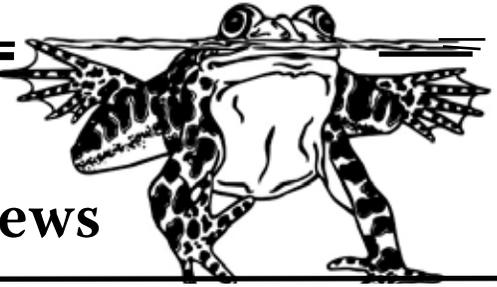

Water's Edge

Gratiot Lake Conservancy News



Volume 19

Fall 2017

GLC Members Gather

Forty-two GLC members attended the business portion of GLC's Annual Members Meeting held on July 31st at the Eagle Harbor Community Building. President Joe Lizzadro greeted the group and the slate of directors for the next year was approved. Gina Nicholas, Joe Lizzadro, Bonnie Hay, Daniel Lizzadro-McPherson, William Lytle, and John Lizzadro, Sr. will serve for the year ahead.

Louis Lizzadro gave a brief review of the 2016 year-end financials. Gina Nicholas described continuing work at the Noblet Field Station. Keweenaw Community Forest Company is responsible for facility and grounds maintenance, repairs, and land stewardship. Gina also noted that timber was harvested at Bammert Farm in 2016. This harvest is now completed and a final study of the work site will be made in cooperation with students from Michigan Tech. Revenue from sustainable timber harvest helps fund GLC programs and land conservation activities.

Program director Bonnie Hay noted past educational activities including the June workshop *Birdlife of the Keweenaw* led by David Flaspohler and the *Michigan Tech Summer Youth Program Exploration: Aquatic Ecology at Gratiot Lake*. Upcoming events announced were Gratiot Lake by Water, the Bammert Farm Walk, and Gratiot Lake Shoreline Clean-up.

Bonnie noted the continued effort of KISMA coalition of partner groups coordinated by Sigrid Resh. There is a three-year grant from the *Michigan Invasive Species Grant Program* to help with invasive species education, identification, and eradication in Keweenaw, Baraga, and Houghton counties. A boat washing demonstration to remove invasive species was held at five public access points including Gratiot Lake (photo on page 3). The KISMA weed crew joined GLC volunteers in removing invasive plants at Gratiot Lake (photo at right courtesy of Sigrid Resch).



She also noted the ongoing Gratiot Lake monitoring program which is part of the Michigan Lakes and Streams *Cooperative Lake Monitoring Program*. Dorothy Jamison has provided transparency readings for over ten years, and data has been collected since 2000. *(Continued on last page.)*



Make a year-end gift!

[Click here to learn how.](#)

Look inside for Painted Ladies, Mashkiigomin, and to find out what fungi have to do with the Ladies Tresses orchid in photo at left...

**GLC gratefully acknowledges
Donors from Nov. 1 2016 - Oct. 31 2017**

Major Donors

**Betsy Aller and Andy Kline
Janice and Charles Anderson
William Bingham and Laura Cison
Bonnie and Jim Hay
Carol and Joseph Lizzadro
Carmen Sandretto**

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Carol Hochstein
Mary and Neil Hodges
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Virginia Jamison
Robert Kahl**



Spotted Sandpiper explores Gratiot Lake shoreline
Photo by Jim Hay



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Gifts in Kind**

**Sioux Baldwin
Jim Hay
John and Reva Lizzadro**

Memorial Gifts

in Memory of Marcia Miller

Leonard Miller

in Memory of Diana Nicholas

Dante and Joyce Iacovoni

in Memory of Bert Noblet

from his five great grandchildren

Anika, Ella, Olivia, Brodie, and Lucas Noblet

in Memory of Rey Peck

Betsy Aller and Andy Kline

in Memory of Albert Petermann III

in the name of his grandsons

Al Petermann IV and Michael Petermann

in Memory of Pamela Schmitz

Arthur Schmitz

*We miss a GLC volunteer and friend
who recently passed away*

*Jim Cox volunteered exterior touch-up painting
and furniture restoration at Noblet Field Station.
Look for the handpainted colorful chairs next time
you visit the cabin. They are a reminder of Jim's
generosity and creativity.*



Memorial Gifts Education Fund

in Memory of Janet and Bud Avery

Betsy Aller and Andy Kline

in Memory of Marilyn and Don Hon

Diane and David Gothard

in Memory of Louis Sandretto

Carmen Sandretto



The Michigan Tech Summer Youth Program Aquatic Ecology group studies crayfish at the Noblet Field Station. Photo by SYP staff.

