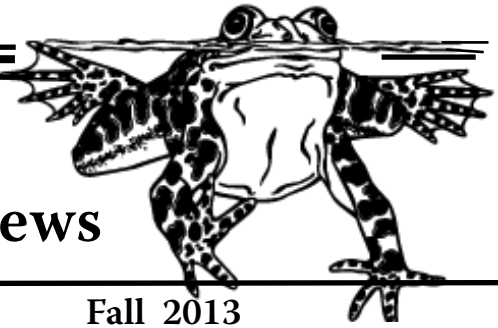


# Water's Edge

## Gratiot Lake Conservancy News



Volume 15

Fall 2013

### *GLC Members Meeting*



Over 75 people attended GLC's Annual Members Meeting on July 29<sup>th</sup> at the Eagle Harbor Community Building. The evening began with the election of directors, the treasurer's report by Lou Lizzadro, a slide presentation on GLC's programs by executive director Bonnie Hay (pictured above), and the membership report and Bammert Farm report by Gina Nicholas. After recognition of volunteers and refreshments, geologist Bill Rose presented an engaging slide talk "What is the Keweenaw Fault and how was it discovered?"

Bill explained that the fault which runs along the spine of the Keweenaw Peninsula and dips towards Gratiot Lake and the Bete Grise area shoreline resulted from the several mile vertical slippage in the earth's crust roughly 1.1 billion years ago. Although he assured us that the fault is no longer active, Bill pointed out that it still has an impact in our lives. The fault created many attractive features in the landscape, including craggy cliffs, waterfalls, and rocky shoreline. It acted as a conduit allowing mineral solutions including copper and silver to rise to the surface. Without the fault, no mineral deposits would have been accessible. Bill referred to the social, aesthetic, and cultural significance of geology as "geoheritage."

View video clips from Bill's talk on the GLC website.  
<http://www.gratiotlakeconservancy.org/MembersMeeting13.htm>

Visit Bill's informative website to learn more.  
[http://www.geo.mtu.edu/~raman/SilverI/The\\_Fault/Welcome.html](http://www.geo.mtu.edu/~raman/SilverI/The_Fault/Welcome.html)

### *Aquatic Ecology at Gratiot Lake*

Seven students spent five days at the Noblet Field Station and Gratiot Lake Preserve during the *Michigan Tech Summer Youth Program Exploration: Aquatic Ecology at Gratiot Lake*. Under the guidance of science teacher Brian Rajdl and counselor Kara Oikarenen, the high school students studied the chemistry and biological communities of the lake itself, the Little Gratiot River, Sucker Creek, and a beaver dam near the Bear Paw Path.



The *Jack and Rita Sandretto Scholarship* was awarded to Jenna Murphy-Gast of Houghton High School to attend this field study program. Jenna enjoys studying ecology and plans to continue science studies in high school and college. She wrote "...we looked at the water chemistry in and around Gratiot Lake. We took water samples and looked at the phytoplankton and invertebrates. This camp was without a doubt the highlight of my summer... I have never enjoyed learning quite as much as I did this week."



Copyright © 2010 Dave W

These are not holiday ornaments or dried flowers.  
Find out the true identity of these stars on page 7!

# GLC gratefully acknowledges donors from Nov. 2012 - Nov. 2013

## Major Donors

Angela and Charles Anderson (Education Fund)

Bonnie and Jim Hay

HFRX Foundation

Carol and Joseph Lizzadro

Diana Nicholas Loving Trust

## Donors to General Operations

Anonymous

Maureen and Arthur Anderson

Dorothy and Don Asher

William Bingham and Laura Cison

Becky Brown

Gayle and Ben Brown

Marie and Salvatore Celona

Joan Chadde

Deborah Cunningham

Bill Deephouse

Leslie Desmond

Christine Edenfield

Jo Foley

Carrie and Michael Fraim

Diane and David Gothard

William and Eloise Haller

Sue and Bob Haralson

Dante and Joyce Iacovoni

Fred Jamsen

Gale Jamsen

Robert Kahl

Sue Ellen Kingsley and Terry Kinzel

Andrea Lane

Evelyn and John Lindsey

Caron and John S. Lizzadro, Jr.

