Red Eye News

Volume 3, Issue 1 March, 2011

Northwoods Loon Protection Program Offers New Lake Wildlife Projects and Partners in 2011

BATS!

The Wisconsin Bat Monitoring Program is currently looking for volunteers interested in becoming a part of an exciting and fascinating research opportunity. Explore the night in a way you never have before, while gathering data crucial to bat monitoring in the state. Learn to use an acoustic system capable of detecting and recording high frequency calls as bats fly through the area. The hand-held system records bat calls while stamping the date and time of each encounter. With the threat of White Nose Syndrome just outside our state borders, it's more important now than ever to get baseline numbers and information on Wisconsin's bats.

The main goals of this program are to identify distribution and relative abundance of bat species throughout Wisconsin, improve upon methods of acoustic monitoring for bats, monitor status and trends and provide information to land managers, industry and the public.

If you are interested in contributing your time to this program, sign up for a training session. Classroom learning and hands-on training will qualify you to participate. Trainings will be held Tuesday, April 26th at Trees for Tomorrow in Eagle River and on Friday, April 29th at the North Lakeland Discovery Center in Manitowish Waters. Both sessions will begin at 6:30 with an indoor program on the monitoring effort, followed by a hands-on lesson with the equipment.

For more information, or to sign up for a training, please contact:

Licia Johnson at the Discovery Center

phone (715) 543-2085

email licia@discoverycenter.net.

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FROG AND TOADS!

Imagine for a moment, silence on a late spring and early summer evening, no sound of the harmonious chorus of male frogs and toads calling for a mate. Sadly, how much we take for granted, but we know how volatile our frog and toad populations are due to the stressors of pollutants, climate change and the threat of loss of habitat.

You can make a difference by monitoring anurans on your lake. After sunset, we are asking volunteers to travel to 1-3 spots on their lake to identify frogs and toads by calls at each spot, collect data such as water temperature readings and other important information needed to keep this population safe for future generations. We would like to recruit a set of volunteers who will repeat these surveys annually so we can keep track of trends in numbers of frogs and toads in the Headwaters country.

You do not have to spend much time training to conduct these surveys. The good news is you only need to memorize 13 calls, there are only that many species in Wisconsin. We will be using the Wisconsin Frog & Toad Survey (WFTS) protocol (see forms and instructions at :: http://inventory.wiatri.net/frogtoadsurvey/index.cfm)

Calls can be learned by listening to CDs or tapes, as well as visiting this interactive website sponsored by USGS.

http://www.pwrc.usgs.gov/frogquiz/index.cfm

We will be holding training workshops this spring as well as providing materials for the surveys.

Please let us know if you have an interest by emailing :: Michael.Meyer@Wisconsin.gov.

The lake becomes whole new world after dark. Once the sun has set, listening to owls hooting in the distance and feeling the air beneath the beating wings of a loon coming in for a landing after an evening flight are all experiences that will last a life time.

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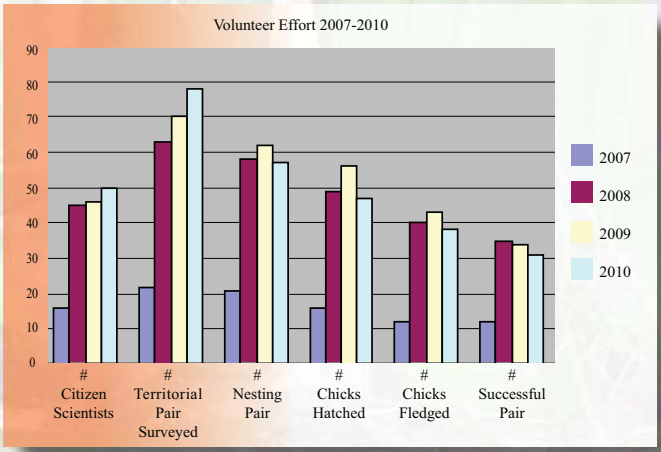
Northwoods Loon Protection Program Monitoring Results 2007-2010

After 4 years of diligent monitoring, your data is beginning to tell us a story about Wisconsin Loons. While 17 volunteers contributed data in 2007, the number rose dramatically in 2008, and has increased slowly to 50 volunteers in 2010. Also, the number of loon pairs monitored has also increased , from 22 in 2007 to 80 in 2010. Interestingly, the rate of monitoring has also increased—in 2007 1.2 territories were monitored per volunteer. In 2010 1.6 territories were monitored per volunteer.

