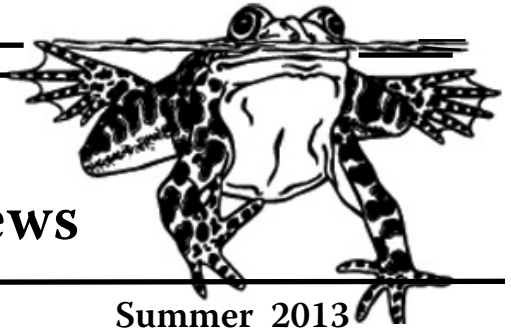


Water's Edge

Gratiot Lake Conservancy News



Volume 15

Summer 2013

GLC's Annual Members Meeting

Eagle Harbor Community Building

Monday, July 29

Business meeting 7 PM

Refreshments 7:30 PM

Keweenaw Fault slide talk by Bill Rose at 8 PM



photo by Jim Hay

Discover how to decode animal signs and tracks. Uncover the secrets of wildlife habits in their habitat at Gratiot Lake. Come to Brian Rajdl's Tracking Workshop at the GLC Preserve on July 13th. Details on page 3.

Presenter, Bill Rose was professor of geology at Michigan Tech for 42 years. He has a wealth of experience exploring and interpreting the Keweenaw's rocky landscape. His presentation "What is the Keweenaw Fault, and how was it discovered?" will show the mechanics of the Keweenaw fault formation, and how it relates to the local lakes and streams. Bill will explain how the fault was discovered and how geologists came to believe it was such an important feature. The hazards of the fault and its key field observation points, including Hungarian Falls, Douglas Houghton Falls, the Natural Wall, the Gratiot Lake area, and Bete Grise, will be touched upon. GLC members and the community are invited to attend.

Find GLC's summer workshop and event details inside.

Janet Avery Scholarships are available.

Natural Shoreline Landscapes:
tools and resources for lakeshore landowners,
lakeshore stewards, and professional land managers

Led by Jane Herbert, Senior Water Resource
Educator with Michigan State University Extension*

Monday, August 26, 9 am to 4 pm

Sponsored by Gratiot Lake Conservancy (GLC) and Keweenaw Land Trust (KLT)

This workshop will highlight the importance of preserving or restoring native vegetation along shorelines. Participants will be introduced to methods of shoreline management to control erosion and to support wildlife and provide healthy habitat for fish. Information on natural shoreline plants, planting zones, and shoreline erosion control techniques will be shared. A combination of lecture and field observation will help participants to recognize potential problems and opportunities on lakefront they own, manage, or steward.

Continued on page 3.



Jane Herbert working on shoreline restoration.
Photo courtesy of Natural Shoreline Partnership.

We will miss these Gratiot Lake friends and neighbors who passed away in the last year:

Judy Kroon who for over twenty years vacationed at her 1860's vintage log cabin at the lake.

Marcia Miller who enjoyed many, many decades of happy summers with her family at Gratiot Lake.

GLC is grateful for all donations received. Your generosity sustains us!

In the last half year GLC has received Major Gifts from

Angela and Charles Anderson (Education Fund)

HFRX Foundation

Bonnie and Jim Hay

Diana Nicholas Loving Trust

Carol and Joseph Lizzadro

Carmen Sandretto (in memory of Louis Sandretto)

GLC welcomes new Life Member

Carol Anderson

Email GLC to find out how to become a Life Member.

We are happy to announce the award of the *Rita and Jack Sandretto Scholarship* to Jenna Murphy-Gast, a tenth grader at Houghton High School. Jenna is the tenth student to receive this scholarship since Michigan Tech's *Summer Youth Program Exploration: Aquatic Ecology at Gratiot Lake* first came to the Noblet Field Station and nature sanctuary a decade ago. This year's group will be at the Noblet Field Station from July 29 to August 2. Since 2003 GLC has hosted the group, paid the salary of one instructor for the week, and provided the *Rita and Jack Sandretto Scholarship* for one high school student to attend.

