



Spring 2017

UP Environment

UPEC: THE UP'S OLDEST GRASSROOTS ENVIRONMENTAL GROUP

CELEBRATE the UP! 2017

Join us for Celebrate the UP! 2017 in Marquette

UPEC is celebrating our 41st Anniversary in 2017 and our 9th Annual Celebrate the UP! **All events are FREE and open to the public!** Celebrate will be held on March 21-25, 2017 in various venues at the Four Corners in Marquette, Michigan at the intersection of Front and Ridge Streets. Celebrate the UP! 2017 is what artists, surfers, biologists, historians, mushroomers, naturalists, beer brewers and poets, among others, find so special about life in the UP.

On **Tuesday, *Dancing for the Earth 7-8 pm, Presque Isle Park Pavilion*** is a benefit to support the work of UPEC's Mining Action Group (formerly Save the Wild UP). Join Carrie Biolo and Maria Formolo as they explore elements of the Upper Peninsula winter wonderland through dance, sound, movement, and visual imagery.

On **Wednesday, *Putting Wetlands into Words***, 6-8 p.m., is an invitational poetry reading inspired by paintings and photographs of the Wildcat Canyon Creek and Mulligan Creek wetlands. Poets include Esther Ayers, Milton Bates, Rochelle Dale, Lynn Domina, Amber Edmondson, Kathleen Heideman, Janeen Pergrin Rastall, Christine Saari and Russell Thorburn.

On **Friday** we will have our annual general membership meeting at 5pm at the Peter White Library. We will follow that at 6pm at the Ore Dock Brewery with ***Sing the Wild UP Song Writing*** winning contestant performances and awards in the upstairs north end.

On **Saturday**, in various venues at the Four Corners in Marquette, we will have: a 9am opening keynote address by naturalist/writer John Bates of Manitowish, Wisc, on ***A Spirit of Place***; followed by 13 presenters including talks by Mary Burns, Dennis Pace and Troy Henderson, Kathleen Heideman, Dr. Tim Hunt, Bob Archibald, Dana Richter, Keith Glendon and Ella Skrocki, Bill Ziegler, Jim Compton, Russell Magnaghi, and others including UPEC board and past board members. There is something for everyone, including children's activities from 1:30-3:30 pm! There will be a 4pm panel discussion on successful community conservation projects recently funded by UPEC. All will be followed by a closing reception at the Federation of Women's Clubhouse. See inside for details! ✂



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Member name(s): _____

Address: _____

E-mail: _____

Phone: _____

Mail to: Gregg Bruff, 620 S. 8th St., Escanaba, MI 49829



Early Celebrate Events March 21, 22, 24

Tuesday, March 21st

Dancing for the Earth, 7-8 p.m.: A benefit to support the work of UPEC's Mining Action Group (formerly Save the Wild UP). Join Carrie Biolo and Maria Formolo as they explore elements of the Upper Peninsula winter wonderland through dance, sound, movement, and visual imagery. ([Presque Isle Park Pavilion](#))

Wednesday, March 22nd

Putting Wetlands into Words, 6-8 p.m.: Invitational poetry reading inspired by paintings and photographs of the Wildcat Canyon Creek and Mulligan Creek wetlands. Poets include Esther Ayers, Milton Bates, Rochelle Dale, Lynn Domina, Amber Edmondson, Kathleen Heideman, Janeen Pergrin Rastall, Christine Saari and Russell Thorburn. ([Federation of Women's Clubhouse](#))

Friday, March 24th

Sing the Wild UP! Songwriting Competition, 6-8 p.m.: Winners will perform their compositions live. ([Ore Dock Brewing Co.](#)) 🦋

About UPEC...

The Upper Peninsula Environmental Coalition has a four-decade track record of protecting and seeking to enhance the unique environmental qualities of the U.P. through public education and monitoring of industry and government. UPEC seeks common ground with diverse individuals and organizations to promote sound planning and management decisions for all the region's natural resources.

U.P. Environment is published quarterly and available online to share with family & friends. Please send your comments or contributions to:

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www.upenvironment.org
and on Facebook

Schedule of Presentations Saturday, March 25th

9:00 a.m. Keynote Address

John Bates - Spirit of Place and Learning to Be at Home (Federation of Women's Clubhouse)

Program Description: A place is a space with a story. The story has two parts – the outer landscape of an ecological community, and the inner landscape of human perception. We need to develop our understanding of both parts equally by gaining a deep ecological literacy and a rich love of place. Chet Raymo wrote: *“Two things are required to truly see: love and knowledge. Without love, we don't look. Without knowledge, we don't know what it is we are seeing.”*

10:15 a.m.

Robert Archibald - Who Do We Think We Are? A Tale of Mine Shafts, Caving Ground, Wilderness, Weed Wackers, Wolves and Fat Tire Bikes (Federation of Women's Clubhouse)

Program description: Fifty years ago people who lived in the Upper Peninsula accepted the environmental consequences of industry as the price for jobs. Now much of the old industry is gone and people increasingly value the Upper Peninsula because of its natural beauty and outdoor recreation. Tourism is now the boom industry. Perceptions of our place have changed. How can we preserve the splendor of this place as more and more people come to recreate and vacation?

Keith Glendon and Ella Skrocki - Sliding on the Saltless Seas (Landmark Inn – Sky Room)

Program description: A personal account of Great Lakes surfing, the lifestyle, the meaning and the relationship between water, spirit and human life as seen through a surfer's eyes. This presentation will involve some storytelling, some history, some sharing of photos and a unique perspective on the environment that may not be a part of most people's experience of our region.

Mary Burns - Ancestral Women Exhibit and Gallery Talk (Peter White Public Library – Lower level, Marquette Arts & Culture Center)

Program description: The Ancestral Women Exhibit was created to honor elder women from Wisconsin's 12 Native Tribes who have held families and communities together: women leaders who have kept traditions, cultures, and languages alive. This program will explore the story of the exhibit, and the design and weaving process used to create it.

11:30 a.m.

Dennis Pace and Troy Henderson - Meet Webster Marble: The U.P.'s Greatest Inventor and Entrepreneur (Landmark Inn – Sky Room)

Program Description: By the time Henry Ford's first Model T rolled off the line, the Marble Arms & Manufacturing Company was a household name, outfitting millions of hunters, soldiers and outdoor enthusiasts with Michigan-made products. This story of Webster Marble – timber cruiser, inventor, industrialist and master marketer – is the story of U.P. innovation at its best, with lessons that ring true for today's U.P. entrepreneurs.

Jim Compton - Historical Perspective of Marquette's Water Quality (Landmark Inn – Board Room)

Program Description: Exploring the changes in attitude and delivery systems of Marquette's water. Beginning with the Douglas Houghton and William Burt map of 1845 up to current times, you will see how water and wastewater were utilized and perceived. From when streams were labeled “sewer outlets” on maps and water was delivered to homes in buckets, we'll trace Marquette's technology and perceptions through the last 150 years.

