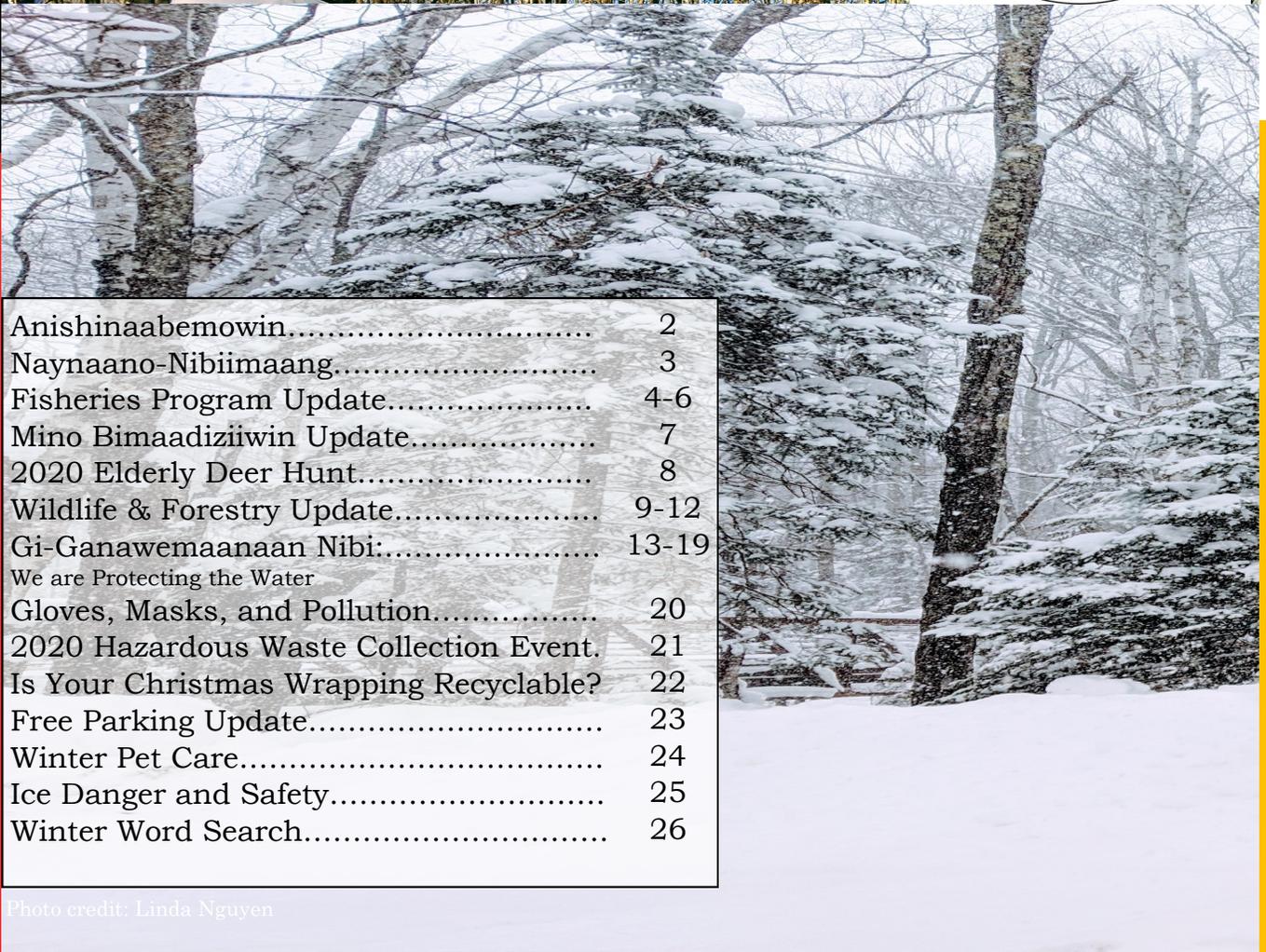


Red Cliff Band of Lake Superior Chippewa
Treaty Natural Resources
Division Newsletter

Volume 9, Issue 4, Winter 2020

Ganawenjigaade

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



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Photo credit: Linda Nguyen

BIBOON

It is Winter

GICHI-MANIDOO-GIIZIS

Great Spirit Moon

NAMEBINI-GIIZIS

Sucker Moon

ONAABANI-GIIZIS

Hard Crust on the Snow Moon

WAABIZHESHI

A marten

OJIIG

A fisher

WABOOZ

A snowshoe hare

NOOKIZIGWAA

There is soft ice

MAMAANGIPON

There are big snowflakes

ISHPAAGONAGAA

It is deep snow

AAGIME

S/he snowshoes



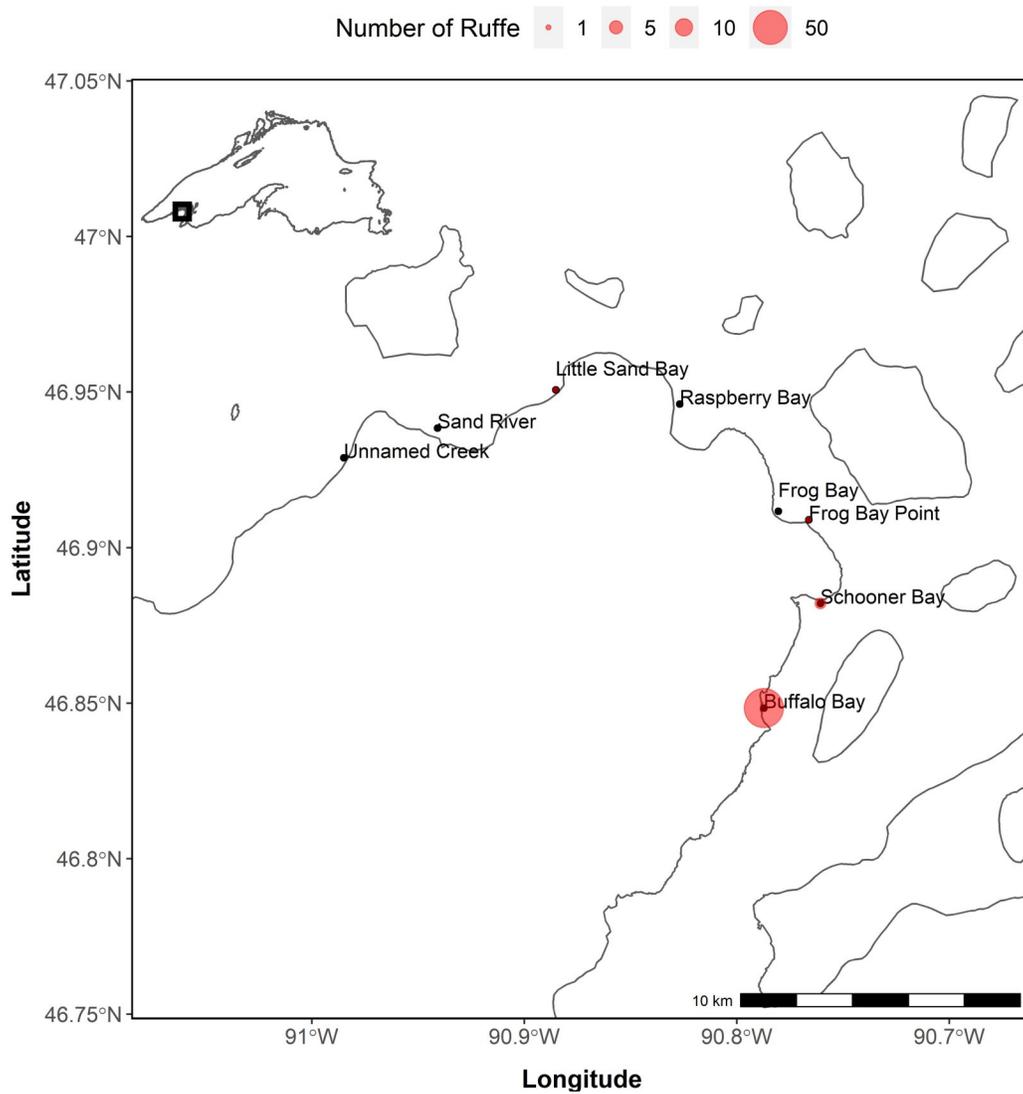
Naynaano-Nibiimaang The Great Lakes in Ojibwemowin



ARTWORK BY @MISKWADESIGNS [HTTPS://MISKWADESIGNS.COM/](https://miskwadesigns.com/)

Fisheries Program Update

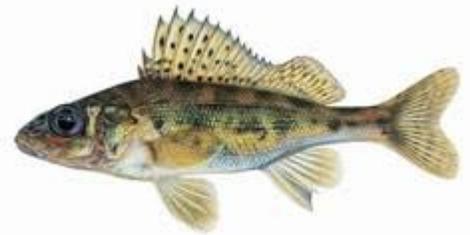
The Red Cliff Fisheries Department had a difficult field season during 2020 due to COVID-19, but we were able to get a few assessments done including our Nearshore Fish Assessment. This assessment began in 2017 with the purpose of surveying the fish in the nearshore areas of the Bayfield Peninsula — an area of Gichigami (Lake Superior) not regularly sampled. Information from this assessment gives us a snapshot of the fish communities that seasonally use this area. We have used this information to describe the occurrences of non-native and invasive fish near the peninsula. Invasive fishes, such as Eurasian Ruffe, can outcompete native fishes for food, space, and other resources. Therefore, it is important to monitor their populations.



