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LIGHTHOUSE COASTERS

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Since 1898
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These items are available for purchase at the Center for Lake Studies at
63 Main St., Sunapee Harbor

LSPA also has t-shirts, trivia cards and much more that would make
great holiday gifts!

This issue of **the Beacon** has been sponsored by:



The Mission of LSPA

LSPA, founded in 1898, is dedicated to preserving and enhancing the environmental integrity of the Lake Sunapee region, especially its lakes and watersheds, through education, research, and collaborative action.



Printed on Recycled Paper

the Beacon



FALL/WINTER 2023

LAKE SUNAPEE PROTECTIVE ASSOCIATION

What's the Problem With Road Salt?

Most ice melting products contain chloride which is:

- Toxic to aquatic life
- Damaging to plants
- Corrosive to vehicles
- Harmful to pets

Lake Friendly Tips to Reduce Your Impact This Winter

Shovel & Scrape

To minimize the need for salt, don't let snow build up.

Apply Sand and Ashes if Needed for Traction

These materials can be swept up and reused later.

Apply Ice Melting Products Sparingly

A little goes a long way—you do not need to feel the crunch.

Use Chloride Free Alternatives

Scan QR code for a list of products and where they can be purchased.

Use a Snowplow Service?

Support those who are Green SnowPro Certified. Scan QR code to learn more about this state program.



Products



Services



Construction underway at the Granliden erosion control project site, thanks to our partnership with the Granliden Community Association, Stone Environmental and United Construction. Photo by Becky Rylander.

Erosion Control Projects Completed with Grant Funding From NHDES and US EPA

Working in partnership with the Granliden Community Association (GCA), LSPA has completed another key project of the 2020-2030 Lake Sunapee Watershed Management Plan. Construction of stormwater best management practices to address beach erosion along the lake access road at Granliden in Sunapee by United Construction and GCA personnel are approaching completion. LSPA Watershed Director Geoff Lizotte worked closely with General Manager Andy Fowler of the GCA, Project Manager Mike Saindon of United Construction, and Water Resource Engineer Branden Martin of Stone Environmental to ensure all project components were implemented as designed.

[Read about our progress on other WMP projects on page. 6](#)

Featured in this Issue

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LSPA

*Devoted to the Environmental Quality
of the Lake Sunapee Watershed*

Our Mission

LSPA, founded in 1898, is dedicated to preserving and enhancing the environmental integrity of the Lake Sunapee region, especially its lakes and watersheds, through education, research, and collaborative action.

2022-23 LSPA Officers

Betsy Lyons	President
Karen Zurheide	1st V-Pres
Barbara Calhoun	2nd V-Pres
Laura Davis	Secretary
Pam Olney	Treasurer

Staff:

Elizabeth Harper	Excutive Director
Kathleen Stowell	Education Director
Kak Weathers	Reserch Director
Sue Godin	Office Manager
Teriko MacConnell	Lab Manager
Geoffrey Lizotte	Watershed Director
Nancy Heckel	Environmental Educator
Susie Burbidge	Water Steward
Summer Sanderson	Communications Coord.
Tehya Kloster	Watershed Assistant

The Center for Lake Studies is open to the public 9am - 5pm Monday through Friday. Please stop by to see our educational displays and to learn more about how you can protect our lakes.

Lake Sunapee Protective Association
Center for Lake Studies
63 Main St., Sunapee Harbor
Mail:
PO Box 683, Sunapee, NH 03782
Phone: 603-763-2210
email: lspa@lakesunapee.org
website: www.lakesunapee.org

Visit our website for more information about upcoming events and volunteer opportunities.

From the Helm

The arrival of autumn and the shorter days give us time for reflection. What a summer! All that record rainfall and runoff, extreme high lake levels, and a fuel spill in Sunapee Harbor. Such events provided a dramatic backdrop for the 125th Anniversary Celebration events and put a spotlight on the importance of what we do. It also provided an impetus to expand our efforts going forward.



Betsy Lyons, President

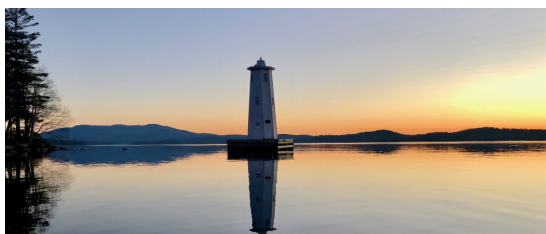
What is LSPA planning to do?

- Revisit the 2020 Watershed Management Plan to add new sites for potential stormwater control projects as well as identify opportunities where other approaches, such as increased enforcement of zoning laws, improvements in local and/or state ordinances, land conservation, and education can reduce nutrient levels going into area waterbodies.
- Upgrade the existing buoy and add new remote sensors to better support research.
- Continue to provide free programs about water quality to area schools.
- Expand education and research opportunities for high school students, college students, and adults.

What can you do?

- Take the Watershed Wise property owner self-assessment to see how you can decrease stormwater runoff from your property.
- Volunteer. You could become an Aquatic Invasive Species Watcher or get involved with your town's zoning board, planning board, or conservation commission.
- Contact your NH representatives to let them know that water quality is a priority for you and encourage them to take steps to protect it.
- Help us reach a wider audience by voicing your support for LSPA. Visit the Center for Lake Studies and explore the educational exhibits.

