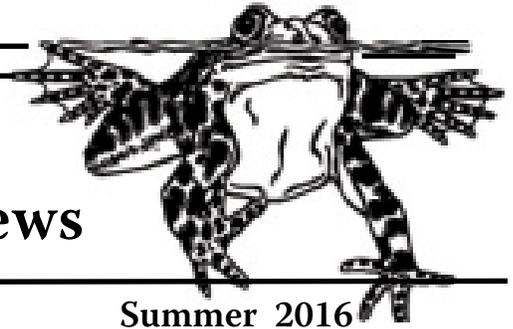


Water's Edge

Gratiot Lake Conservancy News



Volume 18

Summer 2016

GLC's Annual Members Meeting

Thursday, July 28 at the Eagle Harbor Community Building
(M-26 in Eagle Harbor across from Shoreline Restaurant)

6:45 PM: Reception

7 PM: Business meeting

7:30 PM: Light refreshments

8:00 PM: talk by Dr. David Flaspohler: "The Birds of Gratiot Lake:
Their Biology and Ecology" with photos by Jim Hay



Dr. David Flaspohler is an avian ecologist and professor in the School of Forest Resources and Environmental Science at Michigan Technological University. He received his M.S. in Conservation Biology and Ph.D. in Wildlife Ecology from the University of Wisconsin-Madison and came to MTU in 1998. He has taught Ornithology, Field Ornithology, and Conservation Biology for 18 years and won the University teaching award in 2002. He has conducted research with birds in Costa Rica, Mexico, Argentina, Brazil, the U.S. Midwest,

and Hawaii. He has published over 35 peer-reviewed papers, served on panels for the National Science Foundation and the USDA Forest Service, and has recently joined the board of the Copper Country Audubon Society. David's favorite birding spot is his family's camp on Hermit's Cove where he recently added a White-winged Scoter to his list for that spot.

Since his retirement from his profession as an educator and education technology advisor over a decade ago, Jim Hay has pursued his love of nature through photography both in the Keweenaw and elsewhere. He has taken thousands of photos of local wildlife with a distinct emphasis on birds. Some of these images can be viewed on the GLC website, of which he is the webmaster. On the GLC website, Jim has videos documenting many years of bald eagle nesting near his seasonal home at Gratiot Lake. Jim has photographs at Paige Wiard Gallery in Calumet and at a gallery near his "snowbird" home in Pennsylvania.

Ethnobotany Workshop with Karena Schmidt

Saturday July 16, 9:30 AM - 4:00 PM (rain date July 17)

Innumerable beneficial interactions have developed over time between the flora and the peoples living on the land in the Keweenaw. Berries, seeds, roots, and leaves provide an integral part of our diet. Medicines to heal our ills can be extracted from other plants. Shelter, baskets, and tools can be crafted from the fibers of other plants. And we can't help but acknowledge that the exquisite beauty of many flowers simply enrich our lives.

Ethnobotany Workshop continued on page 3.



Ojibwe Sewing Basket
crafted from
black ash wood

GLC Easement on
Little Gratiot River
Wilderness (page 7)

*Nature awaits!
Explore outside.
Attend a GLC walk or
workshop
Information inside...*

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

In the last seven months GLC has received Major Gifts or Grants from
Mary and Michael Bingham (GLCFund at Keweenaw Community Foundation)
William Bingham and Laura Cison
HRX Foundation
Bonnie and Jim Hay
Leuthold Family Foundation
Carol and Joseph Lizzadro
Carmen Sandretto (in memory of Louis Sandretto)

GLC welcomes Jack Marta and John Yunger as new Life Members.
Consider becoming a Life Member. Contact GLC for details.

We remember two Gratiot Lake neighbors who recently passed away

After he retired in 1980, Rey Peck moved to Gratiot Lake. He and his wife Donna lived there for 25 years. They were early members of GLC and loved watching the wildlife at the lake.

David Snyder enjoyed many years spent with his family at the camp he helped to build at Gratiot Lake.