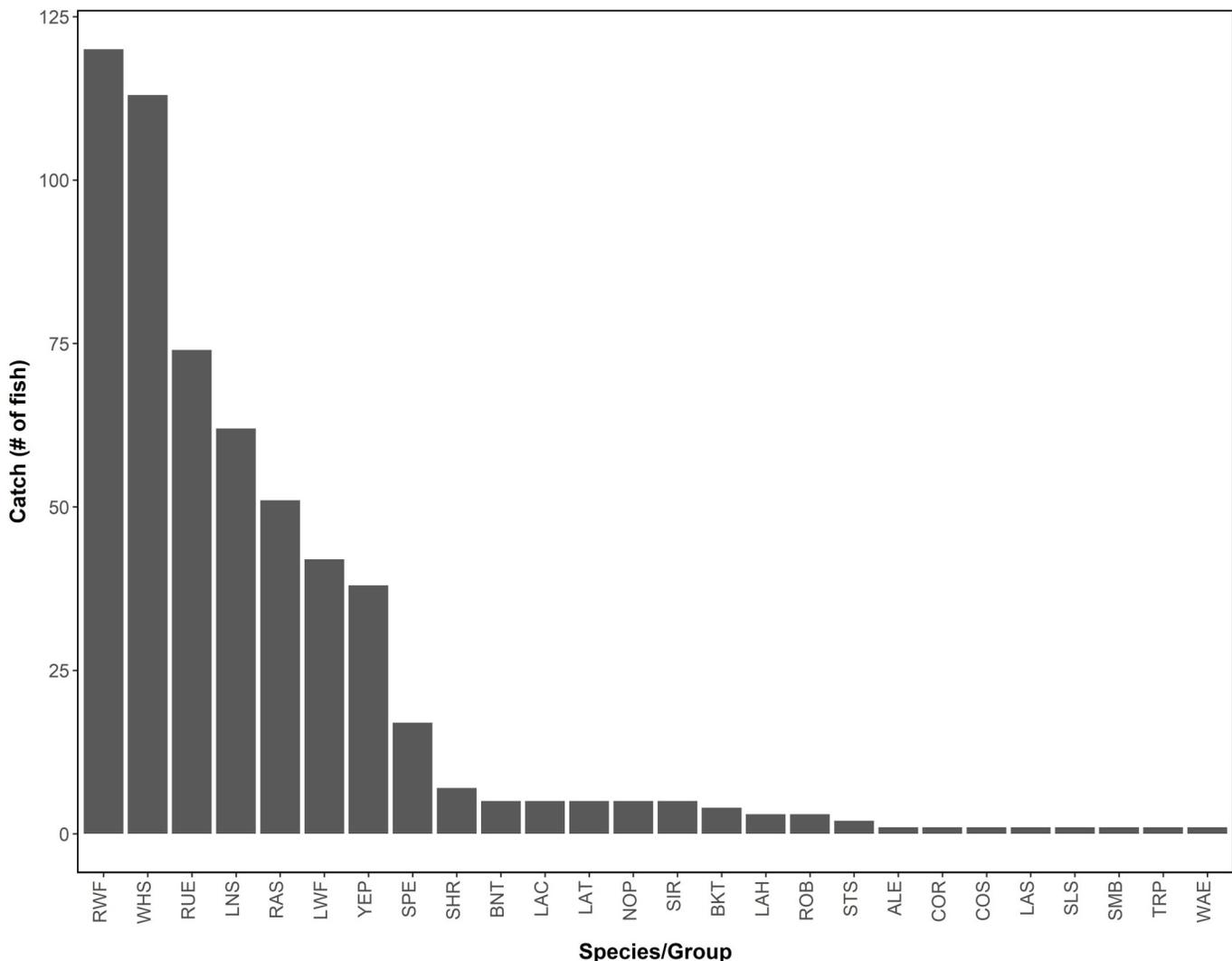
Nearshore Fish Assessment sites and catches of Eurasian Ruffe.

Fisheries Program Update

Eurasian Ruffe, or Ruffe, was first discovered in western Gichigami in 1986 and has subsequently spread throughout much of the lake. We are concerned that the growth of Ruffe populations will negatively affect Asaawe (Yellow Perch). During 2020, Ruffe were found at three of the eight sites and catches were the greatest in Buffalo Bay. Ruffe were the third most abundant catch and outnumbered our catch of Asaawe by about 2 to 1. Future assessments will help us monitor the relative abundance of Ruffe and Asaawe. You can find more information about Ruffe and other Lake Superior fishes here: http://www.seagrant.umn.edu/fisheries/superior_fish_species.



Eurasian Ruffe



Total catch during the 2020 assessment. Please see the table on the next page for species code descriptions.

Fisheries Program Update

A description of the Fisheries Department's species codes.

Code	Common Name	Ojibwe Name	Scientific Name	Status
ALE	Alewife		<i>Alosa pseudoharengus</i>	non-native
BKT	Brook Trout		<i>Salvelinus fontinalis</i>	native
BNT	Brown Trout		<i>Salmo trutta</i>	non-native
COR	Chub		<i>Coregonus spp.</i>	native
COS	Coho Salmon		<i>Oncorhynchus kisutch</i>	non-native
LAC	Lake Chub		<i>Couesius plumbeus</i>	native
LAH	Lake Herring	Odoonibiins	<i>Coregonus artedi</i>	native
LAS	Lake Sturgeon	Name	<i>Acipenser fulvescens</i>	native
LAT	Lean Lake Trout	Namegos	<i>Salvelinus namaycush</i>	native
LNS	Longnose Sucker	Namebin	<i>Catostomus catostomus</i>	native
LWF	Lake Whitefish	Adikameg	<i>Coregonus clupeaformis</i>	native
NOP	Northern Pike	Ginoozhe	<i>Esox lucius</i>	native
RAS	Rainbow Smelt		<i>Osmerus mordax</i>	non-native
ROB	Rock Bass		<i>Ambloplites rupestris</i>	native
RUE	Ruffe		<i>Gymnocephalus cernuus</i>	non-native
RWF	Round Whitefish		<i>Prosopium cylindraceum</i>	native
SHR	Shorthead Redhorse		<i>Moxostoma macrolepidotum</i>	native
SIR	Silver Redhorse		<i>Moxostoma anisurum</i>	native
SLS	Slimy Sculpin		<i>Cottus cognatus</i>	native
SMB	Smallmouth Bass	Noosa'owesi	<i>Micropterus dolomieu</i>	native
SPE	Splake		<i>Salvelinus namaycush X fontinalis</i>	non-native
STS	Spottail Shiner		<i>Notropis hudsonius</i>	native
TRP	Trout-perch		<i>Percopsis omiscomaycus</i>	native
WAE	Walleye	Ogaa	<i>Stizostedion vitreum</i>	native
WHS	White Sucker	Namebin	<i>Catostomus commersoni</i>	native
YEP	Yellow Perch	Asaawe	<i>Perca flavescens</i>	native



Giigoonh (Fish) Composting at Mino Bimaadiziiwin Farm



Mino Bimaadiziiwin Farm is collaborating with the Red Cliff Fish Company to minimize waste from the facility and utilize all parts of the giigoonh (fish) being harvested. Beginning in fall 2020, the Farm has been receiving the fish waste (e.g. heads, guts, carcasses) from the fish processing facility and building piles to turn the fish waste into compost for use at the farm and throughout the community.

What is compost? Composting is the natural process of breaking down organic matter (in this case, fish waste) and turning it into a nutrient rich fertilizer for plants and gardens. It requires oxygen, water, and the right ratios of Carbon and Nitrogen. To simplify, think of Nitrogen as the ‘green’ stuff— such as vegetable scraps, plant material, or fish waste. The ‘brown’ stuff is the Carbon— dried leaves, cardboard, or wood chips, for example. When the green stuff and the brown stuff is combined in a pile, with the right balance of oxygen and water, the materials will heat up and decompose into nutrient-rich compost.

