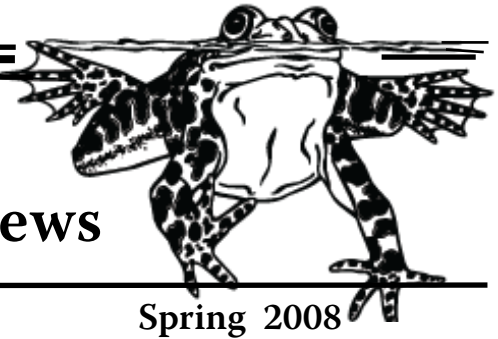


Water's Edge

Gratiot Lake Conservancy News



Volume 10

Spring 2008

GLC Celebrates 10th Year

As we begin our second decade, we take time to reflect on what we have accomplished:

In 1998, a 64.4 acre nature sanctuary at Gratiot Lake was established with the Lizzadro Farms donation of the Noblet parcel. The Noblet Field Station (built as a summer cabin by Bert and Gladys Noblet and sons) was restored and a solar power system was designed for the cabin as a Michigan Tech Engineering student capstone project in 2000 (group pictured at right with solar panel).



In 1999, Mary Lizzadro (at far left with Marilyn Jones and grandson at 2000 GLC Open House) donated a 240.95 acres of land which adjoins the original sanctuary. Together they include over 10,000 feet of Gratiot Lake shoreline. The Bear Paw Path spans over 1 1/2 miles of its length.

In 1999-2001 the Gratiot Lake Preserve and the Noblet Field Station were home to educational programs led by Headwaters teachers Diane Raven and Mike Scheiwe (at far left in this photo with student Amber Kenny and aquatic ecologist Sandra Harding). The teenage participants studied the ecology of the area including clams, birds, and algae.



Photo by Jim Hay

Nick Wilson is eye to eye with a tree frog.

GLC's Annual Members Meeting

will be held Tuesday, July 29 at the Miscowaubik Club in Calumet. A buffet dinner will precede the business meeting and "Michigan Herps" a slide talk by reptile and amphibian conservationist, Edythe Sonntag. GLC members watch for your invitation in the mail.

Sonntag worked for many years in the Detroit Zoo Herpetology Department and is currently a doctoral candidate at Michigan State University researching a cricket frog native to Michigan. She has worked in Panama with conservation of endangered frogs and is the founder and president of the MSU Herpetology Club.



2000 GLC Open House at Noblet Field Station

GLC mourns the loss of a dear friend, Rebecca (Rita) Sandretto who passed away on December 25, 2007. Rita endowed a scholarship in memory of her late husband, Jack Sandretto. Since its inception in 2002, the Jack Sandretto Scholarship has been awarded to six students, enabling them to attend Michigan Technological University's Summer Youth Program Exploration: Aquatic Ecology at Gratiot Lake.

Rita who grew up in Dearborn, met Jack who hailed from Wolverine (near Kearsarge). For much of their married life the couple lived in Livonia where Rita worked as a librarian. In 1996 Jack and Rita moved to Houghton, to be near their daughter and son-in-law, Susan and Steve Stackhouse, and their grandchildren Scott and Sarah.

In addition to supporting environmental education, Rita gave support to GLC's general operating budget in the past two years. She was honored at the 2005 GLC Members meeting for her philanthropy. Rita was a person of strong convictions who supported organizations that embodied her beliefs. Her generosity was also expressed in her bequest in which gifts were made to GLC and to five other charities.

GLC has renamed the scholarship fund which she endowed-- the Jack and Rita Sandretto Scholarship Fund.



We miss our good neighbor and friend at Gratiot Lake, Patricia Mitchell, who passed away on November 16, 2007. Pat was retired from the K-L-C school district where she taught elementary school for 38 years. She spent her summers at Gratiot. She enjoyed sharing her love of the lake with her grandchildren and even brought them along to experience the eaglet banding that took place there in 2002 (see photo of Pat's grandson at left). She was well known for her beautiful voice and sang with many groups and choirs including the Calumet Players, Central Choir, and the Calumet Swing Band.

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 environs, and to suggest ways to improve stewardship of the Lake and its watershed. View *Water's Edge* in color on the GLC website.

