



Loon Preservation Committee

ANNUAL REPORT 2022

APRIL 1, 2021 - MARCH 31, 2022

The Loon Preservation Committee exists to restore and maintain a healthy population of loons throughout New Hampshire; to monitor the health and productivity of loon populations as sentinels of environmental quality; and to promote a greater understanding of loons and the natural world.

People always ask me how I got involved with the loons and the Loon Preservation Committee (LPC). I often wonder that question myself. I was trained as a hydrogeologist so I have always been interested in understanding how things work and why they respond the way they do. My desire to better understand the biology, physiology and life cycle of the Common Loon came naturally to me. I was hooked the first time I saw the unique black and white feather pattern of the mature loon and heard their mournful yet majestic call. I have had so many questions through the years as I have tried to learn as much as I can about this amazing creature – Where do these birds spend their winters when the lakes are frozen? What do their four different vocalizations mean? How long do loons live? Do they mate for life? Do they return to the same lake where they were born? Who are their predators? How many chicks do they produce? What do they eat? Why do they molt from a black and white feather pattern in the summer to a muted brown, less impressive pattern in the fall/winter? What are the greatest threats to loons?

After leading the Lake Sunapee Protective Association's Loon Committee for more than 12 years and serving on the LPC Board of Directors for the last 8 years, I have had most of my questions answered, but I continue to want to learn so much more about these fascinating birds.

When LPC was created in 1975, little was known about the life cycle of the Common Loon. After 47 years of intensive monitoring, management, research, and education, LPC has the most comprehensive loon database in the world. Thanks to the dedicated staff at LPC, and the support of its extensive grassroots network of members and volunteers, LPC has advanced both the scientific and popular understanding and admiration of loons. Continued research will help us uncover new threats impacting New Hampshire's loons—including contaminants and a changing climate.

As my role of Chair comes to an end, I am feeling blessed to be a part of such a special organization as LPC and impressed with the positive impact LPC has had on the loons in New Hampshire. It has been an honor to serve with LPC's distinguished Board of Directors and work closely with Harry Vogel and the dedicated LPC staff and volunteers. I plan to remain involved with LPC and continue to learn as much as I possibly can about loons, taking action, when necessary, to improve the life and longevity of this iconic bird.



Kristén F. Begor, Chair



LPC staff rescue 10 loons trapped in the ice in late January on Lake Winnepesaukee.



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EXECUTIVE DIRECTOR'S MESSAGE:

A Year of Extremes

The Loon Preservation Committee's Fiscal Year that ended March 31st of 2022 (FY22) marked a year of extremes for loons and for LPC's work to help them. Last year New Hampshire's nesting loons were faced with a record-hot June and a record-wet July. LPC floated a record number of loon nesting rafts, most equipped with UV-blocking shade covers, to help loons ride out the heat and the water-level changes that were the demise of many natural loon nests. The result of that work was that one of every four loon chicks on New Hampshire's lakes last summer hatched on a raft floated by LPC biologists or volunteers. Even with these efforts we experienced one of the worst breeding seasons in LPC's 47 years of monitoring and managing our loons.

The impacts of climate change on our loons did not end there. A warm early winter resulted in many loons delaying their migration from our lakes to the ocean. This late departure might seem like a benign change for loons, and even a welcome delay to those of us who enjoy watching them on our lakes. The problem is that when warm weather and open water persist for too long, the freeze, when it comes, can catch loons in the midst of their winter wing-feather molt when they are unable to fly to escape the ice. That was the case for several loons, including ten birds in one incident on Lake Winnepesaukee in January of this year. LPC staff launched an intensive four-day effort to save those loons (the "Winni Ten" as they are now known here), and all ten were rescued and released to the Atlantic Ocean. Six of those banded loons have to date been sighted as members of nesting loon pairs, but the fate of the others is at this point uncertain.

It is sobering to see this evidence of increasing impacts of a changing climate on our loons. But it is also gratifying to me to know that the work LPC has done over the past two score and seven years, and the data we have collected and can now bring to bear on this issue, might hold the key to mitigating climate change impacts on loons and help create a larger awareness of the consequences of climate change. The new and continuing challenges facing our loons are matched by a growing awareness of the need to address these issues, and a growing base of support that has allowed LPC to continue, albeit slowly, the recovery of our loon population. Thank you for your support, through your time, effort, caring, and funds, to make our continued work possible.



