

WATER'S EDGE

Gratiot Lake Conservancy News

Volume 3

SPRING 2001

Annual Gratiot Lake Conservancy Open House Scheduled

All are invited to the third annual Gratiot Lake Conservancy Open House at the Noblet Field Station on Saturday, August 4 from 12-4 PM. Visit with neighbors and friends, take a walk on the Bear Paw Path, hear from some of the Headwaters student interns about their studies at the lake, learn more about the Conservancy, and enjoy refreshments in the "rustic ambiance" of Noblet's. We are hoping for the same beautiful weather we were blessed with



Photo courtesy of Joseph Lizzadro

in the last two years; however, if it is rainy, we will post the rain date on the Gratiot Lake bulletin board. Please call 337-5476 if you have any questions.

You can participate by...

- contributing photos, articles, information, ideas to *Water's Edge*.
- helping with the frog song survey or water monitoring project.
- attending the Open House and other Conservancy programs. (pages 1&2)
- becoming a Conservancy member. (page 8)
- being an environmentally responsible lakeside landowner. (pages 5&6)
- sponsoring a Headwater's student intern at the lake. (pages 3&4)
- sharing information about wildlife sightings or lake history.
- measuring lake level. (page 3)

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.



Bring Along Your Fish Questions



The Gratiot Lake Conservancy has invited Vern Nurenberg, a Michigan Department of Natural Resources fisheries management biologist, to speak about the fish in Gratiot Lake and other Keweenaw lakes on Monday, July 23 at 7:00. The presentation will take place at the Eagle Harbor Schoolhouse. Nurenberg plans to give an informal and informative talk on the subject and invites everyone to bring their burning fish questions and concerns.

Hike to Discover Gratiot's Plant Treasures

Botanist Janet Marr who is surveying the plants of Gratiot Lake for the Conservancy will lead a walk to examine both typical and uncommon plants of the area. Last year during her inventory at Gratiot, Janet and her husband Bob Marr identified a rare aquatic plant, awlwort.

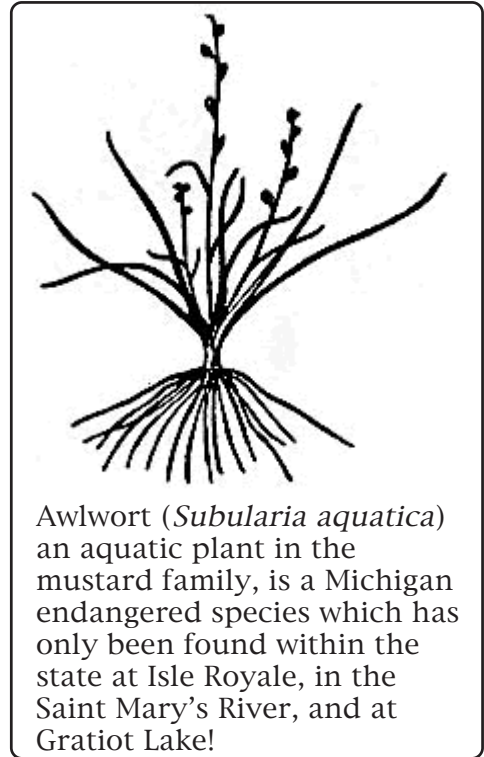
Photo courtesy of Joseph Lizzadro



Janet Marr surveys plants in Gratiot Lake's outlet

You are invited to come along to discover such curious plants as the carnivorous bladderworts and sundews, both of which digest insects. Some native orchids may be in bloom. Janet will focus on both shoreline and upland vegetation.

The walk is scheduled for Saturday August 11 beginning at the Noblet Field Station at 10 AM. Come prepared to walk on the beach and in the forest— and to get your feet wet. Pack snacks, lunch, and something to drink. Call to let us know you are coming and for car/boat pool details and directions (906-337-5476). This hike is most suitable for older children and adults and will be moderate in walking difficulty. This event is free and open to the public. Reservations requested.



Awlwort (*Subularia aquatica*) an aquatic plant in the mustard family, is a Michigan endangered species which has only been found within the state at Isle Royale, in the Saint Mary's River, and at Gratiot Lake!

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*, 6699 Springbank Street, Philadelphia, PA 19119 or e-mail: belh@bellatlantic.net. Our website is located at : <http://members.bellatlantic.net/~jah2/GLC>

Gratiot Lake Level History

After our low lake levels last summer, the Conservancy obtained historical records of Gratiot Lake level from the US Geological Survey. According to these records Max Noecker and S.W. Wiitala established a lake level gage at the Antione Eister property in June of 1943. Lake levels were recorded spring through fall regularly until 1950. The gage was reestablished about twenty feet offshore near the then Sanderson cottage on the NW end of the lake by C.L.Ebsch in 1978 and read by Sgt. Carl Leake of the Radar Base until September 1980. The lowest level noted for these years was 3.36 feet (over the zero gage datum of 739 feet above sea level) in October of 1943. The highest level observed was 6.56 feet in May of 1950. Records reflect quite a bit of variability from month to month and year to year.

