

A Wonderful Twenty Years!

It has been most gratifying to help GLC grow into young adulthood these last two decades. Being an part of land conservation at Gratiot (and in the Keweenaw generally) has been personally fulfilling for me. Meeting and working with many interesting and enthusiastic people has given me hope and enriched my work and my life. Seeing the response of the broader community to GLC and the generosity expressed in so many ways has been awesome... I cannot thank each of you enough!

That said, reality is that I jumped into this project when I was in my early 50's and time flies. I am ready to step back a bit. Over the past two years I've begun handing over some aspects of the job. Now it's time for me to continue on the GLC board and to support Ian Lizzadro-McPherson as he introduces himself to the GLC community.

I will serve on the GLC board as long as my guidance is of value, and remain committed to the values expressed in GLC and to the Keweenaw, its vibrant human community and the spectacular natural community. --- Gratefully Yours, Bonnie



Bonnie holding a Hen-of-the-Woods mushroom bouquet. Photo by Ben Hay.



Photo by Gina Nicholas

Please Welcome Ian Lizzadro-McPherson!

The GLC Board is pleased to announce that Ian Lizzadro-McPherson is moving into the role of Program Director of GLC. Ian has deep roots in the U.P. His great grandparents immigrated to find a better life in the Keweenaw in the early 1900's. While Ian grew up in Illinois, Arizona, New Mexico and Wisconsin, he spent most childhood summers at Gratiot Lake forging a deep connection to Gratiot Lake and GLC. Ian recently relocated to the area.

Ian has a BA in Biology and Chemistry with a focus in limnology from Lawrence University, and he has a solid resume in the environmental field. He is enthusiastic about the importance of conservation and good environmental stewardship and is a strong advocate for conservation and sustainability. Ian wants to spark that same passion in his own children and future generations. He looks forward to his role in GLC. His motto: "Lead by example, learn through experience, and live with nature."

GLC receives a donation of shoreline and wetlands on the northeast end of Gratiot Lake scroll to Page 4 for more...

GLC gratefully acknowledges

Donors from Nov. 1 2017 - Oct. 31 2018



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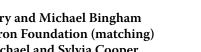
September 20, 1863

It is a wet foggy morning. The ground is soaked and covered with water from the past few rainy days. It snows some, freezes nights, and looks like fall weather generally. The leaves show the golden color giving assurance they must soon fall to the ground. There is beauty in the immense forests extending over these hills and valleys clothed in their rich foliage of various hues. There are scenes here that cannot be far surpassed of color & beauty.

I imagine myself seated in a birch canoe out on the placid surface of Gratiot Lake, ten miles distant in the woods, the beautiful trout are busy at the hook, the sloping hills extend back in the distance unmarred by the ax in all the richness of their ancient beauty. Everything is pleasant to the eye & sweet sounds meet the ear. Yonder...beautiful trout of twenty pounds dart to the surface of the water after the hook; ducks & water fowls are seen everywhere. What a scene for the painter. Thus it is all through this region.

Henry Hobart

Excerpt from Copper Country Journal: The Diary of Schoolmaster Henry Hobart, 1863-1864 by Henry Hobart, Philip P. Mason, Editor. Henry Hobart taught at Clifton the settlement at Cliff Mine. His journal details what the mine workers and their families experienced during that era. This heartfelt, historical impression of Gratiot Lake was submitted to Water's Edge by Virginia Jamison.





Lizzadro Farms Donates Sandy Beach Land



GLC is very happy to announce the recent addition of a 184.46 acre parcel to the Gratiot Lake Preserve. This parcel is the most recent gift of land from Lizzadro Farms, Inc. Much of its 3,000 foot stretch of shoreline is known by residents at Gratiot as "Sandy Beach." The lakeshore is a mix of sand and of cobble stretches. Inland is a mixed hardwood/conifer forest and wetlands. The Little Gratiot River snakes its way through a portion of it. The land is an especially significant conservation addition because it is contiguous with the Little Gratiot River Wilderness which forms a nearly intact wildlife corridor to the Bete Grise Preserve and to Lake Superior. It abuts the portion of the Gratiot Lake Preserve which includes the Noblet Field Station.

Year-end donations doubled! CLICK HERE. Donations made to the general fund by January 30th will be matched!

