



QUARTERLY

THREE LAKES ASSOCIATION

SERVING LAKE BELLAIRE, CLAM LAKE AND TORCH LAKE IN ANTRIM COUNTY, MICHIGAN

JULY 2015

Cherry Street Intermediate (Kalkaska Public Schools) Lego Robotics Club 2014-2015 Summary

By Andrew McCarty,
Fourth Grade Teacher

Thanks to your grant funding, this year marks the inaugural year for our Lego Robotics Club. The goals for the club this year were simple:

- Work in collaborative teams to build different robotics using Lego's Mindstorms EV3 program.
- Use computer programming to get the robot to perform certain tasks.
- Use problem solving, communication skills, and teamwork!

MOST IMPORTANTLY, HAVE FUN!!!

I am happy to report that we met all of these goals! The foundation for our club has been established. By the end of the year, our "teams" worked together to complete the robot build. After completion of the robot, students experimented with controlling their robots using Bluetooth technology and iPhones and/or iPads. Using a controller application, students were able to drive the robots down the hallway, and perform tasks with the robots. Tasks included: turning, reversing, firing balls, and grabbing objects to move them.

Two additional highlights for this year's club included computer programming and "battling."

Programming

We were able to have a parent volunteer come in and teach our groups (and Mr. McCarty) about the basics of programming the robots. Each group successfully completed one program, getting their robot to do something that the program told it to. One example was a group programmed their robot to move five paces forward, turn to the right and fire three balls. It sounds simple, but this intricate programming took patience and hard work. We were very happy with our accomplishments in this area! The students really showed



persistence, dedication, and problem-solving skills during this time and I was very proud of them.

"Battling"

This was probably the most fun students had in the program. Upon completion of their robots, the groups were able to go head-to-head in competition against the fifth graders. The objective of the "battle" was to disable the other team's robot so it couldn't move. It might mean backing the opponent into a corner, or perhaps using a piece of your robot to tip the other team's robot over.

THANK YOU

Thank you again for your generous grant! With your help, our club has enriched the educational experiences of over 50 students. Our club has given students access to technology and skills that they will be using in their futures. The learning and fun that I witnessed throughout the year was truly a rewarding experience for me.

Sneak peek

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CAROL GRAY NORRIS FUND

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The mission of the Association is to provide leadership to preserve, protect, and improve the environmental quality of the Elk River Chain of Lakes Watershed for all generations with emphasis on Lake Bellaire, Clam Lake, Torch Lake and their tributaries.





THREE LAKES ASSOCIATION

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President's Message

Greetings to all,

Among the things I find most interesting about people is how they respond to the challenges of life. Some folks essentially roll over and play dead, with a plaintive "oh! Woe is me!" attitude. Others reach deep inside themselves for the extra strength needed to meet the challenge. Bob Oswald was one of those who find the inner courage to continue to strive in the face of adversity. Perusing Bob's life story as published in the Traverse City Record-Eagle of May 24, 2015, one's admiration must soar for his accomplishments and his life of dedication to scientific research. We, in the Three Lakes Association, knew Bob as a quiet, humble, and exceptionally capable research colleague. We also knew him as a man of courage who refused to allow health afflictions to direct his life, standing up to the challenges of his 2002 diagnosis of Parkinson's disease.

Bob joined the TLA board shortly after his 1996 retirement to northern Michigan.



When Jack Norris became president of TLA, Bob stepped forward to fill the Water Quality chair. Bob and Jack collaborated on many water quality projects in the ensuing years, in spite of the physical difficulties and health issues they both endured.

