# Ganawenjigaade

It is taken care of , protected . . .

We take care of , protect , keep it



Red Cliff Band of Lake Superior Chippewa

# Treaty Natural Resources Division Newsletter

Volume 6, Issue 2, Summer 2017



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# ATTENTION: RED CLIFF COMMUNITY MEMBERS

The Red Cliff Circles of Care Project would like to invite all community members to attend our Advisory Committee meetings.

#### "Your voice is the most important"

Please join us from 5:30-7:00 pm at Legendary Waters on the following dates:

• 6/21/2017

. 8/16/2017

· 7/5/2017

. 8/30/2017

· 7/19/2017

. 9/13/2017

. 8/2/2017

. 9/27/2017

\* Incentives available for participation





Questions? Please call Angela Berg at the Circles' office: 715-779-5030 ext. 261

### **Employee of the Month**

By: Chad Abel

An office is only as good as its staff. And we here at the Treaty Natural Resources Division 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.



#### **April Employee of the Month**

#### Gabrielle VanBergen, Water Resources Manager

Gabby first began working for the Tribe as the Water Resources Assistant before being promoted to manage that program last year. She was quick to get up to speed and gladly embraced the additional responsibilities. She was nominated for EOTM for her aptitude in building partnerships across tribal programs and for a grant proposal she completed to address streambank erosion concerns on Red Cliff Creek. Keep up the good work, Gabby!



#### March Employee of the Month

#### Jeremy St. Arnold, Assistant Biologist, Forestry & Wildlife

Jeremy has been successful at advancing wildlife projects and research in the TNR Division. He built the marten/fisher research project from the ground up and secured funding to make the project happen. He developed a wolf research project set to begin this month with field locations on the Red Cliff reservation and the Chequamegon-Nicolet National Forest as well. Jeremy is also part of team advancing the sharp-tailed grouse restoration work. His over-the-top zest for all things wildlife related (including their excrement lol) is the reason he was recognized for EOTM in May!



#### **April Employee of the Month**

#### Amorin Mello, Environmental Justice Specialist



Nobody fits more perfectly into their role in the TNR Division than Amorin. Amorin has significantly improved our project comments, permit reviews and correspondence to outside agencies. His work has expanded the Tribe's influence and involvement in the ceded territory; an important component in maintaining Treaty rights and exercising tribal sovereignty. We thank Amorin for willingly pouring over lengthy technical documents to make the Tribe's input and review the best it can be.







# New Employees





Farm Technician

Lena Wilson

Earth Partnership IAS Intern

Mino-giizhik Debunge

Native American Studies Farm Technician

# Meet the Treaty Natural Resources 2017 Summer Interns

#### Ceaira Gordon

My name is Ceaira Gordon, I am 16 years old, and I'm a junior in High School. I wanted to do this internship so I could learn more about the environment and expand my knowledge about wildlife and lots of other projects. I had also done this internship the past year and had a great experience with it; I had a lot of fun, learned new things, and met new people. For High school students who don't know what they would want to do as an adult I would suggest this job, they have lots of departments and fun people for you to work with.





#### **Talon Defoe**

Boozhoo. My name is Talon Defoe from Red Cliff. I've lived here throughout my whole 15 years of being alive and I couldn't ask for a better home. Growing up on a reservation I was given many opportunities to be connected with nature. There've been many camps although there's one GLIFWC camp that has really influenced what I'd want for a future career. I saw this internship and noticed the similarities it had with the camp. I'd get to work with fish, plants, and animals, all things that I enjoyed about my camp experience. This internship may also be a way for me to find a future career in wildlife conservation.

#### Giovanni Garramone

My name is Giovanni Garramone and this internship really seems like a fun experience. Compared to my normal hobbies, which include mainly playing videogames and watching movies, the world of wilderness and outdoors isn't something I know all too well, so I'm glad that I have an opportunity to truly experience it through this program. I really hope to gain some knowledge that's actually practical and useful in everyday life. I may do well in school, but once that part of my life is over, it would be good to actually know some of this stuff. I also hope and believe that this internship will teach me things I never knew and introduce me to a whole new world of information. Overall, I can say I'm very excited to start working.



# What will the TNR interns be up to?

The interns have already been integrated into Natural Resources and started helping in the hatchery. They joined Reed Saam in the field Electrofishing on Chicago Creek. You can find more on this project on the next page. The interns helped to net, gather samples from a fish, and document the event. The strangest thing was found: a *living* half a brook trout!

NEWS FLASH: Half Trout looking for its other half





#### The interns have also chosen focus projects for the duration of their internship:

Ceaira will be working on Brook Trout Growth and Feed Consumption. She will have to measure the length and weight of the trout that was raised in the hatchery. She will also record the food each tank of fish gets every day.

Talon's project is Small Mammal
Trapping. He will set live animal traps in
the woods of the reservation He will
record what he found and take pictures of
that animal.

Giovanni's Project is Fish Community of Reservation Streams. He will help the Fishery Program with electrofishing 3 streams and documenting what he found in each stream. He will record what fish he found and the habitats they live in.



Camping trip in Sylvania Wilderness

# Red Cliff Walleye Stocking

This year the Red Cliff Fish Hatchery is in the process of overhauling the walleye rearing ponds at the facility. The current ponds are showing their age and production has been reflected in that regard. Because the ponds are inoperable at the tribal facility this year, the hatchery decided to seek outside help. Hatchery staff still collected eggs from our youth spearers during the youth spearing event, in collaboration with the Bad River tribe, as well as other tribal spearers throughout the season. The eggs were then brought over to the Northern Aquaculture Demonstration Facility (NADF), here in Red Cliff, for rearing. NADF then raised the fish to the 2 inch size for release. With the ponds project requiring a large sum of money, this grow out size is all that was feasible for the hatchery this season. Roughly 40,000 fish were stocked in this collaborative effort on 6/28/2017. The Red Cliff Fish Hatchery is also working in collaboration with the Saint Croix Band in rearing a group of extended growth walleye for later this year.



Above: Scoop of Walleye Fingerlings about to be stocked. Right: RC Working with NADF Staff collecting Walleye from the catch basin and transferring to the RC stocking truck

# ROUND 1 2017







# Brook Trout passage on Chicago Creek

Submitted by: Reed Saam - Biological Technician

One of the most important problems that streams throughout the world face today is what happens when a road crosses over the stream. Almost all of the streams and rivers in the world have at least one road that crosses over them. We have to creatively engineer these crossing to not only suit our needs as humans but also make them suitable for all the organisms that live in the streams.

In the fall of 2016, TNR staff installed a fish ladder in the culvert on Chicago Creek underneath blueberry road. The purpose of the fish ladder is to create a series of pools and drops to make it easier for brook trout and other aquatic organisms to move upstream. This is especially important for brook trout because in the fall they prefer to swim upstream to spawn.

In the spring of 2017, TNR staff electrofished upstream of the Blueberry Road culvert and successfully caught 6 larger brook trout. A very small fin on the fishes backs called the adipose fin was clipped off and placed in envelopes as well as scale samples. This very slight surgery and the electricity used to collect the fish do not harm them. The purpose of putting the fish through this procedure is to determine if they can swim back up the fish ladder we put in, get a genetic sample from the fish, and to determine the age of the fish by the rings on their scales which can be seen under a microscope.