The data also shows some interesting patterns. The productivity data shows a clear downward trend in nest success and chicks fledged over the course of the surveys—however chick survival stayed relatively constant. There was also a marked decline in the number of territorial adults actually nesting over the past 4 years. It is possible that this is due to low water levels, reducing the amount of suitable nest habitat present on some lakes—and low water could also increase predation on loon nests, allowing predators easier access.



Cost Analysis Confirms the Value of this Program!

As you know, cost savings and austerity budgets are the order of the day for all government agencies. The Northwoods Loon Protection Program is a budget saver! We have tallied the cost of monitoring 60 lakes for loons using DNR employees, and estimate the cost to be just over $25,000. We then estimated the cost to our agency to collect the same data using the Citizen Science approach. We found the cost to be $19,000 lower when data is collected by participants of the Northwoods Loon Protection Project. Conserving Wisconsin's Loons is a priority for wildlife and lake enthusiasts throughout the state—and we believe we have demonstrated the high value of this project to our agency leaders.

The productivity data collected by this project will be incorporated into the Wisconsin Loon Population Model, along with adult survival data collected by WDNR biologists, and a new population growth rate will be estimated for Wisconsin common loons in 2014.

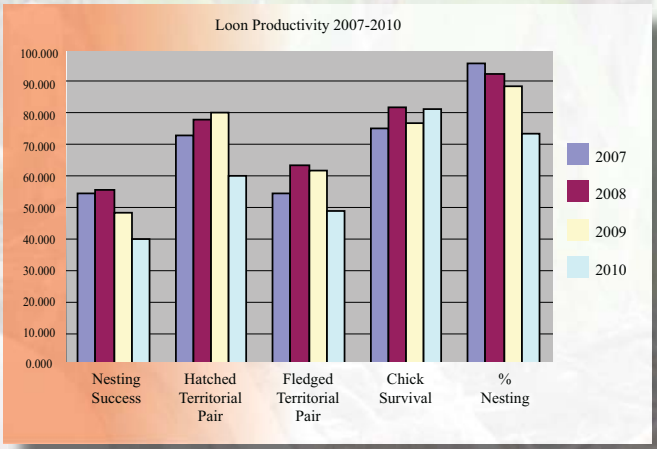
The Productivity Data is Accurate!

We double-checked the accuracy of your data in 2008 by having experienced field biologists visit the same lakes as several volunteers. Citizen scientists did an excellent job of collecting data—accuracy ranged from 95—100% when quantifying the reproduction rate of the loons. Citizen scientists found determination of adult return rates via band reobservations more difficult—experienced field staff will continue to collect that data. Also, a few nest attempts were also missed, thus rates of nesting may be somewhat higher than reported.

Loon Citizen Scientist Accuracy
2008
(n=35 lakes)

- Band reobservations - <35%
- Territorial Pair presence/absence - 100%
- Proportion Nesting - 85%
- Nest Outcome - 100%
- Chick hatching - 95%
- Chick survival - 100%

- Conclusion - Loon Citizen Scientists accurately identify territorial pair and productivity; trained staff required to quantify adult re-observation rates (adult survival and juvenile recruitment)



Cost/Benefit Analysis
WDNR LTE's

- Cost of monitoring productivity weekly at 60 lakes using **WDNR LTE's** (USEPA study)

- 1520 WDNR LTE hours (salary=$22,800)
  - Weekly surveys, 30 lakes/LTE
  - May 1 - August 21 = 18 weeks
  - 80 hours = data entry
  - Travel
  - Vehicles (5000mi * 0.37mi) = $1,850
  - Boats/motor/trailors/canoes (gas & maintenance) - $1,000

TOTAL = $25,650

Cost/Benefit Analysis
Citizen Scientists

- Cost of monitoring productivity weekly at 60 lakes using **Citizen Scientists**

- 310 WDNR LTE hours (salary=$4,650)
  - 100 hours = 5 training workshops
  - 150 hours season prep-datasheet & newsletter mailings, maintenance of Citizen science contact info/ mailing list
  - 60 hours = data entry
  - supplies, newsletter, mailings - $1,500
  - Travel - $500