Donors to Education Fund

William Bingham and Laura Cison

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Dana Richter

Doug and Norma Lee Stuart



Donors to GLC Fund at

Keweenaw Community Foundation

Michael and Mary Bingham

Chevron Foundation

Dan and Jan Rosemergy

Douglas and Norma Lee Stuart

Keweenaw Orchids: A Tale of Beauty in the Balance

At the GLC Members Meeting, naturalist Karena Schmidt presented an engaging slideshow featuring her wonderful photos of native orchids. Nearly 40 species of orchid inhabit the Keweenaw (including Isle Royale). These orchids were featured along with information about pollinating insects specific to individual species.

Karena also highlighted the interconnectedness of terrestrial orchids with local ecology and specific habitats. Many factors must be present in order for these often rare plants to thrive (as is illustrated in her slide at right). We even took a break mid-stream in Karena's presentation to try our hands at balancing 20 nails on the head of one nail. It was a fun exercise in seeing how a very small imbalance can throw the whole assembly off. Likewise, orchids depend on many living and non-living factors to exist, and the loss of one of these factors may be a tipping point for their survival.

Some information from Karena's talk is in the column at right. Karena's slideshow *Keweenaw Orchids: A Tale of Beauty in the Balance* is available to download as a pdf at http://www.gratiotlakeconservancy.org/NewIn2017/GLC_Orchid_PresentationReduced.pdf

Another online resource for orchid info is the North American Orchid Center (Smithsonian Institution and National Botanical Garden) at <https://northamericanorchidcenter.org>

This colorful website contains:

Go Orchids: a key, information, and photos of more than 200 orchid species (some non-native) found on our continent,

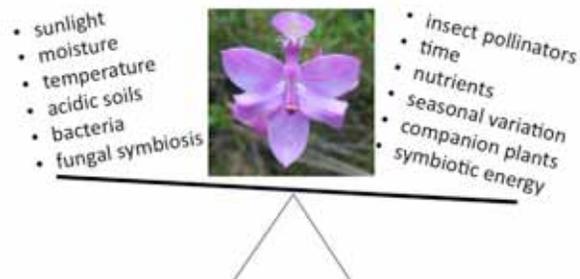
fun orchid origami templates to download and print,

a great visual tour of the orchid life cycle,

and an archive of slide shows of orchids from many amateur orchid sleuths and botanists.

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

Environmental Ingredients Orchids Need for Survival *Each orchid species has a unique and precise mix of:*



Graphic and photo by Karena Schmidt

Keweenaw Orchid: More than a Pretty Face

An orchid can live over 40 years in the wild... but may take over a decade to germinate.

Each orchid species is particular about the community in which it lives—e.g shoreline, cedar swamp, deciduous forest, or bog. When blueberry picking in Bete Grise preserve in August I saw two orchid species nestled amid sphagnum moss, their preferred habitat.

The deep snow in the Keweenaw benefits orchids by insulating them from sub-zero temps.

Many wild orchids in the U.P. produce diminutive flowers in delicate spires, but Lady slippers and some others bear larger, showier flowers.

A succession of various orchid species can be seen flowering in the Keweenaw from spring to fall.

Specific orchids co-evolved with particular moths, butterflies, bees, wasps or flies that serve as their pollinators.

Orchid pollen is stored in sticky clusters called pollinaria. When an insect visits the flower the pollinaria stick to its head, thorax, or leg—depending on the specific orchid being visited. The pollinaria are then deposited when the insect visits the next orchid flower.

An orchid seed capsule contains millions of tiny seeds that are mainly dispersed on wind. The germination rate for wild orchid seeds is very low.

Since these orchid seeds do not contain an endosperm to feed the sprouting plant (as many seeds do), the orchid seed must land in a suitable environment and form associations with specific species of mycorrhizal fungi that make nutrients available to the sprouting plant. Establishing this relationship can take over a decade.

photo by Gina Nicholas



Practical Guide to Lakefront Living

If you live on the shores of an inland lake, a handbook “The Practical Guide to Lakefront Living: Enjoying and Conserving Your Lake, “ will help you answer questions about your lake and the management of shoreline property.

This publication by Michigan Lake and Stream Associations (MLSA) is divided into sections including riparian ecology, human health and lake recreation, riparian rights and responsibilities, and riparian management resources. Chapters are authored by experts with a wealth of experience in lake issues. Some topics covered are native plants and lake ecology, natural shorelines and erosion control, invasive species, swimmer’s itch, fishing with conservation in mind, riparian rights and lake law, working with local government and conservation groups, and lake water quality monitoring.

