Loon Caller

Summer 2012

VERMONT CENTER FOR ECOSTUDIES
UNITING PEOPLE & SCIENCE FOR CONSERVATION

Vermont Loon Recovery Project
A program of
the Vermont Center for Ecostudies and
Vermont Fish and Wildlife Department

Nongame Wildlife Fund

Conflict avoidance...people and loons

A major role of the VLRP is to "smooth" the way for loons to begin nesting on our busy Vermont lakes and ponds. It is a combination of management, education, and PR with a good dose of intuition and luck. This year's success story occurred on Greenwood Lake but actually started in 2011. The newly re-established loon pair in 2011 built a nest at high water in late May on the big island, but then the water levels dropped leaving the site out of reach. The pair then started nest building on a tiny island occupied by a small cottage. The owners came and the loons gave up; we don't think eggs had been laid. Knowing this conflict existed, the VLRP put out a nesting raft in the one isolated cove on the lake this spring mindful of several challenges: loons like to go back to where they have tried nesting before, the lake has two islands (both with occasional heavy boat traffic around them), and encouraging a pair to move more than a few feet from a previous site is difficult, let alone having them move ½ mile away to this cove with a new raft located within it.

Greenwood Lake nesting raft
after the eggs disappeared

In mid-May, Liz Brunelle, the VLRP loon intern, and I checked the raft; no loons were nearby. As we paddled back to the boat ramp, I saw two dots by the tiny island to the north. "Expletive!" This pair behaved like the female was going to lay an egg immediately as we examined their nicely formed nest bowl on the beach of the tiny island. We left and drove to the town clerk's office, found a phone number for the owner of the island, and luckily contacted the owner at suppertime asking permission to put up a small garden fence to "encourage" the loons to nest elsewhere. With permission granted, I drove back down that evening and upset the loons once again. I dislike doing this, but I dismantled the nest bowl with loons splash-diving 10 feet away from me. I justified my actions knowing that the pair would not be successful if they nested here. I put up the fence and wished the loons good luck.

Three days later on my way back from dealing with the loon nest on Berlin Pond (another story), I stopped by the cove for a quick look. A loon was sitting on the raft. Hallelujah! Unfortunately the pair abandoned the nest after 3 ½ weeks of incubation; the eggs were gone, most likely due to a predator. The good news is that the pair has now tried nesting on the raft and will likely return to it next spring. *** *E. Hanson*

Central Vermont Loons...from 0 to 8 nesting pairs in 17 years

Starting with Lake Ninevah in 1995, loons slowly began colonizing the lakes in the central Green Mountains. Loon began nesting on Wallingford Pond and Spring Lake in 2000 and 2002, respectively. From here, the breeding pairs expanded to Chittenden and Woodward reservoirs in 2005 followed by Lake Dunmore in 2007. And as of 2009, loons are now nesting on Kent and Wantastiquet ponds. For many of the newer pairs, success has not come readily as loon pairs on Chittenden, Kent, and Woodward all had failed nests during their first two years of trying.

One question about the loons in this region of lakes arises: where did they come from? As noted in the article on page 4, most loon chicks eventually return to live within about 20 km of their natal lake. The nearest nesting loons to this region are 65 km to the north on Thurman Dix Reservoir in Orange, VT and 50 km to the south on Somerset Reservoir. Are they New York migrants who stopped and stayed? Are many of the new pairs offspring from Lake Ninevah? Wherever they

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The Vermont Loon Recovery Project is a joint program of the Vermont Center for Ecostudies (VCE) and Vermont Fish and Wildlife Department (VFWD). The VLRP's mission is to restore and maintain Vermont's Common Loon population through monitoring, management, education, and research.

VERMONT CENTER FOR ECOSTUDIES
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The Vermont Center for Ecostudies (VCE) is a non-profit organization whose mission is to advance wildlife conservation through research, monitoring and citizen engagement. With a reach extending from New England through the Caribbean to South America, our work unites people and science for conservation.

To make a tax-exempt donation in support of our work, please visit our website, www.vtecostudies.org, or call (802) 649-1431 x5. Donations of any amount help us achieve our conservation mission.

