



LOON CALLER

THE VERMONT CENTER FOR ECOSTUDIES | VERMONT LOON CONSERVATION PROJECT

Love and Loss on Lake Iroquois

BY LISA ANGSTMAN, LOON VOLUNTEER, AS TOLD TO ALDEN WICKER, DIRECTOR OF COMMUNICATIONS

As a volunteer for the Vermont Loon Conservation Project, I've developed an interest that has bloomed into a mission to steward and study the loons of Lake Iroquois. I'm now fully dedicated to safeguarding their habitat while chronicling their story through observation and photography.

I was born in Boston but grew up in Appleton, Wisconsin. Wisconsin is home to many loons, but my childhood home was south of their breeding range, so they remained a distant mystery. I spotted them only during migration stopovers on Lake Winnebago and heard their haunting calls during family camping trips farther north.

In 1985, I moved to Vermont for graduate studies and stayed to raise four children in Williston Village. I didn't encounter any loons on our local Lake Iroquois. At the time, there were fewer than 10 loon pairs in the state, and they were listed as endangered two years later. My interest in loons was sparked when my oldest son chose the Common Loon as the subject for a kindergarten project. We read Tom Klein's *Loon Magic for Kids* and took a family trip to



Loon chicks and their parents on Lake Iroquois by Lisa Angstman

Squam Lake in New Hampshire, inspired by one of our favorite movies, *On Golden Pond*, which features loons prominently and was filmed there.

In 2016, a pair finally formed on Lake Iroquois. I was captivated by their behaviors and emotions; their language of diverse vocalizations and dances; and their goofy antics, like foot waggles, boisterous bathing, and running on water to take off.

However, the pair was not able to build a nest until local volunteer Jack Linn helped VCE Loon Biologist Eric Hanson deploy a nesting raft in 2019. I witnessed blissful success as they hatched two chicks per season from 2019 to 2023, losing only one (in 2022). I now help Jack deploy the rafts, along with his grand-

son and my youngest son.

Right before the pandemic, I lost my mom. That's when I started going out every sunrise on my kayak to monitor the loons. I got into wildlife photography. Volunteering was part of my healing—it somehow mirrored my mother's quiet nurturing spirit and love for environmental justice. It's heartwarming to witness people from all walks of life and different ages both interested and invested in these beautiful creatures on our lake and other places in Vermont—to see how everyone around the lake comes together to keep each other abreast of what's happening with this little loon family.

I'm also taken by the philopatry of loons. Derived from the Greek *phil* (to love) and *patr* (home), it's a word I learned from James Paruk's

excellent book, *Loon Lessons*. After two to three years on the ocean, loons return to within a 40-mile radius of their natal lake. It makes me wonder if one of "our" loon chicks from Iroquois is part of the pair that recently hatched the first recorded chick on nearby Colchester Pond!

Everything was rosy until 2024, when a Ring-billed Gull killed the chicks while the parents were dealing with an intruder loon. They renested with two eggs, but I witnessed a loon swimming away with pieces of a cracked egg. The second egg was abandoned after a nearly complete incubation period.

In late winter 2025, I traveled to Lake Jocassee in South Carolina to

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The Vermont Loon Conservation Project restores and maintains Vermont's Common Loon population through monitoring, management, education, and research. It is a joint program of the Vermont Center for Ecostudies and the Vermont Fish & Wildlife Department.

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

Communications about the VLCP and Loon Caller may be addressed to loon@vtecostudies.org.

Volunteer information is available at vtecostudies.org/loons.

PO Box 420 • Norwich, VT 05055

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Dear Vermont Loon Conservation Project community,

This winter, during a cold snap, Lake Champlain local Lucie Lehmann observed two loons flapping furiously trying to lift themselves out of the water as the ice closed in around them. Lucie called us, and I headed out to meet her. Vermont Fish and Wildlife Department Game Warden Dana Joyal and wildlife rehabber Craig Newman joined us. As we approached the iced-in loons in the negative-five-degree weather, one loon dove under the ice and did not make it back up. But we successfully captured the other, and I drove it five hours to the New Hampshire coast for release into the waves.