If you would like to borrow a copy of this guide, please contact GLC. You can purchase “The Practical Guide to Lakefront Living” and other books of interest to lakeshore property owners on the MLSA website at <http://www.mylsa.org>

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

director@GratiotLakeConservancy.org
906-337-5476

Old and New Donation Options

- 1. To download and print a form [CLICK HERE](#), and mail your membership/donation to: Gratiot Lake Conservancy, P.O. Box 310, Mohawk, MI 49950.**

Unless you prefer to give online, this is the best way to give.

- 2. Make a donations online by clicking 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 any designation for your donation 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 already have a PayPal account, you may want to make a donation to GLC through PayPal Giving Fund.**

Money donated through this fund is transferred to GLC’s account from 2 to 6 weeks after the donation. PayPal Giving Fund waves the fee and the full amount donated is available for GLC to use. Go to the PayPal Giving Fund at <https://www.paypal.com/givingfund/> and search for “Gratiot Lake Conservancy.” The PayPal Giving Fund accepts 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.

- 4. Give to the Gratiot Lake Conservancy Fund at the Keweenaw Community Foundation.**

Donate online at the KCF website keweenawcommunityfoundation.org

On their donation page be sure to add “Gratiot Lake Conservancy Fund” in the “Information 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!

Thank you to Volunteers:

GLC board and officers Louis Lizzadro, Joseph Lizzadro, Will Lytle, and Gina Nicholas for helping to keep GLC on track

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

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

Dorothy Jamison for faithfully measuring Gratiot Lake water transparency since 2006. The updated data chart and trend graphs for Gratiot are at <http://www.gratiotlakeconservancy.org/wmpage.htm>

Ella Budynsky, Daniel Lizzadro-McPherson, and all Gratiot Lake landowners who helped with the annual shoreline trash removal in mid-September



Daniel Lizzadro-McPherson (left), Ella Budynsky (right), Rod Chimner, Sage Resh-Chimner, and Galen Resh-Chimner, for assisting the KISMA weed crew in invasive plant removal at Gratiot Lake

Eagle Harbor Township for use of the township Community Building for GLC programs

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

Jim Hay and Ben Hay, Newsletter proofreaders

Winona Asher for assisting with notecard assembly and weed removal

Will and Lydia Lytle and Daniel Lizzadro-McPherson for assisting at GLC programs and hikes

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Nature Notes

We reported in the June *Water's Edge* that a new eagle's nest on the Gratiot Lake Conservancy Preserve was one of two eagle nests in Keweenaw county noted as active during the May fly-over DNR survey done by Brett Huntzinger and Neil Harri. It had been a hard spring for nesting eagles and most nests observed had failed to produce a chick. The occupied Gratiot Lake nest was not the now collapsing one that produced eaglets from the mid-1990's until 2013, but one in a big pine near wetlands on conservancy land perhaps 300 feet inland from the shore.

Jim Hay snapped a photo of the young eaglet in the new nest in mid-June. Our celebration of Gratiot Lake nest success was short-lived (as was the eaglet, presumably). Numerous boat trips to observe the youngster later in June proved unsuccessful in spotting the eaglet. As the summer progressed no sign of a fledgling was noted at the lake, although mature and immature eagles were present. Most young eagles don't survive their first year.

Jim did observe a fair amount of adult eagle attention to the nest tree later in August and September, perhaps in anticipation of next spring's nesting. You can view the photo Jim took of the doomed eaglet on the GLC website along with many photos and videos from past years. Click on this link http://www.gratiotlakeconservancy.org/_CurrentEagleUpdate.htm



In September, small-fruited bog cranberries (*Vaccinium oxycoccus*) ripen nestled in sphagnum moss in boggy areas of the Keweenaw. These wild cranberries are smaller than the commercial variety but no less tart and just as red. Like wild persimmons, wild cranberry flavor improves after frost. The naturally anti-bacterial properties of the sphagnum moss help to preserve uneaten cranberries into the spring. The Ojibwe named the plant mashkiigomin. It was historically relished for food and as a medicinal plant. The early colonists referred to it as crane-berry, likely a reference to the crook-necked and beaky appearance of the flower on its stem.

Pondering Painted Ladies

Perhaps you had an encounter with a Painted Lady recently? Painted Lady butterflies were calling attention to themselves in the Keweenaw in September. These showy orange and brown butterflies were arriving in large numbers in gardens and along lakeshore property. Curt and Diana Owens observed an estimated 160 adult Painted Ladies feeding on flowers of sedum and goldenrod at their cottage near Bete Grise Preserve. This brood emerged as caterpillars from eggs laid on hollyhocks in their yard. They recorded their sighting on the butterfliesandmoths.org website. Even a Copper Country birding email list (which normally only posts bird sightings) was aflutter with Painted Lady observations! My husband Jim and I observed the butterflies all along the route of our own migration from the U.P. to the East Coast in late September. Weather radar in Denver made national news when it picked up a mysterious 70 miles wide high-flying mass. It turned out to be migrating Painted Ladies!