View *Water's Edge* Newsletters (in full color), articles, calendar, photos, and links:

www.GratiotLakeConservancy.org

Rita and Jack Sandretto Scholarship Awarded

GLC is happy to announce the award of the *Rita and Jack Sandretto Scholarship* to Chassell resident William Becker who is a homeschooler at the Keweenaw Discovery Center.. William, the twelfth student to receive this scholarship, will attend the *Michigan Tech Summer Youth Program Exploration: Aquatic Ecology at Gratiot Lake*. The group will camp at GLC's Noblet Field Station from July 24 to 29. The tuition scholarship and the salary of instructor Brian Rajdl are funded from an education endowment originally established in 2002 by Rita Sandretto in memory of her husband Jack. Rita, who was an avid supporter of environmental education, passed away in 2007.

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
Gratiot Lake Conservancy
P.O. Box 310
Mohawk, MI 49950

email: Director@GratiotLakeConservancy.org phone: 906-337-5476
www.gratiotlakeconservancy.org

Gratiot Lake by Land and Water

Led by Brian Rajdl

Saturday August 6

9:30 AM to 3:30 PM

This event is weather dependent. High winds or rain will change the date to Sunday, August 7. If weather looks questionable call 906-337-5476 or 215-605-5296.

9:30 meet at the dock near the Noblet Field Station at GLC Preserve (not at the public boat launch on the opposite side of the lake).

Explore Gratiot Lake and GLC south and west shoreline and trails with nature educator Brian Rajdl. Brian has taught the *Michigan Tech Summer Youth Program Exploration: Aquatic Ecology at Gratiot Lake* for ten years. He also leads field trips for the Isle Royale Institute and for GLC. The group will stop at various points along GLC shoreline to relax and walk.



Paddle your own kayak or canoe or reserve a spot in one of GLC's canoes (equipment fee \$10 includes life vest and equipment). If you plan to come, please contact GLC and include phone numbers where you can be reached. You will receive directions to the GLC Preserve and conservancy dock area and be updated in the event of a rain/wind issue. If you would like a place in a GLC canoe, reserve in advance to guarantee it.

Bring a bag lunch, snacks, plenty of drinking water, comfortable clothing layers, wading shoes, hiking boots, towels, hat, and insect and sun protection.

3:30 PM return to the dock near Noblet Field Station.

The round trip paddle to the GLC dock is approximately 5 to 6 miles.

To apply for a Janet M. Avery Scholarship to attend a workshop, email GLC. Put the workshop name in the subject line. Include your contact information and how you plan to use what you learn.



Photo from the *Annual report of the Bureau of American Ethnology to the Secretary of the Smithsonian Institution* (1897). Photo identified as "Winnebago near Juneau WI". Photo courtesy of *Smithsonian Institution* digital archives.

Ethnobotany Workshop continued from page 1.

Ethnobotany workshop participants will learn some hands-on botany while hiking along GLC trails. With these skills we will identify plants and learn about the traditional and potential future uses of these plants. The workshop will include easy to moderate walks on GLC trails and elsewhere in Keweenaw County.

At locations where berries and leaves are abundant we will harvest sufficient for the group to sample. A selection of dishes and recipes prepared from locally harvested wild plants will be tasted.

Group size will be limited to 14 participants. Meeting location and directions will be provided upon registration. **Advance registration is required.** Fee \$35 (GLC members \$20) *Janet M. Avery Scholarships* are available (contact GLC). Download a workshop registration form at www.gratiotlakeconservancy.org/EthnobotanyWorkshop2016.htm

Participants should come prepared for an active day out-of-doors. Hiking shoes, sun and insect protection, and comfortable clothes are recommended. Bring along a camera, notebook, and magnifying lens, if you wish. Bring lots of drinking water, snacks, and a bag lunch.

Some recommended books on this topic are *Braiding Sweetgrass* by Robin Wall Kimmerer

The Earth's Blanket by Nancy Turner is also excellent, a gift from the indigenous people of British Columbia

Ethnobiology for the Future edited by Gary Nabhan

Workshop leader Karena Schmidt is a resident of Laurium and began her ethnobotanical adventures as a youngster nibbling dandelion greens and mint leaves from her childhood backyard. For many summers she worked as a naturalist on Isle Royale and specializes in knowledge of lichens, orchids, and ethnobotany. Last summer Karena led a workshop on lichens at the Gratiot Lake Preserve.