Despite witnessing the painful loss of a loon, Lucie still thanked me profusely for coming to the loons' aid. I told her, **"It's people out there like you who make all these good things possible."**

Loon rescues are exciting, and so is their comeback story, from seven loon pairs in the 1980s to 115 nesting pairs last year. With loons occupying most quality habitats in Vermont, we now transition from recovering to stewarding the population. That means showing up every week, year in and year out; counting loons; watching them interact; recording successes and failures; and managing data. It's a long-term commitment that is crucial to the loon population, and it requires incredible dedication from our network of more than 350 volunteers.

The Vermont Loon Conservation Project will celebrate 50 years next year. We've been fortunate so far to have had support from people like you, the State of Vermont, and the federal government. In the current environment, state funding (about 30% of our budget) is less than assured. Our federal funding source, an oil spill settlement grant from the U.S. Fish and Wildlife Service, concluded last year, so we must rely even more heavily upon gifts from friends like you to keep this program going. **Your gift today will ensure that we can continue to steward Vermont's loons into the future.**

Your gift can support increased research on the Common Loon, enabling us to make evidence-based decisions about management efforts, like where to deploy rafts. It can also support research on how water clarity affects chick suc-

cess—important knowledge in the face of increased flood frequency and severity. Our new digital platform, LoonWeb, has tremendous untapped potential for tracking loon mortalities and rescues, and we've received requests to expand it for use in neighboring states. Every gift to the Vermont Loon Conservation Project builds our capacity to undertake these initiatives.

This year, more than ever, we need your support so we can continue our successful stewardship work, keep improving LoonWeb, and start laying the groundwork for our future conservation research and action.

As I told Lucie Lehmann on that frigid morning, **the loons have returned because of people like you. Your support of the Vermont Loon Conservation Project is an investment in the future of loons in Vermont and beyond.** Whether you partner with us as a donor, a volunteer, or a friend of the loons, we are truly thankful.

Sincerely,

Eric Hanson

Eric Hanson
VCE Loon Biologist



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VCE Loon Biologist Eric Hanson at Lowell Lake State Park this past May, placing nesting signs



©FIONA MACLEAN

VCE Loon Biologist Eloise Girard placing nesting signs on the Green River Reservoir

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participate in Dr. Paruk's research project on the spring migration of loons, affectionately known as "Loon Camp." Surrounded by the Appalachian Mountains, Lake Jocassee is one of a few freshwater migration spots for wintering loons, as well as a stopover respite for loons returning north from the Gulf of Mexi-

and a juvenile Bald Eagle, which love to prey on loon chicks, were around during most sunrises. Another loon visited daily to harass the would-be parents. And yet, the pair successfully hatched a perfect and adorable chick!

I got to spend one sunrise with the new family. The following day, for the second time, a Ring-billed Gull killed the chick while the parents were engaged

and the heart, to navigate the delicate bridge between statistical success and emotional loss.

Yet lake life goes on. I'm a grandma now, and I'm so excited to introduce wildlife to my grandkids. Somehow, we're all in this together, both human and animal. Nature—and life—can be harsh and unfair. It's also miraculous. Observing the loons reminds me again and again

reported more than four. So, where are the young ones?

Most loons spend their first three to four years on the ocean after leaving their natal lake. These birds look similar to wintering adult loons of breeding age, with grayish-brown feathers on their backs and heads, but can be distinguished by having some whitish-gray or more-worn feather tips. They can also sometimes be mistaken for 14-week-old chicks—but those have feathers with a distinct whitish fringe at the tip, giving them a scalloped appearance.

