

WATER'S EDGE

Gratiot Lake Conservancy News

Volume 3

FALL 2001

The Eagle is Banded!

Late in June, a small group of people held their breath as they watched Joe Papp, a wildlife biologist, skillfully shinny up 82' to the eagles' nest secured in the crotch of an old white pine near Gratiot Lake's shoreline. With soothing words, he retrieved an eaglet from the nest and carefully placed him in a canvas bag for the descent. From his confident climb aided only by hooks and a rope, to the gentle way in which he handled the eaglet, Papp's nineteen years banding eagles was evident.

Once safe on the ground, Papp with the assistance of Liz Hay, Headwaters' Raven and Mike Scheiwe, and student interns Kate Flynn, Jake Musser, and Zack Gayk proceeded to take vital statistics on the bird. At seven weeks of age, as determined by feather appearance, size, and wear, the baby weighed in at six pounds nine ounces—a tad on the light side according to Papp. Samples of blood and a few feathers were taken for analysis, and a durable, coded band was put on his leg to allow birders to track his movements.

Photo Courtesy of Diane Raven



This data collection is part of a research program undertaken by Clemson University in South Carolina in conjunction with the Michigan Department of Environmental Quality and the U.S Fish and Wildlife Service. Eaglets throughout the Great Lakes Basin are tested to see what they reveal about the environmental health of the region. Specifically, researchers are looking at levels of mercury, PCB's, and pesticides.

After all this poking and prodding, the eaglet was given pedalyte (yes, the same stuff dehydrated babies receive) through a syringe to replenish lost fluid (photo above). Then the helpers held the somewhat energized eaglet while Papp returned to the nest to search for any old, unhatched eggs.

(Continued on page 4)

The **Gratiot Lake Conservancy** is a Michigan Not-For-Profit Corporation formed in 1998 to preserve and protect Gratiot Lake and land within the Gratiot Lake watershed. Through education programs and materials, the Conservancy encourages good stewardship of the watershed and an understanding of its history and ecology. We promote research to further understand the Lake and its watershed. The Gratiot Lake Noblet Field Station located in the SE corner of the Lake is the staging area for many of the Conservancy's education and research activities.

Awlwort Sleuths

Participants in Janet Marr's plant walk learned rules every good botanist lives by—"Tread softly and carry a powerful magnifying lens!" The August walk began on the shoreline of the preserve. Participants proceeded carefully so as not to squash the delicate beach vegetation they were there to examine.

Janet demonstrated the fine points of distinguishing the rare awlwort (some of which along with other plants had conveniently washed ashore) from more common plants such as pipewort and water lobelia. Pipewort has concentrically striped roots as seen through the lens, awlwort has pure white roots. Lobelia can sometimes be seen mostly submerged in the lake with bell-like, pale lavender flowers sticking out above the water's surface. All three form neat rosettes of leaves, one to three inches in diameter, at their base underwater.

The group saw two species of bladderworts whose name belies their delicate beauty. These tiny yellow and purple flowers dotted the beach with color. Bladders in their root system suck in tiny insects, and then the plants digest them. Continuing into the woods on the Bear Paw Path, Janet pointed out different maples, red, mountain, and sugar, conveniently growing right next to each other. Away from the brilliant sunlight in the sheltered shade, many mosses appeared. Most fascinating were cushion moss which forms light green pillows and sphagnum which holds great quantities of water.

Because this woodland which skirts the shore has not been logged in a very long time, there are good size hemlocks, cedar, and pine along the trail, and a diverse understory. Janet pointed out a native holly, winterberry, and rattlesnake plantain, a small orchid.

The morning went quickly and the group returned to the Noblet Field Station for a bag lunch very generously augmented by delicious polenta prepared by Raven.



photo courtesy of Gina Nicholas



Nicholas Wilson tries out cushion moss

Sharpen Your Pencils!

This editor is looking for a generous volunteer to help in proofreading *Water's Edge*. Help is needed in October and May. Articles will be mailed, faxed, or e-mailed for review.

