



LOON PRESERVATION COMMITTEE NEWSLETTER

FALL 2021



Ray Hennessy Photo



The Loon Preservation Committee

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The Loon Preservation Committee (LPC) is a non-profit, self-directed and self-funded organization affiliated with New Hampshire Audubon. Autonomous in membership and fundraising, LPC works to preserve loons and their habitats in New Hampshire through monitoring, research, management, and education.

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DIRECTOR'S MESSAGE

The Long Haul

It has been an eventful couple of years, for loons, for people, and for the Loon Preservation Committee. Another year of Covid precautions did not slow us in pressing our expanded Loon Center and new Kittie and John Wilson Field Operations Center into earnest and hard use for our loons this summer. In fact, LPC staff and volunteers floated a record number of loon nesting rafts throughout the state this year, and protected a record number of nesting loon pairs with protective Loon Nesting Area signs and floatlines.

Unfortunately, it was a record year in other ways as well, including New Hampshire's warmest ever June and wettest ever July. Both of those extremes are unfortunate for loons, a northern family of birds. Four of the five species of loons breed in the arctic tundra and taiga, with "our" loons – the Common Loon – being the only one breeding as far south as New Hampshire. So loons are cold-adapted; they are built to conserve heat. This suits them well when they are in our northern lakes, but they lose much of their ability to cool off when their primary heat-dispersers, their legs and feet, are on a sun-warmed nest instead of in cold water.

For this and other reasons nesting can be a challenge for loons, especially since their mostly black plumage can soak up a lot of heat in late June. When our record hot June was followed by a record wet July, of the sort that can quickly raise water levels and flood loon nests at the water's edge, it is perhaps not surprising that loons had one of their worst breeding success years in LPC's history.

Luckily, loons, like LPC, are in it for the long haul. Loons can deal with a bad year, because as a long-lived bird, there is always next year – as long as you survive to next year instead of swallowing a lead sinker or lead-headed fishing jig or dying from some other cause. And that is why adult survival is so critical to the continued viability and growth of any loon population, and why LPC has put so much effort into lead education, legislation, and lead tackle buyback, in that order. There will be years that are more conducive to loon nesting in the future, even if those years become fewer and farther between. With your continued support the Loon Preservation Committee will be here to help our loons make the most of those better years to come.

2021 Field Season Summary

If you were excited to return to a favorite New Hampshire lake this summer after a long absence during the COVID pandemic, you have something in common with our breeding loons. After a much longer hiatus, loons are making their way back to once-favored lakes where they have been absent for decades, if not a century or more. This history can be seen on any map: New Hampshire boasts six Loon Ponds and a dozen Loon Islands, but in modern times only a few have been true to their name, actually supporting nesting loons. This year, a couple more joined the active list, as the slow recovery of the population confirms the accuracy of the original place names, one by one. A 2021 nest attempt on Loon Pond in Gilmanton was the first a 70-year resident of the pond could recall, and campers and staff at Camp Calumet in Freedom heralded a successful nest for the first time on their Loon Island in Freedom. We'll take population recovery wherever it happens, whatever the name of the lake, but it was exciting to see breeding loons back at these landmarks this year. On the 349 lakes surveyed, LPC field staff and volunteers counted five new breeding pairs around the state, bringing the total number of occupied territories to 326. This leaves plenty of suitable habitat vacant. With the population headed in the right direction, loons may be coming to an empty lake near you in 2022.

Productivity

Unlike the slight gain in abundance, it was not a rosy year for nesting. A record number of nesting pairs produced the fewest chicks since 2017, netting the third worst season, in terms of average

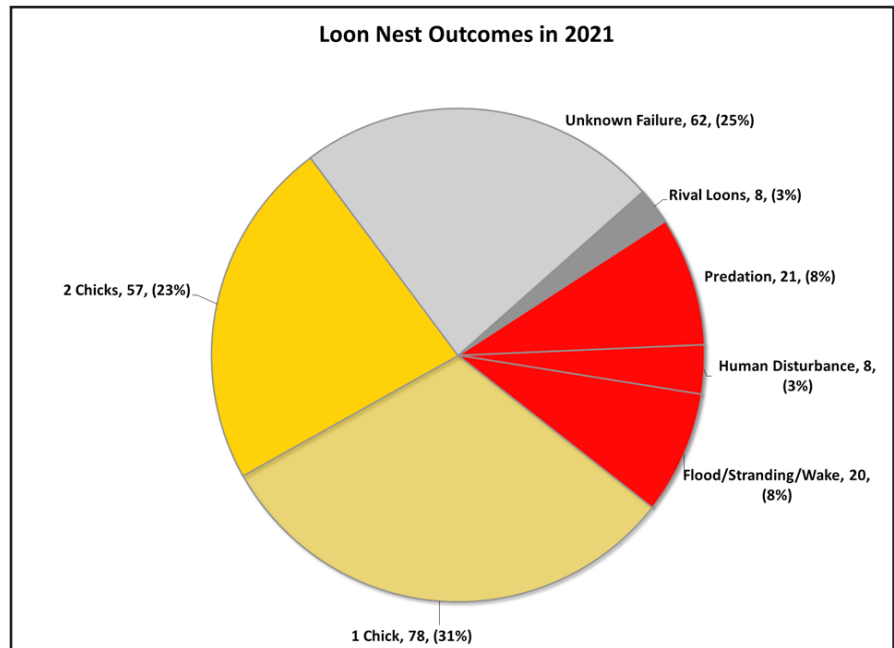


Fig. 1: Loon Nest Outcomes in 2021

breeding success, since monitoring began in the 1970s. Nesting loons had a lot to contend with. This year we saw fewer predated nests (20% below average) but more failures from human disturbance, intruding loons distracting the nesting pair, and flooding/wave action (30%, 60%, and 70% above the long-term average rates, respectively) (Fig. 1). We also recorded below-average chick survival in eight of the nine LPC monitoring regions.

Extreme weather was the biggest culprit, driving nesting success down throughout the summer. Early on, a few nests were flooded by rain over Memorial Day weekend. This was followed by the third hottest June on record in Concord, with no rain at all. Good weather for kayaking, but relentless for the well-insulated loon sitting on an exposed nest. Heat-stressed loons pant, breathing through an open bill. When we see this behavior on hot days we know that the heat is having

an effect, but it rarely leads directly to nest abandonment; usually the loon sits tight, right through the heat wave. So, for the nests that do eventually fail with no obvious cause, we can't be sure why, even if hot weather seems like a plausible factor. There are unexplained nest failures and inviable eggs every year, heat wave or not. Infertility, contaminants, or other factors that influence nest attendance, like black flies, could all be at fault. But if heat does play a role, we'd expect to collect more inviable eggs, and see more nests where only one of the two eggs hatched, in an extremely hot season. In fact, 2021 fit that mold. We collected 99 inviable eggs, nearly a record, and the hatch rate at successful nests has only been lower in a handful of years since the 1970s. We also found that overall hatching success and average June-July temperatures placed 2021 in good agreement with a best-fit model of nesting data

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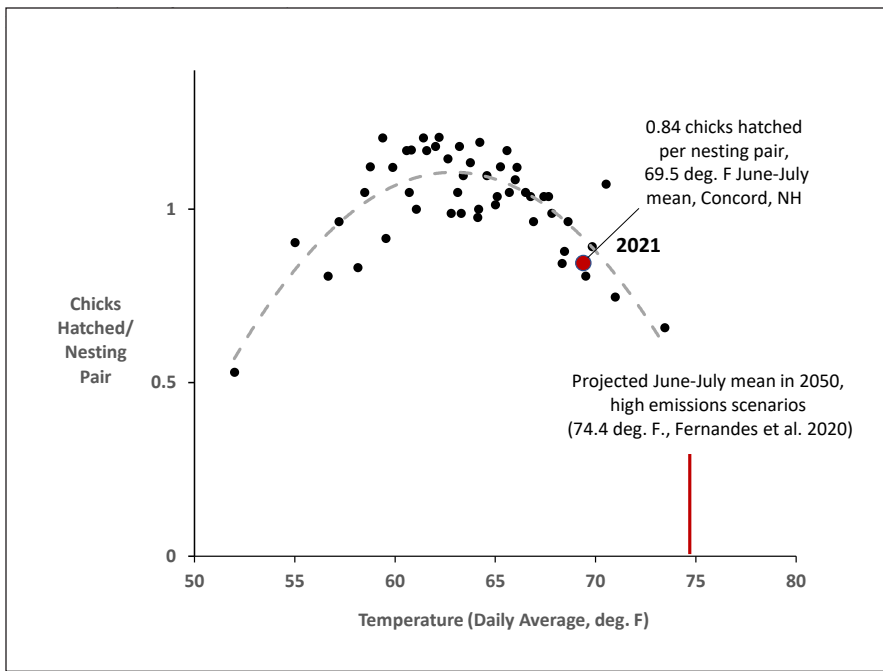


Fig. 2: This year (2021) was a good fit for the observed relationship between temperature and loon hatching success in New Hampshire. Black points show aggregated long-term nesting success and weather data, the grey dashed line shows a best-fit curve, and the red lines and point show 2021. (Fernandez, I., S. Birkel, C. Schmitt, J. Simonson, B. Lyon, A. Pershing, E. Stancioff, G. Jacobson, and P. Mayewski. 2020. Maine’s Climate Future 2020 Update. Orono, ME: University of Maine. climatechange.umaine.edu/climate-matters/maines-climate-future/)

from our long-term dataset (Fig. 2). To top off the heat in June, July was the wettest on record, with over 13 inches of rain in Concord, and almost a dozen more nests were flooded. Nesting loons in New Hampshire did not get a break in the weather, all season long.