Although they reach breeding maturity at around three years of age, returning too early to breeding waters can be risky. Loons are highly territorial, and younger birds are rarely strong enough to challenge an established pair. Also, unlike many bird species, a healthy loon can live 20 to 40 years and may continue breeding throughout much of its life. Because of this longevity, there is no urgent rush to reproduce, and they may wait to nest until they are six or seven years old.

Conditions in Vermont have also changed dramatically over the past few decades. Thirty to forty years ago, many lakes suitable for loons were still unoccupied. At that time, more subadult loons ventured north during the summer because they could explore lakes without constantly being chased by aggressive, territorial adults. Today, however, most lakes larger than about 50 acres host regular loon activity.

When subadults do return to Vermont during the summer, they are most often found on very large lakes, like Lake Champlain, where there is more room to avoid territorial pairs. Although



Grieving loon parents swimming with their deceased chick, trying to offer small minnows
by Lisa Angstman

co. A small group of community scientists gather annually to observe and record loon migration behaviors and patterns. One morning at first light, I watched hundreds of loons take flight.

Between the last sunrise of Loon Camp and the first sunrise of my return to Vermont, I lost one of my dearest friends. I entered the 2025 season again seeking solace on the lake, feeling grateful that I had been able to bring my friend to see the loons the previous summer.

As it turned out, the 2025 season was anything but tranquil. We put a goose guard on top of the loon nest raft, but the geese found the raft first, pulled the metal mesh off, and laid three eggs. Eventually, the loons scared the geese away, but laid only one egg. An adult

in a territorial dispute with the intruder loon. The loon pair demonstrated their grief with haunting wails all night long. But their bond seemed closer than ever—they were never separated. And it was a master class in resilience. They immediately set to renesting, laying a second clutch with one egg. Unfortunately, the pair was often distracted during the incubation of this egg as they dealt with the persistent interloper, and it didn't hatch.

The whole community of loon lovers around Lake Iroquois grieved together. It was at once heavy and healing. Intellectually, I know that this loon couple is "successful" because the overall chick survival rate remains above 69%. But it's difficult to reconcile the head

of the fierce, beautiful responsibility we have toward the natural world.

The Early Years: From Subadults to Becoming a Parent

BY ERIC HANSON AND
ELOISE GIRARD

During Vermont's annual LoonCount (formerly Loonwatch Day), volunteers occasionally report seeing young loons of only one to two years in age (aka subadults).

In the 1990s, when Vermont was home to fewer than 100 adult loons, volunteers often observed 10 to 20 subadults during the survey. Over the past decade, however, volunteers have rarely



©ANASTASIA ZINKERMAN

A subadult Common Loon (Gavia immer)

nesting loons have not been documented there, surveys regularly detect young birds using the lake. In 2002, a detailed assessment estimated that at least 20 to 30 subadult loons were present on Lake Champlain.

Eventually, young loons begin returning to the region where they were born, typically within 20 to 40 miles of their natal lake. At first, they tend to behave submissively around established adults. Research by Walter Piper, PhD, in Wisconsin shows that most loons that begin nesting between four and six years of age do so by establishing a new territory on previously unoccupied waters, which reduces the chance of conflict.

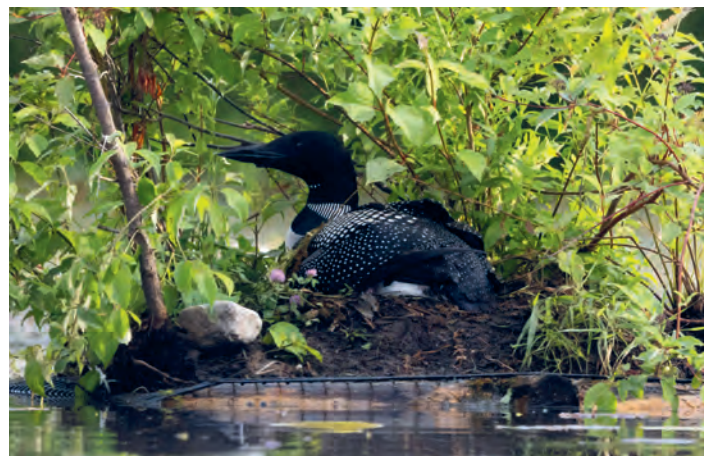
As loons grow older and stronger, they may begin to challenge birds already occupying territories. When observers notice a third or even fourth adult loon visiting a territorial pair, it is often a sign that these “floaters” are assessing the situation: evaluating the strength of the resident pair, learning the boundaries of the territory, and becoming familiar with the neighbors. Within about three years, they may find a new territory, replace a lost mate in an existing pair, or