About *Water's Edge*

Water's Edge is the newsletter of the Gratiot Lake Conservancy. Its purpose is to report Conservancy news, to share information about the ecology and history of Gratiot Lake and its watershed, and to suggest ways to improve stewardship of the Lake and its watershed. If you have questions, comments, or offerings for *Water's Edge* please write to: Bonnie Hay, Editor *Water's Edge*, P.O. Box 310, Mohawk, MI 49950 or e-mail: belh@bellatlantic.net

Visit our new website after 1/1/02 : <http://www.mlswa.org/gratiot-lake-1508>

Mary Lizzadro September 25, 1910 - August 14, 2001

In 1999, Mary Lizzadro acted on her belief in the importance of conserving the natural beauty of some of Keweenaw's wild lands for future generations by contributing a 10,000 foot stretch of Gratiot Lake shoreline to the Gratiot Lake Conservancy. She was committed to the goals of the Conservancy and on the night before she passed away had hosted a small gathering to hear a presentation on the warblers of Gratiot Lake.

Mary who was born and raised in Wolverine Location spent most of her summers at her farmhouse in the woods a few miles from Gratiot Lake. Although she had traveled widely and lived most of the year in Elmhurst, Illinois, she loved the Keweenaw, "God's Country," the best.

A fund has been established in her memory to support the Conservancy's education and research programs.



Warbler Discovery Near Gratiot Lake



On August 13, Mary Lizzadro hosted a presentation which was attended by some Conservancy members, Headwaters educators and interns, and some local Audubon Society members. Jake Musser, whose ornithology internship at Gratiot Lake has been mentored by Mike Scheiwe of Headwaters gave an engaging presentation on the bird study he and Mike have undertaken at the lake over the last few years.

In his slide show, Jake noted the great variety of warblers nesting near the lake and the many species which migrate through the area. He and Mike have captured, recorded data from, banded, and released over 100 warblers at the lake in the last three years. Jake showed the mist nets used to safely capture the birds and described banding procedures. Data on the banded birds is recorded in the USGS Bird Banding Laboratory's database. The nesting information collected this past summer will also be added to the database for the newest edition of the Atlas of Breeding Birds of Michigan.

These small, insect eating birds migrate to Mexico and Central America for the winter so their number and diversity here are not only barometers of the watershed's health but indicators of conditions in the south where they winter.

Often brightly colored warblers flit about so quickly it is difficult to observe them. Sighting them represents a delightful challenge to those who love watching birds.

The team's most exciting discovery this summer was finding the nest of a Black-throated Blue Warbler (pictured). The nest which was in vegetation within a few feet from the ground, contained four spotted eggs. Mike and Jake observed the adult warblers coming and going from the nest. According to local bird expert, Dr. Lawrence Binford, this is the first nest of this species ever documented in the Keweenaw.

Fish Highlights

Vern Nurenberg, Fisheries Management Biologist for the Michigan Department of Natural Resources, answered questions at a July program hosted by the Conservancy at the Eagle Harbor Community Center. Some highlights of issues discussed included:



Lake level and Dams:

Nurenberg said that currently dam building is out of favor. In fact, the current management trend is toward dam removal and toward leaving systems in a more natural state. That said, he noted that there were legal requirements that needed to be met for a new dam to be considered. Property owners who would be affected by it would have to agree to it, lake level would have to be officially established, and should a dam be approved, someone would have to pay for it—most likely property owners through a special assessment.



Gratiot a Trophy Lake:

Nurenberg proposed the possibility of making Gratiot a trophy lake for pike. This would involve in part a catch and release program with a limit of two pike 36" or over. Nurenberg, who can be reached at the MDNR Baraga office (906-353-6651), would like input on this idea.



Smelt:

Nurenberg acknowledged that at least some of Gratiot's abundant smelt have not migrated into the Lake. They are year round residents probably inadvertently introduced as escaped bait. For those who would like to control their numbers he suggested requesting a permit to net them at the creeks. Although smelt can eat the young of pike, walleye, and bass, Nurenberg felt that this predation was offset by the fact that adult pike and walleye feed on smelt. He doesn't feel that the smelt are seriously jeopardizing the reproduction of pike and walleye in the lake.