The farm completed some successful trial compost piles in 2019. This fall, the methods were scaled up to accommodate the thousands of pounds of fish waste coming from the facility. The piles are built by first spreading out a base layer of wood chips. Next, alternating layers of fish waste and wood chips are added. After all the material has been added, the piles are mixed with a tractor and covered with a compost blanket that helps retain moisture. The right ratio of fish to woodchips (green stuff and brown stuff) ensures the decomposition occurs properly, with minimal odors. The result is nutrient-rich compost.



Left photo: TNR staff help to spread woodchips over a layer of fish waste.

Right: Finished compost piles covered by a compost blanket.

2020 Elderly Deer Hunt – Giving Back to the Community

By: Linda Nguyen, Environmental Director

November 12th, 2020 marked the annual Red Cliff community deer hunt event, an event which dates back to the late eighties—an almost three-decade tradition! Numerous Red Cliff hunters brought in their harvested waawaashkeshi (deer) to be processed.

Afterwards, the meat is distributed to Red Cliff elders as well as made available for important feasts or gatherings. For the past several years, the Treaty Natural Resources Division staff has led the charge for processing and butchering along side Tribal Leadership, Native Connections, and Red Cliff Police Department. This year, a total of 12 deer were brought in! This event is just one of the opportunities for community to come together to give back.

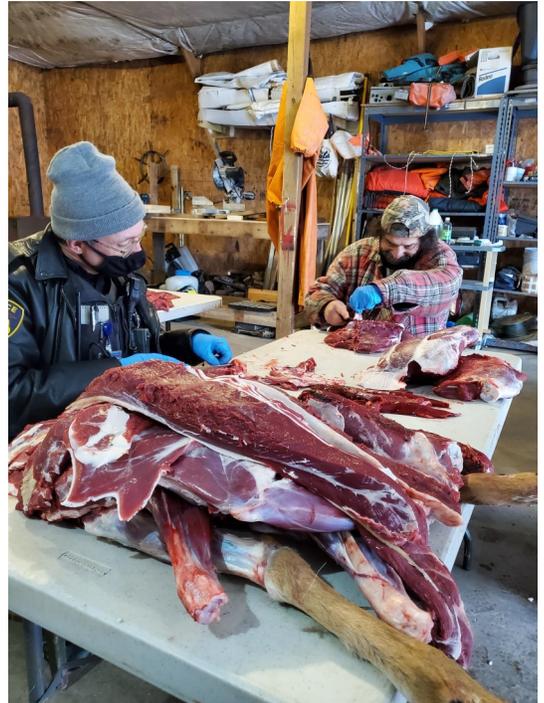


Photo 1. Red Cliff staff processing deer.

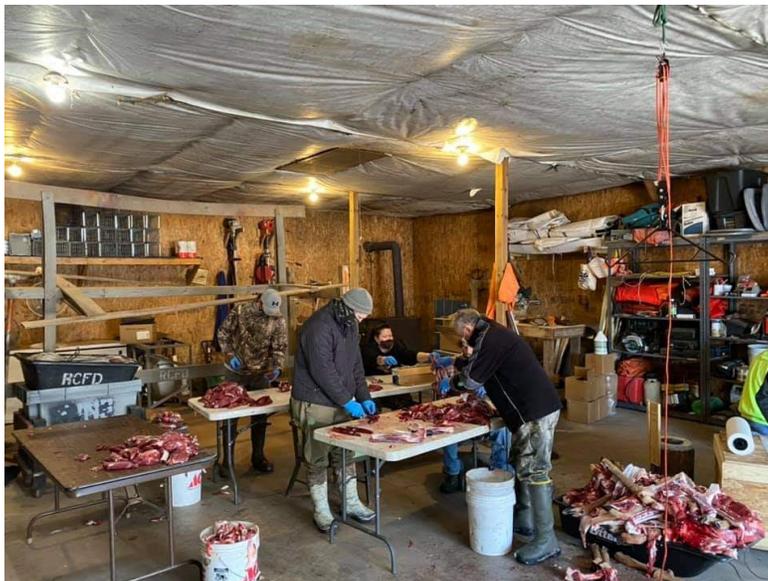


Photo 2. Staff packaging deer meat.

Venison is perhaps one of the healthiest meats in the world! It is a very good source of protein. We use every part of the deer possible. This year, the hides were donated to the Ashland Lions to help support the Wisconsin Lions Camp Program that provides free opportunities to help children and adults with hearing or vision impairments, autism, diabetes or epilepsy experience outdoor activities. The Red Cliff Wildlife Program submitted lymph tissue samples for chronic

wasting disease (CWD) testing from the 6 adult deer processed. All samples tested came back as “CWD Not-Detected”.

Chi miigwech to everyone who made this event successful!

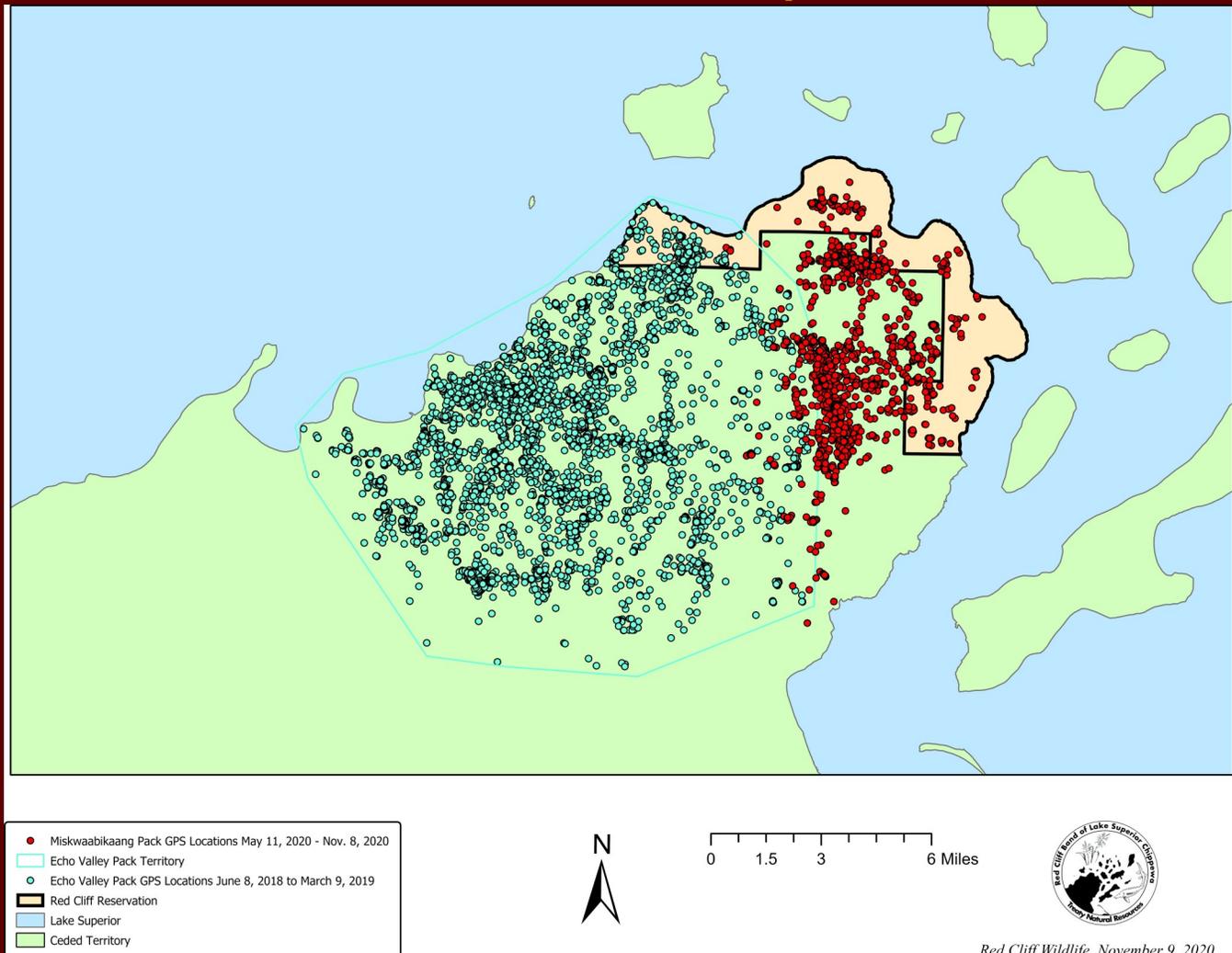
Red Cliff Wildlife & Forestry

Chronic Wasting Disease (CWD) Testing update

Miigwech to all of the hunters that provided us with the opportunity to screen for CWD in the area. So far in 2020, we have been able to collect lymph tissue samples from 15 deer heads that were turned in by hunters in the Red Cliff community. All 15 of the samples have been tested through a partnership with GLIFWC and the USDA Wildlife Health Laboratory in Madison, WI. We are pleased to report that all of the sample results came back as "CWD-Not Detected".