Janet Locatelli

Suzy Lofquist

Sr. Barbara Lord

Marsha and David Low

Janet and Bob Marr

Marsha and Philip Mason

Scott and Marilisa Moore

Norma Neuswanger

Gina Nicholas

Donald Piche

Laura and Zach Porter

Sharon Levine and Dana Richter

Janet and Daniel Rosemergy

William and Jean Ryan

Elaine Rysiewicz

Darrell Schummer

Pam Shaughnessy

Doug and Nancy Sherk

Mary Louise and Tom Strohl

Doug and Norma Lee Stuart

Frank and Linda Stubenrauch

Mary Merrill and David Tarr

Sue and Daniel Teare

Patricia and Peter VanPelt

Amy and Paul Wheeler

Elaine Wildman

## Memorial Gifts

*in Memory of Barbara Craig Buck*

Virginia Jamison

*in Memory of Marcia Miller*

Dorothy Jamison

Virginia Jamison

*in Memory of Louis Sandretto*

Carmen Sandretto

*in Memory of Michael Sandretto*

Ronald and Mary T. Woywood



*Janet M. Avery Scholarships* were awarded to two participants in Janet Marr's *Aquatic Plant Workshop* held on August 24 and 25<sup>th</sup>. In the photo above Emily Mydlowski (left), a biology major at Northern Michigan University, and Mary Jo Gingras (right), Lake Program Coordinator at Northland College Sigurd Olson Environmental Institute, examine pondweed structure.

**Donors to Land Acquisition Fund**

Bob Dekema and Holly Schipper  
Diane and David Gothardj  
Mary and Neil Hodges  
Fred Jamsen  
Pauline Johnson  
Don B. and Pat Keith  
Scott and Marilisa Moore  
Linda Rehorst  
Doug and Norma Lee Stuart

**Gifts in Honor**

*in Honor of Angela Anderson and Charles Anderson*

Deborah Cunningham  
Jim and Bonnie Hay  
Joseph and Carol Lizzadro  
John and Caron Lizzadro  
John and Reva Lizzadro (to Education Fund)  
Janet Locatelli  
Ronald and Mary T. Woywood

*in Honor of Lowell Bollinger*

Joanne Bollinger

**Donations to GLC Fund**

**Keweenaw Community Foundation**

Michael and Mary Bingham  
Chevron Foundation  
Douglas and Norma Lee Stuart

**Memorial Gifts Education Fund**

*to Janet M. Avery Scholarship*

*in Memory of Janet Avery*  
Betsy Aller and Andrew Kline

*in Memory of John Flynn*

Elizabeth Flynn

**Donors to Education Fund**

Steve and Judy Albee  
Leslie Desmond  
Diane and David Gothard  
Mary and Neil Hodges  
Fred Jamsen  
Marilyn Jones  
Joann and Herb Marutz  
Dennis and Pauline Moore  
Scott and Marilisa Moore  
Susan and George Robinson  
Janet and Daniel Rosemergy  
Doug and Norma Lee Stuart  
Cecilia and Paul Tomasi

**Gift in Support of Wetland Plant Survey**

Martha and Floyd Heart & Hands Society  
Memorial Endowment Fund



photo by Janet Marr

*Blue Flag iris in Bammert Farm wetland.*

**Gifts in Kind**

Anonymous  
Jim Cox  
Jim Hay  
Kerrie Richert  
Walt Summers  
Peter and Patricia VanPelt

We miss our  
Gratiot Lake neighbor and friend  
*Marilyn Jones*

Marilyn passed away in August. Marilyn was a member of GLC since its inception and also supported other Keweenaw conservation efforts. She donated land to the Michigan Nature Association (MNA). This land is part of the MNA Gratiot Lake Overlook Nature Sanctuary across from the public access to Gratiot Lake.

**About *Water's Edge***

*Water's Edge*, the newsletter of the Gratiot Lake Conservancy, reports Conservancy news, informs about the ecology and history of Gratiot Lake and its environs, and shares ways to improve environmental stewardship.