Please send questions, comments, or articles to

Bonnie Hay, *Water's Edge* Editor

Gratiot Lake Conservancy

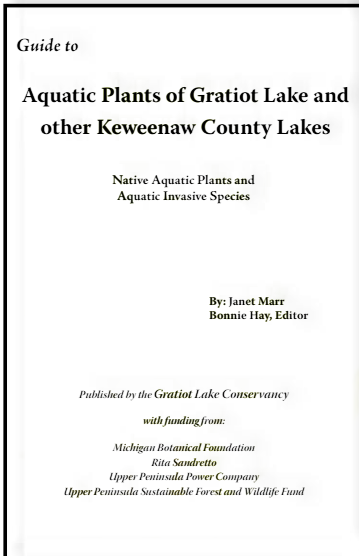
P.O. Box 310

Mohawk, MI 49950

e-mail: belh@verizon.net phone: 906-337-5476

Visit our web site: www.mlswa.org/gratiot-lake-1508/

Aquatic Plants Handbook and CD Soon Available



GLC is publishing a “Guide to the Aquatic Plants of Gratiot Lake and Other Keweenaw County Lakes.” This 22 page full color handbook and CD is intended for use by organizations and individuals interested in the ecology of our inland lakes. Written by botanist Janet Marr, it covers identification of common, rare, and invasive species of aquatic plants found in Keweenaw lakes. In addition, it includes model protocols for monitoring lakes and a detailed list of resources.

The production of the handbook and CD is partially funded through donations from The Michigan Botanical Foundation, Rita Sandretto, the Upper Peninsula Power Company, and the Upper Peninsula Sustainable Forest and Wildlife Fund.

Copies will be distributed free of charge (except shipping fees where applicable) in Keweenaw and Houghton counties to non-profits, local governments, libraries, science teachers, community groups, and individuals interested in learning about lake ecology and lake monitoring. Contact Bonnie at GLC for further information and to obtain a copy.

Guided Kayak Tour of Gratiot Lake

GLC is sponsoring a kayak trip on Gratiot Lake on Sunday, July 20 from 9:30 AM to 3PM. Participants may bring their own kayaks, life jackets (pfd’s), and equipment or may rent a single or tandem kayak and all equipment from [Keweenaw Adventure Company](#), who will be outfitting and guiding the tour. The trip around the lake will launch at 10 AM from the lake’s public access.



Participants will picnic at the Noblet Field Station on the Conservancy Preserve and have an option for a guided walk on the Conservancy’s Bear Paw Path.

Pre-registration with Keweenaw Adventure Company is necessary, if you intend to reserve equipment. Limited equipment is available, so sign up early. Children under the age of 18 must be accompanied by an adult. Small children may have difficulty with this tour. Please consult Sam at Keweenaw Adventure Co. if you are considering bringing your small child or have questions about the kayaks. Phone: 906-289-4303; e-mail sam@keweenawadventure.com In addition to reserving or bringing a kayak, paddles, and pfd, bring a bag lunch and plenty of water, sunscreen, and insect repellent. If it’s hot, you may want to wear a swimsuit. If you want to take a short hike after lunch, bring along a pair of walking shoes.

Participants should meet at the public boat access to Gratiot Lake at 9:20 AM if renting equipment, by 9:30 to participate in technique refresher. We’ll begin the paddle at 10 AM.

In the event of inclement weather, the tour will be cancelled. Please call GLC at 337-5476 if in doubt.



Open House at Noblet Field Station 2002

Tips for avoiding Swimmer’s Itch

1. Don’t feed waterfowl or encourage them to come up to the shore. Ducks and geese are the desired hosts to the swimmers itch parasite in one stage of its complicated life cycle.
2. When swimming, towel off immediately after you leave the water. The tiny parasite takes time to imbed and toweling off rather than air drying seems to deter it. Showering after swimming helps too.
3. Don’t sit, wade or swim for long periods in the shallows during a swimmer’s itch outbreak—particularly when winds are blowing towards the shore. The parasite inhabits snail territory in shallow water for part of its life and most easily attaches to humans there.

Preventing Deadly Fish Disease

Two local initiatives may help to keep the fish disease viral hemorrhagic septicemia (VHS) out of Lake Superior and may potentially slow the spread of some other aquatic invasive species.

Since 2003, VHS has caused massive die-offs of fish species ranging from walleyes to salmon in all of the Great Lakes except Superior. It has decimated the musky population in Lake Saint Claire. Twenty-three species of game fish have been affected. Infected fish die from internal bleeding and often have open sores and bruised-looking, reddish tints on their skin. The virus appears to be transmitted by watercraft from lake to lake.

David Hand, a professor of civil and environmental engineering at Michigan Tech, has devised a simple way to treat ballast water in vessels ranging from pleasure craft to ore boats. His method is designed to kill the virus that causes VHS and may also kill other potentially invasive species which “hitch-hike” in ballast water. The ballast water is disinfected with sodium hypochlorite—household bleach. Then the ballast water is treated with ascorbic acid, or vitamin C, which neutralizes the bleach before the water is released into the lake.