We can continue to collect and process samples, so if you have a deer you'd like to get tested, please bring the head (with about 3-5 inches of neck attached) to the Wildlife office at the Hatchery Broodstock building. A call to Ron Nordin our Wildlife Technician, at 715-209-0031 to let him know you're bringing a head by would be appreciated so he can jot down some basic harvest data and contact information that will allow us to reach you with the test results.

MA'IINGAN MONITORING update



On May 11, 2020, Red Cliff TNR wildlife staff placed a GPS collar on a yearling female wolf near Emil Road. Since then over 2,900 locations have been transmitted to us (red dots on map). This data is clearly defining the pack territory and shows little overlap with the Echo Valley pack to the west.

Red Cliff Wildlife & Forestry

The following is an update on Red Cliff's cooperative Makwa project with UW-Madison and the Apostle Islands National Lakeshore. The report was provided by Monica Cooper, the graduate student leading the project that will be the basis for her Master's Degree.

Intro

This research aims to understand the metapopulation dynamics of black bears in the Bayfield Peninsula. It will provide the tribe and the National Lakeshore with updated abundance and density estimates, vital rates including survivorship, reproductive output and recruitment, project population growth rates, estimate immigration rates and connectivity between islands and between islands and the mainland, and ultimately, determine the viability of these black bear populations. This research will obtain black bear hair for genetic tagging by implementing a non-invasive spatially explicit capture-recapture model in the Apostle Islands National Lakeshore and the Red Cliff reservation during the summers of 2020-2022. Ultimately, we will provide managers with conservation best practices for this culturally and ecologically significant population of black bears.

Monica Cooper, master's student at University of Wisconsin, Madison is carrying out this research under the mentorship of Dr. Jonathan Pauli in his Population and Community Ecology lab. Monica completed the first field season of data collection including planning and coordinating with partners to set up and check 57 hair corrals. We collected over 1,300 black bear hair samples on Red Cliff and the Apostles during summer 2020. Laboratory work for DNA extraction and genotyping is currently under way and will continue into the fall and winter of 2020-2021. Next summer, we will continue field work using the same design, without any significant changes to the protocol or the project goals.

Methods

Hair Collection

During the summer of 2020, we collected black bear hair non-invasively (Pauli^a, et al. 2010) using "hair corrals" (Woods et al. 1999). We constructed hair corrals with 4-barbed, 2-strand wire wrapped around ≥ 3 trees at 50 cm and 20 cm (Wilton et al. 2014) from the ground (Figure 1a.). We baited corrals with 0.5 L fish oil deposited in a pile of debris at trap center and anise sprayed on vegetation at 2 m above ground around the perimeter (Belant et al. 2005). We collected hair from barbs, placed them into coin envelopes, and stored at -20°C until genetic analysis (Figure 1b.). We re-baited hair corrals at every check. In

Table I. Summary of black bear hair samples collected in each target trapping location during the summer of 2020.

Location	No. Hair Samples
Mainland	479
Oak	476
Stockton	172
Basswood	145
Sand	73
Total	1345

the summer of 2020, we deployed 57 hair corrals on Red Cliff and target islands: Stockton, Oak, Basswood, and Sand. We placed hair corrals in a $1.6 \times 1.6 \text{ km}^2$ grid (Belant et al. 2005, Wilton et al. 2015), with one corral in the center of each grid (Figure 2). We set 17 corrals on Stockton, 8 on Oak, 5 on Sand, 4 on Basswood, and 23 on the mainland in a similar density (1 per 2.5 km^2) to previous spatially explicit non-invasive capture-recapture black bear studies (Settlage et al. 2008, Sollmann et al. 2012, Boersen et al. 2003, Gardner et al. 2010, Obbard and Howe 2008, Howe et al. 2013, Wilton et al. 2014, Belant et al. 2005,



Figure 1 a. Black bear hair corral with barbed wire wrapped around three trees (approx. 1.5 m to center) at 20 cm and 50 cm from the ground, 0.5 L of fish oil at center. **b.** Researcher collecting black bear hair.

Red Cliff Wildlife & Forestry

Makwa Project Update continued... Page 2 of 3.

Wilton et al. 2015). We deployed 4 additional hair corrals (1-per island) on non-target islands (Hermit, Manitou, Otter, and Bear) for gene flow and connectivity calculations. At target locations, we collected hair every 9-12 days for 6 sessions from May-August 2020. On non-target islands, we collected hair 1 to 2 times. During summer 2020, we collected 1,345 black bear hair samples (Table I). We will deploy this same hair corral grid and hair collection schedule in the summers of 2021 and 2022.

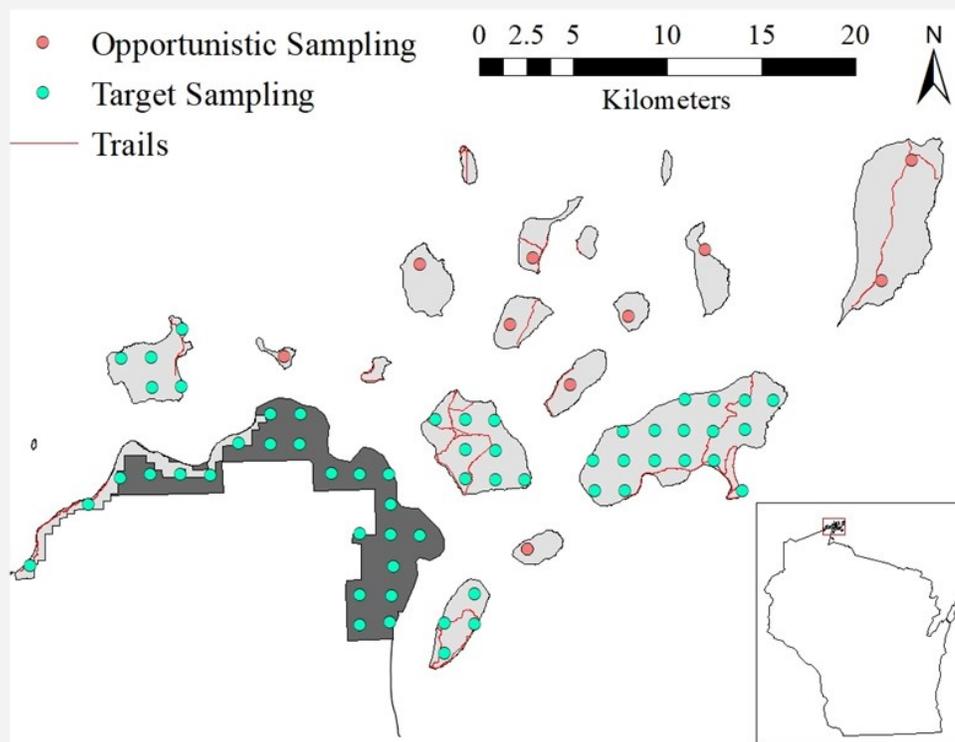


Figure 2. Locations of black bear hair snares in the Red Cliff (dark grey) Reservation and Apostle Islands National Lakeshore (light grey).

Analyses

We are currently conducting DNA extraction on 2020 bear hair samples in the Pauli Lab at UW Madison. Following DNA extraction, we will use 19 previously described polymorphic microsatellites (Meredith et al. 2020, Kristensen et al. 2011) optimized in two multiplex panels to genotype black bears for individual and sex identification. We will conclude DNA extraction and genotyping in the winter of 2020 and begin data analyses during the spring of 2021.

For analyses, we will calculate expected heterozygosity (HE) and observed heterozygosity (H), allele frequencies, and diversity statistics, test for departures from Hardy-Weinberg equilibrium and linkage equilibrium for the entire dataset. We will use a robust design model (Lukacs and Burnham, 2005) to account for genotyping errors, recapture probability and model selection bias. We will use the program MARK (White and Burnham 1999) to estimate abundance and survivorship. We will estimate black bear density as abundance divided by sampling area (Wilson and Anderson 1985). We will use teeth collected by the Wisconsin Department of Natural Resources from hunter-killed carcasses in northern Bayfield County to determine age and fecundity (lifetime reproductive events) by cementum annuli ring analysis (Kontio et al. 1992, Stoneberg and Jonkel 1966).