The brook trout caught were moved from upstream of the culvert to downstream of it via 5 gallon buckets. Another electrofishing survey will be conducted later this summer to see if any of these clipped fish decided to return upstream. Hopefully we see these fish again and we can confirm that the fish ladder is a successful method for improving aquatic organism passage for stream road crossings for years to come.





# Spirit Island Streambank Stabilization

Submitted by: Todd Norwood – Project Coordinator

During late May and early June, Treaty Natural Resources staff, community members, and Bayfield High School students all pitched in to help preserve Spirit Island for future generations. For years, Spirit Island's southwest facing bank along the Raspberry River was heavily eroding and depositing the sandy sediment into the river. This was a concern of many Red Cliff community members; through time, the island may be almost completely eroded away. The likely cause of the heavy erosion was years of foot traffic along a trail near the bank edge and down to the waterline. Loss of vegetation occurred where foot traffic was greatest and combined with susceptible sandy soils and a somewhat steep slope, erosion started to increase dramatically.

In order to stabilize this vulnerable bank, we installed aspen fiber "bio-logs" along the waterline and planted approximately 12,000 native plants in both the wet and dry portion of the site. All of the plants used were native to Spirit Island and once established should hopefully stabilize the sandy bank. All materials used are biodegradable and within 2-3 years, the site should look quite natural.

In order to allow the plants to establish and help stabilize the bank, we ask people to please stay out of the restoration area. The trail has been re-routed and still comes close to the project site where you can watch as this site changes through time.

Treaty Natural Resources would like to thank the Natural Resources Conservation Service for engineering and funding assistance and the Fish & Wildlife Service for funding assistance on this project. Additionally, milgwech to everyone that assisted with implementing the project, including Mr. Rick Erickson and his students from Bayfield High School!





# Spirit Island Streambank Stabilization



**PLANTINGS:** Poverty Oat and Hair Grass were planted among previously planted Beach Grass. Canada Wild Rye seed was broadcasted in the area. Four wetland species were planted in the bio-logs along the water: Lake Sedge Soft Stem Bulrush Soft Rush Giant Bur-Reed



A group of the work party, including Rick Erickson's class.

# Stormwater Runoff

What is running off your yard

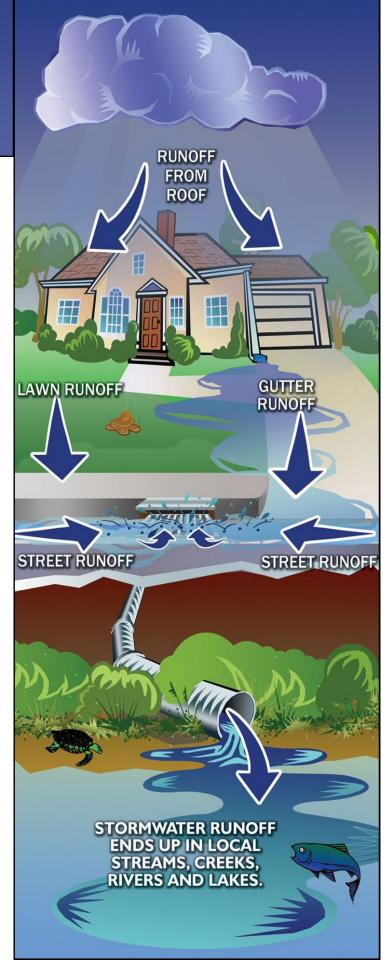
Residential areas tend to have high amounts of impervious surfaces (areas where water cannot get into the ground due to solid structures such as rooftops, driveways, roads, etc.). High amounts of impervious surfaces allow water to run off the land at a faster rate and in turn, the water is able to carry more pollutants into nearby streams and to Lake Superior. Water also moves more rapidly, causing erosion problems and depositing sediment into streams, which damages water quality and fish habitat.

# Some common pollutants coming from our yards and streets include:

- Heavy metals (from cars and shingles)
- Road salt and sand
- Toxic substances such as antifreeze from cars
- ⋄ Oil/grease/gasoline
- Debris such as garbage
- Pesticides/fertilizers from treated lawns/gardens
- Viruses, bacteria, and nutrients from pet waste
- Thermal pollution (water warms up from dark surfaces such as blacktop)

# All of this non-point source pollution can have very negative impacts on the environment, including:

- Harm fish and wildlife
- Kill native plants
- ⋄ Foul drinking water
- Make recreational and swimming areas unpleasant



# Red Cliff Band of Lake Superior Chippewa expand Frog Bay Tribal National Park and protect the Frog Creek watershed by establishing the Frog Bay Conservation Management Area

Submitted by Chad Abel—TNR Division Administrator

RED CLIFF, WI - In 2011, the Red Cliff Band leveraged a private donation from David and Marjorie Johnson along with coastal estuary funding to successfully acquire an undeveloped 88-acre lakeshore property within the tribe's reservation boundaries. The Johnsons, who had owned the property for decades, donated half the land value to help make the acquisition a reality. The Tribe used the conservation land purchase to create Frog Bay Tribal National Park, the first tribal national park in the United States, and opened the park to use by tribal members and the general public alike. Since that time, the tribe has developed nearly two miles of hiking trails and other amenities at Frog Bay to accommodate the steady flow of visitors to the park.

Bryan Bainbridge, Red Cliff tribal chair, who back in 2011 worked in the tribe's natural resources program, did not want to see it stop there.

"We were looking at the uniqueness of this part of our reservation and realized we needed to ensure that all of Frog Bay be protected and available to our children and grandchildren, just the way it is today, pristine and undeveloped," said Bainbridge.

Bainbridge, who went on to become Red Cliff's tribal vice chairman and later the tribal chairman, said he didn't lose sight of his past work in the tribe's natural resources program. Working closely with the administrator of Red Cliff's Treaty Natural Resources Division, Chad Abel, the two continued to explore avenues to acquire other tracks of former reservation lands in the Frog Creek watershed.

"We continued to build relationships with the non-tribal landowners in the area while simultaneously exploring funding avenues to ultimately restore these lands to tribal ownership," Abel said. "There were a lot of setbacks over the years. I began to think the goal to repatriate all the lands in Frog Bay to tribal ownership would never happen."



Five Apostle Islands can be seen from the shore of Frog Bay Tribal National Park.

## Frog Bay Conservation Management Area

A private landowner held 86 acres on Frog Bay, which included one-half mile of undeveloped shoreline and the Frog Creek estuary. Bainbridge and Abel also had their eye on an 80-acre upstream parcel owned by Bayfield County that was the headwaters of Frog Creek. "Bryan and I sat in a lot of meetings. We continued to share the story of Frog Bay Tribal National Park. We shared openly the tribe's goals for land repatriation. We highlighted the real conservation value and need for protection that existed at Frog Bay, and the Tribe's role in natural resources protection. I think it was a compelling narrative," said Abel.