“Half-Earth: Our Planet's Fight for Life” (2016) by E.O. Wilson Book Discussion with UPEC members (Peter White Public Library – Shiras Room)

Program Description: Biologist Edward O. Wilson not only vividly portrays the real living world of our biosphere, he also addresses the problem of extinction and what needs to be done to minimize it. Historian Jon Saari, ecologist Mary Martin (with background in evolutionary biology), and business professor David Allen will probe Wilson's ideas and their applicability to the U.P.'s large protected area (46.9%). Are we on a good path for most of our native plants and animals?

Mary Burns - Ancestral Women Exhibit continues (Peter White Public Library – Lower level, Marquette Arts & Culture Center)

12:30-1:30 p.m. Lunch Break

1:30 p.m.

Maggie Scheffer and Nick Baumgarten – Children's and Parents' Program (Federation of Women's Clubhouse)

Program Description: Why do beaver chew? What's the difference between a weasel and an ermine? How can I distinguish a coyote track from a fox's? Explore answers to these and many more questions during this session for families and kids. Come join the fun and excitement with some hands-on activities that are sure to spark the interest of young and old alike! You will hold animal skulls and furs and try to match them. Then you will make tracks for home that you can use to fool even the best tracker! This session is for families and youth ages 2-99 from 1:30-3:30 p.m.

Dana Richter - The Mysterious and Beautiful World of Mushrooms (Landmark Inn – Sky Room)

Program description: Fungi play a major role in forest health and indirectly affect birds, wildlife populations and numerous ecosystem processes. 2016 was a banner year for native mushrooms fruiting in the UP. Some mushrooms are edible but only to those who learn them well. Some edible and poisonous mushrooms will be shown and their role in the ecosystem will be told.

Russell Magnaghi - The Long History of UP Brewing (Landmark Inn – Board Room)

Program description: Russell Magnaghi discusses the research and writing of his recently published book, *“Upper Peninsula Beer: A History of Brewing above the Bridge”*.

Kathleen Heideman and Julie Mowen – Wetlands Exhibition Gallery Talk (Peter White Public Library – Shiras Room)

Program description: Meet Painters on the Loose, and view their original paintings and photos of Wildcat

Canyon Creek and Mulligan Creek wetlands. Kathleen Heideman will introduce the wetland sites and environmental issues; Julie Mowen and other artists will discuss their artwork, their interest in working en plein air, and their impressions of these wetlands. Artwork is on display throughout March. Location: Huron Mountain Club Gallery, main level of PWPL. This exhibit was coordinated and hung by Michele Tuccini, who unfortunately is unable to attend the presentation.

Mary Burns - Ancestral Women Exhibit continues (Peter White Public Library – Lower level, Marquette Arts & Culture Center)

2:45 p.m.

Tim Hunt - Sled Dog Adventures: Iditarod and Beyond (Landmark Inn – Sky Room)

Program description: Tim will discuss raising and training sled dogs, as well as running the Iditarod in Alaska.

Bill Ziegler - The Menominee River Sturgeon Fishery (Landmark Inn – Board Room)

Program description: An overview of the UP's largest remaining sturgeon population. A brief historical perspective focused on major Menominee River fish habitat alteration that affected the historically abundant sturgeon fishery. Specific sturgeon life history information about the Menominee River and the efforts by both WI and MI DNR to preserve and restore this valuable fish population.

Wetlands Poetry Reading (Peter White Public Library – Shiras Room)

Program Description: Featuring original poems, inspired by paintings and photos of Wildcat Canyon Creek and Mulligan Creek wetlands, threatened by the controversial CR-595 proposal. Poems will be accompanied by a digital slideshow. Poets include UPEC keynote speaker and naturalist John Bates with Esther Ayers, Milton Bates, Rochelle Dale, Lynn Domina, Amber Edmondson, Kathleen Heideman, Janeen Pergrin Rastall, Christine Saari and Russell Thorburn.

4:00 p.m.

Panel Discussion “Making Conservation Work in Communities: Recent Success Stories” (Federation of Women’s Clubhouse)

Program Description: In 2016 UPEC awarded \$30,000 through a new Community Conservation grant program, intended to further bold actions taken by U.P. communities in supporting conservation values in their own backyards. Four such community coalitions, led by local land conservancies, have achieved success in the past year by purchasing valuable lands and orchestrating plans to turn these lands into long-term permanent community assets. Acquisitions over the past year include Pointe Abbaye (KLT / Evan McDonald), Pilgrim River Watershed project (CCCTU / Bill Leder), Chocolate Bayou Preserve (UPLC / Chris Burnett) and Yellow Dog Community Forest (YDWP / Emily Whittaker). These groups will be represented by Chris Burnett, How and why this has happened is the subject of this year’s Celebration panel.

Panelists’ Organization Biographies

Copper Country Chapter of Trout Unlimited: The 114-member Copper Country Chapter of Trout Unlimited (CCCTU) was chartered by the parent TU national organization in 1998. Our Mission Statement is “*The Conservation, Protection, and Restoration of Cold Water Fisheries and their Watersheds in the Western Upper Peninsula of Michigan.*” Our activities, in addition to the Pilgrim River Watershed Conservation Project, include habitat restoration, youth outreach and education, scientific pursuits, coordinating with MDNR fisheries professionals, and financial support of organizations and projects with shared values.



Keweenaw Land Trust: The Keweenaw Land Trust (KLT) is a community partner protecting land, water, and quality of life through conservation, stewardship, and education. KLT was founded in 1996 by a local group passionate about protecting the region’s special places and now serves the six western counties of Michigan’s Upper Peninsula. KLT creates opportunities for public access and low-impact recreation, balancing conservation of natural resources with sustainable economies. The Trust offers opportunities for people of all ages and abilities to enjoy the outdoors and learn about the plants, animals, and ecosystems that share the land-



scape and how to protect them for future generations to enjoy. Volunteers lend their time and skills to the organization to build trails, lead outings, and assist with the nuts and bolts of land protection, stewardship and organizational development.

Upper Peninsula Land Conservancy:

The Upper Peninsula Land Conservancy (UPLC) was founded in 1999, under the name Central Lake Superior Land Conservancy. Like other conservancies, we offer donors several ways to preserve the lands they hold dear; the two most common being conservation easements and the donation of property to be held as a preserve. In the first decade, UPLC became the owner of six properties: three small tracts in the eastern UP, the Debelak Preserve, a 320-acre tract in southwestern Alger County where we are doing some experimental forestry to increase habitat for migrating song birds, the Murphy Family Preserve, a 508-acre tract in western Marquette County, and the Ford Eagle Preserve, an 87-acre tract in southwestern Marquette County on Squaw Lake. During the same time period, fourteen conservation easements were negotiated and put into effect. Five small tracts were part of a Federal government grant program designed to improve riparian habitat. The remaining easements vary in size from 8 to 921 acres. In the last five years, UPLC has more than doubled the total number of protected acres and currently protects 5,895 acres of land in 10 of the 15 UP counties with 20 conservation easements (2,951 acres), 10 conservation preserves (1,486 acres), and 24 conservation reserves managed for sustainable timber production.