Lake and Lakeshore

In July, limnologist Erick Elgin, a water resource educator from Michigan State University Extension Service, came to Keweenaw County to lead an Exotic Aquatic Plant Watch (EAPW) training at Gratiot Lake. GLC recently joined this monitoring effort through the Cooperative Lakes Monitoring Program.

The night before the training, Erick stopped by the GLC Members Meeting held in Eagle Harbor to give an overview of this monitoring program. EAPW is a yearly check-up for the potential entry into inland lakes of invasive aquatic plant species, such as Eurasian watermilfoil, curly–leaf pondweed, starry stonewort, hydrilla, and European frog-bit. Of this list, Eurasian watermilfoil is the most immediate threat to Keweenaw lakes. A link to the EAPW slide show is on the "Lakeshore Living" page on the GLC website at *http://www. gratiotlakeconservancy.org/ExoticAquaticPlantTraining.htm*



Pictured above are Erick Elgin (at right) and Keweenaw Invasive Species Management Area (KISMA) Coordinator Sigrid Resh and members of the KISMA weed crew sampling aquatic vegetation with a "weed rake" at Gratiot Lake during the EAPW training. No invasive species were noted during the training or in sampling done afterwards.

After the EAPW training, Erick presented a lake issues Q&A program in Eagle Harbor. Most questions were about shoreline erosion, lake levels, dams, and floods- especially with regards to Lake Superior shoreline. Although no easy solutions for homeowners were presented, Erick did offer advice and promised to make informative resources available.

Links to informative websites for all sorts of Great Lakes and inland lakes information which Erick shared can be found on the GLC website page titled "Lakeshore Living" at *http://www.gratiotlakeconservancy.org/ExoticAquaticPlantTraining. htm*

Gratiot Lake Geo-Tour



Bird's-eye photo courtesy of Neil Harri, Map image from *How the Rock Connects Us: A Geoheritage Guide to Michigan's Keweenaw Peninsula and Isle Royale*, by Bill Rose and Ericka Vye with Valerie Martin.

GLC board member and geologist Daniel Lizzadro-McPherson's Geo-Tour at Gratiot Lake had smooth sailing on a sunny, calm day in August. From the pontoon boat and at the GLC Preserve participants viewed the amazing topography of Gratiot Lake, a 10,000-year-old glacially formed plunge pool carved out of 960-million-year-old Jacobsville sandstone. The lake's mountainbacked northeastern shoreline marks an important geologic boundary, the Keweenaw Fault. One-billion-year-old lava flows (known as the Portage Lake Volcanics) sitting high above the Gratiot Lake have been thrust up and over the younger Jacobsvill sandstone. The Keweenaw Fault is inferred from the sharp change in topography and bedrock. Daniel is in the process of mapping this specific segment of the fault as part of his Master's thesis at Michigan Tech. From the boat, Daniel was able point out the evidence of powerful forces that formed what on that summer day seemed a placid landscape. We plan to offer this tour again next year.

Some geoheritage resources, including Bill Rose's Geoheritage website and Robin Mueller's video of part of the GLC tour, are accessable through links on GLC's website at *http://www.gratiotlakeconservancy.org/GeoTour2018.htm*

You may also enjoy reading this book which was recommended by Daniel:

How the Rock Connects Us: A Geoheritage Guide to Michigan's Keweenaw Peninsula and Isle Royale, by Bill Rose and Ericka Vye with Valerie Martin.

This handbook is a comprehensive overview of underlying geologic features and their influence on human life and the history of the region. It has many photos and maps that clearly illustrate information presented. The text is concise and understandable so a geology degree is not required to understand it. Handy links to further information on the geoheritage website are included with each topic and location highlighted. This book is available at some local stores, at the Keweenaw National Historical Park Visitor Center in Calumet, or from the Isle Royale & Keweenaw Parks Association at *https://irkpa.org*

Ways to Donate

- 1. To download and print a form CLICK HERE . Mail to Gratiot Lake Conservancy, P.O. Box 310, Mohawk, MI 49950. This the preferred way to donate.
- 2. ONLINE. Click the "Donate" button on GLC's

homepage. This will take you to a PayPal page that

allows you to donate directly to GLC either with your credit card or with your PayPal account. Be sure to note your address and <u>any designation for</u> <u>your donation</u> on the PayPal GLC page. The "Provide donation details here" box is right below the area in which the amount of your donation is indicated. GLC pays a small fee for online donations. PayPal will acknowledge the donation via email and GLC will send you a thank you.

