Treaty Natural Resource Division

Red Cliff Band of Lake Superior Chippewa

Volume 3, Issue 3 Fall 2014

Ganawenjigaade

It is taken care of, protected...We take care of, protect, keep it

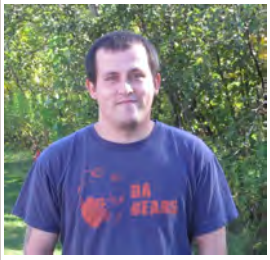
Employee of the Month

An office is only as good as its staff. And we here at the Treaty Natural Resource Division we think we have some of the best. The following team members were nominated for Employee of the Month in the last three months by their fellow co-workers. By: Chad Abel

July Employee of the Month – Bryan Bainbridge, Fisheries Leader
Bryan was elected Red Cliff Vice Chairman in July after 15 years with the Fisheries Department. In honor of his service and contributions, he was nominated for Employee of the Month in July, just days before the swearing in. Congratulations Bryan! Everyone in this office has benefited from the knowledge and training you shared.

August Employee of the Month – Ed Boyd Jr., Invasive Species Specialist
Mr. Dependable, Ed has worked seasonal positions out of the hatchery office for 3 straight summers. He is a hard worker with a lot to offer because of his unique and varied skillset. In addition to his work controlling and mapping weeds on the reservation, he has also stepped up huge in helping to build the trail system for Frog Bay Tribal National Park. Thank you Ed for your commitment!

September Employee of the Month – Jeremy St. Arnold, Assistant Biologist
Jeremy has only been part of our crew since early summer, yet he has already been nominated for Employee of the Month. Jeremy is a positive person who seems really excited to be working for Red Cliff. He has spent his first few months managing existing projects and dreaming up new wildlife and forestry projects, seemingly on a daily basis. Welcome Jeremy! We hope you will be part of our team for years to come.



New Employee Jeremy St. Arnold Assistant Biologist of Wildlife and Forestry

Jeremy St. Arnold was hired in May and will serve as the new Assistant Biologist of Wildlife and Forestry, taking over for Todd Norwood. Jeremy will be continuing the research on the American Marten, collecting Ash seeds for long term storage in response to Emerald Ash Borer in nearby counties, as well as helping out with various other projects within the division. Jeremy attended the University of Wisconsin-Stevens Point and has bachelor's degrees in biology and wildlife ecology with a focus on research and management.

Jeremy was originally from Washburn and has recently moved back with his wife Briana, and sons Greyson (5) and Tristan (1). Jeremy is also a member of the Wisconsin Army National Guard and drills out of Marshfield, Wisconsin. He is a sergeant with the position of ammunition team chief in a howitzer section and will conclude his military service in February. In his free time Jeremy enjoys spending time with his family, hunting, fishing, and watching/playing sports. If you have any questions or comments about wildlife/forestry work being done by the TNR Division, reach out to him at: 715-779-3795

New Employee Beth Raboin Sustainability Coordinator

Hello everyone. My name is Beth Raboin. I was hired in August as the Environmental Department's Sustainability Coordinator. Before coming to Red Cliff, I grew up in Fond du Lac, Wisconsin, attended school for Environmental Studies at the University of Montana, ranched in Montana, taught a wildlife field techniques course at Northland, and worked on several area farms. I am happy to have landed here, and grateful to have found a place where I can work alongside creative and inspired folks.

You might have seen me around, as I am busy coordinating with the ECC, the youth center, the community farm, and beyond. If we have yet to meet, chances are you have or will soon run across one of my surveys. The surveys help insure that I am focusing on the community's interests and needs, so thank you to everyone who has participated, and please keep sharing your thoughts. To me, sustainability means a resilient community made of healthy people living in balanced relation to the environment. I am excited to work with you to encourage sustainability in Red Cliff. If you have any questions, comments, or ideas to share, please feel free to be in touch at 715-779-3650.

New Employee Zach Peterson Conservation Warden

Zach Peterson began in September and will be serving as a conservation warden with an emphasis on commercial fishery enforcement. Zach grew up in the Bayfield area and has deep roots in the commercial fishing industry. As a youngster, Zach spent countless hours working on fish tugs with his Grandfather Martin Peterson, Father Marty and Uncle Eric Peterson. After completing high school, Zach attended Vermilion Community College in Ely, MN and is a recent graduate of WITC-Police Recruit Training in Rice Lake. In his free time Zach enjoys hunting, fishing, snowmobiling and being outdoors. If you would like to contact Zach he can be reached at the Red Cliff Wardens Office at 715-779-3732.

Red Cliff Natural Resource Programs, Past and Present

By: Chad Abel


Photo By: Linda Nguyen

The Red Cliff Band of Lake Superior Chippewa was one of the first tribal nations in the United States to develop a formal Natural Resource program. Court decisions which affirmed the Tribe's rights to commercial fishing activities in Lake Superior created a necessity in the early 1980's for Red Cliff to establish a program that oversaw fishing activities. Treaty harvest in the ceded territories was thus the impetus for Natural Resource program development and it remains the foundation of program activities to this day.

Continuing the lead as a tribal innovator in Natural Resource management, Red Cliff was one of the first tribal nations to establish a hatchery in 1987. Treaty harvest and hatchery management activities therefore became the building blocks of what is today called the Treaty Natural Resource Division. The Division is a fully formed natural resource entity with programs in Water Resources, Air Quality, Conservation Enforcement, Forestry, Wildlife, Fisheries, Solid Waste Management, Climate Change, Sustainability, and Hatchery Operations.

Most recently, three elements of the Division have received considerable media attention and awareness by the public in general. The first is commonly known as the "barrels project". For ten years, Red Cliff has maintained a committee that has been actively pursuing the removal of approximately 1,400 barrels dumped in Lake Superior by the Department of Defense in 1959—1962. After years of planning and government coordination, the first retrieval of these barrels successfully occurred in 2012. The Tribe is currently pursuing additional barrel retrieval and clean-up efforts.

With the distinction as the first tribal national park in the nation, Frog Bay Tribal National Park opened with considerable acclaim in 2012. Trail building and other infrastructure needs are scheduled for completion in the fall of 2014. Everyone is welcome to come and explore the trails in this quiet wilderness setting.

Finally, considerable statewide attention has been devoted to GTAC's open pit mine proposal in the Penokee Mountains. GTAC is attempting to acquire the necessary permits to mine the headwaters of the Bad River for low grade iron ore, just 25 miles from the Red Cliff reservation. With the amount of sulfide rock present in the Tyler Formation of the bedrock, widespread environmental destruction of the Bad River watershed and coastal Lake Superior around Chequamegon Bay would be catastrophic.

The Red Cliff Tribal Council has stood strong with the Bad River Band of Lake Superior Chippewa and other Midwest Chippewa Bands in their opposition to the GTAC mine. Investigation and permit reviews are coordinated through Red Cliff's Mining Resource Specialist and Mining Task Force.

Closing Thoughts From Treaty Natural Resources Summer 2014 Interns

"My name is Mikayla Topping-Defoe. I'm 15 years old and I'm from Red Cliff, WI. My job is the Summer Youth Internship. It's the last week of the job, and I'm really going to miss it here. At first I didn't think this job was really for me, but when the weeks passed this job was probably the best decision I've made. All the things we've done were really fun! We went to Ashland to the Visitor Center and met some really cool groups of kids. We went with Mark Duffy to learn about Purple Loosestrife and keep track of where they so they can spray them. We even got to try to catch a dog, but we didn't. I highly recommend this job to the kids who need summer jobs throughout the years. You'll regret not signing up for it, I'm glad I signed up for this job!"

-Mikayla

Top Left: Mikalya at the peak of summer.

Left: Mikalya and Dalton help the water resources program plant native perennials at the casino's new storm water runoff ponds. The perennials will help filter pollutants out of water that enters the pond on its way to Lake Superior.

Below: Dalton enjoys a day clipping fins. The fisheries department clips fins in the hatchery before stocking local waterways as a way to identify and track the fish upon recapture.

"Hi. My name is Dalton Gordon and I wrote this on my last day as an intern at the hatchery. My funnest thing I like to do here is to be outside and do stuff with the guys. They are fun to hang with. The things I don't like -well I don't hate anything here besides clipping fins. Now that's a different story. I don't hate it. I dislike it. It hurts my back. My hands get cold and you have to do it for hours. It's bad. But I like to touch fish. It's cool. I like this job and I hope I can get it next year."

-Dalton

Treaty Natural Resources Division 2014 Open House

The skinny.....

Another year and another successful open house for the Treaty Natural Resources Division (TNRD).

This year we kept the activities outside of the building due to the construction of the fish hatchery recirculating aquaculture system currently being installed.

It was an extremely successful year in terms of people attending the event. We had a record 187 individuals at the open house, which is 50 more people than last year.