The Great Ships Initiative will conduct independent lab tests on Dr. Hand’s system at the University of Wisconsin–Superior. If this process is found to be safe, effective, and inexpensive, it may become the method to treat ballast water in large vessels. Other partners in the effort are the National Park Service and the U.S. Fish and Wildlife Service.

Eagle Harbor resident, Jack Hartmann has also moved his concern about VHS into action and is proposing a method to disinfect smaller watercraft before they enter Lake Superior at public access points. Hartmann has identified a viricide called Virkon Aquatic™ which is EPA approved and is already being used by the Michigan DNR to disinfect their vessels.

The Eagle Harbor Marina will be the first public boat access in the Upper Peninsula to test Hartmann’s do-it-yourself system. Boaters arriving at the marina will be requested to put a tablet of Virkon Aquatic™ into the one gallon sprayer which will be available there. Then boaters can rinse off their boats and spray to disinfect their live wells and pumps before putting their boats into the Lake Superior. This trial has been recently approved by the Eagle Harbor Township Board, so boaters should look for the sprayer (and posted directions) at the Marina later this summer. A trial of this viricide at Budd Lake in the Lower Peninsula is also planned. At Budd Lake boats leaving the lake will be disinfected because the lake itself is already infested with VHS.



Fish Stocking at Gratiot

by George Madison



DNR Fisheries Supervisor George Madison contributed the information below concerning the management plan for Gratiot Lake in response to a query about the recent stocking of 8,860 brook trout (approximately 6.4" length) on May 15th. Madison also addresses the question of whether it is useful to continue minnow sampling. Last summer a number of fishermen at the lake sampled for minnows with no success.

The management of Gratiot Lake has changed over the past few years due to the “too good” success of the walleye plantings. While yellow perch and minnows were once common, and these perch produced a very good sport fishery, during the period of the 1990’s the walleye overtaxed the perch and minnows as a forage supply. As the walleye were utilizing the perch forage base in the 1990’s, the walleye grew fat and survived well. The walleye continued to do well and continued to utilize the perch as a forage mainstay. By the early 2000’s, the walleye had over-consumed the available yellow perch forage base and the numbers of perch dropped off as well as the walleye abundance. An intensive netting effort was conducted in 2005, which documented the above described scenario and additionally found that the pike/muskie numbers were extremely low (due to competition for the forage base by the walleye).

Our plans are to cease walleye stocking for a few years to allow the perch and minnow population to rebound. In a few years when the numbers of perch and minnows return, we will resume a low level walleye program... but not too large so as to potentially crash the forage base again. The minnow surveillance program at Gratiot will document the current low density of minnows and perch and will also serve as an indicator as to when the population starts to rebound.

The same management conundrum that Gratiot encountered has occurred during the 1990’s in Medora Lake. In response, the Michigan DNR transferred perch to Medora in 2005 but we did not have enough to plant into Gratiot. No yellow perch were stocked into Gratiot this year.

While we will wait a few years for the perch and minnow population to rebound in Gratiot Lake, it is the perfect time to supplement the fishery with brook trout. Brook trout will do well in your deep and cold lake (over 70 feet deep) and will provide an interim fishery for these few years. One common complaint we have heard is “the pike will eat all the brook trout.” While pike do eat trout on occasion, the low density of pike/muskies in Gratiot will not be a significant problem. There are numerous “two-story” lakes in Michigan, Wisconsin, Minnesota, and Canada that are managed for both trout and cool-water fishes (such as walleye and pike). This is the perfect opportunity to try this management experiment at Gratiot.

[Click here to donate to GLC!](#)

Stopping the spread of AIS



Photo courtesy of ProtectYourWaters.net

Last summer St. Mary's University student, Valerie Renosto, discovered the tiny invasive crustacean, spiny water flea, in the deepest waters of Gratiot Lake. The lake has a public access, and it is likely that this creature, which could cause fishery problems and foul fishing line, may have been transported on fishing gear or in bilge water from another infested lake.

Here are precautions from protectyourwaters.net that are recommended when transporting boats and other aquatic recreational equipment between lakes. These precautions can decrease the likelihood of spreading spiny water flea and other aquatic invasive species from lake to lake.

- Remove all visible mud and plants from boats, trailers, boots, buckets, etc. when you leave a lake.
- Drain out all water from boats and equipment when leaving a lake. Remove water from motors, jet drives, live wells, boat hulls, scuba tanks and regulators, boots, waders, bait buckets, seaplane floats, swimming floats.
- Clean and allow to dry out every item that came in contact with the water. Spraying or wiping off with hot water (>104 ° F), vinegar or a 1% salt solution to disinfect is advised. A five day dry out period is recommended before entering new waters.
- Do not release or put plants, fish or animals into a body of water unless they came out of that body of water.
- Do not release unused bait into the waters you are fishing. Dump unwanted bait in a trashcan or on the land, far enough away from the water that it cannot impact this resource.