Continues on next page

Red Cliff Wildlife & Forestry

Makwa Project Update continued... Page 3 of 3.

We will use multilocus genotypes and the sex of individuals in order to identify first order relatives (parent-offspring dyads and triads and full-sibling dyads) using the program Cervus v3.0.3 (Kalinowski et al. 2007). Parentage will allow us to quantify juvenile recruitment as the number of offspring produced per female and estimate the levels of connectivity between islands and the mainland by comparing the observed number of first-order relative pairs split between differing land bodies (Proctor et al. 2020). We will use STRUCTURE version 2.3.4 (Pritchard et al. 2000) to cluster individuals by genotype and determine the number of subpopulations. We will test for genetic differentiation between populations by calculating pairwise F_{ST} (Weir and Cockerham 1985) values for each locus separately and for all loci combined (Larson et al. 2018)). We will test for isolation by distance by calculating genetic distance as $F_{ST}/(1-F_{ST})$ and geographic distance as the natural log of the distance in kilometers between populations (Larson et al. 2018).

Deliverables

The goals and objectives of the project will remain the same moving forward into 2021. This project will help protect species diversity; help protect a species that is culturally significant to Red Cliff and provide new insights into the population dynamics of this genetically distinct black bear population. We will determine the abundance and vital rates, connectivity, as well as conduct the first viability analysis for this subpopulation of black bears. This information will be used to better steward and protect bear populations within the Apostle Islands and the Red Cliff Reservation. In particular, our research will help to inform harvest quotas and management on the Red Cliff Reservation and the National Lakeshore. Our project will develop a non-invasive, genetic based mark-recapture study to lay the groundwork for a long-term monitoring plan for population trends of black bears regionally and cost-effectively. Additionally, through fieldwork, this project will foster a collaborative endeavor between state (UW-Madison) federal (National Park Service) and tribal agencies (GLIFWC, Red Cliff). In addition to the interim and final project reports that summarize data collection, genetic analyses, bear abundance and vital rates by island and subpopulation, and management recommendations from our viability analyses, our findings will be disseminated via at least one scientific and popular article, professional presentations, and lectures to the public, at the National Lakeshore and Red Cliff as well as students at UW-Madison.



Gi-Ganawemaanaan Nibi: We Are Protecting the Water

January 2021

Nibi Akawe Mashkiki, water is the first medicine. **Nibi Bimaadiziwin**, water is life. Any threat to water is a threat to all life, the Anishinaabeg, **giigoonh** (fish), **mashkiki** (medicines) and all of our other **indinawemaaganag** (relatives). As industry continues to try to destroy the **aki** (land) and **nibi** (water) people continue to resist.

Line 5 1836 Territory Updates:

- Enbridge's 67 year old pipeline moves oil and natural gas from **Oodenaang** (Superior, WI) to near the Aamjiwnaang First Nation near Sarnia, Ontario traveling under the Straits of Mackinac. Line 5 has had over 30 spills totaling over 1 million gallons of oil.
- Michigan Department of Environment, Great Lakes and Energy (EGLE) and the Army Corp of Engineers have continued their regulatory processes for the proposed Line 5 Tunnel. Comment periods for several state and federal permits have closed following Public Hearings.
- Tribes and intertribal agencies submitted extensive comments under the leadership of Bay Mills with continued support from Earth Justice and Native American Rights Foundation. Tribes raised concerns around environmental impacts on treaty rights and treaty protected relatives from the proposed project as well as the cultural significance and sacredness of the Straits of Mackinac.
- A group of community members, led by Little Traverse Band and Saginaw Chippewa members, have been conducting cultural surveys in the Straits of Mackinac this summer using a traditional jiimaan and ROV (remote operated vehicle). They found what is thought to be a 9,000+ year old cultural site just west of Line 5. Enbridge maintains that they conducted adequate surveys, but are willing to share information with tribes. Prior to this finding, an archaeologist with Michigan's State Historic Preservation Office had already reported that historical sites of a similar time period were not included in Enbridge's archaeological review. The archaeologist also reported that an Enbridge contractor was directed to ignore portions of pre-existing data and told not to consult with an expert archaeologist.
- A Michigan Judge ruled that the Michigan Public Service Commission (MPSC) can evaluate the need for the proposed Line 5 Tunnel and if it could be designed, constructed and operated safely. The judge ruled that the MPSC should not assess potential climate change contributions from the proposed Tunnel or Line 5 as a whole.
- Michigan governor revoked Enbridge's easement to operate Line 5 in the Straits of Mackinac and directed Enbridge to stop the flow of oil by May 2021. Enbridge has since filed a counter suit in Federal court.

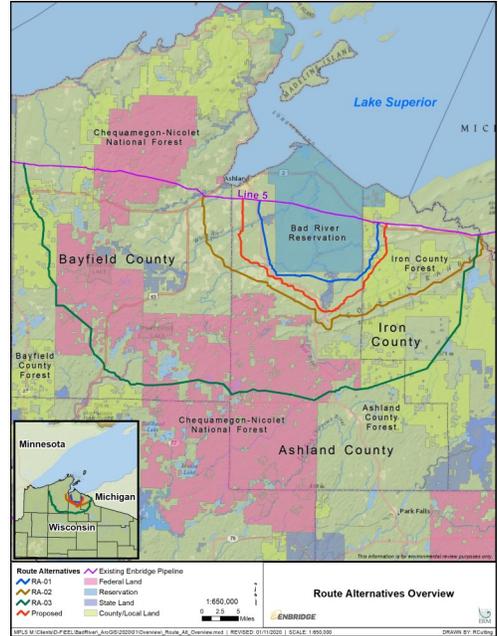


Gi-Ganawemaanaan Nibi: We Are Protecting the Water

January 2021

Line 5 1842 Territory Updates:

- As Bad River continues to be entrenched in a legal battle with Enbridge to remove Line 5 from their reservation, Enbridge is betting on all of their horses. The company is trying to renew their on-reservation easements, do on-reservation maintenance and push forward with their proposed Reroute.
- The Army Corp of Engineers is considering a General Permit for the proposed Reroute. This means that tribes would have much less opportunity to comment on the proposed project outside of Section 106 and Government to Government consultations. Tribes, GLIFWC and environmental non-profits are urging the Army Corp to review the project under an Individual Permit, which would require thorough environmental review.
- A billboard paid for by the Penokee Hills Education Project opposing Line 5 (pictured to the right) has been stolen for the third time since June. The billboard was posted on Highway 13 across from Enbridge's local office. Enbridge and their friends are suspected to be responsible for the continued theft.
- The Wisconsin DNR (WDNR) has begun drafting an Environmental Impact Statement (EIS). No construction related permits can be issued until a Final EIS has been released. The WDNR expects the Draft EIS to be released for public comment in "early 2021".
- Enbridge submitted a permit application to attempt to reinstall a portion of Line 5 where it crosses the Bad River within the Bad River Reservation. The location, known as the Bad River meander, is where the river has been eroding the shoreline into the path of Line 5. Bad River has found the application to be administratively complete and is soliciting public comments.





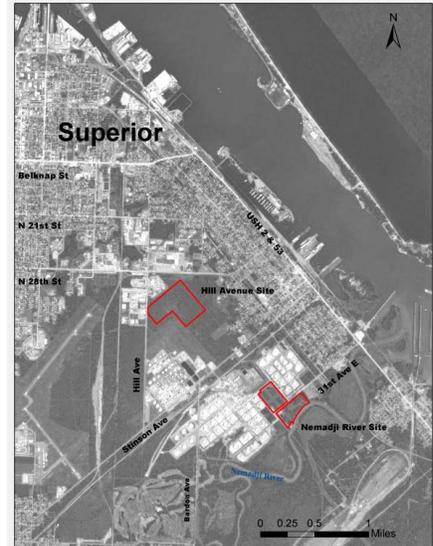
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Nemadji Trail Energy Center Updates:

- Dairyland Power Cooperative and Minnesota Power are proposing to build a natural gas powerplant in **Oodenaang** (Superior, WI). The project site is located on the Nemadji River next to an Enbridge facility and is expected to use gas from horizontal fracturing (fracking) sites. The site is next to the St. Francis Xavier Cemetery, where Ojibwe graves were relocated after U.S. Steel moved them from what is known as Wisconsin Point.
- An applicant has submitted applications with the Army Corp to install a pipeline that would connect the powerplant to an Enbridge pipeline.
- GLIFWC and Fond du Lac staff are reviewing the proposed project. Initial reviews indicate that the company wants to construct the pipeline across “high quality wetlands” and the Nemadji River.