The TNRD would like to thank the Pow Wow Committee, and ECC for lending us the tents, tables, and chairs for our guests. A big thank you goes out to Joey Duffy for cooking all the Whitefish for our guests.

Behind the Scenes.....

This event would not be possible without the support of the TNR Division staff, local businesses for donating and also the community support that we have received the last few years while hosting our open house.

We hope to continue the success and keep expanding the ideas and activities that are provided. Let's see if we can get to 200 or more people next year. Bring a friend.

By: Michael Defoe

The Treaty Natural Resources Division would like to thank the following businesses for their contributions to the 2014 Open House

Trek and Trail

Legendary Waters Resort and Casino

Green Bay Packers

Living Adventure

Northern Aquaculture Demonstration Facility

Hauser's Superior View Farm

Maggie's Restaurant

Keeper of the Light

Sports Stuff

Buffalo Bay Store

Pro Lube Center

Bayfield Lumber

Petersons Foods

Fat Radish

Egg Toss

Ashland AG

Moore's Army n Navy

Bayfield Inn

Radio Shack

Ashland Family Restaurant

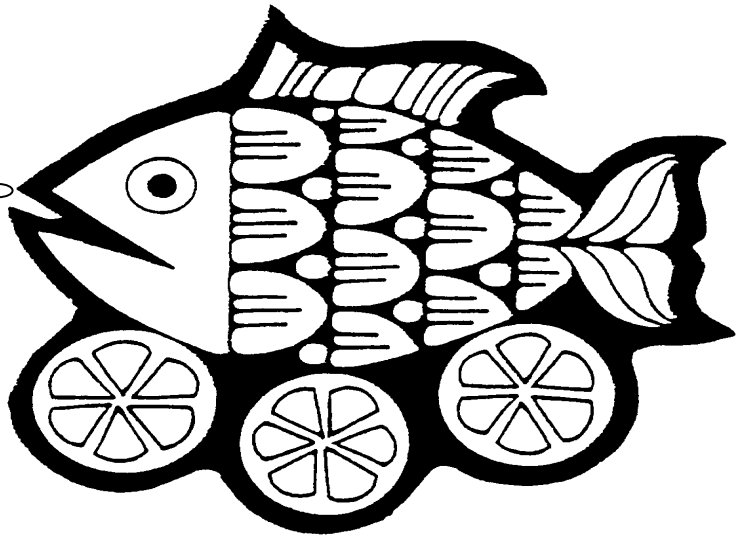
Frankie's Pizza

Deep Water Grill

Little Caesars Pizza

Michael Defoe

THANK YOU!



Invasive Plants Control Efforts

By: Ed Boyd Jr.

As we are nearing the end of the plant growing season for 2014 our crew did some real good damage to some of the priority invasive plants we have growing here on our homeland. We still have some issues that need to be resolved but infestations of Spotted Knapweed, Japanese Knotweed, Giant Knotweed, Canada Thistle, Bull Thistle, Sweet Clover, Common Tansy, Purple Loosestrife, and Leafy Spurge really took a big hit this past summer. The methods we used this season was hand pulling, mowing with weed trimmers, & spraying herbicide Milestone and Escort to kill or eliminate the range of the invasive plants from spreading like wild fire throughout our beautiful landscape. These plants are not popular in the U.S. because they drown out soil nutrients and water that take away from our native plants to succeed. Besides these plants there are many more that are prohibited or restricted in the state of Wisconsin which we should keep an eye out for.

The other technician that helped warp these plants was Josh Lafernier. Josh is quite the character that works hard, has many bright ideas, and showed why he was an really asset to our tribe, so thanks Josh for stepping right in and helping with the control efforts of these ugly weeds.

The biggest issue we now have to resolve within the boundaries of Red Cliff is the Common Tansy which a brief description is that it has flat topped clusters of bright yellow flowers, the leaves are strongly aromatic when crushed, and is a herbaceous perennial that grows 2-5' tall. The areas we worked on the most that were of significant importance to our tribe were the new powwow grounds, Veteran's Park on Hwy 13, youth ball field, Red Cliff fish dock, Frog Bay Tribal National Park, Raspberry Campground, Tribal Office Grounds, and Legendary Waters Casino/Marina.

So we have all invasive plants considerably under control located on the Red Cliff Reservation, and it was a lot of man hours to get a handle on this situation. I would like to say thanks to the Red Cliff Tribe and the Wisconsin Tribal Conservation Advisory Council (WTCAC) Inc. for the opportunity to take care of such hideous weeds. If you find invasive plants growing near you don't hesitate to call 715-779-3795 and ask for the weed destroyers Mr. Josh L. or Mr. Ed B. Enjoy the winter season because I know the plants won't.

Top Right: Josh using a backpack sprayer to apply herbicides.
Top Left: Common Tansy
Lower Left: Ed spraying by the fish dock.

Lake Superior Barrels Project

With the changing of the leaves and cooler temperatures, comes the Fall Newsletter. In the late 50's and early 60's, 1437 barrels that contained military munitions (Bomb Live Unit-4 ejector cups) and production line debris were produced by Honeywell Inc.. Honeywell Inc. was contracted by the U.S. Army to build these classified munitions at the Twin Cities Army Ammunition Plant. Honeywell then disposed of these by dumping barrels off the shores of Duluth in Lake Superior. Reasons for dumping included:

"...most economical and so the Russians did not get their hands on classified munitions," according to documents

Currently with the NALEMP (Native American Land Environmental Mitigation Program) Barrels Project, we have submitted the draft Investigation Report to United States Army Corp of Engineers for review. The review process includes the following documents: Feasibility Study, Human Health and Ecological Risk Assessment. These reports will help determine if more testing needs to be done, or, if the barrels pose no threat to environment or human health. We would also like to reach our previous goal of 70 barrels and get the explosive components tested in the near future.

Also, we have sent out Request For Proposal's to Environmental Companies that specialize in Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) commonly known as Superfund. This next phase for our contractor when hired, will be to incorporate these comments from the Army Corp into the Investigation Report, which will then follow into the Summary Report. The Summary Report will determine where we go from here.

For more information or questions you might have, please contact: Gary Defoe Jr. at the tribal EPA office, 715-779-3650 or by email: gary.defoejr@redcliff-nsn.gov. MIIGWECH!

Red Cliff Fish Hatchery

Pictured above Tank of Coaster Brook Trout about to be stocked at the Marina.

Pictured below are yearlings coming out of the stocking tank at the "Old Dock"

Pictured below right is of the stocking crew releasing a group of coaster brook trout.

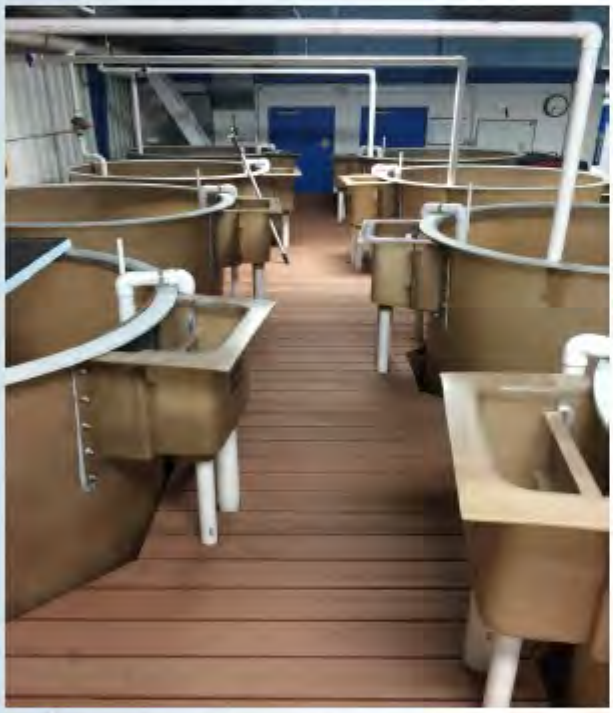
K T M D B M R A R N X Z H H G
R J I W N W X E E A X J R J F
V E N B J O W V T Y S C Z D O
W S T F Z O K Z L V H N R T G
U X I L T X E Y I Q U A D I D
U Z N O I M U T F Z I Y K N D
K S H P H F V W O N J J M C K
Q L T Y U S M N I P M U S V C
P O R P O M I U B L N J I P Y
R J O M H K P F R X N G P N Q
N C U E E L B S L D T A N K S
H U T D C Y A B T C P N B E P
G T Q T I L F J R Z W W C A G
N C R P Z L O L W N E B W L H
S K T S K Q P I Z N W N D G I

DRAIN
LHOTOWER
SUMP
BIOFILTER
FISH
PVC
TROUT
DRUMFILTER
PUMPS
TANKS

Current Hatchery Updates/ Highlights / News

- ◊ Hatching of Walleye
- ◊ Feeding and monitoring of Walleye
- ◊ Annual Hatchery Open House
- ◊ Releasing tanks of 2013 Coaster Brook Trout

Pictured above is a picture of the old flow through system that has been replaced by the new Recirculating system.