Finally, in 2016, ongoing discussions began to progress. Both the private landowner and Bayfield County agreed to sell their holdings to the tribe should the tribe secure the necessary funding. That same year, a meeting was arranged for Great Lakes National Program Office (GLNPO) to visit Frog Bay Tribal National Park.

That visit proved to make all the difference.

"We aligned the tribe's goals with the goals of habitat protection in the Great Lakes Restoration Initiative (GLRI), and GLNPO agreed to fund the purchase of the 86 acre private property," said Abel. "Then in 2017, Bureau of Indian Affairs (BIA) awarded additional GLRI funds to acquire the Bayfield County holdings. The rest I guess is history."

The Red Cliff Tribal Council recently moved to rezone all of the Frog Bay holdings as preserved, and they rezoned 40 acres of tribal lands already in trust to protect the Frog Creek riparian corridor between the

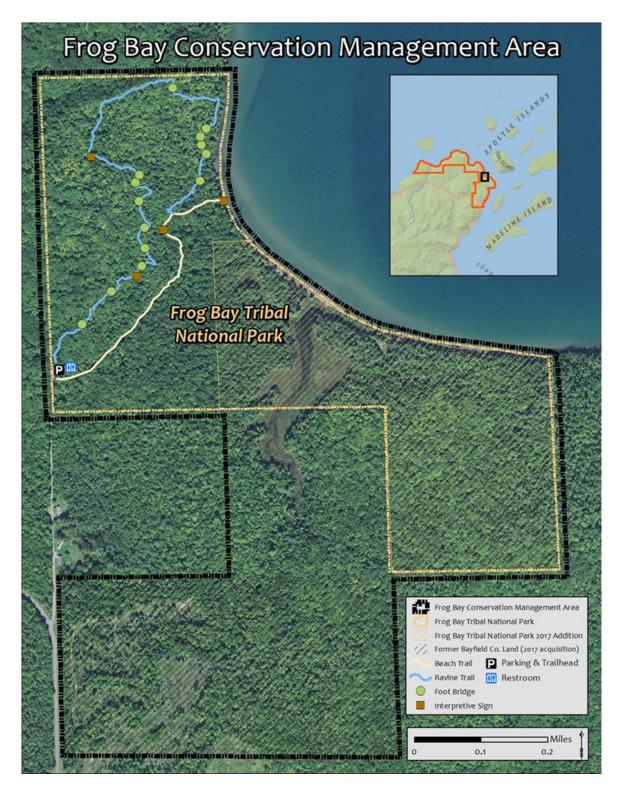


Aerial view of Frog Bay and the Frog Creek estuary.

estuary and headwaters. As a result, 295 acres will be permanently protected in the Frog Creek watershed.

"It was the right thing to do," says Bainbridge. "These actions ensure that the uniqueness of Frog Bay be available for the next seven generations to experience."

The acquisitions double the size of Frog Bay Tribal National Park to 175 acres within the newly minted 295-acre Frog Creek Conservation Management Area. Use by the general public will be restricted to park boundaries, however.



"We don't plan to build any additional trails within the new park boundaries, but visitors can use the existing trail system and walk the sand beach at Frog Bay," said Abel.

With the Frog Creek Conservation Management Area's preserved designation, allowable uses include hiking, wildlife viewing, activities of cultural significance, spiritual ceremonies and quiet enjoyment by tribal members. Activities of cultural significance by tribal members include the customary subsistence practices of hunting, fishing and gathering.

# Wildlife Spotlight: Mustelids of WI

Red Cliff Wildlife & Forestry

**Treaty Natural Resources: Summer Newsletter 2017** 

# American martens-*Martes americana* & Beech/Stone martens-*Martes foina*

American marten: The marten is Wisconsin's lone endangered furbearer. Marten are a semi-arboreal I-3.5 lb mammal adept at climbing trees. They give birth between March and May to three to four young, usually in tree dens, though they will also den in fallen logs, rocks, squirrel nests and woodpecker holes. Once extirpated from Wisconsin, they have been reintroduced through several reintroductions and are now found in and around Clam Lake, Eagle River, Red Cliff, Apostle Islands, Douglas



and Iron Counties. In 2008-2010, the most recent wave of reintroductions was made to supplement Wisconsin's existing population and coincidentally marten began showing up on RC trail cameras in 2010. Marten prefer large areas of mature or old growth upland conifer and northern hardwood forests, especially with a lot of fallen timber and downed woody debris. Marten may not be harvested in Wisconsin and special "marten protection zones" exist with limited trapping to avoid incidental capture of this species. American marten are currently being researched by Red Cliff Treaty Natural Resources (RC TNR).

#### Did You Know?

- American marten have been found on 7 of the Apostle Islands thus far: (confirmed with cameras): Stockton, Cat, Manitou, Rocky, Otter, Bear; (confirmed with DNA only)-Outer
- Although the WDNR is aware of marten populations on the Red Cliff Reservation and the Apostle Islands, they have yet to include these areas in their maps of marten range or as part of the marten protection areas (MPA's).
- Though marten are furbearers, they have a hard time staying warm in the winter and utilize subnivean tunnels in/under the snow to stay warm and hunt.
- The Marten or *Waabizheshi* Clan is one of the original 7 clans/doodems.



Stone martens/Beech martens: The stone marten, or beech marten is a furbearer native to central and southern Europe. Stone martens were brought from Germany to Wisconsin for fur farming (The Burlington Fox Farm), but escaped in the 1950s and established a population in SE Wisconsin.

Physically, the stone marten is very similar to the American marten, but the two species can be differentiated by the coloration of their fur, particularly around the throat. They also do not currently have overlapping ranges. (WDNR)

# **Mustelids Continued: Fishers and Mink**

## Fisher-Martes pennanti (Red Cliff fisher pictured below)

The fisher is a medium-sized member of the weasel family. Fisher are dark brown to almost black in color with long bushy tails. Fishers can weigh anywhere from 3-15+ lbs and are about 3 ft. long. Fisher have one litter of one to five kits per year. They spend their resting time in trees and hollow logs; and will eat small mammals, squirrels and porcupines, among other prey. There have been multiple fisher reintroductions to Wisconsin and Michigan beginning in the 1950's, using fishers from mostly Minnesota and New York. Oddly enough, fisher sometimes get confused for cougars, especially when in their short summer coats. Fishers are currently being researched by RC TNR.



#### Mink-Mustela vision

The mink is a semi-aquatic furbearer common throughout Wisconsin. These small weasel like carnivores have short, dense fur and may have white patches on their chest, belly, and/or chin. Mink typically weigh 1.5-3 lbs. with males being larger than females. They eat muskrats, fish, reptiles, amphibians, waterfowl, eggs and small mammals. They prefer to hunt around water bodies, but they will travel and forage for food in upland habitats at times. Mink are one of the few mammals that mate in spring. Mink, like all members of the weasel family, have delayed implantation,



meaning the fertilized egg doesn't implant to the uterine wall immediately. Mink give birth in late spring to 5-6 young. Though mink molt twice a year, they do not turn white. Kits start hunting after about 8 weeks and become sexually mature by their first spring, at only 10 months of age.