Fish Survey:

The last fish survey on Gratiot was done in 1999. A new survey is scheduled for 2002.



Clams:

Some people, perhaps unaware of Michigan's law, have been spotted and prevented from removing clams from the Lake and the outlet. Fresh water clams are protected in Michigan. They are living filters of the lake water and are vital to the health of the lake ecology. Nurenberg gave permission for the Conservancy to post a notice at the public access to remind visitors of this.



Star Gazing Anyone?

The Conservancy received a generous donation this summer of a Meade telescope from Arthur Dion. This powerful scope can be programmed to automatically find and track stars. The Conservancy would like to have a "star party" next summer so amateur astronomers can gather to look at stars and the planets. The scope is also available for use by other educational programs. Please e-mail or write if you know of any groups or individuals with an interest in astronomy.



"Eagle is Banded" (continued from page 1)

He found one which was sent to the lab for analysis.

Much to the relief of all involved, including the adult eagles who soared watchfully overhead, baby was returned safely to his nest.

Gratiot's eaglet fledged and flew the third week of July. He was one of two raised to adulthood in Keweenaw County this year. He has two siblings that were raised in this same nest in the past four years. Many at Gratiot Lake watched the antics of the two adults and their three immature young at the Lake this past summer.

Jim Hay produced a videotape of the banding, which was shown at the Conservancy Open House and has been added to the Conservancy lending library.

**Gratiot Lake Conservancy
Open House 2001**

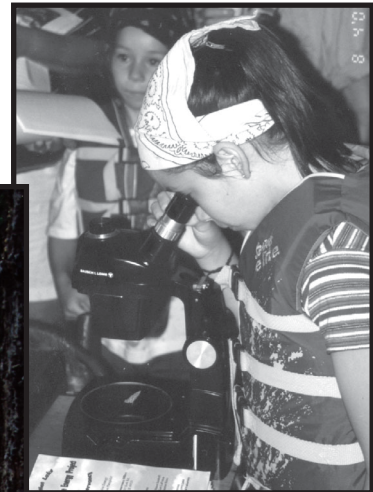


Look for Open House photos, information on education and research, and more after January 1st at the new, updated Conservancy website

<http://www.mlswa.org/gratiot-lake-1508>

Michigan Lakes and Streams Association (ML&SA) is our new host. You can also reach the Conservancy site by going to ML&SA's website at <http://www.mlswa.org/> and clicking on the link to Gratiot Lake.

Thanks again to Jim Hay for designing and updating this website.



Photos on this page courtesy of Louis Lizzadro.

Frogs!

By listening for frog songs at ten sites, most near Gratiot Lake, Mike Scheiwe was able to ascertain their species and abundance in the area. Each kind of frog has unique songs heard mostly at breeding times in the spring and early summer. In all, six kinds of frogs and one toad were heard. Liz and Bonnie Hay assisted on the last of the three evenings of listening for frogs. Fortunately, many of the listening points are accessible by car since the frog route must be surveyed from dusk into night. It was quite an adventure to walk to some of the more remote sites in the dark.

If you would like to learn more about our local frogs or practice distinguishing different frog songs, visit one of these sites:

Minnesota Department of Natural Resources Frog website:
http://www.dnr.state.mn.us/fish_and_wildlife/frogs/index.html

Michigan Frogs and Toads website:
<http://imc.lisd.k12.mi.us/frog/frogs.html>

If you are a "night owl" and enjoy nature's music, please consider helping with this project next year. Write or e-mail the Conservancy. We can supply a frog song tape as a tutorial and then do on-the-spot training next spring!



Leopard Frog

Has lots of spots.

Song a deep snore ending with "chuck, chuck, chuck"

Habitat marshes and wetlands.

Gray Treefrog

Birdlike trill

Calls from trees where it perches.



Green Frog

Call a throaty "gunk" or "boing" like the sound of a plucked banjo string

Habitat pond and lake edges

Spring peeper

Tiny, tan frog with an "X" on its back

Its body can withstand partial freezing.

Call a loud, short high pitched "peep"

Brushy habitat, temporary or vernal ponds in the woods



Mink Frog

Song is a rapid "cut, cut, cut" like a hammer striking wood. The chorus sounds like horses hooves on cobblestone.