GLC Plant Survey Completed

GLC aims to be a good steward to the land that has been entrusted to its care in part through understanding what plant and animal communities live there. Botanical surveys serve as important tools in managing conservancy lands and provide a baseline to use in evaluating changes in the plant communities over time.

Over a decade ago, with the assistance of botanist Janet Marr, GLC undertook the survey and mapping of aquatic plants present in Gratiot Lake. This survey of Gratiot Lake recorded 35 aquatic plant species including a Michigan endangered aquatic plant, water awlwort, *Subularia aquatica*, and 90 plant species on Gratiot Lake shoreline. Subsequently in 2008, GLC published the handbook *Guide to Aquatic Plants of Gratiot Lake and Other Keweenaw County Lakes* by botanist Janet Marr (editor Bonnie Hay). In 2014, a botanical survey of a 307 acre conservation area at GLC's Bammert Farm was completed by Janet Marr. The Bammert Farm survey identified 204 plant species and documented black hawthorn, *Crataegus douglasii*, a Michigan special concern plant.



Janet Marr surveys wetland on GLC Preserve.



Northern Bluebell

In 2014 and 2015, Janet (accompanied at times by Emily Newhouse, Liz Gerson, or Bonnie Hay) carried out the botanical survey of 340 acres of GLC land at Gratiot Lake, and completed her report this spring. In both the Bammert Farm and Gratiot Lake Preserve surveys, wetlands were the main focus, and particular note was made of the location of both Michigan rare species and of problematical invasive species.

The GLC Preserve Botanical Survey catalogued 291 vascular plant species. Highlighted species were a Michigan threatened species, Farwell's water-milfoil, *Myriophyllum farwellii* (not to be confused with the dreaded invasive Eurasian water-milfoil), and one Michigan special concern species, Northern Bluebell, *Mertensia paniculata*. Of species noted, 208 herbaceous plants, 20 tree species, 35 shrub species, and 28 fern species were identified. *Carex*, an important genus of the sedge family, had the most species (25) recorded of any genus. Eleven orchid species were found (topping the 9 observed at Bammert Farm). You can download the survey's species list on the botanical survey page at http://www.gratiotlakeconservancy.org/BotanicalSurvey2014_2016.htm

Eight plant community types on the Gratiot Lake Preserve land were identified and examined: three distinct types of marshland, poor fen, northern shrub

thicket, rich conifer swamp, mesic northern forest, and sand/gravel beach. Plant communities are defined by characteristics including large landscape features such as bedrock and elevation, soil types, hydrology, and the species that are characteristically present. You can learn more about these (and other) Michigan plant communities on the Michigan Natural Features website at <http://mnfi.anr.msu.edu/communities/index.cfm>

About 11% of the plant species found on GLC land at Gratiot Lake were not native to the area. Most of these alien plants were found in disturbed areas such as roadsides, in areas where buildings or trailers had been, or near the Noblet Field Station. Most non-native species present do not pose much risk of disturbing more pristine native plant communities. However, some of the



Janet photographed this clutch of blue eggs (likely Hermit Thrush or Veery) at the GLC Preserve. The nest was so well hidden amid club moss and leaves that we nearly stepped on it!

non-native plants pose problems to native plant communities, and should be monitored, removed, and prevented from spreading.

This summer we plan to focus on the control of European swamp/marsh thistle, *Cirsium palustre*, found in some of the beaver floodings. This plant can be controlled by cutting it back repeatedly and removing flower heads before they go to seed. A few spotted knapweed plants and a cluster of creeping bellflower along Noblet Lane were removed last year. Also removed was germander speedwell near the Noblet Field Station. It will require periodic monitoring to assure these plants don't gain a foothold on the preserve.

**It's that time of year.
Everything
is growing...
including invasive
plants!**



HELP with the WEEDING
at Gratiot Lake Preserve.