Thanks to all who attended the many wonderful events this summer! Although the celebration is coming to a close, programs will continue. Most of all, thanks for your support. Our active and supportive membership provides the funding and people-power which enable LSPA to continue its work to protect the Lake Sunapee Watershed for future generations.



Herrick Cove lighthouse at sunset. Photo by Midge Eliassen.

A Publication of **Lake Sunapee Protective Association** Founded 1898
All articles prepared by LSPA staff unless noted.

New Board Members



Jack Kutner

Jack is passionate about the environment and focuses on sustainability-based businesses and non-profit organizations. He has owned, invested in, and served on the board of numerous companies ranging from alternative energy, energy efficiency, organic foods, and non-toxic cleaning products, to reusables. Jack currently consults for start-up companies and early-stage businesses and advises environmental organizations. An executive with 40 years of experience, he was Chairman and CEO of BigBelly, a pioneering green-tech firm in the smart waste industry. Jack also served as President of First Data Investor Services Group and held officer positions with American Express and Merrill Lynch.

Jack and his wife and two sons have frequented Lake Sunapee since the early '90s, bought a home here in 2012 and became full-time residents in Newbury in 2020. They enjoy all things Sunapee: hiking, boating, skiing and snowshoeing. Jack is a member of the Watershed Committee and is proud to serve on the LSPA Board.



Carrie Deegan

Carrie has lived in New London since 2008, when she moved from the Champlain Valley to work at the Society for the Protection of New Hampshire Forests. At the Forest Society she works in conservation land stewardship and community engagement, developing volunteer and community science programs to help protect, manage, and better understand New Hampshire's forests. Carrie received her MSc from the University of British Columbia, where she received a Fulbright scholarship to study geospatial patterns of grizzly bear mortality. Following that, she worked for The Nature Conservancy (NY), Winooski Natural Resources Conservation District (VT) and as an environmental planner for the Town of Williston, VT before moving to New Hampshire.

Carrie has enjoyed exploring New Hampshire and the Lake Sunapee region over the past 15 years and has loved raising her two children here. She and her husband Andy can often be found birding or kayaking local lakes, ponds and rivers, foraging for wild mushrooms, identifying moths, and growing incredibly spicy peppers to make hot sauce.



Barbara Calhoun

Barbara has been involved with LSPA since 2015, first serving on the Board from 2015-2018 and then chairing the Capital Campaign Committee for our "Opening a New Door" campaign from 2019-2021. She received the Rolf Eliassen Award in 2020 for her tremendous efforts spearheading the campaign. Barbara also served on the Education Committee and currently serves on the Loon Committee and the Watershed Committee. In 2021, Barbara and her husband David started the Calhoun Fellows program which supports Virginia Tech students and/or researchers in a summer internship to better understand Lake Sunapee and its water- and air-sheds.

Barbara grew up in the Philadelphia area but the Calhouns moved 10+ times with their four children mainly in New England and the Midwest. They even had one assignment in Singapore. They have enjoyed coming to Sunapee since 2004 when their oldest daughter was a freshman at Dartmouth, and now share their love of the area with four grandchildren. Barbara enjoys gardening, floral arranging, hosting workshops, tennis, kayaking and travel.



Jim Owers

Jim is a retired lawyer who lives on Star Island during the summer and Concord the rest of the year. He is a graduate of Beloit College and Cornell Law School. Between college and law school he was an officer in the U.S. Navy and served aboard the aircraft carrier Intrepid. After law school he clerked for the Alaska Supreme Court and the U.S. Court of Appeals for the Ninth Circuit. In 1982 he joined the Concord law firm of Sulloway and Hollis where he practiced law for 35 years.

He has been active in land and watershed protection as a member of the Concord Conservation Commission for over 25 years. He currently serves as a board member of Ausbon Sargent Land Preservation Trust, where he sits on the Lands Committee.

Jim and his wife Leslie Ludtke, and their daughter and grandsons, are all extremely fond of Lake Sunapee. He is an avid cyclist and nordic skier as well.



Dave Rhodes

Dave Rhodes grew up with lakes—Skaneateles, Hampton Ponds, Crystal Lake and now Sunapee. He grew up with mountains—Boy Scouts and overnight trips, Northeastern and the Outing Club, the AMC and hiking throughout the Whites. He is now paying back that time by volunteering for environmental concerns.

He has a BS in Mechanical Engineering and spent 30+ years working at Hypertherm in product design, development, and management. He is married to Susan with two grown children both living in NH with their families. David and Susan moved to New London in 1984 and then purchased property in Blodgett's Landing in 2002, where together they designed and built a new home.

Dave is active with the Watershed Committee, Newbury Conservation Committee, and Save Lake Sunapee Watershed.



Robert Martin

Born and raised in Louisiana, Robert went to graduate schools in Princeton and Cambridge, and began a teaching career in New Haven, CT as a professor of practical theology. His final appointment was as Dean of a seminary in Washington DC. After retirement, Robert and his wife, Carol Thrane, discovered Sunapee and bought a house on the New London side of the lake in 2017. They delight in the area's serene beauty, plentiful activities, and wonderful friends.

A love of nature and a dedication to ecological sustainability was instilled in him through his family's heritage in the forestry/timber industry. He is especially keen to influence religious communities to become more environmentally committed.

