

LOON CALLER

VERMONT CENTER FOR ECOSTUDIES



Vermont Loon Conservation Project

The Success of Vermont's Nesting Rafts

BY ERIC HANSON

After a 2003 oil spill killed more than 500 wintering adult loons off the New England coast, wildlife biologists across the Northeast faced a daunting question: how do we most efficiently rebuild the population? One clear answer was to increase the reproductive success of nesting pairs that remained. To that end, the US Fish & Wildlife Service recommended strategically placing nesting rafts and is funding lead organizations—including VCE—to carry out the work.

The rafts help loons establish nests in new locations and raise chicks in areas where they have previously failed. Their isolation keeps eggs safe from land-based predators. And because the rafts float, they aren't prone to flooding or stranding when water levels rise or fall dramatically.

Since 2021, VCE's Vermont Loon Conservation Project—with vital support from dedicated (continued on page 2)

Loon biologist Eloise Girard builds a raft.



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A poisoned loon moments before rescue on Halls Lake in 2022. Sadly, the loon died shortly after.

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The Lead Tackle Reduction Project

BY ERIC HANSON

This summer, VCE is spearheading a new initiative—the Lead Tackle Reduction Project—to minimize lead still in use by Vermont anglers and safely dispose of stray or discarded fishing gear. For Vermont's loons, that will translate to less suffering, fewer deaths, and a more secure future for this vulnerable species.

Loons probably mistake lead sinkers for the small stones they must consume to grind food in their gizzards. They are also likely to eat easy-to-catch fish that are on the line or have swallowed lead tackle. Unfortunately, it only takes one lead sinker or jig to toxify and kill a loon, and there is no remedy once it's been ingested.

A 2007 Vermont law banning the sale and use of lead sinkers weighing half an ounce or less reduced lead-related loon deaths from 2008–2018, but there has been a substantial increase in loon mortality from lead tackle in recent years. This may be due to a pandemic-era surge in recreational fishing.

It's time to do more. VCE's Lead Tackle Reduction Project, in partnership with the Vermont Fish and Wildlife Department and dozens of lake associations, will place collection tubes throughout the state, concentrating on boat access areas. The tubes can be used not just for lead but for any stray or unwanted tackle that could (and all too often does) entangle, wound, or kill loons and other wildlife. VCE will also distribute educational posters and pamphlets in nearby communities to raise awareness about the new disposal containers.

Fortunately, plenty of safe alternatives to lead tackle are available, allowing anglers to continue enjoying the fishing experience—but without the collateral damage.

Visit <https://bit.ly/loons-and-lead-tackle> for more information about the project and how you can get involved. ■

Special thanks to the Friends of Waterbury Reservoir for their guidance on designing and deploying tackle collection tubes.

SUMMER 2023

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The Vermont Center for Ecostudies (VCE) advances the conservation of wildlife across the Americas through research, monitoring, and community engagement.

The Vermont Loon Conservation Project (VLCP) is a joint program of VCE and The Vermont Fish & Wildlife Department (VFWD).

The VLCP restores and maintains Vermont's Common Loon population through monitoring, management, education, and research.

Volunteer information and VLCP publications are available on the VCE website: vtcostudies.org

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Nesting Rafts continued from page 1

The completed Bald Hill Pond raft



© ERIC HANSON

volunteers across the state—has deployed 16 new rafts and replaced eight others in high-risk locations that are naturally prone to failure.

While only four of the 16 new rafts have been occupied by nesting loons in 2021 and 2022, the collective success rate of those pairs has increased by a factor of ten. Prior to the new rafts, these pairs had only five surviving chicks from 21 nest attempts. In the past two years on the rafts, they raised eight surviving chicks from six nest attempts.

The 12 pairs that left new rafts in their territories vacant produced just three surviving chicks in the past two years. But because loons often look for new locations after nest failure, we expect increased raft uptake and nesting success in coming years. In fact, we're thrilled that at least five of the 12 previously empty rafts are now occupied.

Once pairs establish on a raft, many will return to the same one year after year. The eight rafts we recently replaced have served as nest sites for over 10–20 years. Over the last two years, their nesting pairs have produced 17 surviving chicks. And with new upgrades like overhead guards to ward off



Eloise adds vegetation to the Bald Hill Pond raft.

© ERIC HANSON

bald eagle attacks, these rafts will continue to protect and support loon families for years to come.

We have just added two more new rafts for 2023's breeding season, and VCE interns will help us replace another seven or eight older ones this summer. As the rafts gain more occupants, we are increasingly optimistic about the prospect of continued population growth—and about the resilience of these remarkable birds should tragedy strike again. ■



A Guide to Loon Chick Development

0–1 week: Newly hatched chicks have dark, downy feathers and off-white bellies. Although they can swim on the surface right away, they often ride on their parents' backs to stay warm and safe. At about one week, the chicks can swim underwater several feet but remain totally reliant on their parents for food. Loon parents are always watching for threats and may stash the chicks along the shoreline for protection, freeing themselves to ward off intruders if necessary.

2–3 weeks: Chicks molt into a new, lighter brown, downy plumage. Their legs, feet, and head—critical for avoiding danger and pursuing prey in the water—grow faster than their body and wings. They can erratically swim underwater for up to 50 feet but rarely succeed at catching fish.

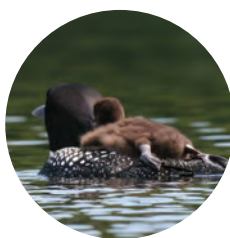
4–5 weeks: A second molt produces the juvenile plumage—somewhat scruffy at first—that will be in place until the birds reach maturity. The upward- and side-facing feathers are brown/gray, and those on the underside are white. The tarsus (leg bone) diameter is almost adult size. They can capture small prey but remain dependent on their parents for food.