Virginia Jamison's sister Christine Edenfield recalls that a state agency actually introduced beavers into the outlet of the lake in 1949! So, fluctuating lake levels and low lake level concerns must have been around for some time.

The Conservancy would like to reestablish a gage for lake level and keep track for awhile. It could be placed in another area if the two former sites are not accessible. Are there any volunteers interested in being gage observers?



Photo Courtesy of Dorothy Jamison

Bruce Wagner and Dorothy Jamison offshore from Noblet "dock"



Robert Heyman and Mike Scheiwe study algae

Headwaters' Programs at Gratiot Lake

Mike Scheiwe and Diane Raven continue their work with students at the Noblet Field station this Spring and Summer. The residential programs for individuals and small groups run from 1-3 weeks throughout the season and are designed for 10-17 year olds. Students are focusing on a variety of subjects including amphibians, jumping mice, dragonflies, birds, clams, and algae. There will also be a photo journalism field study and an opportunity to learn the art of story writing and illustration under the tutelage of a visiting expert.

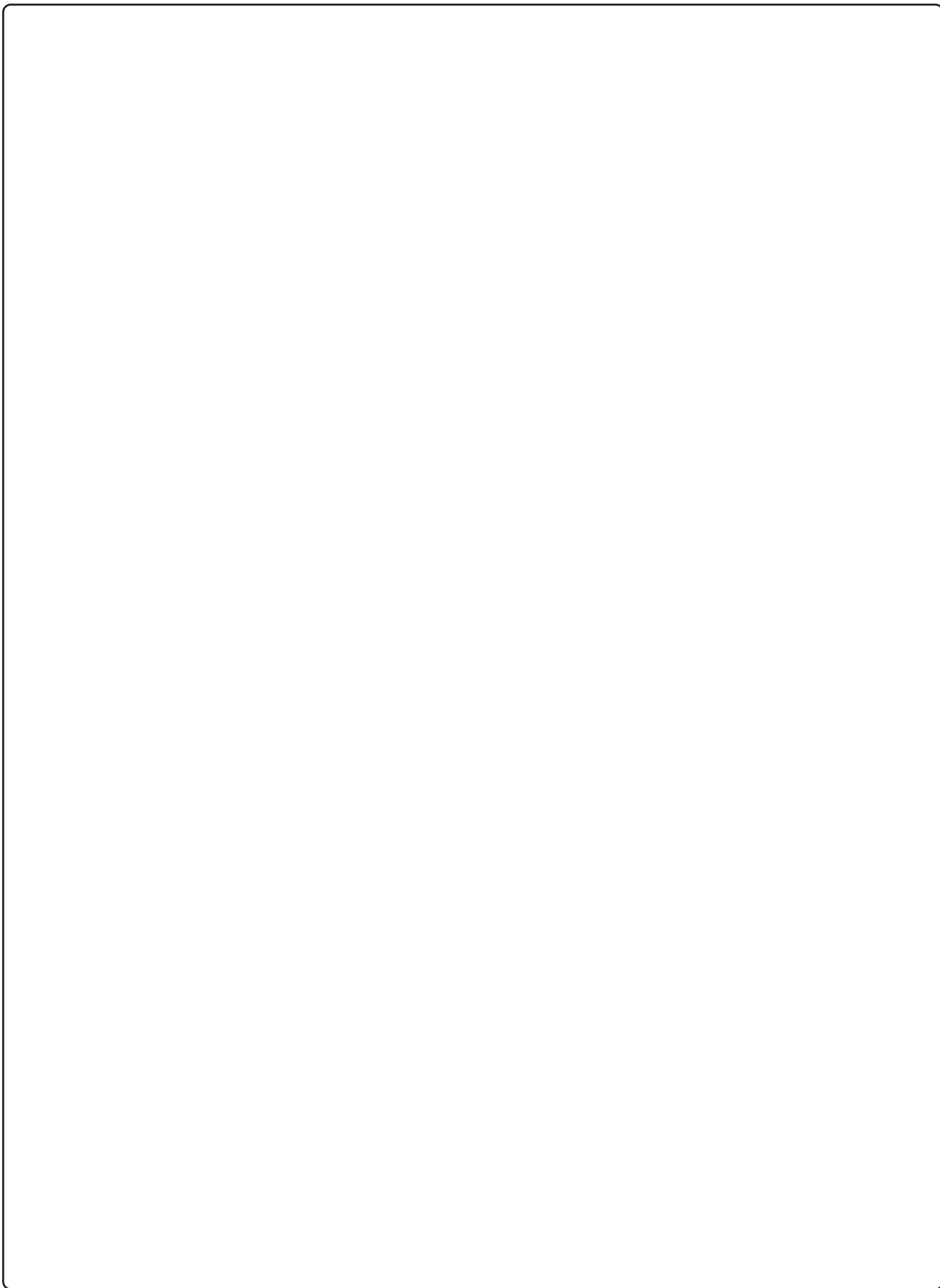
Send inquiries to:
Headwaters Environmental Station
P.O. Box 98A
6499 Field Station Road
Toivola, MI 49965