Brigade of rafts and signs

As much as this hot and then rainy summer unfolded like a slow-motion natural disaster for nesting loons, there was success at several sites where natural nests had flooded in 2020, and new rafts placed this year were able to mitigate the worst of the weather extremes. These rafts were part of the first year of a five-year restoration project to offset loon mortalities from the Bouchard-B120 oil spill in Buzzards Bay, MA in April, 2003. Federally-administered funding from the oil spill damages settlement will help support loon restoration throughout New England. As a Northeast

Table 1. Results and Highlights for 2021 Common Loon Breeding Season in New Hampshire

Population and Productivity	2021	Five-year Average (2016-2020)	2021 vs. prev 5 yrs.
Territorial Loon Pairs	326	307	+6%
Nesting Pairs	229	215	+7%
Chicks Hatched (CH)	192	198	-3%
Chicks Surviving to mid-August	133	147	-10%
Nest Failures	114	108	+6%
Chicks Surviving/Territorial Pair	0.41	0.48	-15%
Management Activity			
Rafts	104	95	+9%
Signs/Ropes	140	109	+28%
Loons Rescued	16	25	-36%
Survey Effort			
		Lakes	
Loons Absent	97	114	
Occupied - Unpaired Loons (only)	34	33	
Occupied - Territorial (Paired) Loons	218	205	
TOTAL	349	352	



At-large field biologist Elaina Badgers and Spofford Lake volunteer Val Starbuck retrieve a warning sign after a successful nesting season. 60% of chicks hatched in 2021 came from nests protected by signs and ropes.

Loon Study Working Group (NELSWG) participant, LPC has geared up to provide more nest rafts on New Hampshire lakes and closely warden vulnerable nest sites with signs, ropeline, and outreach to lake communities, as needed. In 2021, 18 new rafts were deployed and two dozen new floating signs were constructed and deployed, and more rafts and nest site management will be phased in next year. Over half of all chicks hatched this year came from a nest site protected by warning signs and accompanying outreach, continuing LPC's intensive management (Table 1). The B120 project supports field staff hours to warden the busiest sites, where a Saturday afternoon loon "chick-sitting" shift or additional surveys help protect vulnerable nesting and brooding areas. B120 restoration dovetails with LPC's ongoing Loon Recovery Plan and extends the intensive nest site management that is already the focus of LPC volunteers and staff. LPC and NELSWG partners hope to sustain both our current

efforts and at least some of the restoration work after the project concludes in 2026. In this respect, the volunteers who have assembled many of LPC's current fleet of rafts and signs will continue to make a vital difference in the coming decade and beyond.

Rescues and Mortalities

LPC's ongoing rescue work under the Loon Recovery Plan was also boosted by the B120 restoration project. This involved increased field staff presence during rescue attempts, and support for appropriate veterinary treatment, rehabilitation, and follow up monitoring of rescued and released loons. As luck would have it, 2021 brought fewer chances to apply this approach. LPC staff and volunteers have rescued 10 adults and seven juvenile loons this year, less than the average of 27 per year in the last three. Unfortunately, only two of the adult loons were released and survived, and four of the rescued juveniles were released, with two surviving the year.

The highlight of the summer rescues was no doubt the male loon at Skatutakee Pond, who was swept downstream below the outlet dam during July flooding. Intrepid volunteers Russ Cobb and Brett Thelen searched and found the loon on the stream bank the next morning, hundreds of yards from the lake. After a brief stint with rehabilitator Maria Colby, the loon was released back on the lake, and resighted during the rest of the season caring for the chick that had hatched just before the rescue. Adding to the drama, one of the two chicks hatched was found abandoned on follow up visits, prompting another rescue. The chick was young enough that rehabilitation required rearing it to fledgling age, and it was released in October by Avian Haven



Monadnock field biologist Mary Cafrey joined volunteers Russ Cobb and Brett Thelen to carry this adult loon almost a half-mile through the woods, after it was washed downstream from Skatutakee Lake during flooding in July.



In late July Tufts veterinary intern Jill Hojsak relayed a loon chick rescued on Skatutakee Lake to rehabilitators in Maine, stopping at The Loon Center to feed it.

staff on the Maine coast.

We encountered worse luck with other rescues. A loon with a clean bill of health when it was rescued and released in April turned up on Wash Pond in

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Hampstead in early October with an untreatable infection. A vigorous male loon diagnosed with lead poisoning during banding on Mascoma Lake in mid-July was recaptured and treated promptly with chelating medication and a gastric lavage to remove the lead tackle, but, in spite of high hopes, died within a day of release back on the lake. The chick of this pair was also then lost. In early September, a tangled adult loon on Great East Lake had untreatable injuries from an ingested fishing hook. These disappointments are common enough with rescue work, but the question is always whether something more or different might have led to a better outcome. We work closely with local and regional rehabilitators and veterinarians, and with a new North American loon rescue working group, to share lessons learned from individual cases and to refine best practices for rescue triage and treatment. The aim is to increase the odds of success with each rescue attempt, in the long run.

As the newsletter goes to press, LPC staff, volunteers and cooperators have collected 20 adult mortalities (including the un-



Tufts veterinary intern Jingyi (Jenny) Li prepares to release a healthy loon chick during nighttime banding in June on Reservoir Pond in Dorchester. While leg bands are placed on adult loons, juveniles and chicks like this one are not large enough to band and are captured to keep the family together during handling.

successful rescues mentioned above) and 16 juveniles and chicks. Unfortunately, necropsies have confirmed lead poisoning in eight of the adult cases and, notably, in two of the juveniles. Fishing line entanglement and a boat strike were responsible for two other adult deaths. Prelimi-

nary results have also identified avian malaria in two cases. The mortality findings highlight the work left to be done to reduce lead mortalities, still by far the biggest and most immediate threat for New Hampshire's loons, as well as the need for close attention to emerging concerns like avian malaria.

Band returns

Tracking individual banded loons through resights is a key part of LPC's monitoring and research. For example, for the 28th year, we confirmed the return in 2021 of one of the oldest known adult loons, a female banded as an adult in 1993 on Lake Umbagog, now in her early thirties, at least. Several old-timers banded in the mid- or late-1990s were also present and accounted for this year. Seacoast field biologist Olivia Fortuna was surprised to find that an adult mortality she collected in Kingston in June was not

Ray Hennessy Photo



only banded in 1998 and therefore older than she was, but originally from a breeding lake in Minnesota! Likely, this 26+ year old loon was not healthy enough to migrate back to the Midwest from a winter on the Atlantic coast, and strayed to New Hampshire lakes instead.

Acknowledgements

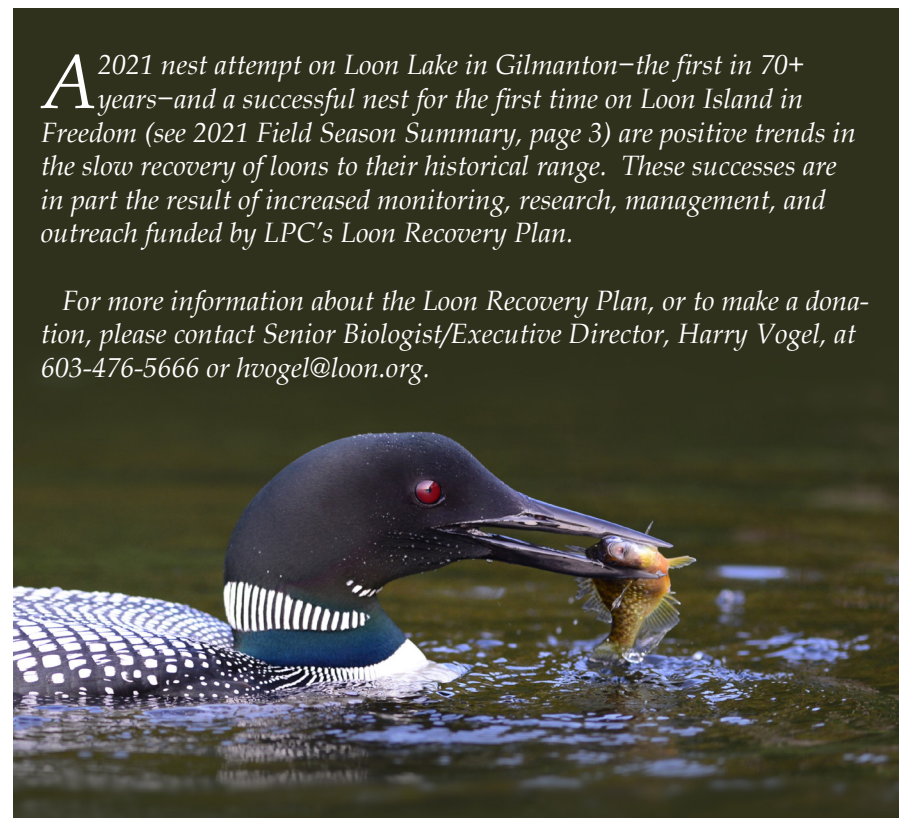
Monitoring and managing New Hampshire's loon population in 2021 was made possible with the help of the following individuals, organizations, and businesses: hundreds of dedicated individual volunteers and groups, including Tin Mountain Bird Society, Lake Sunapee Protective Association, the Harris Center for Conservation Education, and lake associations around the state. For training: Brian Reilly, Dana Duxbury Fox. For housing: Baker Family/Harris Center, Risley Family, Glover Family, John Wilson. For boat service: Squam Boat Livery. For technical support: Bill Gassman. For treating and rehabilitating rescued loons: Dr. Mark Pokras, DVM; Meadow Pond Animal Hospital; Capital Area Veterinary Emergency Services; Dr. Dutton, DVM; Maria Colby/The Wings of the Dawn; Kappy Sprenger; Avian Haven; Center for Wildlife; Dr. Sidor and staff at NH Veterinary Diagnostic Laboratory; and Tufts Wildlife Clinic. For cooperative monitoring: NH Audubon, Marine Patrol/Dept. of Safety, USFWS New England Field Office, Umbagog National Wildlife Refuge staff, and NH Fish and Game. For general moral support, phone call triage, and smoke alarm troubleshooting: LPC permanent staff.

