education, which was launched this past summer, has reached just over \$25,000 as this newsletter goes to press. More than \$15,000 came from members, friends, LakeSmart volunteers, board members, and colleagues who had developed strong connections to Maggie over the past two decades. At its November meeting, the Maine Lakes board agreed to allocate another \$10,000 of unrestricted Maine Lakes funds to bring the Fund balance to just over \$25,000.

The Fund honors Maggie's distinguished career and ensures her legacy of passionate outreach about lake health continues long into the future. The goal of the Fund is to support education and outreach programming, focusing on projects that bring about long-term, sustainable behavior change to protect Maine's lakes. Managed by the Maine Community

Foundation, interest generated by the Fund will support internships, scholarships, or other projects that further lake outreach and education. The Board of Maine Lakes will set Fund policy and report annually on Fund growth and spending. FMI, contact Susan Gallo, Maine Lakes Executive Director at sgallo@lakes.me or (207) 956-1965.



To become a founding donor, send a contribution to Maine Lakes, PO Box 91, Yarmouth, ME 04096 or donate securely online at lakes.me/donate. Just add "The Maggie Fund" on the comment line so we know to properly allocate your gift.

FOUNDING DONORS

Thank you to the individuals and organizations who have generously given founding donations to the Fund.

Susan Adams
John Atkinson
Linda Bacon
Barbara Barrett
Betsy Bass
Kate Beales
Mary Berger
Bruce Benham
Mary Berger
Catherine and Louis Bevier
Roy Bouchard
Betsy Bowen
Bruce Burnham
Bunny Caldwell
Sue Carrington
Dave Clement and Sharon Barstow
Mel and Katherine Croft
Jim Cummings
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Mary Wicklund
Laura Wilson
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Organizations:
Belgrade Lakes Association
7 Lakes Alliance

Legislative Update



A huge thank you to everyone who responded to our Legislative Alerts and called legislators, wrote powerful testimony, or spoke up at a virtual hearing in 2021. Sadly, our voices were not loud enough to overcome some serious barriers, but we know legislators heard us and we must keep the momentum going in 2022. Please read on to see what's coming up in this "short" legislative session that starts in January, and ways you can help lake protection efforts succeed.

LD 394 Boat Race Permits: This bill asked the Department of Inland Fisheries and Wildlife (IFW) to consider wildlife impacts when permitting boat races on Maine's public waterways. Despite substantial testimony in favor of the bill in 2021, the IFW committee asked the Department, as an alternative to a law change, to write rules for boat race permits that would incorporate language for wildlife protection. Draft rules were published in October, and we believe they did not go far enough in offering substantive protection of wildlife and water quality. We are hopeful the rules will be improved after hearing feedback from the public when they are presented back to the IFW committee for review. Look for a Legislative Alert when this bill comes back before the committee in 2022.

LD 626 Boat Moorings: Long-term boat moorings are becoming an issue on some lakes; with noise, trash, human waste disposal and water quality degradation at the top of the list of growing concerns. This bill, another carry-forward from 2021, would require municipalities with inland waters to have a designated individual responding to inquiries related to mooring privileges. It also would direct IFW to write model ordinance language for municipalities that choose to regulate moorings. Maine Lakes believes a proactive solution to providing mooring opportunities that increase lake access but protect lake resources is timely and much needed. The bill will come before the IFW committee again in 2022. Look for a legislative alert when that happens.

LD 184 Clean, Drain, Dry: This bill would have required boaters to drain their live wells, ballast tanks, and bilges prior to transporting their boats. It received truly overwhelming support, with more than 60 advocates speaking out in support or presenting written testimony for the public hearing. It was a real kick in the gut to all lake advocates who spoke up passionately for this bill when the IFW committee voted to kill this simple, easy bill that would have helped Maine maintain its place as a state that leads the nation in having minimal numbers of lake invaders. Because microscopic larvae of invasive animals and tiny fragments of invasive plants can live in water that boats carry with them from lake to lake, draining boats after leaving a lake makes a lot of sense. The opponents argued the law was difficult to enforce. Maine Lakes doesn't see that as a barrier, as there are many hundreds of lake-related laws that are equally difficult to enforce yet are effective in reducing unlawful behavior. See not on LR2466 (right) for a promising bill that may revisit the need for regulations around draining boats.

Defensive Bills: In every session of the legislature, there are countless bills that seek to derail existing regulations and protections for Maine's lakes and ponds. 2021 was no different, and we faced a slew of bad shoreland zoning bills that would have done major damage. Luckily, all but one of these bills died in committee. The bill that did pass, allowing expansion of restaurants associated with existing marinas, was amended to improve lake protection.

