

Mazina'igan

A Chronicle of the Lake Superior Ojibwe

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Fall 2020

White-tailed deer: promising season for Ojibwe nutritional mainstay

Will pandemic reverse downward trend?

By Charlie Otto Rasmussen
Editor

Across much of the Ceded Territory, tribal hunters are poised for success when the white-tailed deer season opens Sep-



Waawaashkeshi (COR photo)

tember 8. While the 2019-20 winter got off to a biting, early start last November, widespread above average temperatures and modest snow accumulations late in the season—when deer are most vulnerable to the elements—helped limit mortality rates.

“We’re looking at a good to average season,” said GLIFWC Wildlife Section Leader Miles Falck. “Public forests in regions that contain private farmland, active agriculture, are going to hold higher deer densities. Managed forests with timber sales, cutting in recent years, are good bets as well.”

Since the harsh winter in 2013-14, large portions of the Ceded Territory have experienced a general rise in waawaashkeshi, or deer, populations as winter severity indexes fluctuated between mild and moderate designations. Only a handful of monitoring sites in the far north entered severe or very

severe territory. Still, off-reservation deer registrations—which are required under tribal codes—have dipped over the past two seasons. It’s a budding trend, with important implications, being studied by GLIFWC wildlife staff.

“When you look at demographics and registrations, hunters from the Baby Boomer generation have led the way for a long time, right up to 2017,” Falck said. “Now they’re reaching the end of their hunting years, or have dropped out altogether. We’re not seeing the generations behind the Boomers taking up hunting as much. But 2020, of course, is a pretty unique year.”

Seeking to feed families and stock freezers, many tribal members leaned on treaty fishing opportunities over the first months of the Covid-19 crisis. While no harvest records were broken in 2020, the spring walleye take in Wisconsin ranks (see *Waawaashkeshi*, page 16)

With custom processing equipment, GLIFWC helping tribes make the most of manoomin season

Look out for the new threshers in your community

By Wabanungoquay Alakayak
Keepsagle Project Coordinator

In an effort to build tribal capacity for small scale food processing and community food systems, GLIFWC has launched the Harvester/Producer Needs Assessment Project. With funding from the Native American Agriculture Fast Track Fund, staff are focused on the subsistence, cultural, and commercial utilization of wild rice harvested from the Ceded Territory.

The project has two primary objectives: one determines current tribal programs and services available to harvesters/producers. The second objective is currently to provide technical assistance, equipment, and supplies to wild rice harvesters/producers to increase wild rice production within Ceded Territory communities.

Experienced ricer and contractor Dean Bruyere, a Couchiching First Nations Ojibwe from Fort Frances, Ontario, created the threshers needed for GLIFWC-member communities to complete processing during the 2020 wild rice season. He has developed a prototype that can thresh 400 lbs. of rice in two hours. It is very impressive.

Over the course of the ricing season, GLIFWC’s Keepsagle staff is demonstrating the process of threshing—



Manoomin threshers were built for GLIFWC-member communities. These machines can thresh 400 pounds of rice in two hours. (D. Bruyere photo)

separating manoomin grain from its hull. Wild rice threshers help save time and energy during processing.

Following a community needs assessment survey, GLIFWC is providing ricers with two separate sizes of cazo pans which will be utilized in the parching process, (an XXL, 32-inch and another small pan that is around 21-inches), as (see *Custom processing equipment*, page 19)

Asemaa

Ojibwe tobacco



Ojibwe communities are working hard to revive traditional tobacco practices which, in part, involves moving away from utilizing commercial tobacco.

Tobacco can be grown in nutrient-rich, moist soil all over the Ceded Territory. Some traditional practitioners encourage harvesting asemaa leaves in the late summer or early fall.

Tobacco leaves are hung in a well-ventilated area, out of direct sunlight. This will allow slow drying. Greg Biskakone Johnson of Lac du Flambeau freezes the leaves for a few days and then dries them to allow the water to expel some of the nicotine.

Asemaa contains variable levels of nicotine, which if not used properly, can cause harm. Traditional knowledge systems relay that asemaa is used in prayer, and also as a powerful medicine.