One of my favorite photos is of Bob and Jack, taking a rest and making notes on the shoreline survey work they had just completed, by canoe, along the south

shore of Clam Lake. The canoe they had been paddling is visible, as is the walker Jack needed for getting around. The two men were soldiering on, overcoming the challenges visited on them by Bob's Parkinson's and Jack's COPD and crippling leg injuries. Intense dedication to preserving the health of our waters, demonstrated again and again by men of such courage and determination, is an inspiration that guides me every time I encounter a tough obstacle – whether that obstacle be a physical barrier, or the bad temper of a person who doesn't want to be told not to do damage to our lakes, or the apathy of local officials who have failed to recognize the full value of our waters. The memory of such champions as Bob Oswald and his good friend, my father, Jack Norris, always straightens my back and gives me the courage to soldier on in this very worthwhile cause.

There's a lot going on, this summer, so please read all the information shared with you in this newsletter. And, if you are also inspired to be the kind of environmental champion Bob Oswald and Jack Norris both were, consider filling one of the vacancies we have on the Three Lakes Association board of directors. Do feel free to email us at info@3lakes.com, or visit our website (www.3lakes.com) and fill out the volunteer form. In fact, if there is any area of TLA activity that you are interested in, please fill out the volunteer form and submit it – we can always use your help.

Tina

TLA's 49th Annual Meeting

August 20, 2015

Summit Village Beach Club

5:00 PM Social Hour

6:00 PM Pot Luck Barbeque

7:00 PM Presentation

What is a CAKE? Why do we Care?

How can we help?

Presented by the Antrim Conservation District

Science Education Outreach Program 2014-15 Grants

Spotlight Students and Teachers in Six Area Schools

Last April, TLA awarded SEOP grants to six teachers; two from Bellaire Schools, one from Central Lake Schools and three from Kalkaska Schools. (See pg. 1 article in the July 2014 TLA Quarterly) When teachers apply for the SEOP grants, they pledge to report back to us at the end of the school year, telling us how they used and benefited from their grants. Here are some photos and statements captured from their responses.

Kim Clark, 7th grade science, Bellaire...

"The Camp Hayo-Went-Ha experience has been a wonderful Bellaire Middle School tradition for many years. While at camp, 7th graders participate in many confidence building activities like ...rock wall climbing and high ropes courses. They also learn first-hand about river and forest ecosystems, collect and identify aquatic organisms...etc. The students enjoy team-building activities, campfire stories, and time spent with counselors from a variety of countries....For several years, Three Lakes Association has provided a grant to offset the cost for Bellaire students. Without this financial support, the school would be unable to offset the cost...Without financial support, the school would be unable to provide this life-changing experience that so many of the youth continue to describe as their favorite and most significant activity in their middle school career," wrote Kim Clark.

Sue Mills, 4th grade, Bellaire

Mrs. Mills' 4th graders took two field trips this year paid for with an SEOP grant. "We took our first trip in October to Grass River Natural Area where we participated in four lessons aligned with our MI Science Core Curriculum. Your grant allowed the students to be divided into four smaller groups (we have 31 students) which helps the students stay more focused, provides them more time to use the hands-on materials for that lesson, and to work in closer proximity with the instructors. The students enjoyed their experience," wrote Mrs. Mills.



"On June 4th, John R. Rodger Elementary 4th graders boarded a bus at 6:45 a.m. to travel to Lansing. Our day included a trip to the Impression 5 Science Center, paid for by a grant from The Three Lakes Association and then a visit to the State Capitol, dinner in Ithaca and finally back to Bellaire at 9:40 p.m. Our visit to Impression 5 included time to experience the hands-on exhibits covering all

topics of science and three direct instruction classes chosen from the state 4th grade curriculum. We made slime (Chemistry), we made a slow-marble track (Force and Motion) and we built various projects using circuits. (Circuits)

"We thank the Three Lakes Association for the opportunity to experience this newly renovated, science museum. The students were able to combine their classroom knowledge with the hands-on activities to better understand our science goals for the year. The visit was a fun and interactive way to culminate our learning for the year."