LD 1663 Boater Safety: Sponsored by Rep. Jessica Fay (Raymond), this bill would create a mandatory safety course for motor boat operators and personal water craft users. Boaters born before 2002 would be exempt from the course. The bill received overwhelming support in committee, but was carried over to the current session due to concerns about the complexity of the issue in terms of consistency with other states and managing out-of-state visitors. We are looking forward to hearing about the work that IFW has done over the summer, which will be reported back once the session starts in January. We will be looking for more support for this bill due to on-going concerns for both people and wildlife due to unsafe boat operation routinely observed on Maine's lake and ponds.

LD 489 The Pine Tree Amendment: This bill would set the stage for an amendment to the Maine constitution guaranteeing people's rights to a clean and healthy environment. As an organization that works hard to protect water quality for all, Maine Lakes supported this bill during the last session. It was carried over to the current session and we look forward to having further input on changes or improvements moving forward. To learn more about the Pine Tree Amendment and how you can help support it, come to our Lunch and Learn with PTA organizers (right).

LR 2466 Invasive Species Task Force: This bill, sponsored by Rep. Tavis Hasenfus (Readfield), would direct the existing Interagency Task Force on Invasive Aquatic Plants and Nuisance Species to appoint a subcommittee to look at (and prioritize) solutions (both regulatory and non-regulatory) to preventing and managing invasive aquatic species. Recommendations would go back to the legislature for consideration. Given the repeated failure of bills like last year's Clean Drain Dry effort in spite of overwhelming public support, it is clear that regulators and interested parties must come together to discuss workable solutions that do more to stop the spread of invasive species.

LD 1626 Wabanaki Sovereignty: This bill seeks to extend to Indigenous Nations in Maine the same rights that other tribes in the U.S. maintain over natural resources and taxation. It would amend the Maine Implementing Act to restore the inherent right of the Passamaquoddy Tribe, the Penobscot Nation, and the Houlton Band of Maliseet Indians to self-govern within their respective territories in accordance with the same federal laws that generally govern tribal lands elsewhere in the United States. The Wabanaki People stewarded Maine's lakes for many thousands of years, and Maine Lakes supports this important bill to acknowledge their rights. Look for an alert when the bill comes back to the 2022 session.

Take Action!

Join our Grassroots Advocacy email list. Maine Lakes will send just a handful of alerts when your help is most needed for supporting priority bills during the session. Sign up at www.lakes.me/contact.



How will the Pine Tree Amendment support Maine people concerned about protecting our water and ecosystems now and for future generations?

Learn more about The Pine Tree Amendment (LD489), ensuring that, "the people of the State have the right to a clean and healthy environment and to the preservation of the natural, cultural and healthful qualities of the environment."

Join Maya Van Rossum, the Delaware Riverkeeper and founder of Green Amendments For the Generations for a brief presentation and Q&A facilitated along with coordinators of the Pine Tree Amendment.

Dec 16th, 2021 | 12:00-1:00pm ET | via Zoom
REGISTER IN LINK BELOW
bit.ly/mainewaterslunchandlearn



PINE TREE AMENDMENT
GREEN AMENDMENTS FOR THE GENERATIONS
Pure Water. Clean Air. Healthy Environment.
MAINE Lakes
PROTECTING OUR LAKES & PONDS

Washing by Hand or Using the Dishwasher? Which is LakeSmarter? It Depends.

By Roy Lambert, LakeSmart Evaluator

Here at LakeSmart Central we get some interesting inquiries. One recent inquiry was for guidance on dishwashing. Would using a dishwasher or washing dishes by hand be more “lake friendly”?

There is no simple answer to this question. It really depends on your washing habits. But let’s look at two main drivers: water volume and phosphorus in detergents.

A functioning septic system treats waste water, eliminating nutrients as water flows out of the system, through soil to groundwater (FMI, check out our *Caring For Your Septic System* brochure at www.lakes.me/library). Reducing water input into any septic system helps reduce stress and the likelihood of catastrophic failure, which is both costly to the homeowner and damaging to nearby lakes.

Even with the best of septic systems, reducing sources of phosphorus is always a good idea, since risks of excess phosphorus reaching a lake go down when less phosphorus is put into the system. Maine is one of only a handful of states that ban the sale of laundry detergents containing phosphorus. While there is no similar restriction on dish detergents, it’s easy to find phosphorus free (sometimes identified as phosphate free) dish soap in local stores. Many of the brands you probably already use (Dawn, Cascade, and Palmolive, for example) have phosphate-free products.

The ultimate goal of LakeSmart is to reduce the amount of phosphorus entering lakes, thereby reducing excess algal growth and keeping lake water clean and lake systems healthy. From a LakeSmart perspective, the dish washing method that gets your dishes clean but uses less water and reduces excess phosphorus is the method to use. But which method is that?

Unfortunately, we can’t give you a clear answer. It all depends on the particulars of your dish washing regime. However, there are many ways to improve your

regime to reduce risks to your septic system and to your lake.