The *Loon Caller* and VCE's *Field Notes* are free to citizen scientists, donors, and partners.

Vermont Center for Ecostudies
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Volunteer information and VLRP publications are available on VCE's website. Communications about the VLRP and the *Loon Caller* may be addressed to:

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Update: Botulism on the Great Lakes

A few years ago, we reported about a major die-off of loons and other fish-eating birds from botulism poisoning on the Great Lakes. The estimate was that over 40,000 loons died between 2000 and 2008 with a peak of about 7,000 in 2006. Botulism is naturally occurring in the lake bottom sediments, but with the introduction of bottom-feeding invasive species such as the Round Gobie (fish) and zebra and quagga mussels, the bacteria has been more readily available to other animals. The good news is that the bird die-offs did not occur in 2009 and 2010. It is still unknown why the outbreaks are worse in some years than others.

Loon-Specific Black Flies

By John H. Cooley, Jr., Loon Preservation Committee, NH. Edited by Eric Hanson

Although it's been documented that black flies will bother loons, recent studies have shown that there is a specific black fly, *Similium annulus*, that likely feeds only on loon blood. A black fly-covered nesting loon is stoic by any human measure, but this torment can eventually drive it from the nest, causing the nest to fail. It's rarely possible to pin a nest failure squarely on black flies as the primary cause, but such failures are known to have a substantial impact for loon populations in other regions. In 2011, black fly nest abandonment in northern Wisconsin was the worst seen in almost a decade. Most of these abandonments occur in late May, thus many loon pairs will re-nest after the peak of black fly season.

Loon with black flies on head

Meggin Weinandt, a Northern Michigan graduate student, investigated several questions about black fly and loon ecology. She found that black flies were much more attracted to loon decoys fitted with real loon wings (salvaged from recent mortalities) compared to plain decoys indicating that a chemical cue—presumably from the loon's natural waterproofing oil on the wing feathers—was the likely attractant. Furthermore, during two of the three trials, the only species of black fly captured on the real-wing decoys was the loon specialist, *Similium annulus*.

Weinandt also detected several common avian blood parasites associated with the black flies as carriers. These types of parasites can cause lower reproductive rates and immune suppression in other bird species. It was also discovered that more mercury was associated with a higher likelihood of blood parasite infection. This result suggests that mercury, in addition to poisoning a loon's nervous system, may compromise the loon immune response, in this case its ability to fight off blood parasites introduced by black flies. This story brings to light a complex natural history, helping to explain black fly impacts beyond the immediate torment they impose on a nesting loon. And it provides an example of the potential synergy between natural stressors, like black flies, and preventable human-caused stressors, like mercury.

Weinandt, M.L. 2006. Conservation implications of Common Loon (Gavia immer) parasites: black flies, haematozoans,and the role of mercury.Master's thesis, Northern Michigan University, Marquette, MI. 86 pp.

Vermont Fish and Wildlife Department

Mission: to protect and conserve our fish, wildlife, plants, and their habitats for the people of Vermont.

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are from, it's been exciting to see these lakes and ponds now occupied by loons.


© Steve Costello

The expansion has yet to move out into the lower Champlain Valley as only 1 or 2 adult loons are reported each year between Lake Hortonia and Lake St. Catherine. We are seeing a few more loons in 2012 on parts of Chittenden Reservoir and several small ponds near Lake Dunmore, including Sugar Hill Reservoir, Silver Lake, and Fern Lake. The lakes along Route 100 (Amherst, Echo, and Rescue) occasionally have loons on them, but these birds seem to move around a lot. Further south, Lowell Lake in Londonderry has had fairly consistent 1 and 2 loon sightings, whereas Gale Meadows has had no loons reported in 2012 after several years of having at least a single loon. This reservoir is good size and has great nesting habitat and is relatively near Bourn Pond and Somerset Reservoir, Vermont's most southern nesting loons. Hopefully it is just a matter of time before some young adult loons claim its waters. Loons tend to colonize lakes near other breeding lakes. For all of southern and central Vermont, the lakes are much more isolated compared to the lake regions of northern Vermont, the Adirondacks, and much of New Hampshire.

There are a few accounts of loons nesting on Lakes Bomoseen and Dunmore in the 1800s, thus to have them back after decades of absence is quite a success story.