About *Water's Edge*

Water's Edge is the newsletter of the Gratiot Lake Conservancy. Its purpose is to report Conservancy news, share information about the ecology and history of Gratiot Lake and its environs, and 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

www.gratiotlakeconservancy.org

Tracking Workshop

Brian Rajdl, Instructor

Saturday, July 13, 9 AM to 3 PM (Raindate July 14)

Nature educator Brian Rajdl will lead this special outdoor exploration at the Gratiot Lake Preserve. Brian has taught the Michigan Tech *Summer Youth Program Exploration: Aquatic Ecology at Gratiot Lake* for nine years. He has also led field trips for the Isle Royale Institute. Brian is an experienced tracker and has taught many tracking based classes. After an introduction in the Noblet Field Station, the group will explore the trails and shoreline of Gratiot Lake. Participants will learn to track animals and to interpret the signs they leave behind. Tracks, scats, feathers, fur, rubs, chews, lays, dens, and burrows are all signs to help identify:

WHO has been there,
WHAT they were doing,
WHEN they were there and,
WHERE their trail leads.



Careful observation and use of all the senses will help participants unlock the secrets behind the signs.

The field guide *Animal Tracking Basics* by Jon Young and Tiffany Morgan is included in the course fee (one copy per family). Advance registration is required and group size limited. The fee for adults is \$20 (\$15 GLC members). The fee for children under 16 accompanied by an adult is \$5 (free for GLC member). [Click here to download a registration form](#) or call 337-5476. Janet Avery Scholarships are available.



[Click here for GLC calendar updates](#)

Natural Shoreline *continued from page 1.*

Natural Shoreline Landscapes with Jane Herbert* will be held at Gratiot Lake in the morning and at KLT's Marsin Center on the south side of the Portage waterway near Oscar in the afternoon. Full day fee is \$50; Half-day is \$30. You may come for full or half day. Advance registration is required. Register early to assure your place! [Click here to download a registration form](#) or Contact Bonnie at belh@verizon.net or 337-5476 with questions or to apply for a Janet Avery Scholarship to attend. The schedule for the day is as follows:

9 AM to 11:30 AM: Introductions and boat tour of Gratiot Lake noting the attributes of natural shoreline and opportunities to improve shoreline practices. Group will meet at the public boat access to Gratiot Lake.

11:30 AM to 12:30 PM: Drive to KLT's Marsin Center on the south side of the Portage waterway near Oscar.

12:30 PM to 1:30 PM: Bring your bag lunch and enjoy it with Jane Herbert's powerpoint presentation at KLT's Marsin Center.

1:30 PM to 4 PM: Field trip on the grounds of KLT's Marsin Center. Ideas for riparian restoration and lakescaping of this area will be discussed.

The powerpoint presentation is open to all participants and will be available online for view afterwards. All participants will receive the book *Natural Shoreline Landscapes on Michigan's Inland Lakes: Guidebook for Property Owners* by Julia Kirkwood, Robert Schutzki, Jane Herbert, Kip Cronk, and Elise Tripp.

***Jane Herbert is a Senior Water Resource Educator with Michigan State University Extension. Prior to joining MSU Extension in 1996, she worked as a fishery biologist in Michigan, Indiana and Kentucky. She holds a B.S. in Natural Resources from the University of Michigan and a M.S. in Agricultural and Extension Education from Michigan State University.**

Jane is a past President of the Michigan Chapter of the North American Lake Management Society and Vice-chair of the [Michigan Natural Shoreline Partnership](#), a public/private partnership that promotes natural shoreline technologies through contractor training, homeowner education, and policy development. Jane coordinated the development of a 400-foot long Shoreline Management Demonstration Area at MSU's Kellogg Biological Station on Gull Lake in Kalamazoo County www.shoreline.msu.

To apply for a *Janet Avery Scholarship* to attend a workshop, please email GLC your contact information and describe how you hope to use what you learn.

Stemming the Spread of Aquatic Invasive Plants and Animals

Invasive aquatic plants and animals have created big problems in many of Michigan's inland lakes. These non-native, aggressive plants and animals not only interfere with the natural ecology by disrupting habitat and damaging the food web, but also impair the recreational enjoyment and commercial uses of the affected lakes. Unfortunately, some of these aquatic invasive species have made their way into lakes in Houghton and Keweenaw counties.

Spiny water flea, which disturbs food availability for native fish and also fouls fishing gear, has been found in recent years in the following lakes: Gratiot, Medora, Fanny Hooe, Lac La Belle, and the Portage Waterway. This tiny zooplankton hitchhikes from lake to lake by attaching itself in clumps to fishing gear.