**Please send questions, comments, or articles to**  
**Bonnie Hay, *Water's Edge* Editor**  
**Gratiot Lake Conservancy**  
**P.O. Box 310**  
**Mohawk, MI 49950**

**[belh@verizon.net](mailto:belh@verizon.net) 906-337-5476**  
**[www.gratiotlakeconservancy.org](http://www.gratiotlakeconservancy.org)**

*Gift in Memory of canaries, Brutal Force and Brockway*  
Miriam Lytle

## *Moths at Midnight*

Who would guess that in less than two hours, 24 species of moth would arrive on two white bed sheets hung near GLC's Bammert Farm? Moth expert Jim Bess very generously offered to lead a field trip to sample what moths might show up on a moonless, breeze free, late August night. His interest in lepidoptera began in childhood and segued into a life long quest for the next rare find. Jim arranged ultraviolet lights behind the sheets to attract the insects which flitted by or settled there.



A small group of participants who had signed up at the GLC Members Meeting for this spur-of-the-moment field experience were surprised to see the diversity of moths. Some of the intriguing names of the moths observed are American Angle Shades, Glossy Black Idia, and Bent Winged Owlet. Other insects showed up including wasps which prey on moths and also elegant crane flies which look like ornate giant mosquitoes. Jim has offered to do this again next year, perhaps in July or early August, since different species are likely to emerge earlier in the summer.

If you would like to be on a list to receive notification of spur-of-the-moment field trips such as this one, please contact GLC and indicate your interest.

## *Aellopos Titan visits the Keweenaw*



Here is another unlikely moth tale. This July on a visit to the Lizzadro Lakeshore Preserve with a Keweenaw Land Trust photography walk led by Steve Brimm, we spotted a large moth busily drinking from vetch flowers before sunset. When I first spied it, I thought it was a hummingbird it was so BIG. It had about a nearly three inch wingspan, and as it hovered its wings were a blur. As I drew closer, I could see it was clearly a relative of the hummingbird moth, a species of Sphinx moth native to the Keweenaw. Luckily many photos of the mystery moth were taken including the one at left taken by my husband Jim. I submitted his photos to some insect identification websites and learned the moth's identity (it is times like these I love the internet). If you ever want to know the identity of an insect, you can solve the mystery by submitting a photo on [bugguide.net](http://bugguide.net)

The moth was an Aellopos Titan. This species is not an inhabitant of the northern part of the U.S. much less the U.P. In fact, ours was the first recorded sighting of this species of Sphinx moth in the U.P. Normally they are spotted no farther north than southern Illinois or Indiana. It speculated that this moth blew (and flew) from the southern U.S. to Keweenaw shores on powerful winds.

This sighting is now part of the official "record" on the website for Butterflies and Moths of North America <http://www.butterfliesandmoths.org/>

You can also view a special page created in its honor by Bill Oehlke, one of the entomologists who confirmed its ID <http://www.silkmoths.bizland.com/miKeweenawsph.htm>

Visit the Gratiot Lake Conservancy web site to view current and archived issues of *Water's Edge Newsletter*, articles, photos, video clips, and links to more!

[www.gratiotlakeconservancy.org](http://www.gratiotlakeconservancy.org)

Sustain GLC's future by contributing to the *Gratiot Lake Conservancy Fund* at the Keweenaw Community Foundation. A fund donation form is on the GLC website. Earmark donations "*Gratiot Lake Conservancy Fund*".

Mail to:

Keweenaw Community Foundation  
236 Quincy Street  
Hancock, MI 49930.  
906-482-9673 mail@k-c-f.org www.k-c-f.org

## Survival of the Fittest

In spite of a snowy spring and late ice out on Gratiot Lake, the resident eagles produced two young on schedule. As noted in the photo caption at right, younger brother was considerably smaller than his sister. She dominated the nest with her extra size and garnered more attention and food from the parents. You can view video clips of life in the nest on the GLC website at <http://www.gratiotlakeconservancy.org/EagleUpdate2013.htm>