Yellow Dog Watershed Preserve:

The Yellow Dog Watershed Preserve (YDWP) is an environmental organization comprised of grassroots individuals who take environmental ethics to heart. We focus on informing the public about the watershed, conducting sound science, and protecting the resources from threats like sulfide mining. We have many strong programs to help us, such as MiCorps, Yellow Dog Riverkeeper® program, and more. There are many pressures on the rivers and forests, and we strive to balance the need for wild places with the necessities of humankind. This truly is one of the last unspoiled wilderness areas in the eastern United States. Our watershed is located in the Upper Peninsula of Michigan



in Baraga and Marquette Counties. It runs free and clean through wild country until it eventually reaches Lake Superior. This is how we want it to stay. Please take a look through our site, yellowdogwatershed.org and consider becoming a member or donating to help our mission.

Presenters’ Biographies



Robert Archibald: Robert Archibald, Ph.D. is an historian who spent forty years working in museums and engaging the public in a dialogue about what we have done well and have done poorly with a

focus on how we overcome the burdens of the past and build on legacies. He has published books, dozens of articles related to public history and historical topics. He has headed national organizations such as the American Association for State and Local History, and he was President of the National Lewis and Clark Bicentennial. He has spoken nationally and internationally and appeared on national television and on National Public Radio. He teaches Upper Peninsula History, Public History, and Michigan History at Northern Michigan University and is currently researching and writing on the environmental history of the U.P.



John Bates: John Bates is the author of seven books and a contributor to seven others, all of which focus on the natural history of the Northwoods. John’s poems have also appeared in five different art/science

collaborations. He’s worked as a naturalist for 28 years (he and Mary have led many hikes in the U.P!), and has served on the Board of Trustees for the Wisconsin Nature Conservancy and the Wisconsin Humanities Council as well as serving on several other current boards. John and his wife Mary live on the Manitowish River in Iron County, WI, where they raised two daughters.



Mary Burns: Mary Burns is an award-winning artist, creating weavings that reflect the hues and patterns of the natural world. Her jacquard loom allows her to craft her work in great detail, vibrancy, and

character. She also creates custom designed hand-woven rugs and wall pieces. Mary's most recent project is the Ancestral Women Exhibit, which includes woven portraits of an elder from each of Wisconsin's 12 Native tribes as well as an additional 12 complementary weavings. She teaches tapestry and other fiber art techniques. Mary and her husband John Bates lead wildflower, birding, and natural history hikes, paddles and discussions.



James Compton: Jim Compton graduated from Michigan Tech as a Civil Engineer. He has worked as a Professional Engineer in Marquette since 1995 and has been the City's Hydrology Engineer for the last 15

years. Jim is an amateur historian and loves all things having to do with Upper Peninsula water-related history. As a hobby he collects local trade tokens. Jim lives with his wife and four children on the east side of Marquette with a view of the lake, which suits him fine.



Keith Glendon: Keith Glendon is a father, a surfer, a writer and an advocate of the environment and our unique, natural wilderness. He grew up in Marquette, Michigan. Having traveled the world, surfed in

Hawaii, Australia, Costa Rica, Mexico, New Zealand and the west coast of the United States – he now makes his home here in Marquette with his wife and children, spending as much time enjoying our Great Lakes and wilderness as he can.



Kathleen Heideman: Kathleen M. Heideman was runner-up for U.P. Poet Laureate (2017-2018). As a writer, artist and environmentalist working in Michigan's Upper Peninsula, she has completed over

a dozen artist-in-residence programs, working with watersheds, forests, private foundations, the National Park Service, and the National Science Foundation's Antarctic Artists and Writers Program. Heideman is the author of *Explaining Pictures to a Dead Hare* and *She Used to Have Some Cows*. Her new book of poetry, *Psalms of the Early Anthropocene*, is forthcoming from Winter Cabin Books. As a visual artist, she combines her interest in wild and threatened places with her love for landscape painting. A curious woman.



Troy Henderson: Troy Henderson is a graduate from Northern Michigan University's history program. He received a Ph.D. in history from Loyola University of Chicago. Currently, he is an historian with the

Michigan History Center at the Michigan Iron Industry Museum.



Timothy Hunt: A veterinarian since 1989, Dr. Hunt opened Bayshore Veterinary Hospital in 1993. He started sled dog racing in 1995 and participated in numerous races – UP 200 (16 times), Iditarod

(2 times) and European La Grande Odysée (3 times).



Russell Magnaghi: I am a History Professor Emeritus from Northern Michigan University and former director of the Center for UP Studies. Since my retirement I have been

working on a number of research and writing projects. One of these is *Upper Peninsula Beer: A History of Brewing above the Bridge* and a forthcoming book, *Booze and Bootleggers on the Border: Prohibition in the Upper Peninsula* due out in June. The beer book will be available for sale.



Julie Mowen: Painting in the open air - en pleine air - presents many challenges for artists. In addition to carrying painting supplies and equipment, they must be prepared for all the usual contingencies - and

the unusual surprises! - of outdoors activities. Art provides a glimpse through the artist's eye, teaching the observer another way to view the world. As a pleine air painter, I find rich subject matter and inspiration in the outdoors and in wild places. I enjoy the challenges of outdoor painting and the process of exploring and recording my personal interpretation of nature.



Dennis Pace: Even while Dennis Pace spent a career practicing the dark arts of advertising, he found time to get out into the wilds of the U.P. – on foot, on a mountain bike, on skis or in a pair of waders. He

recently worked as a guest curator for a special exhibit

"Inventing the Outdoors," which is spending 2017 at the Iron Industry Museum in Negaunee. The exhibit looks at changing attitudes toward the outdoors and recreation as seen through the life and times of Webster Marble, the Upper Peninsula's greatest inventor and entrepreneur. Dennis' love of Marble products came from 30 years of researching and collecting the lore and products of the Gladstone-based company. His love of Michigan history is rooted in a belief that we must preserve our stories for our children and their children.



Dana Richter: Dr. Richter is the forest pathologist at Michigan Tech School of Forestry. He has conducted research on tree diseases, wood decay, fungi and mushrooms in the UP and worldwide for over 30 years.



Ella Skrocki: Ella is a 22-year-old surfer, student, and environmental activist dedicated to a life of outdoor adventure. She grew up near Sleeping Bear Dunes National Lakeshore in Empire, Michigan, where her par-

ents opened up the region's first full service freshwater surf shop, Sleeping Bear Surf & Kayak. The freshwater lifestyle that Ella has upheld has shaped her passion for the environment, and has fueled her education and activism. She is currently residing in Marquette whilst

Iron Endurance Grows by Chandra Ziegler - photos by the author

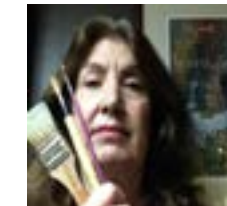


Iron Endurance is a new non-profit in the Iron County area. Our mission is to encourage the community to get active, get outdoors, and get inspired. Iron Endurance board members and volunteers are dedicated to promoting and providing opportunities for people of all ages to participate in lifelong health and wellness activities and endurance sports. Our hope is to inspire a broad audience to help them discover their potential, conquer their "hills", and reach their dreams.

Endurance athletes and people who enjoy silent sports are used to being active, training, and racing on their own. Going solo is often the norm. It gives you time to unwind - to disconnect from the stress and worries of life, from the constant attachment to technology, and reconnect with your mind, body, and soul. There's nothing wrong with taking time for you. At the same time, it's important to remember how interconnected we all are and that there's only so much we can do on our own.