- ◊ Distributing Coaster Brook Trout to various organizations/people
- ◊ Finish decking surrounding RAS
- ◊ Remove old tanks from building
- ◊ Helping in other various projects within the department

Pictured above is one of the final pieces of the RAS system being put in place (tank decking).

Solutions to Crossword

+	+	+	+	+	+	+	R	+	+	+	+	+	+
R	+	+	+	+	+	+	E	E	+	+	+	+	+
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+	+	+	L	T	+	+	+	I	+	+	A	+	+
+	+	+	O	I	+	+	+	F	+	I	+	+	+
+	+	H	P	H	F	+	+	O	N	+	+	+	C
+	L	T	+	U	S	M	+	I	P	M	U	S	V
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+	+	O	+	+	+	P	F	R	+	+	+	+	+
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Any Questions or comments please feel free to contact the fish hatchery

(715)779-3595 or (715)779-3750

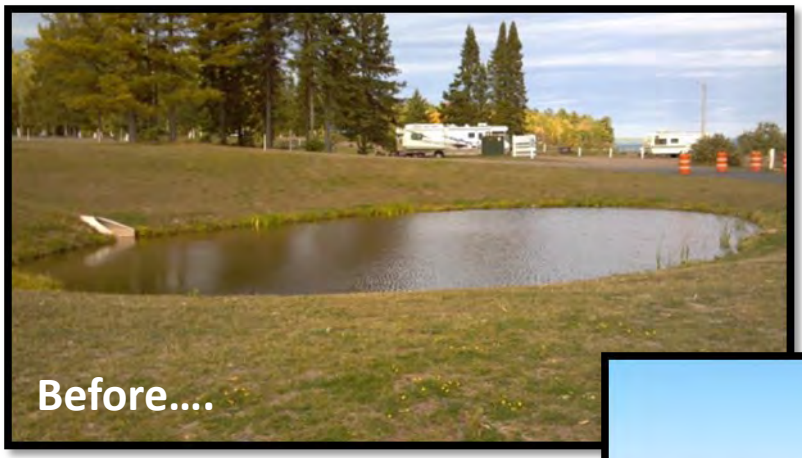
chase.meierotto@redcliff-nsn.gov

Casino Retention Pond Project

By: Linda Nguyen

If you've passed by the Legendary Waters Casino lately, you may have seen changes to the ponds on the east and west side of the building (photos 1-4). The Red Cliff Water Resources Program staff received Clean Water Act funds to repair and restore the ponds. Wetlands and retention ponds help filtrate rain and impervious surface run-off before the water goes into a river, lake or stream – in this case, Lake Superior. These systems also slow the flow of water entering into waterways; this reduces sediment deposits that can negatively impact fish and wildlife habitat.

Arum-leaf Arrowhead	Canada Wild Rye
Sweet Flag	Indiangrass
Bottlebrush Sedge	Bluejoint
Catepillar Sedge	Switchgrass
Fox Sedge	Big Bluestem
Woolgrass	American Hazelnut
Green Bulrush	Snowberry
Highbush Cranberry	Smooth Juneberry
New England Aster	Running Serviceberry
Flat-Topped Aster	Purple Coneflower
Chokeberry	Wild Bergamot
Marsh Milkweed	Brown-Eyed Susan



Over 3,000 plants were put in the ground! These species are *perennials* and will keep coming back year after year to ensure water quality. Here are some photos that show before and after project implementation.

CASINO RETENTION PROJECT

Chi miigwech to all the volunteers that have helped over the summer of 2014!

For more information on wetland restoration or maintaining backyard wetlands, visit:

http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/newsroom/?cid=nrcs143_023525
http://www.nricd.org/Wetlands_In_Your_Backyard.pdf
http://dnr.wi.gov/topic/Wetlands/

Or contact the Water Resources Program at 715/779-3650.

Pet Waste Stations: Protecting Our Water Ways

In the Summer Newsletter, the Water Resource Program announced its plan to deploy three pet waste stations in areas of high human traffic. We are happy to report they have been successfully installed and are now ready for use in convenient locations at the Raspberry Campground, Point Detour Campground, and Legendary Waters Resort Campground. The waste disposal system is very simple- the waste bags have a pull tab for easy access and a waste receptacle is situated directly underneath the bag dispenser.

Please remember that dog and other pet wastes are harmful to our water ways. Untreated fecal matter contains disease-causing organisms such as giardia, salmonella, and E.coli. Rain washes these contaminants into local streams, rivers, and bays which can then impact the safety of drinking water and recreational water uses, such as swimming.

If you find yourself in an area without a pet waste disposal station, keep in mind that there are other ways to help ensure improved water quality:

- Bring bags with you on walks
- Dispose of waste in community or personal trash bins
- Don't let your pet pollute, and encourage those around you to be responsible pet owners, too.

If you have any questions or concerns, please do not hesitate to contact our Water Resource Staff.

Raspberry River Campground

Legendary Waters Resort

THANK YOU

The Water Resource Program staff would like to personally acknowledge the numerous volunteers that supported us in our riparian buffer project at the Legendary Waters Resort and Casino. We received over 70 hours of hands-on assistance through the duration of the project, not to mention the guidance, advice, and use of tools/materials. The completion of this project is on account of all those sun-drenched, sweaty-browed folk who didn't hesitate to get their hands a little dirty. Chi- Miigwech.

Carl Butterfield	Lee Balber	Micheal Balber
Dan Duffy	Clayton Tutor	Orion Jneczek

TNR Staff

Ed Boyd
Jeremy St. Arnold
Josh LaFernier
Trevor Wilk
Mike Defoe
Melonee Montano
Chase Meierotto
Chad Abel
DNR Intern Mikayla Defoe
DNR Intern Dalton Gordon
DNR Intern Jolene Topping

We would also like to thank **Leaning Pine Native Landscapes** and **Hanson's Garden Village** for supplying our project with such hardy plants.

Red Cliff Wolves-Timberwolves may not be alone…

Sure, everyone knows Red Cliff has wolves that come onto the reservation. There have been numerous sightings. In the winter their tracks can easily be seen, and they have also been caught numerous times on motion sensor trail cameras. People have even noticed that some of the wolves seem a little smaller than expected for an average gray/timber wolf.

What everyone may not know is that there are two different species of wolves in the state and surrounding states. Recent studies by the U.S. Fish and Wildlife service in addition to genetic testing performed by two different labs (Oregon and Ontario) of wolf DNA from Michigan, Wisconsin, and Minnesota; have confirmed the presence of two distinct wolf species, the gray/timber wolf (*Canis lupus*), which is most familiar in Northern Wisconsin, and the not so familiar eastern wolf (*Canis lycaon*).

Not only are these two species virtually indistinguishable to the naked eye, but they also create gray/eastern wolf hybrids that are also nearly impossible to distinguish. Experts say that the only definitive way to determine the species is to perform genetic testing. There are some characteristics in which the species differ, but the overlap between the two species is significant. Typically, the eastern wolf is smaller (50-77 lbs) and less stocky than the gray wolf (50-102 lbs). The eastern wolf is a close relative of the coyote (*Canis latrans*), and the two species are genetically similar. In fact, some researchers even reject the existence of an eastern wolf. They instead insist that the genetic combinations found in eastern wolves are the result of hybridization of gray wolves and coyotes.

Another study, this one by the U.S. Fish and Wildlife Service states that eastern wolves are most closely related to red wolves, and that both species evolved from a common ancestor shared with coyotes. They argue that this helps explain why eastern wolves can still mate with and form hybrid offspring with coyotes, so-called "coywolves." Gray wolves, on the other hand, are known to kill any coyotes they come across.

