Mazina'igan

A Chronicle of the Lake Superior Ojibwe

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Iron mining in Minnesota: a difficult time for wild rice

By John Coleman
GLIFWC Environmental Section Leader

Iron Range, Minn.—Iron mining has sustained the human economy in northeast Minnesota for several generations. Unfortunately, it has also vastly modified the landscape in ways that have damaged terrestrial and aquatic ecosystems. The Iron Range mines once employed approximately 20,000 people. A transition from underground mines to open pit mines and increases in mechanization, however, reduced the demand for labor.

More recently, competition from overseas has resulted in a further decline in the contribution of iron mining to the economy of the region. There are now fewer than 5,000 people employed at iron mines.

Most iron mines in Minnesota were started before there was a Clean Water Act (CWA) or other regulations to protect the environment. When water quality permits were issued by the State of Minnesota to regulate the discharge of mine wastewater in the 1980s and '90s, those permits contained few restrictions on what pollutants could be discharged to rivers and streams.

Once abundant, wild rice has been virtually eliminated from the upper Sandy River and associated lakes.

Figure 1. The lakes and rivers receiving discharge water from the Minntac tailings basin. The primary receiving waters are the Sandy and Dark Rivers. (Map courtesy of the Minnesota Pollution Control Agency)

Unfortunately, those same permits, which are designed to be updated every five years, have not been revisited since. An

(see Iron mining, page 14)

Omashkooz hunt returns to Wisconsin Ceded Territory

By Charlie Otto Rasmussen, Editor

Clam Lake, Wis.—After a series of discussions that included elders and tribal leaders, GLIFWC's Voigt Intertribal Task Force has configured an elk hunting season in the Wisconsin Ceded Territory that emphasizes community over individuals. Members of Ojibwe treaty tribes, paired off into five hunting groups, are slated to participate in a bulls-only omashkooz hunt this fall. Native hunters, who hail from 1837 and 1842 Treaty Ceded Territories in Wisconsin, Minnesota and Michigan, share a total of five harvest tags.

Omashkooz. (Michigan Department of Natural Resources photo)

"A collective harvest by the bands stands out as a strong assertion of tribal sovereignty and unity," said Jason Schlender, Voigt Intertribal Task Force chairman. "With continued cooperation between the state, tribes, and other entities, this endeavor will hopefully yield future hunting opportunities for both state and tribal hunters."

Wildlife officials announced the state's first elk hunting season last March after a population assessment revealed that the Ceded Territory herd would exceed the benchmark figure of 200 animals in 2018. State-licensed hunters and Ojibwe treaty tribes are evenly splitting 10 bull elk tags in a hunt limited to the Clam Lake omashkooz range of northern Wisconsin. The recently-established elk herd some 150 miles south in the Black River Falls region is off limits.

The return of wild elk to Wisconsin is a wildlife success story. Since Lac Courte Oreilles spiritual leader Gene Begay welcomed 25 elk translocated from Lower Michigan at a release ceremony in 1995, the herd has experienced a mostly steady—sometimes uneven—growth in the forests of northern Wisconsin. Led by the Department of Natural Resources, interagency wildlife managers have overseen the expansion of elk within a range dominated by public lands.

Wisconsin's original elk herd succumbed to unregulated hunting and habitat loss in the late 1800s. An attempt to restore elk in the 1930s ultimately failed.

Heading to harvest camp

Following a random drawing, Ojibwe bands are matched up into five groups, each responsible for all aspects of the hunt including ceremonies, designating shooters, harvest, processing, and community distribution. Cultural leaders and

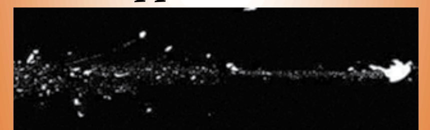
(see Omashkooz, page 3)

What's in your baashkizigan?

lead (left) copper (right)

Consider copper ammunition over lead for a cleaner cut of deer, elk meat

copper *lead*



Lead bullet fragments can be a health risk for humans and poison wildlife like migiziwag that feed on carcasses.

Onji-Akiing page 12

Nibi unites native communities

Great Lakes, St Lawrence management success hinges on interjurisdictional cooperation

Duluth, Minn.—Indigenous homelands throughout the Great Lakes basin are comprised of unique communities marked by variations in language, customs, and lifeways. In many cases, the differences are minor—a localized dialect or distinctive ceremonial protocols. But when it comes to water, any nuance between native bands disappear.

"We are united in our respect for the water, and our commitment to protect the water for future generations," GLIFWC's Mic Isham told an international gathering of state and provincial policymakers that make up the Great Lakes-St. Lawrence River Water Resources Regional Body. Isham, executive administrator of the 11-member GLIFWC, spoke at the Regional Body's regular meeting June 20 at the request of a working group of tribes and First Nations throughout the Great Lakes region. "We hold water in the highest regard and we understand that we, as native people, have promises that we made to the Creator to care for and look after the water."

Since its inception in 2005, the Regional Body has been responsible for implementing the Great Lakes-St Lawrence River sustainable water resources agreement. This agreement solidifies overarching covenants on management of the vast network of waterways that form the largest collection of surface water on earth. Comprised of a membership that includes the Great Lakes governors of Minnesota, Wisconsin, Michigan, Illinois, Indiana, Ohio, Pennsylvania,

(see Nibi, page 14)

GLIFWC Executive Administrator Mic Isham and Josephine Mandamin, a water walk pioneer who has led efforts to promote clean water across the Great Lakes region, addressed the Regional Body at its June 20 meeting in Duluth. (J. Vanator photo)

New waterfowl rules expand opportunities for treaty hunters

By Phoebe Kebec, GLIFWC Policy Analyst

GLIFWC member tribes with rights to hunt in the Ceded Territories of 1837 and 1842, will have access to new, experimental migratory bird hunting methods, starting in the 2018-2019 season. These new methods include the option to hunt with electronic calls (limited to 50 hunters) and to hunt with hand-held, non-mechanical nets.

This new regulation is the result of collaboration with the U.S. Fish & Wildlife Service (USFWS) and Ojibwe bands to enhance opportunities for tribal members to hunt migratory birds in a more efficient manner in order to better support tribal needs.

Background

Historically, Ojibwe people carefully studied the plants and animals that they harvested through direct observation; in ceremony, the people thanked these beings for the gifts that they provided. In this manner, management techniques were developed to maximize efficiency in harvesting, while also protecting these beings for the future. Our ancestors engaged in efficient harvest methods to obtain food for whole villages at a time. Harvest focused on the plants, fish and animals abundantly available during a certain time. Traditional values prevented overharvesting a particular community of plants or animals.

Following the treaty-making period, life changed in the Ojibwe territories. Forests, in what is now northern Michigan, Wisconsin and Minnesota, were pillaged for their board-feet of lumber. Ginseng roots were dug and piled in massive mounds. Market hunting and fishing of prized species, including ducks and sturgeon, reduced breeding populations to unsustainable levels. Certain coveted species were entirely extirpated from the lands. This phenomenon was not limited to Ojibwe territories.

(see New waterfowl rules, page 8)

Waabizheshi comes in focus at international symposium

By Bizhikiins Jennings Staff Writer

Ashland, Wis.—In Ojibwe culture, waabizheshiwag (martens) are elusive warriors, charged with protecting the outskirts of the community.

These quick and ferocious warriors also lend their talents as strategists to the greater community. In fact, they are so intelligent and elusive, biologists from all over the world are still attempting to understand their characteristics, habitat, and behavior.

This year the 7th International Martes Symposium was held at the Northland College campus. This year's conference theme was "The Martes Complex: Does the Ecology Match the Phylogeny?" Biologists from all over attended the weeklong symposium to hear presentations on research and mingle with researchers and academic staff.

Martes is the scientific word for marten. They belong to the Mustelidae family and can be found throughout the globe across the northern hemisphere. In this region, the Martes Americana or American Pine Marten is the species that inhabits the northern coniferous and deciduous forests.

Participants at this year's symposium attended various presentations covering topics such as: critical habitat resources, reproductive ecology, population ecology, physiology and foraging ecology, and much more. Species such as fishers and wolverines were also big topics of discussion.

"Rapid Fire Talks" were a hot item at this year's event. Five-minute presentations that elaborate on important subjects and provide insight for the audience. One presentation highlighted the effects of rodenticides utilized in marijuana farms. Researchers have been checking liver samples for these rodenticides in British Columbia. This has become an increasing problem in areas where marijuana growth is occurring, especially in states such as California.

Participants also had the option to sign up for various field trips throughout the area. GLIFWC TEK Specialist Melonee Montano led a site visit to the Apostle Islands on Thursday, August 2nd. Montano highlighted the cultural aspects of martens and the spiritual significance of the islands to Anishinaabeg. UW Madison Ph.D. student Matthew Smith elaborated on the ongoing marten research on the islands.

GLIFWC Director of Biological Services Jonathan Gilbert serves as the chair for the Martes Working Group. This group is comprised of researchers and biologists from around the world that study species in the Martes complex. The group aims to bring together people that study these animals. They meet every 4-5 years and share research results and establish relationships.

"My job was to assist in the organization and planning of this year's symposium and I'm glad that I've been able to help bring some cultural perspective into a very scientific-oriented gathering," Gilbert acknowledged.

Waabizheshi are fierce and elusive, but in the Ojibwe lifeway, it's out of love that they protect their kind. As outside pressures eliminate habitat and affect marten populations, it's reassuring to know that a strong group of researchers and biologists are working hard to protect such a sacred animal.

Participants from all over the world, representing research institutes, universities and other entities, listened to various presentations surrounding the Martes complex. (D. Jennings photo)

On the cover

A cross-section of GLIFWC's 2018 annual poster, Mazinibaganjigan—a dental pictograph on birch bark. In around 10 minutes, Awanigiizhik (Roderick) Bruce created this image of an eagle from a 2"x5" segment of wiigwaas making tiny bite marks. Bruce learned mazinibaganjigan skills and teachings from Turtle Mountain Ojibwe, Denise Lajimodiere. Poster photo by M. Rasmussen. Contact Lynn Plucinski to order copies of the poster: *lynn@glifwc.org* or 715.685.2108.

Ceded Territory news briefs

Ajijaak season set for Bay Mills hunters

Brimley, Mich.—Bay Mills Indian Community and four other 1836 Treaty tribes open their inaugural sandhill crane hunt in the modern era this dagwaagin. From September 1 to December 31, tribal hunters may harvest up to three sandhills by permit with a daily bag limit of one.

Known as ajijaak in Ojibwemowin, the sandhill crane has mounted a steady comeback in the upper Great Lakes over the last century through habitat restoration programs and conservation efforts. Fall hunting seasons for Ojibwe treaty tribes in the 1837 & 1842 Ceded Territories commenced several years ago. Sandhills are large migratory birds, noted for a distinctive red patch on the forehead of adults. **—CO Rasmussen**

Manoomin and water quality focus of Wisconsin study

In late summer GLIFWC's Environmental Section Treaty Resource Specialist Dawn White began testing different methods for sampling wild rice waters in Wisconsin. As the rice develops in August, White is accompanying manoomin interns during their work to map-out wild rice beds.

Dawn is collecting a small number of "grab" samples to examine approaches to water sampling in manoomin beds. The samples are being tested for water quality parameters that appear to be important to rice health, such as sulfate, hardness and turbidity. Results of this year's efforts will be used to develop a sampling program to characterize the water quality in Wisconsin's rice waters. **—J. Coleman**

Summer institutes integrate Indigenous culture + STEM

This summer, Indigenous Arts and Sciences—a joint initiative between Bad River, Red Cliff, Lac Courte Oreilles, Lac du Flambeau, Ho-Chunk, and UW-Madison Earth Partnership—coordinated week-long learning institutes aimed at helping teachers and youth learn from the land. The place-based, immersive experiences engaged participants in a variety of activities, from Ojibwe plant identification to tribal government and sovereignty studies, macroinvertebrate sampling, ecosystem comparison, and government policy impact assessment.

GLIFWC staff assisted by providing information on treaty rights and climate change impacts within the Ceded Territory. The Indigenous Arts and Sciences Institutes are routinely offered each summer in each tribal area listed above. For more information, visit *https://earthpartnership.wisc.edu/institutes/*. **—P. Maday**

Anishinaabe foods: a call for samples

This autumn, ANA SEDS "GLIFWC Chippewa Ceded Territory Traditional Food Regulatory System Project" staff are asking for assistance in collecting samples of traditionally harvested foods from across the Ceded Territory. Samples will be tested to better understand potential environmental contaminants impacting treaty resources. This process will be similar to the collecting and processing of fish samples currently undertaken by GLIFWC staff.

Samples of interest are wild rice, ducks, wild turkey, and deer. Collection will take place at the end of August and run through the end of December for these foods. For more information, contact Owen Holly Maroney at (715) 685-2147 or Candace Kraft at (715) 685-2174. Additional information will also be located at tribal registration stations within each community. **—O. Maroney**

Rice Chiefs gather at Bad River

Manoomin brought together rice chiefs and tribal leadership from all directions on Wednesday, July 11 to the south shores of gichigami (Lake Superior). Participants gathered at Joe Rose's round house and discussed manoomin in many aspects. Some topics included the need for more youth outreach, manoomin protection, and manoomin biology. **—D. Jennings**

Omashkooz hunt

(continued from page 1)

GLIFWC officials are planning a pre-hunt orientation near Clam Lake to discuss regulations, open season dates, health sampling from harvested elk, registration, and general logistics. The camp, moreover, will provide a setting for traditional knowledge-holders to share teachings with an intergenerational assembly of tribal members from across Ojibwe Country.

While hunting could begin as early as September 4, tribal officials do not expect to issue harvest tags until later in the month after pre-hunt preparations are complete.

GLIFWC member tribe Bay Mills Indian Community has conducted an annual elk hunt in the 1836 Ceded Territory of Lower Michigan since 2007. Bay Mills natural resources officials are issuing four omashkooz harvest tags this season, including three cows and one bull. The first tribal hunting period in Lower Michigan begins August 28.

Lodgepole harvest restrictions designed to improve birch outlook

As the wiigwasi-mitig resource continues to struggle in the Ceded Territory, tribal officials hope that a formal Commission Order helps reduce further loss of the culturally significant species. The Voigt Intertribal Task Force authorized the Birch Lodgepole Commission Order last November, capping the number of narrow-diameter birch poles that can be harvested to five trees annually under a general gathering permit.

Birch trees—lodgepoles and logs—are in high commercial demand. Due to forest management practices and climate change, moreover, fewer trees are regenerating on the upper Great Lakes landscape. It's a growing dilemma that wiigwaas canoe makers have reported for years.

"We are in an era where those high quality trees that can grow into large 'canoe birch' size-classes seem to have more factors working against them, than for them," said Alex Wrobel, GLIFWC forest ecologist.

For Woodland Indian people, birch trees provide traditional medicines, building materials, and a wide array of artistic applications. Over the past decade, birch and associated motifs have soared in popularity across Canada and the United States. Lodgepoles and logs are used to adorn both homes and businesses for consumers hoping to create a Northwoods-inspired look.

Wrobel said the Commission Order applies only to the harvest of off-reservation birch trees that measure less than 5" diameter at breast height. Before harvesting anywhere, Wrobel added, make sure you are aware of any specific rules for each land ownership type. Traditional birch gathering activities, like harvesting wiigwaas (outer bark) are not affected by the Order.

Ceremonial permits for harvesting lodgepoles are still available for tribal members that belong to a GLIFWC-member band.

Read a summary of the Order, including FAQs at *www.glifwc.org/Regulations/Birch%20Pole%20Flyer%20REVISED.pdf* **—CO Rasmussen**

As manoomin season nears, ricers mourn a major loss in northeast Wisconsin

By Peter David, GLIFWC Wildlife Biologist

COR photo

Most every wild rice season can be described using the title of that old western: "The Good, the Bad and the Ugly." In just about any year, some beds will be abundant, some will hold a little, and some will be complete fails. But rarely is a crop failure as catastrophically complete as what occurred on the Radigan Flowage in Douglas County, Wisconsin this year.

For many years, Radigan has been a jewel to ricers, waterfowl, and wildlife. This relatively remote and undeveloped, human-made impoundment was built where two small streams come together. With 125 surface acres but a maximum depth of only 10 feet, the Radigan Dam provided the shallow habitat critical to manoomin and a host of other wetland-dependent species that thrived at this quiet site.

The benefits that Radigan provided were not overlooked. When the original dam began showing its age, a coalition of natural resource agencies pooled funds to give it a facelift in 2002. A decade later, when another update was needed, cooperators rose to work with the Town of Dairyland once again. It seemed that Radigan now had a long, secure future ahead of it.

But in a story line that seems to be more and more frequently told, the skies opened up, and rain poured down in a mid-June storm event that is supposed to only occur every few hundred years. Many areas received a foot or more of rain, and the small streams that feed the Radigan became savage. The waters rose. The

(see Manoomin season, page 7

Oil refinery explosion rocks Ceded Territory

By Esteban Chiriboga
GLIFWC Environmental Specialist

Superior, Wis.—An explosion and fire occurred at the Husky Energy refinery on the morning of April 26 at approximately 10 o'clock. While an investigation by regulatory agencies continues, a preliminary federal report found that a worn valve may have contributed to the explosion.

The refinery was in the process of shutting down operations so that maintenance could be conducted throughout the facility. The explosion caused the release of an unknown hydrocarbon that then ignited, causing damage to a large storage tank full of asphalt, which then ignited as the spilled asphalt poured out. Fires continued to burn until approximately 6:45 that evening. Oil also began to leak from several areas of the refinery due to damage caused by debris from the explosion.

Officials created an oval-shaped evacuation area approximately three miles east, three miles west, and 10 miles south of the refinery because of the possibility of a release from a 15,000-pound hydrofluoric acid tank. Hydrofluoric acid is a highly toxic and corrosive substance that is used to increase the octane value of gasoline. Fortunately, there were no releases from this tank. Asbestos, potentially released from the facility into the air during the explosion is also a potential impact.

A large plume of smoke billows from the Husky Energy refinery in Superior, Wisconsin after an explosion and fire occurred on the morning of April 26.

Air quality

Following the blast, the immediate concern centered on air quality in populated areas surrounding the refinery. The Environmental Protection Agency (EPA) was the lead agency in charge of air quality monitoring.

The first step was to model wind speed and direction to determine the best locations to place air quality monitors. EPA focused monitoring to areas within the evacuation zone, but other areas were also monitored because of the possibility of shifting wind directions.

After the fire was extinguished and there was no possibility of re-ignition, Husky Energy took over air quality monitoring through a private contractor. EPA retained oversight of the monitoring to ensure that it was sufficient to detect any impacts that may occur at the perimeter of the refinery and throughout the City of Superior.

Air quality monitoring data is publicly available through the Douglas County website *(http://www.douglascountywi.org/1046/Husky-Fire)*. Ongoing monitoring was reported on a daily basis and focused on four parameters: volatile organic compounds (VOC), carbon monoxide (CO), hydrogen sulfide (H2S), sulfur dioxide (SO2), and flammability (LEL). The monitoring was done around the perimeter of the refinery and throughout the City of Superior as part of a community monitoring program.

In general, air quality monitoring did not yield sustained readings that exceed community action levels. There were individual readings for VOC's that exceed the levels, but those values were not sustained over time, and did not rise to the level of an exceedance as defined by the EPA and the Wisconsin Department of Natural Resources (WDNR).

At press time, there is no data that suggests ongoing impacts to treaty resources or to tribal members from air contaminants and the air monitoring program ended in mid-July.