—B. Jennings



Virtual
Mikwendaagoziwag
Ceremony
September 30.
Watch for details at
www.glifwc.org



Searching out manoominike opportunities

GLIFWC wild rice monitoring program navigates extraordinary waters

By Peter David, GLIFWC Wildlife Biologist

To say the current year has been unlike any other is a wild understatement. Covid-19 has touched all of us and affected nearly everything we do. Some impacts have been trivial, some have been tragic, and some have just required making adjustments. The latter applies to our annual manoomin monitoring efforts.

July and August are traditionally busy months for rice work; abundance monitoring kicks off after plants become emergent and their presence and distribution is much easier to confirm. But while it may seem like this kind of work would be relatively untouched by the pandemic, that has not been the case.

In past years, our abundance monitoring typically consisted of two approaches: 1) intensive monitoring on a small group of lakes and rivers conducted by summer interns; 2) a broad aerial survey of rice beds across the Ceded Territory. The surveys provide valuable but different insights into how manoomin is faring in both the current year, and compared to the past seasons. In some ways the air surveys best reflect GLIFWC's role of trying to steward manoomin across a large landscape. However, both of these traditional approaches have been altered by Covid-19.

For the first time in over three decades, GLIFWC did not have a team of manoomin interns to conduct intensive ground surveys. In addition, we will not have staff taking aerial photos. Personally, I greatly missed these flights in 2020 and the opportunity to learn and understand manoomin a bit better from high in the air.

Despite the challenges created by Covid-19, we expect that people will be needing the gift of manoomin even more than usual this year and are working to help ricers connect to the stands best able to provide for their needs. Thus, GLIFWC sent out two, 2-person, family-based rice teams to look at about 100 Ceded Territory rice waters over the course of five weeks. (Family-based teams allow individuals to work and travel in close proximity.) In addition, we are working with pilots in the Wisconsin and Minnesota Departments of Natural Resources to have them photograph select rice lakes on our behalf.

(see Manoominike opportunities, page 15)

Elk season set in northern Wis.

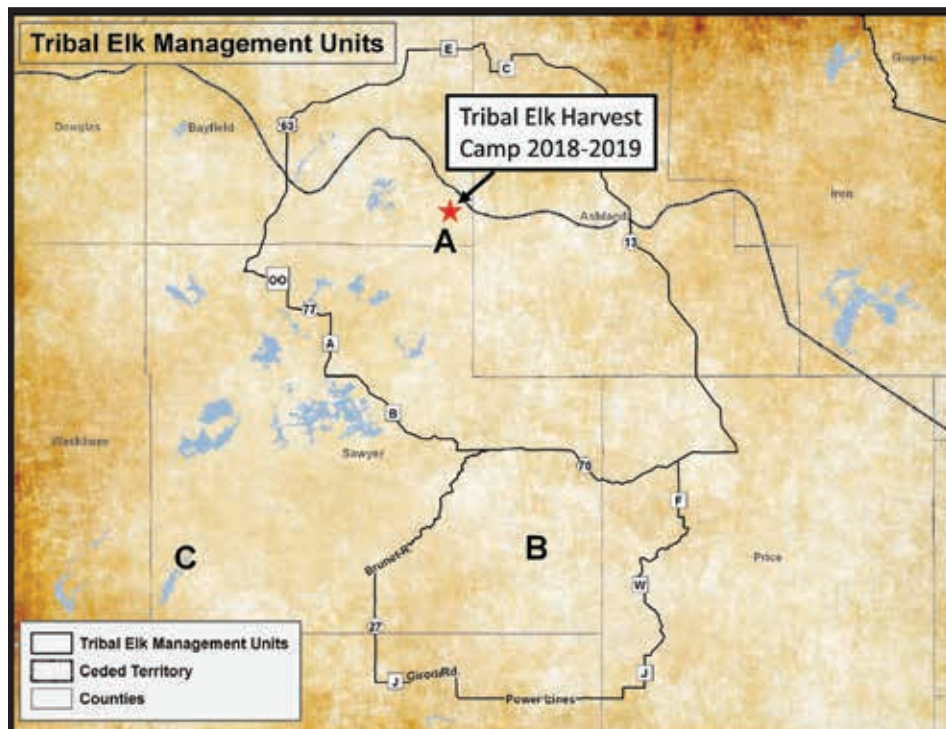
As the northern elk herd expands in the Wisconsin Ceded Territory, so do hunting opportunities for state and Ojibwe hunters. Earlier this year, wildlife officials approved stretching the hunt into Zone B (map)—centered southeast of the Lac Courte Oreilles Ojibwe Reserve—for the 2020 season. This management subunit contains miles of sustainably-managed state and county forests, including the 91,000-acre Flambeau River State Forest.