"Comments from students: 'This is so cool.' 'I wish we could visit everyday.' 'I moved 500 lbs!' (using pulley system) 'I want to bring my parents here.' 'I loved the light room.' 'My favorite was building with the circuits.' 'I liked it ALL.' and many more."

Thank you, Sue Mills, Teacher, 4th grade."

Finally, Mrs. Mills and her students received a monthly magazine called Science Spin. The magazine, aligned to the MSCC, presented current topics centered around a scientific theme. Mrs. Mills stated that a parent told her her child shared information from the magazine during family dinner conversation!

Lisa Hoogerhyde, Central Lake

Lisa Hoogerhyde volunteered to organize an all elementary grades Family Science Night this spring and she applied for funding to cover the purchase of science materials for the event. Here are some snippets from her report. First is an invitation to the event. "Join us for an evening of experiments! Explore and discover the easiest way to move a heavy load, how to use wind power, what objects float, how to reduce the spread of germs, how to clean drinking water and what there is to know about static electricity."

"Volunteers manned twelve stations and families moved through the stations at their own pace allowing time for more investigation where interests were keener."



"Approximately 35 people attended the Family Science Night event held in the Central Lake Elementary Gymnasium. Stations ran smoothly and we received lots of positive feedback from both students and parents. The following day students talked to others that had not attended with great enthusiasm. We plan to continue this event in the future, possibly offering a STEM event."

Greg Beach, 2nd grade, Kalkaska

"Dear Three Lakes Association,

The 100 plus 2nd grade students here at Birch Street Elementary would like to thank you for the great learning opportunity you



made possible for us. The children had an amazing time learning about the water cycle and watersheds, as well as how they effect our ecosystem, health, and quality of life. This opportunity would not have been possible without your support.

Thank you, From the entire Birch Street Teaching Staff and the Second Grade Student Body"

Andrew McCarty, 4th grade, Kalkaska

Please read Mr. McCarty's report printed in full in this issue. You don't want to miss it!

Matt Lonn, 12th grade AP Biology

Matt Lonn was hired in early fall to replace Lisa Savalli, the teacher who applied for this grant, when Lisa took a job with another district. Matt and I communicated in the fall and here is his response to the SEOP grant of five compound lighted microscopes, each with an oil immersion lens.

"Our students at Kalkaska have used the microscopes that came from the grant money in a variety of ways. Various biology classes have looked at prepared slides for everything from plants to their own unique findings from field observations. We have looked at soil samples at the ecological level for signs of micro and macroscopic life."



We have also had the opportunity to use the scopes for our forensics classes here at the school and we have used the scopes for hair samples, soil samples, and even some prepared blood samples. We are all very grateful for the contributions made that have allowed both staff and students the opportunity to broaden our horizons scientifically. Thank you."

TLA also received thank you notes from Dale Kasza, Kalkaska High School principal; Jeffery DiRosa, Mancelona superintendent; Ben Williams, Central Lake superintendent; Michelle Derenzy, Central Lake High School principal and Kristi Poel, John R. Rodgers Elementary principal in Bellaire.

And thank all of you who have contributed to the continuing success of the SEOP.

The Decision

By Ann Roscoe
featured in the *Loon Echo's*, Nov. 1997

The decision was made Tuesday, July 15, 1997 at 7:30 am.

Loon eggs usually hatch within 24 hours of one another, and it was 47 hours since the first chick hatched. One adult had spent the two nights sitting on the unhatched egg with the first chick, while the second adult stood guard as usual.

Since 6 am, there had been much vocal communication between the adults while they took turns checking the nest every 10 - 15 minutes. The tremolos, wilds and hoots ceased after one last trip to the nest by both adults and the family of three moved silently down the lake, fishing and feeding the young one as they departed, and leaving the unhatched egg in the nest.

A Great Blue Heron fished in the area from 7:45 to 8:15 am. It was the first time in a month he had not been chased with a yodel by the protective male loon. Nine o'clock saw a Red-Breasted Merganser with none ducklings fishing and playing within feet of the loons' abandoned nest.

