

Trends

Phases of the Loon

Satellites offer researchers a bird's-eye view

Five years ago, Lake Umbagog, which straddles the New Hampshire–Maine border, was home to 31 breeding pairs of loons, the highest number on any lake in New Hampshire. For reasons no one yet understands, the lake's loon populations have plummeted by more than 20 percent each year since 2000, reaching a low point last seen in the early 1980s.

"We're losing about twenty adult birds on that lake every year," says David Evers,

founder and executive director of the Gorham, Maine–based BioDiversity Research Institute (BDRI), which oversees loon research across the country, including in Maine, New Hampshire, New York, Wisconsin, Minnesota, Nevada, and Alaska. "We haven't seen this decline elsewhere in New Hampshire or southern Maine."

In fact, the population trend just about everywhere else in New England is on an upward trajectory. Once on the brink of regional extirpation due to hunting and habitat destruction, the common loon

(*Gavia immer*) has rebounded steadily since the early 1970s, and its distinctive plumage and calls have once more become synonymous with northern wilds.

After testing Lake Umbagog for contaminants and ecological factors, researchers found nothing to explain the loons' decline, which has led them to look to the places where loons migrate in the winter. The problem is, no one really knows where they go.

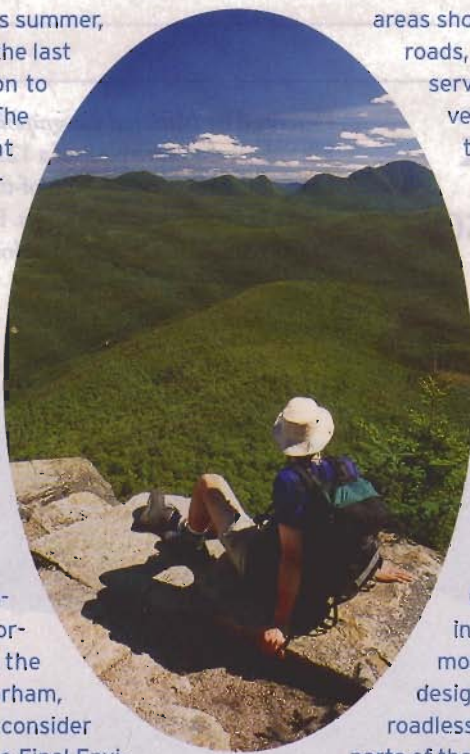
A similar issue has arisen in the Adirondacks, an important summer breeding ground for loons. Though the populations haven't dropped as severely as at Umbagog, they are unstable, and researchers are also studying their migratory habits, says Nina Schoch, program director for the Adirondack Coop-

Update

White Mountains Forest Plan Enters Home Stretch

As hikers flock to the White Mountains this summer, the U.S. Forest Service will be collecting the last round of public comments for its revision to the White Mountain National Forest Plan. The task of revising the plan—a process that takes place every 10 to 15 years—has incorporated hundreds of public comments and many public meetings over the past seven years. The plan, after all, will guide decisions on everything from timber harvesting to Wilderness protection to ATV use in the forest for the next generation. At press time in early June, White Mountain Forest Supervisor Tom Wagner said a draft environmental impact statement (DEIS) was due to be released late in the month. The DEIS analyzes the effects of alternatives outlined in the proposed plan. A 90-day public comment period follows, during which the Forest Service will hold open meetings at the Ranger District offices in Holderness, Gorham, and Conway, N.H. The Forest Service will consider these last comments before releasing the Final Environmental Impact Statement and the final revised forest plan in June 2005.

Wagner says three key issues remain on the table: 1) Land allocation—How will lands be allocated to different management areas to accommodate the many products, services, and experiences people desire from the forest? How many