~John H. Cooley, Jr.



The Loon Center continues to serve as a participating retail location for our 2021 Lead Tackle Buyback program. Drop off one ounce or more of illegal lead fishing tackle (lead sinkers and lead-headed jigs weighing one ounce or less) and receive a \$10 voucher that can be used in The Loon's Feather Gift Shop! Lead poisoning from ingested lead fishing tackle is the largest cause of documented adult loon mortality in New Hampshire, and it is entirely preventable. Turn in your lead tackle, and you might just save a loon's life!

loonsafe.org/



Kitie Wilson Photo

A 2021 nest attempt on Loon Lake in Gilmanton—the first in 70+ years—and a successful nest for the first time on Loon Island in Freedom (see 2021 Field Season Summary, page 3) are positive trends in the slow recovery of loons to their historical range. These successes are in part the result of increased monitoring, research, management, and outreach funded by LPC's Loon Recovery Plan.

For more information about the Loon Recovery Plan, or to make a donation, please contact Senior Biologist/Executive Director, Harry Vogel, at 603-476-5666 or hvogel@loon.org.

Changes Abound on LPC's 2021 Loon Cams

The 2021 Loon Cam season brought major changes for both of LPC's Live Loon Cams. Started in 2014, LPC's Loon Cams broadcast nesting loons in real time to an audience of over 90,000 people. In a typical year, we run two Loon Cams back to back, beginning in late-May and extending well into mid-July. However, 2021 was not a typical year on our Loon Cams.

A New Lake (and Pair) for Loon Cam 1

Since 2014, LPC's first Loon Cam of the year has focused on a loon pair that nest on a small pond within about an hour's drive from The Loon Center. However, fall of 2020 brought drama and uncertainty for the future of this pair. In October, the male of the Loon Cam 1 pair was rescued by LPC staff when he began beaching himself after fighting with other loons. While he was rehabilitated and released onto the ocean, it was uncertain if he would return to his lake in 2021. Research has indicated that the location of a nest is likely to change when there is a new male in a pair, and we were concerned that if the old male did not return and a new male took over, the loons would likely not nest in their historic spot. Because it was possible that the nest site would change, and because we need to set up our Loon Cams before nesting begins so as to not disturb the nesting process, we opted to showcase a different loon pair, on a lake where we could be more certain of the nest location. Fortunately, although our Loon Cam wasn't set up there to capture it, the male of the "old" Loon Cam 1 pair did survive the winter and return to his lake this year.

Unfortunately, though he and his mate did attempt to nest at their historic nest site, their eggs were predated early on, and they did not re-nest.

The 2021 Loon Cam 1 pair gave us a vastly different viewing experience than we've had in previous years. While the "old" Loon Cam 1 pair was renowned for keeping us on the edge of our seats as they dealt with dive bombing eagles, eggs being pushed down into soft muck, and frequent intrusions by rogue loons, the new pair provided a calm, largely trouble-free viewing experience. Their nest attempt was textbook – two eggs were laid, the pair members exchanged incubation duties roughly every 4-6 hours, the first chick hatched after 27 days of incubation, and the second chick hatched just about a day after the first. The nesting process was smooth and steady for this pair.

But, it wouldn't be a Loon Cam without a little bit of drama, and the hatch and subsequent behavior of the second chick had Loon Cam viewers waiting on the edge of their seats. Unlike its older sibling, who was in the water swimming, taking short dives, and being fed by its parents within hours of hatching, the second-hatched chick on Loon Cam 1 was reluctant to leave the nest. This presented a problem for the adult loons, who appeared eager to get out on the water with their new chicks. The male had it easy – he was in the water with the first chick while the female continued to sit with the second. When the female attempted to leave the nest to join her mate and their first chick in the water, the second chick stayed put on the raft, refusing to leave. After a tense several minutes in which

Loon Cam viewers wondered if the second chick would be abandoned as its family moved on to their brooding grounds, the female acquiesced. She returned to the nest and sat with the second chick for the next four hours. But, she couldn't be expected to wait forever. Eventually, she determined it was time to leave the nest raft behind. Diving off of the nest and into the water, she inadvertently kicked the second chick, sending it tumbling down the side of the nest bowl. Not being able to make its way back into the nest, the chick eventually joined its mother in the water. All watching breathed a sigh of relief as the chick began to swim and accept food with no apparent problems.

Unfortunately, the relief was short lived – though the whole family was seen together by lake residents later that night and there were no signs of sibling rivalry between the chicks, one chick (likely this less energetic second chick) was lost just a few days after the hatch. But, the good news is that the pair raised the other chick to fledging. While it is sad to lose one of the chicks, one chick fledged is a great success!

A Gap Year on Loon Cam 2

Unfortunately, although we set up Loon Cam 2 this year, the loons did not get the memo that it was show time. The territory, which has in recent years been steadily productive, seemed to be in flux this year. No clear pair ever formed – instead, there were consistently groups of 3-5 loons seen in the area. The banded male loon of the pair that typically occupies the Loon Cam 2 territory appeared to be spending the summer as a single on another part of the lake, and although the

banded female was occasionally seen in the Loon Cam 2 area, she never paired up with another loon or nested. The presence of multiple loons can make it difficult for a pair to form or nest, and we hope that this was just an off year for what has been, in recent times, a steady loon territory.

We extend our sincere thanks to all who watched the Loon Cam this year. We also thank our Loon Cam Operator, Bill Gassman, who generously donates his time and expertise to make the Loon Cams such a high-quality viewing experience. For more information on this year's Loon Cam, video clips of the highlights, or to keep up with the Loon Cam next spring, be sure to visit www.loon.org/looncam.

~Caroline Hughes



The second hatched chick from Loon Cam 1 sits on the nest with its mother.

Literature Cited:

Piper, W.H., C. Walcott, J.N. Mager, F.J. Spilker. 2008. Nestsite selection by male loons leads to sex-biased site familiarity. *Journal of Animal Ecology* 77: 205-210.

Sign up for the E-Newsletter and keep up with New Hampshire's loons and the work of LPC throughout the year! To subscribe: visit loon.org/newsletter/ and fill out the form on the right-hand side of the page.

Climate Change and Nesting Loons – Can we help?

It's no secret that Earth's climate is changing. Here in New Hampshire, where 2021 brought the highest average June temperatures on record¹ and an extraordinarily wet July, we are already feeling the heat. These new summer climate patterns are likely to continue—studies published in 2014 by scientists from The Sustainability Institute at the University of New Hampshire^{2,3} indicated that in the coming decades, we will experience higher average and maximum temperatures, more extremely hot days (>90° F), and more precipitation compared to historic levels.

What do these changes mean for loons?

While we can be sure that temperatures will increase in the future, the question is, by

how much? Because the degree of warming that we experience will depend upon whether (and how much) we curb emissions of heat-trapping gases in the coming years, it's hard to predict what temperatures we will actually experience. As such, it is difficult to know with any certainty how loons may be impacted. However, scientists at the National Audubon Society have developed models in recent years that predict that under all warming scenarios, loons will lose ground at the southern edge of their breeding range by 2080⁴.

Exactly what will cause these range shifts is unclear; however, the initial results of an ongoing LPC study suggest that loon nests that experience rainier or warmer weather during the incubation period are significantly less likely to succeed. Lower chick production

resulting from temperature or precipitation-induced nest failure may contribute to Audubon's predicted future contractions at the southern edge of the loon's breeding range.

As an organization whose goal is to preserve loons in New Hampshire, the results of the Audubon study and the preliminary results of our own climate study are concerning, and they raise questions about whether we may be able to help loons cope with a changing climate. In order to develop strategies to help loons, we must first understand how changing temperature and precipitation patterns might cause nest failures. We already know that high levels of rainfall and storm events can flood nests, and we have a management strategy (nest rafts that rise and fall with

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water level) to combat this potential cause of nest failure. But, we are left with many unanswered questions about the impacts of temperature on nesting loons and nest success: How do high temperatures contribute to nest failures? Do loons spend more time off of the nest at higher temperatures to cool down in the water (leaving eggs exposed to predators and the elements)? At what temperature do incubating adult loons start to feel these impacts? Can we modify our nest rafts to provide more shade and reduce heat stress on nesting adults?