Robert enjoys water and snow skiing, culinary explorations, sunset cocktails, fun with friends, and nature. He and Carol are involved in other environmental organizations in NH and elsewhere, and he currently serves on the LSPA Membership Committee too.

Thank You to the 125th Anniversary Committee!

LSPA would like to thank those who served on the 125th Celebration Committee. Your creativity and dedication allowed us to have a phenomenal 125th year!

Lake Sunapee's Response to Intense and Frequent Summer Rain

The summer of 2023 was officially the wettest summer in New Hampshire's history since precipitation records began in 1895. In June, July, and August the state received over 21 inches of rain which is about 8 inches more than average. Heavy rains washed out roads, eroded steep slopes, saturated soils, and inundated septic systems, leading to a host of water quality challenges. The water clarity in Lake Sunapee declined from typical values of around 8.7 meters to 5.25 meters in July. By October the transparency had improved to 7.05 meters (23 feet). Some aspects of water quality are returning to normal levels after this summer's storm events, but the addition of nutrients, including phosphorus, will likely have impacts into the future.

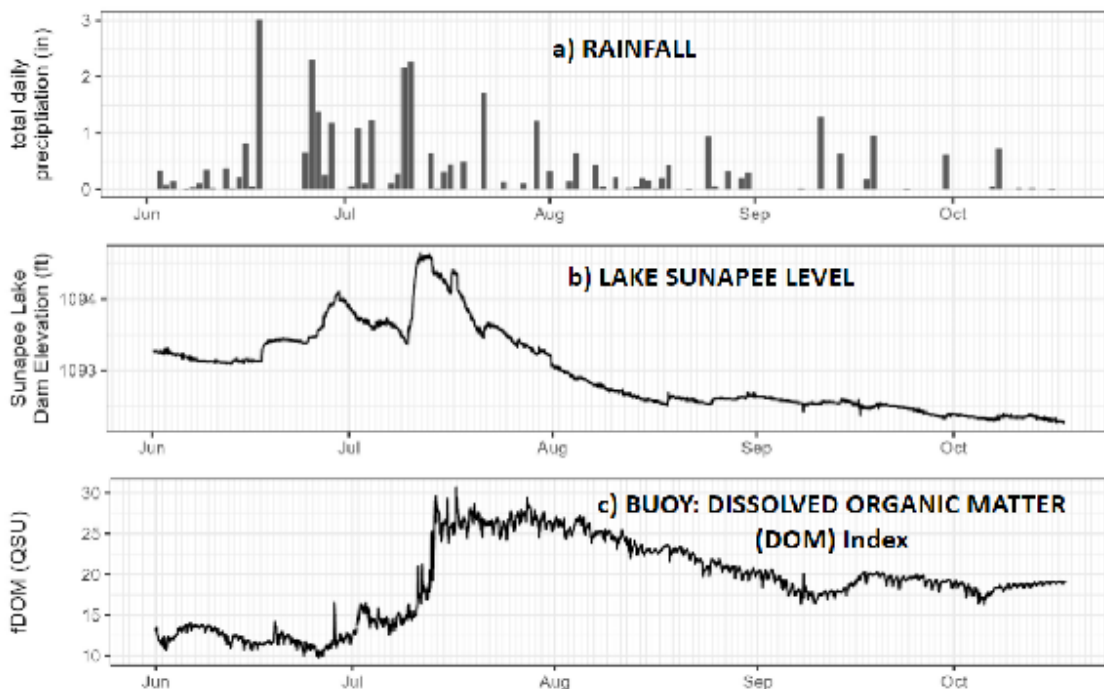


Many boat houses were inundated with water.



Newbury Town Dock closed due to high waters.

Lake Sunapee Response to Intense and Frequent Rain Events 1 June through mid-October 2023



a) The Lake Sunapee Watershed experienced intense rain events from mid-June through August.

b) Lake level rise lagged behind these storm events. Lake Sunapee is a big lake and it takes a lot of water to raise the lake's water level, but with frequent and heavy rains, soils in the watershed eventually became saturated (like a full sponge) and water flowed rapidly via tributaries and over land into the lake. The NH Dam Bureau released water from the lake, but lake levels remained high throughout much of the summer.

c) Loss of water clarity and quality at the buoy site also lagged behind the rain events. The water that drained from the surrounding landscape carried soil + plant material + nutrients + pollutants, including those washed from septic and leach field failures. The sensor on LSPA's water quality buoy near Loon Island lighthouse picked up the signal of these suspended materials starting around July 1st and peaking in mid-July. Water clarity diminished sooner in the near-shore areas than at deeper sites, as would be expected. It remains high today.

Erosion Control Projects Completed with Grant Funding From NHDES and US EPA

Continued from cover

Completed Projects

In addition to the Granliden project, LSPA has completed a project on Pine Cliff Road in Newbury and has secured funding for projects on Kidder Brook in New London and Jobs Creek Road in Sunapee. These projects are crucial in achieving the Watershed Management Plan goal of reducing the amount of phosphorus entering Lake Sunapee by 100 kg/year, to improve water quality and reduce the likelihood of toxic cyanobacteria blooms.

Town of Newbury Highway Department – Another completed project addressed roadside erosion along Pine Cliff Road. Here, construction of stormwater best management practices was completed by the Newbury Highway Department in October. Geoff Lizotte worked with Newbury Highway Administrator Cal Prussman, Newbury Highway Foreman Tate Sweetbrown and Water Resource Engineer Branden Martin of Stone Environmental to complete the project as designed.