#### Did You Know?

- Population models produced estimates that totaled approximately 7,000 fishers in fall 2016 in the northern 1/3 of the state compared to the population goal of 9,200. (WDNR 2017)
- Fisher population models produced estimates for fall 2016 of approximately 1,800 fishers in Zone A, 2,200 in Zone B, 1,200 in Zone C, and 1,800 in Zone D (Table 2). Fisher populations appear to be near the established goal in zone A but appear to be below established goals in zones B, C and D. Population goals have not been established and models have not been developed for zones E and F. (WDNR 2017)
- Occasionally mink like to sneak into the Broodstock building at the Red Cliff Fish Hatchery and try to steal a few trout. They are live trapped and released in suitable habitat near one of the rivers or wetlands on the Reservation.
- The white coloration of some mink, commonly used in luxury coats, is the result of selective captive breeding.
- Fisher are one of the few animals adept at killing porcupines. They bite at the face of the porcupine until the animal rolls over and exposes the soft underbelly.

# **Mustelids Continued: Weasels**

# Short Tailed-Mustela erminea, Long Tailed-Mustela frenata, Least-Mustela nivalis

The short tailed weasel or stoat, is entirely similar to the least weasel in general proportions, behavior and movement, though the tail is relatively longer, always exceeding a third of the body length, though it is shorter than that of the long-tailed weasel. Short tailed weasels have an elongated neck and their head is set exceptionally far in front of their shoulders. Least weasels typically go prey that is mouse-like in size and smaller; while larger short tailed weasels and long tailed weasels can go after larger prey, such as rabbits, birds, squirrels or young muskrats. Weasels typically dispatch their prey with a bite to the back of the neck. Occasionally weasels will cache surplus prey. Least weasels=4.5 to 10 in long and weigh from 1-3 ounces; Short tailed weasels=6.5 to 13 inches long and average weight for males is 9 ounces and 6 ounces for females; Long tailed weasels=11-16 inches long and 6-16 ounces. For all three species, males tend to be larger in both length and weight.







Top Left=Red Cliff short tailed weasel; Top right=Least weasel; Bottom=Red Cliff long tailed weasel

#### **Did You Know?**

- All 3 species of weasels look incredibly similar and all are commonly referred to as ermine when in their snow white winter pelage.
- Although there are obvious differences in size, the main way to tell a least weasel from a short tailed or long tailed weasel is the lack of a black tip on the tail of a Least weasel.
- All 3 species of weasel undergo a color change from brown on top and white on bottom to white all over. Note: short tailed and long tailed weasels keep the black tip to their tail even in the winter.
- Otters are found in most of the world except Antarctica and Australia.
- Weasels eyes glow emerald green in a spotlight.
- Wisconsin's nickname is
  "The Badger State" because
  miners dug tunnels into
  hillsides searching for lead
  ore in the 1800's and
  sometimes lived in
  abandoned mine shafts,
  reminding people of badgers
  (the nickname also
  described the hardworking,
  energetic settlers of the
  Wisconsin Territory).
- Though Wisconsin has long been known as the "Badger State", the badger did not become the state mammal until 1957.
- A badger appears on Wisconsin's state flag, state seal, and is even mentioned in the state song.
- Weasels have been known to lap up blood of their prey.

# **Mustelids Continued: Otters and Badgers**

#### River Otter-Lontra canadensis

North American River Otters are stocky with short legs, a muscular neck no smaller than the head, webbed feet, and an elongate body; they can weigh between 11 and 31 lbs. They are protected by thick, insulated and water repellent layer of fur. River otters are equally versatile in the water and on land. They establish a burrow close to the water's edge in river, lake, swamp, coastal shoreline, tidal flat, or estuary ecosystems. The den typically has many tunnel openings, one of which generally allows the otter to enter and exit the body of water. Female otters give birth



in these underground burrows, producing litters of one to six young. Otters often eat fish, especially perch, suckers and catfish; but they also consume various amphibians, freshwater clams, mussels, snails, small turtles, crayfish, small mammals, and birds as well. Otters have a nictitating membrane that protects their eyes while swimming.

### Badger-Taxidea taxus

American Badgers have stocky and low-slung bodies with short, powerful legs. They are identifiable by their huge fore claws (measuring up to 2 inches in length) and distinctive head markings. Typically measuring between 23.5 and 29.5 inches in length, males of the species are slightly larger than females, with an average weight of roughly 15 lb for females and up to almost 20 lb for males, though males can be over 25 lbs. Except for the head, the American badger is covered with a grizzled, brown, black and white coat of coarse hair or fur, giving almost a mixed brown-tan appearance. The coat aids in camouflage in grassland

habitat. Its triangular face shows a distinctive black and white pattern, with brown or blackish "badges" marking the cheeks and a white stripe extending from the nose to the base of the head. Badgers are the Wisconsin state mammal.



#### **Did You Know?**

- Wolverines are the largest terrestrial mustelids.
- The badger is the fastest digging animal on earth, and one of the strongest for its size. An American badger was observed digging through the asphalt surface of a parking lot. It took him less than two minutes to disappear completely!
- Badger's have been known to partner up with other species, and sometimes even share the same burrow.
   Most common in England is badgers and foxes, in the U.S. it is the coyote and the badger, and on the island of Palewan it is the porcupine.
- One of the more curious badger facts is that a large part of their diet is earthworms. Badgers are stoutly built, powerful and cantankerous carnivores. There are 11 species of badger ranging across several continents including North America, Africa, Europe and Asia.
- The word badger comes from the French word "becheur" meaning "digger".
- Badgers have a third eyelid that protects their eyes from all the flying soil, as well as thick guard hairs in their nostrils and ears to keep them free of debris.
- There are 13 species of otter.
- An Otter can remain under water for up to 4 minutes. They can also dive up to 300 feet!

# **Mustelids Continued: Wolverines**

Family Mustelidae: Weasels and Other Mustelids
<b>EXT</b> Gulo gulo Wolverine
Lontra canadensis <sup>15</sup> Northern River Otter
SE Martes americana American Marten
Martes foina Beech Marten <sup>16</sup>
Martes pennanti Fisher
Mustela erminea Ermine
Mustela frenata Long-tailed Weasel
Mustela nivalis Least Weasel
Mustela vison American Mink
Taxidea taxus American Badger

## Wolverines-Gulo gulo

A wild wolverine has not been documented in Wisconsin for over 75 years, but they were historically native to the state. Thought by some to look like a small bear, wolverines were known as "skunk bears" by the Blackfeet Indians. The Latin name for the wolverine, *Gulo*, means glutton, and is thought by some to refer to the wolverine's propensity to kill large prey and consume large quantities of meat in one sitting. Wolverines have a circumpolar distribution and are found in the remote boreal forests, taiga, and tundra of the northern latitudes of Europe, Asia, and North America. Wolverines have a broad head, small eyes and short rounded ears with dark brown fur. They tend to have a lighter-colored face mask and stripe running down both sides of its body. Wolverines can weigh over 35 lbs and are powerfully built and have short legs with wide feet perfectly suited for traveling across the snow. Individual wolverines may travel as much as 15 miles in a day in search of food. Some scientists estimate that there are less than 300 wolverines left in the lower 48 states.