Investigating the Relationship between Temperature and Behavior of Nesting Loons

To address these questions, we examined how nesting loons reacted in response to temperature. In the summer of 2019 we used game cameras to observe the behavior of fourteen pairs of loons as they nested, specifically looking at the relationship between temperature and nest attendance (Fig. 1) as well as the relationship between temperature and behavioral signs of heat stress in adult loons (panting on the nest). We focused our study on loon pairs nesting on rafts so that we could simultaneously test whether a modification to the design of our rafts (the inclusion of a layer of UV blocking shade fabric on the cover) could provide shade and allow nesting loons to tolerate higher temperatures before showing behavioral signs of heat stress or leaving the nest. We positioned game cameras, temperature sensors, and solar sensors on each raft to collect behavioral observations and environmental data over the course of the entire nesting period.

Surprising Findings

Our results showed that loons

were more likely to spend time off of the nest at moderate temperatures and less likely to spend time off the nest at both high and low temperature extremes. This was not expected, as we had hypothesized that at high temperatures, loons would become so hot that they would need to spend more time in the water to cool down. However, incubating loons may instinctively reduce the amount of time that they spend off of the nest at both high and low temperature extremes, even to their own detriment, in order to prevent their eggs from reaching temperatures that might harm or even kill developing chicks. At more moderate temperatures, there may be less immediate thermal risk to eggs, which may allow the adults to spend more time off of the nest.

Temperature and Heat Stress in Incubating Adults

More in line with our initial predictions, we found that raft-nesting loons were more likely to pant on the nest as temperatures increased. In addition to establishing this relationship, our analysis also estimated the temperature at which loons begin to experience heat stress, measured as the temperature above which they were more likely to show behavioral signs of heat stress (panting) than not. Our model estimated this temperature threshold as 25.6° C

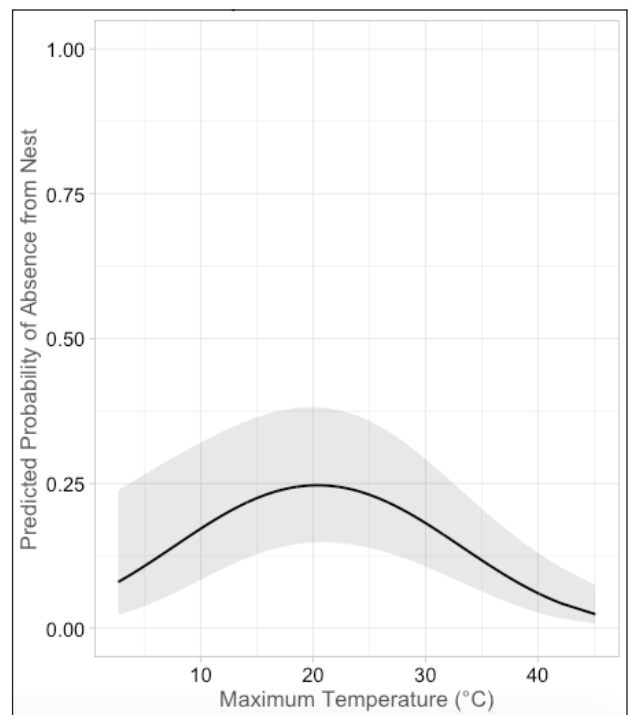


Fig. 1: Probability that an average incubating loon is off the nest in response to temperature, averaged across both raft types. Shading indicates 95% confidence intervals at each temperature value, we can be 95% certain that the probability that a raft-nesting loon is off of the nest falls within the grey shaded area.

(78.1°F) across both raft types. However, when comparing between the current model rafts and our experimental shade fabric rafts, we found that loons nesting on the current model rafts panted at lower temperatures (24.7°C, or 76.5°F) than those nesting on the rafts with shade fabric covers (26.5°C, or 79.7°F) (Fig. 2, page 15). This indicates that our shade fabric covers had their intended effect of allowing loons to tolerate higher temperatures before becoming heat stressed. It is important to note that this difference was not found to be statistically significant—given our low sample size (just 14 pairs of loons), the observed difference in the panting temperature thresholds between raft types was not large enough to definitively say that it was not

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Loon Preservation Committee

ANNUAL REPORT 2021

APRIL 1, 2020 - MARCH 31, 2021

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.

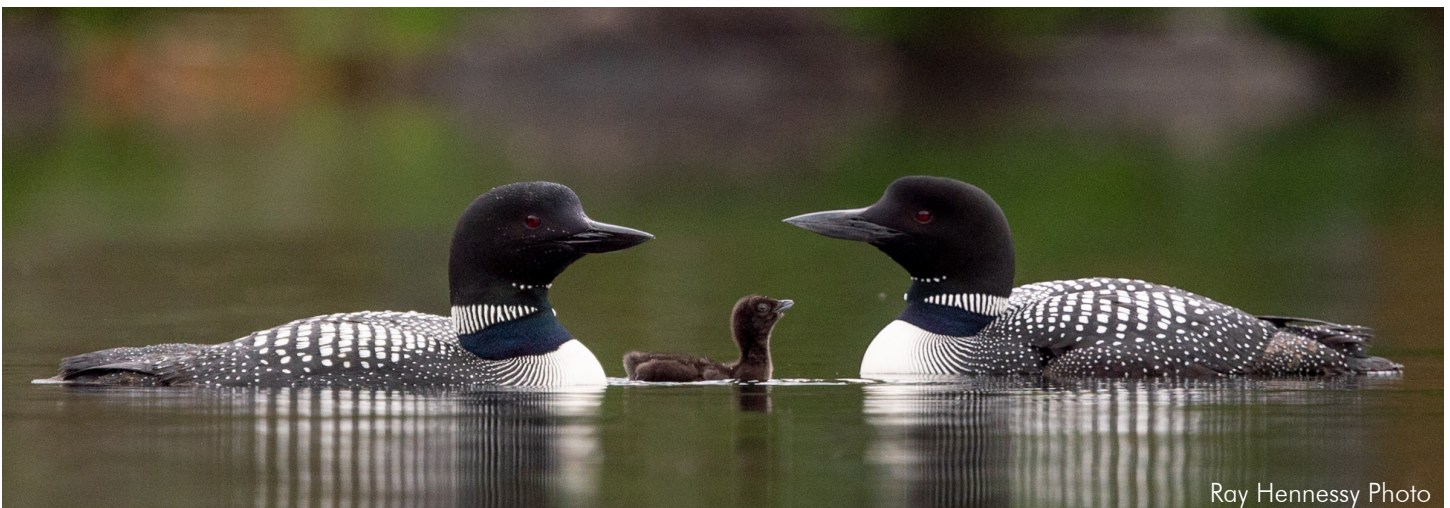
Last year at this time I reported that our Spreading Our Wings Capital Campaign to expand LPC's Moultonborough facilities and build on our successful work was proceeding in a very positive direction. It is with great joy and gratitude that I announce the successful conclusion of the Loon Preservation Committee's Capital Campaign and major construction work after reaching our goal!

Thanks to many donors (673 in total), LPC raised over \$2.1 million for the Spreading Our Wings Campaign, providing us with the resources to renovate, expand, and modernize The Loon Center, and to construct and equip the new Kittie and John Wilson Field Operations Center. Though we're still waiting for a few pieces of equipment and furnishings and new educational exhibits, and still working our way through a couple of outstanding punch list items, the buildings are essentially completed – and we could not be happier with them.

Most importantly, the new LPC campus has been in high gear this summer, supporting our work to protect loons and restore New Hampshire's loon population. Our summer biologists and veterinary interns, led by our year-round staff, have made impressive use of our improved facilities, while monitoring, managing, and rescuing loons throughout the state, attending to injured or deceased loons in our laboratory, and properly storing biological samples in our state-of-the-art walk-in freezer. We continue to ask ourselves: How did we ever get by without these facilities?

Thank you for helping us to write this exciting new chapter of LPC's work to preserve these remarkable birds.

Kristen F. Begor, Chair



Ray Hennessy Photo



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*Senior Biologist/
Executive Director*
- John H. Cooley, Jr.,
Senior Biologist
- Kellee A. Duckworth,
Loon Center Manager
- Tiffany J. Grade
*Squam Lakes Project
Biologist*
- Holly M. Heath,
*Membership/Center
Assistant*
- Caroline M. Hughes
Staff Biologist
- Linda Egli Johnson,
*Special Assistant/
Newsletter Editor*
- Kirsten Knell
Loon Center Assistant
- Lin L. O'Bara,
*Development
Coordinator*
- Joan M. Plevich,
Database Technician
- Bette J. Ruyfelaert
Assistant Loon Center Manager

EXECUTIVE DIRECTOR'S MESSAGE:

The Fiscal Year Ended March 31st of 2021 was a year like no other at the Loon Preservation Committee, for a number of reasons. April of 2020 began with LPC staff working from home because of both Covid-19 and the ceaseless sounds of construction as our expanded Loon Center and our new Kittie and John Wilson Field Operations Center took shape on the Markus Sanctuary grounds.

Separation and isolation made all of our tasks, from the routine to the extraordinary, more difficult as we readied ourselves for another field season to help loons – a field season we were not even sure could happen amidst Covid concerns. It did happen though, with remote recruitment, training, and oversight of our seasonal field biologists. In fact, our volunteers and field staff surveyed a record number of lakes in the summer of 2020, and counted a record number of loons, including a record number of loon chicks hatched from our loon nesting rafts – proof that our monitoring, research, management, and education to support loons is working.