These projects would not have been possible without the generous cash and in-kind matches that were provided by the Granliden Community Association (GCA) and the Newbury Highway Department.

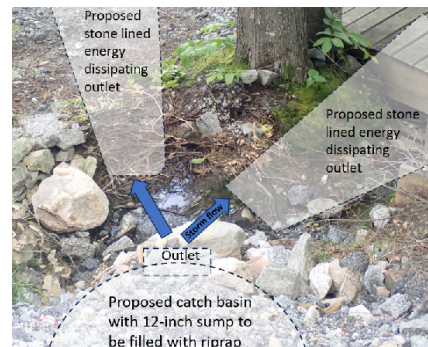
Upcoming Projects

Twin Lake Villa – Geoff Lizotte will be collaborating with Ken and Tanner Jacques of Twin Lake Villa (TLV) and with a consultant engineer over the next year to create an approved plan that will address stream bank erosion along sections of Kidder Brook in Springfield. Kidder Brook flows into Little Lake Sunapee. A consultant engineer who meets the necessary qualifications is expect-

ed to be selected by the end of the year. NHDES Watershed Assistance Grant monies applied for earlier this year will be used to partially fund this project. In-kind and cash matches will be provided by TLV.

Town of Sunapee Highway Department – In early September of this year, Geoff Lizotte submitted a pre-proposal application for a NHDES Watershed Assistance Grant that would partially fund a project on Jobs Creek Road. This project proposes to address road shoulder and shoreline erosion and has the support of the local landowners and the commitment

from the Sunapee Highway Department that would provide in-kind services in the form of time and labor. A decision from NHDES on whether to fund this project is expected by the end of the year.



One of the proposed erosion control solutions for Jobs Creek Rd. Illustration by Watershed Director, Geoff Lizotte.



A completed section of the Pine Cliff grant site.



The Granliden grant site approaching completion.

Electrofishing at Beck Brook

On September 27 LSPA Watershed Director Geoff Lizotte conducted electrofishing surveys with John Magee from the New Hampshire Department of Fish and Game and Jeff Marcoux from the New Hampshire Department of Environmental Services at Beck Brook. LSPA led a grant-funded project to implement stormwater-control measures and streambank restoration work at this site in August 2022.

Geoff, John and Jeff collected data on the brook trout population a year after the grant project was completed.



A yearling brook trout from Beck Brook.

Electrofishing is a standard way to measure fish populations in streams. In this process an electric meter is placed into the stream causing the fish to be stunned for a short period of time. While the fish are stunned, they are collected in nets and placed in buckets. The weight and length of the fish are recorded, and the fish are placed back into the same section of stream they came from.



From left to right: Geoff Lizotte, John Magee and Jeff Marcoux moving upstream to electrofish.

Overall, John Magee was impressed with the number of fish in the stream as well as the size of the one-year-old fish which were large compared to the standard size of brook trout of the same age. Monitoring the brook trout population is a way to measure the success of the Beck Brook grant project, and the brook trout are enjoying the improvements!

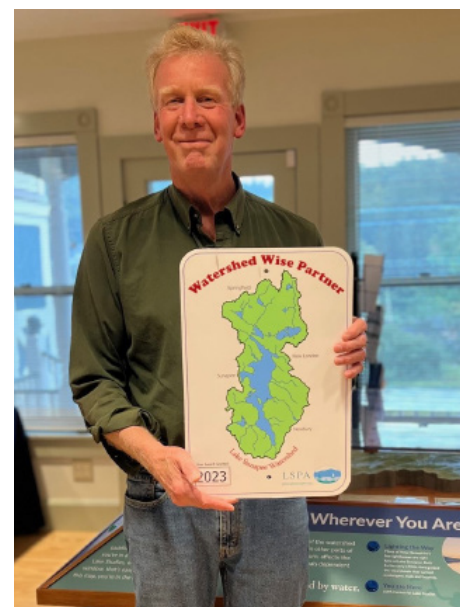
LSPA's Watershed Wise Program is in its Third Year

This year, six homeowners participated in the Watershed Wise program, not only on Lake Sunapee, but on Mountainview Lake and Otter Pond as well. This program helps property owners identify changes they can make, such as additional plantings near the water's edge, to improve the water quality of lakes, streams and ponds throughout the Lake Sunapee Watershed.



Scan QR Code to start the process of becoming a Watershed Wise Partner.

To participate, you can fill out an online self-assessment at any time. LSPA staff will then provide a free consultation and evaluation of your property. For those homeowners who are already demonstrating good stewardship practices and who meet the Watershed Wise criteria, a plaque will be awarded to be displayed on the property. If the criteria are not met, homeowners are provided with detailed recommendations about improvements that can be made to protect water quality.



Bill Stockwell from Otter Pond with his Watershed Wise award sign.

Education at LSPA

School Programs:

Fall ushers in a new season of school programs and the sounds of students filling the Center for Lake Studies with their discoveries and learning. LSPA's successful Watershed Discovery Day program has brought 5th grade students from area schools to participate in a very enriching day of learning about water related topics. The LSPA Education staff is also working on developing new program opportunities for students K-12.



LSPA President Betsy Lyons and New London fifth graders using our interactive watershed model at a Watershed Discovery Day field trip.