The first one is a no-brainer. Regardless of the method, use only phosphorus-free dish detergent. A quick Google search of the ingredient list for your preferred dish detergent brand will confirm that in all likelihood you are already using a phosphate-free detergent. If

you’re not, it’s easy to switch! Do that and you’ve already reduced risks to lake water quality.

Reducing water volume is a little more complex. A dishwasher generally uses less water to wash more dishes (about four gallons for a newer machine vs. 20 gallons to wash an equivalent amount of dishes by hand). However, that

assumes there is no “pre-washing” by hand before dishes are placed in the dishwasher, that longer deep clean settings are not used regularly, and that the dishwasher is full for each cycle.

Hand-washing can vary in water volume, too. Some people leave the water running the entire time they are doing dishes, while others use a more conservative dish pan to reuse soapy water.



While either method can be LakeSmart, here’s our Bottom Line:

- Be aware of the benefits of water conservation for the life and health of your septic system.
- Share the *Caring For Your Septic System* brochure with your neighbors.
- Use only phosphate-free detergent.
- Run only full loads in your dishwasher.
- Break the “pre-wash” habit.
- If hand-washing, use a dishpan to reuse soapy water.

Lakes Like Less Lawn

Never the Two Should Meet

By Ali Clift, Education and Outreach Coordinator, Cumberland County Soil and Water Conservation District

Ideally, there is very little lawn around our lakes, ponds, rivers, and streams. Lawns don't provide strong, deep root systems to hold soil in place and soak up runoff like larger native perennials, shrubs, and trees, and lawn maintenance can result in more nutrients washing into our waterways resulting in unsightly algal blooms.

If you can, try to reduce the amount of lawn on your property, especially close to the water, and replace lawn with native perennials, shrubs, and trees. But for some areas of your property, you might want lawn for yard games with family and friends, to protect your septic system and leach field, and for other uses. In those instances, there are some lawn care practices you can implement to reduce the negative impacts your lawn may have on your lake.

Don't waste your leaves

Rake and compost leaves or use them as mulch on garden beds.

Mulch leaves into your lawn with your mower (extra nutrients and organic matter for your soil).

Leave a thin, even layer of leaves on your lawn (benefits your lawn and creates helpful winter habitats).

Leave pine needles and leaf litter to build up the duff layer under trees.

Follow your soil test

Don't add fertilizer or lime to your soil unless soil test results indicate to do so. State Law also prohibits the application of fertilizer within 25 feet of a pond or lake unless using a special applicator.



For more information on soil tests visit extension.umaine.edu/publications/2286e/.

Mow high

Wait until your grass is about 4-5 inches tall and then cut it to 3 inches tall. Set your mower blade to 2 inches for the final mow of the season to help mulch in some fall leaves and prevent molds from growing.

And just because your lawn is covered with snow during the winter doesn't mean there aren't tips to follow to help protect your yard:

Remove snow carefully.

Large snow piles can compact your soil, so plan on aerating those areas of your yard more frequently after the snow melts.

Limit use of sand and salt.

Sand and salt can cause sandy, salty soil conditions, particularly under melting snowbanks, which can prevent future plant growth. Sand and salt can also be carried off your driveway and walkways by stormwater runoff and end up damaging the water quality of the lake.

Reduce salt use by improving stormwater drainage on driveways and walkways to prevent ice buildup.

Consider using sand and salt alternatives like birdseed, snow tires and ice cleats.

Plan for spring.

Identify areas of your yard you can make more friendly for the lake.

Consider adding more native plants to your shoreline.

Replace areas of your lawn with groundcovers in shady areas, rain gardens at the bottom of gutter downspouts, pollinator or vegetable gardens, or strategically placed perennial plants and shrubs.

Swap out grass for clover. Clover stays green all season long and converts nitrogen from the air and adds it to the soil for other plants to use!

Use the cold winter months to redesign your yard to make it more enjoyable for you, require less maintenance, and be better for the lake!

For more information on healthy lawn care and lake-friendly practices, visit the YardScaping program at www.cumberlandswcd.org/yardscape.



PO BOX 91
YARMOUTH, ME
04096

Upcoming Events!

Loon Lessons

Thursday, December 9 at 6:30 p.m. via Zoom

A reading and talk by Jim Paruk, author of *Loon Lessons: Uncommon Encounters with the Great Northern Diver*. See p. 6 FMI.

The Pine Tree Amendment

Thursday, December 16 at noon via Zoom

A presentation about the PTA and what it means for Maine's lakes and rivers. See p. 17 FMI.

2022 Maine Lakes Conference

Saturday, June 19, 9 a.m. to 3 p.m.

After two years of virtual conferences, we are working on plans for what we hope will be a safe in-person event. Details to come in the new year, but plan for a day of learning, networking, and fun. Have a topic you want to hear about at the conference? Email ideas to info@lakes.me. We hope to see you there!

Thanks again to our 2021 Wednesday Webinar Sponsors