The many challenges of carrying out field work in a pandemic were mirrored in other aspects of LPC's operations: the Loon Festival, the Summer Gala, the Carl Johnson Memorial Golf Tournament, and the Holiday Open House were all casualties of Covid. The same was true of in-person presentations at lake association meetings and other venues to talk about loons, challenges facing loons, and LPC's work to support them. These were replaced, in large part, by our new and expanded website at loon.org, Zoom and YouTube loon presentations and Thursday Night Nature Talks, and a remote Annual Meeting. Phone and email shop orders and curbside pickup were a poor substitute for welcoming visitors to The Loon Center, but in the summer of 2020 we were able to open to masked visitors, even if the number we could invite in at any time was limited.

LPC applied for and secured a Paycheck Protection Program loan and applied for a second PPP loan, which was also granted. These forgivable loans helped us navigate the fiscal year in good financial as well as mission health. But our most important support by far was the help of our members and friends, who, realizing that LPC and other organizations were struggling with the difficulties of Covid, gave generously to provide some certainty for our future.

We will continue to rely on our proven and time-tested management techniques as well as pioneering new methods and new research to face the challenges, old and new, that we know are coming. We are grateful for your continued support of our work; the ongoing recovery of New Hampshire's loons will continue to depend on it, and on LPC's strong foundation of success and fiscal responsibility.

Harry S. Vogel,
Senior Biologist/Executive Director

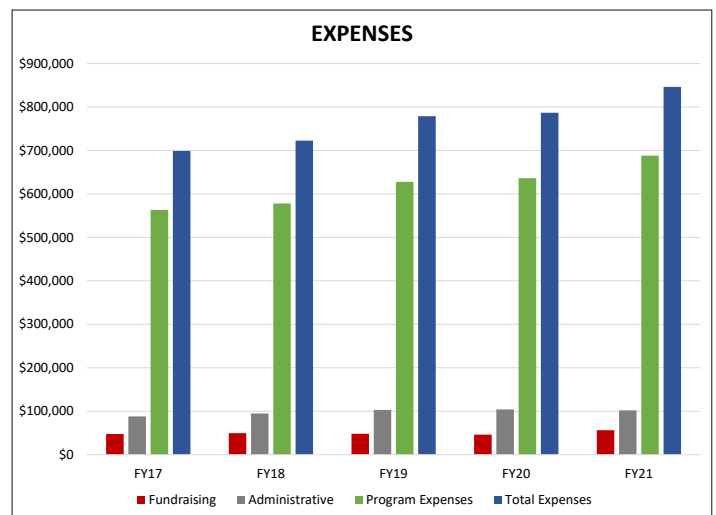
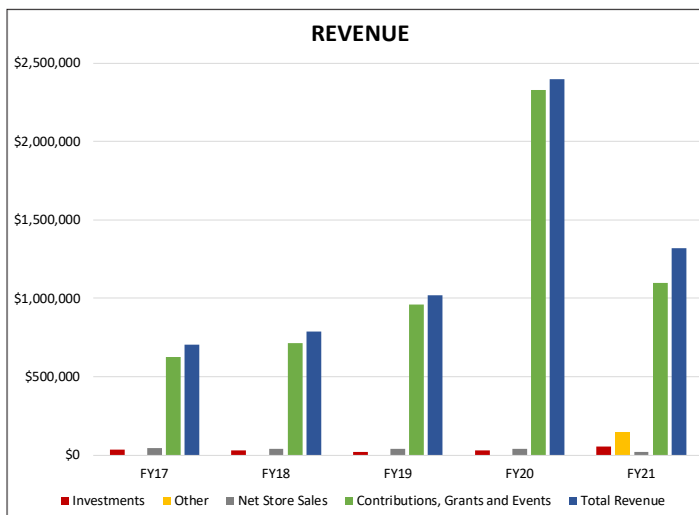
Population and Productivity:

	<u>FY17</u>	<u>FY18</u>	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>
Territorial Loon Pairs	294	296	309	313	321
Nesting Pairs	208	202	226	221	216
Chicks Hatched	200	168	224	193	203
Chicks Surviving to mid-August	147	126	157	148	156

FINANCIAL SUMMARY:

Loon Preservation Committee: Summary of Activities and Changes in Net Assets
Fiscal Year Ending: March 31

	FY17	FY18	FY19	FY20	FY21
Revenue:					
Contributions, Grants and Events	\$627,291	\$710,453	\$959,380	\$2,328,325*	\$1,098,165
Store Sales, Net Cost of Goods	\$43,070	\$40,013	\$38,894	\$37,952	\$22,385
Investments	\$34,576	\$31,770	\$19,657	\$28,768	\$54,487
Other (PPP1, Energy Rebates, etc.)	—	—	—	—	\$144,066
Total Revenue	\$704,937	\$782,236	\$1,017,931	\$2,395,045	\$1,319,103
<i>*Includes gifts received during the silent phase of the capital campaign</i>					
Expenses:					
Program Expenses	\$563,088	\$578,166	\$627,733	\$636,374	\$688,111
Administrative	\$88,141	\$94,855	\$103,132	\$104,337	\$108,672
Fundraising	\$47,601	\$49,053	\$48,182	\$46,166	\$49,390
Total Expenses	\$698,830	\$722,074	\$779,047	\$786,877	\$846,173
Increase in Net Assets:	\$6,107	\$60,162	\$238,884	\$1,608,168	\$472,930



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.

The New and Expanded Loon Center Campus



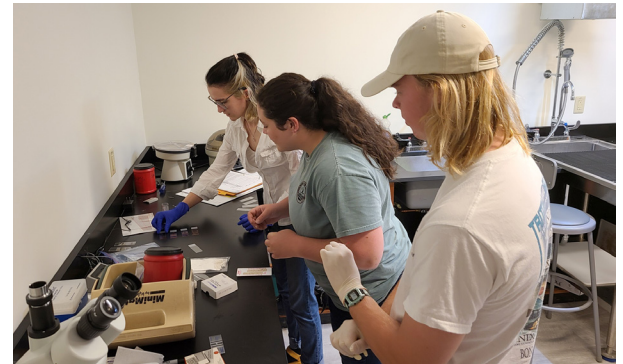
The expanded Loon Center includes new office and meeting spaces, an upgraded laboratory, and dedicated storage for field supplies and biological samples, including a walk-in freezer.



The new Kittie and John Wilson Field Operations Center includes work spaces and equipment to build nesting rafts and signs, maintain and store boats, and store field equipment and supplies. It also provides living quarters for LPC's seasonal field biologists and veterinary interns.



Shoppers browse in the expanded and re-envisioned Loon's Feather Gift Shop. Proceeds from shop sales directly support LPC's mission.



Tufts Veterinary Intern Jillian Hojsak, LPC Volunteer and Outreach Biologist Caroline Hughes, and Lakes Region Biologist Jayden Jech process blood samples from banded loons in the completely re-designed and re-outfitted Loon Center laboratory.



The Loon Preservation Committee Board of Trustees meets in the new Loon Center Library/Conference room.

The "Spreading Our Wings" Capital Campaign provided LPC staff with the new, expanded, and improved facilities needed to carry out our important work of protecting New Hampshire's loons.

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due to chance alone. However, a 1.8°C (3.2°F) increase in heat stress threshold is still large and may, indeed, be biologically relevant for loons in New Hampshire.

Next Steps

Our results did not show that loons spend more time off the nest in response to increasing breeding season temperatures, at least for the temperatures experienced by loons in our 2019 study. Thus, we did not identify a clear manner in which higher temperatures might contribute to nest failures through changing the behavior of nesting adults. However, as summer temperatures continue to rise and our loons are exposed to more extreme temperatures and longer heat waves, there may come a point at which loons are forced to leave the nest to cool themselves, which could affect nesting success in the future.

It is also possible that experiencing heat stress over the course of the 28-day nesting period may negatively impact the health and wellbeing of adult loons. Though not well studied in loons, researchers have documented negative impacts of heat stress on the health of individuals in other bird species, including chickens and other domestic fowl^{5,6,7}. If similar impacts result from intense or chronic heat stress exposure in loons, then our new raft design and the 1.8°C of thermal relief that it provides may help our raft-nesting New Hampshire loons to better cope with the temperature increases that New Hampshire is projected to experience in the coming decades. For this reason, we will be retrofitting all 100+ of the loon rafts that we float annually in New Hampshire with shade fabric covers over the course of the next few years.