GLC's First Decade continued from page 1.



Since 2002, Michigan Technological University's *Summer Youth Program Exploration: Aquatic Ecology at Gratiot Lake* has camped at the Noblet Field Station for one week each summer to study the lake environment. Photo above is of the 2003 group. This program has been partially subsidized by the GLC Education Fund. Each year one or two students receive a Sandretto Scholarship to attend.

In 2004, an additional 1.1 acre parcel was added to the Gratiot Lake Preserve's southern tip. Also in that year, the 466 acre Bammert Farm parcel was donated. Located about two miles from the lake, Bammert Farm is currently a site for sustainable forestry education in a collaboration with Michigan Tech. Future plans include wetlands restoration and archaeology exploration.

GLC has provided educational programming including arts workshops and an artist-in-residence program, speakers on natural history and environmental topics, astronomy nights, kayak trips, and botany and aquatic plants workshops. Janet Marr (photo below) guides a group using hand lenses in 2001. Since 2003 GLC has collaborated with other



conservation organizations to offer *Reading the Landscape: Arts and Natural History Field Trip for Adults*.

GLC has fostered stewardship of Gratiot Lake through education and monitoring. This is the eighth year of volunteer testing Gratiot's waters in conjunction with Michigan Lake and Stream Associations Cooperative Lake Monitoring Program. In 2006 and 2007 Janet Marr completed an aquatic plant survey and mapping of the lake with the assistance of a Finlandia University intern. A handbook/CD "Aquatic Plants of Gratiot Lake and other Keweenaw County Lakes" will soon be published.

GLC lands have been the site of capstone projects by Michigan Tech Forestry students and of St. Mary's University of California students' research on small mammals, spiny water fleas, and crayfish.

We look forward to our second decade!

See Stars on Brockway *Saturday, August 2, 9:30 PM-Midnight*

Bring your insect repellent, blankets, beach chairs, binoculars, and telescopes to the Brockway star gathering around sunset. Michigan Tech's Robert Nemiroff and his astronomy students will be on hand to introduce us to the celestial highlights. We may cancel without notice if it's very cloudy or raining! This year, Dr. Nemiroff will be giving an astronomy talk at Fort Wilkins in Copper Harbor at 7:30 PM immediately preceding GLC's astronomy night on Brockway.



Astronomy on Brockway in 2003

If you would like to receive updates on GLC events, website updates, and notice of new Water's Edge newsletters available on the web, click here to send us a message!

Michigan Endangered Species List Changes Ahead

The Michigan Department of Natural Resources (DNR) periodically reviews and updates lists of endangered and threatened species within the state. The common loon and the merlin are Michigan endangered animals found at Gratiot Lake. Awlwort (*Subularia aquatica*) is a Michigan endangered plant species discovered at Gratiot Lake by Janet Marr in 2000. This year there are 61 proposed additions to the Michigan list, mainly plants, snails, and mollusks. Among the proposed deletions from the list are the bald eagle, the gray wolf, and the osprey - all animals familiar to us in the Keweenaw. Experts believe that these animals have achieved sustainable populations in Michigan. They plan to continue monitoring the progress of these animals, but the de-listing will likely decrease their protection.

For bald eagles, the population will continue to be monitored as it has been, at least with an assessment of how many nesting pairs are within the state. In addition, eagles will continue to be protected under the Bald and Golden Eagle Protection Act of 1940. There were 515 nesting pairs of bald eagles in Michigan in 2007. Twenty-seven occupied nests in the Keweenaw Peninsula last year produced 26 eaglets. This year a pair is nesting near the eastern corner of Gratiot.

For wolves the management plan that will be put in place is a subject of debate, with some advocating aggressive management. To view the DNR's draft wolf management plan, go to the "wildlife & habitat" page on the DNR website at <http://www.michigan.gov/dnr/>

The DNR is soliciting public comment on the proposed changes to the list of protected animals and plants. Submit comments by July 10 to

Endangered Species Coordinator
DNR Wildlife
P.O. Box 30444
Lansing, MI 48909-7944

Or e-mail
endangeredspecieslist@michigan.gov



Photo by Jim Hay

The osprey's diet is 99% live fish! It dives feet first to grab the fish swimming just below the water's surface. Unlike their raptor relatives, bald eagles, which can sustain themselves on carrion when waters freeze over; osprey depend on open waters for their dinner. Ospreys migrate to Mexico and as far as South America for the winter.