However, it's important to note that air quality data collection did not begin until after the main fire was extinguished. EPA air monitoring was in place at 2:30 pm and, with the exception of isolated hot spots, the main fire was not fully extinguished until approximately 6:45 that evening.

Therefore, it is possible that the available air quality data does not fully account for particulates that were part of the large plume of smoke associated with the initial fire. A soot management plan was developed by Husky in coordination with state and federal agencies.

GLIFWC staff will review the soot monitoring plan to ensure its adequacy.

Water quality on the airwaves

Staff of GLIFWC's Environmental Section have been monitoring water quality downstream of pollution sources, such as active and historical mine sites, for several years. That has included collecting water samples, placing water quality loggers in streams and rivers, and most recently developing water quality loggers that report to an internet site every fifteen minutes using the cell phone network.

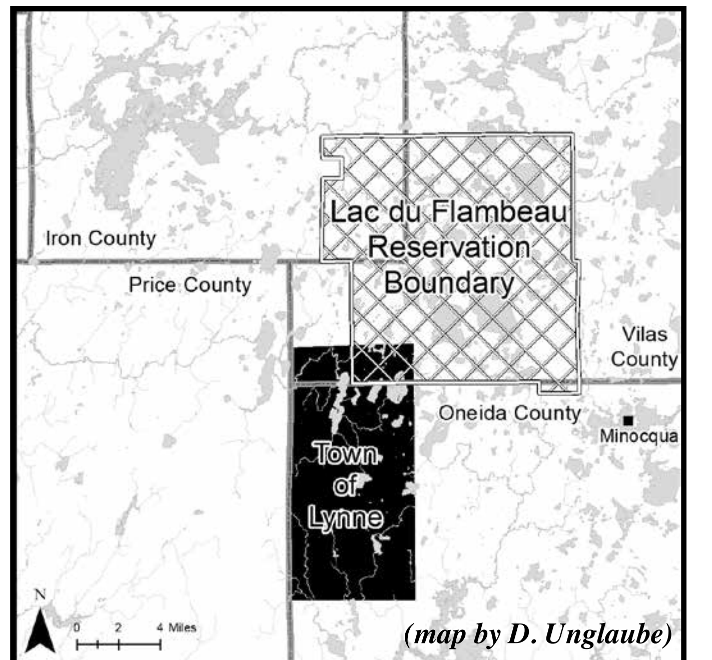
Water quality downstream of pollution sources can change dramatically and rapidly due to weather events or changes in pollutant discharge quality or quantity. Data from our internet enabled loggers can be combined with live data from river flow gauges, maintained in cooperation with the USGS, to monitor changing water quality on a nearly continuous basis.

—J.Coleman

Waaswaaganing (Lac du Flambeau) opposed to Oneida county mining

Oneida County Wis.—A new state law in Wisconsin allowed counties to lock in changes to their mining ordinances by a July 1st deadline. A repeal of the mining moratorium has since gone into effect. Some counties are imposing stricter codes within their zoning regulations to ensure clean drinking water and to ensure the quality of environment. Oneida County in the last few months has been considering the opposite.

The town of Lynne located in Oneida County contains high deposits of sulfide and has been in mining company sight for over a decade.



(map by D. Unglaube)

In May of 2018, Lac du Flambeau Tribal Council passed a resolution opposing mining in Oneida County and requested formal conversations with county leadership. Subsequently, a public hearing was held on June 19th. The board discussion and hearing lasted approximately five hours and representatives from the tribe, environmental agencies and local citizens all voiced their concerns. After listening to concerns, the county board approved to rewrite their county mining ordinance and also approved a November referendum. Local citizens and stakeholders will vote this November on whether to allow leasing of county lands for mining purposes in Lynne.

Lac du Flambeau Tribal President Joseph Wildcat Sr. reiterated in a public statement, the importance of contacting local representatives. "The costly, persistent environmental damage is well documented and there's no proven way to prevent the harm that certainly comes from an industrial acid mine."

—D. Jennings

Ogaa distribution brings out Lac Courte Oreilles elders

By Charlie Otto Rasmussen
Editor

Reserve, Wis.—Sidestepping rippling pools of rainwater, Lac Courte Oreilles elders angled their way into the tribal nutrition center for what has become a highly anticipated event—Ogaa for Elders.

More than three dozen community members traveled through a summer storm July 12 to pick up walleye fillets donated by local spearfishers.

"I want to say miigwech to everyone that made this possible," said Julienne Snow, 68. Since her brother walked on six years ago, she said some traditional Anishinaabe foods have been more difficult to acquire. Especially mallard ducks. "You lose a provider, you don't get those things anymore."

That very need among native seniors motivated GLIFWC conservation officers and tribal members to launch Ogaa for Elders in 2017. Just one year earlier, a young LCO tribal member made welcome waves, donating his entire catch to feed community members in need. LCO spearers Chuck Lynk and Jim Tate, and Officer Mike Popovich bet others would step up and contribute to a food bank featuring walleye.

"We put fish donation boxes at the landings and LCO fishermen responded," said Popovich, who manages the program in cooperation with the LCO Conservation Department.

From five different lakes, spearfishers contributed a harvest dominated by walleyes, plus three muskies and a bass. Giigoonh donations for the 2018 season are compliments of Gabriel Bisonette, Jay Isham, Chris Kessenich, Mike Waller Sr., Donovan Martin, Cory Martin, Kelly Martin, Matt Belille, and Tim LaPointe.

Eating right

Although children and women of childbearing age are the most vulnerable to negative health effects from mercury in contaminated fish, GLIFWC Officer Lauren Tuori seized the opportunity to talk with elders about safe fish consumption.

"Mercury can damage the nervous system, especially the brain," Tuori said. "Fetuses are most at risk because their nervous systems are rapidly developing."

While less of a concern for mature adults, it's important for elders who care for grandchildren to limit their mercury exposure at mealtime. Tuori distributed lake-specific mercury advisory maps, which help tribal members identify which lakes contain fish with lower mercury levels. Frozen walleye packages distributed in Ogaa for Elders are labeled, indicating which lake the fish originated from. Ogaa from Windigo Lake, for example, are acceptable for older adults but a poor choice for children as well as pregnant women.

Paper copies of GLIFWC's mercury maps are available at tribal conservation offices and at GLIFWC's Planning and Development Office in New Odanah. Find printable online copies of maps at *http://glifwc.org/Mercury/index.html*

LCO elder Don Gordon learns about GLIFWC mercury advisory lake maps from Officer Lauren Tuori at LCO Reserve Elders Nutrition Center. (C. Rasmussen photo)

Manoomin, ducks, wild turkeys lead off traditional foods study

Since our traditional food interest survey wrapped up last winter, staff with the Administration for Native Americans SEDS initiative, "GLIFWC Chippewa Ceded Territory Traditional Food Regulatory System Project," have identified over a dozen treaty-harvested foods important to tribal membership. Over the past several months, program staff scoured the scientific literature and worked with natural resource professionals within GLIFWC, state, and federal agencies to better understand potential chemical, biological, and physical contaminants that may be impacting treaty resources used for food.

By doing this kind of intensive research and investigation, staff are able to see where gaps are in the scientific literature. For instance, methylmercury in fish is a well-known and well-documented chemical contaminant, but less is known about ducks that may be eating fish. Addressing these dynamics helps guide project staff as we work with tribal harvesters and interagency staff to acquire samples and conduct testing.

First up this autumn, project staff are collecting samples of wild rice to test for levels of arsenic. White and brown rice are known to contain levels of arsenic that may be too high for infants, but there is not enough information about wild rice, or manoomin. For ducks, project staff will be testing for chemicals that waterfowl may be exposed to through the food chain. For wild turkeys, lead from ammunition will be looked into further. Finally, questions remain about Chronic Wasting Disease (CWD) in white-tailed deer. Project staff will be working with tribal harvesters this fall and throughout the year to collect these samples along with others as harvesting seasons come and go.

—O. Maroney

Average giigoonh harvest for most despite condensed spring season

By Charlie Otto Rasmussen, Editor

In 2018, open water fishing got underway about the same time most spring walleye seasons were wrapping up. The late ice-out pushed the bulk of spearing and netting harvests into May across ceded waters in Minnesota, Wisconsin, and Michigan. For some communities, spearfishing activity was abbreviated to around half as many nights on the water.

"In the Lac Courte Oreilles area, it was a quick, ten-day season," said Mike Popovich, GLIFWC warden supervisor. "Most importantly, it was a safe season." Since the turn of the century, LCO spring spearfishing averages 19.39 days long, yielding around 4,641 fish annually. Despite the recent short season, LCO fishers expended a lot of effort in a short amount of time, taking home 4,369 ogaawag in 2018.

Waabanong—to the east—tribal spearers experienced an equally-speedy spring season. The seemingly sudden appearance of open water replaced the typical pattern of gradual ice-out on area lakes.

"Fast and furious," said Warden Supervisor Roger McGeshick, who, at the request of Sokaogon Mole Lake authorities, opens and closes walleye lakes on a daily basis for tribal spearfishers. "Normally, we start by opening southern lakes and move north. But this year, everything opened at once."

Overall treaty tribes tallied 29,011 ogaawag from Wisconsin waters, along with 94 muskies and 44 yellow perch. In Upper Michigan, Lac Vieux Desert Band took 3,383 walleyes and four muskies from the 1842 Ceded Territory. In the 1836 inland Ceded Territory, the late season nearly eliminated spearing activity for Bay Mills Indian Community. Justin Carrick reports the only ogaawag spearing success came from the Rapid River where the Lake Michigan tributary gave up eight fish.

In the Minnesota 1837 Ceded Territory, tribal members fished both the "big lake," Mille Lacs, in addition to a handful of smaller lakes. At Mille Lacs Lake where spearing continues to be the method-of-choice over netting, 14,800 ogaawag yielded a 27,483.5-pound total. Tribes also registered 133 northern pike. Beyond Mille Lacs Lake, treaty fishers harvested 424.4 lbs of walleye and 315.4 lbs of ginoozhe from a handful of lakes.

North into the 1854 Ceded Territory, Fond du Lac Band members experienced limited returns on a pair of lakes in the Superior National Forest. Fishermen took home 105.6 lbs of walleye and 28.6 pounds of northern pike after two nights on the water.

Ceded Territory SCIENCE

Walleye are making some noise in Mille Lacs Lake

The Mille Lacs Band in collaboration with GLIFWC, US Fish & Wildlife Service, and Fond du Lac Band initiated a study to investigate the habitat use of juvenile and adult walleye across seasons in Mille Lacs Lake. This project was developed in response to the relatively low numbers of both life stages in Mille Lacs Lake in recent years (*Mazina'igan* Summer 2017 pg. 4).

Based on a fish diet/bioenergetics study conducted in Mille Lacs Lake by the Minnesota Department of Natural Resources, adult walleye have been the primary consumers of juvenile walleye, but the reason why is currently unknown. Biologists will test the hypothesis that elevated water temperature in the summer may be pushing these life stages into closer proximity to each other.

Specifically, the biologists aim to address the following objectives 1) understand which habitats are most important for juvenile and adult walleye 2) identify when and under what conditions juveniles and adults overlap.

Biologists designed a network of 61 listening stations (Image 1; Image 2) that record the position of adult and juvenile walleye in the lake. A sound-emitting transmitter is surgically implanted into age-0 and age-1 walleye, ~7-10 inches, and adult walleye over 18 inches (Image 3). Each transmitter emits a unique identification number, pressure (depth), and temperature about every 3 minutes. When a fish swims in close proximity (~0.5 miles) to a listening station, the information mentioned above, along with date and time, is recorded.

Based on the design of the network of listening stations and the transmitter specifications, data on adult walleye and juvenile walleye movements should be recorded every 10-15 minutes and 30-45 minutes, respectively.

To date, 19 adult walleye have been surgically implanted with a transmitter and each listening station has been deployed in the lake. If anglers capture a tagged adult walleye, and it is in good condition, then it should be released as quickly as possible into the lake.

Conversely, if a walleye is in poor condition, then please contact Mille Lacs Band by calling the telephone number on the external tag (Image 4; *Mazina'igan*, Summer 2018, pg.9) and return the fish to the Mille Lacs Band. This fall, an additional 51 adult walleye and 35 juvenile walleye will be implanted with transmitters, and an additional 35 juvenile walleye will be tagged in the spring of 2019.

Results of this study will help biologists understand movements of adult and juvenile walleye in Mille Lacs Lake throughout the year. More importantly, movement information will allow resource managers to identify key habitats for adult and juvenile walleye in Mille Lacs Lake. This information can be used to develop management strategies that will likely include rehabilitation or protection of these key habitats and aid in the recovery of the walleye population.

Please look for additional updates on the project in future editions of the *Mazina'igan*. Contact Mille Lacs Band Biologist Carl Klimah (320-532-5690) or the Inland Fisheries Section at GLIFWC if you have questions.

—Dr. Aaron Shultz, Dr. Adam Ray, Mark Luehring, Ben Michaels, Joe Dan Rose, and Carl Klimah

Image 3. (left) Biologists perform surgery on an adult walleye. Right—An acoustic transmitter is being implanted into an adult walleye. (J. Curtis-Quick photo)

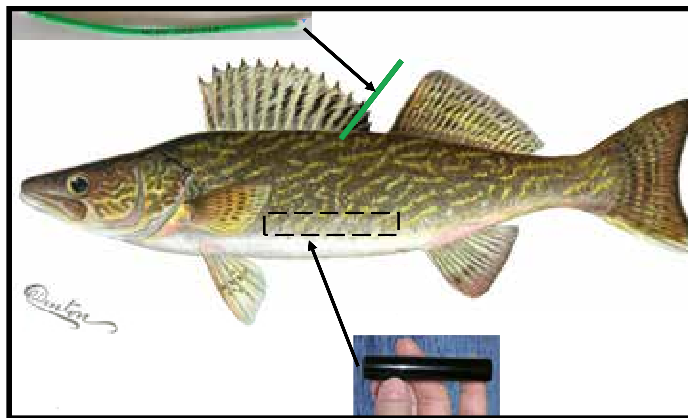


Image 4. Location of acoustic transmitter and external tag on adult walleye in Mille Lacs Lake. Please report tag number and capture location to* Carl.Klimah@millelacsband.com *or 320-532-5690.

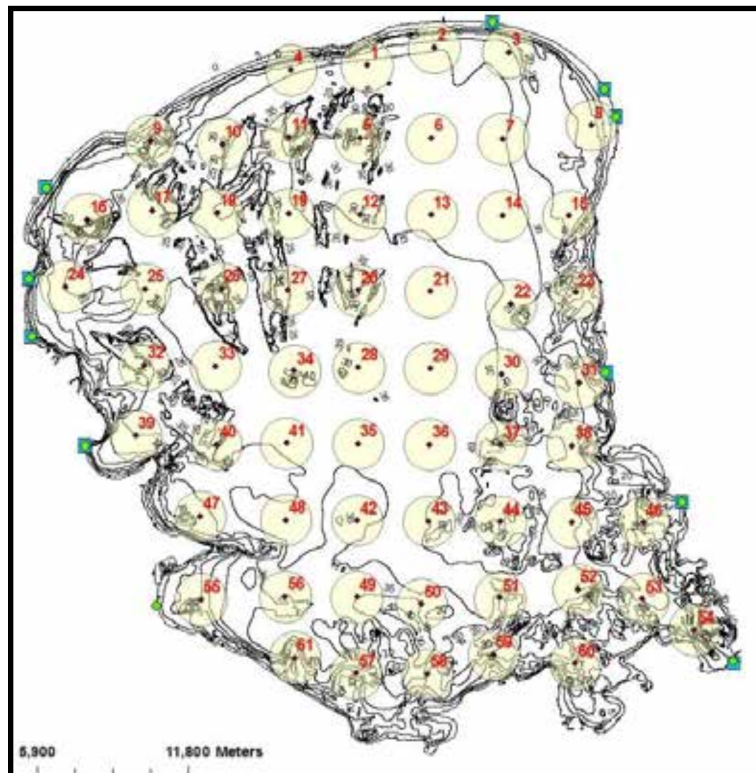


Image 1. Listening stations in Mille Lacs Lake. Small dots indicate the position of each station and yellow circles represent ~0.5 mile listening radius. Stations are positioned ~1.5 miles apart.

Image 2. (right) Listening station attached to a concrete anchor.

Inside Acoustic Telemetry

Acoustic telemetry is frequently used to monitor the location, behavior, movements, and survival of aquatic animals by transmitting sound waves from a transmitter to a receiver. A sound-emitting device (transmitter), attached to the animal, sends a series of pings every one to two minutes that conveys a unique identification number, time, and date. Sensors can be added to a transmitter to convey additional information about the animal's temperature and depth. A stationary listening station (receiver) decodes the pulses and stores this information on an onboard computer when an animal is in range, typically less than two miles from the receiver. The receivers are retrieved from the bottom of the water body and downloaded by biologists. By using a network of receivers, biologists can quantify the distance traveled and habitat use of study animals over time.

Profiles in manoomin entrepreneurship

By Owen Maroney, GLIFWC Community Dietician

Wild rice season is upon us! As you dust off the rice knockers and are preparing for a harvest, read up on wild rice entrepreneurs in the Ceded Territory. Most of these entrepreneurs participated in our 2016-2017 "Manoomin—The Good Berry" project and include both harvesters and processors. Whether you are looking for a wild rice processor, ricing equipment, or want to purchase wild rice, this is an opportunity to get to know a tribal wild rice entrepreneur near you. Contact information for each can be found at *www.glifwc.org/Manoomin*.

Note to entrepreneurs: GLIFWC member band tribal members are eligible to receive 50 FREE wild rice bags and labels. Bags are food safe and can be sealed with a common Food Saver heat sealer. Labels include up to date nutrition information in accordance with the new nutrition label requirements. To request bags and labels, call Owen Maroney at (715) 682-6619 x2147. Please be prepared to provde tribal ID number.

Mark Duffy—Red Cliff—Harvester

Partly self-taught and partly taught how to rice and process by his father, Mark is still learning new things about ricing each year. Mark has been harvesting and processing wild rice for less than 10 years. But his father Joe Duffy has been harvesting wild rice most of his life

When asked what he likes about ricing and processing he says: "I really enjoy the spirituality of the experience and carrying on the tradition of harvesting and preparing this sacred food. I also look forward to teaching and sharing this tradition with generations to come using both traditional and modern equipment."

Mark's favorite way to eat wild rice is al dente. Boiled, but not too much, with water and bouillon then served with a touch of butter. He sells a limited amount of rice annually and has built custom threshing machines. Each year Mark demonstrates his way of harvesting, processing, and showing some of the old methods of processing to the community of Red Cliff.

Myron "Burnsie" Burns, Sr. & Bill Burns Bad River—Processor

Ricers-turned-processors, Myron and his son Bill, have been providing high-quality processing for ricers from all over the Ceded Territories for the past six years. Myron learned how to rice by his grandfather sixty-seven years ago and he's been ricing for himself and his community off and on ever since. When Bill was old enough, Myron taught him how to rice and things evolved from there.

When asked his favorite way to eat rice, Myron said he enjoys Cream of Rice Soup with bacon, Velveeta, and real half & half. When he isn't ricing Myron enjoys making jerky, smoked fish, sauerkraut, and summer sausage for friends and family. Myron and Bill sell wild rice in the fall and Bill sells maple syrup in the spring, both while supplies last.

Edmund Thomas—Lac Courte Oreilles Harvester

Starting around the age of six, Edmund learned how to harvest rice from his aunt and uncle who would setup a family rice camp in the Bad River sloughs. "It was a team effort," he recalled. "We were expected to knock [harvest] in the morning and would scorch in the evening, and then dance it too. Sometimes they would let us go off and fish."