~Caroline Hughes

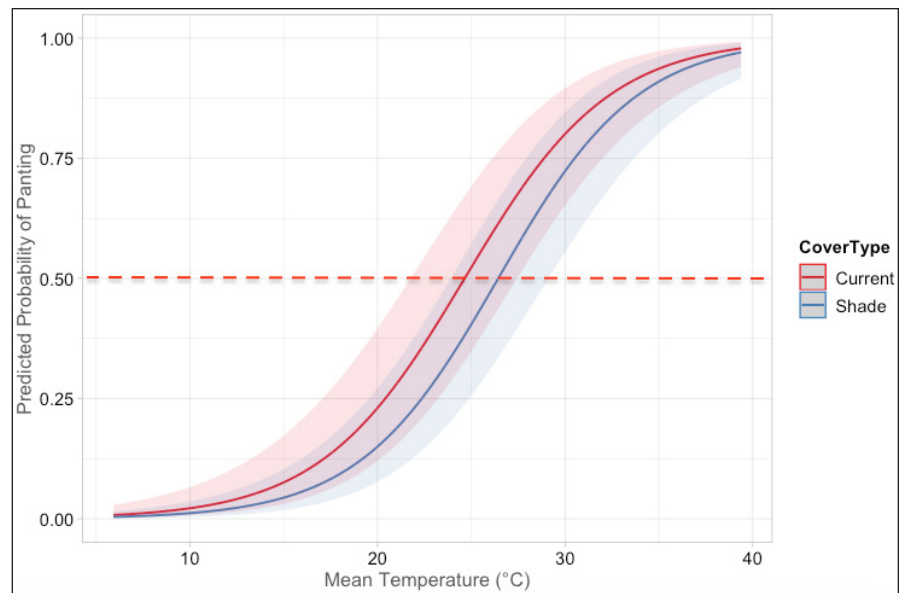


Fig. 2: Probability that an average nesting loon is panting as a function of temperature on control vs. shade fabric rafts. Red and blue shading represents 95% confidence intervals—at each temperature value, we can be 95% certain that the probability that a loon will be panting will fall within the red (for loons nesting on current model rafts) or blue (for loons nesting on shade fabric rafts) shaded areas. The purple shaded area reflects the overlap of the red and blue shading and represents panting probabilities that fall within the 95% confidence limits for loons nesting on both raft types.

Citations:

- 1) NOAA National Centers for Environmental Information, State of the Climate: National Climate Report for June 2021, published online July 2021, retrieved on October 29, 2021 from <https://www.ncdc.noaa.gov/sotc/national/202106>.
- 2) Wake C, Burakowski E, Wilkinson P, Hayhoe K, Stoner A, Keeley C, LaBranche J. 2014a. Climate Change in Southern New Hampshire: Past, Present and Future. The Sustainability Institute, University of New Hampshire, Durham New Hampshire.
- 3) Wake C, Keeley C, Burakowski E, Wilkinson P, Hayhoe K, Stoner A, LaBranche J. 2014b. Climate Change in Northern New Hampshire: Past, Present and Future. The Sustainability Institute, University of New Hampshire, Durham New Hampshire.
- 4) Bateman, B., L. Taylor, C. Wilsey, J.Wu, G. LeBaron, G. Langham. 2020. Risk to North American birds from climate change-related threats. *Conservation Science and Practice* 2:e243. Doi:10.1111/csp2.243
- 5) Mashaly MM, Hendricks III GL, Kalama MA, Gehad AE, Abbas AO, Patterson PH. 2004. Effect of heat stress on production parameters and immune responses of commercial laying hens. *Poultry Science* 83:889–894.
- 6) Quinteiro-Filho WM, Riveiro A, Ferraz-de-Paula V, Pinheiro ML, Sakai M, Sà LRM, Ferreira AJP, Palermo-Neto J. 2010. Heat stress impairs performance parameters, induces intestinal injury, and decreases macrophage activity in broiler chickens. *Poultry Science* 89:1905–1914.
- 7) Widowski, T. 2010. The Physical Environment and its Effect on Welfare. Pages 137-164 in IJH. Duncan and P. Hawkins, editors. *The Welfare of Domestic Fowl and Other Captive Birds*. Springer Dordrecht, Heidelberg, London, New York.

The Highs and Lows of a Challenging Summer on Squam

A new loon pair, an encouraging hatch rate, avian malaria, and possible rising contaminant levels in parts of the lake – these were all part of the story on Squam Lake in 2021. It was a mixture of contradictions that amounted to a challenging year, but it was also a year that gives hope for the future. Let's take a look at what happened.

Squam's loon population, 2021

Squam's loon population gained a new pair in 2021, bringing the total to 14 territorial pairs on the lake (Fig. 1). This is on par with the long-term population average prior to the declines in Squam's loon population beginning in 2005. With 10 nesting pairs of loons, Squam's nesting rate was also good and even slightly higher than the pre-decline average. Those 10 pairs hatched 8 chicks, which was an encouraging number. Even though it is below the pre-decline levels, it is higher than the average for recent years. With 8 chicks hatched, there was hope for a respectable number of chicks. After all, 2020 had been a stellar year for Squam's loons, with 11 chicks hatched and 8 surviving – the most successful year for loon breeding since 2003. But 2021 had a different outcome, and only 3 of those 8 chicks fledged. This resulted in a chick survival rate that was similar to the average of recent years. Overall, the average rate of breeding success on Squam from 2008-2021 remains less than half the statewide average and less than half the rate needed to maintain a viable loon population.

Adult loons lost in 2021

Unfortunately, Squam's loon population suffered the loss of

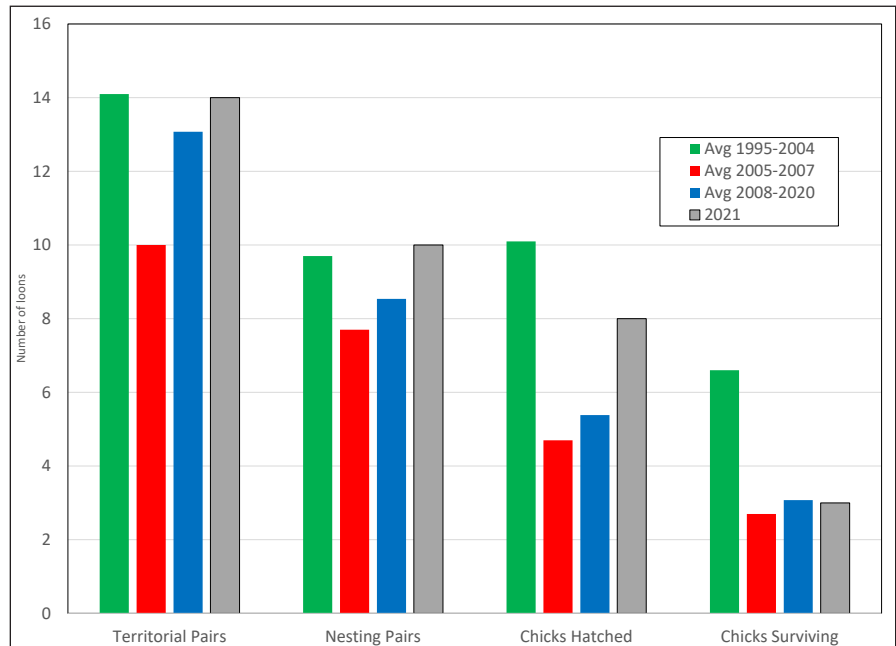


Fig. 1: Productivity on Squam Lake in 2021 and before, during, and after the years of critical decline in Squam's loon population between 2005 and 2007.

2 of its long-time banded adult loons this year. In June, LPC staff captured the banded Perch Island male after he was reported as listless and bumping his head into a dock on Little Squam. After being examined by a veterinarian, he was taken to a wildlife rehabilitator. Sadly, he did not survive. Initial necropsy results did not indicate a clear cause of death, but we are awaiting results of further tests that will hopefully provide answers.

The Long Point female was found dead in August. A necropsy performed at New Hampshire Veterinary Diagnostic Lab determined that she died of avian malaria (Fig. 2, page 16). The Long Point female is the second Squam loon confirmed to have died of avian malaria, the first being the Yard Islands female in 2019. Avian malaria is an emerging disease, as malarial parasites were not documented in loons prior to 2010

and the first ever loon known to have died of avian malaria came from Lake Umbagog in 2015. In total, 3 New Hampshire loons and 2 Maine loons died of avian malaria in 2019; and, in 2021, 2 New Hampshire loons (including the Long Point female) have so far been documented to have died from this disease. Avian malaria seems to be linked to a changing climate, as mosquito species that may serve as hosts to the malarial parasites are expanding their range northwards and are increasing in abundance due to warmer temperatures. Malarial parasites are likely spreading northwards with the mosquito hosts and also develop more quickly in warmer temperatures.

Why was 2021 so different from 2020?

The losses of the Perch Island male and the Long Point female in 2021, as well as the death of the

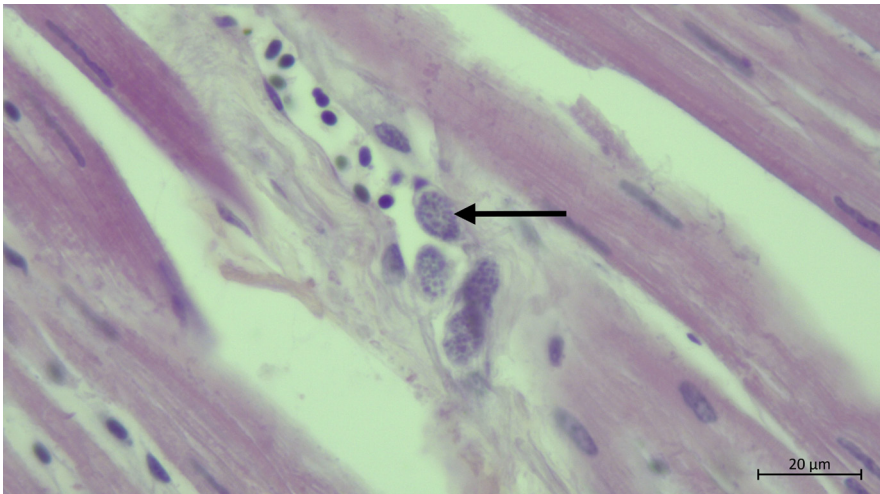


Figure 2: Image of heart tissue of the Long Point female, who died in August 2021. The arrow points to a cluster of malarial parasites in the lining of the blood vessels of the heart. Photo credit: Dr. Inga Sidor/New Hampshire Veterinary Diagnostic Laboratory.