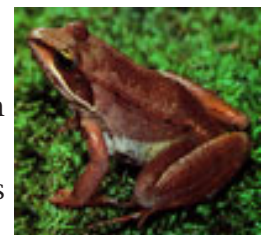
Habitat ponds and lakes

Wood Frog

First frog heard in spring.

Short chuckle a harsh "racket, racket, racket"

Often sighted in the woods in leaf litter.



American Toad

Long drawn out musical trill

Often observed on dry ground, lawns, gardens.

Pictures from the Michigan Department of Natural Resources poster, "Frogs & Toads of Michigan."

Uranium in Well Water

The Western Upper Peninsula District Health Department is recommending testing of well water for naturally occurring radioactivity in areas of the Keweenaw Peninsula east of the Keweenaw Fault in particular north of Jacobsville in Houghton and Keweenaw County. The areas in question may have uranium in the bedrock. The uranium can cause radioactivity to be released into groundwater. Drinking of water with high levels of radioactivity can cause kidney damage and cancer over time.

Much of the shoreline of Gratiot Lake is included in this advisory. Some Gratiot Lake homeowners who have tested their well water found that it contained measurable levels of radioactivity. The tested levels that this editor is aware of are below the Maximum Contaminant Levels (MCL's) set by the federal government. This means that the government feels that drinking the water with radioactivity at these levels poses no appreciable risk even if the water is consumed on a daily basis year round. However, levels of radioactivity vary from well to well and some wells in the Keweenaw have tested over the MCL limit.

Other states have problems with uranium in drinking water. Below are listed some excellent sources of information on the subject.

New Hampshire Department of Environmental Services
<http://www.des.state.nh.us/factsheets/ws/ws-3-11.htm>

Vermont Department of Health
http://www.state.vt.us/health/_hp/rad/uranium.htm#six

U.S. EPA Office of Water
<http://www.epa.gov/safewater/standard/pp/radnucpp.html>

Safe Drinking Water Hotline: 800-426-4791

Well owners can pick up the appropriate water collection container from the Western UP Health Department located at 540 Depot Street in Hancock (phone:906-482-7382). You will be asked to fill out a very brief health questionnaire and to identify the specifics and location of the well before receiving the container. The forms can also be downloaded from the Health Department website
<http://www.wupdhd.org/>

Mail the water sample taken from the tap to the lab in Wisconsin. The lab will bill you approximately \$55 for the test.

When you receive the results from the lab, the findings will be laid out as in the sample table below. According to the EPA, your results are of concern only if they exceed the MCL, and then only if the water is used for drinking.

PARAMETER	MDL	Your Results	MCL
The type of radioactivity measured.	Minimum Detectable Level at which the radioactivity can be measured. Radioactivity levels are measured in picocuries per liter, pCi/L.	The amount of radioactivity detected in your water sample is noted with the margin of error indicated.	Maximum Contaminant Level allowable by current standards. If your results are above this number the EPA advises against drinking the water.
GROSS ALPHA (radioactivity)	2	The amount of your result \pm 4	15
GROSS BETA (radioactivity)	3	The amount of your result \pm 2	50

Photo Courtesy of Dorothy Jamison



Become a Member of the Gratiot Lake Conservancy!

One way to show your support for the Gratiot Lake Conservancy is to become a member. In addition to the biannual newsletter mailed to all Gratiot Lake residents, members will receive invitations to special events. As a member of the Conservancy, you will also have the opportunity to obtain discounted subscriptions to magazines of the *Orion Society* and discounted *Michigan Lakes and Streams Association* Membership.

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Membership Application

Please complete this form and mail with your check to: The Gratiot Lake Conservancy
P.O. Box 310
Mohawk, MI 49950

- o 1 year membership \$10 contribution
- o 3 year membership \$25 and up

PLEASE PRINT

Name: _____

Street or Box #: _____

City, State, Zip: _____

E-mail address: _____

Phone number: _____

Winter address if different from above: _____

The Gratiot Lake Conservancy is a 501(c)3 non-profit organization. Your contribution is tax deductible.