Decades later, Edmund still enjoys ricing saying: "It's just awesome being out there. If there is rice, it's a bonus." Boiled and topped with butter or mixed into mashed potatoes are Edmunds favorite ways to eat wild rice.

Edmund sells wild rice annually along with maple products, deer antler products, and more.

Conrad St. John—St. Croix—Harvester

As a child, Conrad learned to how to rice and parch rice from his uncles, but it wasn't until about seven years ago that his interest in ricing was revived. Conrad began to deepen his interest in ricing and hone his skills. Now, ricing is something he looks forward to every fall saying: "It's serene when you are out there on the water." Conrad's favorite way to eat rice is boiled with broth and served hot.

Conrad sells wild rice annually while supplies last.

Todd Haley—Lac du Flambeau—Harvester

Fourteen years ago, Todd went ricing for the first time with some friends from Lac Courte Oreilles, and he fell in love with it. His favorite thing about ricing is the camaraderie that can be found at rice camp.

"I love rice camp," he said. "We harvest with a couple of other people and camp for about a week. I really enjoy that time together."

Todd and his partner work with a certified organic processor to produce wild-harvested, organic wild rice. Todd sells to restaurants and local markets. He loves to eat wild rice with a piece of grilled salmon on top and covered in crab sauce or in a creamy chicken wild rice soup with portabella mushrooms.

Todd sells wild rice annually, while supplies last.

Tribal Harvest and Gathering Service (Curt Kalk)—Mille Lacs—Harvester

For Curt Kalk, owner of Tribal Harvest and Gathering Service based in Onamia, Minnesota, ricing is a family affair. As a kid, he learned how to harvest and process rice from his grandmother, aunts and uncles.

"Parching was the fun part," he said. "The smell of a wood fire and parching rice happens only once a year. Everyone would gather around the kettle for the smell and to take their turn parching."

Curt carries on this tradition today by harvesting and processing his own rice. He enjoys gathering good food and making a healthy food product saying: "nature provides, you just have to go get it." Curt's favorite wild rice dish is manoomin cooked by boiling and topped with pan fried venison and a touch of butter.

Curt sells wild rice annually, while supplies last, and offers additional gathering services upon request.

Wild rice camp in the Keweenaw

In collaboration with GLIFWC and other institutions, Keweenaw Bay Community College is hosting a manoomin camp August 31–September 2 in Pelkie, Michigan. Hear traditional teachings, share stories and learn to harvest and process wild rice. To register or get more information contact DeAnna Haden at 906.524.8209 or *dhadden@kbocc.edu*.

Manoomin season

(continued from page 3)

emergency spillway—designed to "spill" extra water in just this situation—was overwhelmed. In the end, a gash cut through the dike, and the waters of the Radigan bullied their way down to the St. Croix River, leaving behind an empty basin.

Today, the Radigan Flowage is a broad mudflat where two small streams once again come together. And politicians, resource managers, and concerned individuals will have to determine if there is a way to bring this jewel back.

Even with this "ugly" season, however, there is hope for some good in this year as well. Despite all the unusual weather this summer has brought, early reports suggest that some manoomin beds are still doing their best to provide for the human and more-than-human beings that have come to depend upon this special gift.

Throughout August, GLIFWC staff will be trying to conduct aerial surveys of rice beds with WDNR pilots whenever cloudless conditions prevail, and summer interns will continue visiting select waters from the ground as well. As abundance information becomes available, we will be posting information posted on our website (follow the Manoomin Harvest Information link at *www.glifwc.org*). Be sure to check it out.

And, as always, be sure to harvest in a good way. There are some suggestions that maturation may be more variable than usual this year, and some beds may not be ready to pick until others are nearly done. By picking carefully whenever and wherever we pick, we show are respect to manoomin, and to other manoomin harvesters.

Whatever your season brings, enjoy the time with your ricing partner and the beauty of the rice.

A dike failure emptied the Radigan Flowage following a major rainstorm last June. (P. David photo)

New waterfowl rules expand opportunities for treaty hunters

(continued from page 2)

During this time, populations of migratory birds were greatly reduced worldwide, due to market hunting and the popularity of bird-shooting sports and specimen collection.

When migratory bird populations dropped to dangerously low levels in the early 1900's, hunters in North America, and newly-formed conservation organizations, advocated for new regulations to control migratory bird hunting, outlawing efficient harvest methods. As migrating birds spend time across a region, transecting international boundaries, this effort had to include many countries.

In the early 1900s, countries, including the United States, entered into several international treaties on migratory birds. These agreements set forth requirements for nations to develop and enforce strict regulations on the hunting, capture and other activities affecting migratory bird populations. These agreements were codified into U.S. law under the Migratory Bird Treaty Act. The USFWS, founded in 1940, was created to assist the United States in fulfilling its treaty obligations and ensuring compliance with the Migratory Bird Treaty Act.

Unfortunately, the reserved rights of the Ojibwe and other tribes were not considered in the process of enacting the treaties on migratory birds, nor were they considered in the adoption of the Migratory Bird Treaty Act. The Ojibwe, during the period before their reserved treaty rights were recognized by the courts, were expected to obtain a state-issued license to hunt, adhere to all state regulations when hunting, including bag limits designed to encourage hunting for sport and discourage hunting for subsistence. Tribal members who violated state law provisions were subject to prosecutions and jail-time.

The ceremonial use of migratory birds was also discouraged by Indian agents and religious figures. These onerous policies significantly restricted traditional hunting practices and Ojibwe ceremonial lifeways, inhibiting tribal self-governance and the natural development of Ojibwe wildlife management practices.

Tribal migratory bird hunting—revived

Following the tribes' victory in the *Lac Courte Oreilles (Voigt)* case in 1983, the USFWS started engaging with tribal leaders on the development of a process to allow the tribes to exercise their reserved treaty rights to hunt migratory birds. This was a really important development. Instead of fighting the tribes, as the states were doing at this time, the Service wanted partnership. In 1985, the Service published guidelines recognizing the authority of Indian tribes to self- regulate migratory bird hunting on their lands, including reservation lands and off-reservation ceded territories (50 FR 23467).

Since then, GLIFWC member tribes, and other tribes, have submitted annual proposals to the USFWS for seasons, bag limits and other aspects of the annual off-reservation migratory bird hunts. The Service publishes the hunting rules that apply to the various reservation and off-reservation lands, just as it publishes hunting rules that apply to the states.

New migratory bird hunting opportunities

For several years, the GLIFWC tribes which participate in the Voigt Intertribal Task Force, have included a request to authorize the use of electronic calls in the annual proposal. The Service had been reluctant to authorize the use of more efficient methods, including electronic calls, because of a fear that the tribal harvest might impact the conservation of various migratory birds. In order to allay that fear, the 2018-19 annual proposal limits the use of electronic calls: only 50 permits allowing the use of electronic calls off-reservation will be issued.

Further, hunters engaging in the use of electronic calls or hand-netting migratory birds will be required to keep a diary, recording specific information for every hunting trip (all the details); hunters will be required to turn in their diaries within two weeks of the end of the season to allow GLIFWC Biological Services staff to analyze the data for the development of a report that will include three years of information. At the conclusion of the experiment in 2021, we hope to have a report that documents the impacts of the experimental methods, if any, and whether it has contributed to fulfilling a cultural need.

The Service approved the use of electronic calls and non-mechanical, hand-operated nets to capture migratory birds, for the 1837 and 1842 off-reservation Ceded Territories on February 5, 2018. This rule will be in place at the start of the 2018 migratory bird hunting season September 1. Also new for the 2018 season: a sandhill crane season for the 1836 off-reservation Ceded Territory (Bay Mills) and in the 1837 and 1842 off-reservation Ceded Territories, the swan hunting season begins September 1, with the duck and goose season. GLIFWC staff are interested in hearing from tribal migratory bird hunters. We will be planning a hunters' gathering next year on migratory bird hunting.

GLIFWC's first resource vulnerability assessment available

GLIFWC climate change staff have released Version 1 of the Ceded Territories Climate Change Vulnerability Assessment. The report highlights 11 beings, including ginoozhe (northern pike), namegos (lake trout), ogaa (walleye), waabooz (snowshoe hare), waawaashkeshi (white-tailed deer), makwa (black bear), migizi (bald eagle), aandeg (American crow), miskwaadesi (painted turtle), waawaatesi (firefly), and manoomin (wild rice).

The report describes the factors that affect the vulnerability of each being to climate change and provides information from climate change TEK (traditional ecological knowledge) interviews that have been conducted with elders, harvesters, and community members from each GLIFWC member tribe. Look for articles in future Mazina'igan editions containing results from this assessment!

As an intertribal agency committed to the infusion of Ojibwe culture and values into all aspects of its work, we would like to first acknowledge the environment, the beings/species, and all of the manidoog (spirits) that assure the continuation of human life on this earth. We would also like to thank the elders, harvesters, and community members who offered their time to speak with us about climate change and shared their incredible knowledge.

We believe it is important to rely on TEK when addressing the effects of climate change impacts, and their openness and willingness to share made this possible. We would additionally like to thank the many regional experts that reviewed these assessments. Finally, we would like to thank the many GLIFWC staff who advised us in this process and reviewed drafts of the report.

Staff continue work on a Version 2 of the assessment scheduled for release in 2019. This version will include the entire suite of over 60 beings. This assessment will form the basis of an adaptation plan that staff will begin work on in the coming year. To download Version 1 of the assessment, go to *glifwc.org/ClimateChange* or visit: *http://glifwc.org/ClimateChange/GLIFWC_Climate_Change_Vulnerability_Assessment_Version1_April2018.pdf* To request a hard copy, call 715.682.6619

—H. Panci & M. Montano

New faces, old friends at Partners Fishing

Fisheries biologists and interagency representatives gathered at The Landing resort on the Chippewa Flowage June 6 for the annual Partners in Fishing event. A new face this year, Super Bowl XXXI Champion Earl Dotson, joined fellow Green Bay Packers William Henderson and Gilbert Brown. The professional football players regularly join in and promote the values of teamwork.

Now in its 26th season, Partners brings together a diverse group of fisheries managers and biologists who manage walleye and other species in the Wisconsin Ceded Territory. Together, natural resources agency representatives from GLIFWC, the state, tribes, and federal government form the Joint Assessment Steering Committee. Through annual surveys of walleye stocks, the committee has definitively concluded that springtime treaty fishing is not harmful to northern Wisconsin's walleye population.

Sokaogon Voigt Intertribal Task Force representative Carson Ackley took home a new St. Croix fishing rod after landing the largest walleye of the day at 21 ¾", fishing with a local guide Tom Leahy. (CO Rasmussen photo)

Meet the warden

GLIFWC Officer Dzwonkowski promotes conservation, relationships with Critter of the Month program

By Paula Maday, Staff Writer

Odanah, Wis.—GLIFWC employs 17 conservation officers who aid in the enforcement of treaty harvesting seasons. But these men and women don't just ride around handing out tickets all day; their job is to provide effective and efficient conservation enforcement services through a community-oriented policing approach. This means that they spend a lot of time in the communities of our member tribes providing education, outdoor opportunities, and hands-on experience for youth, families, and tribal members.

Recently, I spent the morning with GLIFWC Conservation Officer Christina Dzwonkowski to see what community-oriented policing looks like to her, and was surprised to also be sharing the morning with a turtle, a lizard, three snakes, and about 60 kids through her Critter of the Month Program.

Snake Encounter. Third grade student Sofia Gallegos pets a snake during the Critter of the Month Program at Our Lady of the Lake School. For the May visit, GLIFWC warden Christina Dzwonkowski (right) partnered with Lexi Williams from Snakes on the North Lakes (left) to bring in live animals for the children to experience. (P. Maday photo)

Tell me a little bit about how Critter of the Month got started.

It started about five years ago, in 2013. At that time, my daughter attended Bad River Head Start, and parents were able to go and have lunch with their kids. I would go to have lunch with Kiera wearing my uniform—I was a Bad River conservation warden at the time—and kids would be afraid of me because they thought I was a cop. So I decided to start reading to the Head Start classes so they would get to know me. I read wilderness/animal books to all of the Head Start classes. After awhile, I thought it would be better to bring something in that the kids could see and touch. So I would bring in an animal hide and/or antlers along with the book. I asked Lacey Hill-Kastern, wildlife specialist for Bad River Tribe, to join me to provide scientific information about the animals. Then we started featuring an animal a month, we made coloring books featuring the animal each month, and began teaching the kids the Ojibwe word for the animal. We continued like that through 2014.

How has the program changed over the years?

In 2015, we expanded the program to serve preschool—1st grade at Our Lady of the Lake School. A lot of our Bad River tribal kids go there. A year later, the school asked if we could visit 2nd-3rd grade as well. In 2016, I switched jobs and came to GLIFWC, and I really wanted to keep doing the program. Luckily, it fits in perfectly with GLIFWC's youth outreach efforts. So now I do the program for Pre-K-3rd grade. Each month Critter of the Month reaches approximately 135 students.

How do you see this program supporting treaty-reserved rights?

Getting kids interested in the outdoors at a young age really benefits them. Getting them used to law enforcement also benefits them. When I'm in the classroom with the kids, I talk about my job, what it's like, what we do, and why we do it. I let them know that we want to make sure everyone follows the rules so that animals and plants are around for seven generations to come. The kids that I have been talking to for years understand that.

What are some of the biggest outcomes you have seen from this program so far?

Now when I come into the classrooms I get hugs, instead of kids being afraid of me. The kids can't wait to hear what I'm bringing the following month. Several parents have stopped me to tell me their child loves the program and shares facts about animals when they come home. There is also a huge growing interest in the program; we have been contacted by other schools that would also like the program.

What's next for Critter of the Month?

We are trying to present some live animals as well as hides and skulls. Today, I partnered with Lexi Williams (Snakes on the North Lakes) to bring reptiles in for the kids to see and touch. Many of the kids were afraid when they first saw the reptiles, but by the end, felt more comfortable with them. We are also planning a petting zoo for September's back to school Critter of the Month. I have also worked with other GLIFWC staff to incorporate cultural stories and information about different animals. Overcoming fears and developing relationships between kids and animals, and kids and conservation officers is what it's all about. We all have to work together to protect our resources and our rights.

How can you help?

Critter of the Month will gladly accept donations of processed hides, skulls or wildlife books about animals that are present in the north woods. Please email *cdzwonkowski@glifwc.org* if you are interested in donating.

GLIFWC Officer Steven Amsler reviews shooting positions with hunter education students Alex Miron (foreground) and Blake Harden at Keweenaw Bay Indian Community. The KBIC off-reservation deer hunting season opens September 1 in the Michigan 1842 Ceded Territory. (M. Kniskern photo)

Safety Classes

Lac Courte Oreilles Hunter Safety
August 28-29, 2018 • 9:00–4:00
Contact Officer Lauren Tuori 715.292.8343

Lac du Flambeau Hunter Safety
September 3, 5 & 8, 2018
Contact Officer Riley Brooks 715.562.0300 or
Lac du Flambeau Officer 715.588.4172

Mole Lake Trapper Education
October 20–21, 2018
Contact Officer Roger McGeshick 715.889.3200

Register online for all classes at *https://gowild.wi.gov*

Correction: In the Niibin 2018 issue, it was announced that Stephen Ante was appointed as Contract Compliance Officer for the GLIFWC Conservation Enforcement Division. Ante's official title is Contract Compliance Administrator.

Deer hunters:

What you need to know about chronic wasting disease

By Travis Bartnick, GLIFWC Wildlife Biologist

A troubling and controversial disease continues to spread throughout the western Great Lakes region, threatening the health of wild deer and elk. Chronic wasting disease (CWD) is a neurodegenerative disease that is neither virus nor bacteria, but rather a misfolded protein known as a prion (pronounced "pree-on"). CWD prions are an infectious agent that are very resistant to destruction and disinfection.

Because prions are so resistant, they can remain viable on the landscape for many years and are extremely difficult to contain. Prions can spread both directly or indirectly from deer-to-deer via saliva, nose-to-nose contact, urine, feces, and other bodily fluids.

The prions which cause CWD eventually become concentrated in the brain, spinal column, spleen, and lymph nodes of infected deer. Initially, a deer that becomes infected with CWD can look perfectly healthy. However, during this incubation period, CWD-infected deer can shed the prions across the environment for several months or even up to two years before showing any of the clinical signs of the disease.

Once the deer begins to display clinical signs of CWD, they will live anywhere from a few days to a little over a year before succumbing to the disease or to a secondary symptom of having the disease such as aspiration pneumonia. The late clinical signs of a deer with CWD includes excessive urination, salivation, drooling, teeth grinding , emaciation, loss of bodily functions, loss of fear of humans, and other abnormal behavior.

One of the biggest concerns that deer hunters have is whether it is safe to eat meat from a CWD-infected deer. So far, there is no evidence supporting the idea that CWD can be transmitted to humans. However, the risk is not zero. In fact, the Centers for Disease Control and Prevention (CDC) recommends that people should avoid eating meat from any deer or elk that looks sick or that tests positive for CWD.

CWD is not just a concern for wild deer. Captive deer farming is a multi-million dollar industry in many states. According to the Wisconsin Department of Agriculture, Trade, and Consumer Protection (DATCP), 23 captive deer facilities have tested positive for CWD in the state of Wisconsin since 2002. Of those, six of them were reported so far in 2018. That is, nearly 25% of all CWD-positive farms in Wisconsin were reported in the first half of 2018. This is a growing issue and something the captive deer farm industry needs to change in order to prevent the spread of CWD between farms within Wisconsin and across state lines.

Since there is no federally approved and reliable test for detecting CWD in a live animal, there is no way of knowing whether a live deer being shipped from one facility to another has the disease. The practice of shipping live deer that cannot be properly tested for CWD should be halted until a reliable live test has been approved for use. The presence of CWD on these captive deer farms and hunting ranches poses a significant risk to the health of wild deer and elk populations.

Join the fight

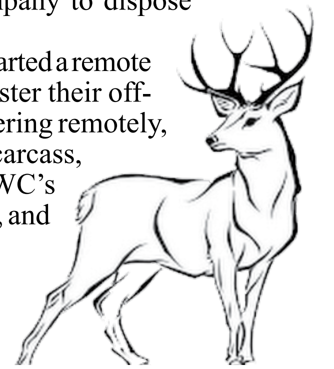
There are several steps that deer hunters can take to be more proactive in the fight against the spread of CWD:

Test your deer for CWD: Hunters are encouraged to get their deer tested for CWD. Contact your local tribal registration clerk, GLIFWC biologist, or local state biologist for more information. The process of extracting samples for CWD testing is relatively quick and the results generally take about 10-14 days to get back to the hunter. For more information about testing your deer for CWD, please visit the GLIFWC CWD website: *http://data.glifwc.org/cwd*

Do not transport your deer carcass: Transporting deer carcasses across long distances means potentially transporting CWD long distances. Some hunters have started changing the ways in which they process deer by field dressing the deer, deboning, and wrapping the meat as close to the point of kill as possible. Some states are starting to become more restrictive in where hunters can transport deer carcasses or carcass parts.

Properly dispose of your deer carcass: One of the most effective ways to prevent the further spread of CWD is to leave the carcass as close to the point of kill as possible. If this is not feasible, then the next best step is to locate a local landfill, transfer station, or waste management company to dispose of the carcass.

Register your deer remotely: In 2017, GLIFWC started a remote registration system that allowed tribal hunters to register their off-reservation deer by calling a phone number. By registering remotely, you can reduce the distance you travel with a deer carcass, thereby potentially reducing the spread of CWD. GIFWC's toll free harvest registration line (for deer, bear, turkey, and cranes harvested off-reservation): 844-234-5439.