It seems scientists can never all agree. It does appear that the majority of taxonomists and wildlife scientists have agreed that two distinct species are present but that they interact seamlessly and for conservation purposes will be treated as one for the time being. Essentially, this means there could easily be two different species of wolves on the reservation, or in a pack that frequents the reservation. There are also coyotes present and there could potentially be hybrids of both eastern and gray wolves, as well as hybrids of eastern wolves and coyotes. This can make identification extremely confusing, but if you can't tell them apart don't feel too bad, scientists can't either. —Written by: Jeremy St. Arnold

Above: Eastern Wolf (*Canis lycaon*)

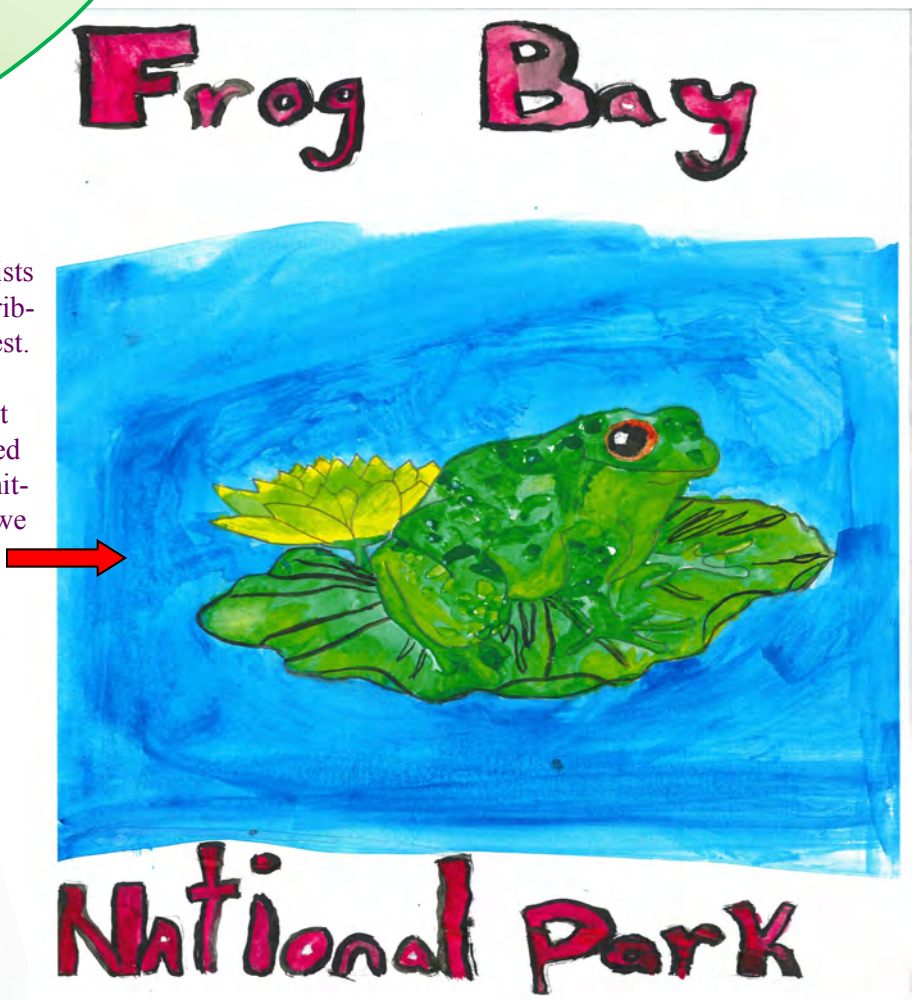
Below: Gray/Timber Wolf (*Canis lupus*)

Female Red Cliff Wolf (with DNR Collar) and her 4 Pups

And the winner is...

Thank you to all the artists who entered our Frog Bay Tribal National Park logo design contest.

As you can see, we had many fine submissions, and it was no easy task to pick just one winner. The winning selection is pictured to the right, but since the painting was submitted without a name or contact information, we have been unable to notify the winner. **If you know who made this winning design, please have them contact us so he/she can collect first prize, a $100 gift certificate**.



Above: Winner of Frog Bay Logo. Can you help us identify the artist?
Left: Runner-up Casey Lafernier
Lower Left: Runner-up Venessa Gordon
Lower Right: Runner-up Abe Butterfield

FROG BAY TRIBAL NATIONAL PARK BROCHURE

LOCATIONS WHERE VISITORS MAY VISIT TRIBAL LANDS

RED CLIFF BAND OF LAKE SUPERIOR CHIPPEWA
HUB OF THE CHIPPEWA NATION

Frog Bay Tribal National Park is managed through the Treaty Natural Resource Division of the Red Cliff Tribal Government. For questions, comments, or donation information, please use the contact information below.

Red Cliff Band
of Lake Superior Chippewa

Treaty Natural Resource Division

88385 Pike Rd, Hwy 13
Bayfield, WI 54814
715/779.3750
FAX 715/779.3763

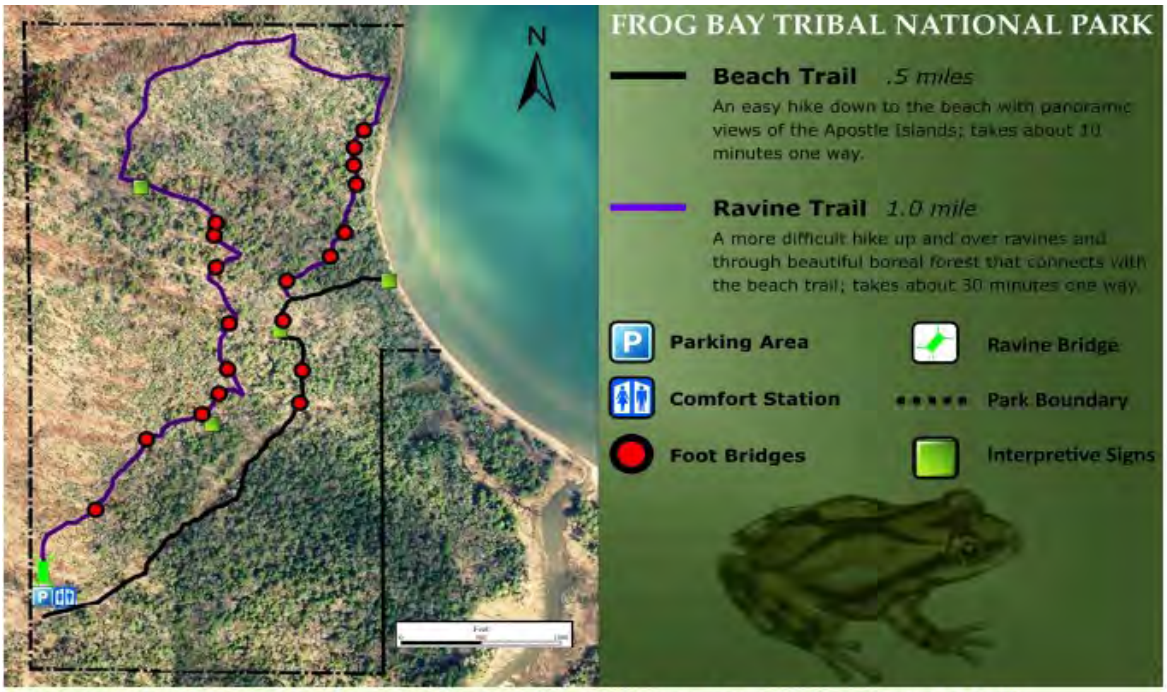
Primary Contacts
Bryan Bainbridge bryan.bainbridge@redcliff-nsn.gov
Chad Abel chad.abel@redcliff-nsn.gov

Frog Bay

Tribal National Park

Red Cliff Band

of Lake Superior Chippewa



ABSOLUTELY NO MOTOR VEHICLES ARE ALLOWED IN THE PARK. THIS INCLUDES ATV. *RCCL 23.4.3, MINIMUM FINE $100*

Please do not litter!

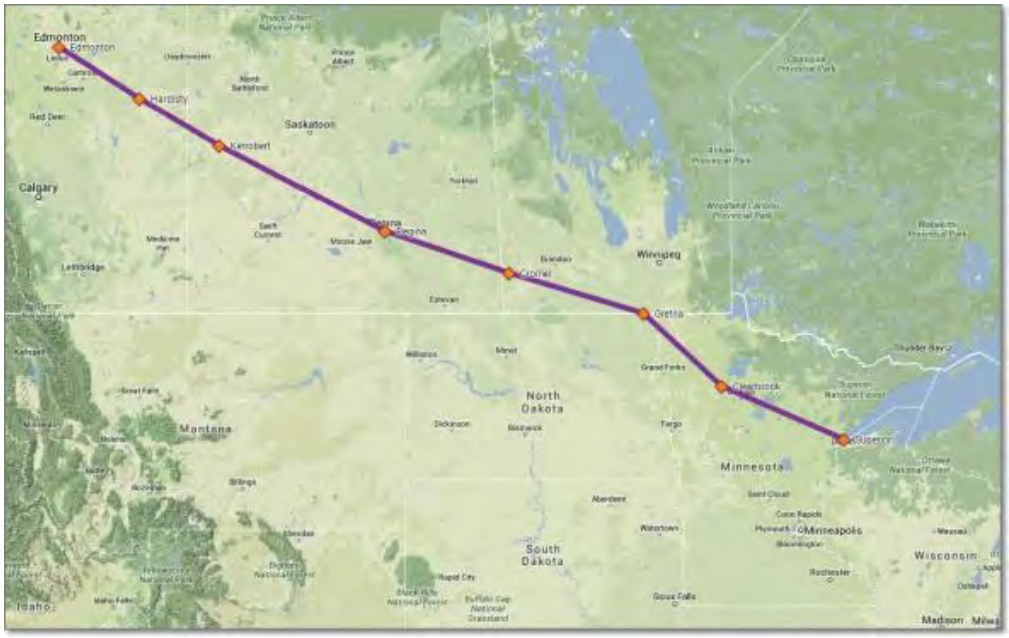
If you encounter a PARK BOUNDARY sign, you are about to leave the park. Please respect property lines and do not proceed.