6–7 weeks: Primary flight feathers become smooth, gray, and easier to spot. Chicks catch fish on about 14% of attempts. Parents begin leaving chicks alone for longer intervals, but at least one parent remains close enough to watch for signs of danger.

8–9 weeks: Juvenile plumage has fully developed, enabling the chicks to dive

more efficiently. (Note the whitish tips on the flight feathers, giving them a “scalloped” appearance.) They can forage independently, capture about 50% of their daily food, and begin exercising their wings to prepare for flight.

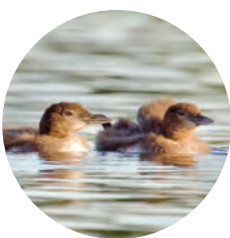
10–14 weeks: Chicks can capture almost all their own prey but still beg for and accept food from their parents. One parent may migrate to the ocean, but the other typically stays with the chicks until they can fly—usually at about 12 weeks. In early to mid-October, the second parent may also migrate, leaving chicks entirely alone on their natal lakes. Chicks usually depart in late October to mid-November, although some remain into early winter. ■



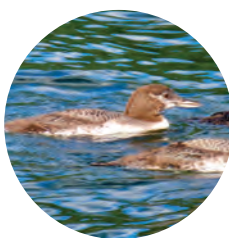
0–1 WEEKS



2–3 WEEKS



4–5 WEEKS



6–7 WEEKS



8–9 WEEKS



10–14 WEEKS

HOW YOU CAN HELP

Please support the Vermont Loon Conservation Project and Vermont's loons through a tax-deductible contribution to the Vermont Center for Ecostudies today.

YOUR DONATION SUPPORTS:

- Statewide loon monitoring
- Loon nesting platforms and nest warning signs
- Volunteer coordination
- Public outreach programs
- Loon rescues
- Research on threats to loons

Constituents receive the *Loon Caller* and VCE's biannual *Field Notes*.

Mail your donation to:

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(Please include a note stating the donation is for the VLCP.)

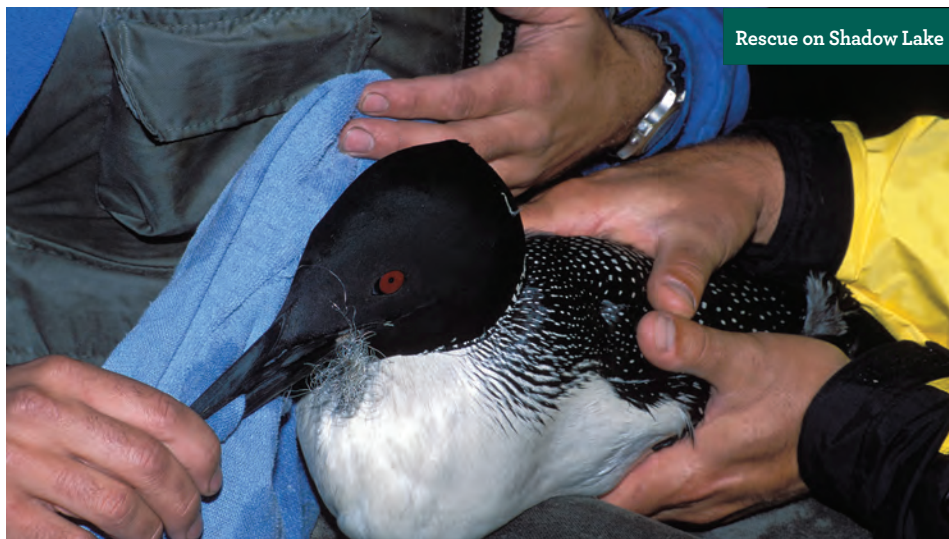
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VLCP is funded in part by the Vermont Fish & Wildlife Department's Nongame Wildlife Fund.

Please support the Nongame Wildlife Fund by purchasing the Conservation License Plate and through the tax check-off on your VT income tax form.

VLCP would like to thank its many volunteers and contributors for their continued support.



The Caretakers

BY ERIC HANSON

Loon conservation in Vermont is as much a story of people as it is of birds. From the most disheartening days of the state's loon census in the 1980s through the incredible recovery we're witnessing today, VCE volunteers on the Vermont Loon Conservation Project have been the beating heart of the stewardship effort. We hope you'll enjoy these short reflections from some of our longest-standing volunteers.

"My wife, Cathy Murphy, and I looked forward to hiking the mile to Hardwood Pond every LoonWatch Day (starting in 1980) in the hopes of spotting those noble, handsome, bold creatures. We felt honored beyond words that those beautiful birds chose Hardwood."

—JON GAILMOR (Hardwood Pond)

"I retrieved an unhatched egg for the Vermont Loon Conservation Project. How often does one get to hold a loon egg? We, on the pond, are honored to have one of the oldest recorded loons (banded as an adult in 1998 and sadly passed away in 2023)."

—LIBBY WELCH (Newark Pond)

"Even though the Vermont loon story is one of recovery, each loon and loon pair are individuals. As a volunteer following their lives, I wonder at and worry about the ones I know. They are more than a statistic, and I feel very grateful to be a part of their stories. And grateful to Eric for being there with his knowledge, experience, skills, and very responsive support."

—ANN CREAVER (Glover area)

"In 2002, my husband and I watched Eric rescue a loon on Shadow Lake in Concord, VT (above). We snuck up while Eric teetered over the boat's side, waiting until he could swing a big salmon net under the loon. He threw a towel over the loon's beak and began carefully cutting the fishing line tightly wrapped around its bill. To be that close to a loon was magic. We were very happy knowing that it could fish again."

—ELINOR OSBORN
(Great Hosmer Pond)

To read more reflections from our outstanding volunteers, please visit vtcostudies.org/blog.