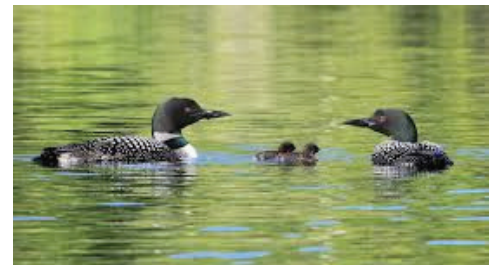
I paddled out with a pair of binoculars at 9:30

am, curious as to the fate of the second egg. I was very surprised to see a little black ball of fluff with bright eyes looking back at me.

Back on shore, I stood guard; I could hear the new chick calling in a very soft but distinct tremolo. I watch as it ventured onto the water at 10:30 am. By 1 pm, the chick's cry seemed to be much weaker, and I was becoming concerned as to the future of this apparently healthy, but abandoned, baby loon.

At 2:30 pm, I was in the water working on the dock when the chick ventured across the open area to me. I do not believe in interfering with nature, so I swam to deeper water. It swam much faster than I and easily caught up with me and climbed on my shoulder to nestle against my neck with eyes closed. I picked it up and placed it on the warm mud near the nest.

After a phone call to Bird Studies Canada in Port Rowan and a long talk with biologist on charge of the Canadian Lakes Loon Survey, it was decided that I should try to place the baby with its family if I could locate them. (Not an easy task without a motor boat.) At 4:45 pm, the chick returned to the water and swam straight to our dock. It was responding to my voice, even "running on the water" to follow me - but



I did not want to be a surrogate mother to this beautiful, wild creature.

My neighbors came to my rescue with a small motor boat. The two adult loons with one baby were located on the lake. The chick was scooped up in a pan of water and released near the family, but it wanted to return to the boat with "mother." On the second attempt, we were able to get further from the baby. The loon family simply changed course, and an adult pushed our chick in line with the first chick. The chicks were playing when we left the scene - our hearts swollen with elation!

Mother, dad and two baby loons have been seen many times on the lake since "The Decision."

Editors Note: How lucky we are to have such a loon presence in our chain. TLA commends the work done by the Loon Network under the direction of Peg Comfort and their strong group of volunteers.

Boating 101

No matter how much experience you have, it's always a good idea to review boating safety rules before departures. Familiarize yourself with these 10 basic boating safety tips:

Be Weather-Wise

Always check local weather conditions for boating safety before departure. If you notice darkening clouds; volatile or rough, changing winds; or sudden drops in temperature, play it safe by getting off the water.

Follow a Pre-Departure Checklist

Proper boating safety means being prepared for any possibility on the water. From compliance with fire safety regulations to tips for fueling up, following a pre-departure checklist is the best way to make sure no boating safety rules or precautions have been forgotten. Learn more.

Use Common Sense

One of the most important parts of boating safety is to use your common sense. This means always operating at a safe speed, especially in crowded areas. Be alert at all times, and steer clear of large vessels and watercraft that can be restricted in their ability to stop or turn. Also respect buoys and other navigational aids, all of which have been placed there for one reason only - to ensure your safety.

Designate an Assistant Skipper

Make sure more than one person on board is familiar with all aspects of your boat's handling, operations, features and safety tips. If the primary navigator is injured or incapacitated in any way, it's important to make sure someone else can follow the proper boating rules to get everyone back to shore.

Develop a Float Plan

Whether you choose to inform a family member or the staff at your local marina, always be sure someone else knows your float plan: where you're going and how long you're going to be gone. Read more about Float Plans.

Make Proper Use of Life

Jackets

Did you know that the majority of people who have drowned in boating accidents were not wearing life jackets? Make sure your family and friends stay safe by assigning and fitting each person onboard with a life jacket prior to departure. Read more about lifejackets and PFDs.