Wolverines are opportunistic feeders and eat a variety of foods depending on availability. In the winter they primarily scavenge dead animals, while in the summer their diet consists mainly of smaller mammals such as porcupines, hares, marmots and ground squirrels. They can also take down much larger animals, including caribou and moose, when circumstances such as deep snow are in their favor. Wolverines are not known for backing down and have even been rumored to kill bears in confrontations. As with all mustelids, wolverines are very aggressive, strong, and tough in relation to their size.

## Sustainable Strategies for Small Cities and Rural Areas Building Blocks for Sustainable Communities

# Clinic Trail / Clayton Creek Trail

Submitted by: Mike DeFoe

The Red Cliff Treaty Natural Resources Division, Minobimaadiziiwin Gitigaanin Tribal Farm, and the Community Health Center have collaborated to develop a non-motorized trail that was first described in a Building Blocks Sustainable Communities strategic planning event in 2015 (Figure 1). The trail will follow and cross segments of Clayton Creek. It has been physically flagged, multiple times, in conjunction with using GPS coordinates to track a path to assist in trail development. During this process, it was determined that a few small foot bridges will be necessary and a larger bridge will be required to cross Clayton Creek.

The current flagged trail is approximately 1 mile long, stemming from the backside of the Community Health Center to a corner of the old Isle Vista Casino lot, connecting to the blacktop path along highway 13 (Figure 2). We made every attempt to limit the slope in the small ravine sections while utilizing the natural beauty of the creek. The trail is covered in a mixed hardwood coniferous forest and contains pockets of both black ash stands and cedar stands throughout.

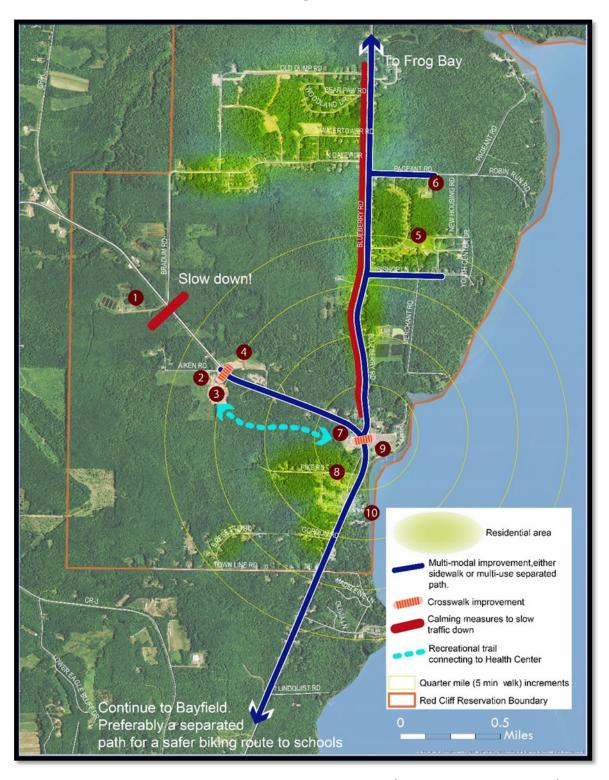
Recently, Treaty Natural Resource Division staff went out and started clearing the trail. We used rakes and loppers to trim the growth of small woody debris. After a long morning of work we only covered roughly a ½ mile of trail. Once the completion of the

rough trail (raking and lopping) is complete, we would like to build multiple bridges to span over wet areas and bring out a chainsaw for larger trees and windblown trees. In the future, we would like to install blue trail markers along the entirety of the trail going both ways so it can be identified during all seasons.





# Clinic Trail / Clayton Creek Trail



**Figure 1:** ACCESSIBLITY, SAFETY AND MOBILITY MAP. MAP KEY: 1) RED CLIFF HATCHERY; 2) COMMUNITY FARM; 3) RED CLIFF HEALTH CARE CENTER; 4) POW WOW GROUNDS; 5) LDER CARE CENTER; 6) EARLY DEVELOPMENT CENTER/HEADSTART PRESCHOOL; 7) TRIBAL ADMIN OFFICES/FIRE STATION; 8) TRIBAL ADMIN/HOUSING; 9) LEGENDARY WATERS

# Clinic Trail / Clayton Creek Trail



Figure 2: An image of the proposed Clayton Creek hiking. The path was created using GPS tracking.

BAGAMOSE She/he arrives walking

BABAAMOSE She/he walks about, takes a stroll

BAGIZO She/he goes swimming

BADAKIDOON Plant it; set it up

GIZHAATE It is hot outside

GZHOOTE It is hot inside

# Raspberry Campground Prescribed Fire

Submitted by: Todd Norwood and Reed Saam



For years, Treaty Natural Resources staff have pursued a goal of reintroducing prescribed fire to the Raspberry Campground area. We knew that many years ago there were somewhat frequent fires, while historic aerial imagery confirms the site was much more open and less densely forested. Blueberries or miinan, were also much more abundant under the open conditions which allowed abundant sunshine through to the forest floor. Our plan was to use prescribed fire to decrease tree and shrub density, allowing more sun penetration while also stimulating the miinan plants. In early June this year, we finally achieved stage one of that goal and put fire on the ground at Raspberry! Leading up to the fire a number of Treaty Natural Resources staff, which included Red Cliff tribal members, completed basic wildland fire training and were able to participate on the burn.

# Raspberry Campground Prescribed Fire



# Raspberry Campground Prescribed Fire

On June 1, 2017, Red Cliff TNR collaborated with the BIA and put fire on the ground at Raspberry. Everything went amazingly well and the fire was completely contained within the target burn area. The goal was to kill less than ten percent of the larger red pine while burning all the smaller understory plants, trees and shrubs. Only one red pine was severely burned and the entire understory was burned so both goals were met. It was the first prescribed fire for most of the TNR staff so it was a great learning opportunity and the experienced wildland firefighter crew with the BIA did an excellent job of teaching us the tricks of the trade.

It will be interesting to watch how this area responses to the aftermath of fire and how the understory plant community changes. Most likely it will be at least another year before blueberries take hold again but hopefully in the future this area will be an excellent place to not only camp but also harvest wild minan.



# When Burning is Allowed?



The following chart shows:

- When you need a burn permit
- What you can burn
- When you can burn

<b>Permit Required</b>	WHAT CAN BE BURNED	Low	Moderate	High	Very High <b>Extreme</b>
YES	Grass, Brush, Wood	В	urn	Do Not Burn	
NO	3x3x3' Ring for Cooking/Warming		Burn		Do Not Burn
NO	3x3x3' Ring for Ceremonial	Burn			

Ceremonial fires will be allowed during high to extreme conditions, but shall be in compliance according to Red Cliff Tribal Council Resolution 4-16-2015 A, which includes having a fire keeper monitoring the fire at all times.

#### The current fire danger can be viewed at:

http://dnr.wi.gov/topic/forestfire/restrictions.html

#### Or call:

1-888-WIS-BURN (947-2876)

If you have any questions or would like a burn permit, please contact the

Red Cliff Environmental Department at 715-779-3650.