Oshki-nitaaged a'aw abinoojiinh (A child's first kill)

Gaa-anishinaabemod: Lee Obizaan Staples
Gaa-anishinaabewibii'ang: Chato Ombishkebines Gonzalez

Geget a'aw Anishinaabe omanaajitoon gakina gegoo wenjida i'iw gaa-miinigoowiziyang ge-inanjigeyang anishinaabewiyang. Ishke ingiw awesiinyag mii ingiw nitam gaa-nakodangig wii-naadamawaawaad inow Anishinaaben ishkweyaang gaa-ayaanijin i'iwapii gii-moonenimind a'aw Anishinaabe ezhi-gidimaagizid i'iw bimaadiziwin. Mii owapii a'aw Niigaani-manidoo gii-pi-azhegiiwed gii-moonenimaad ezhi-gidimaagizinid iniw odanishinaabeman. Mii dash gii-nandwewemaad iniw Manidoon da-bi-naadamawind a'aw Anishinaabe. Mii dash ingiw nitam ingiw awesiinyag gaa-pi-zaagewejig gii-pi-waakaabiitawaawaad iniw Niigaani-manidoon. Mii dash iwapii gii-nakodamowaad wii-naadamawaawaad iniw Anishinaaben miinawaa gii-nakodamowaad ge-ondanjiged a'aw Anishinaabe iniw awesiinyan.

The Anishinaabe treats everything respectfully especially the foods we were given to eat as Anishinaabe. It was the animals that first came forward and agreed to help the Anishinaabe when they realized how pitiful the Anishinaabe were. It was at that time that the Creator realized how pitiful his Anishinaabe were and came back. It was then that he called on the Manidoog to come help the Anishinaabe. It was the animals that first appeared and sat around the creator. It was at that time that they agreed to help the Anishinaabe and be a source of food for the Anishinaabe.

Mii gaye ingiw akiwenziiyibaneg gaa-inaajimowaad iwapii a'aw Niigaani-manidoo gii-nandwewemaad iniw Manidoon da-bi-naadamawind a'aw Anishinaabe, mii a'aw gaa-pi-zaagewed a'aw gimishoomisinaan. Geget gii-mindido. Mii ingiw Anishinaabeg imaa gaa-ayaajig i'iwapii ogii-noondawaawaan ani-bimi-ayaanid iwidi giiwedinong ani-ditibishing a'aw gimishoomisinaan. Mii dash owapii iniw zaaga'iganiin miinawaa ziibiwan gii-izhichigaadeg da-onda'ibiid a'aw Anishinaabe. Mii dash owapii wii-gitigaazod a'aw giigoonh miinawaa i'iw manoomin. Mii dash i'iw wenji-manaajitood gaa-miinigoowizid a'aw Anishinaabe da-inanjiged, ingiw Manidoog gigii-miinigonaanig miinawaa gii-shawenimaawaad odanishinaabemiwaan. Ishke dash mii iw wenji-asemaaked naa zagaswe'idid oshki-nitaaged awiya.

The old men also said that while the Creator was there calling upon the Manidoog to help the people, a large Manidoo also appeared. That Manidoo was really big. The Anishinaabe that were there at that time heard that Manidoo rolling in the north. It was at that time that the lakes and the rivers were created giving the Anishinaabe a place to get their water from. It was at that time that the fish were planted along with the wild rice. That is why the Anishinaabe treats those foods respectfully, because it was a gift to us from those Manidoog and a reflection of their compassion for us. So this is why the Anishinaabe does a tobacco and food offering at the time a young person kills his first animal or deer, or catches their first fish.

Ishke dash gii-kwiiwizensiwiyaan, mii a'aw wayeshkad a'aw giigoonh gaa-tebibinag gaa-agwaawebinag, mii a'aw namebin ezhi-wiinind. Azhigwa gaa-pi-giiweyaan, mii a'awmindimooyeyiban gaa-nitaawigi'id mii iw gaabige gii-ozhiitaad gii-chiibaakwed gii-sagaswe'idiyaang weweni gii-toodawaawaad iniw giigoonyan gaa-oshki-debibinimagin.

When I was a young boy the first fish that I caught was a sucker. When I came home the old lady that raised me started to do her cooking so that we could feast as a way to treat the fish that I first caught respectfully.

Akawe sa wiin igo ogii-nandomaawaan inow nizhishenyibanen, mii inow gaa-nitaa-wewebanaabiinijin. Mii dash gaa-ikidowaad, "Mii imaa ge-ondinaman da-wenda-nitaa-wewebanaabiiyan giniigaaniiming miinawaa apane da-wenda-waanaji'adwaa giigoonyag." Mii dash a'aw akiwenziiyiban gii-mooshkina'aad iniw odoopwaaganan, gaa-ni-giizhiitaad ani-naabishkaaged iniw asemaan, mii dash iwidi gii-apagizomaad iniw asemaan miinawaa i'iw wiisiniwin enabiwaad ingiw Manidoog gii-miigwechiwitaagozid gii-miinigoowiziyang anishinaabewiyang a'aw giigoonh da-amwang miinawaa da-ni-naadamaagoowiziyaan gaye niin da-wenda-nitaa-wewebanaabiiyaan niniigaaniiming.

Before we feasted they called on an uncle of mine who they considered to be a good fisherman. It was then that I was told, "It is from there that you will get your ability to be a good fisherman and that you will never be lacking for fish." That old man filled his pipe, once he had smoked it he then offered the tobacco and food to where all the Manidoog sit thanking them for giving us as Anishinaabe the fish to eat and for me to be helped to be an especially good fisherman in my future.

Mii dash gaye gaa-izhichigewaad i'iw wayeshkad gii-nitooyaan gegoo. Mii a'aw akiwenziiyiban mitigwaabiin naa bikwak nigii-ozhitamaag da-aabaji'ag da-giiwoseyaan. Mii dash a'aw wayeshkad gaa-nisag mii a'aw bineshiinh. Mii-go dibishkoo gaa-izhichigewaad. Weweni asemaa miinawaa wiisiniwin gii-atoowaad miinawaa gii-nandomaawaad netaa-giiwosenijin. Mii-go imaa miinawaa weweni gii-toodawindwaa ingiw Manidoog miinawaa a'aw bineshiinh gaa-nisag.

They did the very same thing when I had my first kill. The old man made me a bow and arrow to use when I hunted. The first thing that I had killed was a bird. They did the very same thing. They put tobacco and food and invited a person who was considered a good hunter to the feast. It was there that the Manidoog were treated respectfully and also the bird that I killed.

Ishke a'aw gwiiwizens owapii oshki-nisaad iniw waawaashkeshiwan, mii gaye imaa apii a'aw asemaa naa wiisiniwin gii-achigaadeg. Mii i'iw aanind a'aw

(see A Child's first kill, page 19)

Northern Woodland Indian Art Show in Lac Courte Oreilles

By Paula Maday, Staff Writer

Lac Courte Oreilles, Wis.—Many people know the Woodland Indian Art Show & Market to be an extraordinary showcase of Native American artists from the Midwest and eastern regions of the United States. Since 2006, Woodland Indian Art, Inc. and its volunteers have produced the show on the Oneida reservation to foster awareness and appreciation of the distinct Woodland artistic styles and cultures.

This past June, the show took on a northern incarnation at the Seven Winds Casino Event Center in Lac Courte Oreilles. It featured a juried art competition and market, offering a wide range of media from 18 competing artists from tribal nations such as Lac Courte Oreilles, Lac du Flambeau, Oneida, Ho-Chunk, and Forest County Potawatomi.

Creative, positive, buzz filled the air as guests entered the event center and perused the booths, chatting with artists like they were old friends and caressing the edges of familiar materials in the same way a mother gently runs her fingers along the cheek of tired child. In art, as in harvesting, there is intimacy between Anishinaabe and the raw materials of the Earth.

Some artists invited visitors behind their tables to learn more about their craft and lineage of learning. Such was the case at the booth of Red Cliff birch bark craftsman Pat Kruse and his apprentices Awanigiizhik (Roderick) Bruce and Bineskwe (Terri Ann) Hom. Here, I learned about birch bark work, quill work, and the pre-contact art form of birch bark biting. As Bruce explained how to peel the layers of bark apart to prepare for the biting, he stopped for a second, asking, "Which flower do you want?" As I tried to think of a particular flower that spoke to me, he interjected, "Wait. I think I see an eagle in this piece." "I'm eagle clan," I replied. And it was settled.

In contrast to exhibits that I've seen and worked on in New York, the art at the Northern Woodland Indian Art Market felt alive, and available to anyone who sought it out. Its roots were not stymied by ego or the need for innovation, but rather outreached strong and wide with tradition and resilience. This work lived and grew with many people from many different generations.

Paula Cooper holds up one of the handcrafted bags she makes through her company Chief Lake Creations. Using both abstract and literal shapes, she says each bag carries its own story and purpose, and always finds its way to the right owner. (P. Maday photo)

As a writer, you learn that the words and stories that flow through you are not always your own; they have their own life to live. And in talking with apparel artist Paula Cooper (Lac Courte Oreilles), I learned it works much the same way for other types of creative work. For Cooper, her stories take literal form in the bags, skirts, vests, and other apparel she crafts through her business Chief Lake Creations. Large and small, the bags tell stories such as the ma'iingan calling out for help from the fracking that's injuring Mother Earth, or migizi—the eagle—feeding her three babies.

Cooper says her stories come mostly from memories of her grandfather Eugene Begay, who we discovered was a good friend of my late grandfather Eugene Bigboy. "There's magic in the world," said Cooper, about our coincidental meeting. With my birch bark bitten eagle in my bag and this new old friend, it certainly felt that way.

In the juried art competition, artists submitted pieces in the categories of 2D art (painting, drawing, prints, photography), apparel (jewelry, beadwork, vests, regalia, hats, feather fans, moccasins), textiles (basketry, woven belts, and quilts), and wood/stone work (bows, cradleboards, drums, drumsticks). There was also a youth art competition.

Red Cliff native Pat Kruse took home the prize for Best in Show with an amazing birch bark basket that featured dyed quillwork. Other winners included Rae Skenandore (Oneida; textiles), Michael Clarquist (Lac Courte Oreilles; textiles), Rosi Ramsey (Lac Courte Oreilles; apparel), Sayokla Williams (Oneida; apparel), Scott Hill (Oneida; wood/stone work) and Carol Ann Smith (Lac Courte Oreilles; 2D art). Overall, the show paid out $2,000 in prizes and had 221 visitors walk through the door. Show Coordinator James White said the show was a huge success. "I believe that we have untapped potential and resources within our traditional artists, and by investing in their prosperity we will ensure the preservation of our culture. Events like these bring our artists to the forefront and showcase the beauty we have to offer the world."

Josh Atcheynum, a Plains Cree artist living in Hayward, Wisconsin, displayed his ledger art at the Northern Woodland Indian Art Show. Ledger art evolved from Plains Indian hide painting into drawing on ledger books or account books that came from government agencies, traders, or military officers. Atcheynum says that he scours antique stores and the Internet to find the ledger books he uses today, and has had a lot of luck finding them in Alabama.

Wolf Camp features Ojibwe traditions

The Red Cliff Band of Lake Superior Chippewa held their second annual Wolf Camp June 18-22. Sponsored by the Brighter Futures Initiative, the week-long camp instructed youth ages 9-18 in camping and cultural activities at Raspberry Campground.

Koresa Newago, Red Cliff, proudly displays a rug she weaved using a hoop and recycled T-shirts. (J. Beaulieu-Newago photo)

Joining Red Cliff youth on their adventure were nine youth visiting from the Quileute Tribe of La Push, Washington. This cultural exchange was made possible by Xperitas, a non-profit organization that encourages immersion between culturally-rich communities. The Quileute tribal youth will bring their experience at Wolf Camp back home to the Pacific coast, and share it with their own communities. And they will have a lot to share.

Taking advantage of the beautiful surroundings at Raspberry Campground, campers experienced life on the Lake Superior bay, learning traditional methods of harvesting and gathering. Their knowledge was put to the test as they fully engaged in traditional herbal tea-making and gillnet fishing. After pulling their gillnet, youth were able to enjoy a fresh meal as Red Cliff elder Mike Andrews smoked the fish that were caught.

As the week went on, youth were able to spend quality time with tribal elders and leaders. Encouraging intergenerational bonding and storytelling, it was a very special effort to keep the tradition of Ojibwe oral history alive. Elders taught youth the history of the moccasin and bowl games, and later enjoyed each other's company while competing against one another.

Red Cliff Wolf Camp was a week full of sharing, laughing, and making memories. Youth from both Red Cliff and Quileute will undoubtedly take a lot from this experience, including respect and knowledge of resilient tribal cultures.

—J. Beaulieu-Newago

GLIFWC youth programs help prepare leaders of the future

Ten years at Onji-Akiing

By Saagi Stark, Public Information Office Intern

Sidnaw, Mich.—GLIFWC's camp Onji-Akiing, meaning "from the earth" is an annual cultural camp that embodies Ojibwe treaty rights and Gidiwewiniwaan (our sacred language).

Just over forty Ceded Territory youth ranging from fifth to eighth grade traveled to the US Forest Service facility at Lake Nesbit to participate during the week of July 16-20. This year Onji-Akiing has hit the wonderful ten year anniversary milestone.

When we arrived to Nesbit, campers were assigned to a specific clan. The colors of each clan represented the medicine wheel, including red, yellow, white, and black. After campers checked in with the nurse and completed their swim test, they participated in an opening ceremony. This ceremony included a traditional pipe ceremony as well as a water talk.

Campers take core samples from the trees they learned to identify with USFS Joe Panci. (J. Beaulieu-Newago photo)

Following the opening ceremony, campers grouped into their clans and played ice breaker activities to help everyone learn names of fellow participants. This led into Warrior Games, which involved capturing the flag and flag football all in one. Warrior Games is always one of the favorite activities campers look forward to.

The week included many cultural activities including the daily spiritual run. Boys practiced singing a flag song on the drum, while others made birch bark crafts, played dish and moccasin games, or played traditional lacrosse. The daily spirit run included waking up and stretching for ten to fifteen minutes then walking/running a mile. On our way back to the camp we walked through the woods on a trail to reflect with nature. Once all the campers got back, we participated in the flag raising ceremony on the campgrounds. It was great to see campers step up and help our cultural advisors conduct these ceremonies in a good way.

A first-time activity this year was the dish and moccasin games. The girls ventured away from the boys to play traditional dish games. The boys stayed to play moccasin games, which is complicated for first-time players. They had fun playing against each other and tried to win for their teams. We also had multiple people that helped further the teaching of Ojibwemowin to the campers while teaching the activities.

Although this camp has many activities to keep youth busy, it can also help them learn about different types of natural resource jobs and colleges that offer natural resource majors. On Wednesday, campers participated in a natural resource career fair. Campers were given a packet of sample questions to ask professionals, which in return would give them a ticket to be entered into a raffle at the end of the fair. This camp has helped many youth think about their futures. With Northern Michigan University, University of Michigan and Michigan Technological University attending, campers and junior counselors learned about different types of programs and majors.

Current counselor Erik Franze said that coming into this camp, he didn't have any expectations. But if he had set any, this camp would have exceeded them all.

Every year campers participate in a service learning activity. This year's activity involved planting a garden on the beach of Lake Nesbit. (J. Beaulieu-Newago photo)

Girls at camp learned how to play the traditional dish game. Participants would shake the dish, trying to get various combinations that led to the most points. (J Beaulieu-Newago photo)

Another counselor, James White, also had some positive things to say about camp. "I hope that campers felt like they belonged to a family that cared about them and taught them more about their culture as well as Ojibwe treaty rights. I learned that GLIFWC knows how to spark interest, hope, and a sense of community within the youth that will shape our future. My favorite part about this camp was the team-building exercises and the creative collaboration that it forced the kids to use."

A junior counselor is one that has become too old to be a camper but is too young to be a counselor. They are a "counselor-in-training" that youth can look up to. Junior counselor Mitchell McGeshick said, "I hope the campers learned about the importance of our traditions and the importance of our natural resources. I hope they learned about the importance of teamwork and the fact that if they all work together, they can achieve something they couldn't do alone." He also explained, "What I take from this camp is the importance of working as a team."

This camp has embodied the idea of extended kinship. Anybody who joins this camp becomes family including youth participants, junior counselors, counselors, and staff that help run and put this event together. Onji-Akiing has created bonds with campers for ten years now. It's a second home for many people, including myself. I hope it continues for future generations.

Throughout the week, campers and counselors bonded while participating in teamwork and leadership activities on the grounds at Camp Nesbit. Built by the Civilian Conservation Corps in 1938, the camp covers 30 acres and features a ball field, archery range, hiking trails, and other outdoor amenities. Onji-Akiing participants sleep in cabins and also make use of the recreation hall, dining hall and modern kitchen. (J. Beaulieu-Newago photo)

Oshki-Ogimawijig (Young Leaders)

By Saagi Stark, Public Information Office Intern

Geese Nation is a "traveling camp" designed for current junior counselors of GLIFWC's Onji-Akiing youth camp. From June 20-26 participants explored and learned about different Ojibwe cultural activities at various reservations in the Ceded Territory. This journey was funded by the First Nations Development Institute and involved seven junior counselors ages 14-18 years old,

Junior counselors are both residents and tribal members of a variety of different nations from Wisconsin and Minnesota including Mashkiiziibing (Bad River), Odaawaa-zaaga'iganing (Lac Courte Oreilles), Oneida, and Menominee. These campers traveled to the reservations of Gete-Gitigaaning (Lac Vieux Desert), Odaawaa-zaaga'iganing (Lac Courte Oreilles), Nagaajiwanaang (Fond du Lac), and Miskwaabikaang (Red Cliff) to experience Ojibwe traditions. The mobile camp was designed to create opportunities to learn cultural activities with elders who took time to pass on knowledge to the next generation. Junior counselors became familiar with many cultural activities and teachings that can now be passed on to future generations.

Giizhigad Netamising (Day 1):

The first day was filled with some exciting activities to start our trip in a good way. Campers began to arrive at the GLIFWC office building in Odanah around 9:00 am. This led to a tour around GLIFWC where we learned about the departments and some of the work being done. The campers were taught a basic understanding of Ojibwe treaty rights and the Sandy Lake Tragedy. One major idea I took from this presentation was to tell our own stories and not to let someone else tell these stories.

After lunch, we were coached on photography and what makes a great photo. We learned about angles and what times are the best to take photos or videos. Bad River Chairman Mike Wiggins discussed the importance of keeping our resources healthy, not thinking about money or furthering the economy in a bad way. After this, campers travelled to Gete-Gitigaaning (Lac Vieux Desert) located in Michigan. This is where we met with our first cultural advisor, Steve Perry, from Lake Leelanau located in Lower Michigan. He taught us how to make homemade cedar feast bowls.

Giizhigad eko-niizhing (Day 2):

The second day was filled with a lot of eventful projects. After waking up and eating breakfast, all the campers worked on feast bowls. This included final chiseling, then smoothing the inside and edges. After the bowls, we had lunch and then drove to the LVD Fish Hatchery. We met Charles McGeshick, a Fisheries Technician. This was really insightful and he gave us a lot of good information. He explained the process from hatching eggs to releasing young walleye in the lake. One big thing that stuck with me was that if they receive one million eggs, only a third die and they release the rest. He also brought us to see the rearing ponds. The rearing ponds had tadpoles and a couple of miskwaadesiiyensag (baby painted turtles).