Avoid Alcohol

Boat safely at all times by saving the alcohol for later. The probability of being involved in a boating accident doubles when alcohol is involved, and studies have shown that the effect of alcohol is exacerbated by external factors such as sun and wind.



Learn to Swim

If you're going to be in and around the water, proper boating safety means knowing how to swim. Local organizations such as the American Red Cross offer training for all ages and abilities. Check to see what classes are offered in your area.

Take a Boating Course

Both beginning and experienced boaters need to be familiar with boating safety rules. Boater education requirements vary by state; some require validated completion of at least one boating safety course. Regardless of your state's requirements, it's always important to be educated, aware and prepared for every circumstance that might arise. You can learn boating safety rules by taking a local community course, or there are online tutorials to help educate novice boaters.

Consider a Free Vessel Safety Check

Take advantage of a free vessel safety check from the Antrim County Sheriff's Recreation Division. They offer complimentary boat examinations to verify the presence and condition of certain safety equipment required by state and federal regulations. They'll provide helpful boating safety tips and recommendations and give you a compliance sticker.

Content courtesy of www.DiscoverBoating.com

TCE plume in Antrim County: GOOD NEWS, construction funded

By Dean Branson, Gary Knapp, and Steve Grill

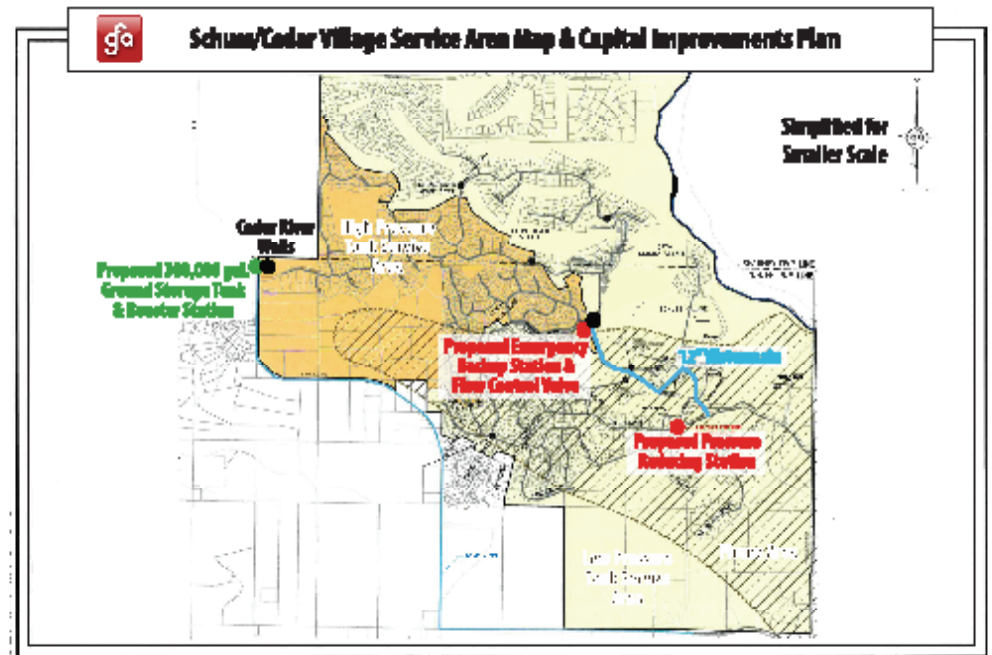
On May 14, 2015, Antrim County Commissioners voted 6 to 3 to approve a contract with the area public water authority to install TCE plume-related improvements in the public drinking water system to prevent contamination. This was a major turning point in a year-long process of advocating for \$250,000 in prerequisite matching funds from the community in order to obtain more than \$750,000 from Michigan's Department of Environmental Quality (DEQ) to fund these needed improvements.

