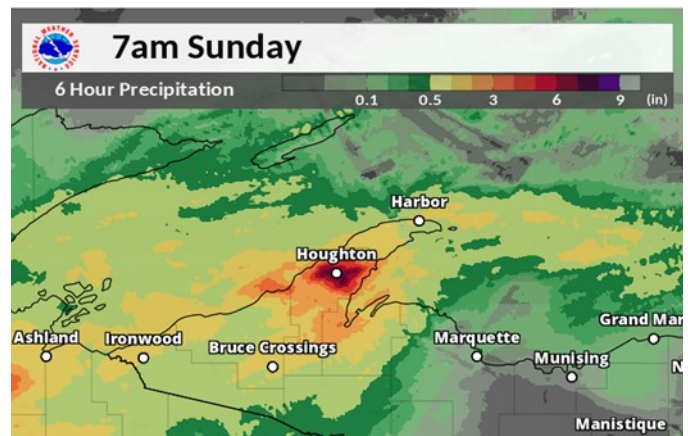


After the Storm, a Partnership Begins to GLOW

In the wee hours of June 17th, 2018 a severe storm delivered about 7 inches of rain in just a few hours to the Cities of Houghton and Hancock, resulting in the “Father’s Day Flood”. The GLOWP-Superior group (see box below) happened to have a meeting scheduled for the next day to identify priorities and strategies to address the region’s critical freshwater issues. In the immediate aftermath of the flood, as the impacts of the damage were dramatic and still being evaluated and comprehended, attention was drawn to obvious problems with storm water management and infrastructure failures. In response, GLOWP-Superior defined storm water as their consensus focus for the region to plan for and achieve resilience.



National Weather Service, 6/17/18 “Father’s Day Flood”



Close to the Pilgrim Community Forest trailhead, the culvert and roadway at the Paradise Road crossing of the Pilgrim River were destroyed.

Our local situation echoed the massive 2012 flood that impacted the City of Duluth, with much learned from that experience and recovery process. Trends in weather patterns over the last few decades show increasing frequency and severity of rain storms in the Great Lakes region. This makes the challenge for the Copper Country that much more serious, as much of the storm water infrastructure dates back to the copper mining days, has been inadequately maintained, and does not reflect current design and construction standards.

While we had not planned to engage in a new initiative, the KLT Board of Directors considered the situation and recognized that we had an important role to play in service to our community and

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The **Great Lakes One Water Partnership** (GLOWP) is a Council of Michigan Foundations (CMF) initiative to help community foundations in the Great Lakes Basin foster collaborative efforts to improve and protect freshwater resources. GLOWP is assisted by a Blue Ribbon Advisory Committee representing a diversity of perspectives and expertise emphasizing green infrastructure approaches. GLOWP uses a phased approach to resilience planning and implementation as funding strategies develop. The partnership is divided into regions, with the Lake Superior-Upper Peninsula Regional Team (GLOWP-Superior) supported by the Duluth Superior Area Community Foundation, Keweenaw Community Foundation (KCF), Community Foundation of Marquette County, Marinette and Menominee Counties Community Foundation, Community Foundation of the Upper Peninsula, and Community Foundation for Delta County. KCF Executive Director, Jim Vivian, and KLT Executive Director, Evan McDonald, attended a CMF conference in Muskegon in May and discussed the GLOWP initiative with organizers that strongly encouraged KCF and KLT participation. Not long after, Jim, Evan and the GLOWP-Superior group were confronted with serious water related calamities in the region.

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environment. The GLOWP endeavor aligns with KLT mission goals and green infrastructure is exactly what KLT protects, although not normally explained that way. The Americana Foundation also recognized the needs and opportunities, providing a 2018-19 grant of \$30,000 to support KLT involvement with GLOWP and resilience planning that includes green infrastructure. The Western Upper Peninsula Planning and Development Region (WUPPDR) is currently assisting western U.P. Counties with updates to Hazard Mitigation Plans that will include storm water and flood related hazards. The local GLOWP group, led by KCF and KLT, will team up with WUPPDR to create a robust process to gather community input for both the Hazard Mitigation Plans and the GLOWP storm water resilience efforts.



A wetland on private property in Houghton County is **green infrastructure** that mitigates flood damage by absorbing storm water and slowing drainage, which protects green and gray infrastructure downstream.