Next we headed to the lake and dipped our toes in the cold water. We finished our day with a flint made fire and deep discussion.

Giizhigad eko-nising (Day 3):

On the third day we wrapped up our time in Gete-Gitigaaning (Lac Vieux Desert). The campers had a wonderful time making the bowls with Steve Perry.

After these eventful days we packed up camp and began our journey to Odaawaa-zaaga'iganing (Lac Courte Oreilles). This car ride was a fun one, according to Dawn. She stated that Heather, Forrest, Miriam and herself started singing Bohemian Rhapsody. After the long car ride, we set up camp at the LCO pow-wow grounds. After journaling and making our video diaries, we decided to go swimming. After this great deal of fun we were ready to go and make our feast bags. Sewing was a brand new skill for campers and chaperones. Our cultural advisors Mary Robinson and Tiffany Leach helped us choose a fabric that we liked. Next, we cut out the pattern and began to sew on ribbons and an appliqué pattern.

Campers carve bowls from cedar. (M. Kniskern photo)

The campers are lined up and ready to start traveling to all the reservations. Pictured left to right, Dawn Denomie, Miriam Denomie, Forest Gordon, Austin Smith, Nam Corn, Saagi Stark, and Jasmine Brunette. (H. Naigus photo)

Giizhigad eko-niiwing (Day 4):

This was one of the earliest mornings to wake up and start our day. We woke up at 6:30 and began to pack up our tents and sleeping gear. We ate oatmeal parfaits for breakfast. At 7:30 the campers were ready to go and harvest birchbark. Kevin Roach came to the campground and took us to the spot. When we arrived, all of us put down our asemaa and trekked into the woods to find the trees. After arriving to our spot he taught us how to cut deep enough to have the bark pop off. We didn't cut too deep though, so we wouldn't damage the tree. He also taught us how to roll the birchbark when finished so we didn't cause it to crack. Next we went to his house to harvest wiigoob (basswood) for the "thread" used in birchbark baskets. This occupied us for the rest of the day until we had to leave for Nagaajiwanaang (Fond du Lac).

Giizhigad eko-naaning (Day 5):

After breakfast we made birchbark baskets out of what we harvested the day prior. This was also a new activity for most of the group. Some got frustrated if their bark began to crack or not look symmetrical. Some campers even talked about creating a business that would sell the projects that we were taught on this trip. These activities included the feast bags, the homemade cedar bowls, and now the birchbark baskets- which we named The Triple B. After lunch we traveled to the FdL community garden. We learned about all the different plants that are growing and how the growing season can be extended. Tribal Chairman Kevin DuPuis challenged Nam and myself to a game of beanbag toss. The Chairman prevailed and we accepted our defeat as we went back to the dorms to make freezer jam. During this activity we wanted to test if the pectin could make jelly using maple sugar. In the end we found out that you can't use sugar substitutes even if the box instructions **(see Geese Nation, page 22)**

Geese Nation campers sit with Kevin Roach and learning how to peel the inner bark of the wiigoob (basswood). Campers pictured from left to right Dawn Denomie, Forest Gordon, Austin Smith, Miriam Denomie, and Kevin Roach. (S. Stark photo)

Iron mining in Minnesota

(continued from page 1)

interesting case, that has had well documented effect on wild rice, is the discharge of wastewater from the U.S. Steel Minntac Mine tailings basin to the Sandy and Dark Rivers (Figure 1). That facility has been operating with an expired water discharge permit since 1992. Thousands of gallons of wastewater seep out of the tailings basin every minute and flow into the Sandy and Dark Rivers. The Dark River is a designated trout stream and the Sandy River used to contain abundant stands of wild rice.

The tailings basin, which has grown in size to cover approximately 16 square miles, was designed with retaining berms made from course tailings. Those course tailings allow basin wastewater to seep down and out into the surrounding wetlands and streams. Water leaving the tailings basins is highly mineralized. Sulfate in the wastewater far exceeds the state standard for wild rice waters. Water from the basin is also high in manganese, iron, and total hardness. The bogs and forested wetlands surrounding the basins have been converted to cattail marshes by the highly mineralized water. Wild rice has been virtually eliminated from the upper Sandy River and associated lakes.

Since 2007, tribes in Minnesota, the 1854 Treaty Authority and GLIFWC staff have been engaged in an effort to have U.S. Steel reduce its impact to rice stands downstream of the tailings basin and in particular the once-abundant stands on the Sandy River in the Twin Lakes of Sandy and Little Sandy. Tribal staff have met repeatedly with Minnesota Pollution Control Agency, Army Corps of Engineers and US Forest Service staff to advocate for improvement to water quality conditions in the Sandy River watershed. The primary focus has been to return the Twin Lakes to a condition that can support wild rice.

State of Minnesota documents reveal that in 1966 rice in those lakes was found to be "abundant". Construction of the Minntac tailings basin was also begun in 1966. Since that time, wild rice has declined dramatically. In 1982, there existed 121 acres of wild rice in Sandy Lake and 89 acres of wild rice in Little Sandy Lake. By 2001, wild rice was found in only trace quantities within Sandy and Little Sandy Lakes. Every year since 2010, the 1854 Treaty Authority has done annual surveys of the Twin Lakes for aquatic vegetation and water quality. In those surveys, the 1854 Treaty Authority has found only a few sparse patches of wild rice.

Sulfate levels discharging from the tailings basin and found in the Twin Lakes have increased over the years of tailings basin operation. Prior to establishment of the tailings basin, the US Geological Survey found sulfate to be below 10 mg/L in the Sandy and Dark Rivers. In 1999 sampling by MN-DNR found sulfate to be

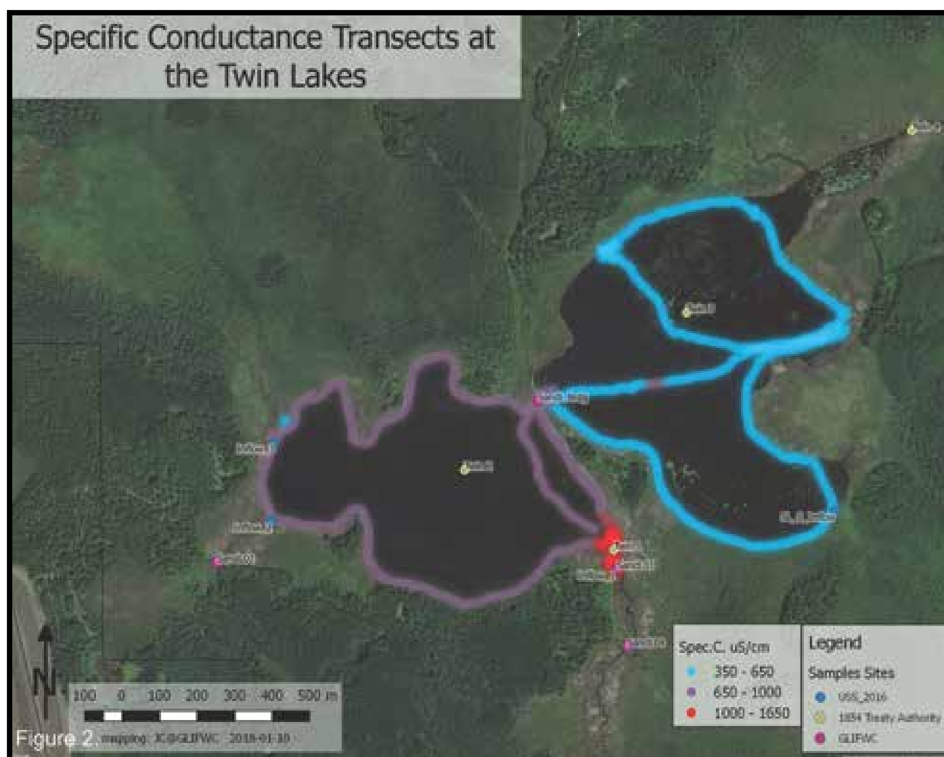


Figure 2. Concentration of dissolved minerals (as indicated by repeated measures of Specific Conductance) in Twin Lake waters. (Data collected August 2017.)

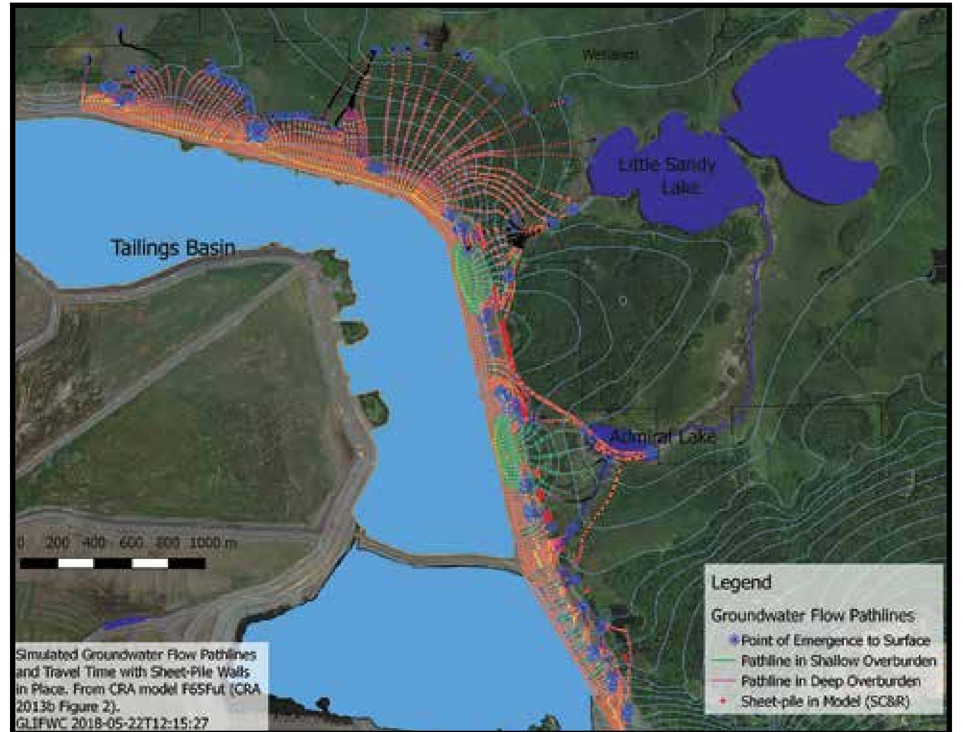


Figure 3. Particle tracking using a groundwater model of the Minntac tailings basin. Modeling shows tailings basin water passing through the basin berm and emerging in surrounding wetlands and surface water bodies such as Admiral Lake and the Sandy River.

697 mg/L in water discharging from the toe of the tailings basin into the Sandy River and between 190 and 336 mg/L of sulfate in the Twin Lakes of the Sandy River watershed. In 2016, U.S. Steel found sulfate concentrations to be over 100 mg/L in the Twin Lakes. In its survey in 2017, the 1854 Treaty Authority found sulfate concentrations in the Twin Lakes to be 100 to 250 mg/L. The water quality standard in Minnesota for wild rice waters is 10 mg/L sulfate.

In recent years, the US Environmental Protection Agency and the tribes have been urging the State of Minnesota to enforce the existing water quality standards in surface waters in the Sandy and Dark Rivers, in particular the 10 mg/L sulfate concentration standard for rice waters. But the wild rice water quality standard is not the only water standard being violated by Minntac's tailings basin discharge. Iron, manganese and hardness are water quality parameters that are exceeded in the Sandy River on a regular basis due to the discharge.

In 2016 the Minnesota Pollution Control Agency (MN-PCA) proposed a permit for the basin discharges to both surface waters and to groundwater. Because the draft permit did not propose to enforce the wild rice water quality standard for sulfate, nor did it propose limits that would ensure that surface water quality standards would be met, the tribes, environmental groups and the EPA objected to the conditions of the permit. Since 2016 the MN-PCA has focused on modifying the sulfate standard for wild rice waters. That effort was rejected by a Minnesota administrative law judge in early 2018 and the MN-PCA is expected to refocus on drafting a water discharge permit for the Minntac project.

As it stands now, U.S. Steel's Minntac Mine is only loosely regulated by a long-expired permit that has few limits on what can be discharged. Any new permit that attempts to hold U.S. Steel to current water quality standards is likely to raise strenuous objections from that quarter.

In the last two years, GLIFWC Environmental Section staff have begun collecting water quality data to fill gaps in information related to the Twin Lakes and the Sandy and Dark Rivers. In particular, we have focused in characterizing the spatial and temporal distribution of high pollutant concentrations in surface waters. We have used field equipment that records water quality every minute to map the distribution of highly mineralized water in the Twin Lakes and the Sandy River (Figure 2).

We have also sampled the Dark River for an array of pollutants and used continuous data loggers to record changes over time in the mineral content of water in the Sandy River. Mapping of the mineralization of water in the Twin Lakes has identified the Sandy River, flowing from the east berm of the Minntac tailings basin, as by far the largest source of pollutants to the Twin Lakes. Logging of the mineralization of Sandy River water every 30 minutes for many months has allowed us to identify the winter as a period when the river water has approximately twice the pollutant concentration compared to other times of the year.

To better understand the hydrology of the tailings basin site and to develop comments on the MN-PCA's proposed water discharge permits, we re-ran a groundwater model to more clearly display the flow of water from the basin to surrounding wetlands and surface water bodies. That modeling used a technique called particle tracking. The modeling clearly showed water leaving the tailings basin and traveling short distances in the ground and quickly emerging to surface waters (Figure 3). That information has been used to support GLIFWC's argument to the MN-PCA that the tailings basin discharge should be regulated with a NPDES (National Pollutant Discharge Elimination System) permit and should require compliance with surface water quality standards.

This fall or early 2019 we anticipate that the Minnesota Pollution Control Agency will propose a revised water discharge permit for the Minntac Mine. Finalization of an updated permit for the Minntac project would be new and significant progress in Minnesota's efforts to update their mine wastewater discharge permits across the Iron Range.

Bringing iron mine wastewater discharge permits into line with the Clean Water Act of 1972 would help indicate that mining can be fairly regulated in a manner that protects the state's precious waters.

Nibi unites native communities

(continued from page 2)

and New York, along with the premiers of Canada and Ontario, the Regional Body enacted a formal pledge to sustainably manage the lakes as economic and environmental pressures on fresh water continue to grow in North America and beyond. Great Lakes governors, tribes and First Nations regularly provide input to the Regional Body.

"The region's tribes and First Nations bring to the table a unique perspective that reflects a heritage that both reaches far back into history and is very much alive in the present," said Peter Johnson, Great Lakes St. Lawrence Governors & Premiers deputy director.

The Regional Body is currently undertaking a review of its procedures for water diversion proposals from the Great Lakes. The working group of tribes and First Nations continue to be actively involved in the review process. Updated procedures are expected to be finalized by December. **—C. Rasmussen**

High lamprey numbers challenge fishery, resource managers

By Bill Mattes, GLIFWC Great Lakes Section Leader

Odanah, Wis.—Bimiizii (sea lampreys) continue to be an elusive invasive species to control. Currently, the three-year average for the estimated abundance of spawning sea lampreys in Gichigami (Lake Superior) is 118,000. This is substantially above the target of 38,000 adults agreed upon by the bi-national Lake Superior Committee. Lake Superior is not unique in this respect. There are a number of locations in the Great Lakes that are above their respective targets. The reasons for the relatively high abundance of adult sea lampreys is not fully apparent.

Sea lampreys are controlled by blocking their access to spawning habitat in streams and by applying lampricide to kill juvenile sea lampreys in areas where they reside. Increases in the numbers of sea lampreys have occurred in other areas of the Great Lakes: 1) where de-facto barriers within tributary streams have been found to be ineffective at keeping sea lampreys from spawning grounds. 2) where lentic populations of juvenile sea lampreys (those that are in the lake, not a tributary stream) have become established. 3) where new populations have developed when once poor habitats have become restored.

Each adult lamprey consumes about 40 pounds of fish in order to grow from a six-inch newly transformed parasite to its adult size of roughly twenty-inches. On average, 4.7 million pounds of fish were removed annually by sea lampreys in Lake Superior during the past three years. This is about the same amount of fish harvested by all user groups throughout all of Lake Superior. Therefore, if sea lampreys were removed, human harvests could potentially double.

Sea lampreys invaded the upper Great Lakes via the Welland Canal more than 75 years ago and reached their peak abundance in Lake Superior about 55 years ago. Prior to control, sea lampreys affected the commercial fishery by consuming large numbers of chinamaycush (lake trout), adikameg (lake whitefish) and kewis (cisco, a.k.a. lake herring). Sea lampreys prefer fish with small scales but wounds from sea lamprey attacks have been documented on most fish species in the Great Lakes including the heavily armored name' (lake sturgeon).

Sufficient funding continues to be a critical need, without which the appropriate effort cannot be devoted to both current control and to address uncontrolled sea lamprey populations. The future of the fishery in Lake Superior remains as dependent upon successful sea lamprey control today as it was 75 years ago.

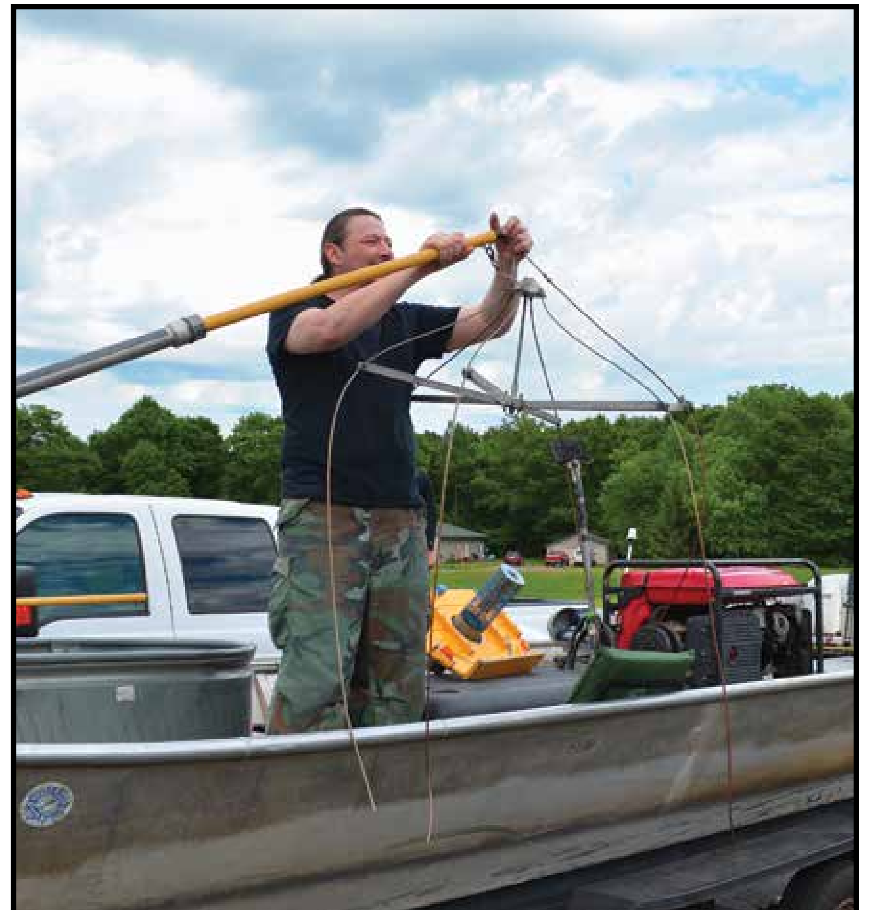
The Lake Superior Committee is a bi-national group of senior fisheries staff from agencies around Lake Superior that meet under the auspices of the Great Lakes Fishery Commission to consider issues and problems of common concern to member agencies. The Great Lakes Fishery Commission was established in 1955 by the Canadian/U.S. Convention on Great Lakes Fisheries. The Commission coordinates fisheries research, controls the invasive sea lamprey, and facilitates cooperative fishery management among the state, provincial, tribal, and federal management agencies.