By the time the young were nearly ready to fledge and fly from the nest, big sister was aggressively nudging her brother out of her way and towards the edge of the nest with nips and pecks. She finally flew in the last week of July. Soon after, younger brother fell from the nest. He was observed perched on a beaver lodge below the nest tree. We thought the parents would feed him there and all would be well. Unfortunately, he soon disappeared. Will Lytle and Lydia Patch investigated and found his body. Since a necropsy was not done, we don't know exactly what killed him- a first flight mishap, a premature exit from the nest precipitated by a sisterly nip, or some weakness which made him unfit to fly. We do know that big sister appeared to be very robust and will hopefully make it to adulthood in five years. Only ten percent of bald eagles actually survive to breed.



photo by Jim Hay

Emily Oja (at left), a Michigan State University student, and Claire Weber (at right), a University of Maryland student, were part of the team that came to band the Gratiot Lake eaglets in June. Emily holds the male eaglet who at about 7 weeks of age weighed in at 5 lbs 8.2 ounces and Claire holds the female eaglet who weighed in at 9 pounds 7.7 ounces. The difference in size between the siblings was mainly attributed to the fact that male eagles are smaller than females and that the male had hatched about four days after the female.



photo by Jim Hay

### *It pays to take a second look!*

Beavers at work are a fairly common sight at Gratiot Lake. Usually, I don't look twice when a furry brown head or two moves along in the water. But in September of 2012 what looked at first like a group of beavers, on closer examination revealed itself to be a family of river otters. This year we again glimpsed a group of river otters frolicking in a quiet bay at Gratiot Lake. What a pleasure to have a return performance. What piqued our curiosity in the first place was the playful frolicking of the group... obviously focused on more than collecting tree branches. Binoculars revealed the long bodies and narrower tails. Presumably it was a family diving, feeding, and playing.

### River Otter Facts

River otters are members of the weasel family. They are one of the largest weasels in the Keweenaw.

River otters are smaller and sleeker than Sea Otters. Adults weigh 10-30 pounds and are 35-54 inches long.

They are adapted for swimming and diving with webbed feet and streamlined design.

Very dense soft fur protects the otter from cold and makes their pelts attractive to trappers.

Like all weasels, river otters have a very high metabolic rate. So, they must eat about 1/4<sup>th</sup> of their body weight each day.

River otters prefer to dine on crayfish, slow moving fish, and frogs. They will also eat shorebirds, ducks, and small mammals including reportedly baby beavers.

Their lifespan in the wild is 10 -12 years.

Otters can burrow in river and lake banks and use burrows and abandoned beaver lodges.

Young are born in early spring and remain with mom for up to a year.

Otters can range up to 20-30 miles. They travel quickly on land as they do in water.

Otters play a role in many Native American legends.



### *History Visits GLC*

This summer two individuals, whose lives many decades ago were connected to land now owned by GLC, got in touch with the Conservancy. Kiril Spiroff planted the red pines at Bammert Farm in 1956. In the 1950's, red pine plantings were often recommended to reforest spent farmland in the Keweenaw. Kiril had equipment which furrowed the land and planted the seedlings. He shared a photo taken of the back of his truck laden with hundreds of seedlings all bundled and ready to plant at the farm. He and his wife Claudette, both graduates of the Michigan Tech school of forestry, came to visit Bammert Farm with their grandson, Trey. Kiril shared some of his forest management ideas. He was pleased to see how the tiny seedlings that he planted are now a stately red pine forest which is being sustainably harvested.

Kiril has another GLC connection. As a young man, Kiril knew the Noblet family. U.J. (Bert) Noblet, who headed tech's forestry department in the 1950's, had been Kiril's and Claudette's teacher there. Kiril helped out when the Noblet family built and settled into their camp at Gratiot Lake. That log cabin is now the Conservancy's Noblet Field Station.

Virginia Noblet, a granddaughter of U.J. (Bert) Noblet also visited Gratiot Lake and had fond memories of time spent at the Noblet camp in the 1960's. Virginia was delighted to revisit her treasured childhood camp which she hadn't seen since she was a little girl. She tried out many of the familiar chairs and sat at the long wooden table in the dining/living room which she remembered as the "picnic table." Virginia was happy to see how well the cabin and its contents have been preserved.