win a challenge for an established territory and finally secure their first breeding opportunity.

It's Time to Remove Some Nesting Rafts

BY ERIC HANSON

Two years ago, VCE Loon Biologist Eloise Girard and our intern Ava Purdy set out to remove the old water-logged raft on Kettle Pond. They filled their canoe with a truly incredible number of foam blocks, milk jugs, and other flotation devices that had been added to the raft over the years. The raft sank to the bottom of the pond.



A renesting loon on Lake Iroquois in July 2025 by Lisa Angstman

The Kettle Pond raft was one of Vermont's earliest loon-nesting rafts, placed in 1992 after a decade of no nesting and three years of shoreline nest failure. At the time, Vermont's loon population was less than 30 pairs. Loons prefer natural nesting locations, but the raft created an islandlike nest site on a pond without marshes or islands. It worked really well, with a pair using the raft for 27 of the past 33 years and a nest success rate of 74%.

Now loons in Vermont are doing great. In 2025 VCE volunteers and biologists documented several record highs: more adults, more successful nests, more chicks hatched, and more chicks surviving than any year before. Most lakes and ponds in Vermont larger than 50 acres now have loon activity, if not territorial pairs.

Girard and Purdy recovered most of those cedar logs from the bottom of the pond. But instead of rebuilding the raft on Kettle Pond, we decided to see what the loons would do on their own. Lo and behold, in 2025 the pair found a little shelf near a steep shoreline to tuck in a nest—and it was successful.

This success will not be universal. Rafts have an 86% success rate, whereas natural nests have a success

rate ranging from 75% on islands to 69% in marshy vegetation to as low as 50% on the shoreline. When we removed some nesting rafts in the mid-2000s on Bald Hill, Jobs, and Little Hosmer ponds, success rates declined quite a bit. The Bald Hill pair found a successful location after a few years of failed nests. The Jobs pair has nested much less frequently. The Little Hosmer pair just hasn't figured it out, despite having access to good island and marsh sites.

That is okay. From both regional population and long-term sustainability standpoints, it's better to have chick numbers stabilize or even decline slightly to reduce the incidence of adult territorial conflicts that are sometimes fatal—to adults but especially to chicks. We are entering a period when we can reduce some of our active management activities and promote natural nesting.

When to Place a Nesting Raft

There are still some situations in which installing a floating nesting platform can benefit loons.

Flooding: Because loons build nests mere inches from the shoreline, their nests are especially susceptible to flooding. Occasional flooding that causes nest failures is a normal and natural event. Rafts do help to mitigate major flooding events, which seem to be happening more often (like the ones in 2023 and 2024). On the reservoirs where operating dams can cause the water level to change quickly, we consider rafts a necessary tool to mitigate human-caused flooding.

Human activity: Loons sometimes try to nest near people and lots of shoreline

activity. We've placed rafts in quieter locations to reduce this human-animal conflict. Even in these cases, we try to give pairs several years to attempt natural nesting, in case they find a better spot on their own.