Saturday, July 23, 9:30 AM- 2:00 PM

contact GLC at 337-5476
director@GratiotLakeConservancy.org
Snacks provided :)



Ugly Duckling or Beautiful Swan?

Although this graceful swan species was the inspiration for a well known fairytale, its presence in the U.S. is not a story with a happy ending. The mute swans were imported to ornament urban parks and zoos beginning in the 1800's. They have been extending their range in the U.S. ever since the early 1900's. Unfortunately, mute swans can be very aggressive, especially to native waterfowl, including loons and the Michigan threatened trumpeter swan (also seen from time-to-time on Keweenaw lakes). Although mute swans have been seen elsewhere in the Keweenaw Peninsula, this is the first individual recorded at Gratiot Lake. Dorothy Jamison spotted swans on the lake recently, and Jim Hay took the photo above.

Spring Botany Walk
Led by Janet Marr

at the Gratiot Lake Preserve
Saturday, June 18, 9:30 AM to 1 PM



Bunchberry

Join Janet Marr for an easy to moderate guided walk to identify plants along GLC shoreline and trails. Group size will be limited. **RSVP to GLC: 906-337-5476 or Director@GratiotLakeConservancy.org**. Be sure to include your contact information. Details of meeting location and for carpooling will be sent closer to the date. If we have to cancel due to really wet weather, we can contact you.

Wear comfortable clothing, hiking boots, hat for sun protection (or drizzle protection), and come prepared for mosquitoes and black flies. Bring a bag lunch, snacks, and plenty of drinking water. Bring a hand lens if you have one, or you may use one of ours. **Reservation required.** Free of charge.

**CLEAN BOATS
CLEAN WATERS**

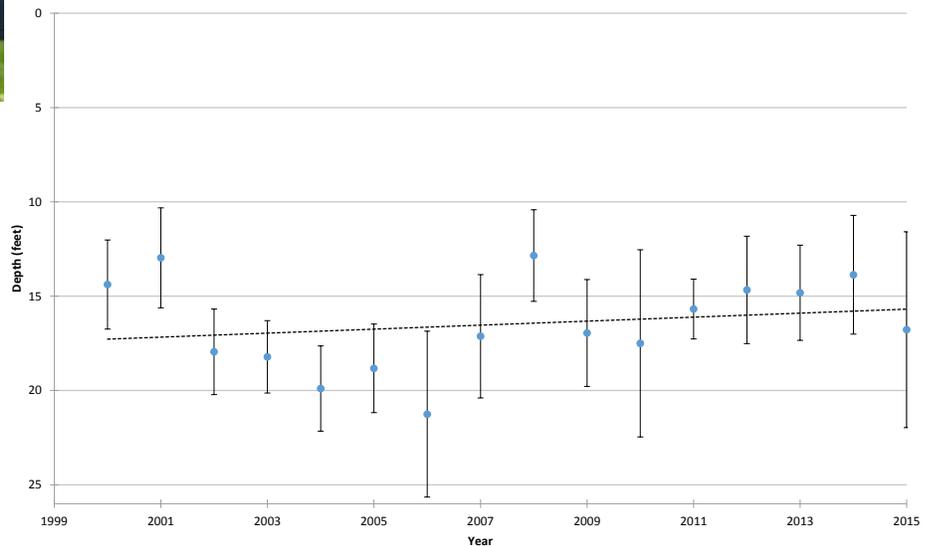
Clean off these areas to avoid transporting invasive species from lake to lake!

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	



For sixteen years, volunteers at Gratiot Lake have tested the waters as participants in the *Michigan's Cooperative Lakes Monitoring Program (CLMP)*. Ed Kaeding took readings at the deepest location on the lake (around 78 feet deep give-or-take) for the first 4 years, followed by Al Hochstein for two years. For the last 10 years Dorothy Jamison (often accompanied by her dog Sam pictured above on a monitoring boat-ride) has pitched in... quite literally.