## *Natural Shoreline Landscapes*

GLC and the Keweenaw Land Trust (KLT) hosted the *Natural Shoreline Landscapes Workshop* on August 26. Jane Herbert MSU Extension Water Resources Educator and Vice-Chair of the Michigan Shoreline Partnership led the workshop. Participants observed the features of undisturbed lakeshore and identified opportunities to restore areas of shoreline during a morning pontoon boat ride at Gratiot Lake. The group reconvened at KLT's Marsin Center on Portage Lake for lunch and a slide show on shoreline landscaping and restoration efforts. After lunch Jim Bess gave the group a tour of the Marsin Center shoreline restoration project that he designed and installed, and Jane discussed other opportunities for shoreline enhancement and erosion control.

Natural shoreline restoration strives to  
 increase privacy,  
 deter geese,  
 reduce erosion,  
 enhance wildlife habitat,  
 improve water quality,  
 and improve the fishery.

Natural lakeshore management often involves allowing a swath of native herbaceous plants and shrubs to grow between lawn and lake, or replanting a buffer of native vegetation along denuded lakeshore.

Learn more at [www.mishorelinepartnership.org](http://www.mishorelinepartnership.org) click on MNSP Library to find many resources on this topic including downloadable copies of

- *Landscaping for Water Quality*
- *Natural Shorelines for Inland Lakes*
- *Understanding, Living With, and Controlling Shoreline Erosion - A Guidebook for Shoreline Property Owners*

### *Janet M. Avery Scholarships Awarded*

Scholarships were awarded for the *Natural Shoreline Landscapes Workshop*. Marcia Raley who generously helped to organize and implement the *Natural Shoreline Landscape Workshop* attended the full day. Evelyn Ravindran, who is Hatchery/Nursery Manager for the Keweenaw Bay Indian Community Natural Resources Department, attended half day.

### *Just Give.org*

As a convenience to donors, GLC is enrolled in an online site where contributions can be made by credit card. This is a quick and easy way to make last minute donations to the Conservancy. Click here to go to the GLC page at [JustGive.org](http://JustGive.org)

Just Give deducts 4.5% of your donation as a service fee.

## Fungal Forays

Each summer brings surprises in the Keweenaw. This year it came late and was soggy. Overall it was a perfect summer and early fall for fungi hunting. Among the intriguing mushrooms I found in September at GLC's Bammert Farm was a toothed jelly fungus, *Pseudohydnum gelatinosum*. On first glance it looked like a regular brownish-white shelf fungi growing in tiered half circles on the side of a decaying conifer log. On closer examination, I saw sunlight pouring through this watery, semi-transparent fungus. When I broke a piece of the 6" wide cap off, it felt like rubbery gelatin and to my great surprise a layer of perfectly formed cone shaped translucent teeth dotted its entire bottom surface. No wonder this fungus has the nickname "Cat's Tongue." Cat's Tongue is edible but reportedly tasteless.

Another mysterious shelf fungi (photo on right) had colonized a piece of firewood in our yard. It closely resembled the popular edible oyster mushroom which I have collected and devoured since childhood, but it was a deep golden color and had a fuzzy surface. I picked a cap, placed it gills-down on a white sheet of paper, and covered it with a bowl. This technique captures the thousands of tiny reproductive spores that drop from the gills of the mushroom. The color of the spore print deposited on the paper gives a clue as to the mushroom's identity. When I lifted off the bowl, I was startled to find that in addition to leaving an attractive pinkish spore print, the mushroom released a foul odor. That odor was another identifying clue. The fungus is *Phyllotopsis nidulans*. No common name but I dub it "Golden Stinky Cap." It is in the same family as the tasty oyster mushroom, but edibility is unknown since evidently not even a staunch mushroom lover would dare to dine on such a repugnant smelling mushroom.



I discovered a roadside surprise near Bete Grise Preserve entrance. On the shoulder of the roadway, a multitude of 1" diameter *Astraeus sp.* or Earthstar fungi were interspersed with delicate white spires of ladies tresses orchids. An Earthstar looks like tiny round cream colored puffball sitting in the center of a many pointed blackish-grey star. They are often found in sandy dune areas. The star's rays curl and shrivel inward when it is very dry and open wide and push the central spore sac upward when wet. Presumably this helps with spore dispersal.