The GLOWP-Superior group will be making a public announcement early in 2019 to build a local working group of stakeholders and technical experts to evaluate and prioritize the gray and green infrastructure needs critical to achieving resilience in the face of future storms and floods. The 2018-19 Natural History speaker series was developed in partnership with the Carnegie Museum as a means of raising awareness and to gain public feedback useful for the community resilience planning process. We all have a stake in this. Let's work together to create a resilient future.

The Carnegie Museum Natural History Series 2018-19: The 2018 Father's Day Flood

The Carnegie Museum in Houghton and KLT teamed up to create a monthly Keweenaw Natural History Seminar Series to address different aspects of the 2018 Father's Day Flood. The first presentation followed the KLT Annual Meeting on November 8th with "The Father's Day Flood and the role of green infrastructure and land management in flooding mitigation". Presenters David Watkins and Alex Mayer are civil engineering professors at Michigan Tech and addressed the causes of flooding, the impact of land use on flooding, and potential practices and technologies we could adopt in our area to lessen future impacts. Veronica Webster spoke on December 4th about our changing weather patterns and answered the question "Is this the new normal?" These presentations have been recorded and we will be developing a YouTube channel to share them.

The next in the series is 7 pm on January 22nd at the Carnegie Museum with Melanie Kueber-Watkins presenting on issues and community decision-making related to storm water management. Future topics in the series include: History of flooding in Houghton (1912, 1978) Photo/video documentation of Father's Day Flood ~ Taming the Rain with Landscaping and using Rain as a garden asset ~ Policy of storm water management / what do we want our elected officials to do? ~ Impacts of flooding on riparian ecosystems.

Marty Fluharty: Superhero for Land Conservation and Historic Preservation

Sometimes a particular happening can stir a mix of feelings and that is the case with the retirement of Marlene "Marty" Fluharty. Marty has been a **BEST** friend of KLT during her 15+ years as the Executive Director of the Americana Foundation that provided numerous grants over the years to support our organizational development and special needs projects. Moreover, Marty was a friend to the Copper Country in general, being a champion for historic preservation as well as natural resource protection. Immediately after the flood, she made contacts and inquiries about recovery strategies throughout her network of professionals and colleagues on behalf of the KLT and our community. So we are sad to see Marty step away from Americana but also happy for her to begin enjoying a well-deserved retirement. Marty, you are always welcome here to enjoy the Copper Country as a tourist from now on!

One Challenge Met and One to Go

The task of removing the ~8 miles of fencing from the Huron Bay Field Station (HBFS) is not an easy one and we



Looking E across the property with the main clearing and access drive near center of photo and the south fence line cleared of brush and glistening with standing water. Photo by Neil Harri

are glad that the Beem Fence Company crew is up to the challenge. About 2 miles of fence material now lie neatly bundled in the clearing near the main HBFS entrance. Working through ice and snow, mosquitoes, rain, a lot of mud and standing water, the crew has cleared an access road along the entire perimeter and completed the tedious hand work to remove trees and shrubs that had grown into the fence. Staples securing the fence material to treated wood posts are pulled by hand and a special machine is used to reroll the fencing. The crew from downstate registers few complaints – at least with us – and report enjoying the peaceful setting and the company of wildlife, including a couple of moose. They could do without the increased beaver activity that created even more

difficult field conditions compounded by an unusually wet field season with sparse sunshine. The crew asked if it ever quits raining here! We all hope for favorable winter conditions: enough frozen ground along the access road and not too much snow at the base of the fence.

The goal for this hard and important work is to reconnect a large part of the landscape and allow natural wildlife movement across the Abbaye Peninsula. We succeeded with a challenge grant from The Carls Foundation matched dollar-for-dollar by local donations of \$25,000 that will help pay for this work. We thank the Baraga County Community Foundation and all of you who sent in contributions and/or attended one of our musical fundraiser events to help us meet this challenge! We also thank the Keweenaw Bay Indian Community and Michigan Tech Forestry for grants that covered the down payment for the work, and the J.A. Woollam Foundation for covering a large portion of the balance due on the contract. We look forward to the next phase of projects at the Field Station and will soon be gathering community input to help guide that work.



A large flooded wetland along the north boundary of the HBFS, with a couple beaver dams visible. Want to learn more about beavers? See the book club notice below.

Photo by Neil Harri

Which do you love more: Books or nature?

That is a silly question, why decide? You can enjoy both with our new natural history book club series. The 1st book the club will discuss is ***Eager: The Surprising, Secret Life of Beavers and Why They Matter*** by Ben Goldfarb.