Lake water transparency is measured about 7 to 10 times a year using a secchi disk (pictured in the logo above) which is lowered into the water until it cannot be seen. The disk is attached to end of a long tape measure. The depth at which the disk can be seen again as the tape measure is reeled in is noted. The graph above displays transparency results from 2000 to 2015. The dots indicate the mean depth each year, the bars denote the standard deviation. The trend line shows a slightly shallower reading over time. The trend shows less transparency although the difference is not large enough to be statistically significant. A decrease in transparency can be the result of such changes as increased sediment impacting a lake or of an overgrowth of algae.

Summer phosphorus is measured in late August via a water sample at the same location. The sample is frozen and sent to a lab for analysis. The phosphorus reading in the location tested has been very similar over time with an insignificant decrease. Phosphorus is an essential nutrient but too much of it will cause an overgrowth of algae in lakes. One way excess phosphorus enters waterways is by the runoff of fertilizer applied to lakeshore land.

Gratiot Lake is one of over 35 sampling sites in the U.P. which participated in CLMP last year. It is the only CLMP site in the Keweenaw Peninsula. If you would like to assist in monitoring please contact GLC. You can view information about this monitoring program and data on the lakes that participate on the [Michigan Clean Water Corps website MiCorps.net](http://MichiganCleanWaterCorps.org)

Hold on to your hat!

We try to keep trash out of the lakes we love, but once in awhile something just gets away from us... like a hat blowing away in a stiff wind. Help keep Michigan shoreline clear of trash this summer. Each year volunteers at Gratiot Lake and throughout the Keweenaw join with thousands of people statewide to clear trash from lake shoreline during the *Alliance for the Great Lakes September Adopt-A-Beach Clean-up*. Last year, volunteers throughout Michigan collected nearly 10,000 pounds of trash at 142 sites.

**Clean-up trash
along Gratiot Lake shoreline
Saturday, September 17th
9:30 to Noon**

Since volunteers keep track of what they find, the clean-up generates some interesting statistics on how we interact with the lakes we love. Data from the 2015 clean-up on Michigan shoreline found: 86% of trash was plastic (no Superior gyre thank heaven), 39% was related to smoking (that's a lot of butts), and 26% was food related (lots of picnics). The Alliance collected data on tiny trash... bits of trash small enough for fish or birds to swallow. The accumulation of tiny bits of plastic and other slow degrading trash in the guts of birds and fish can cause death. Tiny trash made up 39% of the individual pieces of trash recorded.

GLC invites you to the *Adopt-A-Beach Clean-up* on Keweenaw lakeshore. To help at Gratiot Lake, meet at public boat launch Saturday, September 17 at 9:30 AM, or [email GLC](mailto:GLC) to receive a trash reporting sheet and bags to use and to let us know what stretch of shoreline on which you intend to collect trash.

Little Gratiot River Wilderness

In December 2015, the GLC Board of Directors accepted the gift of a conservation easement on most of the Little Gratiot River Wilderness corridor from Keweenaw Community Forest Company (KCFC). By accepting this gift, Gratiot Lake Conservancy is providing an additional layer of conservation protection on the Little Gratiot River which connects Gratiot Lake to Lac La Belle and on the surrounding woodland and wetland habitats. Gratiot Lake, Deer Lake, and Lac La Belle are all part of the Bete Grise Bay Watershed of Lake Superior. Little Gratiot River which originates on the GLC Preserve connects these three interior lakes.

Deer Lake Added to Bete Grise Preserve

The Houghton Keweenaw Conservation District invites you to attend the dedication of Deer Lake, the newest addition to the Bete Grise Preserve. The dedication is scheduled for Sunday, August 21 at 2:00 PM at Point Isabelle Park (located off the Gay-Lac La Belle Road). The Stewards of Bete Grise Preserve are hosting this event which will include music and light refreshments. For more information call 906-369-5023.



Little Gratiot River (photo by Gina Nicholas)

“Like” Gratiot Lake Conservancy on Facebook!

Add your favorite photos of pets and people enjoying nature at Gratiot Lake!

Watch Out for Swimmer's Itch!