Perch Island female in 2020 from a boat strike, bring us back – at least in part – to the poor breeding success of 2021. Looking back to 2020, that year was notable not just for its outstanding breeding success but for how quiet it was in terms of loon intrusions and fighting. While many factors contribute to loon breeding success, the success of the 2020 breeding season may be at least partially attributed to fewer loon intrusions and a decline in the “social chaos” among Squam’s loon population. Loons on Squam in 2020 were, on the whole, able to get right down to the business of nesting and incubate and raise their chicks without dealing with serious loon intrusions.

This is where the mortality of adult loons comes in and its impact on the 2021 breeding season. The relative calm in the social structure that seems to have contributed to the successful 2020 breeding season did not continue in 2021. The death of the Perch Island female by a boat strike in 2020 and the death of the Perch Island male in 2021 destabilized loon social structure in much of

the western part of the lake. Also, the failure of the territorial female to return to Moultonborough Bay in 2021 (for unknown reasons) led to many loons intruding into the territory and attempting to take it over. This instability in Moultonborough Bay caused spillover effects of intruding loons into neighboring territories as well. The result of the destabilization of loon social structure at both the eastern and western ends of the lake was much more fighting among loons on Squam in 2021, with territorial intrusions causing the death of one chick and possibly contributing to the loss of another chick and at least one nest failure. The degree of intrusions and fighting among Squam’s loons in 2021 provided dramatic evidence of the effects of adult mortality on the wider Squam loon population. Sadly, the death of the Long Point female in August 2021, while coming too late in the season to impact lake dynamics this past summer, may cause further instability in the eastern part of the lake next summer.

The critical factor to restore a

healthy population of loons to Squam Lake seems to be keeping adult loons alive to stabilize the social structure. Ending the use of lead fishing tackle and educating lake users about the dangers of lead and the need to boat carefully around loons will help reduce the threat of human-caused mortalities to loons. If adult mortality can be reduced and the social structure allowed to stabilize, there is reason to hope that productivity on the lake would improve as the disruptions Squam loons faced in 2021 (and in many other recent years) during nesting and chick-rearing may abate. 2020 showed us what Squam’s loons can do when the social structure is more stable.

Are contaminant levels increasing in some parts of the lake?

Loon Preservation Committee continued its investigation into contaminant levels of Squam’s loons by testing 3 inviable loon eggs from the 2020 breeding season. Since 2008, most contaminant classes (PCBs [industrial insulators/coolants], dioxin-like compounds [some PCBs as well as industrial byproducts], BDEs [flame retardants], and DDE [a breakdown product of DDT]) are following a generally stable but not decreasing trend, but chlordane (an insecticide) levels are increasing. Low levels of total PFAS (stain repellents and other similar products) in 2020 eggs resulted in a declining trend since 2008.

Although overall egg contaminant levels appear stable in recent years, preliminary analysis suggests that loon territories in the northern and eastern parts of the lake (Five Finger Point, Long Point, and the Yard Islands) may be experiencing increases in contaminant levels, at least since

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2015. These territories are all closest to the areas of contaminated sediments discovered by LPC. The 2020 egg from Five Finger Point tested higher than the 2008-2020 mean on Squam for all major classes of contaminants tested except for total PFAS. This egg was notable for its PCB levels, the third-highest level in our Squam dataset (going back to 1993), although still only half the levels in the two highest eggs from 2013 and 2016. Total PCB levels in the Five Finger Point 2020 egg more than doubled compared with levels in an egg from the same territory and female in 2010, as did levels of total chlordane, and BDEs increased by 86%. Total DDE increased by 47%. Although increases in eggs from the Long Point and Yard Islands territories were generally less dramatic than the Five Finger Point egg, both territories likewise saw increases across contaminant classes between 2015-2019/2020. One noteworthy increase was a 121% increase in total DDE in eggs from the Yard Islands between 2015 and 2019. Eggs from southern and western parts of the lake, further from known areas of contaminated sediments, are not showing similar increases in levels across contaminant classes. In these parts of the lake, contaminant levels are generally declining.

Continued testing of eggs will be necessary to verify these indications of possibly higher contaminant levels in the northern and eastern parts of Squam, which are based on a small number of samples, and to monitor contaminant levels throughout the lake.

Hope for the future

Despite the challenges Squam's loons faced in 2021, there are hopeful signs for the future: the gain of a territorial pair and a good rate of nesting and hatching in 2021 are all positive and encouraging indications for future breeding success. LPC will continue to work through its

Squam Lake Loon Initiative to support loon breeding success on Squam and reach out to lake users to encourage responsible fishing, boating, and recreational activities to ensure the safety and protection of loons and loon families. And we will continue to monitor contaminant levels in loon eggs — the ultimate measure of success of efforts to reduce contamination in the watershed.

~Tiffany Grade

For the latest report on the Squam Lake Loon Initiative, please visit www.loon.org.



Ray Hennessy Photo

THE LOON LEGACY SOCIETY

Remembering Loons Now — and Forever

The greatest reward for leaving a gift to the Loon Preservation Committee (LPC) through your estate planning is the knowledge that you are helping to ensure that the haunting call of the loon will echo across New Hampshire's waters for generations to come. If you would like to receive a copy of our LOON LEGACY SOCIETY brochure, please call or email Harry Vogel (603-476-5666 or hvogel@loon.org). We hope you will consider joining this special circle of friends!

A Milestone for Squam

It was a joyous day when I boated into the Kimball Island territory on Squam in June and saw two downy little chicks bobbing with their parents next to the nest. And it was with a mixture of happiness and anxiety that I monitored the family throughout the summer – happiness to see the two chicks growing and thriving, anxiety as they faced the many dangers that loon families face, from human disturbance to intruding loons to potential predators. But by the end of the summer, the family had achieved something remarkable: those two little chicks grew into the first two-chick brood to successfully fledge from the Kimball Island territory since 2002! Let's take a brief look back at the summer of two Kimball chicks.

The arrival of the two chicks seemed to release the pent-up energy of their parents after 28 days spent incubating their eggs. The adults wasted no time leading their chicks throughout the territory, across areas of busy boating activity and open water where the family had to be obvious to the watchful eyes of the resident Bald Eagles that frequent the area. No doubt these far-flung excursions helped strengthen the chicks as they worked hard to keep up with their parents, but they certainly caused me no end of anxiety!

That much swimming demands a lot of food to fuel the chicks along, and the adults became veritable fishing machines to feed their hungry chicks. Of course, all loons are masters at catching fish, but these two loons seemed to take it to a whole other level. During one unforgettable feeding session, the female was non-stop up-down-up-down as she delivered a constant stream of

minnows to her chicks. Her rapid-fire delivery was truly impressive! Along with being ceaseless fish-delivery systems, the adults were very attentive to their chicks. One time one of the chicks was struggling to eat a minnow the male brought. The male watched the chick intently as it tried to get the fish down, patiently recapturing the fish several times and feeding it to the chick again, watching closely until the chick finally swallowed it.

And so the summer passed, days of feeding, swimming all over the territory, and brooding punctuated by the adults defending the chicks from intruding loons and avoiding oncoming boats. But soon the parents faced a new cause of concern: the loon chicks grew into loon "teenagers." Around 7 weeks of age, one of the chicks developed a strong streak of independence. While its sibling continued to dutifully follow its parents everywhere, the independent chick was all over the territory apart from the family. I never knew where I would find it, and sometimes the adults didn't either. They would be calling for their wandering chick with increasing agitation, who would then sometimes swim in as though wondering what the fuss

was all about – and sometimes not.

As summer drew to an end and fall settled over the lake, the independent chick eventually began spending more time again with the family and causing its parents less consternation. But the world was calling: one day, as its sibling bobbed close to one of the adults, the independent chick began practicing its take-offs, flapping its wings, running across the water into the wind before coasting to a mostly-controlled stop. It wasn't long afterwards that I did not see the independent chick again, no doubt off on new adventures while its sibling continued to enjoy free meals from the parents.

About a month after its sibling had left, the remaining chick decided it was time to learn to fly too. It was bittersweet to watch that chick flap across the water, knowing it too would soon be gone but knowing also that this family had accomplished what no Kimball Island loon pair had accomplished in 20 years – successfully raising two chicks to leave the waters of Squam and start their own life in the wide, wide world.

~Tiffany Grade

Keeping Up with LPC!

Our Facebook, Instagram, and Twitter accounts are updated frequently with loon photos, information about loons and loon activity in New Hampshire, and LPC's work. Use your phone camera to scan the QR code or visit loon.org/socialmedia for links to all of our social media accounts!



SCAN ME

Jeannie Ferguson and Cheryl Mrozienski Honored at Annual Meeting

The Loon Preservation Committee held its second virtual Annual Meeting, courtesy of Covid-19, on Thursday, August 26th this summer. Many of LPC's valued volunteers, members, and supporters were in attendance on screens as Kristen Begor, Chair of the Loon Preservation Committee Board of Trustees, opened the Zoom meeting. Kristen welcomed attendees and thanked them, as well as LPC staff and Trustees, for their efforts on behalf of loons and for their support of LPC's work to safeguard them. She especially thanked donors to LPC's Spreading Our Wings Capital Campaign to expand and modernize LPC's facilities and operations, and reported that staff had already made good use of the expanded Loon Center campus this summer to help loons.