- Total - $ 6, 650

Net Savings $19,000

Lead Exposure in Wisconsin's Common Loon Population

Sean Strom,

WDNR Wildlife Health Team

Between 2006 and 2010, 48 Common Loons were submitted to the WDNR's Wildlife Health Program for necropsy. Over 20% of the dead loons submitted for necropsy were judged to have died from lead poisoning. Remnants of lead fishing tackle were recovered from the GI tracts of loons in all cases where lead toxicity was a major contributor to the cause of death. Based on our findings, it's likely that loons ingest lead sinkers and jigs mistakenly along with the stones they ingest to aid their digestion of fish. The lead artifacts we have recovered from lead poisoned loons are similar in size to these stones. The proportion of lead poisoning among loon fatalities in Wisconsin is comparable to that observed in Canada (26%–30%) but is slightly lower than that of breeding loons in the New England states (44%–52%). Our findings suggest that lead exposure is a major mortality factor for loons in Wisconsin. The Wildlife Health Program of the WDNR will continue to monitor lead related mortality in WI loons. Additional information regarding the impacts of lead on wildlife, including WI birds, can be found at:

http://www.peregrinefund.org/Lead_conference/2008PbConf_Proceedin gs.htm

For more information contact ::
Sean Strom at Wisconsin DNR Madison.
Sean.Strom@Wisconsin.gov

Surveillance of Botulism E Related Mortality in Waterbirds of the Wisconsin Great Lakes — 2010 Update

Sean Strom,
WDNR Wildlife Health Team;
Mike Meyer,
WDNR Science Services

Type E botulism has been implicated in waterbird die-offs on the Great Lakes since the 1960's and has been responsible for the deaths of thousands of birds including common loons, gulls, mergansers and other migratory waterfowl. These mortality events have been increasing in frequency, scale and scope - potentially related to the presence of non-indigenous aquatic species (quagga mussels and round gobies), low Great Lakes water levels, and excessive Cladophora (algae) growth.

This project aims to document the scope and scale of such die-offs in the Wisconsin Great Lakes region where Type E botulism has been previously documented. Specific objectives include: 1) Monitor the occurrence of waterbird mortalities associated with botulism E outbreaks along the Wisconsin shores of the Great Lakes via necropsy and diagnostic screening. 2) Understand the scale and scope of the botulism E outbreaks on Great Lakes migratory waterbirds in regards to species involved, numbers impacted and locations of the outbreaks and identify populations which may be at risk. 3) Identify populations most at risk and estimate potential population impacts for certain species. 4) Establish a network of partners to assist with the monitoring of avian mortality events in Wisconsin and coordinate with other Great Lakes botulism E surveillance programs.

Beginning in the fall of 2008, the Wildlife Health Program initiated a surveillance effort to monitor Bot E related mortality in waterbirds along the Door County peninsula. Beginning in July and continuing through November, biologists conduct surveys of 15 points around the peninsula's shoreline.

These monitoring points are located approximately every ten miles around the shoreline of the county. At each point transects were established ranging from 100 to 500m and surveyed to document any bird mortalities. Transects are visited every two weeks continuing through November. Dead birds found during the monitoring are collected for necropsy and are tested for the Bot E toxin. The WDNR is one of several states in the Great Lakes basin who, along with Federal agencies, are interested in monitoring the prevalence of botulism related mortality in waterbirds.

No significant mortality events were identified during the 2008 - 2010 surveillance efforts. Although the numbers were low, some dead birds collected during the monitoring effort did test positive for BotE, suggesting a relatively constant low-level prevalence of the toxin. Explanations for the sporadic large scale mortality events related to BotE are unclear. The low number of mortalities seen during the WI DNR's surveillance efforts was similar to the low numbers observed in other Great Lakes States with the exception of a large scale mortality event near Sleeping Bear Dunes National Lakeshore in Michigan.