Where We Avoid Placing Rafts

Lakes and territories without nesting loons: On lakes or territories where loons are present but not nesting, there may be valid ecological reasons. For example, large lakes like Lake Willoughby support plenty of loons but have little nesting habitat, such as marshes or islands. These lakes provide important nonbreeding loon habitat where loons can rest and feed without defending a territory. Many smaller lakes also provide this habitat for nonbreeders. If we do see new nesting pairs on these lakes, we try to promote natural nesting as much as possible.

Small ponds: We now only deploy rafts on lakes of 80 acres or more to ensure there is a good stock of fish for nesting loons and their chicks.

Lakes with pairs already showing some success: Some pairs are naturally more productive than others, and variability in nesting success is expected.

In short, it is often good to let the loons figure it out themselves. When possible, we first allow a loon pair to attempt nesting naturally for up to three consecutive years before deciding to deploy a raft. This approach helps us identify where the pair is most likely to nest and where the platform should be placed. We've found that rafts positioned close to previous nesting attempts are more likely to be used.

We plan on removing a few nesting rafts each year over the next decade to promote natural nesting. Some of these pairs will find natural sites, and others may not. But rest assured, with your help we're keeping a close eye on Vermont's loons, and we can use more rafts again if we start to see worrying declines in the population.

Vermont Loon Conservation Goes Digital

BY DANA WILLIAMS
*Community Science
Coordinator*

Last May, we introduced LoonWeb: an online program to help loon volunteers sign up to count and monitor loons for the Vermont Loon Conservation Project. Trying out a new technology isn't always easy, so what a surprise when 87% of our

for returning volunteers to tell us whether they will be watching loons in 2026. By clicking a link in an email, volunteers can now let VCE Loon Biologists Eric Hanson and Eloise Girard know right away which lakes will or won't be covered. The biologists can then recruit new volunteers as needed or plan a visit themselves to fill in gaps.

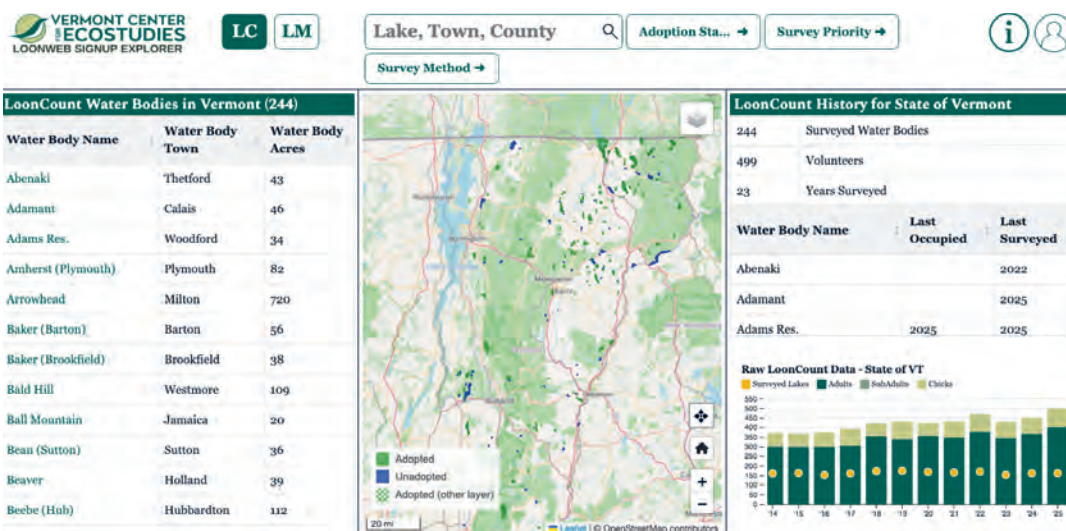
But we're not just excited about easier lake assignments; we're also excited for easier reporting with LoonSurvey, a custom app for the computer and (in the future) cell phones. LoonSurvey guides volunteers through data-collection steps while they look for loons. This includes data we've always used, like the number of loons on the lake. But now volunteers can also drop a pin on a lake map where they see a loon and describe its behavior, so Hanson can study which parts of the lake the birds are using the most

us your loon stories.