Until the current season, omashkooz hunting has been restricted to the core Clam Lake range, home of the original Wisconsin elk restoration program that launched in 1995 with the release of 25 animals from Lower Michigan. A pair of additional elk translocations in recent years—this time from Kentucky—is intended to provide a boost in population and genetic diversity. A workgroup comprised of state and tribal wildlife biologists estimates the northern herd to number close to 300 animals following spring calving.

Now in its third consecutive season, the elk hunt is open to state-licensed Wisconsin residents and members of Ojibwe treaty tribes. Over the past two years, 10 bulls-only harvest tags were split evenly between the Ojibwe and state residents, who receive individual tags through lottery drawings. The ten eligible GLIFWC-member tribes have approached the elk season as an intertribal ceremonial hunt involving any number of community members that participate in everything from scouting to packing out animals, which weigh up to 700 lbs. While the treaty season formally opens the day after Labor Day each year, hunting is not expected to get underway until later in September.

To the south of the Ceded Territory, Wisconsin is also home to a second elk herd in the Black River Falls area. The 2020 post-calving projection for the Black River Falls herd is approximately 100 elk. It will likely be a few more years before an elk hunt is proposed.

—CO Rasmussen



Buffalo Reef reaches new wave of media



GLIFWC has worked on many exciting digital media productions over the years. It's latest video project centers around Buffalo Reef and the great work being done to restore environmental vitality while also righting the wrongs of the past.

You might ask what is Buffalo Reef? Buffalo Reef is a natural cobble feature in Lake Superior, located just off the eastern edge of the Keweenaw Peninsula in the Upper Peninsula of Michigan. The reef has historically maintained invaluable spawning habitat for fish species such as lake trout and lake whitefish. These remarkable habitat features are threatened from the migrating stamp sands, produced by harmful mining activities beginning in the late 1800s.

The Treaty of 1842 or commonly known as the "Copper Treaty" ceded millions of acres of land to the United States. The Ojibwe retained inherent rights to hunt, fish, and gather within this Ceded Territory. Buffalo Reef has always been considered as culturally significant harvesting grounds for these local Ojibwe tribal communities.

Today's challenge involving Tribal, State, Federal, and Academic partnerships combine efforts to mitigate damages and ultimately restore Buffalo Reef as the ecological resource that has sustained both tribal and non-tribal communities for generations.

Watch the video on GLIFWC's YouTube channel: youtube.com/embed/VpcFiMx94Zk

For more information about Buffalo Reef: glifwc.org or www.michigan.gov/dnr/0,4570,7-350-79136_79236_80245_85494---,00.html.

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Ceded Territory news briefs

With population stable, tribes ready for moose hunt

Ojibwe tribes in the 1854 Ceded Territory finalized plans for the 2020 off-reservation moose hunting season. The Fond du Lac Band established a bulls-only harvest quota of 30, while the Grand Portage Band and Bois Forte Band each declared nine bull moose in northeast Minnesota. The season opens September 26, and is slated to close once the 30-bull harvest quota is reached, or on December 31. For Grand Portage and Bois Forte hunters, the season begins October 3, running until the end of the year.

Tribal members generally hunt in groups of 3-4, but share a single harvest tag. The group hunt allows flexibility for hunters to locate, harvest, and ultimately share a moose—which can yield 300 lbs. or more of meat. Good communication between members of the party and tribal wildlife authorities is an essential element of the hunt.