Education Director Kathleen Stowell teaching Mt. Royal Academy students about trees and leaves.



Teachers from the Watershed Ecology Institute working in the field.

Targeted Learning Opportunities:

LSPA's education program partners with other organizations to reach out to specific audiences. This past summer we worked collaboratively with NH Fish and Game to present the "Watershed Ecology Institute," a three-day professional development training for teachers. Teachers had the opportunity to learn about fish populations through electrofishing, water quality testing, macroinvertebrate sampling and GIS mapping techniques for telling the story of a watershed. LSPA also partnered with the UNH Technology Transfer Center (UNH T2)

to offer two workshops to impart information on winter road maintenance: The Winter Road More Traveled, designed for town officials, boards, conservation

commissions and administrators, and Snowfighters Seminar designed for snow removal professionals to gain NHDES Green SnowPro certification.



LSPA Watershed Director Geoff Lizotte and Marilee Enus presenting at The Winter Road More Traveled Workshop.

Family Programs:

The Center for Lake Studies welcomes families every week for our very popular “Nature Exploration Story Time” (NEST). Each Tuesday morning, young children accompanied by their parents, grandparents or caregivers explore a different seasonal topic. The learning is certainly not limited to the children, as every week staff members answer questions and are engaged in conversations with the adults in attendance as well as sparking curiosity in young nature explorers.



Environmental Educator Nancy Heckel with a participant dressed as a monarch butterfly at Nature Exploration Story Time.

Adult Programs:

LSPA’s 125th Anniversary Celebration was our busiest summer program season yet! Nearly 1,000 people attended our education events. Programs for adults highlighted current research efforts and water quality information, the unique history of the Lake, area wildlife and foundational ecological concepts. All participants celebrated LSPA’s 125 years of environmental protection by learning! Special thanks to all of our knowledgeable presenters!



Squam Lakes Natural Science Center's wildlife presentation at LSPA.



Generations enjoying Love Your Lake Day: Jennie Kjellman (L), and Barbara Calhoun (R) with granddaughters.



The education display aboard the Natural History Cruise.



Captain Kara Obey with Gary Daniels aboard the Natural History Cruise.



Lab Manager Teriko MacConnell explaining water sampling equipment at Love Your Lake Day.

Lake Sunapee Remains Free of Toxic Cyanobacteria Blooms in 2023!

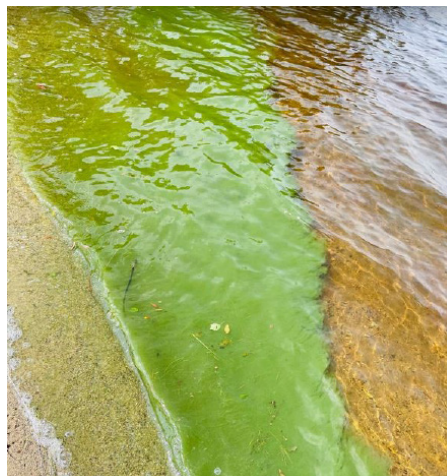
As of October, New Hampshire had issued 68 cyanobacteria advisories throughout the state, which is sadly a new record. We were anticipating reports from folks on Lake Sunapee in September, which is when we often see an increase in *Gloetrichia echinulata* (Gloeo for short), but we are happy to report that we did not have any cyanobacteria blooms on the lake this year. Individual colonies of Gloeo are visible to the naked eye and look like small, fuzzy yellowish spheres in the water. There are seven other prevalent species of cyanobacteria in the lake, but they are only visible when they form a bloom.

Little Lake Sunapee, also in the Lake Sunapee Watershed, was issued a cyanobacteria alert in late July. Water samples revealed two species of cyanobacteria, Dolichospermum and Woronichinia, in concentrations over 22,000 cells/mL, but below NHDES' advisory level of 70,000 cells/mL.

Anytime an alert or advisory is issued, or if you suspect a bloom, stay out of the water to avoid exposure and keep your children and pets out too.

While cyanobacteria are naturally occurring in our lakes, certain environmental conditions can lead to blooms, including extra nutrients reaching the water, bright days with plentiful light, and warm temperatures.

To learn more about cyanobacteria in the Lake Sunapee Watershed scan the QR Code below or visit our website at www.lakesunapee.org/cyanobacteria



Cyanobacteria bloom at Little Lake Sunapee.



Gloetrichia echinulata (Gloeo) on Lake Sunapee. Photo by Midge Eliassen.

Here are some steps that every landowner can take to help reduce the chance of a cyanobacteria bloom:

- Minimize your lawn area and plant a wide buffer (at least 50 feet or more) along the water's edge.
- Do not apply fertilizer within 100+ feet of shorelines and streams.
- Direct stormwater and roof runoff into rain gardens and natural areas.
- Pump your septic tank every 3 years and inspect the whole system every 10 years.
- Pick up your pet waste.



Watershed Assistant, Tehya Kloster and Board Member, Nancy Marks, in the LSPA CSC Water Quality Lab.

Summer Lab Recap

This summer over **932** water samples were dropped off at the LSPA Water Quality Lab at Colby-Sawyer College. Around **5** tests are run on every sample, so the lab processed over **4,000** tests! Thank you to our volunteers who collected the samples and to the volunteers who helped process the samples.