With this system in place, Hanson and Girard will spend less time collecting, transferring, and organizing data and more time on other important tasks, like visiting volunteers on their lakes, educating the public about Fish Lead Free, and analyzing data to answer questions about Vermont's loon population. And the Vermont Loon Conservation Project will finally join the rest of VCE's projects in making our data open and free to access—a core value at VCE.

None of this would have been possible without our beta testers. These volunteers helped us to design the tools LoonWeb needed to work well, identify bugs that caused the system to crash, and figure out the best ways to train others. We appreciate all of your hard work!

With generous funding from the Davis Conservation Foundation, VCE is now



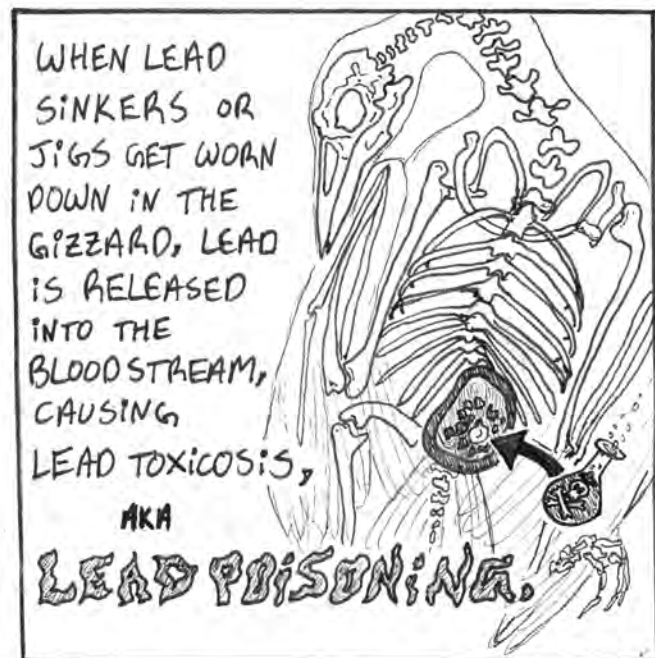
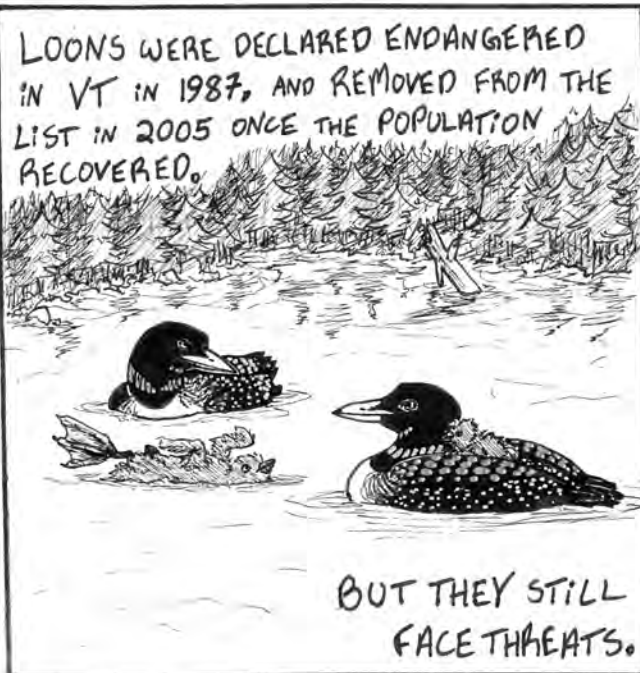
The LoonWeb homepage allows you to explore where loons are and sign up to volunteer.