Park hours are from sunrise to sunset.

Enbridge Line 3 Replacement Project

By: Sandy Gokee

Enbridge is planning a large-scale replacement project for their Pipeline 3, beginning in Hardisty, Alberta, Canada and ending in Superior, Wisconsin. Enbridge plans to replace their current 34" diameter pipeline with a 36" diameter pipeline after crossing the Canadian/US border. The company says they are not increasing the capacity of the pipeline, but they are restoring it to its original capacity to 760,000 barrels per day (the line is currently carrying 410,000 barrels per day). The Line 3 Replacement project is the largest and most expensive project in the company's history costing approximately $7 billion.



Line 3 route through Canada, Minnesota, and terminating in Superior, Wisconsin

One of the common concerns that arise from this project is that the company doesn't need to obtain a Presidential Permit. The reasons they are able to skip this step is because they are not increasing the size of the pipeline at the border crossing, they are not increasing the capacity, and in their current permit they are allowed to provide pipeline maintenance. Enbridge is considering this project as a maintenance project to avoid obtaining a new Presidential Permit. Note that the company still has to obtain many permits for the respective states and local municipalities the line goes through.

The current Line 3 was built in 1968 and is made of the same material as the pipeline 6B that spilled 840,000 gallons of heavy crude oil into the Kalamazoo River in 2010. The type of material that was used for these lines has been tested and does not meet safety standards, which addresses the need for replacement. The replacement material will be high-quality steel with anti-corrosion coatings.

The risks associated with the Line 3 Replacement Project include the destruction of Canada's Boreal Forest needed in order to obtain the tar sands that lie under the surface.

The boreal forest absorbs twice as much carbon dioxide from the atmosphere than the tropical rainforest. The destruction would not only reduce the absorption of carbon dioxide, but the process of extracting and refining crude oil emits massive amounts of carbon. Increasing emissions while simultaneously reducing the absorption of greenhouse gasses will surely speed up the effects of climate change. Is increased oil production really worth the risk?

Another risk we face with the replacement of Line 3 is disruption and destruction of wetlands. There are permits and laws in place that attempt to reduce the impact on wetlands, but one of the main tools used is mitigation. Wetland mitigation is the process of improving wetlands other than the ones being affected by proposed projects, thus earning "credits" to use for the project impacts. The problem with mitigation is that one wetland is not always equal to another in terms of long-term effects and well-being of the ecosystem.

The Latest News on GTac and the Proposed Penokee Mine

Since late this summer, GTac has been on the headline of many newspapers; starting with the revelation of a $700,000 contribution to Wisconsin Club for Growth (a well-known Walker support system). Shortly after this news hit the press, GTac made a request to the Wisconsin Department of Natural Resources (DNR) to delay their application for a permit to mine. Their reason for the delay, according to Bob Seitz (GTac Spokesman) is because it is taking much longer than they had initially expected to conduct environmental testing and research, specifically groundwater flow research.

The next big headline from GTac was a piece stating the company may only mine in Iron County, leaving Ashland County out. Seitz said that the consideration to leave out Ashland County is in part a reaction to an ordinance the county passed requiring the mining company to pay $100,000 for a permit application.

"We have to balance the approach that Ashland County has made, which has been very negative to jobs and investment, against the benefit of that small part of the project that lies in Ashland County," said Seitz.

Ashland County Board Chairman Pete Russo responded saying the $100,000 permit fee is fair, but GTac hasn't played fair.

"If they had tried to act reasonably and respectful to the people who live up here and not try to bulldoze over everybody, there might have been a different outlook," said Russo.

After the company announced that they may leave Ashland County alone, Wisconsin Wildlife Federation wrote a letter to the DNR saying the Ashland County MFL (Managed Forest Law) land that is closed to the public should be open to those hunting small game, bear, grouse, and bow hunting deer. The DNR responded that there are no plans to open the land back up for public use because GTac is still using it for employees to check monitoring wells. According to DNR Waste and Materials Management representative Ann Coakley, the law states the closed MFL land is open for the 9 day gun season. Nothing has been specified for status during the tribal gun season at this time.

The most recent news related to GTac is that the company has encountered more wetlands than they initially thought were present. Because of this discovery, Bob Seitz said the company will have to do more drilling and configuring. "Really we're required to re-evaluate how the site is laid out because the law requires us to avoid wetlands — avoid, then minimize, then mitigate," said Seitz.
(Article references from Milwaukee Journal Sentinel and WPR.org)

By: Sandy Gokee

This map of Pit 2 shows the county line in black. Ashland County is on the left, and Iron County is on the right. Notice how although much of the total landmass devoted to mine construction will be in Iron County as stated by GTac, nearly one-third of the total land where ore will be extracted is located in Ashland County.

Woody Perennials and Climate Change

By: Trevor Wilk Natural Resources Specialist

Much work is currently being done on ways to both adapt to and mitigate climate change. In order to mitigate climate change we need to start sequestering CO_2, and lots of it. Regardless of how much CO_2 we sequester, adaptation options will still need to be implemented because change is going to happen nevertheless.

The global agriculture system, from fertilizers to food storage, packaging and transport is responsible for up to one-third of all human-caused greenhouse-gas emissions. Agriculture will be affected by climate change by the way of longer, more intense droughts which will affect crop yield and quality. More intense rain events will threaten planting times, increase soil compaction and intensify soil loss. According to the USDA food prices will likely continue trending upward.

Today most people are no longer food sovereign and in the future climate change could further stress this issue. Food sovereignty is the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods, and their right to define their own food and agriculture systems.

<u>The problems are:</u>

- There is too much CO_2 in our atmosphere.
- The global food system is a major contributor of CO_2.
- The global food system degrades the environment and will be affected by climate change.

In order to address these problems agriculture needs to be transitioned from short lived, high input annuals to long lived, low input, carbon sequestering woody perennials. Woody perennials offer us an avenue to maximize CO_2 fixation while minimizing CO_2 loss, improve the soil and thus the environment and put food back in the control of individuals and communities.

Above Right: Industrial Corn Production
Right: American Hazelnut

Woody Perennials and Climate Change

Woody plants, with their rapid early leaf development, multiple leaf layers, and longer growing season, capture significantly more solar energy than traditional annual crops. This means more, potentially much more, CO_2 fixed. Woody plants can fix over three times as much carbon as annuals.

Perennials are generally more resilient to extreme weather events. Woody perennials, with their enormous deep reaching root systems, are better able to withstand the stresses of drought than their annual counterparts that have smaller root systems. The impacts of extreme rainfall events, which are happening at a higher frequency and interval, can also be lessened by perennial roots which are able to better absorb water. No-till practices, which result in less soil compaction and thus more water absorption during flooding, are well suited to woody perennial systems.

Woody perennials are adaptable to many different kinds of agriculture systems. Perennial cropping systems like orchards, food forests, and coppice systems are all based on woody perennials or can work well in livestock-perennial systems using them as fodder banks, masting fodder trees, in silvopasture and rotational grazing. Woody perennials can also be integrated using alley cropping, intercropping, and living contour terrace systems.

Besides the many ecological benefits of woody perennials these systems can also produce other benefits. Willow is being used to create biomass for large and small scale energy production. Woody perennials are also able to produce large amounts food. Certain woody perennials crops yield large amounts of protein, carbohydrates and fats that we currently depend on from annual grains. Hybrid hazelnuts and chestnuts offer those in temperate regions everything that grain does but on a long lived, perennial scale. Hazelnuts and chestnut, like most nuts, are extremely healthy to eat. They are rich in vitamins, minerals, dietary fiber, and mono-unsaturated fatty acids.

Northern Wisconsin, unlike most of the Midwest, doesn't produce a lot of annual grain crops. The growing season is generally too short and the soils too thin. But the north does grow trees, and lots of them. Northern Wisconsin, in fact, is really good at growing trees. And temperate forests are great at sequestering CO_2. Areas like northern Wisconsin should focus on promoting healthy forests that can live to an old age and thus sequester even more carbon. But we do have open spaces that would be ideal for growing woody perennials like hazelnuts and chestnuts; lawns are plentiful, power lines stretch for miles and there are many other open spaces to take advantage of.

Right: Chestnuts
Far Right: Perennial roots (in hand) versus annual roots

Microplastics in Lake Superior?