Curly-leaf Pondweed: A Recent Invader in the Watershed

An aquatic invasive species called curly-leaf pondweed (*Potamogeton crispus*) was discovered in Baptist Pond in July. Baptist Pond flows into Otter Pond which then flows into Lake Sunapee. Residents acted quickly to alert NHDES and LSPA and a plan is in place to address this invasive plant. A net was installed by NHDES on the upstream side of the culverts to catch any fragments that may drift downstream. Local volunteers have been removing any plants or debris from the net and disposing of them properly. Divers were hired by NHDES to remove plants by hand, and over the course of four days in September and October, they extracted a total of 28.75 gallons. Divers will most likely be needed over the next few years to help control the spread. NHDES will cover these costs for the first year, but then they will look to the Baptist Pond Association and the town of Springfield to cost share in future efforts to control the invasive plant. NHDES is considering an herbicide treatment in the spring of 2024, to kill larger patches of the plants while they are young. This would be done by a licensed applicator with a special permit. Curly-leaf pondweed seeds that are stored in the sediment will send up plants even after treatment, so they will need to be managed, most likely by divers hand-pulling them.

It is not known how this invasive plant entered Baptist Pond, which does not have a public boat launch. This is a good reminder to always "Clean, Drain & Dry" your boat and trailer before moving it to another waterbody. On Lake Sunapee, the Lake Host program (a program of NHLAKES in partnership with LSPA) is the first line of defense to keep the lake invasive free. Our Lake Hosts conducted thousands of courtesy boat inspections this season. These efforts are backed up by LSPA's multitude of volunteers who also keep an eye out for invasive species as they patrol sections of shoreline. Close monitoring is critical and early detection is key in preventing aquatic invasive species, both plant and animal, from spreading throughout our watershed.

Volunteer with us!

If you would like to help prevent invasive species infestations on Lake Sunapee, please consider becoming an Invasive Watch volunteer by sending an email to Susie at susieb@lake-sunapee.org. If you live on or visit another lake or pond in the watershed and want to get involved, we can also connect you with the correct person on that waterbody.

Invasive Spiny Water Flea Now in NH

In addition to the curly-leaf pondweed infestation, a new invasive animal species was found for the first time ever in New Hampshire. Spiny water flea (*Bythotrephes longimanus*), which is actually a crustacean and not an insect, was discovered in Lake Winnepesaukee in mid-September and Lake Winnisquam in late October. Unfortunately, there is no known treatment so the best approach is to prevent it from entering a waterbody in the first place by cleaning, draining and drying boats, trailers and all gear. As with other aquatic invasive species, spiny water flea can negatively affect the aquatic food web by changing the natural communities and outcompeting native zooplankton species which in turn impacts the fish populations as well. Kirsten Hugger, an Aquatic Ecologist with NHDES, has been monitoring Lake Sunapee for aquatic invasive species for several years and did not detect any Spiny Water Flea during her most recent trip to two deep site locations in Lake Sunapee in September. That is very good news for now, however, further expansion of this species in New Hampshire is likely in the future. This is another Good Reason to always "Clean, Dry & Drain" your boat and trailer.



Invasive Curly-leaf Pondweed found in Baptist Pond. It is distinguished by its wavy leaf edges that resemble lasagna noodles.



Spiny Water Flea in comparison to fingernail.

Lake Sunapee's Loons in 2023

We had three pairs of nesting loons in 2023, but overall, this was not a highly productive summer for loons on Lake Sunapee. We are happy to report that the lone chick that hatched was still doing well as of early October. Heading into late fall, it will probably be on its own, as the adults usually leave the lakes earlier than the chicks. Loons that breed in New Hampshire typically spend the winter off the New England coast, which is why they are able to do reconnaissance flights in the spring to see if “their” lake is ice-free or has enough open water to land. At 80 mph once in flight, it doesn't take long to get back to Lake Sunapee from the ocean (and then go back again if there's no open water). Throughout the summer, LSPA has a network of over 40 loon-watchers who report their

sightings to Kristen Begor, Sunapee Loon Committee Chair. Then Kristen compiles the observations into a monthly report. Observations from so many different parts of the lake help inform the data that is collected by a trained field biologist from the Loon Preservation Committee (LPC). Since LPC's field biologists are monitoring many other lakes in the region, they usually survey Lake Sunapee three times during the field season.

We look forward to welcoming the loons back to Lake Sunapee next spring! Since several of the loons on Sunapee are banded, we can

confirm if the same individuals are returning year after year. In general, loons will return to the same territory unless they are kicked out by another loon. In the meantime, if you would like to see a loon this winter, take a ride along the New Hampshire coast and you will probably spot one not too far offshore. It will look different in its gray and white plumage, but the dagger-like bill, large head and diving behavior will help give it away. If you see one come up with a snack, take a look to see what it is eating—lobster is added to their menu in the winter!



Loon enjoying lobster after its winter migration to the ocean. Photo by Reigh Higgins.



One of the pair members in the northern end of Lake Sunapee showing off her bands. You can also see young chicks by the other adult. Photo from 2020 by Midge Eliassen.