For more information contact Sean Strom at Wisconsin DNR Madison.
Sean.Strom@Wisconsin.gov

Beyond BOW -
For the Love of Loons!

by Judith Bloom

© Judith Bloom

"There be a loon" shouted Diane Tschirren to her daughter last November as they drove along the shores of Lake Monona in Madison. She recognized the loon's profile and insisted they stop to check for bands – even in the blowing sleet. Diane got out of the car and walked back and in her words "There it was a beautiful Loon just floating on the water I just stood there I am not sure why but it felt like this was a gift to me." Her daughter thought she was crazy, but as one of thirteen women from all over the state who attended last July's second annual Beyond BOW For the Love of Loons program she knew better. They all answered the call of the loon when they signed up for the two day program offered by the Wisconsin Becoming an Outdoorswoman Program in conjunction with the Wisconsin Citizen-Based Monitoring Network/Northwoods Loon Protection Program and Loon Watch. The program is held annually at Kemp Research Station in Woodruff. It includes a classroom introduction into all things loon by Mike Meyer in preparation for a day on Lake Tomahawk watching loons with Terry Daulton, and an evening observing loon banding. On Friday evening Terry helped the women tap into their 'inner artist' while learning new skills for recording loon behavior and scientific data. Saturday morning found the women up before dawn to participate in the 2010 Loon Watch loon count. The group covered three lakes performing a service vital to the reliability of the data collected once every five years. Always, the highlight of the program is the evening observing Mike and his team's loon banding operations and last year was no exception. Judy Schwarzmeier, an active volunteer in other citizen scientist projects, won the opportunity to go out in the capture boat. Her face shone with delight as she proudly carried the chick box to shore. The ability to introduce this special bird to citizens who may otherwise not have such an opportunity is what originally inspired the program. It is the magical experience of women like Diane and Judy that makes it all worthwhile. For more information on BOW, visit their website at :: www.uwsp.edu/cnr/bow

"There it was a beautiful Loon just floating on the water I just stood there I am not sure why but it felt like this was a gift to me."

BOW PARTICIPANATS :: 2009

BOW PARTICIPANATS :: 2010

Shock and Awe

by Dennis Stockwell

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Unless you had the opportunity to witness first hand the sometimes violent and deadly combat between resident loons and intruders, you may underestimate the seriousness of those encounters. I have been helping monitor loons with Doug Killian and Mike Meyer for five years and have seen several major fights. At first, the fights I witnessed were intense, but brief.

But two years ago, Doug and I were monitoring loons on Stella Lake. At first, the resident pair, with a pair of chicks in tow, didn't seem too fazed. In the bat of an eye, a fierce fight broke out between the resident female and the intruding female. They skimmed across the entire length of the lake, time and again. Because it happened so fast, and the water was flying so furiously, it was difficult to see the actual physical contact, but there was a lot.

Every time the pursuer and the pursued stopped, we thought it was over. But the combat kept going, for almost a half-hour. We were amazed at how much endurance they exhibited. The male had quickly left the scene to guard the young chicks. Unfortunately, there was no happy ending because the chicks disappeared shortly after.

In an interesting side note, the following spring the intruding female succeeded in displacing the female and paired with the male.

It was a graphic example of how nature can sometimes be violent and mysterious. And it was a reminder that our role should be to observe from a distance and let nature takes it course.

"Nature can sometimes be violent and mysterious."

Sounds Like Stella

by Dennis Stockwell

When I wrote the article, Shock and Awe, about our experience on Stella, I was handed an article by Dr. Walter Piper. It was so interesting, I suggest to Mike that I write about it. The full article, "Troubled Waters," is in the December, 2010 issue of Natural History. Dr. Piper witnessed a similar confrontation between loons on Burrows Lake, a 150 acre lake in his study area. It was an eye-popping exhibition, even for Dr Piper, a professor at Chapman University.

What intrigued Walter were the high stakes the loons were willing to engage in. Why would they? And why would males fight harder than females in protecting their territories? One possibility is that older male loons, nearing the end of their lives, are more desperate because "they have little to lose."

As males age, they may realize that if they are evicted, they may not be strong enough to stake a new claim. More data analysis on the age of the males may prove this to be true.

Dr. Piper also has noted that intruders like the one he observed don't prospect for successful nest locations, just territories where resident loons succeeded in raising chicks. Half of all intruders attempt a take-over on lakes where the resident loons succeeded the previous year.

While Dr. Piper's questions are slowly being answered, thanks to the yearly data from researchers, enough questions remain to make our work so interesting. Loons have been around for millions of years, much longer than us. In a perverse way, I hope some of the mystery will remain for a long time. The mystery of it all is what keeps us so fascinated with loons!

"The mystery of it all is what keeps us so fascinated with loons!"