Roy Hennessy Photo

Population and Productivity:

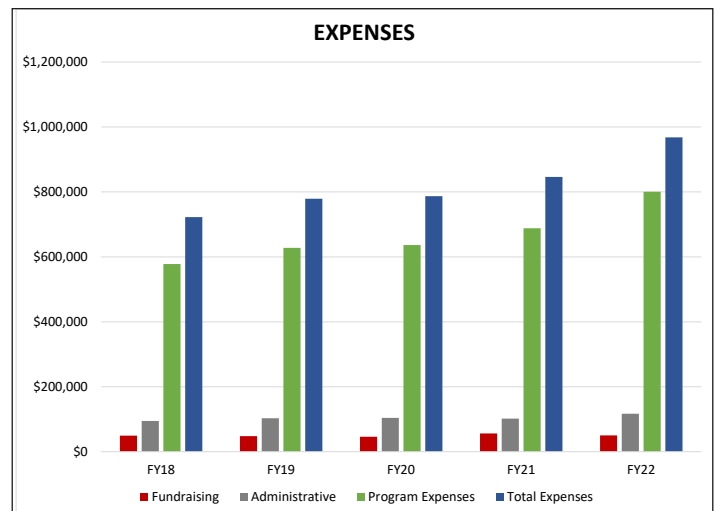
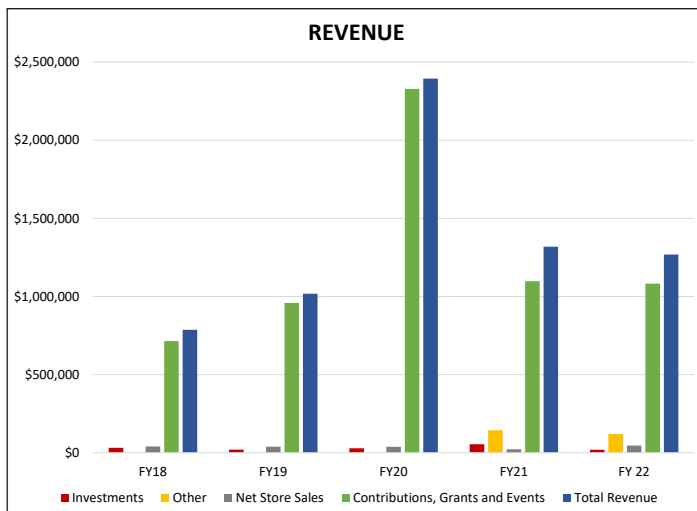
	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>
Territorial Loon Pairs	296	309	313	321	326
Nesting Pairs	202	226	221	216	229
Chicks Hatched	168	224	193	203	192
Chicks Surviving to mid-August	126	157	148	156	133

FINANCIAL SUMMARY:

Loon Preservation Committee: Summary of Activities and Changes in Net Assets

Fiscal Year Ending: March 31

	FY18	FY19	FY20	FY21	FY22
Revenue:					
Contributions, Grants and Events	\$710,453	\$959,380	\$2,328,325*	\$1,098,165*	\$1,082,662
Store Sales, Net Cost of Goods	\$40,013	\$38,894	\$37,952	\$22,385	\$45,600
Investments	\$31,770	\$19,657	\$28,768	\$54,487	\$19,344
Other (PPP1, Energy Rebates, etc.)	—	—	—	\$144,066	\$120,681
Total Revenue	\$782,236	\$1,017,931	\$2,395,045	\$1,319,103	\$1,268,287
			<i>*Includes gifts received during the capital campaign</i>		
Expenses:					
Program Expenses	\$578,166	\$627,733	\$636,374	\$688,111	\$800,597
Administrative	\$94,855	\$103,132	\$104,337	\$108,672	\$117,219
Fundraising	\$49,053	\$48,182	\$46,166	\$49,390	\$50,338
Total Expenses	\$722,074	\$779,047	\$786,877	\$846,173	\$968,154
Increase in Net Assets:	\$60,162	\$238,884	\$1,608,168	\$472,930	\$300,133



LPC's financial records are audited by Rowley & Associates of Concord, NH. Copies of the audit and the IRS 990 return are available on our website: www.loon.org.