GIVINGTUESDAY



LSPA
*Dedicated to the Environmental Quality
of the Lake Sunapee Watershed*

**Mark Your Calendars - Giving Tuesday is
November 28th.**



**Scan QR code for ways to give to LSPA or
go to lakesunapee.org.**

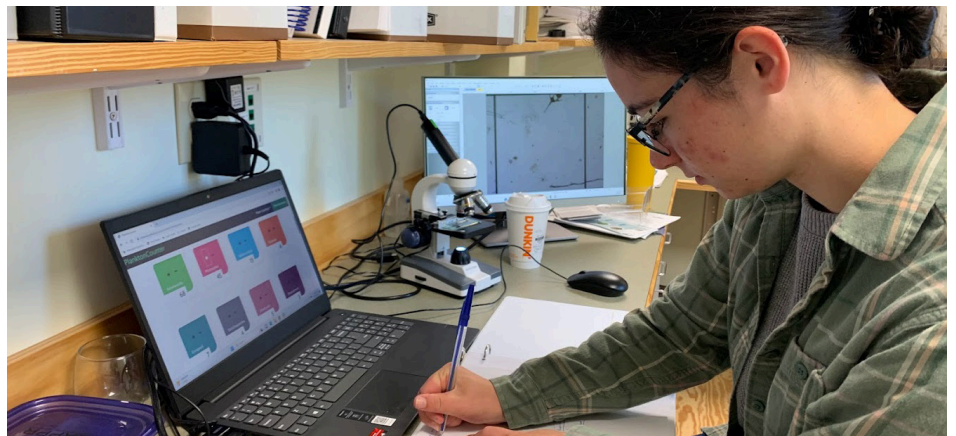
Fellowship Supports Foodweb Model

This year's Midge Eliassen fellowship was awarded to an international team of researchers including Dr. Jessica Trout-Haney and Dylan Wang from Dartmouth and Dr. Katalin Patonai who is a Research Fellow at the University of Ferrara in Italy and a Landscape Ecology Instructor at Eötvös Loránd University, Budapest, Hungary. The team is working together to build models of Lake Sunapee's foodweb that will incorporate data from published research, samples of zooplankton and phytoplankton from this past summer, and additional data collected by students and by LSPA interns, staff, and volunteers. This collaborative effort will help us to better understand how our local lake ecosystem functions and how it is likely to change under a range of future scenarios.

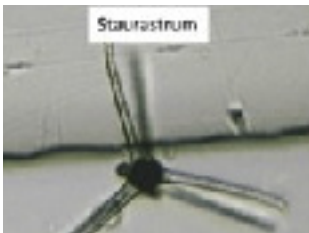
The Midge Eliassen Fellowship was created to honor the legacy and commitment of Midge Eliassen. Her unparalleled curiosity about the natural world, and long-term commitment to collecting data in support of ecological understanding, has advanced local, regional, and global knowledge about lakes and their watersheds. Data from these efforts will inform our scientific understanding of Lake Sunapee far into the future.



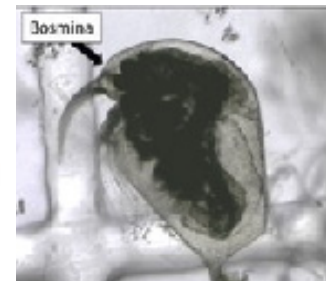
Eliassen Fellow Dylan Wang collecting samples for the Sunapee Foodweb Project.



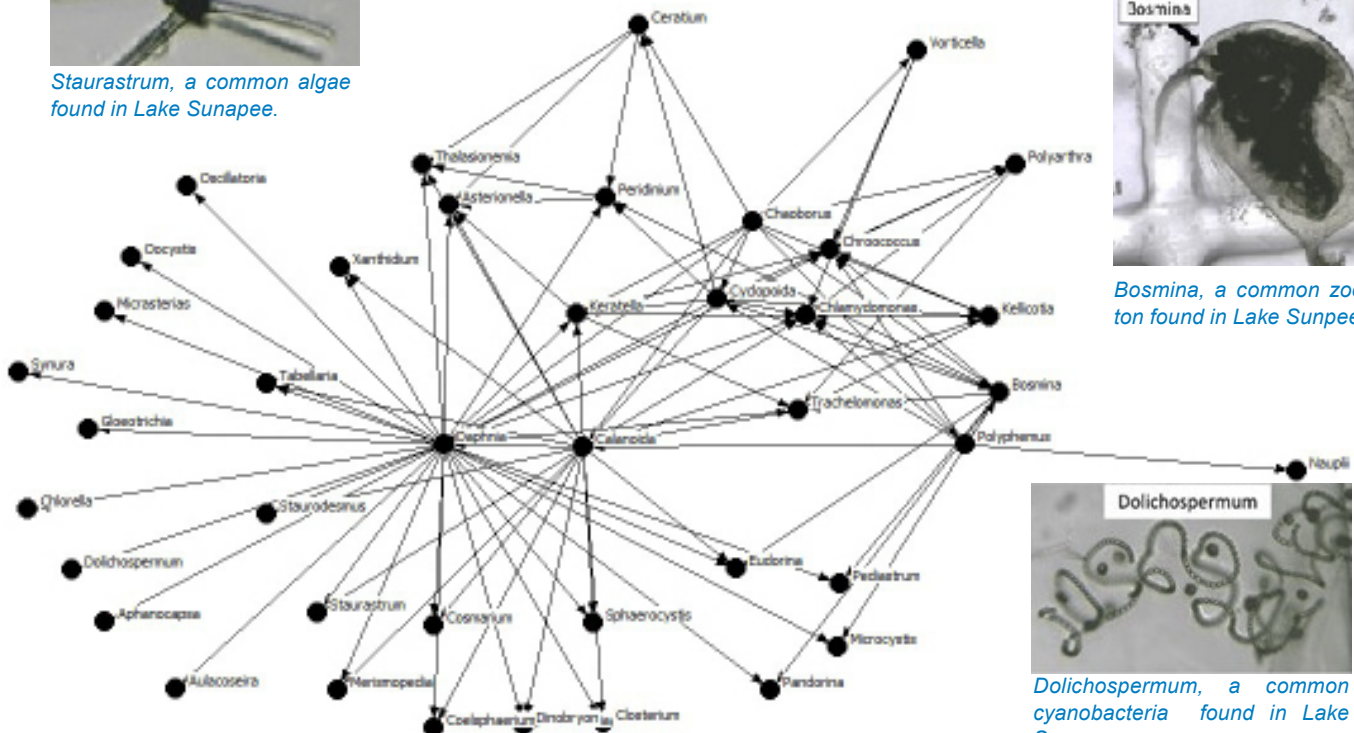
LSPA Watershed Assistant Tehya Kloster identifying additional plankton species in samples collected by LSPA interns this past summer.