By Alex Strachota

Lake Superior is unquestionably unique:

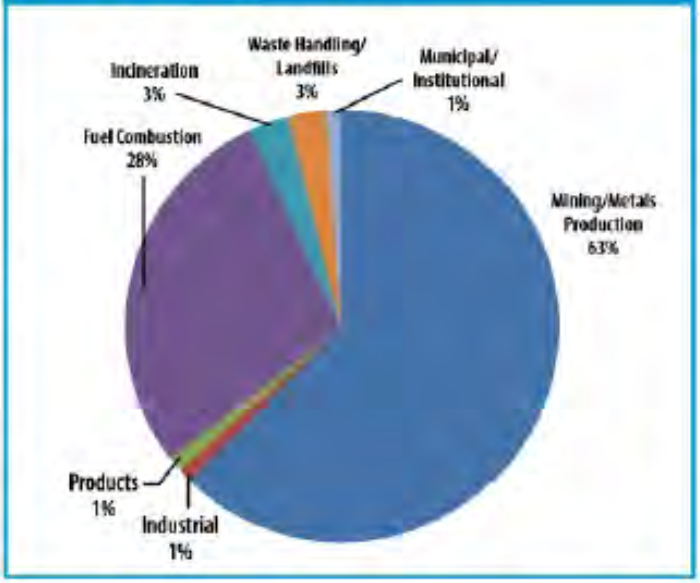
- It is, by surface area, the **world's largest freshwater lake**
- It is by far the **cleanest and clearest** of the Great Lakes, with an average underwater visibility of **27 feet.**
- The Lake contains **3 quadrillion gallons** of water, enough to flood all of North and South America to a depth of one foot

The Nine Pollutants Targeted by the ZDDP

The Nine pollutants are mercury, PCBs, dioxin, hexachlorobenzene, octachlorostyrene and 4 pesticides: dieldrin, chlordane, DDT and toxaphene.

Many residents of Lake Superior's shores, however, are unaware that Lake Superior is equally unique among large lakes regarding the science and policy working to protect and restore its waters. The Zero Discharge Demonstration Program (ZDDP) is just one example of an innovative program, unique to Lake Superior. The ZDDP was conceived in 1990 by the US and Canadian governments as a project—unique among the Great Lakes—to demonstrate how coordinated effort between the public, local, tribal, and federal governments could achieve complete prevention of 9 highly toxic, bio-accumulative pollutants from being released within the Lake's basin. Notably, since 1990, releases of mercury and dioxin have diminished by 80 and 85% respectively, basin-wide.

Figure 4 - Percentage of Mercury Releases from Different Sectors in the Lake Superior Basin, 2010.



While Lake Superior has been at the forefront of reductions in heavy metals, incineration by-products, and pesticides (pollutants that have been widely understood to be dangerous for decades), new chemicals and products are emerging that are challenging traditional pollution-prevention measures.

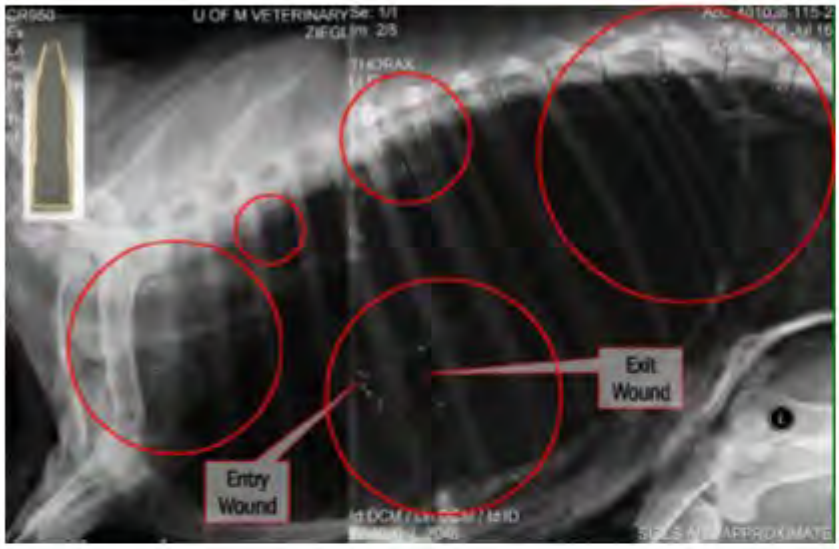
Microplastics are one group of materials that scientists are identifying as posing significant risk to aquatic wildlife, both locally and globally. Microplastics historically have resulted from the breakdown of plastic trash in water into ever-smaller pieces. In more recent years, however, another source of microplastics have emerged: "**microbeads**"—small plastic pieces often smaller than grains of sand—that are now routinely included in facewashes and other personal care products as abrasives or "scrubbers."

The problems with microbeads are many:
first, they are small enough to slip through water treatment plant filters and end up in the water bodies where treated wastewater is discharged. Next, because plastics are petroleum-based, they accumulate dangerous "lipophilic" chemicals (those chemicals that have an affinity for oils, including PCBs, flame retardants, and many pesticides.) Finally, because microplastics are often the size of tiny plankton, fish and other aquatic organisms consume them indiscriminately in large amounts—leading to a higher buildup of toxic chemicals in the fatty tissue of the fish we eat.

Luckily, citizens, scientists, and environmental groups have been raising the alarm about microplastics in the last couple years, and governments and corporations are beginning to listen. Illinois enacted a ban on microplastics in consumer products earlier this year, and similar legislation is being proposed in New York, California, and Ohio. Federal legislation has been proposed in the US Senate within the last month to ban microbeads nationally. Also, some major corporations, including Colgate-Palmolive and Johnson & Johnson, have voluntarily committed to phasing plastic microbeads out of products by 2017.

With more public pressure and scientific evidence, microbeads may soon be widely removed from products. Nevertheless, plastics are ubiquitous in our society and will to threaten our waterways through their natural breakdown when not disposed of or recycled properly. Many of the most common plastics that pollute our environment and Lake (e.g. polypropylene and polystyrene) were only invented as recently as the mid-late 1950's—as such, we have yet to feel the full implications of the continual build-up of plastics in our environment. As community members of the Lake Superior basin, we owe it to the fish (and to our own health when we eat fish!) to reduce our use of unnecessary plastics—Styrofoam cups, plastic bags, and packaging. See the article on reusable shopping bags in this newsletter for a simple way you can make a positive step in reducing the use of plastic in your life!

Why your deer may be dangerous even after you shoot it……



A recent study conducted by the USGS at the National Wildlife Health Center has shown that there were elevated ammunition-associated lead levels in consumers' wild game. In the adjoining photo it shows the placement of lead from ammunition in the study's carcass (with white specks being lead). In surveys distributed to food banks the surveys showed that 8-15% of WI donated venison to food shelves contained lead fragments.

These lead fragments are not only **harmful to humans** but are also hurting our Wisconsin wildlife. Some of the many affected animals include *carrion* birds such as eagles and vultures, canines such as wolves and coyotes, and waterfowl such as ducks and geese. An unusual bird that is dropping in populations due to lead poisoning is woodcocks. Some other examples of lead that animals ingest are spent shot (waterfowl, upland game), sinkers (waterfowl), mine tailings (waterfowl), and paint chips.

Lead can cause neural degeneration, kidney damage, bone damage, and inhibits blood formation and nerve transmission. The body mistakes lead for calcium and then transports it to nerve cells and other tissues.

What can I do to help?

Switching to ammunition that does not contain lead will greatly reduce mortality in wildlife a*nd limit the chance of human ingesting lead fragments.* Unfortunately this ammunition does cost more but saving a few dollars to help the conservation of wildlife and *humans health* is worth it.

On left: Lead rifle bullet with fragments produced. On right: Ammo made out of copper has no fragments

For more information please contact the Red Cliff Wardens at (715) 779-3732

Raptor Rescue

By: Linda Nguyen

A great horned owl downed by unknown causes during the end of August, was back flying high into the night Friday, September 12th, with a hand from the Northwoods Wildlife Center (see photo 1).

Water Resource Program staff, Linda and Marissa, along with a few Red Cliff Clinic staff, captured the juvenile bird of prey on the intersection of State Highway 13 and Aiken Road. A big tarp was thrown over the owl to capture it and then funneled into a cardboard box with blankets. The owl was able to hop pretty quickly, but was unable to fly. After covering him with a towel to "de-stress" him, transport was arranged to Hayward Animal Humane Society- the ultimate destination being Northwoods Wildlife Center in Minocqua WI.

The cause of the poor condition that the owl was in still remains undetermined. No broken wings or bones were cited. The Northwoods Wildlife Center suggested a poison, which led to the owl not being able to fly. When an owl can't fly, it also can't hunt for its food, which led to his emaciated state. Northwoods Wildlife Center staff were able to rehabilitate the owl and successfully release him (see photo 2).

If you find an injured bird, carefully put it in a cardboard box with a lid or a towel over the top, and place in a cool, safe place. Birds go into shock very easily when injured, and often die from shock. If a bird has hit a window and is still alive, it may just need a little time to regain its senses, then may be able to fly away. Do not try to force feed or give water to the bird. If it is alive after a few hours, try to find a local wildlife rehabilitator.