I am so passionate about this group and what we can bring to the community. I truly believe in the power of creating time for silence on the trails. In doing so, we're able to fully examine, understand, and appreciate our role in society, our relationships with others, and our reliance on the natural world. When you get active in the outdoors, getting inspired comes naturally. Your mind transforms and you're able to think with true clarity, allowing you to sort out emotions, find answers to problems, think creatively, and listen to the dreams in your heart. In fact, the

finishing a degree in Environmental Studies & Sustainability and finds immense joy in the magical natural wonders and unsalted waves of the coastal north woods.



Michele Tuccini: Michele is a Marquette artist who works in watercolor and mixed medium. She paints outdoors with the 'Painters on the Loose' and in the studio with the 'VIPS'. She serves as Vice President

of the Lake Superior Art Association and as a docent at the DeVos Art Museum. Her work can be seen at the Zero Degrees Gallery in Marquette.



William Ziegler: Bill Ziegler graduated from the University of Michigan School of Natural Resources with a BS Degree in Fisheries. He worked as a federal fisheries biologist in the Upper Peninsula of Mich-

igan, Northern Wisconsin and Minnesota, the Upper Great Lakes, and Middle Mississippi River for the US Forest Service and US Fish and Wildlife Service. Recently retired, he spent the last 24 years as a Michigan DNR Fisheries Management Biologist in Crystal Falls, Michigan. Ziegler now writes for two major Michigan outdoor magazines. He enjoys fishing, hunting, and numerous silent sports with his family in the Upper Peninsula. 🦋

idea for this non-profit started out as conversations in my mind while on the trail about two years ago.

This fall, Iron Endurance put on a free youth running club. 30-40 kids, grades K-8 gathered every Monday for 9 weeks at Forest Park School for an hour of running and fun. We learned about warming up and cooling down, proper form, pacing, appropriate clothing, and safety while on the road and trails. We had a blast every week as we ran, played games that emphasized fun and sportsmanship, and ended with a group huddle. We are very proud of all the children that were involved. They worked hard and encouraged one another week in and week out.

Iron Endurance also hosted the first annual Halloween Hustle, which was held at Bewabic State Park in Crystal Falls, MI on Saturday, October 22nd. We had a successful first year with 30 participants. The weather was perfect, the costumes were spooktacular, and everyone had a blast.

We're already looking forward to next year's event. We are looking to have it the same weekend as the Harvest and Haunt in Iron River next September.

Since the beginning of January, Iron Endurance has been providing a free youth snowshoe club to 30-40+ students in grades K-8. We meet every Monday at Forest Park. We started with learning the basics of putting on our snowshoes and how to get up when you fall. We've explored many areas and created our own trails around the school and have enjoyed discovering tracks in the woods. It is a great privilege getting a group of kids out in the woods and seeing the joy it brings.



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Scouting Trout and Smallmouth Bass Streams at Spring High Water

by Bill Ziegler - photos by the author



If you like a little bit of adventure then paddling Michigan streams that don't normally get regular canoe/kayak traffic is a good way to find it. A good reason to do this is to vastly improve your knowledge of good fishing spots.

I started conducting early spring canoe surveys while working as a Management Fish Biologist for the DNR. I had a very large management area in the Western UP to cover and we could not cover the many miles of trout and smallmouth bass streams with normal electrofishing surveys. Early in my DNR career

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I was also struck by how often anglers and outdoorsman would ask us questions about area streams and the DNR files had little information, unless it was an extremely popular trout stream. Of course I am also an avid trout and smallmouth bass angler and found numerous good fishing spots while conducting these surveys. Although I already know more fishing spots than I or my family have time to fish - that was not my motivation to do this. The habitat information was very valuable for the future fish management. I did get some sense of the rivers and streams from driving around and walking into a few spots. The UP has fewer road crossings than downstate rivers and many stream stretches are too remote to access by anything other than canoe. I also found some good areas through new satellite photos available on line and some of our fall aerial surveys for habitat assessment. Nothing gives you a better sense of the overall stream habitat than an on the ground survey float of the stream.

A good time to paddle streams that are not normally known for canoe floats is at spring high water. For some Michigan rivers that do not have a strong summer base flow that is good time to float those as well. Most of these types of trips require getting out and

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Upper Peninsula's Coasts: A Resource Worth Sustaining

by Christie Deloria, US Fish and Wildlife Service, Marquette

The Great Lakes coasts have been a consistent thread throughout my life. Growing up in the eastern Upper Peninsula, I spent time on Lake Superior and Lake Michigan. In spring, my family took car rides on the muddy, dirt roads to the mouth of the Two-Hearted River during spring break. And even though it was only late April and the water was freezing, I still had to take off my shoes and socks and put my feet in the water. As a teenager, I spent time with friends sun-bathing on Lake Michigan as the gulls called overhead; often landing and harassing us for some potato chips. As an adult, I get to see the many faces of Lake Superior as I drive to work each day. Some days it's a deep, dark blue and looks angry as the whitecaps break on the shore. Other days the lake is serene and just offshore, fishing boats glide along leaving behind the only waves to be seen for miles. If you've lived in the Upper Peninsula or in the Great Lakes region, I'm sure you have similar stories of your connection with the coast. It is intertwined as a part of our history and culture.

The coasts are also part of an ecologically rich ecosystem. In the Upper Peninsula, Great Lakes' sand dunes, marshes, islands, bedrock shorelines, sandstone cliffs, fens, and other landscape features are globally unique, supporting a rich and diverse variety of species. Important migration corridors (Keweenaw Peninsula, Stonington Peninsula, Whitefish Point) and critical breeding areas are present for numerous species of migratory birds including many species of ducks, terns, herons, warblers, and sparrows. Places like the Bays de Noc host an unrivaled freshwater fishery supported, in part, by coastal spawning and nursery areas. In addition, there is a concentration of federally threatened or endangered plant and animal species that utilize coastal habitats including piping plover, dwarf lake iris, Houghton's goldenrod, and Pitcher's thistle.

The Great Lakes and its shorelines not only support

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tremendous ecological resources, but also contribute significantly to our economies. The Great Lakes basin supports the livelihood of 10% of the U.S. and 25% of the Canadian populations. As an example of the economic importance of this resource, the Great Lakes ecosystem supports coast-related recreational activities valued at \$16 billion annually, of which sport fishing activities contribute \$4 billion. Although I don't have any statistics to provide, on a busy, beautiful summer day here in the Upper Peninsula it is evident that many coastal towns benefit economically from tourism associated with their unique coastal resources. A check of your local real estate listings



Copper Harbor Lighthouse by Brian Doyle

will also confirm that there is economic value associated with having a view of one of the Great Lakes out your front window.

Maybe because of their ecological richness and beauty, people are drawn to coasts for recreation, home construction, lake access, and many other reasons. In fact across the country coastal counties have the highest population densities

and are expected to face continuing population pressures. These high population densities, and the concentrated human activities associated, can impact shoreline areas through fragmentation, changing shoreline processes (armoring or altering sand movement), introduction of invasive species, and other impacts. Although Great Lakes coasts in the Upper Peninsula experience these threats, many miles of coast remain relatively intact.