Staurastrum, a common algae found in Lake Sunapee.



Bosmina, a common zooplankton found in Lake Sunapee.



Dolichospermum, a common cyanobacteria found in Lake Sunapee.

A preliminary visualization of Lake Sunapee's plankton community, produced by Katalin Patonai based on data collected by Dylan Wang.

Winter is Coming— Use Dock De-Icers Properly!

Now is the time to check to make sure your dock de-icer is up to code and working properly. When used incorrectly, dock de-icers can disturb sediments and create safety hazards.

- Set up your de-icer to form a narrow open water area around your dock (bubbler device works best for this).
- Point a circulator device in a vertical direction rather than at an angle towards the middle of the lake to minimize dangerously thin ice (use a purpose built bracket rather than ropes for easier adjustment—most manufacturers offer them as an accessory).
- Use a thermostat to run the de-icer only when the air temperature drops below freezing.
- Use a timer to run the device for only 2-4 hours a day.

If you believe a lake resident is using de-icer devices improperly, please contact Marine Patrol at 603-293-2037.



Remember to have your sign posted—it's the law!

The Return of the Blue Lemon Lemonade Stand

The Blue Lemon lemonade stand is a wonderful summer highlight in Fishers Bay where you can buy delicious homemade blueberry muffins and fresh lemonade. Charlie Markowicz (age 9), with help this summer from Camden Brown (age 9), has been running the stand for the past two years. Charlie's love for Lake Sunapee, his home away from home, is evident in his joy in donating proceeds from his sales to LSPA. Charlie came in to LSPA's Center for Lake Studies to share his desire to give back. He explained how he wanted to donate to LSPA

in hopes to protect this beautiful area for the future. We were thrilled and especially grateful that our youngest donor could see the value and importance of helping Lake Sunapee and its watershed stay a healthy place for generations to come.

Thank you, Charlie! We are ever so grateful to all our members and all those who share their innumerable gifts of time, energy and creative ideas to support the health of the Lake Sunapee Watershed.



Charlie, Camden and friend at the Blue Lemon lemonade stand.

Memorial Contributions

LSPA has recently received contributions honoring the memory of the following individuals:

Bruce Burdett
Marjorie M. Fellows
Ellie Goddard
Robert Hill
Walter Krawczyk
Sarah O'Connor
Jeanette Pearson
Diane Trudeau

We extend our sincere thanks to the families and friends who considered LSPA an appropriate recipient of these memorial gifts.



Let's Be Clear!

Contact lspa@lakesunapee.org if you would like to schedule a Let's Be Clear presentation for your community group and be sure to watch and share our Let's Be Clear video at www.lakesunapee.org/lets-be-clear

Keeping the Lights On

This has been a challenging year for Lake Sunapee's iconic lighthouses, but LSPA's commitment to maintaining the lighthouses remains strong. During our summer of high water, the Burkehaven lighthouse was inundated, and in October the roof began to leak, requiring emergency repairs. LSPA's Watershed Director Geoff Lizotte worked with Baker Boyce, Bill Wightman and John Merriman to complete roof repairs, upgrade solar panels and replace the housing for the light. LSPA has maintained Lake Sunapee's three lighthouses since the 1980's. We are currently gearing up for the major project of replacing the cribs (bases) of the Burkehaven and Herrick Cove lighthouses, and for the fundraising campaign to support this work.



Burkehaven lighthouse under water during this summer's high rainfall.



LSPA Watershed Director Geoff Lizotte with the old beacon from Burkehaven lighthouse.

Process of Lighthouse Project and Campaign

- ✓ Confirmation of LSPA Board support of lighthouse maintenance
- ✓ Evaluation of condition by marine engineer
- ✓ Stabilizing work (Dec. 2022)
- ✓ Evaluation of possible solutions
- ✓ DES permit application
- DES approval – waiting for this critical next step
- Initial drawings with contractors' input
- Final drawings/RFP
- Bids received and evaluated
- Board approval of contractor proposal to repair Herrick Cove and Burkehaven lighthouse cribs, based on Facilities Committee recommendation
- Work begins



Burkehaven lighthouse roof being removed for repairs in October.