Photo 1. Northwoods Wildlife Center staff rehabilitating the owl.

Tips for Handling Raptors

- Wear leather gloves.
- Avoid handling the bird any more than absolutely necessary.
- Drape a cloth over the bird's head to cover its eyes before handling. Birds are highly visual, and they noticebably relax as soon as their eyes are covered.
- Secure the bird's wings with a firm two-handed grip around the shoulders. This will prevent the bird from further injury if it tries to fly.
- Keep an eye on the bird's talons, but only hold the feet if you also have the wings secured (photo above shows wings secured against the body and forearms) Birds that are improperly restrained by the legs are prone to pull and tear leg muscles and ligaments.

Photo 2. Owl release September 2014.

GREAT HORNED OWL FACTS:

The great horned owl is known for its long, earlike tufts, intimidating yellow-eyed stare and deep hooting voice, according to the Cornell Lab of Ornithology. It's also a powerful predator that can take down birds and mammals even larger than it; but it also goes for smaller-portion dining, such as mice and frogs. It's one of the most common owls in North America, equally at home in deserts, wetlands, forests, grasslands, backyards, cities and almost any other semi-open habitat between the Arctic and the tropics.

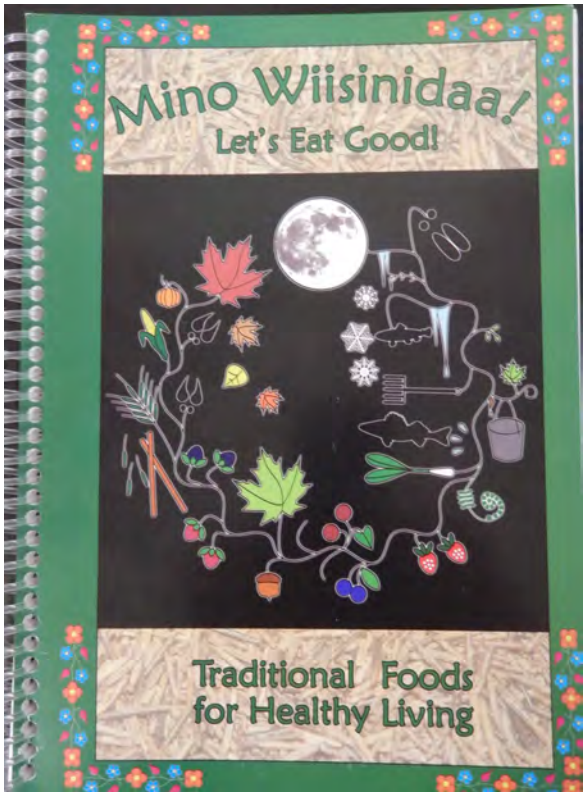
For more information on raptor rescues and rehab check out Wisconsin Raptor Centers at:

northwoodswildlifecenter.org

raptorcenter.org

Free Traditional Foods For A Healthy Living Cookbook Available

Limited copies of the *Mino Wiisinidaa! Let's Eat Good! Traditional Foods for Healthy Living* cookbook and DVD are now available free through the ECC, Nutrition Department, and the Food Distribution Center, and are on sale at http://glifwc.org/publications/index.html.



The cookbook features traditional Anishinaabe foods, including recipes as well as food gathering and harvest tips that were shared by tribal community members and elders. When paging through the 200 pages of recipes and their accompanying color photos, be sure to check out the contributions from Red Cliff tribal members Julie and Bill Ante and Gertrude Deragon who shared their recipes for Watercress-Zucchini Soup and Sweetened Wild Rice Flour Bannock.

Mino Wiisinidaa! highlights seasonal and locally available food, and fall in Red Cliff is a great time for seasonal, local food. In fact, the squash and apples at the Red Cliff Community Farm look just about ripe for the picking. Be sure to try the easy and tasty recipe for roasted squash and apple soup that was provided by Sue Lemieux of Bad River. The recipe can be found on the back of this page.

Mino Wiisinidaa! is the culmination of a three year long project headed by the Great Lakes Indian Fish and Wildlife Commission (GLIFWC) and funded through a grant from the Administration for Native Americans.

ROASTED SQUASH AND APPLE SOUP RECIPE

Original concept from Sue Lemieux, Bad River
Prep: 1 hour 30 minutes Cook 30 minutes Total 2 hours
Serving Size: 1 cup Yield 16

Ingredients

6 pounds butternut squash
2 pounds apples, cored and unpeeled
2 teaspoons sunflower seed oil
1 medium yellow onion, diced (about ¾ cup)
1 salt
½ teaspoon black pepper, ground
¼ teaspoon ground nutmeg
¼ teaspoon ground cinnamon
2 quarts low sodium chicken stock
1 quart water, as needed

Directions:

1. Preheat oven to 400°F.
2. Place squash flesh side down on lightly oiled baking sheet pan. Roast squash for about 1 hour or until soft and lightly browned. You should be able to pierce the center of the squash easily with a fork. Remove squash from baking sheet and allow it to cool to the touch.
3. Cut apples into quarters,then place on oiled baking pan (reuse the sheet pan from the squash roasting). Roast apples for about 15 minutes or until soft and lightly caramelized.
4. Meanwhile, scoop squash flesh into a bowl, being careful to avoid adding any skin.
5. In a medium stock pot, heat oil over medium-high heat. Once oil is hot, add onion and cook until translucent and soft, about 5 minutes.
6. Add scooped roasted squash and apples to stock pot, stirring to combine.
7. Add salt, pepper, nutmeg, and cinnamon. Once mixed, add chicken stock and additional water to cover and gently stir to incorporate.
8. Bring soup to a boil and reduce to a simmer. Stir often to prevent burning.
9. Simmer for 15 minutes and remove from heat.
10. Very carefully, as soup will be very hot, ladle manageable batches into a blender and blend until smooth. Remove to serving dish.
11. Add additional water to adjust consistency and serve hot.

Attention- Soup will bubble wildly if too hot. Stir frequently and keep heat low.

Chef Notes:

*Butternut squash can be substituted for any other autumn/winter squash. 6 pounds is equivalent to about 24 cups of peeled, cubed squash or 6 cups of pureed squash.

*An immersion blender can be used. If a blender is not available, pureed pumkin and 3 ¼ cups apple sauce can be used instead or for a chunkier soup peel and dice apples before roasting at 400°F until soft. To make these substitutions start with

*Step 5 and continue through Step 9. Add additional water to adjust consistency and serve hot.

*Remember: Lukewarm soup is a perfect breeding ground for germs. So if you are not going to be able to use all the soup within 2 hours, either keep it above 139°F for up to 4 hours or cool it to less than 41°F within 2 hours and freeze it or refrigerate it.

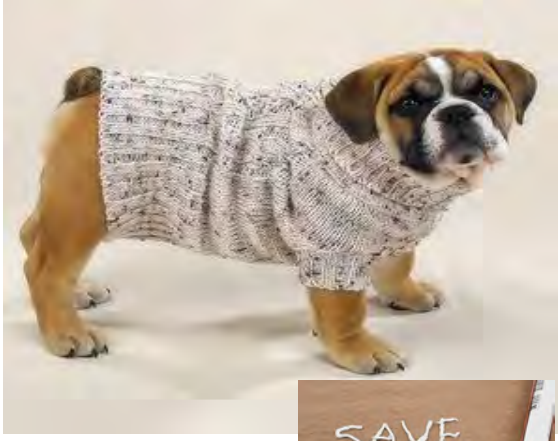
Home Energy (and $$$$) Saving Tips

1: Seal up the drafts! Roll up bath towels and put them at the base of doors to stop warm air from leaking out and cold air from leaking in. Or, get fancy and make your own door draft stopper snake like the one below.

2: Turn on a fan. Flip the little switch on your ceiling fan so it blows counter-clockwise rather than clockwise. The fan will now blow warm air collected near the ceiling back down to the spaces where people hang out.

3: Turn down your water heater. This one only takes a couple minutes and will save you money every month. Most manufacturers preset water heaters to a scalding 140 degrees. If you lower the temperature to a still hot 120 degrees, you can reduce your water heating costs by 10%. That adds up over the years.

4: Close your storm doors and windows. A properly installed storm door can reduce your heating bill by as much as 45%.



5: Put on a sweater and turn down the thermostat. For every degree you turn down the heat during heating season, you can save between 1% and 3% on your heating bill. One light sweater provides the wearer about two degrees of added warmth. Have your kids practice their math, and ask them to figure out the energy and money saving potential for this one.

6: When in doubt, calk it out! Wherever you find loose seals, such as around windows, around the chimney or around pipes, cold air is finding its way into your home. Get out the calk and close up those leaks.

7: Insulate, insulate, insulate. Ceilings and attics are often overlooked and under insulated. We all know warm air moves up, so it makes sense to focus on insulating the spaces above our heads. Also, insulate the water heater for more energy savings, and while you're at it, throw some insulation around water pipes. This will provide the added benefit of protecting against frozen pipes on those especially cold nights.