If you come across a fire that needs to be reported, please contact:

Red Cliff Tribal Wardens at 715-779-3732 or

**Bayfield County Dispatch at 715-373-6120.** 



# **ATTENTION CAMPERS**



#### Fee-exempt Camping at National Forest Campgrounds

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



To Use A Fee-Exempt Campground You Must:

- Be a Red Cliff Tribal member or member of another Band that has ratified the Tribal/USFS Campground
  Agreement.
- Obtain a Tribal camping permit from the Red Cliff Wardens. Call to make an appointment A list of feeexempt campgrounds, and the booklet entitled Regulations Summary: National Forest Treaty Gathering and Camping are available at the Wardens Office.
- Follow the camping registration procedures at the campground. Generally, this involves providing information requested on the registration envelopes found at the campground and placing it in the deposit box. Free parking passes are also available.
- Camp only at the campsite for which you have registered.
- You may not leave your possessions unattended at a campground for more than 24 hours. If left unattended for 24 hours or more, your possessions may be confiscated and retained by GLIFWC law enforcement personnel.

Other information regarding to camping or other Treaty Rights may be found on the GLIFWC website or by calling the Red Cliff Wardens at 715-779-3732.

## **Buffalo Reef and Tribal Fisheries**

Submitted by: Amorin Mello, Environmental Justice Specialist



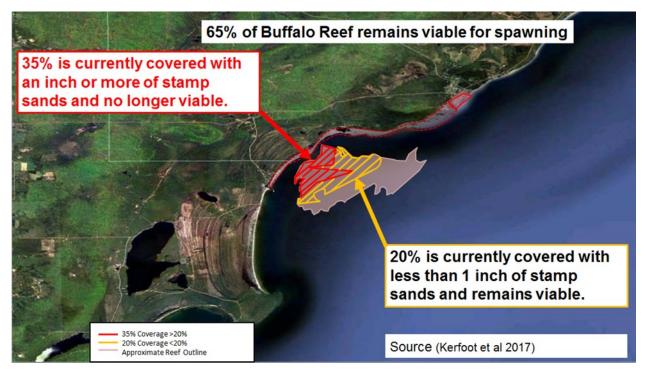
I Map of Gay stamp sands and Buffalo Reef by Great Lakes & Ohio River Division of United States Army Corps of Engineers

Buffalo Reef is a critical spawning location for Whitefish and Lake Trout in the Keweenaw Bay of Lake Superior. Buffalo Reef is also a valuable tribal fishing area for the Red Cliff, Bad River, and Keweenaw Bay Bands of Lake Superior Chippewa. Lake Trout use the spaces between reef rocks to lay eggs, and larval Whitefish use the area to the south for juvenile recruitment (maturation).

The bad news is Buffalo Reef has been degraded in recent decades by uncontrolled erosion and runoff of toxic copper stamp sands migrating from legacy Keweenaw copper mine dump sites on the shoreline of Lake Superior near Gay, Michigan. The original pile of stamp sands along the shoreline is estimated to have been 22,000,000 cubic yards. Today, only 2,300,000 cubic yards are remaining at the original pile. Roughly 20,000,000 cubic yards have eroded and washed away into Lake Superior over the decades, where it has migrated along the lakebed. An estimated 2,900,000 of those stamp sands have been filling in those interstitial spaces in the nearby Buffalo Reef rocks where fish eggs are laid during spawning.

About 35% of Buffalo Reef is currently covered with an inch or more of stamp sands and is no longer viable for spawning. Another 20% of Buffalo Reef is currently covered with less than 1 inch of stamp sands and remains viable for spawning. At this time, only 65% of Buffalo Reef remains viable for spawning Whitefish and Lake Trout. 23% of Michigan Waters of Lake Superior's annual trout yield comes within 50 miles of Buffalo Reef. The total economic benefit of Buffalo Reef is estimated to be \$1,679,383.

## **Buffalo Reef and Tribal Fisheries**



2 Source: Map of spawning at Buffalo Reef by Great Lakes & Ohio River Division of United States Army Corps of Engineers

The good news is that remediation of the Buffalo Reef has been approved by the United States Environmental Protection Agency! This is especially great news for communities that rely upon Lake Superior whitefish as a resource, such as the Lake Superior Chippewa. The primary goal of the remediation project is to protect the offshore fish spawning habitat from migrating stamp sands, and to maintain the larval whitefish rearing area south of the harbor.

The primary objective is to conduct short-term emergency dredging to



3 Photo of Gay stamp sands remaining at the original pile on the shoreline by Red Cliff Environmental Department

buy time for the development of a long-term solution to the migrating stamp sands problem. Dredging has recently been approved to begin in 2018, beginning a 5-7 year cleanup plan. More details about the short-term and long-term clean-up projects will be available in the near future.

For more information, please contact Amorin Mello at the Red Cliff Environmental Dept.

## Drill Conductor Training courses for Great Lakes commercial fishing vessel captains

#### When and where?

Michigan Sea Grant, Wisconsin Sea Grant, the Alaska Marine Safety Education Association (AMSEA) and the Great Lakes Indian Fish and Wildlife Commission are coordinating two Drill Conductor Training courses.

- July 11, 2017- Bay Mills Resort and Casinos, 11386 W. Lakeshore Drive, Brimley, Mich.
- July 13, 2017- Legendary Waters Resort and Casino, 37600 Onigamiing Drive, Red Cliff, Wis.

All Drill Conductor classes run from **8 a.m. to 7 p.m.** and you must register at the Alaska Marine Safety Education Association (<a href="http://www.amsea.org/">http://www.amsea.org/</a>) web site to attend one of the Drill Conductor classes. For additional information you can contact Ron Kinnunen (Michigan Sea Grant) at (906) 226-3687 or kinnune1@msu.edu (<a href="mailto:kinnune1@msu.edu">mailto:kinnune1@msu.edu</a>).

#### Who should take the course?

The commercial fishing vessel operator or captain should be the one to attend a Drill Conductor class. If space is limited, we encourage the operator or captain to be the only participant from the crew. However, if there is room in class, we encourage crew members to participate, too. Most of our classes include both operators and crew.

#### What will those attending learn?

Commercial fishing vessel operators will learn to conduct drills with their employees including: 1) abandoning vessel, 2) fighting fire in different locations on vessel, 3) recovering an individual from the water, 4) minimizing effects of unintentional flooding, 5) launching survival craft and recovering life boats and rescue boats, 6) donning immersion suits and other wearable floatation devices, 7) making a voice radio distress call and using visual distress signals, 8) activating the general alarm, and 9) reporting inoperative alarm systems and fire detection system.

#### **Coarse Certification**

Alaska Marine Safety Education Association certifies that vessel operators completing the course have been trained to meet U.S. Coast Guard (http://www.uscg.mil/) regulations related to instruction, drills and safety orientations, and onboard emergency instruction.