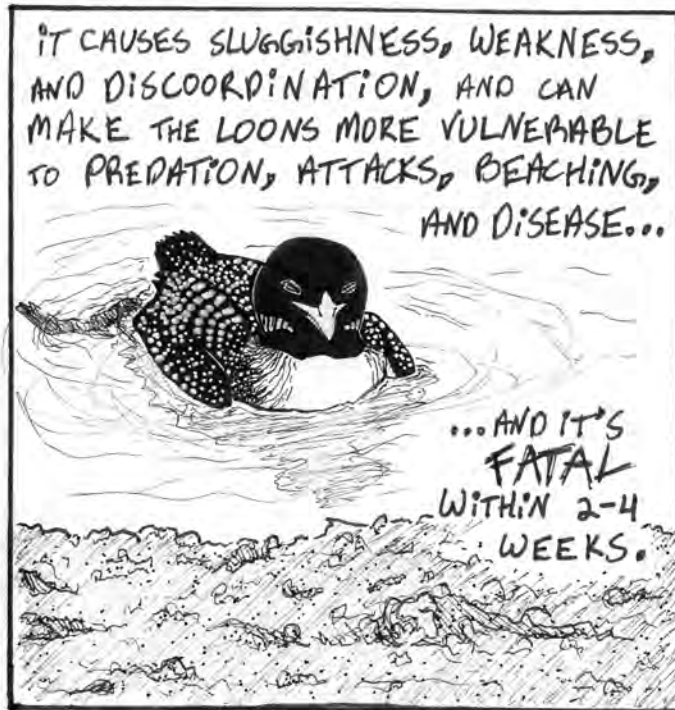
LoonCount volunteers—more than a hundred people—joined, covering 90% of lakes during LoonCount day!

This year we're hoping to boost those numbers even higher by making it easier

and how. Observations of the Bald Eagle flying overhead or the racoon sneaking along the shore can help Girard determine why a nest failed. And it's not all strict science—comment boxes provide space for you to tell

working with Maine Audubon to adapt the LoonWeb platform for the Maine LoonCount program. We look forward to the results of their pilot test this year!





Sammi Rizzo was a 2025 summer science interdisciplinary intern.

YOU CAN DISPOSE OF YOUR LEAD TACKLE IN ONE OF VCE'S COLLECTION TUBES ACROSS THE STATE. LOOK FOR A DISPOSAL SITE NEAR YOU! GO TO: vtcostudies.org/fish-loon-safe

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

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VLCP thanks the many volunteers and contributors who make loon conservation possible in Vermont.



Loons on Lake Iroquois are often agitated and alert as wakeboats drive by. By Lisa Angstman

More Loons Now Protected from Wakeboat Waves

BY EMILY ANDERSON
Science to Policy Manager

The wait is over. After nearly a year and a half of debate and revision, Vermont has a new set of more restrictive rules on how and where wakeboats can operate.

The revised rule expands the required size of the area that wakeboats must operate in from 50 contiguous acres to 100 contiguous acres. Under this new rule, Vermont's list of lakes that allow wakeboats—specialized motorboats designed to produce large waves for water sports like wakesurfing—shrinks to just 18 out of roughly 800 lakes.

This is not just a win for kayakers and paddleboarders who can be swamped by wakeboats—it also helps protect Vermont's loons. Loon nests built on shorelines and islands in marshy vegetation often lie two to eight inches above the water,



© ALDEN WICKER

Large waves from wakeboats have the potential to flood low-lying loon nests like this one.

and the new guidelines prohibit wakeboats from getting within 500 feet of an active loon nest. (Learn more about how wakeboats impact loons at vtecostudies.org/blog/wakeboats-risks-loon-nests.) Although large waves could still reach shore even with the 500-foot buffer, this direct protection will hopefully remind wakeboaters to be mindful of nesting loons.

Loon-specific language in the new rule is no doubt thanks in part to VCE's loon biologist Eric Hanson, who submitted three comment letters throughout the decision-making process. Gratitude also goes to the state's lakeside communities, who advocated for the interests of the cherished loons that call their waters home.