With a small grant from Freshwater Future for administrative assistance and some financial assistance from local property owners associations for legal help, Three Lakes Association (TLA) coordinated the strategic actions for this successful advocacy under the auspices of ACUTE (Antrim County United Through Ecology). ACUTE is an informal, ad hoc group of many community stakeholder organizations. The next meeting of ACUTE is scheduled for June 26, 2015, 11 to 12:30, at Cedar River Village Lodge.

This is one of the largest groundwater plumes of trichloroethylene (TCE) in the country. In addition to threatening public health, this plume continues to have a regional economic impact primarily due to uncertainty associated with access to clean drinking water in the affected area. The funded solution to this problem is to upgrade the Mancelona Area Water & Sewer Authority's (MAWSA) network of well fields and water mains so properties in the affected areas will have reliable access to clean drinking water...now and in the future. These funds will pay for the installation of a new water storage tank, the installation of a pressure booster station, and a connecting water main to supply an adequate volume of clean water. The map shows the location of the TCE plume, and Cedar River Well Field, and MAWSA's service area.

Approximately 1,500 properties are currently in MAWSA's service area. The residents in this area receive their drinking water from this public

system. An additional 500 parcels in this very scenic area of Michigan are vacant and are near great golfing, good skiing, and good fishing. Without these improvements, future access to safe drinking water could not be assured, which stigmatized property values and business growth. With



this funding in place, the property values and business prospects in this area are encouraging.

The cost estimates for these improvements were based on a preliminary engineering study that was paid for with a special appropriation jointly supported by the House's and Senate's DEQ Committees in 2012. The study developed options for solutions to this TCE plume, which continues to migrate at about 400 feet per year directly toward a well field that supplies water to this utility. For more information, please check out the TLA's website: www.3lakes.com under the category, "TCE plume: ACUTE".

New Boater Safety Inspection Program

By Art Hoadley

Sheriff Dan Bean and Under Sheriff Dean Pratt started working on a boat inspection/sticker program last fall. In early June, Scott Boni, the new Recreation Officer for Antrim County, announced that the Antrim County Marine Patrol will be offering a new Marine Vessel Safety Inspection program that is being facilitated in conjunction with the Michigan Sheriff Association.

In summary, the program will involve a voluntary boat inspection. This inspection

can be at an inspection site at a time set up by the marine patrol or by asking one of the patrol boat crews to perform the inspection on a time permitting basis. The inspection will follow a checklist designed for both large and small vessels for use on both Lake Michigan and inland lakes. The inspected boat will only be inspected for those items required for its size and use. The inspecting officer will review any discrepancies and also review common reasons for marine patrol stops. Upon a successful completion of the inspection, the boat will be issued stickers,

which will be recognized in many Michigan counties. The inspected boat will still be stopped if marine laws are being violated but not for a full inspection. Follow the rules and the marine patrol will just wave when they see you this summer.

Remember that the purpose of this program is safety and education. When you get your sticker, you know not only that the boat is up to standards but you will also be better informed on the rules of the water. It is your choice as this is entirely voluntary.

TLA Looks To The Future... TLA SEOP Awards for 2015-16

The Science Education Outreach Program (SEOP) is a grant program developed by Three Lakes Association to build relationships with area schools in order to help educate the future stewards of our lands and lakes. It began in 2007 and has awarded grants totaling over \$62,000.

Now in our eighth year, TLA is able to provide grants to area teachers and their students. Thanks to a generous TLA membership over the years and recently supplemented by matching funds given by Gordy Schaefer of Torch Lake Dockside, SEOP continues to work with science teachers and students in Bellaire, Central Lake, Kalkaska and Mancelona, the districts that border our three lakes. The SEOP grants provide materials, equipment and experiences that

enhance the science curriculum but are not within the districts' budgets.