Now is the time to ensure our coastal resources are sustained into the future. Coastal conservation is possible if we challenge ourselves to work in new ways and make connections across for-profit, not-for-profit, federal, state, tribal, and local governments, industry, and other interested organizations. We need to plan not only coastal conservation activities, but also help to plan for community development and growth. Bringing these sometimes disparate efforts together could help us build sustainable communities that sup-

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Mining Action Group Updates by Kathleen Heideman and Steve Garske

Drilling in the Porkies



A February 6th press release by the Michigan Department of Natural Resources (DNR) brought shock and disbelief to many in the U.P. and beyond. The DNR announced that they had issued a permit to Orvana Resources U.S. Corporation (a subsidiary of Highland Copper Inc.) to conduct exploratory drilling in the Porcupine Mountains Wilderness State Park. The park is much-loved among U.P. residents and the Porkies are receiving national acclaim as a tourist destination. Orvana's contractor, Idea Drilling of Virginia, Minnesota, began drilling on the western end of the park the day before the press release was published, in

Wakefield Township in Gogebic County (T49N, R45W, Section 5). The State of Michigan purchased the surface land from Keweenaw Land Association (KLA) in 1948, with KLA retaining the mineral rights.

Unfortunately, Michigan law views mineral rights as “dominant” over surface rights, and allows mineral rights owners “reasonable use” of the land's surface to access minerals. Claiming its hands are tied, the DNR issued a permit for Orvana to drill. While the DNR and Orvana have agreed to a number of “best practices” including limiting drilling to when the ground is frozen, many question why the company should be allowed to drill in the Porkies at all.

After completing four holes, drilling has been suspended due to record warm weather. The company still plans to drill 17 more holes on Park land. Twelve of these are on land wholly controlled by the park, with the rest within the 466-foot right-of-way of County Road 519. If the company cannot finish drilling this spring, they plan to resume next winter. See: BIT.ly/PorkiesDrilling-ThawHalts

Note: during the permitting of the Copperwood mine project (sold to Highland Copper in 2014), Orvana promised that if they decide to mine the adjacent deposit, they would do so via an underground mine, from land immediately south and west of this part of the park. This proves once again that Michigan law and the agencies that are charged with enforcing it will allow mining literally anywhere in the state – under trout streams and headwaters, in wilderness areas and under State Parks.

NEW – Nonmetallic Mineral Lease Sought by Eagle Mine



ACTIVIST ALERT – On February 10th, the Michigan DNR published notice that Eagle Mine had requested a “direct development nonmetallic minerals lease from the State of Michigan, covering nonmetallic minerals rights located within T50N, R29W, Michigamme Township, Marquette County” containing approx. 240 acres (N1/2 NE1/4, N1/2 NW1/4, SW1/4 NW1/4, and SW1/4 SW1/4, Section 12). When asked by a reporter to explain what this new “Nonmetallic Mineral Lease” request was for, Karen Maidlow of the DNR's Office of Minerals Management responded that the lease would (retroactively) cover “waste rock material that was removed from tunneling (and may be removed in the future) for Eagle's metallic mineral operation.” According to the lease request form, “Lease is

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UP Environment

CELEBRATE EARTH DAY With A “Walk in the Wilderness!”

by Maggie Scheffer

The Upper Peninsula Environmental Coalition will sponsor an educational “Walk in the Wilderness” on Earth Day, Saturday, April 22nd. This 3-5 mile walk on a designated trail will be an opportunity for the public to interact and engage with wilderness.

Sylvania Wilderness Area is an 18,327 acre wilderness tract located in Gogebic County, in the Upper Peninsula. Earth Day in the Sylvania Wilderness offers an occasion to enjoy and appreciate biodiversity, surrounded by mature mixed hardwoods, pine and cedar, and clear clean non-motorized lakes. We'll be taking the concept of an “Environmental Teach-In” outdoors, providing a hike in a healthy ecosystem... an experience that can inform and guide stewardship practices for a sustainable and livable Earth, going forward.

Mark your calendars now for April 22nd and join us in the Sylvania Wilderness! More information on the hike and scheduling will be available on the UPEC website by the end of March. ↩



2017 Environmental Education Grant Awards Announced by Gregg Bruff

Four Upper Peninsula organizations are being awarded Environmental Education Grants this year. The grants are open to K-12 educators or other groups and institutions wanting to create or enhance an environmental program or ongoing activity.

The grants provide financial assistance in supporting quality environmental education programs and/or ongoing projects in need of support. Though the grants may not be used for salaries, all other expenses such as transportation, meals, supplies, honoraria are acceptable.

This year's successful applicants include Northern Michigan University's *Winter into Spring -- Inquiry and Art in our Local Environment*. The project includes 17 students ages 9 – 12 using classroom curriculum that builds an understanding of local climate, weather patterns and seasonal change, several specific local ecosystems, including flora, fauna, geology, and history of the area. The students will learn to identify evidence of life in winter, and recognize typical indicators of seasonal change. Field experiences will be documented through nature drawing and observational writing, and culminate in student-designed projects combining visual arts and poetry. Field outings will be facilitated by two NMU professors and students enrolled in the RE 250 Educa-

tion in Outdoor Settings course. Three one-hour field outings will occur in the Marquette area and involve NMU students working with small groups of North Star Academy (NSA) students to deliver environmental lessons and to facilitate nature drawing and observational writing that support the NSA Montessori classroom curriculum.



Example of white-tailed deer wildlife box

A second grant goes to Clear Lake Education Center for development of **wildlife discovery boxes** containing evidence of six different woodland neighbors (deer, coyote, raccoon, fox, snowshoe hare, beaver) The displays will help students understand that even though they might not see these animals, the “neigh-

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UP Environment

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borhood” they are visiting at camp is home to many species that deserve the same respect and empathy they would show their neighbors at home. The acrylic boxes will hold a base with a track of the animal and other “evidence”, such as scat, browse, fur, bones. Clear Lake interns will help assemble the boxes, develop programming and curriculum, and present them to students. Along with the interns, seasonal program facilitators will share information with students and adults about the various wildlife which can be found at Clear Lake Education Center.

Niagara High School’s winning project is for 39 students to **monitor air quality** within their city. With the data collected through the year, they will propose real-world solutions to any air quality problems they may encounter. Students would then take the air quality data and share it with the local community, thus expanding their opportunities to directly engage in citizen activism. It is anticipated that the monitoring will continue in the future as part of the high school science club.

This year’s final grant goes to support the Alger County MSU Extension Life of Lake Superior Days. Over four days in July, some 50 youth will travel to various locations in Alger Co. to learn about the natural and cultural history of the area. In 2017, some of the program themes will include:

- Outdoor survival: fire and shelter building, water purification, tracking, wild edibles, tour of off-the-grid homestead.
- Grand Island: bear ecology, mammal adaptations, native pollinator planting and prairie restoration.
- Birding, bat ecology, and owl studies.
- Experiencing a historic Coast Guard station, and participating in some of the activities undertaken by the historic Coast Guard crew; kayaking in Lake Superior.

Congratulations to environmental educators who are doing invaluable work in our communities to help create tomorrow’s stewards.