Like eagles, ospreys were endangered by the effect of the pesticide DDT on the viability of their eggs. Eggshells made brittle by the pesticide's effects would crumble when incubated. Now, years after DDT usage was banned in the U.S. the osprey, like the bald eagle, has made a come-back.

2008 GRATIOT LAKE CONSERVANCY CALENDAR

Reading the Landscape of the Keweenaw Changes in the Land

4 Saturdays, June 28, July 12, July 19, and August 9

Fee. Registration required. Call 482-0820 for information.

Kayak Tour of Gratiot Lake

Sunday, July 20, 9:30 AM to 3 PM

Meet at the Gratiot Lake public access and bring equipment and a bag lunch, or to rent equipment call Keweenaw Adventure Company at 906-289-4303. Review of Kayaking technique at 9:30. Launch at 10:00 AM.

Summer Youth Program Exploration: Aquatic Ecology at Gratiot Lake

Sunday, July 20- Saturday, July 26

Call SYP at 1-888-773-2655 or 906-487-2219 for information.

GLC Annual Members Meeting and Buffet Dinner

Miscowaubik Club

Tuesday Evening, July 29

Slide Talk by Edythe Sonntag on U.P. Reptiles and Amphibians

GLC members R.S.V.P. by Wednesday July 23

Nature Walk : Focus on Frogs!

Wednesday, July 30

Join Bonnie Hay and Edythe Sonntag to discover where amphibians live at the Gratiot Lake Preserve. Come prepared to get wet! Space is limited. Call or e-mail GLC to reserve. Free!



Astronomy Gathering On Brockway Mountain

Saturday, August 2, 9:30 PM to Midnight

with Robert Nemiroff and MTU Astronomy Students

Top of Brockway Mountain

Coastal Cleanup at Gratiot Lake

Saturday, September 20

Help clean up debris from the shoreline!

Meet at Public Access at 9:00 AM or contact GLC to begin at other location.

Questions? Call 337-5476 or e-mail BELH@verizon.net

Updates? Visit the GLC website at www.MLSWA.org/Gratiot-Lake-1508/

Attention Teachers and Students!

Janet Avery Scholarships are available for teachers and students to attend the Reading the Landscape of the Keweenaw series of art and natural history field trips. Teachers should send an inquiry including your contact information, school, grade level taught and subjects taught to Bonnie Hay at GLC. Students should apply indicating age (must be 16 or older), grade, and school.



Forest ecologist Erik Lilleskov at right describes leaf characteristics to (L to R) Joyce Koskenmaki, Sue Church, and Suzy Lofquist during a 2006 Reading the Landscape field trip.

Reading the Landscape of the Keweenaw 2008: Changes in the Land

This series of art and natural history field trips for adults (16 and over) is scheduled for four Saturdays from 9:30 AM to 2:30PM.

As of this printing, there is still space available in the July 19, *Revised Landscapes* (a nature walk and writing workshop at Paavola Wetlands) led by nature writer Michael Moore and environmental engineer Heather Wright, and in the August 9, *Shaping Succession* (a visit to private lands in the area to see how forest and wetlands can be restored) led by artist Joyce Koskenmaki and two Chassell landowners. Sessions scheduled for June 28, *Phenology* (what happens when and why in nature at Mt. Baldy) and July 12, *Shifting Sands* (looking at Central's stamp sands) are fully enrolled.

Reservations for the trips are necessary and group size is limited. The fee is \$15. A reduced fee of \$13 is available for GLC members - just indicate that you are a GLC member when you enroll. Janet Avery Scholarships are available.

[Click here for a downloadable *Reading the Landscape* brochure.](#) Call Keweenaw Land Trust at 482-0820 to obtain a paper brochure.

Reading the Landscape of the Keweenaw is in its sixth year, and is co-sponsored in 2008 by Copper Country Audubon, Gratiot Lake Conservancy, Houghton Keweenaw Conservation District, Keweenaw County Historical Society, Keweenaw Land Trust, Michigan Nature Association and Trout Unlimited.

Support GLC !

Gratiot Lake Conservancy members receive a biannual newsletter, notice of special events, and an invitation to the Annual Members Meeting. Some GLC programs that have fees are discounted for members. Donations to GLC are also welcome.

[Click here for a form to download and mail in your \\$15 membership or a donation to GLC at the address on page 2.](#) The membership year is from January 1 to December 31st, but you may join at any time.

Donors of \$100 or more will receive a gift of notecards with photos taken at Gratiot Lake.

To see more notecard photos [click here!](#)