Prior to the 2013-14 academic year, contributions from the annual TLA/GRNA Golf Event and from TLA members enabled SEOP to award over \$50,000. In 2013, Gordy Schaefer came to TLA with an offer of \$9000 over three years to stimulate a matching donations campaign. In the first two years of the campaign, donors have exceeded the match so that we are currently working on the third year match. Approximately \$6000 has been awarded each of the last two years. After next year, TLA will need another vehicle for raising SEOP funds. To that end TLA is sponsoring Water Awareness Day at the Alden Depot on July 25 to raise funds for SEOP. TLA is hopeful that this annual activity coupled with

individual donations from members will fund the program in the future.

This year the applications came from all four of our districts; 2 from Bellaire Schools, 3 from Central Lake Schools, 2 from Kalkaska Schools and 2 from Mancelona Schools. Their requests totaled \$9131.66. The SEOP grant committee recommended awards totaling \$6213.

Of the teachers' 21 requests, four are environmental field trips, one is an opportunity to bring in a representative from the Jordan River Fish Hatchery to spend a half day in the classroom, and 11 include macro-invertebrates study, river and forest ecosystems study, watershed, water quality and aquatic habitat study, and pollution, greenhouse effects and global warming study. The remaining requests fall in the area of earth science.

2015-16 SEOP Recipients and Grants

Bellaire Public Schools		
Kim Clark, Biology II	\$200	Field Trip to Fox River and Whitfish Point
Sue Mills, 4th grade	\$525	Snap Circuits Jr. Kit for Electricity Unit
	\$240	Field Trip entrance fees for Grass River Natural Area and Impression Five Museum
	\$180	Delta Science Readers, Electricity & Magnetism
Central Lake Public Schools		
Kari Groll, Kindergarten	\$ 37	Magnets Kit
	\$ 44	Book, Bringing the Rains to Kapiti Plains
	\$ 41	Inflatable Astor View 24-inch Globe
Sally Kinery, 6&7 science	\$1,023	6 Wolfe Introductory cordless microscopes
	\$123	Plants & Animals Elementary Slide Sets
Dino Pizzino, 8-12 science	\$908	ELMO TT-12iD Interactive Document Camera
Kalkaska Public Schools		
Greg Beach, 2nd grade	\$934	Entrance fees for Au Sable Institute Watershed Study
Paul Guy, 6th gr. science	\$300	1/2 Day Visit from East Jordan Fish Hatchery Biologist
Mancelona Public Schools		
Jenny Angell, Biology	\$210	55 Gallon Aquarium
	\$ 80	Aquarium Filter System & Filters
	\$500	Aquarium Chiller (These items are for the Michigan DNR Salmon in the Classroom program)
Michelle Schuette, 9-12 earth science, chemistry	\$568	Equipment to Study Environmental Impacts, including 2 Soil Contamination Forensic Kits, 1 Solar Oven, 3 Effects of Chemical and Thermal Pollution Lab Kits, 1 Greenhouse Effect and Global Warming Lab Kit and 1 Enviro-Bond Oil Spill Clean-up Demo Kit

If you would like to donate to SEOP for the first time or again, please send a check to TLA and earmark it for SEOP. Thank you.

New Members

Barbara Cribar
Tom and Kristy Meyer
John Sala



Paddle Antrim Festival

Paddle Antrim is looking for safety boats and other volunteers for their Paddle Antrim Festival event September 18 & 19 as they host a non-competitive kayak paddle through the Chain of Lakes from Ellsworth to Elk Rapids. If your interested, please contact Deana Jerdee at deana@paddleantrim.com or 231-492-0171. More information on the event can be found at www.paddleantrim.com.

The Carol Gray Norris Fund Continues to Fill Needs

Three Lakes Association called upon the resources of the Carol Gray Norris (CGN) Fund twice in the past year to aid three teachers' classes to fill special needs. The fund was set up by the Norris family to honor their mother and grandmother by putting donations to the fund to good use for students in area schools.