Eurasian water-milfoil was discovered in 2012 in Chassell's Pike Bay and other parts of the Keweenaw/Portage Waterway. Eurasian water milfoil grows robustly to form mats so dense that they entangle boat propellers and interfere with boating and swimming. In addition, Eurasian water milfoil crowds out the native aquatic plants which are vital for a healthy lake ecosystem supportive of fish and other wildlife. Chassell Township residents and officials are working on a plan to map and manage the infestation that now rings Pike Bay. Eurasian water milfoil is transported from lake to lake on boats and equipment.

Gratiot Lake Conservancy is one of many groups on the steering committee of the Keweenaw Invasive Species Management Area (KISMA). KISMA's mission is to educate and facilitate cooperation among federal, state, and tribal entities, local groups, and landowners on this issue. Prevention and management of invasive species require a concerted whole community effort to be successful.

A key to stemming the spread of invasives into our high quality lakes is good aquatic equipment hygiene. By washing off and drying out power boats, canoes/kayaks, jet skis, tackle, motors, paddles, and other aquatic paraphernalia before taking it to another lake, much of the invasive spread can be stemmed. Also, live wells should be drained away from the lake edge before boats are transported to another lake. Unwanted bait should be disposed of in the trash. Watch for informative signs at public boat access sites which describe what to look for and how to clean boats and equipment.

On June 1st Daryl Johnson an employee of the U.S. Forest Service brought Ottawa National Forest's portable boat wash to Lake Linden and Lac La Belle for the Knights of Columbus Pike/Walleye Tournament. (See photo at right.) As part of the KISMA outreach on aquatic invasive species, he demonstrated how boats can be effectively cleaned to remove



potential problem "hitch-hikers" such as the spiny water flea pictured clumped on fishing line above. Daryl power washed a number of boats and handed out information about ways boaters can prevent the spread of invasive species from lake to lake. Ian Shackleford, botanist for the Ottawa National Forest, arranged the loan of the boat wash set-up for the tournament. Brad Fortin and organizers of the tournament were supportive of this effort to keep local fisheries healthy.

If you enjoy our inland lakes, be on the lookout for new incidences of invasive plants and animals in them. KISMA will have informative displays and information available at local gatherings. GLC will be distributing invasive species ID cards and info at its workshops and members meeting this summer. GLC has free copies of its *Guide to Aquatic Plants of Gratiot Lake and Other Keweenaw County Lakes* by Janet Marr and Bonnie Hay. In addition to native plants this handbook details some invasive non-native ones. [There are also many links to good information on invasive species and their control on the GLC website.](#) By becoming more informed and proactive on this issue, you can help protect our waters.



[Click here to view more information on invasive species on the GLC website.](#)

Eurasian Water-milfoil

(*Myriophyllum spicatum*)

- Invasive plant.
- Delicate feather-like leaves. Leaflets are mostly the same length.
- Leaves are usually limp when out of the water.
- Leaves arranged in whorls (circles) of three to five around the stem.
- Usually twelve to twenty-one leaflet pairs per leaf.
- Long spaghetti-like stems.



Illustration by Carol Watkins reprinted with permission from "Through the Looking Glass, A Field Guide to Aquatic Plants" LD04

Aquatic Plant Workshop

Janet Marr, Instructor

Saturday, August 24 and Sunday, August 25, 2013
9:00 AM to 4:00 PM

If you want to learn how to identify aquatic plants and invasive species in order to protect healthy ecosystems in inland lakes, this is the workshop for you! The program is geared towards conservation professionals, college students, field biologists, volunteer monitors, lake association members, and others interested in better understanding local lake ecology. Michigan K-12 teachers will earn 12 SCECHS for participating in this workshop.

Workshop activities will take place both inside at the Eagle Harbor Community Building and in the field at several Keweenaw lakes and channels/coves connected to Lake Superior. Submersed and floating-leaved aquatic plants will be identified with a focus on identification of pondweeds (*Potamogeton* and *Stuckenia* species) and rosette-formers including the Michigan endangered awlwort (*Subularia aquatica*). Techniques for collecting and herbarium specimen/label preparation will be demonstrated. Differences between aquatic invasive species

such as Eurasian water-milfoil (*Myriophyllum spicatum*) and curly-leaf pondweed (*Potamogeton crispus*) and their native relatives will be discussed.