Lead fishing tackle is the leading cause of adult loon mortality in New Hampshire. Loons can ingest lead fishing tackle from a line or attached to a fish. Use only non-lead fishing tackle to protect loons and other wildlife—it's the law! And please dispose of fishing line and tackle properly to prevent entanglement and potential injury or death to loons. For more information on LPC's lead poisoning reduction initiative visit loonsafe.org.

Loons and a Changing Climate



Kristie Wilson Photo

FY22 recorded New Hampshire's warmest ever June followed by the wettest ever July, with over 13 inches of rainfall in Concord (NH) and a dozen flooded loon nests. Both of these extremes are unfortunate for loons, a northern species. Avian guards offer shade from direct sun exposure while rafts protect nests from water level fluctuations.

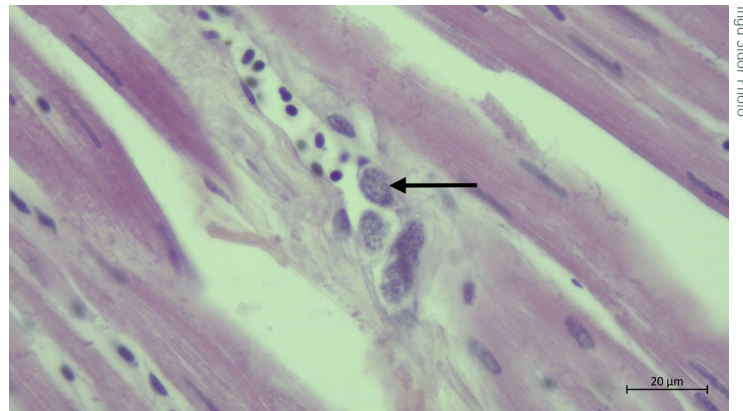


Jean Despres Photo

LPC and its partners began banding loons in 1993, and have banded nearly 600 New Hampshire loons since. Being able to identify individual loons helps us gain important information about loon life history, health, movement patterns, and wintering habitat, and improves our ability to evaluate and treat rescued loons.



A male loon was washed downstream from Skatutakee Lake during July flooding. Monadnock Biologist, Mary Caffrey, joined volunteers Russ Cobb and Brett Thelen in retrieving the loon from a streambank, hundreds of yards from the lake. After a short rehab with Maria Colby, the loon was returned to its lake and resumed care of its young chick.



Inga Sidor Photo

LPC's 2020 Winnepesaukee Biologist, Alyssa Neuhaus, presented her graduate work with Ellen Martinson (University of Vermont) on avian malaria in loons during the 32nd Northeast Loon Study Working Group conference. Avian malaria is an emerging threat in New Hampshire due to a warming climate, as several more cases were reported in 2021. The microscope photo above identifies malarial parasites in the heart tissue of a Squam Lake loon that died from the parasitic disease.

LPC staff rescued a group of 10 loons trapped in a 40-meter-long pool of open water on Lake Winnepesaukee in late January, roughly one mile offshore. Perhaps the warm temperatures of the previous months overrode the other cues that would normally have triggered the migration of these loons to the coast. Loon feathers littered the ice surrounding the hole, indicating that the loons were in the midst of moulting their flight feathers—typically done on the ocean. The loons found themselves trapped as temperatures dropped suddenly and the ice closed in.

LPC first discovered concerning levels of contaminants in inviable loon eggs from failed nests on Squam Lake almost 15 years ago. Since then we have tested 28 eggs from 27 different loon territories. Eggs were tested for PFAS, BDEs, PCBs, and DDT, and other pesticides. All of these classes of contaminants were found in all New Hampshire loon eggs that were tested. For more information, please see LPC's new report, *Contaminants in Loon Eggs in New Hampshire*, available at www.loon.org.