In 2018, GLIFWC's Great Lakes Section staff conducted its 33rd year of assessments for adult spawning sea lampreys on the Bad River in coordination with the Bad River Natural Resources Department and the U.S. Fish & Wildlife Service Sea Lamprey Control Program. This assessment provides a mark-recapture population estimate for the river as well as information on the size of spawning sea lampreys and removal of a portion of the spawning population. These data are combined with other data from around the Great Lakes to determine the effectiveness of the sea lamprey control program. (Ronald Parisien Jr., photo)

Ogaa assessment season on Mille Lacs Lake

During a busy open-water season on Lake Mille Lacs, GLIFWC fisheries staff collaborated with survey crews from Mille Lacs Band, Fond du Lac Band, and Sokaogon Chippewa Community to implement three major walleye research projects: acoustic habitat study, juvenile ogaa electrofishing, and short-set gillnet surveys in cooperation with Minnesota Department of Natural Resources.

Miigwech to all the crew members working to help better understand, and recover, Mille Lacs Lake ogaawag population. From left: Mark Luehring, Clint Soulier, Norb Nunway, Jerome Cross, Roger Weber, Butch Mieloszyk, Ben Michaels, Ed White, Sam Quagon, Kia Hmielewski, Brandon Johnson, Jalyn LaBine, Caine Heffner, Brian Borkholder, Adam Ray, Madison Bear, Aaron Shultz, Matt Weske, Rachel Claussen, Nick Quagon, and Andre Gilles. (COR photo)



GLIFWC Fisheries Technician Caine Heffner prepares an electrofishing boom-and-dropper rig for an evening of electrofishing on Lake Mille Lacs. The steel cables conduct electricity into the water, temporarily stunning walleye, allowing biologists to capture the fish to collect biological data before release back into the lake. (COR photo)

Ojibwemotaadiwag Anishinaabewakiing.

They speak Ojibwe to each other in Indian Country.

Ambe biindigeg! Ojibwemodaa! Anishinaabemodaa! Aaniin waa-izhichiged dagwaagig gimisenh? Giiyose na? Wii-kiiyose na? Gaawiin mashi giiyosesiin indaanis. Giwii-manoominike na? Ziibiing iwidi, manoominike inzhishenh. Ingii-kikinoo'amaag. Giwii-wiidookaagoowaa. gaye. Gidaa-gagwejimaawaa. Inashke, ingiw nikag animisewag! Indikid apane, "apegish minoseyeg." Waatebagaa. Wa'aw giizis izhinikaazo "Waatebagaa-giizis."

(Come on in! Let's speak Ojibwe! Let's speak the Anishinaabe language! What will your older sister do when it is fall? Is she hunting? Will she hunt? My daughter does not hunt yet. Do you want to go wild ricing? On the river over there, my maternal uncle rices. He taught me. He wants to help you all too. You all could ask him. Look, those Canada geese are flying away. I always say, "I wish you all have good luck." There are brightly colored leaves. This month is called "Bright-colored leaves month.")

Bezhig—1

OJIBWEMOWIN (Ojibwe Language)

Double vowel system of writing Ojibwemowin.

—Long vowels: AA, E, II, OO
- Waabooz—as in father
- Miigwech—as in jay
- Aaniin—as in seen
- Mooz—as in moon

—Short Vowels: A, I, O
- Dash—as in about
- Ingiw—as in tin
- Niizho—as in only

—A glottal stop is a voiceless nasal sound as in A'aw.

—Respectfully enlist an elder for help in pronunciation and dialect differences.

VTA=Verbs, Transitive, Animate.

Use any VTA **Root Command** in action patterns towards "you"/you all.

Talk to **him/her**!—**Gaganoozh**!
Gigaganoon**in**.—**I** talk to **you**.
Gigaganoon**ininim**.—**I** talk to **you all**.
Gigaganoon**ig**.—**S/he** talks to **you**.
Giganoon**igoo- We** talk to **you**
Gigaganoon**igoog- They** talk to **you**
Love, treasure **him/her**!—**Zaagi'**!
Gizaagi'**in**.—**I** love **you**.
Gizaagi'**ininim**.—**I** love **you all**.
Gizaagi'**ig.**—**S/he** loves **you**.
Gizaagi'**igowaa.— S/he** loves **you all**.
Gizaagi'**igoog.—They** love **you**.
Gizaagi'**igowaag**.—**They** love **you all**.

Niizh—2

Circle the 10 underlined Ojibwe words in the letter maze. (Translations below)

A. Awesiins bimaadizi megwaayaak.
B. Ingiw bineshiinyag babaamisewag iwidi ishpiming. Howah!
C. Omaa zaaga'iganiing, ingiw giigoonyag babaamaadagaawag.
D. Manoomin dazhigin imaa ziibiing! Niwii-manoominike.
E. Gikinoo'amaadiiwigamigong, ingiw abinoojiinyag ojibwemowag.
F. Giiyosewag megwaayaak gaye.
G. Aandegwag wiisiniwag mandaamin-gitigaaning.
H. Apane nandawishibewag dagwaagig.

O B Z A H
J H I G W K
I O I J I E A
B W S O K I S B
W A H A N E G I I
E H P D G A M O I M
M T I W A A P W O N A
O H M B Y N M A I Y S A
W B I N E S H I N Y A G
A A N D E G W A G E P G
G N G I Z I I B I I N G

Niswi—3

IKIDOWIN ODAMINOWIN (word play)

Down:
1. moon, sun, month
3. geese
4. always, continually
5. no, not
7. greetings, in what way?

Across:
3. s/he hunts
6. Look! Behold!
8. also, and, too
9. over there

Online Resources
ojibwe.lib.umn.edu
ojibwe.net
glifwc.org
glifwc-inwe.com

Niiwin—4

VTA to you: Negation

Root: Baapi!—Laugh at him/her!
Gibaapi'**in.**—I laugh at you.
Gaawiin gibaapi'**isinoon**.—No, **I do not** laugh at **you.**
Gaawiin gibaapi'**igosiin**.—No, **s/he does not** laugh at **you.**
Gaawiin gibaapi'**igoosiin**.—No, **we do not** laugh at **you.**
Gaawiin gibaapi'**igosiig**.—No, **they do not** laugh at **you.**

Gi- -igo → Gi- -igoo
–isiinoon → Gi- -isinoon
-ig osiin → –Gi- igosiin

Try Asham!—Feed him/her!
Try Waabam!—See him/her!
Try Minwenim!—Like him/her!

Mii'iw. That's all.

1. Ningagiibiingwe. Gaawiin ____waabam____? (I->You negation)
2. ____wii-asham____ iwidi adoopiwining. (I ->You)
3. Waabang, ____wii-paabi' ____ bimoseyan. (S/he ->You)
4. Aaniin! Wayiiba ____wii-gaganoon____. (We ->You)
5. Gaawiin zaagi'______ noongom. Maanendam. Gaawiin wii-waabam_____. (S/he ->You negation)

Translations:

Niizh—2 **A.** A little animal lives in the woods. **B.** Those birds are flying around high in the sky. Cool! **C.** Here in the lake, those fish swim about. **D.** The wild rice grows there in the river! I want to harvest wild rice! **E.** At school, those children speak Ojibwe. **F.** They hunt in the woods as well. **G.** The crows eat in the cornfield. **H.** They always duck hunt when it is fall.

Niswi—3 ***Down:*** **1.** giizis **3.** nikag **4.** apane **5.** gaawiin **7.** aaniin ***Across:*** **2.** giiyose **6.** inashke **8.** gaye **9.** iwidi

Niiwin-4 **1.** I am blind. **I do not** see **you.** (gi- -isinoon) **2. I** want **to** feed **you** over there at the table. (Gi- -in) **3.** Tomorrow, **s/he** will laugh **at you** when you walk. (Gi- -ig) **4.** Greetings! **We** want **to** see **you** soon. (Gi- -igoo) **5.** No, **she does not** love **you** now and **she does not want to** see **you**. (Gi- -igosiin)

There are various Ojibwe dialects; check for correct usage in your area. The grammar patterns may help a beginner voice inanimate and animate nouns and verbs correctly, as well as create questions and negate statements. Note that the English translation will lose its natural flow as in any world language translation. This may be reproduced for classroom use only. All other uses by author's written permission. Some spellings and translations from The Concise Dictionary of Minnesota Ojibwe by John D. Nichols and Earl Nyholm. All inquiries can be made to **MAZINA'IGAN**, P.O. Box 9, Odanah, WI 54861 or email *lynn@glifwc.org*.

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Why leaves change color

In dagwaagin (fall), leaves change color. The changing of color happens because as aki (earth) rotates, parts of the mitigoog (trees) do not receive any sunlight. When the trees do not receive sunlight, they produce less chlorophyll (kl-oro-fil). The chlorophyll is what gives the leaves their green color.

In the midwest, we have many different species of trees. By looking at the different colors of leaves in dagwaagin, you can tell what species the tree is. The wiigwaasaatig (birch tree) leaves turn yellow in the fall whereas the mitigomizh (oak tree) leaves turn a yellow or red color.

Mitigoog that lose their leaves after changing color are called deciduous (de-sid-u-us) trees. In order for these trees to survive the harsh biboon (winter), they must shed their leaves. By shedding their leaves, the tree is able to use all of its energy to keep the trunk and root system alive.

These birch tree leaves show signs of receiving some sunlight due to the green spots (chlorophyll) still present.

When you see the beautiful red coloring of the oak leaves, you know that dagwaagin is here.

The Ojibwe people knew it was time to harvest manoomin (wild rice) when the leaves began to change color. It was also the time to dry deer meat and fish to store for the long winter ahead.

—Amanda Plucinski
Public Information Office Intern

Esiban is hiding in the leaves. Color the picture to find him.

1=red 2=yellow 3=orange 4=brown 5=black 6=white 7=grey 8=pink 9=blue

(reprinted from *education.com*)

Let's learn Ojibwemowin (Ojibwe language)

Draw a line from the Ojibwe word to the matching word in English.

dagwaagin	winter
wiigwaasaatig	fall
manoomin	raccoon
mitigomizh	trees
mitigoog	wild rice
biboon	birch tree
esiban	oak tree

Dagwaagin to do list

Please make sure to get your parent's permission before doing any of the following activities.

- •Go wild ricing
- •Attend a pow wow
- •Go for a hike in the woods
- •Collect different colored leaves
- •Go hunting
- •Play outside with your friends
- •Get lost in a corn maze

Chlorophyll Science Experiment

With your parent's permission, gather the supplies and follow the steps below. After you are done with these steps, you will be able to see how nail polish remover breaks down the leaves to release various chemicals and colors.

What you need:

Clear Plastic Cup	Pen
Coffee Filter	Scissors
Spinach	Tape
Nail Polish Remover	Spoon

Step 1: Tear the spinach leaves in little pieces and put them in the cup. Tear up enough leaves to cover the bottom inch of the cup.

Step 2: With a spoon, mash the spinach leaves to make them into smaller pieces.

Step 3: Add nail polish remover into the cup until the leaves are covered.

Step 4: Cut a strip of the coffee filter and wrap it around the pen with about 3 inches hanging down and tape in place.

Step 5: Place the pen over the cup with the 3 inches of coffee filter hanging into the spinach leaves.

Step 6: Watch the coffee filter slowly turn green as it soaks up the chlorophyll that is in the spinach leaves.

(Note: It can take a couple hours to see the full effect of the chlorophyll.)

(Reprinted from: *www.motherhoodonadime.com*)

Check out this kid-friendly YouTube video:
Why do Leaves Change Colors in the Fall?
www.youtube.com/watch?v=Xk4-6II8I5Q

Ingiw waadookaagejig nawaj ogikendaanaawaa (The helpers learn more)

GLIFWC 2018 Interns

By Saagi Stark, Public Information Office Intern

Biological Services Division

Wildlife

Ethan Hiltner and Callen Inman are first-year GLIFWC interns that worked in the Wildlife Section this summer. The pair worked together to assess forest structure in Iron County, Wisconsin. More specifically, they inspected the structural components of the forests and recorded data to see if the habitats were suitable for pine martens.

Ethan is a fifth-year senior attending Michigan State University, where he majors in fisheries and wildlife, specializing in wildlife biology and management. His favorite part of the internship was seeing unique wildlife such as white-tailed deer fawns, ruffed grouse, and coyotes while inspecting the sites.

Callen is a senior at Carleton College. He majors in biology and is looking to specialize in evolutionary biology. His favorite part of the internship was going to sites that no one has seen or been to before.

Wiigwaas

One of many first-year interns at GLIFWC, Sky Isham (Menominee) worked as a birchbark intern this summer. Sky attends Fox Valley Technical College and is working to earn an Associate Degree as a Natural Resources Technician. As a part of her internship, Sky located trees big enough to harvest bark for birchbark canoes. Within the proximity of the birch trees, she then assessed other trees, taking core samples, measuring diameter breast height (dbh), and measuring the height of the two closest trees to figure out ages of the trees. Her favorite part of the internship was finding the big birch trees, as many today are very small.

Gidakiiminaan

Kayla Plucinski is a Bad River tribal member and first-year GLIFWC intern. Working under the Biological Services Division, Kayla worked with the Gidakiiminaan (Our Earth) Altas to map lakes, rivers, and features within the Ceded Territory and label them in Ojibwe. She also helped to maintain the traditional plant garden. Kayla is a sophomore at the University of Wisconsin-Green Bay, majoring in nursing. Her favorite part of the internship was learning all the lakes, rivers, and point names in the Ojibwe language.

Manoomin

Angel Swann and Isabel Meyer worked in the Manoomin Section over the summer. During the 10-week internship, they traveled to manoomin beds and waters within the Ceded Territory, specifically within Wisconsin. Angel and Isabel collected data regarding how much manoomin has been collected in a certain amount of years. This led them to work to create policy change for revising the list the DNR uses to regulate manoomin beds and how much people can collect.

Isabel is a senior attending Northland College. She is double majoring in forestry and Native American studies. Her favorite part about the GLIFWC internship was learning about manoomin within the ecosystem.

Angel is a sophomore at Northland College. She double majors in Native American Studies and history, and pursues a minor in Ojibwe. Her favorite part about the internship was working on the water.

Climate Change

Hannah Orie is a first-year intern for the Climate Change Section. She just finished her first year of college at Bemidji State University, where she is currently majoring in Elementary Education with a minor in Ojibwe. Throughout the summer, Hannah took part in a phenology study. She collected data from certain plants in specified study sites and recorded biological data to see if the plants are being negatively affected by climate change. She also interviewed tribal leaders to gather traditional ecological knowledge (TEK) and transcribed the interviews. Her favorite part about the internship was being surrounded by a familiar community with indigenous outlooks.

Sophia Ford studied mineral records for the Climate Change Section. Over the course of the summer, she reviewed courthouse records and utilized ArcGIS to update mineral ownership in the Keweenaw Bay Indian Community (KBIC) area within Baraga County. Sophia is a graduate student at Michigan Technological University, majoring in environmental and energy policy. Her favorite part of the internship was meeting tons of amazing people and learning more about Ojibwe treaty rights and tribal sovereignty. She believes everything she has learned has helped her better understand a history she wasn't taught about in school.

Biological Administration

Joslyn Beaulieu-Newago's internship was split between the Biological Services Division and the Public Information Office. Joslyn will be a freshman at Northern Michigan University in the fall, where she is planning to double major in Native American studies and environmental studies. Throughout the summer, Joslyn helped to coordinate the Healing Circle Run. She sent out flyers to known

(see 2018 interns, page 20)

Ethan Hiltner

Callen Inman

Isabel Meyer & Angel Swann

Sky Isham

Kayla Plucinski

Hannah Orie

Sophia Ford

The ceremony of the run

Healing Circle Run embraces 10 Ojibwe bands in 2018

By Paula Maday, Staff Writer

My dad was the one who taught me how to run—how to breathe, how to pace, how to push through those walls that come up when you are out there, just you and the road. I didn't really know it at the time, but that was a gift. A gift that kept me balanced throughout life. There are things that happen in our human experience that we don't plan for or understand. Hearts and treaties are broken. Relationships live and they die. And in all of this, our spirits must find space and time to pray, to heal, and to rebalance. I didn't think about it like this back then, but I spent six miles a day in prayer.

Healing Circle Run 2018 reminded me how to do that, the ceremony of the run. It was an opportunity to rediscover and better understand the gift that I was given, and the work it allows me to do for myself, for my family, and for our Ojibwe people.

The run started as it always does, with a morning ceremony at Pipestone Creek on the Lac Courte Oreilles reservation. Around 25 people gathered under the shade of the trees, the vibration of the falls and the delight of the mosquitos (to quote Voigt Intertribal Task Force Chairman Jason Schlender, "Bring plenty of mosquito repellent because it is no joke when it comes to the representation of the Mosquito Nation.)" to begin the seven-day ceremony known as the Healing Circle Run.

New GLIFWC Executive Administrator Mic Isham took the first steps on the journey from LCO to Lac du Flambeau, and then the group hopscotched 60-some miles to Fifield, where Jerome "Booj" LaBarge's youth boxing club took over for the last 20+ miles. The core runners took a brief rest at Movrich Memorial Community Park, rehydrating and eating sandwiches provided by Agnes "Punkin" Fleming along the south fork of the Flambeau River. It was a hot and humid day.

Eagle staff in hand, Mole Lake elder Frannie VanZile leads family and community members on the first steps of the run from Sokaogon Chippewa Community toward Lac Vieux Desert. VanZile's late husband Fred Ackley, Jr.—who passed in June 2018—honored and held close to their hearts as they walked. (P. Maday photo)

Day two started with a butterfly, dancing and acknowledging the staffs and pipes during morning ceremony at the LDF round house. We all saw her and knew its significance. Later, as my family walked a few miles together, a swarm of 40-50 butterflies fluttered up from the grass and around us as we walked. It reminded me that one change can lead to many.

In Mole Lake on day three, a huge circle of Sokaogon youth and community members joined in morning ceremony and miles. Among them, elder Frannie VanZile, who shared stories about her late husband Fred Ackley, Jr., who passed in June 2018. In this community, some very special moments as commitment was expressed to add two eagle feathers to Commission staff mitiganaabe: one in honor of Fred, the other in honor of Arlyn Ackley, Sr. Those feathers were presented the following week during the Mikwendaagoziwag Memorial Ceremony at Sandy Lake.

On that day, as this group worked its way from Mole Lake to Lac Vieux Desert, another group was working their way from Keweenaw Bay Indian Community (KBIC) to Lac Vieux Desert (LVD). The KBIC route was one of two new legs that were added to the run this year in an effort to embrace even more GLIFWC-member bands. Mille Lacs was the second.

GLIFWC staff and KBIC tribal member Keith Rolof coordinated the leg from his home territory to LVD. In its first year of participation, KBIC had over 50 participants, including 12 elders, 22 youth, employees from the tribe and Keweenaw Bay Ojibwa Community College, and a number of people from the community. Collectively, they covered 57 miles from Sand Point in Baraga to Bruce Crossing.

"It was invigorating to see so many members of our community come together for a morning ceremony in Baraga near the Sand Point Lighthouse. It's important to start and end each day of the run in a good way, cover every mile of the route, and to remember what the run represents. Every step is a prayer for the physical, emotional, and spiritual healing of our communities, and, with the addition of Keweenaw Bay and Mille Lacs this year, unites ten Ojibwe tribes across Michigan, Wisconsin, and Minnesota," Rolof said.