Volunteers – key to the success

The VLRP is a small project and could not operate without volunteers helping with the monitoring and management activities, especially in the southern half of the state. Here is a list of a few of the volunteers who have been instrumental in the loons' success in the region.

- Bob and Linda Tucker **(see text box).**
- Charlie Davis—Lowell L., Gale Meadows, many other lakes in the region.
- Doug Blodgett (VFWD biologist) and George Barbash—Wallingford Pond. This pond requires backroad driving, a long hike, and using an old boat stashed in the woods.
- Connie Youngstrom/Jonathon and Eliza Gibson—Spring Lake.
- Terry Davis and Steve Costello (CVPS)—Chittenden Reservoir.
- Mike Korkuc and friends—Lake Dunmore. Mike has moved onto his pontoon boat for the past many summers essentially living near the loon pair. He's out there so often, that the pair has stashed the chicks next to his boat while they deal with intruder loons. The loons know who to trust (see photo on page 1).
- Marv and Sue Eliott and Roy Pilcher (Kent P.), Frank Wingate and Johnny Essau (L. Rescue), Henry Dandeneau (Somerset and Bourn), Ron Nelson and John Anderson (Sunset L. in Marlboro), Sally Buteau, Sue Wetmore, and many others have contributed significantly over the years. Thank you all. *E. Hanson*

2012 VLRP Volunteers of the Year: Bob and Linda Tucker's Experiences as "Loon Rangers"

By Bob Tucker

I have always loved being on the water, and when we were asked to house sit for Richard and Patricia Nye on Lake Ninevah several years ago, we were introduced to loon watching. I met Eric at a loon outing, where we had the opportunity to observe the change of nest duty. After that we were hooked. We have observed an older loon encouraging a younger loon to learn how to fly. I have collected unhatched eggs and dead baby loons to give to Eric to send for evaluation. One time when an unhatched egg was left on the nest but too difficult for me to reach from the kayak, Linda swam out from the Nye's house to retrieve the egg for mercury analysis. Twice we received calls from Pat Nye that she couldn't find the baby loons, because an interloper had been on the lake. So Linda and I took our kayaks and split up to search the lake, and both times were able to find the babies alive and well.

This nesting season turned out to be a real fun time as Linda and I saw them start the nest and I was able to keep an eye on them until the two chicks arrived. On the 3rd day after the hatch, Linda was trying to get a picture of the adult loon and chicks, so I could send it to a friend. She was just floating and waiting in her kayak with her long distance lens so not to cause any nervousness amongst the loons. However, the off-duty adult loon must have felt Linda was drifting too close even though the other loon was calm. It didn't make a sound, came up real close to her, dove, went under her, surfaced and did the same thing from that side. It was not frantic in its actions, but Linda eased away and let it feel it had done a good job scaring her away. We would recommend that anyone who has time to spend on the lakes volunteer with the VLRP and the Vermont Center for Ecostudies (VCE).

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When chicks return to their natal lake region

Erica Lemoine interviewing Dr. Walter Piper, Chapman University in Tremolo, Spring 2012. LoonWatch, Sigurd Olsen Environmental Institute, Ashland, WI.

Loon chick with leg bands

Banded chicks that return as adults tend to select territories similar to their natal territories. For example, if a chick was reared on a small acidic lake, they will choose to settle on a similar size and pH lake. So even though this lake may or may not have the best habitat and water quality, they are returning to these lakes. This is remarkable because when first year loons leave their natal lake, they experience many different types of water bodies and water quality during migration – from inland lakes to the ocean. And loons stay on the ocean for their first 2 to 3 years of life, so returning close to their natal lake, to a size and class of lake that is similar to the one on which they hatched, is very interesting. This indicates that something happened in the first few months of life that had an impact and caused them to choose a similar lake. We've also learned that banded chicks that return as adults disperse close to their natal lakes, with male loons returning to within 12.1 km of their natal lake, and female loons returning to within 25.2 km of their natal lake.

Please support the VLRP, VCE, and Vermont's loons through a tax-deductible contribution today.

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5) loon rescues, and
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Thank you volunteers and all donors for your support.

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