

WATER'S EDGE

Gratiot Lake Conservancy News

Volume 2

Spring 2000

Mary Lizzadro Donates 240 Acres

A lovely piece of woodland with 8000 feet of shoreline has been permanently preserved by donation to the Gratiot Lake Conservancy by Mary Lizzadro. Mrs. Lizzadro, whose parents immigrated from Italy to the Upper Peninsula, grew up in Wolverine. She has an abiding love for the Keweenaw and desires to protect some of Gratiot's shoreline for the enjoyment of future generations. This donation, which contains large pine, hemlock, birch and important wetland areas, adjoins the 64 acres preserve where the Noblet Field Station is located.

Mike Scheiwe and Diane Raven of Headwaters Environmental Station are inventorying this area with the assistance of student interns. They will establish a simple footpath for hiking. A brochure is planned which will describe some of the geological history and ecological features, along with the natural and human history of this area.

Save These Dates!

Sunday, July 16th 7:30PM-9PM A presentation about deep core sampling of Gratiot Lake by Michigan State University And The MDEQ (more on Page 6)
Sunday, July 30 11AM to 3PM Gratiot Lake Conservancy Open House at the Noblet Field Station



Clockwise from right front: MTU students Kyla Manz, Heather Rebo, Lesley Knoebel, Shawn Isenhoff, Kurt LaFrance, and Sam Darling, MTU Professor Leonard Bohmann, and Bonnie Hay with solar panels at the Noblet Field Station. See page 7.

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.



Restoration of the Noblet Field Station

You may have noticed changes taking place at the Noblet Field Station. Paul Remali worked on and off since last fall gouging out the rotting portions of several of the structure's logs and refacing with half logs. All of the exterior log surfaces have been stripped, sealed, and stained. Dying trees and some growing too close to the sides of the building have been cut back to allow air circulation. This work, along with replacing rotting supports underneath, will add years to the 50+ year old cabin's life.



George Swenson sent in these interesting memories of the Noblets and their cabin. Thanks, George!

...I'm observing the development of the Conservancy with great interest, including the resurrection of the Noblet cabin.

My dad and my uncle (Roy Makens) and Bert Noblet were all colleagues on the Michigan Tech faculty. Dad and Uncle Roy helped Bert build his cabin, and the families participated in many picnics at Gratiot Lake shortly after World War II. There was no proper road to the cabin (only a seasonal jeep trail) and transport was by boat. I was living elsewhere by then. It wasn't until 1964 that I bought from Bert the 80 acres on the bluff overlooking the lake, which Janice and I subsequently gave to the Michigan Nature Association. Bert and I snowshoed up there in winter, looked out over the splendid view of Gratiot, Deer, and laBelle lakes, and I bought the land the next day...

In the early 1970's, Janice and I camped in our little shack atop the bluff and occasionally canoed across the lake to Noblet's. We were always joyfully received, Bert rushing around the kitchen to prepare snacks and drinks. On one occasion he scoured the cabin's hiding places for a primitive oil painting depicting a grossly out-of-proportion hunter and buck deer which he'd bought for \$5 in a bar. He was proud of his bargain, but Gladys hated it and hid it from visitors' sight when she could. I suppose that painting is still there. Janice and I still get a chuckle, remembering that incident. (editors note: This painting still hangs in the cabin!)

**Conservancy Open House at Noblet's
Sunday July 30, 11 AM-3 PM**

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: Bonita Hay, Editor *Water's Edge*, 6699 Springbank Street, Philadelphia, PA 19119 or e-mail: belh@bellatlantic.com. Our website is located at : <http://members.bellatlantic.net/~jah2/GLC>

Sponsor a Headwaters Gratiot Lake Resident Ecology Research Intern

Headwaters Environmental Station's Ecology Club students, Brett Harrison, Robert Heyman, and Zack Gayk have been honing their skills as naturalists since the first grade. Their ability to use binoculars, a spotting scope, and a bird field guide were prerequisites to participate in Headwaters Annual *Birding Point Pelee* Spring bird migration field trip to Point Pelee National Park, Ontario, Canada, one of North America's most famous birding "hot spots".



In the photo on the left, naturalists Robert Heyman, Zack Gayk and Brett Harrison witness the spring migration of birds at Point Pelee, Canada, next to a giant Sycamore tree, a remnant of the once vast Carolinian Forest.