#### Training rated 'excellent'

Last year six classes were conducted in the Great Lakes region. The Drill Conductor Training courses were evaluated by the 77 attendees who rated the training as excellent and indicated the emergency drills on actual vessels helped increase their proficiency should an emergency arise. These courses had representation from commercial fishers from Lakes Superior, Michigan, Huron, and Erie and also included four U.S. Coast Guard personnel needing the training for their jobs



# I Broke a Light Bulb - Now What?



By Linda Nguyen – Environmental Director

# What is the difference between Compact Fluorescent Light (CFLs), Light Emitting Diode (LEDs), and incandescent bulbs?

For starters, the composition difference is listed under each blub in the photo below:



An incandescent light bulb produces light by heating a filament wire to a high temperature until it glows.



mixture of argon and mercury gases that produces invisible ultraviolet light (UV) when the gas is excited by electricity.



An LED contains electrons that recombine with electron holes, releasing energy in the form of photons and illuminating the bulb.

Photo Credit: http://arcadianhome.com/blog/troubleshooting-light-bulbs-lighting-fixtures-and-lamps

Incandescent bulbs are the most commonly used type. CFLs consume a quarter of the energy that incandescent bulbs and tend to last longer – think of the energy cost savings! LEDs are long-lasting and eco-friendly; they emit no heat and will work in the cold – talk about versatility! With the change of materials to make longer lasting and energy efficient bulbs, comes specific disposal methods for broken and expired CFLs and LEDs!

# If a CFL or other mercury-containing bulb breaks, how do I safely clean it up?

EPA recommends the following steps to safely clean up any broken CFLs. The most important steps to reduce exposure to mercury vapor from a broken bulb are:



#### **I. BEFORE CLEAN UP:**

- **a.** Have people and pets leave the room.
- **b.** Air out the room for 5-10 minutes by opening a window or door to the outdoor environment.
  - **c.** Shut off the central forced air heating/air-conditioning system, if you have one.
  - **d.** Collect materials needed to clean up broken bulb:
    - v stiff paper or cardboard;
    - v sticky tape;
    - v damp paper towels or disposable wet wipes (for hard surfaces); and
    - v a glass jar with a metal lid or a sealable plastic bag.

#### 2. DURING CLEAN UP:

#### For Hard Surfaces

**a.** Carefully scoop up glass fragments and powder using stiff paper or cardboard and place debris and paper/cardboard in a glass jar with a metal lid. If a glass jar is not available, use a sealable plastic bag.

(NOTE: Since a plastic bag will not prevent the mercury vapor from escaping, remove the plastic bag(s) from the home after cleanup.)

- **b.** Use sticky tape, such as duct tape, to pick up any remaining small glass fragments and powder. Place the used tape in the glass jar or plastic bag.
- **c.** Wipe the area clean with damp paper towels or disposable wet wipes. Place the towels in the glass jar or plastic bag.
- **d.** Vacuuming of hard surfaces during cleanup is not recommended unless broken glass remains after all other cleanup steps have been taken.

[NOTE: It is possible that vacuuming could spread mercury containing powder or mercury vapor, although available information on this problem is limited.] If vacuuming is needed to ensure removal of all broken glass, keep the following tips in mind:

v Keep a window or door to the outdoors open;

- v Vacuum the area where the bulb was broken using the vacuum hose, if available; and
- v Remove the vacuum bag (or empty and wipe the canister) and seal the bag/ vacuum debris, and any materials used to clean the vacuum, in a plastic bag.
- **e.** Promptly place all bulb debris and cleanup materials, including vacuum cleaner bags, outdoors in a trash container or protected area until materials can be disposed of. Avoid leaving any bulb fragments or cleanup materials indoors.
- **f.** Next, check with your local government about disposal requirements in your area, because some localities require fluorescent bulbs (broken or unbroken) be taken to a local recycling center. If there is no such requirement in your area, you can dispose of the materials with your household trash.
- **g.** Wash your hands with soap and water after disposing of the jars or plastic bags containing bulb debris and cleanup materials.
- **h.** Continue to air out the room

#### For Carpeting or Rugs

- **a.** Carefully scoop up glass fragments and powder using stiff paper or cardboard and place debris and paper/cardboard in a glass jar with a metal lid. If a glass jar is not available, use a sealable plastic bag.
- (NOTE: Since a plastic bag will not prevent the mercury vapor from escaping, remove the plastic bag(s) from the home after cleanup.)
- **b.** Use sticky tape, such as duct tape, to pick up any remaining small glass fragments and powder. Place the used tape in the glass jar or plastic bag.
- **c.** Vacuuming of carpeting or rugs during cleanup is not recommended unless broken glass remains after all other cleanup steps have been taken. (NOTE: It is possible that vacuuming could spread mercury containing powder or mercury vapor, although available information on this problem is limited.) If vacuuming is needed to ensure removal of all broken glass, keep the following tips in mind:
  - v Keep a window or door to the outdoors open;
  - v Vacuum the area where the bulb was broken using the vacuum hose, if available, and
  - v Remove the vacuum bag (or empty and wipe the canister) and seal the bag/vacuum debris, and any materials used to clean the vacuum, in a plastic bag.

- **d.** Promptly place all bulb debris and cleanup materials, including vacuum cleaner bags, outdoors in a trash container or protected area until materials can be disposed of. Avoid leaving any bulb fragments or cleanup materials indoors.
- **e.** Next, check with your local government about disposal requirements in your area, because some localities require fluorescent bulbs (broken or unbroken) be taken to a local recycling center. If there is no such requirement in your area, you can dispose of the materials with your household trash.
- **f.** Wash your hands with soap and water after handling of the jars or plastic bags containing bulb debris and cleanup materials.
- **g.** Continue to air out the room where the bulb was broken and leave the H&AC system shut off, as practical, for several hours.

# How do I properly dispose of the broken or expired CFL or other mercury-containing bulbs?

Once the broken pieces of the bulb or expired bulbs are contained in a separate bag or packed in a box, please bring them down to the Red Cliff Transfer Station. The Red Cliff Transfer Station will accept CFLs and LEDs for a low rate and is open on Tuesdays and Saturdays. These bulbs *cannot* be disposed of as household waste and *cannot* be recycled because of the contents. Please notify the staff on site when disposing of any hazardous items.

#### For more information, check out:

Further details on clean-up procedures: <a href="https://www.epa.gov/cfl/cleaning-broken-cfl#qi">https://www.epa.gov/cfl/cleaning-broken-cfl#qi</a> Mercury in your environment: <a href="https://www.epa.gov/mercury">https://www.epa.gov/mercury</a>

If there are any questions, please contact the Environmental Department at 715-779-3650 or email linda.nguyen@redcliff-nsn.gov.

# What Can Be Recycled?

Please empty all bags that you brought recyclables in! Do not dispose of bags in recycle bin.





Glass **Bottles** 



Mixed **Papers** 



#1-#7 **Plastic Bottles** 





## **Cardboard Boxes Flattened**











Cans are placed in a separate container at the Transfer Station. Please watch for signs!