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Getting Personal

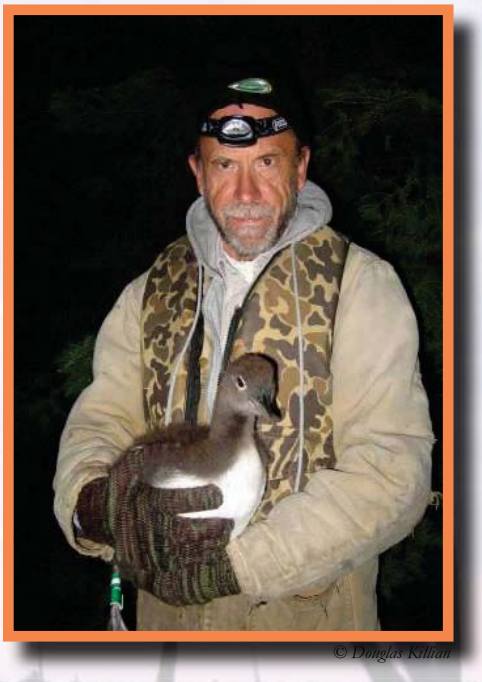
by Dennis Stockwell

In 2006, as I looked back at 30 years as a teacher and principal, I thought that kind of experience would never happen again. I thought I would never again feel so satisfied and excited, and challenged! That year I had the opportunity to work along-side Mike Meyer and Doug Killian as a volunteer. Before long, I realized I would like to be a part of the team.

The very first lakes I helped monitor were Forest, Baker, and Upper and Lower Buckatabon. Like all of you, I was hooked on that amazing bird. I was surprised I could again experience an exciting challenge like I did in the past.

Just when I thought nothing could match the thrill of watching loons as Doug read the color bands, I took part in capturing and banding them in July and August. And just as I watch you thrill at seeing loons up close and personal, I think back to my first night of banding.

One of the most satisfying parts of my job is working with all the Citizen Scientists. My role includes not only field work when I get to meet many of you, but behind the scenes. Sometimes it means just sending out forms to you, tallying your observation results, double-checking all of our figures, and preparing all the forms we use, such as our color band sheets. Sometimes, my work is a little more hands-on, when I go with Doug in the spring to see which loons are on the lake. I am constantly in awe hearing Doug repeat, from memory, where those loons were last year, where they nested, and how many chicks they produced.



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By the end of my first year, we realized there were too many loons, too many lakes, and not enough eyes. The Citizen Science project was born. If you ever doubt how valuable your time and effort is, take it from another "student." You are absolutely vital to our work.

All during the winter months I assist Mike and Doug in tabulating all the data you helped collect. So while your thoughts are on Thanksgiving, Christmas shopping, and maybe cross-country skiing, Mike and his elves are studying and analyzing every piece of information you sent us. Many a day, Mike will hear me say, "Mike, look at this" or "Doug, look at these totals." So, keep up the great work, because there is no more satisfying work than working to protect these special birds.

Three's a Charm on Wildcat!

In 2009, a citizen scientist monitoring Wildcat Lake reported one of those rare sightings. Jim Duke emailed us that he saw three chicks on his lake. We couldn't wait to get on the lake the next morning. Were his eyes deceiving him? Would we actually see three chicks? With camera in hand, we saw for ourselves. Although we realized it was doubtful all three chicks would survive (there has been no documentation that ever happened), it was nonetheless a thrill. Many of you will monitor your lakes an entire lifetime without witnessing that sight. And if it wasn't for a citizen scientist, we might have missed that opportunity. Like we've said many times, by having eyes on all the lakes possible, we can actually document things that might go unseen. Will we be able to see a repeat of Wildcat on one of your lake? We hope so!

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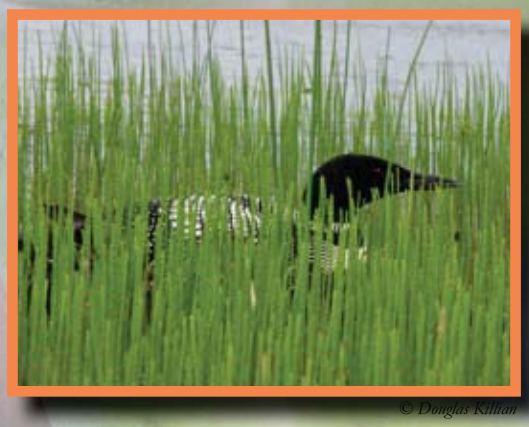
Common Loons...Uncommon Nests!