- 3. If you have a PayPal account, you may want to make a donation to GLC through PayPal Giving Fund. PayPal Giving Fund waves the fee so the full amount donated is available for GLC to use. PayPal adds an additional 1% to donations made in this way from Nov. 27 to December 31. Donations are transferred to GLC's account 2-6 weeks after the donation. Go to https://www.paypal.com/fundraiser/ charity/1524373 They accept only PayPal account payments...not credit cards. PayPal Giving Fund will immediately email a donation receipt to you, and GLC will send you a thank you after we receive the funds.
- Donations of securities are welcome. Contact GLC for "how to" info at Director@GratiotLakeConservancy.org
- 5. Give to the Gratiot Lake Conservancy Fund at the Keweenaw Community Foundation (KCF). Donate at the KCF website keweenawcommunityfoundation.org On the KCF donation page be sure to add "Gratiot Lake Conservancy Fund" in the "Add special instructions for Seller" box under the donation amount.

Or, make a check out to Keweenaw Community Foundation" (indicate "for Gratiot Lake Conservancy Fund" in the subject line). Send to Keweenaw Community Foundation 236 Quincy Street Hancock, MI 49930

Thanks for supporting GLC's Efforts!

Fall 2018 Water's Edge

Thank YOU Volunteers...

Everyone who provided refreshments for and helped with GLC's Members Meeting.

Ella Budynsky, Mary Bingham, Mary Dana, Jim Hay, Dorothy Jamison, and all Gratiot Lake landowners who removed about 50 pounds of trash from Gratiot Lake shoreline. The most unusual item was found while removing two old tires from the shallows...the heel and part of a sole from a shoe about 100 years old.

Vicky Doyle for minding GLC's Facebook page. If you are on Facebook take a look and "like" Gratiot Lake Conservancy

Diane and David Gothard for assisting the KISMA weed crew in invasive plant removal at Gratiot Lake.

Ben Hay for proofreading the Water's Edge Newsletter.

Jim Hay for use of his boat for GLC tour of the lake and for being webmaster of www.GratiotLakeConservancy.org

Dorothy Jamison for measuring Gratiot Lake water transparency since 2006. The updated data chart and trend graphs are on the GLC website http://www. gratiotlakeconservancy.org/wmpage.htm

Louis Lizzadro for serving as Treasurer and Assistant Secretary

Will and Lydia Lytle, Daniel Lizzadro-McPherson, Ella Budynsky, Robin Mueller, and Gina Nicholas for assisting at GLC programs and hikes.

With a contribution of \$500 or more you can become a GLC Life Member!



One-Flowered Pyrola

Stocking Stuffer: GLC Membership

Janet Marr for leading the spring botany walk and advice on all things botanical.

Miriam Pickens for donating her time and sharing her beautiful photos and expertise on local butterflies at the GLC members meeting.



Pat Ryan (pictured at work above) for construction of two duck nest boxes now installed on Gratiot Lake shoreline.

Jim Tercha for pro-bono work for GLC.

Elaine Wildman for donation of her notecards with her sketches of Gratiot Lake.

GLC Board of Directors: Bonnie Hay, John Lizzadro, Sr., Joseph Lizzadro, Daniel Lizzadro-McPherson, Will Lytle, and Gina Nicholas for helping to keep GLC on track.

Gina Nicholas for donating her services above and beyond!



With the help of GLC volunteers, KISMA Coordinator Sigrid Resh and the KISMA weed crew (pictured above) worked for a day at the GLC Preserve removing invasive European marsh thistle and other invasive plants.