# What Can't Be Recycled?



LIGHT BULBS & LIGHTING FIXTURES



PAINT, OIL, GASOLINE, PESTICIDES, FLAMMABLE LIQUIDS



**FOOD WASTE** 



PLASTIC BAGS & OVER-WRAP (plastic film)



MEDICATIONS & USED NEEDLES



**CELLPHONES** 



**DIAPERS** 



**STYROFOAM** 



BROKEN MIRRORS



USED NAPKINS, UTENSILS, OR PAPER PLATES



**CLOTHING** 



CIGARETTE BUTTS

# Can you recycle it in Red Cliff?

# YES! Recycle it:

- #1 -#7 plastic food and beverage containers
- Glass Bottles: any color, rinsed out
- Aluminum cans separated from other recyclables
- Bimetal cans: Cleaned soup cans, pet food cans
- Cardboard: Corrugated boxes and cereal boxes
- Paper: Newspapers, magazines, office paper, mail

# NO, we CANNOT RECYCLE these items:

- Plastic bags
- · Paper or plastic plates clean or dirty
- Napkins, paper towels, toilet paper
- Plastic or compostable silverware
- Plastic containers that once held automotive products such as oil, gas, and coolant or paint, pesticides, flammable liquids
- Broken windows/mirrors
- Cigarette butts
- Clothing
- Diapers

Still not sure? Call the Environmental Department at 715-779-3650



# IT'S HOT DOG SEASON!!!

#### TIPS ABOUT ANIMAL SAFETY AND OTHER PET ADVICE FROM THE RED CLIFF WARDENS

The Red Cliff Wardens would like to remind pet owners to keep their dogs safe during the hot weather season. Just remember that even in Northern Wisconsin the interior of a car can reach 160 degrees in a matter of minutes. That means if you travel with your pet, parking in the shade with the windows cracked just won't do. It is easy to get distracted and leave your pet waiting longer than intended, and it's not worth the risk.



If you keep your dog outside, the Red Cliff Code of Laws requires you to provide for your dog, access to appropriate shelter/shade, clean water and food. Making sure your dog has access to water is one of the most important factors in preventing your dog from overheating. Dogs that are tied up or secured by chains can often tip over water dishes. It is recommended you use "tip proof" water dishes or consider digging a hole and putting the water dish in it so the dish is below or at ground level. This will

greatly reduce the risk your dog will tip over the water dish. It is also recommended during hot days that you check on your dog frequently.

Heat stroke in dogs can develop rapidly and can lead to organ failure and death. Pets with shorter noses, like bulldogs are more susceptible to heatstroke than breeds with longer noses because there is less area for heat to evaporate. Dogs don't sweat through their skin like humans. Dogs cool themselves by rapid breathing and when the temperature outside is hot and close to their internal body temperature, it means dogs must work even harder to stay cool. So when it is hot for you, it's even hotter for them!





Signs of heat stroke include heavy panting, agitation, glazed eyes, rapid pulse, staggering, vomiting and a deep red or purple tongue. If you think your dog has become overheated, place them in a cool place and apply cool (not cold) water all over its body. Apply ice packs or cold towels only to the head, neck and chest. Let them drink small amounts of cool water or lick ice cubes and immediately contact a veterinarian.

If you have concerns about the welfare of a dog or have other animal control concerns please contact the Red Cliff Wardens at 715-779-3732. If you do not get an answer, leave a message, messages are checked frequently. If you have an emergency, contact the Bayfield County Sheriff's Department Dispatch at 715-373-6120.

# I HAVE A BEAR PROBLEM

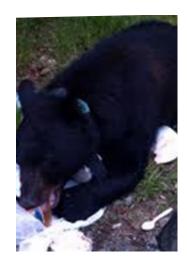


It is that time of year when encounters with black bears in residential areas are increasing. At this point, many of you may have had encounters or have at least seen bears near your homes. But before you contact the wardens and request attempts be made to remove the bear, there are some things to think about.

As both human and bear populations increase on the reservation, so will the bear/human conflicts. Seeing and

encountering bears in residential areas is becoming more normal and may be unavoidable. There are ways to reduce CLOSE encounters with bears near your home.

In almost all cases, nuisance wildlife, in the spring and summer seasons are looking for food. If you have a dumpster at your home, you have a bear's equivalent to thanksgiving dinner sitting in your driveway. You may want to consider having the dumpster removed for the spring and early summer months. You may also want to consider upgrading to a "bear proof" dumpster with a metal lid. These types of dumpsters are highly effective in keeping out unwanted pests and are usually available for an additional fee. If this is not a viable option for you, then you may want to consider other means to secure your dumpster such as placing boards under the lids and securing them with straps or chains. For other ideas on ways you can secure





you dumpster, call the Red Cliff Wardens. It is important to remember that no attempt to

"bear proof" a dumpster is 100 percent effective and the only way to eliminate the problem is to have the dumpster removed.

Also if you have a grill that is stored outdoors, a bird feeder or garbage that is left outside, **YOU ARE** attracting bears. This also applies to other nuisance wildlife such as raccoons and skunks. Do not store garbage outside for even a short period of time. Go to the dump frequently. The Red Cliff transfer station is open two days a week (Tuesday and Saturday from 800am-600pm). Something as small as a discarded juice box or empty tuna can may be enough to attract the attention of unwanted wildlife.

Sadly, some wildlife have or will become dependent on humans for food, can destruct property and can become a threat to public safety. If you are continuing to have animal issues, call the Red Cliff Wardens. The wardens can help you by providing additional information to help you reduce or eliminate your animal problem and if needed, remove them.

## THE RED CLIFF WARDENS CAN BE REACHED AT 715-779-3732

# MANIWIIGWAASE She/he gathers birch bark MAKAK A basket

# BAGWAJI ZHIGAAGAWANZH Wild Leek

MASHKIKI Medicine

ANIIBIISHAN

leaves

OJIIBIKAN

roots

SHIIZHINSAN

stem



#### **Environmental Wordsearch Puzzle Answer Key**

CLIMATE CHANGE CONSERVATION CONSUMPTION CONTAMINATION DESERTIFICATION ECOSYSTEM ENERGY ENVIRONMENT
GREEN-HOUSE GASES
NATURE
ORGANIC
OZONE LAYER
POLLUTION
PRESERVATION

RECYCLE RENEWABLE SOIL EROSION SOLAR POWER SUSTAINABLE WASTE

Try to find all 20 words on this board.

UJGFLTZPRESERVATIONM UURECYCLECONSUMPTION UAIERUTANOITAVRESNOC QKGNVOVERPOPULATIONH NSNEDESERTIFICATIONT OOICMUMZPLTELBAWENER IIMORTSMCEFIZKNBZIUA TLRSAYHTZLMSWOYGRENE AEAYFPTNRANOITCNITXE NRWSDMDETIZTUWASTELH IOLTNHJEFOACIDRAINKT M S A E I O C O N T N L H W U N E K R F AIBMWHKEIMCZICINAGRO TOOKANLODFJKSZXSLTLS NNLNVALGREENPEACEAQD OYGHYPOLLUTIONSTOCFN CENEXHTLHTNEMNORIVNE RGREENHOUSEGASESZOLI TJMJELBANIATSUSYXHNR REWOPRALOS LEUFLISSOF

























RED CLIFF BAND OF LAKE SUPERIOR CHIPPEWA

# Treaty Natural Resource Division



 Fisheries
 715-779-3750

 Environmental
 715-779-3650

 Natural Resources
 715-779-3795

 Transfer Station
 715-779-0171

 Conservation Wardens
 715-779-3732