8: Change the filter on your furnace. Okay, this one is a little boring and inconvenient, and costs a bit of money up front, but it will help your furnace run more efficiently and save you money in the long run. It is a lot cheaper and less of a hassle to change a filter here and there (recommended once a month) than to buy a whole new furnace when your neglected furnace breaks down in the middle of February.

9: Let in the light! Open the curtains and bask in the sunshine. Center household activities in spaces with south facing windows where you will find the best winter light. When the sun goes down, cover the windows with thick curtains or a blanket.

10: ¡If your energy provider is Xcel Energy, you qualify for instant discounts on energy saving (75% less energy used than incandescent bulbs), long lasting (up to ten years) CFL light bulbs. Discounts of $1.50 per pack for up to ten packs of CFLs are available in participating stores in Ashland. Check for Focus on Energy signage posted near CFLs and get your immediate discounts upon purchase!

Coming soon…. Reusable & Biodegradable Shopping Bags from the Red Cliff Environmental Department!!

Did you know…?!

"San Francisco has been discouraging plastic bags since 2007, saying that it takes too much oil to make them and that used bags pollute waterways and kill marine animals. In 2012, it strengthened its law. Several West Coast cities, including Seattle and Los Angeles, have also adopted bans for environmental reasons. The government of Washington, D.C., imposes a 5-cent plastic-bag tax. (Advocates prefer to call it a "fee" because taxes are unpopular.) Environmental groups and celebrity activists, including actresses Eva Longoria and Julia Louis-Dreyfus, support these laws."

*Taken from Chicago Tribune Article on February 07, 2013 By Ramesh Ponnuru

http://articles.chicagotribune.com/2013-02-07/site/ct-oped-0207-bags-20130207_1_plastic-bag-bans-plastic-bag-industry-plastic-bags

Some of you may have been noticing a lot more reusable cloth shopping bags out there and considered using them yourself. Yet many of you may rarely think about it and automatically accept the plastic bag that is handed to you. In case you are of those who have considered using cloth (or better yet NO BAG at all if not needed), then you may have wondered: plastic, paper, or cloth. Which type of bag is the best environmentally conscious decision? Is it better to support the continued cutting of trees and tropical rain forests to make paper or additional use of oil to make plastic bags which aren't biodegradable?

The fact is, both paper and plastic are taxing on the environment. It unfortunately is so automatic and common to be at the checkout and handed a plastic bag of groceries. It's slightly less common to be asked paper or plastic. On the rarest of occasions you hear, "Do you have your own shopping bags?" This question is something we need to start hearing more in our bay area.

The change in thinking when it comes to what kind of bag to be using needs to start with us. Next time you have the opportunity, consider purchasing a reusable, biodegradable canvas bag. Biodegradable canvas bags are just that… biodegradable! They're also washable, sturdy, and send a good message to folks around, that you're environmentally conscious.

Some plastic bags may be recycled but not most. Also keep in mind as mentioned above, that oil is used to produce them. Vast majority of plastic bags wind up in landfills. A great deal of both paper and plastic bags will be found nearly intact in landfills many years from now.

- According to national statistics, only one percent of plastic bags are recycled.

What can you do?

Try and remember to bring your own cloth bags and don't feel bad about saying, "I don't need a bag." **Also in the near future be on the look-out for biodegradable cloth bags that will be offered by the Red Cliff Environmental Department.** Know by using cloth you will be making the environmentally conscious decision and influencing others to be part of a positive decision that will be better for our environment.

Red Cliff Reservation Hunting, Trapping, and Fishing Seasons

Some seasons may be subject to change. Consult the tribal ordinances before going hunting.

Small Game Hunting Season: Requires Tribal ID

Species:	Daily Bag:	Season:
Ruffed Grouse	10	Sept. 1 - Dec. 31
Sharptailed Grouse	10	Sept. 1 - Dec. 31
Squirrel	10	Sept. 1 - Dec. 31
Raccoon	None	Open All Year
Rabbit and Hare	5	Open All Year
Bob White Quail	5	Open All Year
Pheasant	5	Sept. 1 - Dec. 31
Fox	1	Open All Year
Bob Cat	1 Per Season	Open All Year
Morning Dove	None	Open All Year

Check Tribal Ordinances on regulations regarding "Protected Species," and "Animals and Birds Causing Damage."

Big Game Hunting Season: Requires Tribal Transportation Tag

Species:		Season:
Deer	Antler	July 1 - Dec. 31
	Antlerless	Sept. 1 - Dec. 31
Bear		Sept. 1 - Nov. 30

Trapping Season: Requires Tribal Trapping Permit

Species:	Reservation Quota or Season Limit:	Season:
Beaver	No Limit	Oct. 15 - Apr. 30
Bobcat	Reservation Quota: 1 bobcat per year	Oct. 15 - Dec. 31
Fisher	Reservation Quota: 20 per year	Oct. 15 - Mar. 31
Fox	No Limit	Oct. 15 - Feb 28
Mink	No Limit	Oct. 15 - Feb 28
Muskrat	No Limit	Oct. 15 - Apr. 30
Otter	1 per trapper per year	Oct. 15 - Apr. 30
Raccoon	No Limit	Oct. 15 - Jan. 31

Fishing Regulations on Lake Superior: Requires Tribal ID

Species: Walleye, northern pike, white bass, rock bass, bluegill, crappie, pumpkinseed, bullheads, yellow bass, catfish, cisco, whitefish, rough fish, largemouth and smallmouth bass, muskellunge, trout and salmon. *, **

Season: Year Round
Bag Limit: None
Size Limit: None

* No person may fish in a refuge, as described in Tribal Codes.

Sturgeon *, **

Season: Year Round
Bag Limit: One per person per day
Size Limit: None

** No person may use more than 30 attended or unattended lines.

Dagwaagin ~ Fall

Manoominike ~ Makes Rice

Waatebagaa-Giizis ~ Sept/Oct

Gashkadino-Giizis ~ Nov

Manidoo-Giizisoons ~ Dec

MAAMINGIN ~ GATHER (COLLECT THEM)

Mashkiigiminan ~ Cranberries

BAGIDA'WAAD ~ FISHES WITH A NET

Traditional Ecological Knowledge (also known as TEK): What Does it Look Like?

For those of us who have been fortunate enough to live on or near our beautiful Reservation we refer to as Miskwaabiikaang (Red Cliff), we've had daily exposure to Traditional Ecological Knowledge (TEK). Others who are new to our area even within the last few years, may not know or see that it is all around. This could be due to others not having a similar perception of the surroundings and significance of the area or simply not knowing what it looks, smells, sounds, tastes, or feels like.

TEK is the foundation which we come from and where our children will obtain their own sense of place. It's our language, medicines, landscapes, songs, stories, and more. It's how we make use of our natural surroundings and the offerings that we give there. Places where we hold ceremonies and the ceremonies that we hold. It's the taste one gets to know cedar tea has been boiled long enough and the sound of peeling bark, knocking rice, and running sap. It's the trails that we've traveled on and the streams that we've fished. It's the changes in seasons, snowfall, temperatures, and water levels that we have experienced and been told of by our elders.

Miskwaabiikaang is a sense of place for many of us that holds great TEK that is to be heard, respected and honored if and when possible.

Look for future articles covering "TEK" in our Red Cliff Tribe Treaty Natural Resource Division Quarterly Newsletters!!

gikendaasowin

(knowledge)

izhitwaawin

(culture)

Homing Song: Two Stanzas

By Denise Sweet

Because any place
you affix as home is an astonishment
Destiny or destination-- you are home
and you know instinctly how to doubt it
a talent for searching, you begin
with maps and roots and tributaries
in a backyard or in a city park
unearthing cedar systems or star charts
or at your father's cabin
mapping the riverlogic of the Nemakagan
while otters skim and pack the trail
for you, while sand coyotes pull in
midnight air, and sing a capella
all the lonely way back
to you
And you sing back, throwing out
round songs to anonymous canyons
and the fine criminal lives
you admire and while
Invoking nothing more than the
comfort of the faraway familiar,
echoes like whispers
the sound of a descending star
your own long distance
it's all the same
Once you were reminded
of the throatsingers in Canada
as a child cried behind you
Each enhanced private legends
you used to decipher alone,
tremeloes come back
signifying you, signifying them
at the same time, a song
means all of us.

Above Kimberly Snetsinger's daughter parching wild rice.
Photo credited to Adrian Liberty.

RED CLIFF BAND OF LAKE SUPERIOR CHIPPEWA

Treaty Natural Resource Division

Fisheries	715-779-3750
Tribal Historic Preservation	715-779-3795
Environmental	715-779-3650
Natural Resources	715-779-3795
Transfer Station	715-779-0171
Conservation Wardens	715-779-3732