**Go digital and save paper and postage!**

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

## Celebrate Keweenaw Conservation Successes

With community support and the collaboration of various conservation groups and governmental entities the following conservation initiatives were accomplished in 2013.

### Brockway Mountain



photo by Nicholas Wilson

From left to right: Dana Richter (MNA), Evan McDonald (KLT), Jeff Knoop (TNC), Gina Nicholas (HKCD), Steve DeBrabander (Michigan DNR), attorney Jim Tercha, and Rich Probst (Eagle Harbor Township) at the Brockway Mountain dedication.

The 320 acre summit of Brockway Mountain, part of the Keweenaw Coastal Wildlife Corridor, was acquired through a Michigan Natural Resources Trust Fund grant by Eagle Harbor Township. Starting in 2010, the Township and partners The Nature Conservancy (TNC), Houghton Keweenaw Conservation District (HKCD), Copper Country Audubon and Keweenaw Land Trust, worked to develop a successful proposal and raise the required 25% match from hundreds of donors. Brockway Mountain is now permanently protected and open to the public year round.

In addition to being one of the most beautiful and accessible places to view Lake Superior and the rolling terrain of the Keweenaw, it is also a significant raptor and other migratory bird flyway. Copper Country Audubon will continue to conduct its annual spring raptor count from the summit. Eagle Harbor Township and partners are also working on a management plan and new visitors center and viewing platform for the summit. Friends of Brockway is still working to find an alternative to the proposed cell tower on Brockway Mountain. Check the Friends of Brockway website or Facebook page for the latest information.

### Bete Grise Preserve

Since 2006, Houghton Keweenaw Conservation District (HKCD) has been working to protect more of the unique, high quality 8,300+ acre wetland system around Bete Grise Bay. Through a NOAA Coastal and Estuarine Land Conservation Program grant partially funded through the Great Lakes Restoration Initiative, and generous support J.A.Woollam Foundation and TNC, HKCD was able to double the size of the Bete Grise Preserve through the acquisition of Bete Grise Wetlands and Pt. Isabelle. These additions protect over two additional miles of Lake Superior shoreline, 3,500+ feet of Lac La Belle sloughs frontage and 1800 acres of dune swale coastal wetland and forest habitats. A dedication of Bete Grise Wetlands and Pt. Isabelle is being planned for next summer.

## ***GLC Director Bonnie Hay Receives Heart and Hands Award***

GLC director Bonnie Hay was this year's recipient of the *Heart & Hands Award*. The award is presented annually to a person in the community who has performed outstanding service for peace, justice, or the environment. The Keweenaw Community Foundation administers *The Martha and Floyd Heart & Hands Society Memorial Endowment Fund*. Each year the Floyd and Martha Heart & Hands Society seeks nominations for candidates for this award which is then presented at a July 4<sup>th</sup> ceremony. Over the years there have been 15 awardees. The awardee designates nonprofit organization(s) to be the recipient(s) of the cash prize of \$1000. Bonnie directed a portion of the funds to go to GLC for the botanical survey of the wetlands at Bammert Farm and the remainder to go to the Houghton Keweenaw Conservation District's Tobacco and Bete Grise watersheds management plan and monitoring.

## ***Thank You, Volunteers! Your efforts sustain GLC!***



*Three chairs that were repaired and repainted by volunteer Jim Cox welcome visitors to the porch of the Noblet Field Station.*

As the old adage says, "Many hands make light the work". Many hands have pitched in to assist GLC this year. Some volunteers have ongoing commitments to particular tasks, such as Kerrie Richert and Jim Cox to painting at the Noblet Field Station, Dorothy Jamison to water monitoring at Gratiot Lake, Jim Hay to being GLC webmaster, and GLC board members to their appointed tasks. Many others helped out from time-to-time with tasks such as assisting at or leading events, doing trail work, cleaning trash from lakeshore, assembling notecards, pulling invasive plants, sharing photos and information, providing refreshments at meetings, and contributing to the newsletter. We are deeply grateful to all of you!

## **It's time to renew for 2014!**

**CLICK HERE for membership renewal and donation form.**

**A GLC membership makes a great gift.**

### **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 on the photo to see samples of the photos!***