Eager is a powerful story about one of the world's most influential species, how North America was colonized, how our landscapes have changed over the centuries, and how beavers can help us fight drought, flooding, wildfire, extinction, and the ravages of climate change. Ultimately, it's about how we can learn to coexist, harmoniously and even beneficially, with our fellow travelers on this planet.

This book can be purchased as hardcover, Kindle and Audio versions. KLT has two hardcover editions to loan out. We plan to meet at the Marsin Nature Retreat January 31st to discuss the book by the fireplace with hot beverages. Contact jill@keweenawlandtrust.org for more information.

Second Chapter in the Marsin Native Garden Story



Before: Garden beds in need of attention

Planning a beautiful and functional garden involves many considerations: The arrangement of different plant heights, time of bloom if you want some color each season, and the architecture and texture of the plants to present interesting shapes and varied shades of green. In this case the wildlife value for native pollinators and seed eaters was also a central goal. In nature many plant species grow in clumps and so you can mimic that by planting several of the same species in each clump. You can also have many clumps of the same species repeated throughout the garden for a natural look, and not like a specimen garden.



After some elbow grease, a blank palette awaits.

The Master Gardeners consulted with Jill Fisher to select native plants with esthetic and wildlife values and suited to our ecoregion (see map <https://www.fs.fed.us/rm/ecoregions/products/map-ecoregions-united-states/#>).



After: the fruits of their labors in Fall of 2018.

Several volunteer crews including KLT members and a Great Lakes Conservation Corp team then planted native species including bee balm, butterfly weed, bergamot, purple coneflower, columbine, coreopsis, pearly everlasting, New Jersey tea, New England aster, little blue stem, harebell, wild lupine, swamp milkweed, brown-eyed Susan, zig zag goldenrod, hairy beardtongue, smooth aster, rough blazing star, switch grass, woodland sunflower, blue vervain, Culver's root, blue-eyed grass, anise hyssop, and sweet brown-eyed Susan. KLT volunteer and Master Gardener Jackie Manchester wrote an article on the KLT Master Gardeners' project for the MSU Extension newsletter - we will share the link when it is published.

Look for this garden to fill in and attract more wildlife over time. This project initiated the very beginnings of our native plant nursery and we plan to expand this effort to assist Marsin and other KLT properties with habitat improvement and restoration. Have a green thumb or want to get one? Help us expand this project next year!

Do you want to be involved in habitat restoration with native plants?

We will have opportunities in 2019. We have other **volunteer opportunities** with KLT outings, events, redesigning the KLT website, and more. For information email jill@kweenawlandtrust.org or contact the KLT office at 482-0820.

Welcoming Jill Fisher to the KLT Staff...Again

I was introduced once before on these pages as a KLT employee dedicated to KISMA (Keweenaw Invasive Species Management Area). The staff and I were already bringing my efforts to KLT projects, particularly to expand work at Marsin. But when Nathan Miller left KLT to become Executive Director of the Copper Harbor Trails Club, that vacuum pulled me wholly into the KLT world.

As I helped my daughter look for the college program to fit her interests, I realized that I had slowly strayed from my own college training - I am thrilled to be back in the conservation world. I will use my training in botany and forest ecology and my experience as a parent and community member to bring new programming to KLT's mission. I'm looking forward to assessing and protecting our plant communities. KLT is still a strong partner of KISMA and my training there will now be used to help KLT manage invasive species on our nature areas so stay tuned for those work days because we have work to do on that front. We plan to establish a native plant nursery for management of our lands and projects with our partners.

I've worked for The Nature Conservancy of MI and FL, the Kalamazoo Nature Center, I've been steeped in academia and research projects for over 15 years at MSU and MTU. I've volunteered many hours for the public schools. It is time to put all the zigs and zags of my career together to work on the multi-pronged efforts of KLT. We three staff have to wear many hats, most of them are fun but they all work toward the goal that I hold dear: caring for the land for its own sake and for others to enjoy now and into the future. Please introduce yourself if you don't know me. If you have an idea on a program you'd like to see on KLT lands, let's put our talking, thinking and planning hats on!

~Jill Fisher, KLT Program Coordinator



Jill on a field inspection of the Pilgrim River Forest after the Father's Day Flood. Vegetation along the river banks was matted down by flood waters but survived and minimized soil erosion at that location. Land protection projects like this one are green infrastructure that protects water quality and helps mitigate flood impacts.