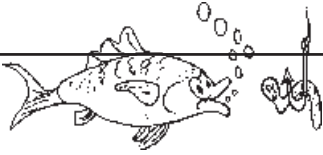
E-mail ; mlraptor@yahoo.com
or call cell phone#360-2040
www.headwaters-env-sta.org

Please see article on next page for more information about Headwaters.

Thanks to...

Elmo Negro for warning about the exceptional snow load on the Noblet cabin this Winter. He was prepared to get up on the roof and shovel it off. Thanks Elmo for alerting us and for your willingness to help.





***Excerpts from a Michigan Department of Environmental
Quality Fact Sheet, "Eco-Friendly Boating":***

CHECKLIST FOR GOOD BOATING AND CLEAN WATER

Clean water is the foundation for enjoyable boating; every action from an individual boater has a major impact on the water, marine life, and the near-shore and shoreline ecosystem and inhabitants. Some boating activities that impact the environment are boat sewage, litter, and fish waste disposal; fueling and bilge care; boat repair and maintenance; engine servicing, hull cleaning and painting; and boat operation.

-] Know and use environmentally friendly bottom paints such as those containing vinyl, silicone or Teflon, or containing organic ingredients such as cayenne pepper. Protect the paint surface regularly with a coat of slick bottom wax. Avoid ablative, non-ablative (sloughing), and hard anti-fouling paints containing toxic metals such as copper, mercury, arsenic, or TBT, pesticides, or biocides. State and federal regulations prohibit the use of toxic organotin anti-fouling paints such as tributyltin (TBT)-based paints.
-] Use drip pans or trays when changing fluids or working on engines.
-] Keep motors finely tuned to increase fuel efficiency, reduce consumption, and discharge fewer pollutants into waterways. Prevent boat repair waste from contaminating stormwater runoff.
-] Use a phosphate-free, biodegradable cleaning agent. Nutrients such as phosphorus and nitrogen contribute to algae blooms and other nuisance plant growth, making lakes and streams harmful to fish and limiting boating and other water recreation.
-] ... Control accidental losses of oil or other polluting materials. One quart of oil can contaminate up to two million gallons of water. Control bilge water to keep oil from being pumped overboard. Avoid bilge cleaners that emulsify or contain phosphates, ammonia, chlorine, caustic soda, surfactants, or potassium hydroxide, or cleaners that break down oil into microscopic fragments. Never use detergents or degreasers to clean the bilge.
-] Prevent gasoline and diesel fuels from entering the surface waters and creating toxic slicks in the water...
-] Zebra mussels, ruffe, spiny water fleas, and Eurasian milfoil are four destructive and aggressive invader species looking for a ride to a new lake or stream. People, boats, and fishing gear easily transport these pests. Prevent the spread of exotic species, which cause severe habitat alteration and degradation, with a thorough inspection of your boat and fishing gear. Clean all mud and plant debris from your boat's hull, trailer, propeller, motor, bilge, live well, and anchors before leaving the boat launch. Properly dispose of collected material.
-] Boat wakes contribute to shoreline erosion and can stir up bottom sediments reducing light essential to submerged aquatic vegetation. Stirring up sediments will cause the water to become cloudy, or turbid, damaging fish gills and making it difficult for fish and aquatic insects to see, breathe, and feed properly. Avoid wakes and propeller washes by reducing boat speed in shallow water near shoreline.
-] Use suitable facilities for fish wastes. Recycle fish wastes by using in compost and gardens. State regulations prohibit the dumping of fish wastes into surface waters.

Continued on page 6

Some Safer Cleaning Tools for Use Around Lakes

Descaler: white vinegar dissolves scale and gummy substances.

Degreaser: use only citrus or water based products.

Fabric Rinse: 1/4 C white vinegar to the washing machines rinse cycle.

Detergent booster: 1/2 C washing soda to each load of laundry.

Laundry brightener: 1/2 C strained lemon juice to rinse cycle.