GLIFWC and KBIC participants want to give a big chi-miigwech to the KBIC Tribal Council and Cultural Committee for their overwhelming support in making sure the KBIC leg of the run was successful in its inaugural year. Says KBIC run coordinator Keith Rolof, "I've already had people inquire about the run for next year and hope to have even more community participation!" (A. Plucinski photo)

Day four saw runners go from LVD to Red Cliff—by way of Bad River. With a lot of participation from Bad River tribal employees, GLIFWC staff, and Red Cliff community members, the 118-mile route was finished quickly. Bad River and GLIFWC staff were treated to lunch at the blossoming Bad River Food Sovereignty building. Core runners made the traditional pit stop at Bessemer DQ and then later in the day enjoyed a comforting meal in Red Cliff among friends. Among those welcoming us to the community, a beautiful framed photo of the late, beloved Diane Bear-Defoe.

On day five, after a beautiful morning ceremony on the shores of Gichigami, the road from Red Cliff to Fond du Lac proved difficult. The heat and humidity took its toll, and we quickly learned that one-mile increments was all we could do. We moved along slowly and steadily, the Black Bear Casino buffet just up ahead like a mirage. Luckily, the KwePack indigenous women's running group covered Oliver Bridge to Cloquet, and we got to enjoy Jay Cooke State Park with our windows down and the wind blowing through our hair after a long day of sweat, sun, tears, and laughter.

Fond du Lac was where my journey on the Healing Circle Run ended. It was the place where everything felt familiar again. I began to recognize the faces, the spaces, and the voices of everyone around me and remembered that our people have known one another for many lifetimes.

The run continued on for two more days through a new route that encompassed Mille Lacs at Hinckley and then on to St. Croix, where Wanda McFaggen made everyone feel at home. From there, runners headed back to Lac Courte Oreilles to close the circle—the healing circle—of Healing Circle Run 2018.

Mille Lacs Band (MLB) Commissioner of Natural Resources Bradley Harrington said that, "Getting Mille Lacs in a healing event that spans three states contributes to a larger dose of spiritual energy for our region. We are greatly appreciative to all the tribes that put feet to the pavement in the name of healing." Runners from Mille Lacs included Harrington, Cortney Nadeau, Ben Kegg, Dean Staples, Jordan Williams, Jeremy Boyd, Melissa Boyd, Joe Nayquonable Jr., and Luther Sam. Staff from MLB Family Violence Prevention and cook Michael Christenson also helped out with the event. (M. Schaaf photo)

A child's first kill

(continued from page 10)

Anishinaabe ezhichiged, mii imaa okaakiganaaning a'aw waawaashkeshi mii imaa wendinigaadeg i'iw wiiyaas eshangeng iwapii zagaswe'idid. Mii i'iw aanind gaye a'aw Anishinaabe ezhichiged, mii a'aw gwiiwizens gaa-nitaaged mii-go ezhimiigiwed gakina i'iw waawaashkeshiwi-wiiyaas ashamaad iniw gechi-aya'aawinijin.

When a young man kills his first deer, a tobacco and food offering is also made. What some of our Anishinaabe do, they get the meat from the chest of the deer and that is the meat that is offered up in the feast. What some Anishinaabe do is also, is that the young man who just killed his first deer gives all the deer meat away to the elders.

Ishke dash gaye aanind a'aw Anishinaabe gaa-izhi-gikinoo'amawind i'iwapii oshki-nisaad iniw waawaashkeshiwan, mii-go imaa gaabige zhakamoonind a'aw gwiiwizens i'iw wiiyaas imaa gaa-ondinigaadenig o'ow ode'ing a'aw waawaashkeshi.

What some of our Anishinaabe also do is soon after a young man kills his first deer is a piece of the meat is cut from the heart of that deer and is given to the young man to eat.

Interns assist in the field and office

(continued from page 18)

families that participate in the run and organized t-shirts for distribution. She also worked to make sure the GLIFWC work vehicles were kept up to date with oil changes and mileage logs. Her favorite part about the internship was getting to experience two internships intertwined into one.

Inland Fisheries

Jalyn LaBine is a veteran 5th-year intern. She attends the University of Wisconsin-Stevens Point with a major in biology and a minor in psychology. Jalyn's summer consisted of an acoustic telemetry study and an experiment in the fish hatchery wherein juvenile walleyes were implanted with small tags. She performed live surgeries to implant the tags into their stomachs and then stitch them back together. Jalyn monitored the fish at regular intervals to see if the tags affected their behavior in any way. Her favorite part about the internship was the opportunity to run studies and get visual results, such as the wound healing from the live surgeries performed.

Rachel Claussen and Brandon Johnson are both first-year interns for the Inland Fisheries Section. During their summer they used acoustic telemetry techniques to monitor adult and juvenile walleye movement patterns in Mille Lacs Lake in Minnesota.

Rachel is a first-year graduate student. She is attending the University of Miami with a major in marine and aquatic conservation. Her favorite part of the internship was electrofishing at night to collect juvenile walleye.

Brandon is a third-year student at Vermillion College. He is majoring in fisheries and wildlife management. His favorite part of the internship was using gillnets to estimate the adult population of walleye on Mille Lacs Lake.

Great Lakes Fisheries

Aiyana Perry and Kate Nimsgern are first-year interns. This summer, they trapped sea lamprey and also did some work in Keweenaw Bay on Lake Superior. After setting and lifting nets, they would collect fish, weigh and measure them, and finally, collect the otolith—a fish bone that tells the age of the fish. Using a microscope, they looked at the rings of the otolith to determine age of the fish.

Kate is currently a senior attending Northland College. She is majoring in humanity and nature studies with a minor in outdoor education.

Aiyana is attending Lac Courte Oreilles Ojibwa Community College with plans to transfer to the University of Wisconsin-Stevens Point for her Bachelor's Degree. She is double majoring in natural resources and forestry. Her favorite part of the internship was being on the lake and retrieving the otolith from the fish.

Public Information Office

Amanda Plucinski is a veteran Public Information Office intern; this was her third year interning for GLIFWC. Amanda is a recent graduate of the University of Wisconsin-Superior, where she majored in elementary education with a minor in early childhood. During her internship, Amanda worked to provide resource materials to teachers and students. She created a handout for a group of students about traditional plants such as wintergreen, sumac, and cedar. She also created lesson plans about Ojibwe treaty rights for third through fifth grade, and sixth through eighth grade. Her favorite part about this year was working with students and teachers.

Amanda began her professional teaching career in August as a third grade teacher for the Lac du Flambeau Public School. She was also honored earlier this year as the 2018 Wisconsin Indian Education Association Student of the Year in the 4-year undergraduate category.

As for myself, I am a Bad River tribal member, and a first-time intern. This coming fall I will be a freshman at the University of Minnesota-Morris, double majoring in biochemistry and Native American studies. Over the summer I have worked on a lot of different projects such as writing articles, sending packages, designing a jacket and presenting about Ojibwe treaty rights. My favorite thing about the internship was presenting to different groups about Ojibwe treaty rights.

Department of Intergovernmental Affairs

Hannah Johnson is a first-year intern at GLIFWC. She is a junior at the University of Minnesota-Morris, double majoring in environmental studies and Native American studies with a potential minor in history. This summer, Hannah worked on the indigenous food sovereignty project where she helped to accomplish a tribal food code using sources such as the Food and Drug Administration (FDA) as reference. She also assisted in projects such as writing comments to the FDA on added sugar. Her favorite part about the internship was attending different types of meetings; she says she loves all the knowledge she gained from them.

Joslyn B.-Newago

Jalyn LaBine

Brandon Johnson

Rachel Claussen

Aiyana Perry

Kate Nimsgern

Amanda Plucinski

Saagi Stark

Hannah Johnson

GLIFWC welcomes new staff

Emily Nelis teaching and learning as new TEK Specialist

Bad River tribal member Emily Nelis joined GLIFWC in May 2018 as the new Traditional Ecological Knowledge Specialist. Nelis works within the Biological Services Division to assist in writing stewardship plans that incorporate Traditional Ecological Knowledge (TEK) with Western scientific knowledge. The initial plans she is working on address stewardship of wild rice, birch, sturgeon, deer, and water.

To locate TEK, Nelis carefully sifts through interviews with elders, traditional harvesters and other knowledge holders. Some of the data she looks at is from older interviews collected by GLIFWC and some is from recent interviews.

"These plans are not stagnant," she says. "They are living documents that change when we learn new information. My position requires me to be humble and keep learning as much as I can."

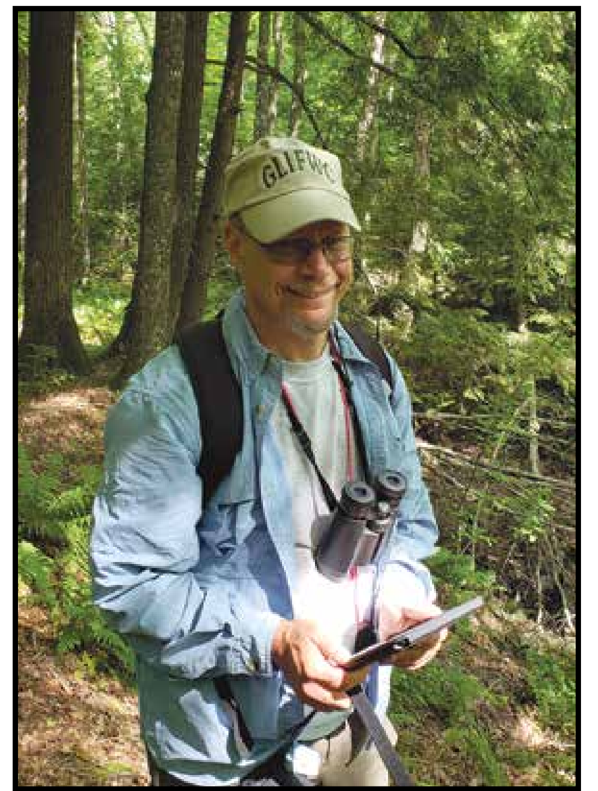
In addition to learning, Nelis has also been sharing knowledge by instituting an Ojibwe Word of the Day language lesson for GLIFWC staff. "I am a language learner and have been actively striving for more fluency every day," she says. "It really helps me in my work because our language holds so much knowledge about the world around us."

Nelis learned how to speak Ojibwemowin on her own by picking up an old Ojibwe dictionary that she found in her house as a child. Later, she enrolled in Ojibwe language classes at the local high school and UW-Madison—her alma mater, from which she graduated in 2017 with a Bachelor of Arts in Social Welfare and a Certificate in American Indian Studies.

In her free time, Nelis likes to bead (florals on black velvet are her favorite), and make moccasins and skirts. She is also learning to do quill work. In her position and in life, she says she hopes to contribute all that she can and to serve as a resource to others. "Everything that we know we have a responsibility to pass on, and I try to remember that every day that I come to work." **—P. Maday**

Here's a little language lesson from Emily that we can all use in our daily lives. Speak this phrase to convey unconditional love for a family member or child.
Gizhawenimin (Gih-zhah-way-nih-min)

Robert Croll new Policy Analyst/Climate Change Program Coordinator



Robert Croll is no stranger to environmental work, in fact, he's no stranger to the Ceded Territories of northern Wisconsin. Croll grew up in Norristown Pennsylvania and was first exposed to this area in the early 90's when he attended Northland College for his undergraduate degree. Robert majored in environmental studies with a socio-political emphasis, and eventually completed a master in environmental law policy from Vermont Law School.

Croll went on to serve 18 years as a conservation officer with the Pennsylvania Fish and Boat Commission and eventually became a captain, tasked with important roles involving navigation, capsule inspection, and special investigations.

When asked why he wanted to work for GLIFWC Croll acknowledged that he has actually wanted to work for the Commission for many years. "I did an internship at Red Cliff Poice Department while at Northland College. Some of my connections at Red Cliff knew I wanted to do conservation enforcement and strongly encouraged me to apply for a warden position at GLIFWC. At that point in time, there were no jobs open and I returned to Pennsylvania and began my career with the State. I'm really humbled to see my path and desires to work with GLIFWC unfold."

Robert's other passions include hiking, fishing, bicycling, researching family history and spending time with his wife and two children. GLIFWC welcomes Robert and all of his experience back to the Ceded Territories. **—D. Jennings**

Biologist returns with deeper resume, work experience

Tanya Aldred has studied wildlife from North America to locales as far away as western Australia. In 2018, she joins GLIFWC in the upper Great Lakes region. For the third time.

The Keweenaw Bay Indian Community member returns to the Commission after a five-year absence, resuming Ceded Territory furbearer studies along with tackling projects centered on climate change.

While away from GLIFWC, she gained sea lamprey control experience at US Fish & Wildlife Service's Marquette Biological Research Station and later worked for the National Park Service on the Apostle Islands. Aldred's current work focuses on research and management of keystone furbearers including waabizheshiwag, fishers, bobcats and river otters. She also contributes to GLIFWC's climate change adaption planning for culturally significant natural resources.

Originally a GLIFWC wildlife technician, Aldred has balanced natural resources fieldwork with educational advances. In 2001 she earned a Bachelor of Science: Wildlife Management & Ecology from Michigan State University. With support from an Alfred P Sloan Foundation scholarship, Aldred went on to a Purdue University master program, concentrating her studies on the Ojibwe clan animal, waabizheshi (American marten). Under the tutelage of Purdue Professor Patrick Zollner and GLIFWC's Jonathan Gilbert, she completed the degree in 2011.

—C. Rasmussen

Marcene Jennings fills Records Management position

Bad River tribal member Marcene Jennings grew up around many GLIFWC-member communities including Bad River, Lac Courte Oreilles, and Lac du Flambeau. So, when she was offered a position as Records Management Specialist for GLIFWC, she happily accepted.

"I love what GLIFWC stands for and couldn't wait to be a contributing part of the team," she says.

In her new capacity, Jennings will be implementing the OnBase application system for data storage and retrieval, and assisting divisions in archiving and storing data according to their needs.

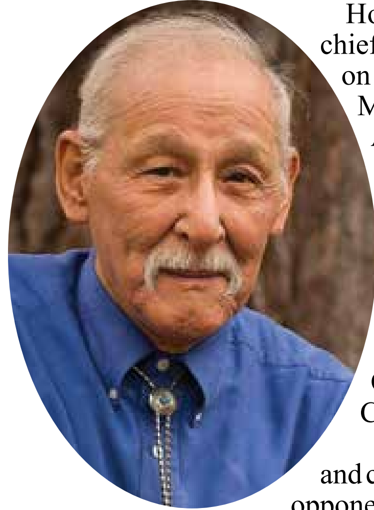
Jennings comes to GLIFWC with a wide range of knowledge and experience. She graduated from the University of Wisconsin-Stout with a Bachelor of Science in Information and Communication Technologies with a network emphasis.

For the past 18 years, she has worked in the IT industry and assisted with computer programming and application/project management for various entities.

She also enjoys spending time with her family, cooking, and photography.

—P. Maday

With heartfelt leadership, Ackley served for decades



Honorable Fred Ackley, Sokaogon chief judge and community leader passed on June 21. Family and friends honored Makoons Ackley during traditional Anishinaabe ceremonies June 24 at the Mole Lake Cultural Center.

Ackley established the Sokaogon Tribal Court in 1983. He was among an original group of judges appointed following the US Seventh Circuit Court of Appeals decision that reaffirmed off-reservation Ojibwe treaty rights in the Wisconsin Ceded Territory.

Many knew Ackley as a spiritual and cultural leader as well as a formidable opponent to the proposed Crandon Mine. Ackley played central roles in the *Lac Courte Oreilles v Voigt* case, *Minnesota v Mille Lacs* Supreme Court decision, and the creation of the Mikwendaagoziwag Memorial at Sandy Lake, Minnesota. From 1984 to 1997 (the same year he received the Tribal Leader of the Year Award from Native American Fish & Wildlife Society), Ackley served as vice chairman of GLIFWC's Voigt Intertribal Task Force. He brought a mix of humility, spirituality, and legal expertise to the Sokaogon Mole Lake courtroom. Among hundreds of rulings, Ackley recounted one occasion when he leveled a fine against his mother for killing a goose out of season.

"I prepare my mind everyday with sweet grass and tobacco. I put on my robe, come in to court, and put the Great Spirit on my back and ask for help," Ackley said in 2006.

He was born on February 19, 1948 in Globe, Arizona. Makoons leaves behind a large extended family and powerful legacy of advocacy on behalf of native people and the natural world.

—CO Rasmussen

Connor brought quiet strength to spiritual runs

You'd think it would have been the younger guys, in their 20s—in their prime—that formed the backbone for a thousand-mile run from Lac du Flambeau, Wisconsin to Washington DC. From snow-covered forests, across wind-swept farmland, through choking urban streets, and over sprawling mountains, the journey was a mental and physical challenge. But one person who everyone on the Waabanong Run looked to for strength, for a reassuring nod, who invariably—and humbly—led us all by example was St. Croix's Eva Connor.

Connor walked on July 29 at her home in Webster, Wis. While Connor shined in the 1998 Waabanong Run, she participated in many more spiritual runs as well as more than a dozen marathons. Along with husband Gene, she took part in the seminal Solidarity Runs of 1989 and 1990, which were created in response to racially-charged boatlanding protests when tribal members returned to off-reservation lakes to spearfish walleyes. Known by her native name, Gaag, in the Ojibwe language, Connor projected vitality in so many stages of a life well lived.

Connor was born in Danbury November 1, 1930 and spent much of her career serving the health care needs of her tribe and surrounding community.

—CO Rasmussen

Lake Superior a lifelong focus for Peterson

Pioneering Gichigami fisherman and GLIFWC Lake Committee officer Cecil Peterson walked on July 28 at age 77. A noted treaty rights advocate, Peterson, a Red Cliff member, is known as Gimiwan Ogichidaa in the Ojibwe language. He promoted off-reservation Ojibwe fishing in Lake Superior, both on the water and at the table with natural resources policymakers. Over the past nine years, Peterson served as a Red Cliff delegate to the GLIFWC Lake Committee and in 2016 elected to the vice-chairman position. Comprised of member tribes located on the Gichigami shoreline, the committee is responsible for management of the Lake Superior fishery.

Known as a skilled commercial fisherman and keen observer, Peterson was among a group of tribal members to sound the alarm about the negative impacts that copper mining waste—known as stamp sands—was having on Buffalo Reef, a premier spawning area for native fish along the eastern shore of the Keweenaw peninsula. Peterson and his crew fished Lake Superior treaty waters in both the 1842 and 1854 Ceded Territory.

Peterson was born April 25, 1941 in Red Cliff. He went on to serve in the US Navy and pursued a number of commercial ventures including Lake Superior fishing and establishing a family-run retail fish shop and grocery.

—CO Rasmussen

Geese Nation continued

(continued from page 13)

claims it can. After dinner we all cleaned the kitchen and had a relaxing night of laying card games berfore bed.

Giizhigad eko-ningodwaaching (Day 6):

This was our last full day of activities. We traveled to Miskwaabikaang (Red Cliff), our last reservation stop. After having lunch at the casino, GLIFWC Warden Dan North took us all on a boat ride around the Apostle Islands. He talked about some of the history behind the islands. This led us into our next activity, makizinataadiwag, (moccasin games) an activity that campers also learned at the Onji-Akiing camp. Makizinataadiwag is traditionally only played by boys.