This year, Kim Clark, the Bellaire High School advanced biology teacher, applied to TLA for \$200 to help fund a cross curriculum field trip in the Upper Peninsula. Kim has twice now joined forces with the BHS English teacher to give their students a new perspective on the relationship between the arts and sciences, while learning through the writings of Ernest Hemingway and doing aquatic research.

Here is how Kim explains the experience...

"The Three Lakes Association provided grants for the Bio II overnight field trip to the Fox River and Whitefish Point where, after reading "The Big Two-Hearted River" by Hemingway, the students conduct aquatic inquiries in the Fox River where Hemingway fished for trout, and communed with nature after his war experience. The results from their investigations are compared to earlier data collected from the Intermediate River. During the field trip, students also visit the U of M Biological Station in Pellston to learn about world-class research, as well as the Whitefish Point Bird Observatory where they observe researchers netting and banding owls during the night. They stay in the Coast

Guard Building, which has been turned into a bed and breakfast. Other stops along the way include McGulpin Point Lighthouse and Tahquamenon Falls. It is difficult to wipe the smile off the faces of these young biologists as they tromp through the river, lay eyes on the tiny saw-whet owl, and sit on the shore of Lake Superior watching the sun set. The hope is that these experiences will encourage an intrinsic appreciation for nature, fostering good stewardship of the environment."

Two teachers at Central Lake Schools are teaching 6-8 grade science for the first time this year. Both discovered early in the year that their texts are aging and do not meet Michigan Core Curriculum Science Standards among other science standards. They each researched how to provide their students with current materials without replacing textbooks and discovered independently of each other that classroom subscriptions to Scholastic Science World Magazine "include lesson plans with connections to all the major standards being used across the country (National Science Education Standards, Next Generation Science Standards) and Michigan Core Curriculum Science Standards and (also includes) supplemental material to ensure that students are making the proper connections..." stated Dino Pizzino, 8th grade and high school science teacher. He continues, "The magazine will be vital in connecting the students to the recent findings in the science world. It will also be a helpful tool for making connections between

the content they are learning in the classroom and real-world applications such as new findings and research, jobs related to science and enjoyable activities to incorporate current events."

Scholastic science magazines are reusable another year or more and will provide students for the next few years with the required science education and the science education we want them to have.

The CGN Fund is not a large line item in the TLA budget. The TLA board and the Norris family are discriminating regarding its use. The needs it filled this year were worthy and necessary. If you would like to contribute to this fund, please send a check to TLA earmarking for CGN.

You are invited...
Got Fish? 2
Tuesday, August 11, 2015 - 5 p.m.
Alden Depot Park, Alden
FREE Admission, open to the public
Wine & Hors d'oeuvres following the program
Get the latest news on all things FISH in the Antrim County Chain of Lakes:
• Michigan DNR Fish Stocking
• World Record Muskie! Joe Seeberger describes his record catch on Lake Bellaire
• Update on Relict Trout in Elk Lake
• Fish Shelter Project - now and the future
Sponsored by Grass River Natural Area, Three Lakes Association, Torch Lake Protection Alliance, Friends of Clam Lake and Intermediate Lake Association. In partnership with Antrim Conservation District, and Tip of the Mitt Watershed Council.

- Membership counts! -

BASIC \$50 ☐ **DONOR \$100** ☐ **STEWARD \$500** ☐ **BENEFACTOR \$1,000** ☐ **LIFE \$2,000** ☐

Michigan Riparian Magazine Subscription add \$15 ☐

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| <input type="checkbox"/> Water Quality | <input type="checkbox"/> HS Intern Program |
| <input type="checkbox"/> Water Safety | <input type="checkbox"/> Education |
| <input type="checkbox"/> Invasive Species | <input type="checkbox"/> Membership |
| <input type="checkbox"/> Finance | <input type="checkbox"/> Public Relations |
| <input type="checkbox"/> Service | <input type="checkbox"/> Other |

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To join Three Lakes Association,
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