A loon is silhouetted against the golden light of a sunset on a calm lake. The sun is low on the horizon, creating a shimmering path of light across the water. In the background, a line of evergreen trees is visible against the bright sky.

Call of the Loon:

NEW CHALLENGES FOR AN ANCIENT BIRD

The haunting tremolo of the loon on a summer evening speaks of wild beauty and independent spirit. No wonder we love our loons. These handsome birds, related to the penguin and albatross, have been around much longer than other waterbirds — some say their history goes back 20 million years. Today, these sleek divers face new challenges in New Hampshire's fast-changing environment.

PHOTO © JIM BLOCK

Strikingly beautiful, both male and female loons have glossy black heads and checkered backs, with a striped white necklace and dapper white underside. Their legs are situated too far back on their body to allow them much movement on land, but loons are powerful swimmers. They are large birds – adults weigh from 6 to 13 pounds and measure up to three feet in length – and perfectly engineered for diving. When threatened or ready to dive, they compress the air from their feathers and body and sink below the water surface. Loons have solid bones to help them dive, rather than the hollow bones that other birds have to make flying easier. Loons need a long water runway for take-off, but once in the air, can average 70 miles an hour.

When nesting, loons like to be left alone. Since they can't move much on land, they build nests near the water, making them vulnerable to shoreline predators and shifting water levels. Territorial pairs exclusively occupy a small lake or a bay of a larger lake. Loons lay one or two eggs in June, and in 26-28 days, downy, brown-black chicks hatch. Chicks can swim from day one, but often rest and avoid predators by riding on their parents' backs. At season's end, loons head for the coast to winter on the ocean. This year's chicks will not return to breed for three or four years.

Sharing the Shoreline

What does the future hold for loons in New Hampshire, now the fastest-growing state in the Northeast? They remain beloved as a symbol of the state's wild, natural beauty, but various pressures — from toxins in the water to rapidly escalating lakeshore development and associated recreation – are affecting the state's loons. From a peak of 542 adult loons in 2000, the population dropped to 508 in 2003 — a 6 percent decline.

In spite of this drop, John Kanter, Nongame and Endangered Wildlife Program Coordinator for N.H. Fish and Game, feels "cautiously optimistic" about the future of loons in the Granite State. "There's a tremendous success story here, reflected in the fact that the loon population has more than doubled in the state since the Loon Preservation Committee and its volunteers began counting loons and working for their conservation. Back in 1976, when monitoring first started, there were about 90 territorial pairs. Now it's up to 205 pairs in 2003."

In partnership with the Loon Preservation Committee (LPC), based in Moultonborough, N.H. Fish and Game is helping to fund a full-scale

recovery plan for the state-threatened birds as part of a larger initiative to create a statewide Comprehensive Wildlife Conservation Plan. To help address the loss of breeding habitat to shoreline development, the LPC is digitally mapping loon nesting and nursery sites across the state to identify and protect areas of significant loon habitat.

One successful management technique that the LPC has used involves setting up floating nest platforms to establish protected "nesting is-

lands" for the loons. During the vulnerable nesting stage, LPC staff and volunteers manage land and water traffic around loon nests and nursery areas, placing "Loon Nesting Area" signs to warn human visitors to give the birds needed space.

Surprisingly, curious canoeists and kayakers paddling up for a closer look can be an even bigger problem for loons than speedboats chugging by at a steady pace. Harry Vogel, Executive Director of the LPC, urges all boaters and wildlife watchers to follow a few simple precautions to protect loons. "Get a good pair of binoculars and enjoy the spectacular sight from a respectful distance," Vogel advises, and learn to recognize the warning signs that you're too close:

- Any time a loon swims away or vocalizes when you are near, it is a sign of distress. Move away.
- If a loon on its nest has its neck stretched out low to the ground, back off.
- If a loon sinks down low in the water, as it does just before diving, it is nervous – a signal you should give it some space.



By May, a loon pair will have built their mound-like nest out of grasses, sticks and muddy lake-bottom vegetation.

BY JANE VACHON

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Too close! Research shows that even a quiet paddle can have a negative influence on loons.



You can help support Fish and Game's Nongame and Endangered Wildlife Program's efforts to protect loons and other threatened wildlife by contributing to the Nongame Program's 2004 annual appeal, which concludes June 30. The program receives no revenue from hunting and fishing license sales, so must rely on private donations to continue this work. Contributions are matched dollar for dollar up to \$50,000 by a state matching grant. Send donations to N.H. Nongame and Endangered Wildlife Program, 11 Hazen Drive, Concord, NH 03301. Thank you!

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Getting the Lead Out

While human distractions are disturbing for nesting pairs, by far the biggest source of adult loon mortality in New Hampshire is lead, according to Vogel. "Lead is a huge issue for loons in New Hampshire, consistently accounting for more than half the dead adult loons found in the state," he said. "And the lead poisoning is ALL from lead sinkers and jigs. For loons, it's a simple formula: Eat a lead sinker and die."

Loons pick up lead by eating fish that have ingested a lead sinker or from striking at a jig pulled through the water. To a lesser extent, loons pick up sinkers from the lake bottom along with the pebbles and grit they need for grinding action in their gizzards. It takes only a matter of weeks for a lead sinker to kill a bird.

In 2000, New Hampshire became the first state to ban lead sinkers and jigs to protect common loons and other diving birds. The law banned the use of lead sinkers one ounce or less and jigs less than one inch long on freshwater lakes and ponds. At press time, the New Hampshire Legislature was considering a new law that would prohibit the use of lead tackle on all fresh waters statewide and ban the sale of lead tackle in New Hampshire. Updates will be posted on the Fish and Game website, www.wildlife.state.nh.us. In the meantime, Fish and Game encourages all anglers to safely dispose of their old lead sinkers and jigs and replace them with non-lead alternatives (see *Wild Ways*, page 18).