In the old days this game was how the different generations would bond. The games would be used in trade or gambling. The game is so complex and the campers played a couple times against skilled players. The scoring system, plus the need for deception and strategy, can cause great confusion. After they all played for a while we headed over to Marvin DeFoe's house to have a cookout and set up camp.

After dinner the campers and some other community members listened to teachings given by Marvin DeFoe. He discussed the importance of listening to the elders. He also stated that elders with teachings are starting to leave for their journey to the place of never ending happiness. If they leave with teachings, they won't be able to be passed on. He said our assignment for the next year was to find an Anishinaabe professor. This assignment will help youth practice oral traditions. Another thing he encouraged was that the campers use their Ojibwe names if they have them as well as the sacred medicines. He also said that using these sacred medicines strengthens the connection between the spirit and oneself.

Geese Nation participant Austin Smith gifts GLIFWC Board of Commissioners Chairman Jim Williams with a bundle of gifts made by leadership camp participants. (D. Jennings photo)

Giizhigad eko-niizhiwaaching (Day 7):

This was the last day of the camp and we went to breakfast. We had the campers discuss their favorite part about the trip. A few of the students spoke about leadership, favorite moments from the trip, and the knowledge they will bring back to their community. Nam Corn, Menominee reservation, stated his favorite activity was sewing the feast bags because it was something new. He says, "A leader is someone who isn't afraid to make people upset or someone who can get things done." He also believes they lead by example. He wants to take all the culture and activities he learned back so he can work to improve his community.

Miriam Denomie also shared. She stated that her favorite activity was harvesting and making the birchbark baskets. She also liked harvesting the wiigoob (bass wood) because that was something she has never done before. She believes that, "A leader is one that can present options to handle a situation or problem and can lead to the right option." She plans to utilize the idea that science and culture can be intertwined.

This was overall a wonderful experience and I am very grateful for the opportunity to participate. I have gained so much knowledge that can be used for the coming generations.

Editor's note: Over the seven-day event participants kept journals, filmed video testimonials, and wrote letters of appreciation to tribal leaders for hosting Geese Nation on their reservations.

The Story of Act 31

A map overlay on the road to Wisconsin American Indian studies

By Paula Maday
Staff Writer

Today, most educators throughout the Wisconsin Ceded Territory are familiar with Act 31, the state statutes requiring that all public school districts and pre-service education programs provide instruction on the history, culture, and tribal sovereignty of Wisconsin's eleven federally recognized American Indian tribes and communities.

Many are also familiar with the genesis of this legislation, which arose out of escalating tensions and protests that occurred on Wisconsin boat landings after the reaffirmation of Ojibwe treaty rights in the *LCO vs. State of Wisconsin* case *(Voigt Decision)* in 1983.

In his new book *The Story of Act 31: How Native History Came to Wisconsin Classrooms*, JP Leary—associate professor of humanities, First Nations studies, and history at the University of Wisconsin-Green Bay—reexamines this history from a broader, more systemic perspective, looking at the events leading up to the legislation, as well as the history of Wisconsin social studies curriculum, in particular its response to social crises.

115.28 (17) (d) In coordination with the American Indian-language and culture education board, develop a curriculum for grades 4 to 12 on the Chippewa Indians' treaty-based, off-reservation rights to hunt, fish and gather.
THE STORY OF ACT 31
118.01 (2) (c) 8. At all grade levels, an understanding of human relations, particularly with regard to American Indians, Black Americans and Hispanics.
HOW NATIVE HISTORY CAME TO WISCONSIN CLASSROOMS
118.19 (8) Beginning July 1, 1992, the state superintendent may not grant to any person a license to teach unless the person has received instruction in the study of minority group relations, including instruction in the history, culture and tribal sovereignty of the federally recognized American Indian tribes and bands located in this state.
JP LEARY
121.02 (1) (L) 4. Beginning September 1, 1991, as part of the social studies curriculum, include instruction in the history, culture and tribal sovereignty of the federally recognized American Indian tribes and bands located in this state at least twice in the elementary grades and at least once in the high school grades.

The Story of Act 31: How Native History Came to Wisconsin Classrooms, by JP Leary.

In a recent interview with Wisconsin Public Radio, Leary said he was interested in asking questions such as:

- Where did those protests come from?
- Why was there so little public understanding of key issues like tribal history, tribal culture, tribal sovereignty, and treaty rights? And finally,
- What opportunities did past generations of Wisconsin students have to learn about these key issues?

Leary's approach zooms out on the map we all have memorized as the road to Act 31, and superimposes it with social, political, and educational circumstances to reflect how different factors came together to create such harsh backlash. It is an interesting look at the curated, treacherous terrain into which the racism, discrimination, and stereotyping of the protests flourished.

The text of this book is scholarly and the content is thorough, so take your time working your way through this 360-page history.

Those wanting to discuss and engage multiple perspectives on the book might consider registering for the Study Circles Online Conversation, sponsored by the Disproportionality Technical Assistance Network. The online conversation consists of one 60-minute orientation session followed by three 1.5-hour discussion sessions scheduled for October 8, October 29, November 12, and December 3. There are no registration fees to participate in this training opportunity. See *www.thenetworkwi.com/calendar/2018/10/8/the-story-of-act-31-how-native-history-came-to-wisconsin-classrooms* for more information.

The Story of Act 31 is available at: *www.wisconsinhistory.org/whspress/books/book.asp?book_id=577*

Rez dogs dance in Bowwow Powwow

By Paula Maday, Staff Writer

Every kid who grew up on the reservation had or knew a rez dog. It was our friend's dog that followed us everywhere as we rode our bikes down the street and took off into the woods. It was the dog that would tear off after us, barking and chasing as we bravely traversed the corner where he liked to hang out on our way to summer feeding. It was the dog that everyone knew had a limp in his right back leg because of his legendary scrap with so-and-so's dog from down the street. These dogs were the characters and companions of our life as children on the reservation.

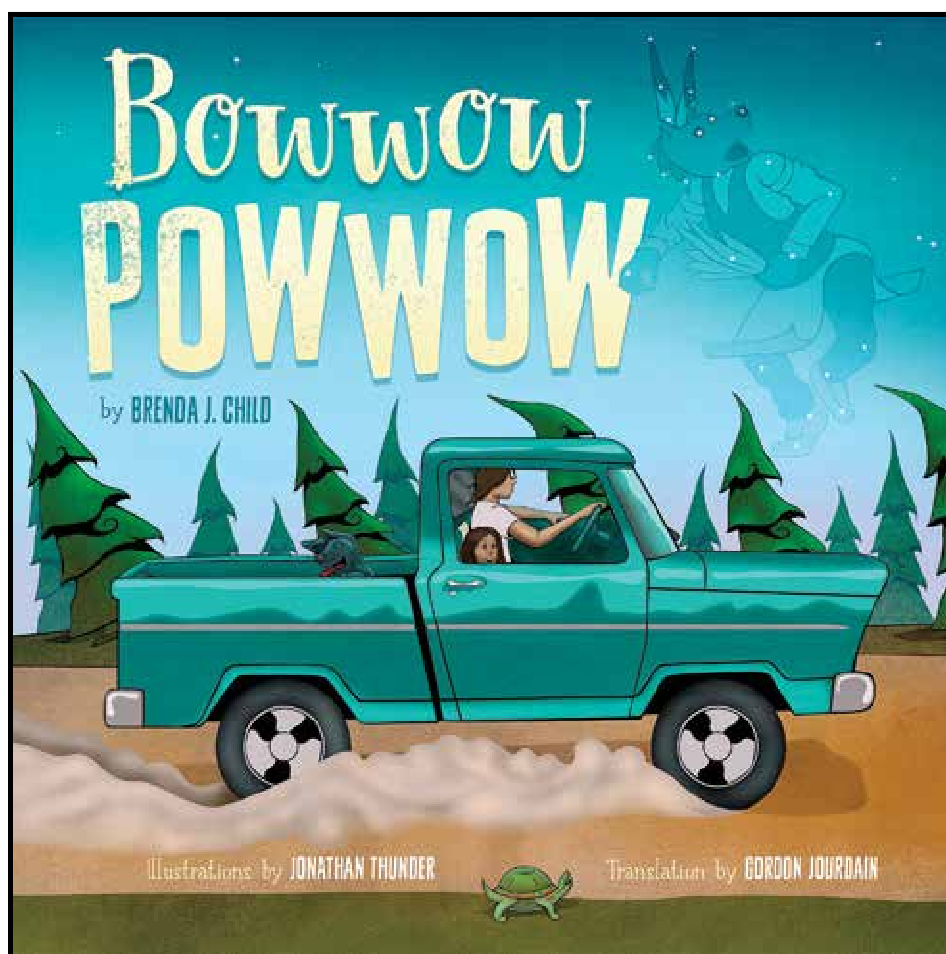
Bowwow Powwow, a new children's book written by Brenda J. Child and published by Minnesota Historical Society Press, pays homage to these canine comrades of our youth and brings them to life in the same way that we experienced them as children, with whimsy and leaps and bounds of imagination.

The story follows Windy Girl, a young Ojibwe girl, and her dog Itchy Boy, as they listen to powwow stories told by Windy's uncle while driving around in his truck. The drive and story lead them to an actual powwow, where Windy and Itchy fall asleep, entering a fantastic dream sequence wherein the dogs become the singers, dancers, and vendors of the Bowwow Powwow.

Colorful, animated illustrations by Jonathan Thunder bring the dancers to life: traditional, grass, jingle, and fancy. Details like the eagle feather hanging from Uncle's rearview mirror, kids playing on the back of the bleachers at the powwow, and an ode'imin (strawberry) hanging prominently at the heart of a jingle dress, add familiarity and comfort to the story.

You may see your uncle or grandpa in the face of the veteran dog proudly carrying in the head staff or read the words of the emcee in the voice you always heard booming from the speakers at your home powwow. In this story, we are like dogs, and dogs are like us.

As it turns out, this is precisely the idea author Brenda Child was hoping to get across in the book, and there's another dimension to the story. In an author's note at the end, Child describes how Julia Warren Spears, sister of William W. Warren, remembered cultural events associated with the arrival of Ojibwe clans on Madeline Island in 1847: "Spears described the form of dance that anthropologists in later years inaccurately designated as the 'Begging Dance.' Large parties of purposefully loud and vibrantly painted Ojibwe dancers took part in a ritual exchange of gifts. Their performances were not considered 'begging' but instead displays of generosity in which friendship was enacted among extended families, clan relatives, and visitors. Songs were part of the performance and recognized the relationship between people and animals, as in the lyrics 'we are like dogs, we are like dogs.'"



The story told in *Bowwow Powwow* gives space and form for a history and a teaching to be better understood. In both the way the story is told and also what is told, this dreamy, vibrant book is an exertion of sovereignty, an opportunity for rez kids everywhere to recognize and reclaim their own stories. Kudos to Brenda Child (Red Lake Ojibwe); Jonathan Thunder (Red Lake Ojibwe); and Gordon Jourdain (Lac La Croix First Nation)—who translated the entire story into Ojibwemowin; for a beautiful valentine to the reservation childhood experience. It read like a memory.

Bowwow Powwow is available for purchase from the Minnesota Historical Society Press at *www.mnhs.org/mnhspress/books/bowwow-powwow*. 32 pages, fully illustrated with color, and suitable for ages 3-7. List price $16.95.

Spotted

In a recent article about *Bowwow Powwow*, MPR News reported that there are several special details and cameos in the book. Once you pick up your copy, see if you can spot:

- A tribal nation flag inspired by and resembling the Red Lake Ojibwe Nation flag
- Red Lake Nation license plates on Uncle's truck. Red Lake was the first Native nation to print its own license plates for its members.
- Cameos by respected and beloved elders. Illustrator Jonathan Thunder incorporated images of the late Larry "Amik" Smallwood (Mille Lacs) and Anna Gibbs (Red Lake), elders who passed on last year.

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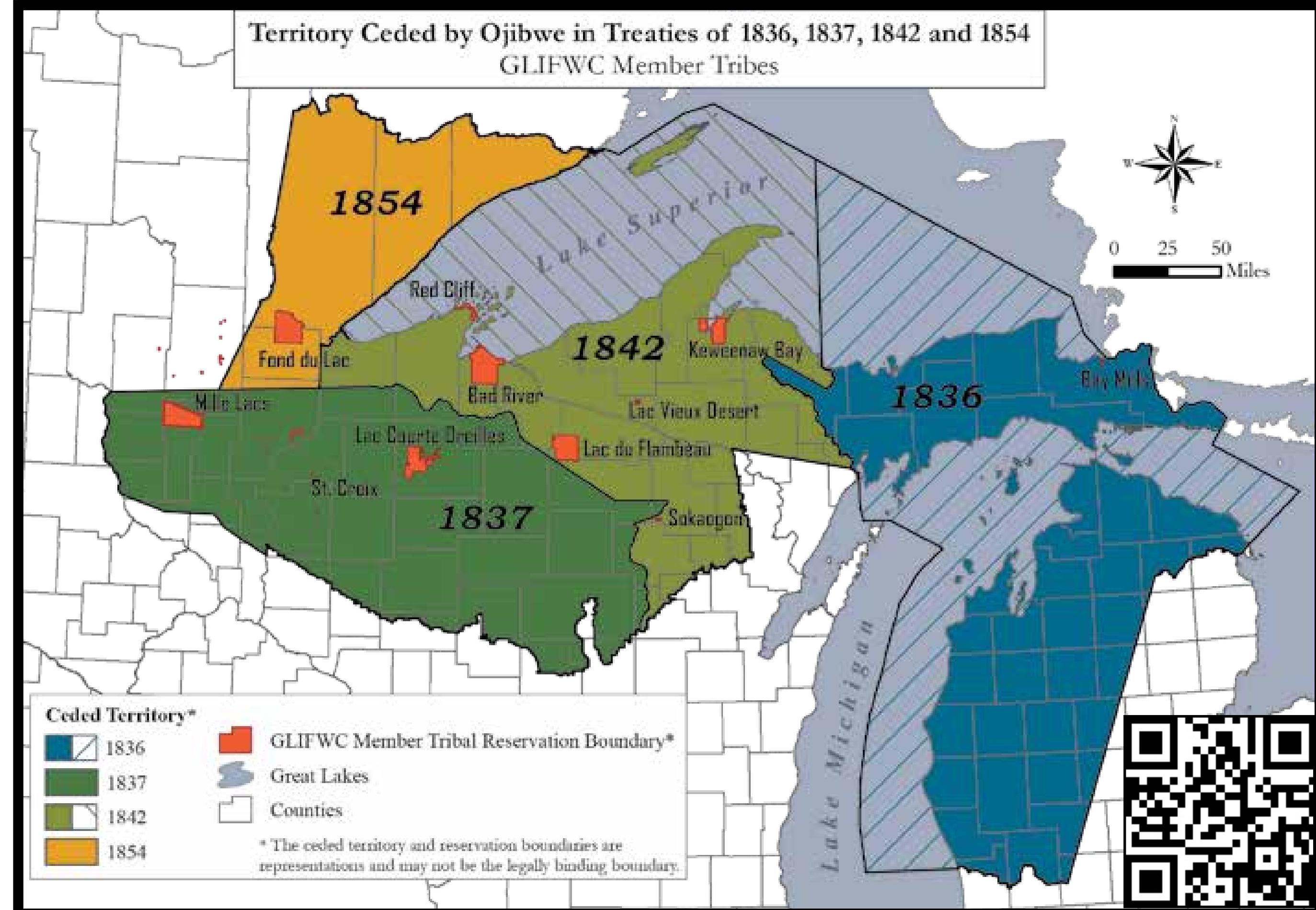
Although **MAZINA'IGAN** enjoys hearing from its readership, there is no "Letters to the Editor" section in the paper, and opinions to be published in the paper are not solicited. Queries as to potential articles relating to off-reservation treaty rights and/or resource management or Ojibwe cultural information can be directed to the editor at the address given above. For more information see GLIFWC's website: **www.glifwc.org** and our Facebook page.



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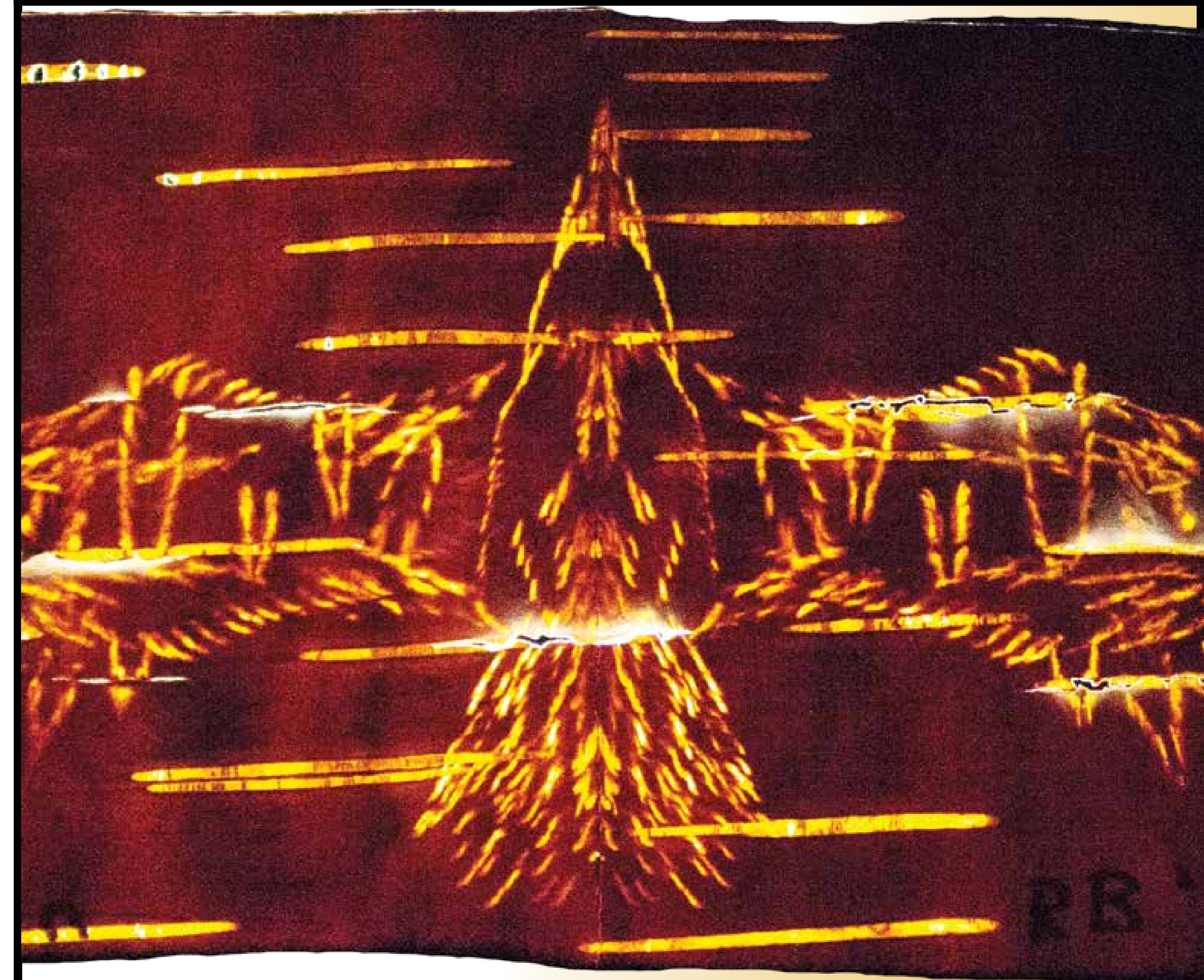

Dagwaagin 2018

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