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Email Director@GratiotLakeConservancy.org

Nature Notes



Remember the Mt. Horace Greeley septage ponds featured in the spring newsletter? Jim Hay's telephoto lens honed in on an odd duck family at those ponds in mid-June. To his surprise his was the first <u>documented</u> evidence of nesting Bufflehead ducks in Michigan! Buffleheads, like mergansers and wood ducks, nest in tree cavities. Buffleheads migrate through the Keweenaw, but usually nest in Canada and in the northern edge of some Northwestern states. You can see Bufflehead info, more of Jim's (and other's) Bufflehead photos, and his siting records on e-bird. https://ebird.org/species/buffle/US-MI-083 Cornell's website *https://ebird.org/home* has info about all species of birds and maps showing where and when they are seen.

The flying squirrels captured and released at GLC last year as part of John Yunger's on-going study of small mammal populations were Southern flying squirrels rather than Northern ones. Surprising, since it was supposed that the Keweenaw was north of their range. Also, John found a drop in small mammal (especially vole) population at the GLC survey site and thinks it may be attributed to a rise in the pine martin population, rodents being a pine martin menu favorite. One would expect that this often observed predator/ prey ebb and flow of population would be reversed in future years. After pine martin numbers dip in response to less available rodents to dine on, rodent numbers would be expected to again climb. On our visit to John's research plot this September, John donned his super-heavy leather gloves when he examined and released the pine martin. He is pictured above weighing the pine martin captive in the trap.



Swimmers itch was again reported at Gratiot Lake in September. This tiny flatworm, aptly named for the effect it has when it burrows into your skin, while not a vector for disease, causes discomfort and in some bad allergic reactions. The parasites intended hosts are snails and waterfowl, and it burrows into humans by mistake. It is a native common to many northern lakes where its population ebbs and flows. It is more likely encountered in the shallows. Before wading in, some swear by application of "Swimmers Itch Guard" cream as a preventative. After a swim toweling off right away or taking a shower are the best deterrents.



From his pontoon boat, Jim Hay photographed this wolf, one of a pair who made an appearance on Gratiot Lake Conservancy Preserve shoreline in September. According to last winter's Michigan DNR survey which examined wolf population in about 2/3 of the Upper Peninsula, wolf population was 662 (survey's in previous years were in the 600 and 700 range) with 139 packs identified.

Archive of *Water's Edge Newsletters*, articles, program information, photos, video clips, and more at *www.GratiotLakeConservancy.org*

Fall 2018 Water's Edge

Bacteria Hamper SYP Exploration

After the destructive Father's Day flood inundated the Keweenaw, Gratiot and many other water bodies and beaches were adversely impacted by the excessive runoff and high bacteria counts. Gratiot Lake was tested by the health department at the DNR boat launch site and found for a time to have levels of fecal coliform (source could be any animal) unacceptable for swimming. Thankfully, at Gratiot there was not an unsafe level of e-coli, a bacteria associated with human waste.

Besides putting a damper on recreation by Gratiot Lake residents, the quixotic nature of bacteria counts measured at the DNR boat launch wreaked havoc with Michigan Tech's Summer Youth Program (SYP) group's access to water activities. Tech allowed only a day program at Gratiot in July, rather than their normal residential week at the Noblet Field Station. Students were sad that they couldn't camp at the cabin, but were able to complete the program in other locations.

In addition to hosting Michigan Tech's Summer Youth Program Exploration: Aquatic Ecology at Gratiot Lake.since 2004 at the Noblet Field Station, GLC has donated the salary of the instructor and offered the *Rita and Jack Sandretto Scholarships* for one or two students.

Through January 30th up to \$20,000 in donations made to GLC's general operating fund will be matched!



Sandretto Scholarship recipients, Zachary Hooper of Farmington Hills, MI and Madeline Webb of Swartz Creek, MI flank Bonnie Hay during the SYP Aquatic Ecology visit to GLC. Photo by instructor Bradley Wells.

It's time to renew for 2019! Click here to download a form.



Daniel Lizzadro-McPherson points out the Keweenaw Fault during the Geo Tour at Gratiot Lake. See more on page 5.

Become a GLC Member!

Conservancy members receive newsletters, notice of special events, and an invitation to the Annual Members Meeting. Membership is \$15. GLC programs fees are discounted for members. Join at any time. Renewals are due at year end.



Click Here for online donation or to download a form to mail in to GLC, P.O.Box 310, Mohawk, MI 49950



Donors of \$100 or more receive a gift of photo notecards. View images at www.gratiotlakeconservancy.org/NoteCardSamplePage.htm