Line 3 Updates:

- A proposed tar sands pipeline that would cross over 200 water ways and the heart of **Manoomin** (wild rice) **nibi** from the Cree, Chipewyan and Metis territory known as Alberta, Canada to **Oodenaang** (Superior, WI).
- Enbridge has received all state and federal permits after years of regulatory and legal setbacks. Many of these permits are being challenged in court, but Enbridge is allowed to begin construction. Much of the pipe for the proposed project has been sitting in outdoor pipe yards for about two years. There is concern that the protective coating on the pipes is deteriorating due to long term exposure to the sun and other elements that the coating wasn't designed to withstand.



Gi-Ganawemaanaan Nibi: We Are Protecting the Water

January 2021

Line 3 Updates continued:

- Part of the permitting process included an agreement that Enbridge would cover all law enforcement expenses related to Line 3 protests. The Minnesota Public Utilities Commission (PUC) created a Public Safety Liaison position to work with Enbridge on “security provisions”. The PUC directed Enbridge not to engage in “counterinsurgency”. Enbridge owned 25% of the Dakota Access Pipeline and is attributed with 25% responsibility for the counterinsurgency tactics used to harm water protectors and land defenders. There is a lot of concern and uncertainty around what type of violence Enbridge will bring to northern MN. Law enforcement have already been reported carrying some of the same “less lethal” weapons that were used near Standing Rock.
- A Fond du Lac tribal member reported that the Northern Clearing crew logging the Right of Way has already had a Covid 19 outbreak. This hasn't been verified, but Northern Clearing did post a position for a “Covid-19 Project Coordinator and Contact Tracer” around the same time the accusation was made.
- Enbridge plans to bore under the Mississippi River using the same technique they have proposed boring under the Bad River. Water protectors, under the guidance of Anishinaabe Ogitchidaakwe, are committed to protecting ceded territory. So far, this has focused on defending the Mississippi River and Willow River. This has included holding ceremonies on work sites, individuals locking themselves to equipment and vehicles, and a “tree sit”. Nearly 30 water protectors have already been arrested.
- Midewin members built a waaginogaan near the Mississippi River crossing, which triggered Enbridge's Unanticipated Discovery Plan and halted work near the waaginogaan for several days.





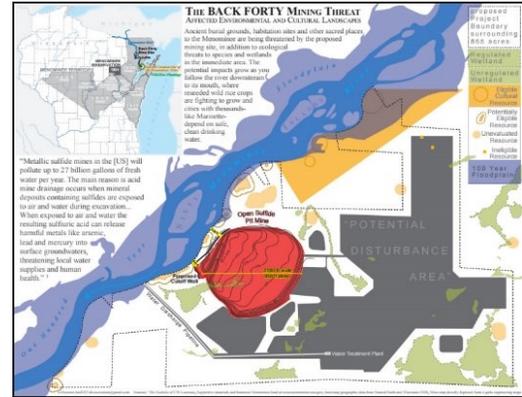
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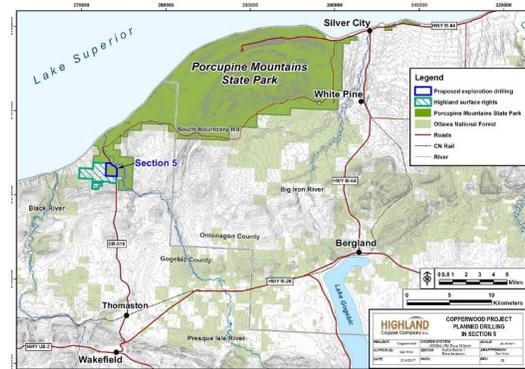
Back 40 Mine Updates:

- The Back 40 Mine is a proposed sulfide mine on the shores of the **Manoominkaani-ziibi** (Menominee River), upstream of the birth of the Menominee People and **Boojwiikwed** (Green Bay).
- Aquila Resources recently submitted a revised Dam Safety Permit application to state regulators.
- State regulators are also reviewing a NPDES permit (National Pollutant Discharge Elimination System, a permit that allows for the discharge/release of used water) reissuance application for the project. The project's NPDES permit expired and Aquila Resources has applied to reissue the permit. All other permits have been issued, but have long lists of unmet permit conditions. Work under these permits cannot commence until the conditions have been met.



Copperwood Mine Updates:

- The Copperwood Mine is a proposed copper mine near the shores of Anishinaabe Gichigami just outside of the Porcupine State Park.
- Copperwood Project's proposed Water Intake Structure (WIS) in Lake Superior is currently the only federally regulated aspect of this project, which would pump 500,000 gallons of nibi out of Anishinaabe Gichigami each day. This structure would pump water from between the **Makadewaagamiwi-ziibi** (Black River) and the **Gaa-minitigojiwaniing** (Pesque Isle River)
- The Army Corp of Engineers has refused to expand the scope of their review per tribal requests. They claim that the scope of their review is limited to the water intake structure. Their environmental review will not include the proposed mine (that the water would be used for) or where the water will be discharged.
- The NPDES Permit for the proposed project expired several years ago. EGLE (Michigan Department of Environment, Great Lakes, and Energy) has begun to review the reissuance application. EGLE is expecting to have it ready for tribal review in a couple months.



Gi-Ganawemaanaan Nibi: We Are Protecting the Water

January 2021

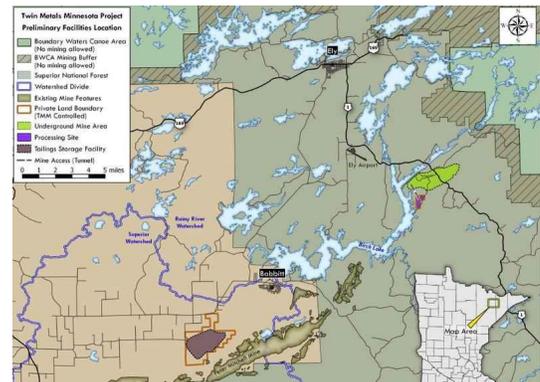
Badger Minerals Updates:

- Badger Minerals, a new company with connections to Aquila Resources, conducted exploratory drilling near the Wolf River in Oneida County. Menominee and Mole Lake Tribes led community opposition in defense of water and wild rice.
- Badger Minerals stated that they would not be purchasing the land and pursuing mining along the Wolf River after receiving the analysis of their core samples. The company claimed mineral deposits weren't rich enough to warrant further exploration.



Twin Metals Mine Updates:

- The Bureau of Land Management (BLM) has begun the scoping process for the Environmental Impact Statement (EIS). Currently, they are trying to figure out what topics should be included in the document. The Department of Interior directed the BLM to have a Final EIS completed by summer 2022. Tribal staff have concerns about the adequacy of an EIS developed in such a short time frame.
- The Minnesota DNR has also begun their state level EIS scoping process.



Wisconsin Mining Regulation Updates:

- In 2017, Wisconsin's "Prove It First" mining law was removed from mining regulation without replacing it with anything. This law previously required a company to "prove" their proposed mine would be safe by comparing it to a similar sulfide mine that had operated or been remediated for 10 years without environmental harm being done. The DNR has released draft regulations to fill in some gaps for nonferrous metallic (sulfide) mining in Wisconsin. Some tribal and intertribal staff have been reviewing and commenting on preliminary language. TNR staff are currently reviewing the proposed regulations.
- GLIFWC, Lac du Flambeau, Mole Lake, Menominee and Red Cliff submitted extensive comments along with various environmental non-profits on the draft mining rules.
- The draft rules are expected to be approved by WDNR Natural Resources Board in January.



Gi-Ganawemaanaan Nibi: We Are Protecting the Water

January 2021

Nibi Akawe Mashkiki, water is the first medicine. **Nibi Bimaadiziwin**, water is life. Any threat to water is a threat to all life, the Anishinaabeg, **giigoonh** (fish), **mashkiki** (medicines) and all of our other **indinawemaaganag** (relatives). As industry continues to try to destroy the **aki** (land) and **nibi** (water) people continue to resist.

Want to get involved and protect the Nibi?