Painted Ladies are the most widely distributed butterflies in the world. They are found on every continent except Antarctica and Australia. They migrate like Monarch butterflies do, but only sporadically. Their population blooms and disperses far and wide, an irruption, only when sufficient precipitation comes to their normally dry wintering range. In the US, like many retired northerners, they winter in warm and arid deserts- in Mexico and in the U.S. states near the border with Mexico. This population explosion spurs an irruption of butterflies, immigrants seeking new territory in which to feed and breed.



Photo by Jim Hay

In fact, their feeding and breeding habits are factors in their success as a species. Their scientific name is *Vanessa cardui*. *Cardui* translates to thistle, and they are often called Thistle Butterflies. However, unlike Monarch Butterflies whose young only thrive on milkweed plants, Painted Ladies



Painted Ladies nectaring on goldenrod. Photo by Diana Owens

make their caterpillar nurseries on over 100 plant species. Although their caterpillars are sometimes pests on beans, artichoke, and mint, the adult Painted Ladies are important plant pollinators. Like Monarchs they produce many generations in one year. Like a tag team these generations push the migration forward, north in spring, south in late summer. Painted Ladies are among the most fecund of butterflies (about 500 green eggs are laid by each female), and they breed easily and often along their migration route. Because of their adaptability and ease of breeding, they are the go-to species for use in classroom demonstrations of butterfly metamorphosis.

For more information on butterflies:

See the data on butterfly migration, enter your own observations, or ask for identification from photos on the Butterflies and Moths of North America website:

<https://www.butterfliesandmoths.org/>

Learn more about Painted Ladies or any other animal from The University of Michigan Zoological Museum's online encyclopedia, the Animal Diversity Web:

http://animaldiversity.org/accounts/Vanessa_cardui/

Butterflies of the Maasto Hiihto Trails, Hancock MI by local photographer and butterfly enthusiast, Miriam Pickens, is an informative guide with many beautiful photos.

Butterflies of the North Woods by Larry Weber is a good regional handbook.

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

**A new, quick way to make last minute donations to GLC.
Use your credit card or PayPal account.
Click the Donate button on GLC's home page.**



Aquatic Ecology at Gratiot Lake

The Noblet Field Station was home to six high school students, their teacher Bradley Wells (seated at left), and camp counselor Becca Riffe (seated at right) during the Michigan Tech Summer Youth Program Exploration: *Aquatic Ecology at Gratiot Lake* in late July. Students investigated the ecology of Gratiot Lake, the Little Gratiot River, and Sucker Creek. A highlight was studying crayfish and minnows which they live-trapped and released. They were lucky to enjoy a clear, sunny week.

Most of the students said that they plan to go on to college studies in science. Michigan Tech and GLC have collaborated on *Aquatic Ecology at Gratiot Lake* since 2003. In addition to providing the Noblet Field Station to the group, GLC pays the instructor’s salary and awards a scholarship.

This year, Minali Bhatt (standing at left), a high school junior who attends Farmington Hills Michigan International Academy, received the *Jack and Rita Sandretto Scholarship* to attend this program.

It’s time to renew for 2018!
Click here to download a form.

GLC Members Gather (Continued from page 1)

Bonnie mentioned that GLC continues outreach through the Water’s Edge Newsletter, the website, and the GLC Facebook Page.

Bonnie indicated that there are currently 129 regular membership families and 16 Life Memberships for a total GLC membership of 145. She thanked donors for their generous support of GLC activities.

Bonnie thanked volunteers and those who assisted at the meeting and provided refreshments.

A door prize drawing was conducted and several attendees won. There being no further business, the meeting was adjourned at 7:30 PM.

After the business meeting, refreshments were served followed by a presentation by Karena Schmidt entitled “Keweenaw Orchids: A Tale of Beauty in the Balance”.

Gift idea!
GLC
Membership



Snowbunny at Gratiot Lake.
 Photo by Dorothy Jamison

Become a GLC Member!

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. Memberships renew at year end.

Your support is always welcome!

Click here to download a GLC donation form.

Mail memberships or donations to:
 Gratiot Lake Conservancy
 P.O. Box 310
 Mohawk, MI 49950

Donors of \$100 or more receive
 a gift of photo notecards
 Click here to see images!