KLT Board Elections

KLT's 2018 Annual General Membership Meeting was held on November 8th in conjunction with the Carnegie Museum's Natural History Lecture Series. As part of the proceedings, those assembled voted on three candidates for vacancies on the KLT Board of Directors. Bill Leder, President of the Copper Country Chapter of Trout Unlimited and retired MTU engineering faculty, and Lisa McKenzie, former Mayor of the City of Hancock and currently Supervisor for Aspirus Help at Home services, both join the Board for the first time. Also reelected to the Board for a 2nd term is Lynette Potvin, a biologist for Isle Royale National Park. Other Board news, Dave Harmon stepped in to fill a mid-term Board vacancy and is serving the Treasurer position for 2018-19. Directors leaving the Board include Jared Johnson and Robert Stinson—both Jared and Bob made significant contributions to KLT's development over the last few years. Thank you Jared and Bob—we wish you well!

KLT Board of Directors 2018-19

Erik Lilleskov, President - Houghton
 Steph Tubman, Vice President - Hancock
 Dave Harmon, Treasurer - Atlantic Mine
 Christine Handler Secretary - Hancock
 Clay Hixson - Calumet

Ellen Aiken - Houghton
 Maria Janowiak - Chassell
 Lynette Potvin - Hancock
 Bill Leder-Houghton
 Lisa McKenzie-Hancock

KLT Staff

Evan McDonald, Executive Director
 Pat Toczydlowski, Project Specialist
 Jill Fisher, Program Coordinator
 Curtis Peralá, Marsin Property Manager

Keweenaw Chain Drive Grant to KLT *by Dean Woodbeck*

For more than 15 years, a group of volunteers organized the Keweenaw Chain Drive, a mountain bike race that took place mostly on the Maasto Hiihto and Churning Rapids trails in Hancock. Depending on the year, between 200-300 riders from Michigan, Wisconsin, and Minnesota descended on the Keweenaw over Father's



Jay Woodbeck cranking hard at Churning Rapids during a Chain Drive race.

Day weekend, drawn by the well-organized event and the local hospitality. Thanks to race fees and generous sponsorship by Portage Health (predecessor to UP Health Portage), the event raised money to support the care and maintenance of Maasto Hiihto and Churning Rapids, as well as other trails in the area.

A growing number of mountain bike events in the Midwest cut into the Chain Drive attendance and led organizers to discontinue the race in 2015. After allowing time to make sure no one wanted to resurrect the race, and with funds in the bank, organizers debated on the best use for the money. Approaching the Keweenaw Land Trust seemed like a natural next step. KLT holds a conservation easement on much of the land that hosts the Churning Rapids trails and, hence, the race course. Protecting land for recreational use is also a shared value for KLT and the Chain Drive.

As a result, the Keweenaw Chain Drive donated more than \$20,000 to KLT, dedicated to Churning Rapids. This grant can be used for trail maintenance and improvements, for land or easement acquisitions that expand the trails, or for other purposes that protect the Churning Rapids trail system and the public benefits provided.

President's Corner *by Erik Lilleskov*

KLT continues to be a leader for conservation in our area, keeping the lands of the Keweenaw wild and accessible. We are all KLT-- the staff building partnerships, running programs, writing grant proposals, and working with donors and partners to protect and steward lands; the Board and Committees that keep the wheels turning and spearhead community engagement; the volunteers who help in countless ways, such as stewarding lands or leading outings; and YOU - the members who contribute to the land trust, come to events, and get the word out to others about the great things we are all doing. This year has been unique, a year of changes and progress-- here are a few notable events:

- the departure of Nathan and hiring Jill
- the push to submit the complete application to the Land Trust Accreditation Commission, a key hurdle for any serious land trust
- the unplanned office move
- the Father's Day Flood, that turned many peoples' lives upside down and spurred KLT to help achieve long-term resilience
- the progress removing the fence at the Huron Bay Field Station
- the dedication of Point of View, a new KLT nature area
- many great outings and events to connect KLT and the community

All of these have been challenging, some daunting, others exciting.

Through all of it we have kept our eyes on the prize-- making our home a better place for all of us, for the long term. Thank you for all you have done, and please join us in continuing this challenging and rewarding work. Remember, we are all

KLT. **Let's keep up the great work together!**



Another Reason to Celebrate: The dedication of the Pilgrim River Forest in July. From left to right, landowners Joe Hovel and John Ollila, MDNR Director Keith Creagh, and KLT Executive Director Evan McDonald. This project was made possible by partner organizations: Copper Country Chapter of Trout Unlimited, Copper Country Audubon, Houghton Keweenaw Conservation District, Keweenaw Community Forest Company, Keweenaw Trails Alliance, Northwood Alliance, and Partners in Forestry. Thanks to everyone who helped!