Silent Killer

Another, more subtle, threat to the health of New Hampshire's loons, as well as fish and other wildlife, is mercury contamination. Pumped into the air by coal-fired power plants and municipal

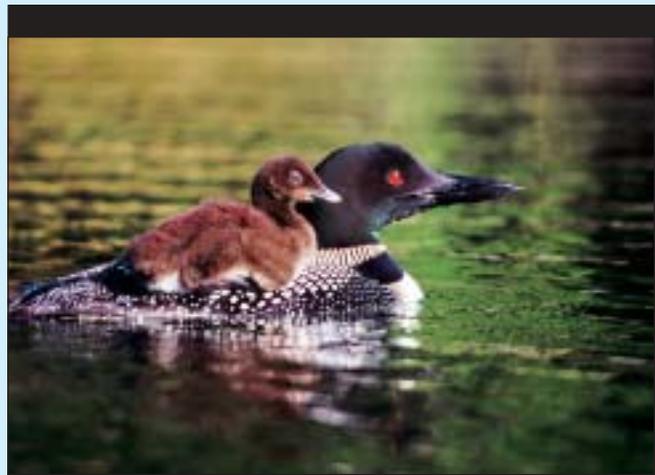
waste incinerators across the nation, mercury emissions diffuse into the environment. A potent neurotoxin, mercury accumulates in the bodies of adult loons, affecting their behavior and ability to care for their young during prime breeding years. Mercury is also a great danger for loon eggs.

"Mercury is incredibly toxic," Vogel said. "There's evidence that 1.3 parts per million of mercury can kill a loon egg, and some loon eggs in southeastern New Hampshire have been documented as having more than 4 ppm of mercury."

Eliminating mercury contamination is not as simple an issue to address as coping with the problem of lead. "To get rid of mercury, we need to clean up emissions into the air, a much bigger task than getting rid of lead fishing tackle," said Vogel.

Mystery at Umbagog

With so many factors affecting loon populations in the state, the Loon Preservation Committee relies on population counts to tell them how loons are doing in various places. "Our work begins and ends with monitoring," says Vogel. In fact, the LPC has established the longest running



For the first two weeks of their lives, loon chicks will ride on their parents' backs – probably for warmth and security. When the chick is very young, the parent will lift one wing and let the chick scramble underneath. As it gets older, the chick more frequently sits on top, often napping while its parent drifts.

TEXT AND PHOTOS BY JIM BLOCK

and most comprehensive database on loon populations and productivity anywhere in the world.

These local loon counts can also signal problem areas. One trouble spot has shown up at Lake Umbagog, where between 2000 and 2002, the lake lost half its territorial pairs of loons (numbers dropped from 31 to 16 pairs). “In two years, we lost 20 years of steady progress on Umbagog,” said Vogel.

The problem seems to be twofold, according to Ian Drew, Deputy Refuge Manager at Umbagog National Wildlife Refuge — adult loons leave the lake and don’t come back, and chick production for remaining pairs has been below average. The lake’s loon population was up slightly in 2003, but at this point no one knows just why Umbagog’s loons are not thriving.

“I wish we could put our finger on the problem,” said Drew. “But it is promising that a wide-ranging group of organizations is pulling together to try to get a handle on what’s going on in this ecosystem. Because of the longstanding database created by the Loon Preservation Committee, we can use loons as an indicator of the health of the ecosystem.”

A Culture of Respect

For all the problems loons face in New Hampshire, their future remains hopeful. Loons are thriving in many lakes around the state — even some with significant shoreline development — because communities have established a culture of respect and appreciation for these beautiful birds. “As long as we have the loons, we know we still have our wilderness to enjoy,” said Fish and Game’s Kanter. “Because of all these efforts, we can still hear the crazy laugh of the loon on our deep, cold lakes, and hopefully that will last for many years to come.”

For more information on loons, visit the Loon Preservation Committee website at www.loon.org.

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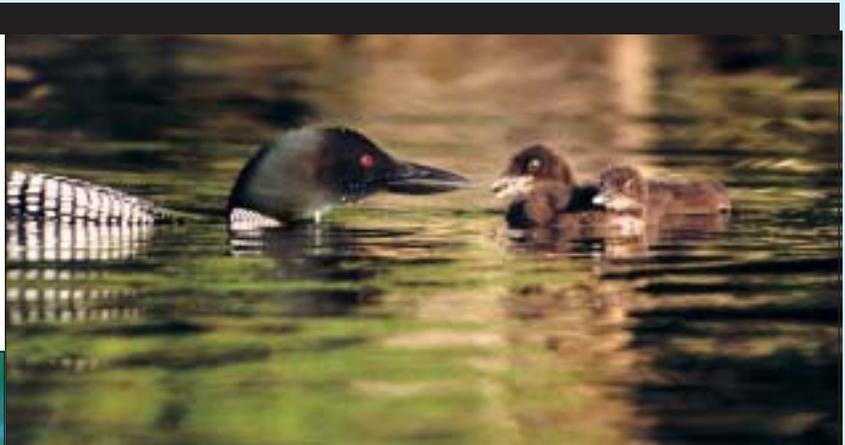


A floating platform offers a safe nesting spot for loons; volunteers will monitor and help protect the area.

Breakfast in Bed



When a parent wants the chick to disembark, it merely squeezes in, shrinking its body volume, and sinks, leaving the chick bobbing surprised on the surface (above).



Normally, the chick is floating free while both parents dive to capture small fish or crayfish to feed it (above). But on this occasion, the chick tried to take its breakfast in bed (below). It failed — this fish did not get transferred to its mouth until after the chick fell into the water.



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