Opportunities to Comment to the Federal or State Agencies:

- The U.S. Forest Service is **still** accepting public comments regarding Chequamegon-Nicolet National Forest's expired Line 5 Special Use Permit, for details go to: <https://www.fs.usda.gov/project/?project=44889>
- To get WDNR updates on the proposed Line 5 Reroute, go to: <https://dnr.wisconsin.gov/topic/EIA/Enbridge.html>
- To get updates on Michigan's process for the proposed Line 5 Tunnel or to submit comments, go to: <https://www.michigan.gov/line5/>
- Stay up to date on the Nemadji Trail Energy Center with the WI DNR's website: <https://dnr.wi.gov/topic/WaterUse/ntec.html>

Want to join the Frontlines?

- Need help figuring out the best way for you to get involved in the fight against Line 5? Reach out to Red Cliff's Environmental Justice Specialist! Contact info below.
- Contact the Ginew Collective or check out Honor The Earth's *Welcome Water Protectors* website to help stop Line 3:
 - ginew@protonmail.com or www.facebook.com/ginewcollective/
 - <https://welcomewaterprotectors.com/>

For more information about any these projects, please contact our Environmental Justice Specialist at noah.saperstein@redcliff-nsn.gov or (715) 779 3650 ext. 4315

Gloves, Masks, and Pollution!

By Linda Nguyen, Environmental Director

Waste generated from Coronavirus has become a new form of pollution as single-use personal protective equipment (PPE), like masks and gloves, floods our land and water and recycling bins. Coronavirus has had a number of unexpected impacts on the environment, curtailing recycling and increasing the use of plastic around the world. Masks are essential for stopping the spread during the pandemic and they have become an every day accessory. When the pandemic surges, disposable masks and gloves that have not been disposed of correctly have been turning up in the environment and recycling bins at the Red Cliff Transfer Station.

Did you know?

Due to the materials of single-use masks, it could take up to **450 years** for masks to decompose in nature and can cause micro-plastic pollution in our waters. Let's work together to dispose of masks and gloves properly!



Photo 1. Masks found in the environment.

Some helpful reminders about glove and mask disposal:

- Masks and other disposable material that are used to contain the pandemic, such as gloves, **must not be disposed of in the recycling bin.** Please place masks and gloves in bags and then into the compactor at the Red Cliff Transfer Station.
- Check out alternatives to single-use masks. The Center of Disease Control offers guidance on cloth masks here: [How to Make Masks to Help Slow Spread | CDC](#)

FOR MORE INFORMATION ON ITEMS ACCEPTED AT THE RED CLIFF TRANSFER STATION

Contact:

Red Cliff Environmental Department ~ 715-779-3650

Red Cliff Transfer Station ~ 715-779-0171

Website:

www.redcliff-nsn.gov/divisions__services/treaty_natural_resources/transfer_station



2020 Hazardous Waste Collection Event

By: Linda Nguyen, Environmental Director

On Oct. 29th, 2020, the Red Cliff Environmental Department hosted a free Hazardous Waste Collection Event at the Red Cliff Transfer Station. This year, we collected 2,300 pounds of pesticides, solvents, and approximately 400 gallons of waste oil. For more information on what you can do at home to store or dispose of hazardous waste, continue reading...

Does your house have hazardous waste?

Hazardous waste can be found in basements, under kitchen sinks, and dark garage corners. Hazardous materials in and around your home can affect your family and pets and can be toxic to rivers, fish, and wildlife. Follow and share these tips for reducing, recycling, and disposing of different types of hazardous materials in your home to prevent illegal dumping and presence of pollutants in our streams.

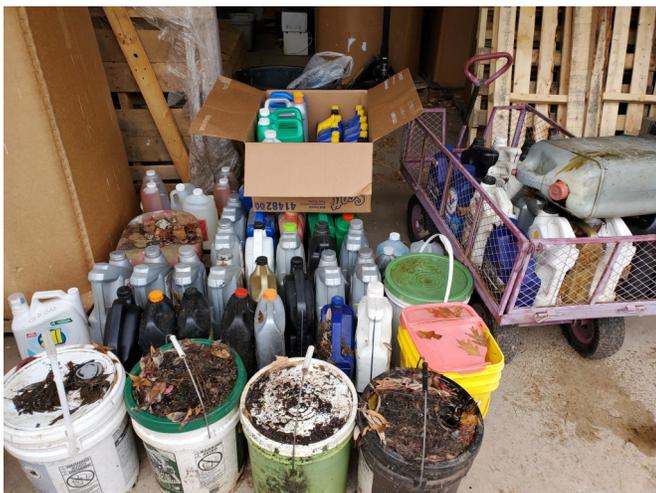


Photo 1. Waste oil collected during event.



Photo 2. Hazardous Waste contractor on site for removal.

Where can I dispose of hazardous materials?

Clean beaches and healthy creeks, rivers, bays, and Lake Superior are important! Hazardous materials must never be poured or thrown into yards, sidewalks, driveways, toilets, or streets. Rain could wash the materials into the roads and drains and eventually into our waterways. Proper disposal is easy! Drop them off at designated facilities like Red Cliff Transfer Station!

Is Your Christmas Wrapping Recyclable?

Environmental Department

A common mistake many people make around the holidays is loading their recycling bins with wrapping paper, tissue, ribbons, and more. Unfortunately, the shiny, laminated paper is **not recyclable**. Here are some helpful tips for this holiday season:



Bows (Plastic or Ribbon) - These items are **not** recyclable. Reuse them or dispose of them in household trash.

Wrapping Paper - If paper is metallic, has glitter or is velvety, these items are **not** recyclable. Reuse it or dispose of them in household trash.



Christmas Cards - If cards are printed on shiny paper, has glitter, or metallic embossing, these items are **not** recyclable. Reuse it or dispose of them in household trash.

When you're buying next year's wrapping paper, you can reduce the environmental impact of your purchase by looking for paper made from recycled materials. Try also to avoid foiled and laminated papers, to make sure as much of it as possible can be recycled again.

And there you have it – recycling holiday gift wrappings really couldn't be easier! Call Environmental Department at 715-779-3650, if there are any questions!

**ATTENTION RED CLIFF TRIBAL MEMBERS
FEE-EXEMPT PARKING IS AVAILABLE AT USFS
VALHALLA RECREATION AREA**



Through an agreement between participating GLIFWC member bands and the U.S. Forest Service, Tribal members may park for free with a permit in U.S.F.S. recreation areas. The free parking permits are available at the Red Cliff Wardens Office (715-779-3732).



**MEYERS BEACH/SEA CAVE
PARKING AREA**

To enhance the opportunity to exercise treaty-retained rights within the Lakeshore, **NO-FEE PARKING** may take place at Meyers Beach subject to the following conditions:

No member shall park at Meyers Beach without providing the following information **ON AN AVAILABLE FEE ENVELOPE (insert no money):**

1. Member's Name
2. Member's Address
3. Member's Tribal Affiliation
4. Member's Enrollment Number





Winter Pet Care

Winter is here again, meaning not only cold weather for us, but for our pets as well. Indoor and outdoor pets feel the effects of winter weather and here are a few tips to ensure a healthy and happy pet.



1. Most pets should be welcomed into the home to keep safe and warm.
2. If your dog is chained outside, a doghouse must be provided. According to Red Cliff Ordinance 15.10.2 - *No owner or keeper shall fail to provide an animal (s) with food, water, adequate shelter, or proper care when needed to prevent suffering.* To provide the most comfortable shelter the house should be a few inches off the ground to allow for air circulation and waterproof. A flap covering the entrance will help keep the warm air inside the house and provide protection from wind gusts. The dog house should be large enough for the dog to lie down and have a little head room when sitting down. At this size the dog's body warmth will keep the house warm. Adding fresh hay, straw, and cedar shaving will add warmth and comfort.
3. When temperatures drop below 20 degrees it is best to keep your pet indoors. When it drops below 40 degrees short haired dogs, elderly dogs, and puppies should be kept indoors.
4. Keep a watchful eye on your pet. Frostbite can affect both dogs and cats and is common on ears, noses, paws, and bellies. Signs of frostbite include turning reddish, white, or grey and the skin is cool to touch. If your animal shows signs of frostbite, bring it indoors and call a veterinarian.
5. Outdoor cats may seek shelter in your car engine for warmth. Be sure to honk your horn or bang on the hood before starting the engine to give them extra time to evacuate.
6. Antifreeze attracts both cats and dogs. Ethylene glycol is an ingredient in antifreeze that provides a sweet taste which invites may invite animals to taste it. Even a small amount is enough to cause death. If a pet has swallowed antifreeze, call a veterinarian immediately.
7. Some salts used to clear roadways and sidewalks can be harmful for pets. Make sure you inspect your dogs' paws after walks for any embedded salt rocks and wipe paws to prevent them from ingesting it.
8. With the decrease in temperatures your pets' body will be working extra hard to produce more heat. This will increase their appetite and they will require more food than normal. Always have fresh, clean water available – snow is not enough. Check your outdoor pets' water frequently as it may freeze. Animals cannot burn calories without a fresh supply of drinking water.