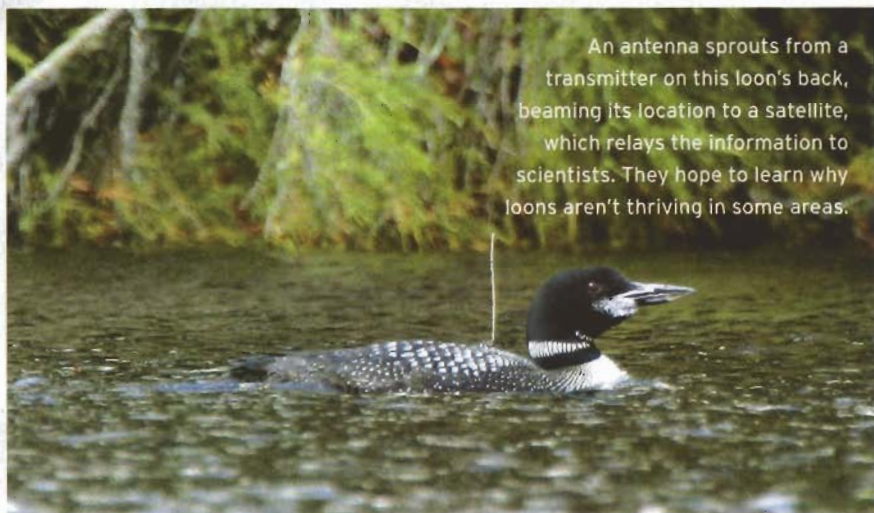


areas should be carved out for scenic overlooks on roads, for instance, and how much land reserved for backcountry hiking? 2) Forest and vegetative management—How much vegetation will be used, and in what locations, to create wildlife habitat diversity, wood products, and exemplary sustainable forestry? 3) Recreation—How will increasing recreation be managed to ensure diversity in what the forest can provide, while maintaining the overall character and quality of the experience?

Since the beginning of the forest plan revision, AMC members and staff, along with other groups, have submitted comments, conducted research, and made recommendations, says AMC Conservation Director Susan Arnold. During this final comment period, she says the most crucial issues to AMC are expanding designated federal Wilderness, protecting roadless areas, and prohibiting ATV use in all parts of the forest. She urges members to submit comments and to visit AMC's website, www.outdoors.org/conservation/, for more information.

Wagner says he and his staff "appreciate the dedication and commitment of the many people who have been involved with us as we've developed the plan revision. Public involvement is a vital part of managing public land." —J.R.B.

PHOTOGRAPH: ROBERT KOZLOW



An antenna sprouts from a transmitter on this loon's back, beaming its location to a satellite, which relays the information to scientists. They hope to learn why loons aren't thriving in some areas.

erative Loon Program (ACLP), a partnership between the New York State Department of Environmental Conservation, the Wildlife Conservation Society, the Natural History Museum of the Adirondacks, the Audubon Society of New York State, and the BDRI. Among the information gaps scientists hope to fill: What are their migration routes? Where do they gather before migration? Where do they spend the winter?

Schoch and others hope that answering these questions will inform loon conservation throughout the Northeast, and perhaps even unravel the mystery of Lake Umbagog. "There are several issues that can impact loons in their wintering or migration areas that [don't occur] on their breeding grounds—for example, oil spills, commercial fishing, exposure to contaminants," says Schoch.

To better understand the ways of loons, researchers from the ACLP, the BDRI, and the U.S. Fish and Wildlife Service have begun using satellite telemetry to track them in two related studies in the Adirondacks and on Lake Umbagog. Scientists outfit individual birds with a high-powered radio transmitter that beams signals to National Oceanic and Atmospheric Administration satellites, which then bounce information to researchers.

Since 2000, Evers says, "we're losing about twenty adult birds on Lake Umbagog every year."

Wildlife scientists started using satellite telemetry to track animals over long distances in the 1960s. In the late 1990s, Kevin Kenow, a wildlife biologist with the U.S. Geological Survey in Wisconsin, pioneered the technique of surgically embedding tiny transmitters under the skin on loons' backs, attached to a protruding antenna. Today's transmitters weigh about 20 grams, about as much as two sugar cubes.

The first Northeast loons received transmitters in August 2003—two each in the Adirondacks and Lake Umbagog; but already, data from the 2003–2004 migration season has revealed that Adirondack loons wintered on the Jersey shore, while Lake Umbagog's

fanned out in coastal New England.

This summer, Kenow, who is still the national expert on this technology, will outfit six more Adirondack loons with transmitters, as well as two or three more loons on Lake Umbagog, for the fall migration. He thinks the findings may link the birds to places where they are exposed to contaminants such as mercury.

Beginning in October, satellites will once again track loons for the fall migration to their wintering grounds.

—Freelance writer Peter Bronski lives in Weehawken, N.J.

To follow the loon study, visit www.adkscience.org/loons.

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