Advance enrollment is required. There are only a few spaces remaining so do not delay registering if you are interested in attending. The fee for this 2-day workshop is \$80 (\$60 for GLC members). An aquatic plant handbook *Guide to Aquatic Plants of Gratiot Lake and other Keweenaw County Lakes* and accompanying CD will be given to each participant free of charge and will be used during the workshop.

[Click here to download the registration form](#) or contact Bonnie at belh@verizon.net or 337-5476.

Marya Czech and Emily Mydlowski have already been awarded Janet Avery Scholarships to attend this workshop.

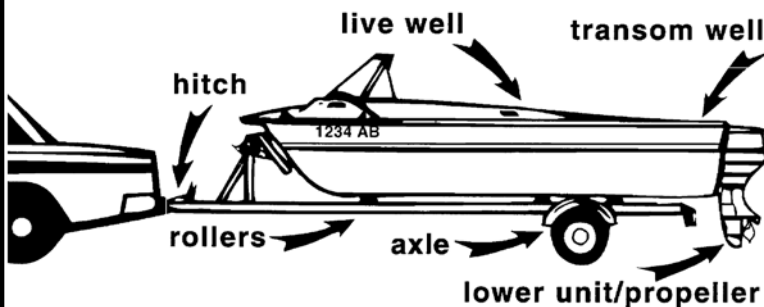
[Click here to view photos of past Aquatic Plant Workshops and a list of aquatic plant species, many of which will be seen in the workshop.](#)

**Your help is needed
to remove invasive species.**

Contact Bonnie at 337-5476 or belh@verizon.net
to volunteer.

CLEAN BOATS CLEAN WATERS

WATERCRAFT CHECK POINTS



- | | | |
|---------------------------------------|--|---|
| <input type="checkbox"/> Anchor | <input type="checkbox"/> Ladder | <input type="checkbox"/> Spare tire |
| <input type="checkbox"/> Axle | <input type="checkbox"/> Landing net | <input type="checkbox"/> Tackle |
| <input type="checkbox"/> Bait bucket | <input type="checkbox"/> License plate | <input type="checkbox"/> Tow rope |
| <input type="checkbox"/> Bunks | <input type="checkbox"/> Motor | <input type="checkbox"/> Trailer |
| <input type="checkbox"/> Bow line | <input type="checkbox"/> Wheels | <input type="checkbox"/> Transducer |
| <input type="checkbox"/> Fishing line | <input type="checkbox"/> Live well | <input type="checkbox"/> Transom well |
| <input type="checkbox"/> Floor | <input type="checkbox"/> Lights/wiring | <input type="checkbox"/> Trolling motor |
| <input type="checkbox"/> Hull | <input type="checkbox"/> Rollers | |
| <input type="checkbox"/> Intake pipe | <input type="checkbox"/> Prop | |

Beginner's Workshop on Dragonflies and Damselflies

Bob Marr, Instructor

Saturday, August 17, 10 AM to 4 PM



Want to learn more about the Odonata (dragonflies and damselflies) of the Keweenaw? Amateur odonatist Bob Marr will lead a one day workshop on the identification of these “winged dragons” and “neon toothpicks.”

Bob Marr will provide an overview of the life cycle, ecology, morphology, and behavior of odonata followed by field identification. There will be a break for lunch and then more field observation.

Participants will be encouraged (but not required) to net insects for study and release. Insect nets and magnifying lenses will be provided for those without their own equipment. Whether or not you wish to net specimens, by all means bring your camera as there will be plenty of opportunities for pictures!

This workshop has netted the following interesting odonata species: Northern Spreadwing, Eastern Forktail, Tule Bluet, Hagans Bluet, Canada Darner, Black Shouldered Spinylegs, Black-tipped Darner, and White-Faced Meadowhawk. Bob has also found Dusky Clubtails, Stream Cruisers, Calico Pennants, and Common Baskettails. (Editor's note: I am NOT making up these names. These names are better than what I could make up.)

Field guides will be available for reference at the workshop. If you wish to bring a field guide, we recommend *Dragonflies of the North Woods* by Kurt Mead and *Damselflies of the North Woods* by Bob Dubois.