“Despite all of our pretenses and fantasies, we always have been and will remain a biological species tied to this particular biological world. Millions of years of evolution are indelibly encoded in our genes. History without the wildlands is no history at all.” E. O. Wilson


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necessary for completion of Intended Lessee’s ongoing mining operation area.” The tunneling activity referred to by Maidlow is the new “Eagle East” access ramp and tunnel.

Some background concerning the Eagle East tunnel: In June 2016, Eagle Mine announced that it would immediately begin a tunneling project intended to connect the Eagle Mine orebody with the Eagle East orebody. (See SWUP press release, “Lundin’s Eagle East Undermines Public Process”: BIT.ly/EagleEast1). Eagle Mine staff estimate that the tunnel “from the Eagle orebody to Eagle East orebody will be roughly 8 kilometers” (or about 5 miles). Lundin has described the new Eagle East orebody as “still in an exploration and drill-out phase and the full extent of Eagle East has not been determined,” claiming they will spend the next “three years to reach Eagle East” – and only then decide whether to proceed with extraction (“... determine if we will mine Eagle East”). The suggestion that construction of a 5 mile “Eagle East access ramp” to reach a new, undefined orebody could be seen as “exploration activity” instead of “mining activity” contradicts common sense and Michigan law.

The diagram below, included in Lundin’s press release announcing the Eagle East activity, has been modified to illustrate the (green) zone in which we believe current mining activity is covered by Eagle Mine’s permits. New mining activity related to Eagle East is now taking place in the (red) zone, not regulated by any existing permits:

Following the Eagle East announcement, we spearheaded a letter to the EPA, DEQ and DNR, requesting federal oversight of DEQ’s failure to regulate Eagle’s mining activity (violating permits issued to Eagle Mine under the Clean Water Act and Clean Air Act). To date, the EPA has declined to become involved, Eagle Mine has claimed that the Eagle East tunnel is “exploration activity” rather than “mining activity” and the Michigan DEQ has stated “no modifications are required to Eagle’s Part 632 mining permit at this time.” Eagle East tunneling remains a dangerous and unregulated activity, not covered by any permit.

The new nonmetallic mineral lease application is intended to legitimize the excavation and transfer of waste rock (Michigan Slate) from the Eagle East tunnel. The rock is apparently being moved into Eagle Mine, where it is used for backfill underground. 

Interestingly, the mineral lease request cites Part 632’s definition of a mining activity, which states that “Mining” means the excavation or removal of more than 10,000 tons of earth material a year or disturbing more than 1 acre of land a year in the regular operation of a business for the purpose of extracting a nonferrous metallic mineral or minerals by 1 or both of the following: (i) Removing the overburden lying above natural deposits of a mineral and excavating directly from the natural deposits thus exposed or by excavating directly from deposits lying exposed in their natural state. (ii) Excavating from below the surface of the ground by means of shafts, tunnels, or other subsurface openings.”

When asked “how many tons of waste rock would be produced by the Eagle East access tunneling,” mine staff could provide no answer. We estimate that construction of the new 8 km long Eagle East access ramp will produce approximately 640,000 tonnes of waste rock (“development rock”) during three years of construction, or about 213,000 tonnes of waste rock each year. Clearly, the Eagle East tunneling activity meets the legal definition of mining under Part 632, and permits should be immediately required. It appears that the DNR agrees with us!

Written comments concerning this unusual nonmetallic mineral lease request by Eagle Mine must be submitted by March 10, 2017 to DNR, Office of Minerals Management, P.O. Box 30452, Lansing MI 48909, or DNR-Minerals@michigan.gov.

Marquette County Road Commission v. Environmental Protection Agency – Decision Appealed



A bit of background on this lawsuit: when Kenecott was first developing the “Eagle Mine” proposal, the company realized that instead of using the haul route described in its mining permit application, it could ram a whole new road through the wild heart of the Michigan Highlands, from Eagle Mine south to their Humboldt Mill. The road’s first incarnation was called “Woodland Road”, which the company would build so local citizens could gain easier access for hunting, fishing, berry-picking, and other recreational activities (in between massive ore trucks). The EPA objected on grounds that the impacts to wetlands and streams were poorly quantified, and because the stated purpose of the road was inaccurate. A couple years later the road proposal was reborn as County Road 595, to be built by the Marquette County Road Commission (MCRC) for “better public access and emergency response” to the Highlands (and also to carry ore trucks). Serious threats to wetlands and watersheds proved insurmountable, as the proposed route would have cut across 22 rivers and streams, including the Dead River and Yellow Dog River Watersheds, Mulligan Creek headwaters, Voelker Creek, and Wildcat Canyon Creek, damaging and destroying numerous wetlands along the way.

When the EPA objected to the project’s failure to minimize impacts to wetlands and streams, it gave the MCRC and DEQ 30 days to modify their plans. Instead, the DEQ announced on January 3, 2013 that it would not be issuing a permit for the project. To be clear, the CR-595 still could have been built, but wetland permits would have needed to be issued by the U.S. Army Corps of Engineers. Instead, Eagle Mine paid for the Triple A road to be widened and paved to the gate of the mine, and the CR-595 plan was abandoned – but not forgotten.

Figure 4 – Schematic drawing looking north showing Eagle and Eagle East with the proposed twin ramp access making use of the existing Eagle mine infrastructure.



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In July 2015, the MCRC filed a lawsuit against the EPA, claiming they had unfairly “blocked” the construction of CR-595.

In 2016, MCRC’s lawsuit against the EPA was heard by Federal Judge Robert Holmes Bell, who dismissed the lawsuit, stating that the MCRC “doesn’t have a viable claim against the EPA.” MCRC appealed, but Judge Bell denied the motion for reconsideration. According to the Pacific Legal Foundation, now representing the MCRC, “attorneys and a mediator appointed by the appeals court will discuss a possible settlement over the phone on March 6.” If no resolution is reached, the case will proceed to the 6th U.S. Circuit Court of Appeals. See: BIT.ly/595lawsuit-mediation

From the beginning, environmentalists have contended that the Road Commission was trying to build an industrial road – a mining haul road – not a County Road to benefit the public. The Pacific Legal Foundation and the MCRC are working to recast the issue as an anti-EPA “States Rights” issue, and revising history as they go. The facts of the case simply do not support their claims.



Aquila Back Forty Wetlands Permit Application: Now Under Review by DEQ

ACTIVIST ALERT – Aquila Resources Inc. (Aquila) submitted their Wetlands permit application to the DEQ on January 17th of this year. The permit files are available through the DEQ’s MiWaters system (submission 2NN-5PE0-MT3W). See: BIT.ly/Back40WetlandsApp, select “Documents” and view by “Document Date” – the Wetlands application files are the most recent items in the list (7 PDF files dated 1-17-17). On January 26th, the DEQ sent a Correction Request to Aquila, outlining a list of significant problems, including errors and omissions. Aquila had 30 days to respond to the Wetlands correction request, but they’ve since been granted a deadline extension of June 30th.