In the photo on the right naturalists Brett Harrison, Robert Heyman, and Headwaters Environmental Educator, Michael Scheiwe, scan the branches and trunks of trees searching for the rare Prothonotary Warbler.

Robert has been accepted as the first student to study **The Algae of Gratiot Lake** this summer. Robert is interested in studying the water quality of Gratiot Lake. His monitoring skills, journal entries, and previous Beaver Pond and River Ecology experiences demonstrate his ability to accomplish and summarize his field studies.

Brett's skillful identification of birds, use of field equipment and ability to understand ecological principles regarding watershed and basin prepares him for a week of Ornithological Field Studies at Gratiot Lake this summer. Brett is an author, and is active in Headwater's ecological literacy program, KIEEL.

Zack is a born naturalist. As his 12th birthday approaches, his field knowledge and field experience with birds and wild edible plants is notable. Using his exceptional writing skills, he actively participates in the protection and preservation of critical habitat in the Keweenaw Peninsula. He hopes to participate in Headwaters Gratiot Lake Resident Ecology Internships or Ecology Field Studies this summer.

If you would like to sponsor one of these budding naturalists in their work at Gratiot Lake please call or e-mail Headwaters Environmental Station as noted below!

***For sponsorship information:
Headwaters Environmental Station
(906) 288-3000
mlraptor@yahoo.com***

Greenbelts and Lakeside Landscaping

A greenbelt may sound like a Karate level but when it comes to lakes and rivers it refers to planting or preserving a natural buffer zone between developed areas and the water's edge. These shrubs, trees, **unmown** grasses, and herbaceous plants trap runoff including sediment and pollutants and absorb nutrients before they can enter the lake. The vegetation slows overland runoff which helps to prevent lakeshore erosion. It holds the lake banks in place when lake levels are high. Also native vegetation serves as cover and a food source for wildlife except for Canada Geese, which most homeowners would like to discourage anyway! The geese prefer grassy areas that they can easily see over.

Any width of greenbelt will help ensure lake water quality, but of course, wider is better. Many sources recommend 10-50 feet. Although a mowed lawn does not provide a good greenbelt, greenbelt vegetation can be trimmed and pruned to afford good lake views.

If you are interested in restoring a greenbelt on your property, there are two ways to proceed. One is to let nature take its course, just don't mow. Gradually, more varied vegetation will return. Alternatively, you can help the process and reintroduce interesting native plants. Ask nurseries for plants native to our area.

Greenbelt Plant Suggestions

Dry, Well-drained (Upland) Soils

TREES

GROUND COVER

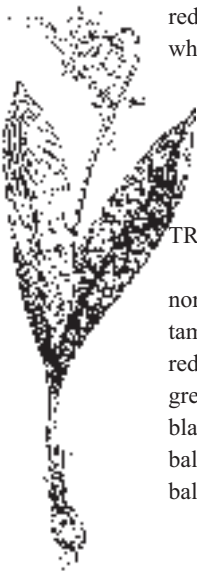
red pine
hemlock
sugar maple
paper birch
white spruce
aspen
American beech
red oak
white pine

WOODY SHRUBS

beaked hazelnut
mountain maple
striped maple
native honeysuckles
staghorn sumac
blueberry
juniper
ninebark
buffalo berry
raspberry
blackberry

HERBACIOUS

baneberry
large-leafed aster
bunchberry
Canada mayflower
goldenrod
wintergreen
bearberry
bracken fern
partridge berry
trout lily



Wet, Poorly Drained Soils

TREES

northern white cedar
tamarack
red maple
green ash
black willow
balsam fir
balsam poplar

WOODY SHRUBS

red-osier dogwood
silky dogwood
willows
meadow sweet
winterberry
high bush cranberry
sweet gale
alder
button bush

HERBACIOUS

GROUND COVER

boneset
joe-pye weed
cordgrass
sedges and rushes
ferns
mint
sweet flag
cattail
Canada anem
blue flag iris
virgins bower

Some information in this chart is reprinted with permission from Cwikiel, Wilfred, Living With Michigan's Wetlands: A Landowner's Guide (Third Printing) Tip of the Mitt Watershed Council, Conway, MI (1998).

Where to Buy Native Plants

Wherever you buy be sure to ask for **native plants**, nursery grown. There are two nurseries I know of locally which carry some native plants:

Nissila Greenhouse on M-26 in Hancock
906-482-3111

Einerlei , 422 Willson Memorial Drive (US 41) in Chassell
906-523-4612
<http://www.einerlei.com>

If you can't find what you want locally many nurseries do mail order. Some addresses I took from the web are below. I cannot vouch for their service or products from experience. Most carry **some** native species. Cold Stream Farm is recommended by Jeff Croons.