Members approved minutes of the 2020 Annual Meeting and Kristen thanked departing Trustees Liz Gabel, Bev Lafoley, and Alex Moot for their valued service to loons and the Loon Preservation Committee over many years. Bob Rotberg, Chair of the Governance Committee, introduced Rick Blank and moved to elect Rick to the Board, which the membership did. Glyn Green, Treasurer, reported that it had been a good year for LPC financially as well as programmatically as LPC had completed its Fiscal Year Ended March 31st 2021 in the black. He directed members to the Loon Preservation Committee FY21 Annual Report on the LPC website (loon.org) where they could also find LPC's audited financial statements and IRS Form 990. There being no other business, Kristen adjourned the business portion of the Annual Meeting.



Jeannie Ferguson and Cheryl Mrozienski pose on the shore of Bow Lake with their Spirit of the Loon Awards.

Spirit of the Loon Award

A highlight of the Annual Meeting was the presentation of the 14th Annual "Spirit of the Loon" Award, created to honor LPC's founder Rawson Wood by recognizing an individual or individuals who exemplify outstanding volunteer service to loons and the Loon Preservation Committee. LPC was thrilled to present the 2021 Spirit of the Loon Award to Cheryl Mrozienski and Jeannie Ferguson, both of Bow Lake in Strafford, NH, for their tireless efforts over more than 20 years on behalf of loons.

Bow is a challenging lake for LPC to monitor and manage due to its size (1,149 acres) and is home to up to five pairs of loons. Together Cheryl and Jeannie have floated, maintained, and removed LPC loon nesting rafts on Bow Lake every year; floated "Loon Nesting Area" signs to protect nesting loon pairs; provided boat rides to LPC biologists to help them survey and manage loons; and helped field biologists collect

unhatched loon eggs. They have helped with multiple loon rescues on Bow Lake, have helped LPC biologists band loons, and reported banded loon sightings to LPC. Cheryl and Jeannie have also maintained an email list of Bow Lake residents to update people on loon activity on the lake; coordinated LPC's annual Loon Census on the third Saturday of July on Bow; and have kept LPC's educational brochures stocked at local boat launches and common areas around the lake.

Their work has carried on the exemplary loon stewardship begun on Bow Lake by Herb Cilley, known historically as The Loon Ranger of Bow Lake. Cheryl's and Jeannie's efforts have continued and expanded a strong conservation ethic on the lake that has resulted in 15 fledged loon chicks over the past five years – a breeding success rate far higher than the state-wide average. They have been important partners in LPC's efforts to protect and recover loons in New Hampshire,

and we were very pleased to name them our Spirit of the Loon Award recipients for this year.

The Spirit of the Loon presentation was followed by an outstanding presentation of loon pictures and videos by long-time LPC member and volunteer John Rockwood. LPC Senior Biologist/ Executive Director Harry Vogel followed John's presentation with a report on LPC's monitoring, research, management and educational programs in 2021 and the results of those efforts in safeguarding New Hampshire's loons. Thank you to all who attended LPC's virtual Annual Meeting to help us celebrate another year of good work in recovering New Hampshire's loon population!

~Harry Vogel

Welcome Rick Blank!

Rick joined the LPC Board of Trustees in January of 2021. A 1970 graduate of Boston University, he is an experienced business executive with over 40 years of experience in strategic planning, sales, marketing, and intellectual property. As Executive Vice President of Arthur Blank & Co., Inc. (1970 -2009) he created and implemented the sales and marketing growth strategy that built the company into the world's largest provider and manufacturer of gift cards and private label credit cards. He currently serves as a SCORE volunteer and mentor in Boston.

When not in Boston, Rick and his wife, Robin, enjoy time spent

on Conway Lake—home to four loon pairs. He is actively involved with LPC in coordinating volunteers on the lake, posting signs, and helping with loon rescues. He also serves on the Board (and is a past president) of the Conway Lakes Conservation Association.

We are pleased to welcome Rick and his impressive resume in business and conservation to the LPC Board of Trustees!

~Harry Vogel



Open House and Dedication at The Loon Center Campus

In August of 2020, LPC began a much-needed expansion and renovation of the Loon Center campus. As our loon population has grown over the years, so too has our workload and our number of staff. The result was that we had outgrown our facilities—staff members were sharing tiny offices, we'd hit the limits of our storage capacity for biological samples, and our summer field biologists and veterinary interns were spending the season in small cabins a half-mile walk through the woods from The Loon Center with no electricity or running water. The renovation and expansion addressed all of these issues—we were able to increase our storage space for biological samples, improve our laboratory facilities, increase office space for staff, and construct the Kittie and John Wilson Field Operations Center. This new center includes housing for members of LPC's

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John Wilson (Chair, Capital Campaign Committee) cuts the ribbon at the dedication of the Kittie & John Wilson Field Operations Center. Joining him are Ron Baker (Chair, Building Committee), LPC Senior Biologist/ Executive Director Harry Vogel, Sandy McGinnes (Vice Chair, Capital Campaign Committee), Bill Crangle (Building Committee) and Kristen Begor (Chair, LPC Board of Trustees).

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seasonal field staff on the second floor and workspace on the first floor for constructing rafts and signs and working on (and storing) our boats and other important field equipment.

Construction is now complete, and on October 16th LPC celebrated by hosting a special reception for the major donors who made the campus renovation and expansion possible. The event was an Open House of sorts, with staff and Trustees on hand to offer tours of our new and expanded facilities. The afternoon included a ribbon cutting ceremony at the new Kittie and John Wilson Field Operations Center. LPC Board Chair, Kristen Begor, LPC Capital Campaign Committee Chair, John Wilson, and Senior Biologist/ Executive Director Harry Vogel thanked the donors present for their generous support. Kristen and Harry also paid tribute to Kittie and John Wilson, who have done incalculable good for New Hampshire's loons through their efforts to educate the public about loons, their leadership and support to secure the 2016 ban on the sale and use of lead tackle, and other volunteer work for loons.

While continued Covid-19 concerns limited the number of donors invited to the event, we truly appreciate and sincerely thank every donor to our Capital Campaign whose generous support allowed us to expand our facilities to meet our increasing needs. The end of construction marks an important milestone for LPC, and we are now more prepared than ever to address the growing challenges facing our loon population. Any supporters of the campaign or of LPC's work are invited to contact Harry Vogel for a personal tour of the expanded Loon Center Campus!

~Harry Vogel



Happy retirement, Lin!

On October 1st, LPC said goodbye to our Membership and Development Coordinator, Lin O'Bara, as she embarked on a well-deserved retirement!

We were very fortunate to hire Lin back in 2010 as our new Development Coordinator. She was no stranger to loons as she had served as the Executive Director of the North American Loon Fund (NALF) for 18 years. Both LPC and NALF were the brainchildren of LPC's founder, Rawson Wood. NALF grew out of LPC's success to help replicate its model of a statewide loon preservation organization in other states and Canada, and served as an umbrella organization and startup funding source for its affiliates. Following her time at NALF, Lin spent 10 years in membership and development for the Society for the Prevention of Cruelty to Animals (SPCA). Her good work with both of those worthy organizations made her the ideal choice for LPC.

During her 11-year tenure with LPC, Lin was the rock-solid foun-

ation upon which LPC built its impressive record of growth of its membership, annual fund, bequest, event, and other income – all to fund its growing programs of monitoring, research, management, and education to benefit loons. You could set your clock by Lin – punching in at 9am and working *tirelessly* for loons until day's end. She was the consummate professional and greatly loved and admired by all of us at LPC.

It was Lin's deep compassion and love for animals and the natural world that brought her to NALF, SPCA, and LPC. Her work on behalf of loons, dogs, cats, and so many other deserving creatures, is a reflection of her caring and selfless character. She will be sorely missed, but now that's she's retired we hope she can spend more time exploring her favorite places and critters – whether on the lakes, the seacoast, or in the mountains – with Ron and their rescue dog Mac. Godspeed Lin!

~Harry Vogel

“The Loon’s Feather” Gift Shop — in person or online!

Come by The Loon Center Thursday - Saturday, 9am - 5pm, to shop in person; or visit us online at www.loon.org/shop/ from the comfort of your home! We are also available by phone at 603-476-LOON (5666) to assist with your holiday shopping needs.

New this year!



Holiday Loon Cards

What better way to express your love of loons than through a holiday greeting!

Send a joyful message with these holiday loon cards by artist Kim Conway.

Inside Greeting: Peace on Earth, Goodwill to All

Contains 10 cards with festive red envelopes.

Printed on recycled acid-free paper in the USA;
4.5 x 6 inches.

\$17.95



WWW.LOON.ORG/SHOP/

“Lakin’ it Easy” Napkins and Mug

Relive those summer memories of takin’ it easy by the lake with these adorable “Lakin’ it Easy” items by artist Scott Church.



Beverage napkins:

5”x5”, 20 napkins/package in a resealable package

Soft, 3-ply paper, naturally bleached without chlorine

\$6.45 per pack

Mug:

13.5oz mug in a matching gift box

New Bone China

Dishwasher and microwave safe

\$15.95



Holiday shopping on amazon.com? Pick the Loon Preservation Committee from Amazon’s list of participating charities and they will donate a portion of the purchase price to LPC!

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**The Loon Preservation Committee
gratefully acknowledges**



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