If you are concerned about the enormous risks posed by an open-pit sulfide mine on the banks of the Menominee River, you are not alone. Given the DEQ’s recent egregious decision to grant the Back Forty’s Mining and Air Pollution permits, it is absolutely critical that we work together to scrutinize implications of the Back Forty wetlands permit. This is not a done deal, but we need you to get involved! The Mining Action Group is working with a select group of citizens who are reading the Wetlands permit application, educating themselves, and preparing comments and technical questions. What can you do? Read the Wetlands permit! Write a letter to the editor of your local newspaper, voicing your concerns! Join a Facebook group (See: BIT.ly/NO-MINE) working to oppose the Back Forty project, and continue to spread the word about “what’s at stake” and the very real dangers posed by this sulfide mining project. We are 100% volunteer, so your personal involvement could make a tremendous difference!

DEQ Approves Aquila Back Forty’s Mining Permit

On December 28, 2016, the Michigan Department of Environmental Quality announced the approval of the Aquila Back Forty Mining Permit, in spite of overwhelming objections from local residents, concerned citizens and environmental groups. See our extensive written comments on the Back Forty Mining permit application: BIT.ly/CommentsBack40MiningPermit.

The DEQ’s Air Quality Division also approved Aquila’s air pollution permit. No decision has been made, however, concerning the mine’s NPDES permit application, which would authorize the discharge of the mine’s wastewater to the Menominee River, imperiling native mussels and sturgeon. We submitted extensive written comments on the NPDES permit application in the fall of 2016, raising numerous concerns about water quality, metals in river sediment, impacts of discharges on sensitive mussels, and the mine’s “mussel relocation” plan. (See: BIT.ly/CommentsBack40NPDES). Similar concerns were raised by the Environmental Protection Agency and the U.S. Army Corps of Engineers, who requested that any mussel relocation plan should include “a thorough review of the species’ life history, native range, and habitat requirements, as well as a survey of a proposed relocation site to ensure that there are no invasive mussels present.”

Under Michigan law (Part 632, the regulations governing sulfide mining), “A person who is aggrieved by an order, action, or inaction of the department or by the issuance, denial, revocation, or amendment of a mining permit under this part may file a petition with the department requesting a contested case hearing...” Two such contested case petitions have been filed: one by an adjacent landowner, and another by the Menominee Indian Tribe of Wisconsin. According to a press release from the tribe, “The MDEQ and Aquila Resources Inc. are well aware of the Menominee Indian Tribe’s close cultural connection to this area and our serious concern in regards to our cultural resources and mounds, including our ancestral burial sites located within the impact area of the proposed mine. Despite these valid and well documented concerns, a full evaluation of the cultural resources and mounds threatened by this project never occurred.” (See: BIT.ly/MITW-contestedcase).

Menominee Indian Tribe of Wisconsin Reclaims Ancestral Remains

In late February, the Menominee Indian Tribe of Wisconsin received notification from the University of Michigan’s Office of Research, confirming the Tribe’s cultural affiliation claim with remains from the Backlund Mound and Village Site in Menominee County, Michigan. The cultural affiliation claim was made following the guidelines of the federal Native American Graves Protection and Repatriation Act (NAGPRA). According to the Tribe, “this determination only reaffirms what our people have already known for generations about our connection to the Menominee River area. The Menominee River area is the site of our very Creation Story.” The Tribe and the University will now work together towards the goal of transferring possession of the remains. It should be noted that the Backlund Mounds and Village site are just one of many culturally significant sites of the Menominee Tribe that lie within the footprint of the proposed Back Forty Mine. (See: BIT.ly/MenomineeNAGPRA).

Opposition to the Aquila Back Forty Mine Project Continues to Grow – Learn More

Aquila plans to construct an 800’ deep open pit sulfide mine adjacent to the Menominee River, with a “cut-off wall” (to limit the movement of groundwater) less than 100’ from the river, dangerously close to the flood line. In addition to mining activities, the Back Forty project will include on-site crushing, milling, and refining through the use of floatation/separation, including cyanide recovery. Two tailings basins will be constructed to contain the waste-rock slurry, or “mine slimes”. The Back Forty will be a sulfide mine; tests show that most of the ore and surrounding rock is reactive, forming sulfuric acid when exposed to air and water. After mining is completed, Aquila plans to backfill their deep pit with waste-rock and tailings slurry. Some tailings basins will remain as permanent features of the landscape. Water quality will be reduced in the Menominee River; wetlands will be destroyed and impaired due to construction, mining and the draw-down of groundwater; and the Back Forty project will destroy and disturb cultural resources of the Menominee Indian Tribe of Wisconsin, includ-

ing archaeological sites considered by the Tribe to be important cultural properties, related to the tribe's Origin Story.

ACTIVIST ALERT – Learn more about the Aquila Back Forty project, and grassroots opposition. A speakers forum will be held on the campus of Northern Michigan University on Monday, March 27th, from 5-8 pm. Speakers include Al Gedicks of the Wisconsin Resource Protection Council, Menominee Tribal Member Guy Reiter, Ron Henriksen of the Front Forty group, and others. For more information and room location, contact Nate Frischkorn: nfrischk@nmu.edu.

White Pine Copper Refinery Update

ACTION ALERT — In response to requests made by Superior Watershed Partnership and the Mining Action Group, there will be a Public Hearing regarding the White Pine Copper Refinery, Inc., in White Pine, Ontonagon County, (SRN: N7396) for the draft renewal of a Renewable Operating Permit (ROP) for the operation of a copper refining process. 🐾

Canoeing continued from page 8

pulling over or around down trees, log jams, beaver dams, low road crossings etc. I was fortunate enough to have my son available to float the streams making portages easier. As a result we floated the river on the weekends. When my son went off to a distant college we had to attempt these trips during his spring break which was early in the season. In Northern Michigan another concern is going too early in the season before the spring break up of ice in the channel. We attempted to scout the streams as much as possible although as mentioned above in Upper Michigan where road access is very limited that leaves some level of guess work to when the river ice has opened up enough to proceed. On the Upper Brule River (border with Wisconsin) we found out the hard way - the stream channel with current was open but the lower pools were still blocked by ice.



It is a good idea to research your trip on non typical paddle streams ahead of time. In my case I looked at maps, air photos and talked to game wardens or other DNR staff that might have first hand knowledge of

the stream. In smaller towns you can usually find out who in the area might have a deer camp/cabin on the stream you want to float. These cabin owners who fish, hunt or trap often have a good idea what you might be getting into on that float if you can track down someone to ask.

Another common mistake is to not try to tackle too long a stretch of steam to float. After many mistakes with never-ending float trips when I was younger, I now try to limit my explorations. If I don't know a lot about how passable the stream section is I limit float to about eight miles. In the spring or fall of course the days are shorter and it is not fun to still have a long way to go as it is getting dark on these harder trips. There are map measuring software programs that can help you measure the length of stream you want to tackle between access points. Since most people don't have that you can use a county map book, these are available in many good book stores as Michigan County Map Guide or Atlas. Another source would be a county plat book. The maps that have the sections marked out give you an approximate distance of a mile (one section). A good rule of thumb to use if the stream is meandering at all is double the number of sections the stream stretch of interest crosses and use that as your more likely distance. In other words if the steam crosses four sections count that as about eight miles.