Cold Stream Farm
2030 Free Soil Rd.
Free Soil, MI 49411
csf@jackpine.com
231 464-5809

Wildtype Native Plant Nursery
900 N. Every Road
Mason, MI 48854
517 244-1140
wildtype@pilot.msu.edu
<http://www.msu.edu/~wildtype/>

The Native Plant Nursery
P.O. Box 7841
Ann Arbor, MI 48107-7841
734 994-9592
plants@nativeplant.com

Taylor Creek Restoration Nurseries
P.O. Box 256
Brodhead, WI 53520
608 897-8641

Michigan Wildflower Farm
11770 Cutler Rd
Portland MI 48875-9452
517 647-6010

The Conservancy has books and tapes to lend to Gratiot Lake residents on this subject:

Landscaping for Wildlife and Water Quality published by the Minnesota Department of Natural Resources

Living with Michigan's Wetlands: A Land-owners Guide, author Winifred Cwikiel published by the Tip of the Mitt Watershed Council in Conway, MI
Great Lakes, Great Lawns a book and a video produced by Wisconsin's Environmental Decade Institute



Some web sources of information on landscaping for conservation and wildlife include:

National Wildlife Federation
Backyard Wildlife Habitat Program
<http://www.nwf.org/habitats/backyard/help/resources.cfm>

Michigan State University Extension Home Page
<http://www.msue.msu.edu/#InformationResources>

MI Department of Environmental Quality
Online Book *Living with MI Wetlands*
<http://www.deq.state.mi.us/lwm/grt%5Flakes/wetlands/landowners.htm>



Prairie Moon Nursery
Route 3, Box 163
Winona, MN 55987-9515
507 452-1362
Fax 507 454-5238
<http://www.prairiemoonnursery.com>
pmnrsy@luminet.net

Michigan Lakes and Streams Association

The Conservancy joined the Michigan Lakes and Streams Association (ML&SA) this spring. Conservancy Program Director, Bonnie Hay attended a ML&SA information and training session this May held in Gaylord Michigan. It was a wonderful opportunity to meet concerned lake landowners from throughout the state and to hear about issues affecting these lakes. ML&SA has over 311 member organizations representing lakes and streams throughout the state. Its goals are to assist lake, river, and watershed associations in the management of waterfront property and to prevent degradation and pollution of surface waters.

ML&SA members keep tabs on surface water quality throughout Michigan through the Cooperative Lake Monitoring Program (CLMP). CLMP is a partnership of the Land and Water Management Division of the Department of Environmental Quality (MDEQ) and the ML&SA. Volunteers monitor indicators of water quality and note changes over time. Its goals are to assist lake, river, and watershed organizations in the management of waterfront property. CLMP is also a cost effective way for the MDEQ to compile baseline data on lake water quality trends. Volunteers from watershed associations, lake associations, and conservation groups perform weekly tests from May until September to determine the clarity/turbidity of the water and the phosphorus content. Only a few Upper Peninsula groups are involved in the program.

Ed Kaeding and Ray Peck have volunteered to kick the project off here at Gratiot. So, if you see them pulling something other than pike or bass over the side of their boats don't be alarmed. They will take weekly readings by submerging a black and white disk into the water and viewing the point at which it is no longer visible. These secchi disk readings will track the clarity of the water. In August we hope to test for the phosphorus content of the water. Phosphorus levels can influence the growth of algae in the water. At Gratiot,

we plan to test the pH although this is not part of the state program.

The data Ray and Ed collect will serve as an indicator of the water quality of our lake and a point from which to view changes in the lake over time. The MDEQ collects and publishes data collected from lakes throughout the state.

Program about MSU/MDEQ Study of Michigan Lakes Scheduled

Michigan State University (MSU) in cooperation with the EPA and Michigan's Department of Environmental Quality (MDEQ) came to Gratiot Lake last summer to take water samples and core samples of sediment from the deepest part of the lake. This project is part of the MDEQ's strategic environmental quality monitoring program for Michigan's surface waters. Examination of lake bottom sediment will reveal long term trends. Last summer's core sampling yielded data on Gratiot Lake from last 150 years.