As you know, never search for the "typical" loon nest. Unlike birds like the robin and the Baltimore Oriole, the Common Loon does not build a prototypical nest. It might be a large and carefully constructed nest of mud and vegetation, a shallow indentation on the shore, or a cleverly-disguised nest on a forested island. The nest might be completely visible to every passer-by, like the now famous nest on Silver Lake several years ago, or a nest totally obscured by reeds. A lake may have ideal locations, very protected and inaccessible, but instead the loons will choose a far less ideal spot to build a nest. If there are reasons for their choice of nesting locations, the loons keep it to themselves.



Heading for Higher Ground!

by Matt Erlandson

With five confirmed nests and three successful hatches, I had a lot of good stories last summer. The one most interesting was about the Razorback pair that moved their eggs to avoid the rising lake level.
The attached photos of the eggs on June 7th and one of an adult incubating them on June 20th. Another photo, taken on June 30th, shows that the loons had actually moved their eggs a couple of feet to avoid the rising water level. If you compare the June 7th photo to the June 30th shot, it's easy to see where the eggs were originally (in front of the white rock). The hatch occured over the 4th of July weekend when I was in Madison, so I'm not sure if both eggs hatched: the July 10th photo shows the chick that survived. This chick was banded on the night of the big storm that hit the Chippewa Flowage and the Star Lake/Conover area.
Looking forward to another year as a "loon(y) ranger".

I witnessed one other loon event that is probably worth relating. I was watching the Star Lake "Grassy Island" pair from the shore near the rearing pond. They were feeding their chick, which was a little over a week old at the time. I turned away for a moment and heard a loud swirl.
When I looked back, the adult loons were making high-pitched hoots and kept dipping their heads to see what was going on beneath the surface.
This panicked behavior went on for maybe 10-15 seconds. I was thinking that a muskie had taken their chick, which gave me a serious pit in my stomach. This chick was from their second nest attempt and was the one designated for banding with DNR Secretary Matt Frank and company.

Suddenly, the little loon broke the surface, a good fifty yards from the adults, shook itself and seemed fine. The parents quickly swam directly to the chick and everything went back to normal. My amateur speculation is that a bass grabbed the chick and sensed that it was too large to swallow. The chick was still being tended to by at least one adult when I last saw it in early October.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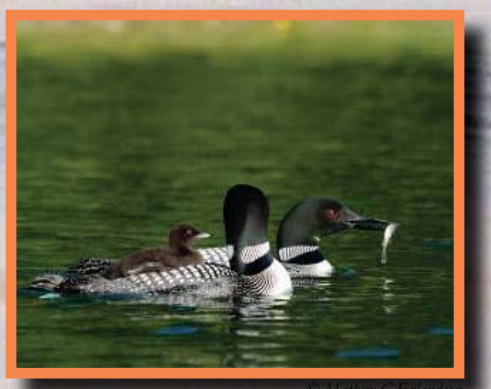
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Calendar 2011 Upcoming Events

April 26, Bat Training Seminar, Trees for Tomorrow,
April 29, Lakeland Discovery center: Manitowish Waters.
Both sessions start: 5:30
Please contact Licia Johnson at the Discovery center
(715) 543-2085
licia@discoverycenter.net

April 2011 Frog and Toad Training Workshop, Date, Time and Place to be announced (watch for email)

April 6 - Loon Monitoring Refresher Workshop, Boulder Junction Community Center, 1-3PM

April 20—Loon Monitoring Refresher Workshop, Rhinelander DNR Service Center, 1-3PM

April 30—Loon Citizen Science Spring Workshop, UW-Kemp Biological Station, Lake Tomahawk, 11—4PM (held in conjunction with LoonWatch)

August 2011 —3rd Annual Citizen Science Appreciation Picnic, NHAL Crystal Lake Nature Center, Sayner. Date and Time to be Announced.

To sign up for these events and for additional information, please contact:
Mike Meyer, WDNR, 107 Sutliff Avenue, Rhinelander, WI, 54501
715-365-8858
Michael.Meyer@Wisconsin.gov