Of course some streams do not have enough flow to float, even at high water. Many streams in Northern Michigan were used for transport of pine logs during the white pine logging era. Any of those former log transport streams should be navigable with some extra effort on your part to get around down trees and other barriers. I have found a small stream passing

through a dense cedar and lowland conifer swamp can be a problem. There is an impassable stretch on the Ford River in East Dickinson County (downstream of Ralph, MI) where a braided river channel goes under thousands of years of down cedars that essentially takes the stream "underground". This Ford River stretch is fairly well known to local outdoors enthusiasts. My son and I found out the hard way where there is a similar stretch of the Sturgeon River also in central Dickinson County. The braided stream channel "goes underground" for about a mile in a cedar swamp. We just had to drag the canoe for that mile until the stream channel reappeared. This is why we don't tackle long stretches of stream when we can't find out much about the stream ahead of time from local outdoors enthusiasts.

A hand held GPS has been a great asset to have while floating a river to learn the key locations. Of course a USGS topographic quadrangle map, plat book or county map is also important to have. Key locations should be marked on the GPS and or map as you go since at the end of a challenging day much of the key locations observed all run together in your mind.



It is also a good idea to listen closely as you travel down the stream. You can usually hear the water noise from waterfalls, rapids or small dams. There is only one named waterfall in the Lower Peninsula so the falls are more of an issue in UP streams. We have found waterfalls that are not marked on the maps on a couple of our steam floats (e.g. the Sturgeon River in Dickinson County). Even if falls or rapids are not marked on maps you can often detect significant channel gradient and possible rapids on USGS Topographic Quad maps with significant elevations change and close contour lines.

In areas of the state without much public frontage on rivers you have to be more aware of private land ownership. We encountered many private stream crossings on our exploration trips. If there is a barrier in a legally navigable stream you are legally permitted to go up on the bank to get around the barrier as long as you go back in the water as soon as possible.

A good thing to wear on early spring break up canoe trips is neoprene waders. Once, our canoe was swamped with snow and we stayed adequately warm throughout the day until we made it to our vehicle downstream. A dry bag with dry clothes is a must as well. With the popularity of kayaks some might be inclined to do these exploration float trips with that watercraft. I would recommend using a canoe since you can jump out and back in easily as you inevitably encounter barriers to stream travel. An exception might be the type of kayak that you sit on top (self bailing) since that would make for easily getting in and out of the boat. Of course you want to have a good PFD as water is deeper and faster than normal and also cold. You should definitely make someone else aware of your planned float section, in case you encounter a major mishap.

A spring high water paddle trip on a small stream is a good time to be able to navigate those waters. It is smart to avoid large rivers with lots of rapids and very high water runoff at snow melt. A good example is the UP's Michigamme River where deep snow with high runoff from the Peshekee River highlands raises the Michigamme about six feet higher than normal. The Whitbeck Rapids that is normally only about a class 2 rapids becomes dangerous with large hydraulic waves and dangerous rapids.

I don't want to scare you off with all these examples of problem spots, just prepare you for the unknown. A high water canoe trip on a trout or smallmouth stream can provide ample good future fishing information. It can be an adventure finding new stretches and holes to fish. Seasoned brook trout anglers know that the more remote sections of streams typically produce the best trout fishing success. Occasionally canoeists can also be surprised by finding impressive rock outcrops, small waterfalls, old logging dam remnants or other natural scenic areas. These early spring high water exploration trips have provided more of the most rewarding canoe trips during my life time of canoeing. It also is a nice break to get out of the house after a long winter. 🐾

Annual Photography Contest Winners Announced by Gregg Bruff

The 2016-2017 annual photo contest garnered six entries for the four classes of photography. The contest is to solicit people's artistic perspectives on the beauty of the Upper Peninsula and our relationship to it.

Congratulations to our winners! These photos will be used in UPEC social, web, and print media. Thank you goes to each of this year's photographers for taking the time to send us their entries.

This year's category winners include:



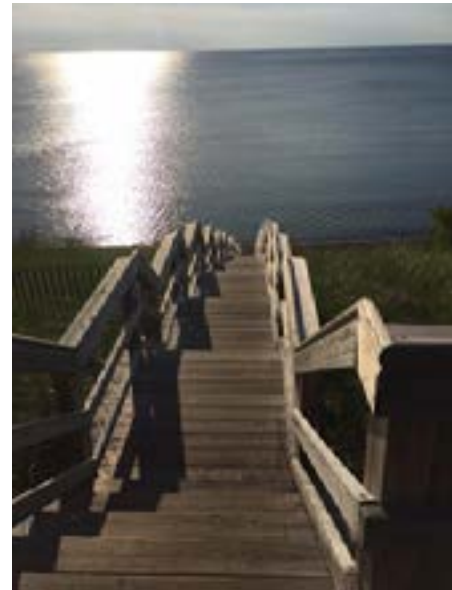
Nature Panoramas, Wildlife and Landscapes

Regina Alleman, "Colorful Stones."



Close-ups of Overlooked or Hidden Beauty

Margaret Gerhard, "Dawn Weaver."



Humans Engaged in the Natural World

Margaret Gerhard, "Steps to Superior Serenity."



Wonderful Fluid Water

Regina Alleman, "Why We Live Here."

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Or you can contribute on-line through justgive on UPEC's website: www.upenvironment.org/join-donate/

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Contributions beyond membership are suggested for these UPEC funds - (please indicate amount of donation)

- Environmental Education fund
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Check your newsletter's mailing label for your membership status. Phone and E-mail information is optional - UPEC does not share members' contact information with any other organizations. Thank You for your support!

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The Iron Endurance board is busy planning even more activities. Some things to look forward to:

- Possible Spring youth bike workshop for West Iron County students.
- Spring track club for Forest Park elementary and middle school students.
- Spring and/or Summer weekly bike rides for adults.
- Possible Spring and/or Summer kids and/or adult bike clinic.
- Summer fitness challenge for adults.
- Possible Summer diathlon and other events for kids and adults.
- Halloween Hustle in the Fall!

It feels a whole lot better when you are a part of something bigger than just yourself. When you have a team, a community of supporters encouraging you and celebrating your accomplishments. When your training and life stories are having a positive impact on someone else's life. When your financial contributions are helping to get young people involved in endurance sports. Iron Endurance can be that for you, for our youth, for the betterment of our county. We look forward to providing more opportunities for everyone to experience the joys and benefits of silent sports in our area. We would gra-

ciously accept any donation towards our mission. Please like us on Facebook for the most up to date information. You can also check out our website: ironendurance.weebly.com or contact Chandra Ziegler at 906-284-0633 or chandraziiegler@gmail.com with any questions. 🦋

Continued from page 9

port coastal resources including fish and wildlife species. By energizing our efforts with new collaboration of traditional and non-traditional conservation partners we could work toward shaping a coastal vision. A vision which encourages the next generations of Yoopers to take off their shoes and socks, stick their feet in the water, and connect with the Great Lakes.

Christie Deloria works for the U.S. Fish and Wildlife Service as the Great Lakes Coastal Program coordinator. The Coastal Program is a voluntary, partnership-based program that provides technical and financial assistance for fish and wildlife habitat conservation in coastal watersheds throughout the country. Learn more about the Great Lakes Coastal Program at: <https://www.fws.gov/midwest/es/coastal/index.html> 🦋



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