The Conservancy contacted the MDEQ and MSU participants to find out about this sampling program. As a result of this contact MSU scientists will give a presentation at the Eagle Harbor Schoolhouse on Sunday, July 16 at 7:30 PM. Researchers will be in the area to sample Deer Lake at that time. Lake residents and others interested in Lake issues can attend. Details will be posted on the GLC website and the Gratiot Lake bulletin board.



Botanical Survey Begins

Janet Marr, a local botanist, has begun a survey of the plants of Gratiot Lake for the Conservancy. Look for more information on the survey in our next *Water's Edge*. Her work is partially funded by donations to the Conservancy in memory of Dorothy Robinson.

MTU Students Complete Solar Installation

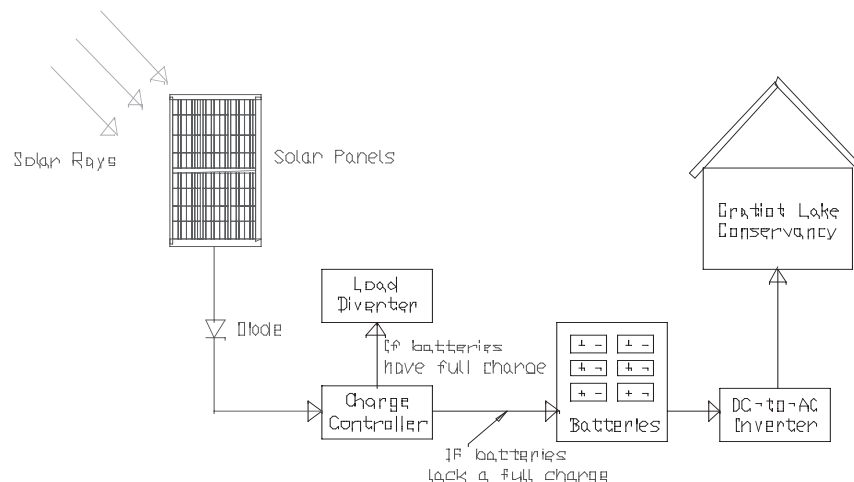
Six MTU Electrical Engineering students under the guidance of Leonard Bohmann, Tech professor, designed and installed a solar energy system at the Gratiot Lake Conservancy's Noblet Field Station. Graduating seniors Sam Darling, Shawn Isenhoff, Lesley Knoebel, Kurt LaFrance, Kyla Manz, and Heather Rebo formed the design team to evaluate possible sources of alternative power for the Field Station. A design-to-implementation project is required of all graduating electrical engineering students at the University.

Elmo Negro was one of their contacts on alternative energy, and Virginia Jamison provided information on weather patterns at the Lake.

This May, the students mounted four solar panels on a sturdy steel pole set in 1000 pounds of concrete! The panels were pole mounted so that their angle can be adjusted to shed snow in the winter when they are not in use and so the fragile roof of the cabin would not be disturbed. The array of panels is oriented to receive the greatest amount of available sunlight. In the photo to the right Leonard Bohmann and the students adjust the angle of the panels.



The system will supply up to 500 watts at a time and a charge can be stored for several days in the gel batteries located in the cabin. The batteries are designed to withstand freezing temperatures. The diagram below which is taken from the students' report shows the path of the energy for use in the cabin. Solar panels will supply electrical power to the cabin from April until October and serve as an educational demonstration of a useful, clean energy alternative suitable even for remote northern locations.



Annual Open House at Noblet Field Station

Come by land or by lake!*

Refreshments will be served!

Sunday July 30 11AM- 3PM

- ★ See the log restoration on the cabin
- ★ Examine our new solar energy system
- ★ Get information about your watershed
- ★ Find out about educational programs
- ★ Look into Lake research
- ★ Learn how you can become involved

** If you come by boat, please beach your boat rather than attempting to use the old dock. The cabin is accessible by logging road. A map will be posted on Lake bulletin board. Check lake message board on July 30 if the weather looks questionable, or call Bonnie at 337-5476.*



Take a Look at the Conservancy Web Site

Now you can enjoy online photos of Gratiot when work or weather keeps you elsewhere. GLC has a presence on the web at: <http://members.bellatlantic.net/~jah2/GLC/> Log on for program updates and information related to the Lake. The site was constructed by Jim Hay while taking a web design course.

Gratiot Lake Conservancy

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Oak Brook, Illinois 60523*

ADDRESS CORRECTION REQUESTED