Photo courtesy of Kali Katerberg and The Daily Mining Gazette

Join the KLT as a new or renewing member!

Name _____ Phone# _____
 Address _____
 City _____ State _____ Zip _____
 Email Address _____

I would like to receive email notices about: ☐ Upcoming events; ☐ General KLT News; ☐ Volunteer workdays

Please give generously—we can really use your help right now.

Choose your membership giving level:

☐ \$20 STUDENT Membership
☐ \$50 Supporter ☐ \$100 Guardian ☐ \$250 Steward ☐ \$500 Champion ☐ Other \$ _____

KLT respects your privacy and confidentiality. We do not sell our lists and we honor requests for anonymity.

Thank you for your gift! Dues and contributions are tax deductible.

Please mail this form and payment to our **NEW** address:

Keweenaw Land Trust, 101 Quincy Street, Suite 303, Hancock MI 49930

KLT is on the move and moving up!



Apparently the sun only shines on the 3rd floor at 101 Quincy Street in Hancock where KLT will soon have its office.

After over a decade in the E.L. Wright Building, KLT moved its main office downtown to another historic building at 101 Quincy Street in Hancock. The building owners, Jim Northey and his wife Sonia Goltz, are renovating for function and energy efficiency, while respecting the building's historic character. For Jim and Sonia, quality of life also applies to a work environment and they bring those values to the spaces they are creating. Common areas for breaks, conversation, food preparation, and more are part of the floor plan and we are excited to move up to the 3rd floor when the renovations are complete in the coming weeks. Watch for an open house announcement in the New Year to see how KLT moved downtown and moved up in the world!

Family Fun with KLT!

The Hungarian Falls Nature Area became the “Hallowoods” for happy families that came out to join the Halloween festivities. Volunteer Lizzy Montgomery, an MTU graduate student and mom, set visitors to making acorn zombies and recycled ghosts. The scavenger hunt brought in all the materials needed for the pumpkin mosaic (photo below). We will



continue to offer family friendly activities and story trails throughout the seasons to add an extra incentive to get out to the trails! Our next winter themed story trail will be placed at Paavola Wetlands.





101 Quincy Street, Suite 303
Hancock, MI 49930

(906) 482-0820

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www.KeweenawLandTrust.org



«Formal Greeting»

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Your last gift to KLT was on «**Last Gift Date**». «Note»

Upcoming KLT Events in December 2018 & January 2019

December 16th–31st: Story Trail at Paavola Wetlands Nature Area

Grab a kid and your boots and head to Paavola for a self-guided hike that follows the pages of the book *The Story of Snow: The Science of Winter's Wonder*. This is a visually stunning exploration of the science of snow.

December 27th—10 am to Noon: Winter family fun at the Marsin Nature Retreat

It's winter break—NO SCHOOL! So head to Marsin for some outdoor activities plus a special winter themed story hour with Chris Alquist! Cocoa, snacks & craft supplies provided.

January 16th—7 to 9 pm: Green Film Series—Carbon Nation

The 1st film of the 2019 series points to solutions. Room G002 in Hesterberg Hall, Forestry Dept., MTU campus.

January 22nd—7 to 8 pm: Keweenaw Natural History Series on “The Father’s Day Flood”

Come to the Carnegie Museum in Houghton to learn about the topic of Storm Water Management Issues & Community Decision-Making by Dr. Melanie Kueber-Watkins, Civil & Environmental Engineering, MTU

January 25th—7 to 9:30 pm (doors open at 6:00): KLT Deep Winter Concert

Come out of hibernation to visit with our neighbors in Baraga County at the Whirl-I-Gig in L'anse. Featuring Michael Beauchamp & Laurel Premo as *Red Tail Ring*. Their music is Old-Time Roots—New-Time Sounds.

January 31st—KLT Natural History Book Club at the Marsin Nature Retreat

1st meeting to discuss *Eager: The Surprising, Secret Life of Beavers and Why They Matter* by Ben Goldfarb

Get Your KLT Swag Here! Have you spilled coffee on your new KLT shirt? Don't fear, we have new shirts on hand including a coffee-colored long sleeve variety!! Christine Handler also ordered a slew of T's in new colors and also some in a women's cut. Short sleeved shirts are \$15 each and the long sleeves \$20. Available on a first-come, first-served basis at our upcoming Winter Concert fundraiser. Did you miss Ben Weaver? He gave us 6 CDs for fundraising – get yours fast! For more details email Jill@keweenawlandtrust.org!