Advance reservations are required. Reserve early for this limited enrollment field trip. Although geared towards adults, this workshop is fun for natural history oriented older children (accompanied by an adult). The fee is \$20 (\$15 for GLC members.) Directions to the meeting location will be sent after registration. [Enrollment forms can be downloaded from the GLC website](#) or mail GLC your name, address, and contact information along with check made out to “Gratiot Lake Conservancy.”

In the case of unsuitable weather (rain, cold), the workshop will be held the following day, August 18th.

Save the date!

Saturday, September 21st
Michigan Coastal Clean-up

Pitch in at Gratiot Lake shoreline and other areas throughout the Keweenaw.

Mine Exploration and Watershed Monitoring Continue

Keweenaw Copper Corporation (KCC) explored two target sites last year: 543S near Mt. Horace Greeley and Gratiot Lake and the G-2 near Mount Houghton. KCC is planning to continue drilling at the 543S first and then do additional exploration at G-2.

The Houghton Keweenaw Conservation District (HKCD) began collecting water temperature and flow data for streams and rivers near both proposed mine sites in 2012 and will continue monitoring this year. This monitoring was made possible by several private donations for the equipment; programming by George Madison of the DNR; and volunteer labor primarily by Tom Rozich, Bill Deephouse, Copper Country Chapter of Trout Unlimited, and Gina Nicholas.

With additional donations, water chemistry samples will be collected this summer in order to establish an independent baseline for the Tobacco and Bete Grise Bay watersheds that may be impacted by the exploration activities and potential mines. Donations are greatly appreciated and may be sent to HKCD, 600 E. Lakeshore Drive, #204, Houghton, MI 49931. Please make the check out to “Houghton Keweenaw Conservation District” and note on it “donation for watersheds management plan and monitoring.”

For current information about local mining:

The Lake Superior Binational Forum's Michigan pages
www.superiorforum.org/mining/mining-in-the-state-of-michigan

Keweenaw Now
<http://keweenawnow.blogspot.com>

FOLK Mining Education and Empowerment Campaign
www.folkminingeducation.info

Highland Copper Company
www.highlandcopper.com

Donate to GLC here!

New Dock Planned for GLC Preserve

Road access to the GLC Preserve and Noblet Field Station has always been a bit challenging. Land access is totally dependent on travel on dirt logging roads which are not publicly maintained (Iron Gate Road, Conservancy Road, and Noblet Lane). There are many times of year when road access is impossible due to wet and snowy conditions. This spring, Conservancy Road has been impacted by the late, heavy snow melt and logging activities. On the other hand, access by water (or over ice) is often possible. Unfortunately, since the old stone pier near the field station is badly deteriorated, there is no longer a safe way to dock there. Small boats have to pull up on the beach to access. In order to allow easier access by water to the GLC trails and Noblet Field Station, GLC plans to install a short seasonal dock not far from the Bear Paw Path trailhead.

Brockway Mountain Update

Eagle Harbor Township closed on the Michigan Natural Resources Trust Fund grant to acquire 320 acres on the summit of Brockway Mountain in February. This was a partnership effort by the Township, The Nature Conservancy, Copper Country Audubon, Houghton Keweenaw Conservation District and Keweenaw Land Trust. The 25% private matching funds were contributed by over 300 private donors. The Township is making plans for this new public park and for a formal dedication later this year.

SBA Communications Corporation (SBA) has proposed putting a cell tower on Brockway Mountain Drive between the newly acquired summit and the Copper Harbor Overlook that was recently enhanced through a Scenic Bi-Ways grant. The cell tower would also require that power lines be built along the drive to Copper Harbor. The State Historic Preservation Office (SHPO) has indicated that this 199 foot proposed tower would be an adverse impact and has recommended mitigation. A public hearing was held on May 22, 2013, and over 80 individuals attended. Almost all indicated that an alternative location for a cell tower or towers should be found that would protect the scenic, historic, and ecological values of Brockway Mountain while at the same time providing better cell coverage for residents and visitors to Copper Harbor and coverage for safety out on the State Tip Land and surrounding areas. Residents and concerned individuals have been contacting SBA, its intermediary Ramaker Associates, the FCC, and SHPO to voice their views. If you wish your voice to be heard, send your comment as soon as possible. **Contact information is listed on the “News” page on the GLC website.** Updates and additional information are available at KeweenawNow.com and Friends of Brockway Mountain on Facebook. Brockway Mountain is a very significant raptor migration flyway and scenic treasure. Everyone is encouraged to contact the FCC and other listed entities to recommend an alternative be found to a cell tower on Brockway Mountain.

