

# Heroism in the Age of Warming Winters

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*John Cooley Jr. approaches an iced-in loon with a net on Highland Lake. photo © Brian Reilly/LPC*

**T**raditionally, loon biologists have worked three field seasons.

There's spring, when loons return to their lakes, as if by magic, within a day or two of ice-out; summer, when nesting and chick-rearing take place, along with a flurry of associated research, monitoring and management activities; and fall, when the birds depart for their open-ocean winter territories and the biologists pull and stow away nest rafts, kayaks, signs and other tools of the loon-monitoring trade for safekeeping.

Recently, however, a fourth season has emerged. Winter – which had long been reserved for indoor pursuits (for the biologists) and saltwater fishing (for the loons) – first entered the fieldwork picture in earnest for the Loon Preservation Committee (LPC) on Valentine's Day 2007, when a group of snowmobilers found dozens of loons stranded on the ice in the middle of Lake Winnepesaukee.

Tragically, by the time they were discovered, most of the birds had frozen to death, but five were rescued and released along the Seacoast.

Since that time, LPC has rescued more than 60 iced-in loons, including two in as many days this past December. In the Monadnock region, ice rescues have occurred on Highland Lake in Stoddard, as well as Stone Pond in Marlborough and Spofford Lake in Chesterfield.

## Understanding Loon Biology

To understand why this happens, we must first explore several key aspects of loon biology. For the most part, loons who nest on New Hampshire lakes and ponds spend their winters along the New England coast, although one bird banded at Pioneer Lake in Stoddard was found as far south as the Outer Banks of North Carolina. There, they live the life aquatic, bobbing in the surf and diving for marine delicacies such as menhaden and lobster.

While afloat, they undergo a significant simultaneous molt, shedding all of their (now well-worn) wing feathers and regrowing strong new feathers in their stead. This process both prepares the birds for spring migration and renders them incapable of flight for about a month while the feathers fill in.

Amid boundless open water for fishing and with no breeding territories to scout, establish or defend, ocean-going loons have no need to fly. However, some loons linger longer on inland lakes, where this forced flightlessness can get them into trouble when ice starts to creep close.

In addition, the very features that make these pointy-billed piscivores so exquisitely suited for swimming and diving – heavy bones and disproportionately large, webbed feet – also make it difficult for them to take flight. To achieve liftoff, they usually need a 100-yard runway of open water. While some loons may overstay their freshwater welcome due to injury, disease, lead poisoning, or – for juveniles – inexperience, even perfectly healthy, fully feathered adult birds can get caught unawares when swift-forming ice shortens their aquatic airstrip.

Whatever the reason, when loons find themselves surrounded by encroaching ice, they need help.

## Loon Preservation Committee to the Rescue

“They are doomed if we don’t rescue them,” says John Cooley Jr., a senior biologist with LPC who has worked on many winter rescues.

LPC’s rescue methods have run the gamut from ferrying weakened loons off the ice on kite sails and airboats and repurposed canoes to using tarps to artificially narrow areas of open water so swimming birds can be netted more easily from nearby ice edges. Timing is everything; if there’s too much open

water and the loons are in good health, they can easily evade capture, but once they're completely stranded, they become vulnerable to starvation and predation by eagles. The first part of many rescue attempts is simply watching and waiting for the ice aperture to shrink just enough, but not too much.

Cooley describes LPC's winter rescue efforts as "evolving and collaborative." Whenever possible, LPC partners with local fire departments, whose expertise with retrieving snowmobilers and ice fishermen from areas with thin ice comes in very handy. A consulting team of veterinarians and loon rehabilitation specialists throughout New England – including Maria Colby of Wings Wildlife Rehabilitation Center in Henniker – provide critical triage and care, determining when each rescued loon is ready to release.

LPC also belongs to a multistate consortium of loon rescue and research organizations, all learning from one another as they navigate these uncharted, icy waters.

Although iced-in loons have been documented as far back as 1874, when a hunter reported in *Forest and Stream* magazine that "it appeared as if all the loons in the country had assembled in one small hole in the ice" in Calais, Maine, modern-day biologists have noted a marked increase in the need for winter loon rescues in recent years. The exact reasons for this rise are unknown, but several factors may be at play.

First, it's possible that increased winter recreation – along with a greater awareness of LPC's ability to respond to loons in distress – has simply led to more reporting of a phenomenon that had largely gone undetected in the days before ice sailing, kiteboarding and cross-country skating grew in popularity. When it comes to notifying LPC of loons that might need assistance, Cooley said, "Nordic skaters have become real allies."

## Loon Conservation in New Hampshire

Thanks to LPC's careful stewardship, there are also more loons in New Hampshire now than there were 15 years ago. Could the uptick in iced-in birds be a reflection of this conservation success? That is, if there are more loons overall, does it make sense that there would be more in need of rescue?

Of greatest concern is the ongoing threat of climate change, and whether the climatic cues that might prompt loons to migrate in the fall – air temperature, water temperature, ice encroachment – are coming too late in the year, when the birds are mid-molt and therefore unable to fly away.

Despite this looming uncertainty, there are silver linings. Loons who ingest lead fishing tackle in the winter seem to be more responsive to chelation treatment than birds who experience lead poisoning during the summer months. In addition, winter-rescued birds can – and do – successfully return to their breeding territories. In one high-profile rescue in January 2022, LPC staff towed "sledfuls" of loons off Lake Winnepesaukee. Ten were rescued and banded before being released along the coast.

The following spring, band re-sightings confirmed that six of those birds had returned to lakes in northern and western New Hampshire, including one at Long Pond in Lempster.

Loons are a threatened species in New Hampshire, and though there have been significant gains, they're not out of the woods. The average pair fledges just one chick every other year, but they can live upwards of 30 years, so losing (or saving) even a small handful of adults can make a real difference in the long term. Every loon counts, and each successful rescue carries with it the promise of future loon generations.

When they're out to sea, loons are almost completely inaccessible to researchers, making winter a largely unstudied time in the lives of these agile waterbirds. The new "fourth season" thus holds incredible potential not only for better understanding loons across their full life cycle, but also for informing future conservation efforts.

"It's a humane response to each individual loon, but it's also a chance to learn," said Cooley. "With each loon that we rescue, we learn something new."

This is heroic work, and while the survival suits and gill nets are best left to the professionals, we can all play a part. This winter, if you see a loon remaining on a lake as the ice begins to close in, take a photo that shows how much open water the bird has left — which will help biologists assess the situation and coordinate the best timing for a rescue – and notify LPC via the online form at [loon.org/report-loon](https://loon.org/report-loon). 🐾



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