If you follow these tips your pet can be comfortable throughout the winter which makes you a good pet owner. If you have an animal welfare concern or feel that someone is violating Red Cliff Ordinances you can call the Red Cliff Wardens at (715) 779-3732. If you need immediate assistance call Bayfield County Dispatch at 715-373-6120. If you have an emergency, dial 911.



ICE DANGER AND ICE SAFETY



Before going out onto a frozen lake, pond or river, it's important to take safety precautions to reduce the risk of falling through the ice. Knowing how to judge ice conditions will also help you make more informed decisions while fishing or recreating on frozen lakes.

Springtime can be an especially dangerous time to venture out on a frozen lake. The springtime's warming temperatures can create rapidly changing and unpredictable ice conditions. Remember there is no such thing as ice that is completely safe. Here are some important tips to follow before you decide to venture out.

- Carefully Check Ice Conditions
Remember you take a risk anytime you go out onto the ice.
Ice thickness is not consistent. Water currents, particularly around narrow spots, bridges, inlets and outlets, are always suspect for thin ice.
When ice fishing, it is always a good idea to drill test holes as you progress out onto a lake to help judge the thickness and character of the ice.
Beware of ice around partially submerged objects, such as trees, logs brush, embankments or dam structures.
Don't judge ice strictly by appearance.
Stay away from cracks, seams, pressure ridges, slushy areas and darker areas that signify thinner ice.
Be aware of ice that forms at the edges of lakes. Ice melts at the edges first in spring.
- Carefully Check Ice Conditions
Never go out onto the ice alone. A buddy should be able to rescue you or go for help if you fall through.
When changing locations on the ice always walk at least 10 yards apart from your buddy. If one person falls through the ice, the other can go for help.
Before you leave shore, inform someone of your destination and expected time of return.
Always wear a life jacket or personal flotation device (PFD), over an ordinary snowmobile suit or layered winter clothing. Life jackets can provide excellent flotation and protection from hypothermia. Specialized coats that float or dry suits are also highly recommended.
Assemble a personal safety kit, no larger than the size of a man's wallet, and carry it on your body. The kit should include a lighter, waterproof matches, magnesium fire starter, pocketknife, compass and whistle.
In addition to the above safety equipment, carry ice picks, a rope and cellular phone. These items could save your life.
Always keep your pet on a leash. If a pet falls through the ice, do not attempt to rescue your pet. Go for help.
- What to Do if You Fall Through the Ice
If you **cannot** get out of the cold water by yourself, take the appropriate actions to extend your survival time while waiting to be rescued.
Stay calm. Do not attempt to swim; swimming will cause our body to lose heat much faster than if you stay as still as possible.
Use a whistle to attract help. **Act slowly and deliberately to conserve heat** and move slowly back to where you entered the water. Expect a progressive decrease in your strength and ability to move. Make the harder moves to attempt to get out of the beginning while you can.
If you are wearing a snowmobile helmet and your face is in the water, remove the helmet as quickly as possible because it can fill with water and cause you to drown. Hold onto it to keep afloat.
Once on the ice, try to push yourself forward on your stomach or roll on your side to keep the weight distributed over a greater surface area. Do not stand up until you have moved onto the ground or an area of solid ice.

If you would like more information on ice safety, contact the Red Cliff Wardens at 715-779-3732. If you have an ice emergency DIAL 911.

ISKIGAMIZIGAN *A SUGAR BUSH*

MISHIIMIN *AN APPLE*

MA'IINGAN *A WOLF*

GOOKOSH *A PIG*

WIIYAAS *MEAT*



Ojibwemowin Word Search

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

BIBOON (WINTER)

WAABIZHESHI

(A MARTEN)

OJIIG (A FISHER)

WABOOZ

(A SNOWSHOE HARE)

NOOKIZIGWAA

(THERE IS SOFT ICE)

MAMAANGIPON

(THERE ARE BIG SNOW-FLAKES)

ISHPAAGONAGAA

(IT IS DEEP SNOW)

AAGIME

(S/HE SNOWSHOES)

GOOKOSH (A PIG)

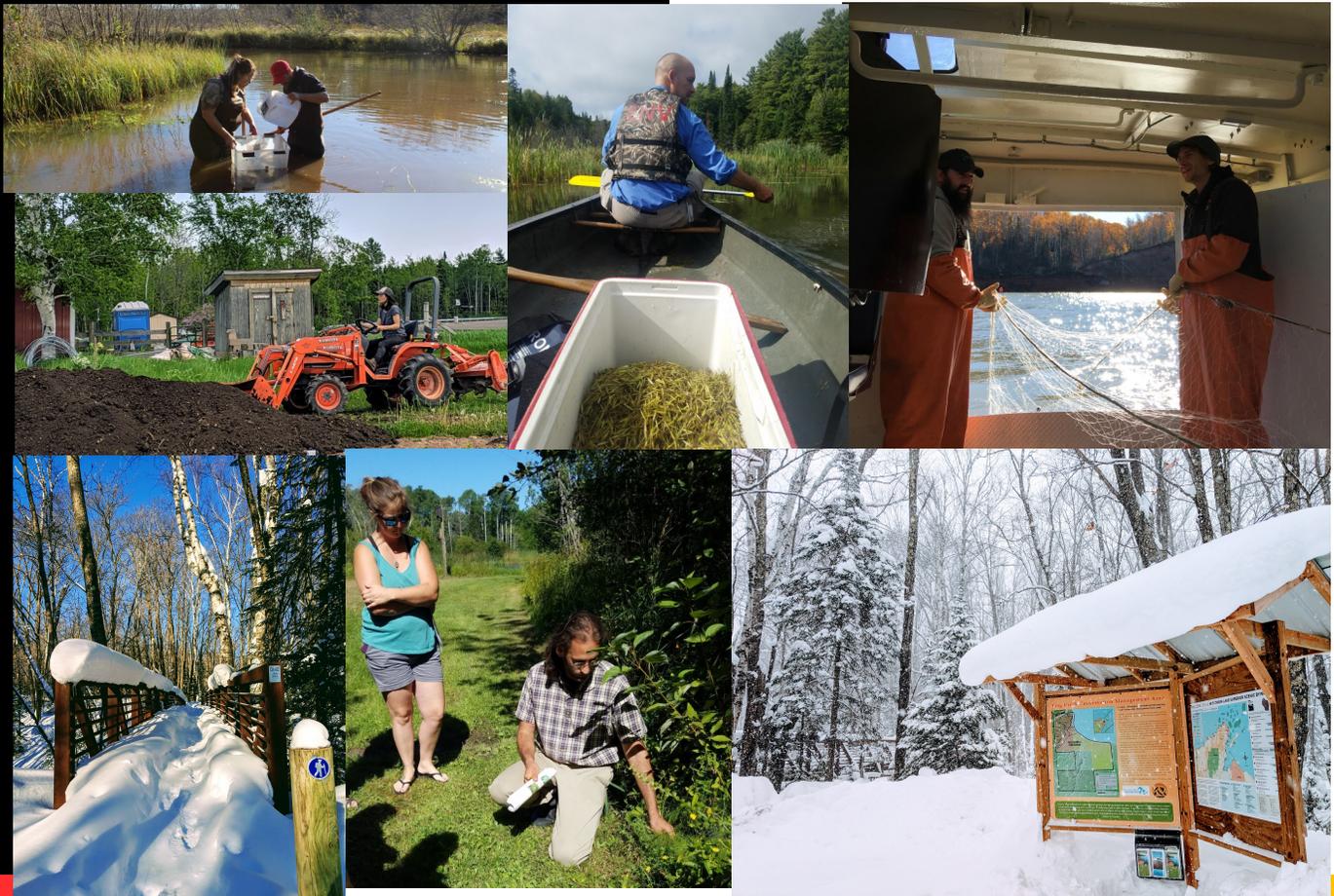
WIIYAAS (MEAT)

MA'IINGAN (A WOLF)

MISHIIMIN (AN APPLE)

ISKIGAMIZIGAN

(A SUGAR BUSH)



RED CLIFF BAND OF LAKE SUPERIOR CHIPPEWA

Treaty Natural Resources Division



Fisheries	715-779-3750
Environmental	715-779-3650
Natural Resources	715-779-3795
Transfer Station	715-779-0171
Conservation Wardens	715-779-3732
Mino Bimaadiziiwin Farm	715-779-3782