Warbler Fall Out

Warbler “fall out” in the Keweenaw is a normal spring event as innumerable birds follow along the migratory flyway and rest and recharge before completing their journeys. One of the perks of this year’s late spring in the Keweenaw was a spectacular influx of colorful warblers during the end of May and early June. Since the trees were delayed in leaf out, it was easier to spot these small, colorful insect eaters as they darted about. Also, a lot of them were foraging near the ground.

Those expert at warbler identification often have to rely on these elusive birds’ songs alone to identify the species, so the many clear views of these beautiful birds were a special delight. Jim Hay took photos of eight species, including the black-throated green warbler, pictured on the last page and the Blackburnian warbler, pictured here during one day at the lake in early June.



Not all of these birds continue their migration. Members of some 25 species of warblers nest in the Keweenaw. Jake Musser was a student in the *Headwaters Resident Ecology Intern Program* at Gratiot in 2000-2001. Under Mike Scheiwe’s tutelage he studied warblers at Gratiot Lake during their nesting and migration times. [See more about their research on warblers at http://www.gratiotlakeconservancy.org/bipage.htm](http://www.gratiotlakeconservancy.org/bipage.htm) In the course of his internship, Jake and Mike banded and released 100 warblers of 16 different species.

[Click here to see more of Jim’s warbler photos.](#)

Visit the Gratiot Lake Conservancy web site to view current and archived issues of *Water’s Edge Newsletter* (in full color), articles, complete calendar, photos, video clips, and links to more !
www.gratiotlakeconservancy.org



We know you have talent! We hope you have the time.

Enjoy feeding a crowd? Bring refreshments to the Members Meeting July 29. Let Bonnie know what you are bringing.

Enjoy carpentry? Mount trail signs on the Bear Paw Path, remount a bat house, or make and mount bee or bird houses.

Enjoy gardening? Plant native species in your yard. Pull invasive plants such as knapweed and marsh thistle from the perimeter of Gratiot Lake. We plan to meet on the morning of June 20th for an early season pull. Contact Bonnie belh@verizon.net or 337-5476 for details on this and other pulling opportunities.

Enjoy writing? Write an article for the GLC newsletter.

Enjoy watching wildlife? Keep a diary of nature happenings you and others observe at Gratiot Lake. Take photos and share.

Enjoy boating? Assist Dorothy Jamison with water monitoring and testing. Be on the lookout for invasive aquatic species (see pages 4 and 5).

Enjoy walking on the shoreline? Help by picking up trash on the beach during the *Alliance for the Great Lakes Coastal Clean-up* on September 21st or whenever you have time!

Jim Hay spied this tiny fawn instinctively hugging the ground tightly to evade detection. This tactic along with a lack of odor for a short time and those great spots help fawns evade predators while their moms forage. Does have around a 200 day gestation period. With the tough winter this year, deer had to dip deeply into fat reserves to survive. Fewer fawns are likely to be born this spring.

Nature Noted at Gratiot Lake

What a difference a year makes! Ice was out on the lake around May 11 (as opposed to end of March in 2012), a few weeks later than “normal.” With massive snow melt in May, Gratiot lake levels were extremely high. Lake Superior rose nine inches in May. Although Superior is still below its historic average lake level, this was the second highest rise for May in nearly 100 years.

The flowering of many plants is three weeks behind schedule. Wood anemone, spring beauties, trout lilies, and nodding trillium were in bloom in the first week of June.

Gratiot Lake eagles braved an icy April to lay eggs yielding two eaglets. [View eaglet updates at http://www.gratiotlakeconservancy.org/EagleUpdate2013.htm](http://www.gratiotlakeconservancy.org/EagleUpdate2013.htm)

Go digital and save paper and postage!

Email GLC if you would prefer to receive only a color digital copy of the Water's Edge and no paper copy.

Join the 150 families who donate to Gratiot Lake Conservancy!

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.

Your support is always welcome!

Click here for GLC donation page or mail to GLC at the address in this newsletter. The membership year is from January 1 to December 31st, but you may donate at any time.

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

Click here to see samples of the photos!