Looks like swimming weather is ahead. The tiny swimmer's itch parasite can cause allergic dermatitis. Swimmer's itch seems to be worst when winds are blowing toward shore. Short of avoiding a dip, here are some recommendations:

1. Rinse off thoroughly and towel dry vigorously after exiting the water. The swimmer's itch parasite takes time to burrow into the skin. For many but not all of these parasites, washing and drying is a deterrent. Skin under swimwear is usually protected, but be sure to wash your swim suit.
2. Swim in deeper water rather than sitting or standing in the shallows.
3. The parasite lives part of its life in waterfowl. Discourage ducks and geese from coming into shore. Don't feed the ducks.
4. Some folks at Gratiot Lake have had good luck using a cream which seems to prevent swimmer's itch. Information is at swimmersitchguard.com
5. If you get an itchy rash (it looks sort of like hives), do the same things you might for any rash to relieve the itching (e.g. baking soda and water on the "bite," hydrocortisone cream, etc.). Consult a doctor for bad inflammation.

Bird Friendly Tips

Ruth Gleckler's photo (on the last page) of a Baltimore oriole's through-the-window encounter with Lily the cat is a humorous reminder of why it's a good idea from a bird's perspective, to keep cats indoors. Both of Ruth's cats are indoor cats. Ruth enjoys feeding and watching birds. The oriole came to her deck perhaps looking for fruit Ruth has offered, but he seemed more intrigued with Lily than food! Birds are especially vulnerable to predation from cats during nesting time. The American Bird Conservancy estimates that in the U.S. over two billion birds are killed yearly by feral cats and pet cats who roam outdoors.

Birds are especially vulnerable to window strikes during migration times in spring and fall. Ruth also uses stickers on her windows to help prevent birds from flying into them. Window stickers and decals can be purchased online and from local merchants. The *American Bird Conservancy* has links to other ideas of for window treatments which help to deter bird strikes <https://abcbirds.org/get-involved/bird-smart-glass/>



In an effort to better understand which buildings posed the most threat to birds, *Michigan Tech School of Forestry Wildlife Society* students monitored bird mortality from bird strikes on windows at various buildings on campus. They found a variety of songbirds were impacted (pardon the pun). Data like this can help in both devising remedies for areas that have a lot of impacts and guiding bird-safer building design for the future. For example, Lisa Johnson de Gordillo's graphic design students at Tech have developed prototype visual art that was displayed on the windows in the skywalk at Tech. Such designs applied in front of glass windows can break up the window's reflection so that birds perceive the glass and thus avoid colliding with it.

Nature Notes



Are Lily the cat and this Baltimore oriole friends?
Find out on page 7. (Photo by Ruth Gleckler)

Go digital and save paper and postage!

Click here to request a color digital copy of the *Water's Edge* instead of a paper copy.



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

Enjoy feeding a crowd? Bring refreshments to the Members Meeting on July 28th. Let Bonnie know what you plan to bring.

Enjoy carpentry? Install new seats in and revarnish the "Jake" and "Amber" canoes, remount a bat house, or make and mount bee or bird houses.

Enjoy gardening? Pull invasive plants such as knapweed and marsh thistle at Gratiot Lake and Bammert Farm. First date is July 23. **Contact GLC** if you would like to help at any time.

Enjoy writing? Contribute an article to *Water's Edge*.

Enjoy watching wildlife? Keep a diary of nature happenings you and others observe at Gratiot Lake. Share Gratiot Lake photos on the Gratiot Lake Conservancy *Facebook* page.

Enjoy boating? Assist Dorothy Jamison with water monitoring and testing. Be on the lookout for invasive aquatic species.

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 17th or whenever you have time!

Dr. John Yunger invites you to visit a small mammal survey site which he and his students have set up for research at the Gratiot Lake Conservancy Preserve. On Tuesday, September 13 there will be a demonstration of how these small mammals, mostly rodents, are live trapped, recorded, and released. If you would like to sign up for this field trip or would like to receive further information later this summer please **contact GLC**.

Last Minute Events?

Field trips may added to the GLC calendar. **Contact GLC to be added to the "spur of the moment" notification list!**

Become a GLC Member!

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.

Join or Donate at any time.

Click here for GLC donation page or mail to GLC at the address on page 2.
The membership year is from January 1 to December 31st.

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

Click here to see samples of the photos!