Toilet bowl cleaner: 1/2 C white vinegar and 1/2 C baking soda.

Tarnish Remover: for brass, copper, bronze, or aluminum rub with sliced lemon.
For chrome clean with apple cider vinegar or white vinegar and use baby oil to polish.

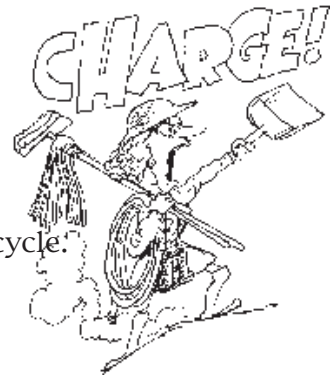
All Purpose cleaner: 1/2 tsp. washing soda, 2 tsp. borax, 1/2 tsp. liquid soap, and 2 C hot water.

Window cleaner: club soda plus 1-2 Tbs. of strained lemon juice.

Disinfectants: vinegar or borax. Also up to 1/2 tsp. of tea tree or eucalyptus oil added to detergents, soap, or vinegar cleaning products.

For more environmentally friendly household recipes consult:
Clean & Green or *Better Basics for the Home*, both by Annie Berthold-Bond,
Clean House Clean Planet, by Karen Logan.

Don't feel like cooking up your own cleaning potions? Some environmentally friendly brands of cleaning products are *Seventh Generation*, *Citrasolve*, *Ecover*, *Biopac*, *Shaklee*, and many *Arm&Hammer* products.



Continued from page 5

Pollution Prevention Resources

Publications and Information Sources:
Michigan Department of Environmental
Quality
Environmental Assistance Center
P. O. Box 30457
Lansing, MI 48909-7957
800-662-9278

Michigan Department of
Environmental Quality
Office of the Great Lakes
P. O. Box 30473
Lansing, MI 48909-7973
517-373-3588

To receive a copy of "Water Watch" write to:

Michigan Sea Grant College Program
2200 Bonisteel Boulevard
Ann Arbor, MI 48109-2099
313-764-1138

Web Sites:

www.deq.state.mi.us/ead
*Michigan Department of Environmental
Quality Environmental Assistance Division*

www.MEEF.org
*Marine Environmental Education Foundation
Inc.*

Creator and national organizing sponsor of
the National Clean Boating Campaign.



Eagle Facts

Last summer there were 191 nesting pairs of eagles in the Upper Peninsula. Three eaglets were raised in Keweenaw County, including the one at Gratiot Lake shown in the photo below.



Photo courtesy of Jim Hay

Young eagle perches on nest at Gratiot Lake

The largest eagle nest on record measured 10 feet across and weighed 2000 pounds! At Gratiot Lake, eagles typically begin nesting in mid April to early May. Both male and female incubate the eggs for about five weeks. They walk in the nest with clenched talons to keep from puncturing the eggs. Parents feed eaglets full time for 10 to 12 weeks until the young can fly. After they fledge, young eagles receive two more months of parental guidance and food hand outs until they can totally fend for themselves.

It takes an eagle four to five years to acquire the adult plumage. Young eagles typically nest within 100 miles of their birthplace and remain faithful to nest site and mates until the end of their reproductive years.

Eagles are opportunistic foragers and will eat anything they can catch or scavenge. They will steal food from weaker species and eat road kill. They capture their own prey only as a last resort. They consume 5-10% of their body weight daily.

Eagles are long lived for birds. Many in the wild live for twenty years. The record in the wild is 28 years.

The number of bald eagles in the lower 48 states has grown from a low of 417 breeding pairs in 1963 to 5,000 breeding pairs in 2000. In 1995, after twenty two years on the endangered species list, the bald eagle was recategorized as "threatened." It may eventually be delisted. The U.S. Fish and Wildlife Service, using the Bald Eagle Protection Act of 1940, is working on a plan to monitor and protect critical bald eagle habitat if the bird is taken off the list.



Coming Soon...

Fish of Gratiot Lake

Monday June 23, 7 PM
Eagle Harbor Schoolhouse

3rd Annual Open House

Saturday August 4, 12 PM-
4PM Noblet Field Station

Plants of Gratiot Walk

Saturday August 11, 10 AM
(Call for details.)

Loon Nest Platform In Place

Thanks to Dana Richter and Ron Sibbald the loon nesting platform donated by Art Dion and constructed by Steve Schrieber is again in place on Gratiot. The platform has been modified this year to give loons easier access. It has been difficult to keep the plant material in place on the platform because of wind and wave action. By the time lake residents receive this newsletter, it should be evident whether the loons have decided to nest at the lake. If nesting loons are sighted, please observe quietly from a distance. Close approach with a motor boat may frighten the birds or swamp the nest.

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.

#

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.