Following a steep population drop—unrelated to hunting—the moose herd in Minnesota's Arrowhead region has stabilized over the past nine years. Tribal and state researchers found that massive tick infestations, brainworm, and other diseases contributed to a mortality of more than one-half of the total herd size through the 2000s. The most recent population estimate released in March 2020 puts moose numbers at around 3,150 animals. —**CO Rasmussen**

Ma'iingan finds steady ground in Upper Michigan

The Upper Michigan wolf population is stable and has likely reached carrying capacity according to the Michigan Department of Natural Resources. In a mid-summer announcement, state wildlife officials said Upper Peninsula wolves number around 695 animals following the latest survey that ran from December 2019 to March 2020. For nearly a decade, the ma'iingan population has occupied a range of 600-700 animals in the heavily forested Upper Peninsula.

While US Fish & Wildlife Service proposed removing wolves in the western Great Lakes region from the endangered species list in March 2019, the animal known as ma'iingan in Ojibwemowin remains protected under federal law. Despite strong opposition from Ojibwe tribes, Michigan conducted one legal wolf trapping and hunting season in 2013 when 22 wolves were killed. Following the season, a federal judge restored wolves to endangered species status.

Throughout the first half of the 20th Century wolves were persecuted throughout the Ceded Territory and beyond, subject to poisoning, shooting and trapping—in some cases with support from government bounty programs. In 1974, near extinction, wolves were placed on the endangered species list. The remnant ma'iingan population, isolated in far northern Minnesota, were ultimately allowed to gradually reclaim portions of their range in Wisconsin and Upper Michigan over the past 45 years. Wolves are occasionally reported in Lower Michigan, but there is no known permanent population below the Straits of Mackinac. —**B. Jennings**

GAOA largest land conservation legislation in decades

The Great American Outdoors Act was recently signed into effect and is considered to be one of the largest pieces of land conservation legislation in decades. The bill received bipartisan support and will maintain a National Park and Public Lands Legacy Restoration Fund. This fund will be utilized over the next five years to address deferred maintenance at national parks, wildlife refuges, and forests at the tune of \$9 billion. Some of the allocation will also be put towards the Land and Water Conservation Fund, which has historically been utilized to maintain public lands.

This new piece of legislation could mean more money to the Ceded Territories of Michigan, Wisconsin and Minnesota. Northern Wisconsin alone maintains Frog Bay Tribal National Park, Apostle Islands National Lakeshore, Chequamegon-Nicolet National Forest, and the St. Croix National Scenic Riverway. —**B. Jennings**

Native tree restoration to improve habitat, climate

In the first phase of a two-year effort to combat climate change, crews contracted by The Nature Conservancy planted nearly 200,000 trees both on-and-off Ojibwe reservations across the Ceded Territory. With support from tribal, state, and federal partners, the work centers on helping create more resilient forests with species including northern red oak, white pine, and yellow birch.

Along the Gichigami North Shore in the 1854 Ceded Territory, planting teams put in 95,000 trees, reviving a 200-acre swath of forest dominated by declining paper birch. On the South Shore, Keweenaw Bay Indian Community joined the effort to diversify failed pine plantations planting 50,000 seedlings over a 4,000-acre restoration area.

In the Bad River Reservation forest, the work included installing 50,000 trees, mostly white pine. Once the dominant species in the area, white pines found a home in the understory of a struggling mixed poplar stand. Bound in a soil plug, each pine seedling planted had a well-developed root system that foresters say should help the trees get off to a quick start. —**CO Rasmussen**

Widespread chronic wasting disease testing opportunities during deer season

By Travis Bartnick, GLIFWC Wildlife Biologist

Chronic wasting disease (CWD) remains a growing threat to waawaashkeshi (deer) and omashkooz (elk) herds in the Ceded Territories. CWD is a neurodegenerative disease that has been spreading throughout North America for several decades and infects members of the Cervidae family (cervids), such as white-tailed deer, mule deer, elk, moose, and caribou. CWD has been detected in both wild deer herds and captive cervid (deer and elk) herds within or near the Ceded Territory.

Cervids infected with CWD will often show no signs of being sick when they are in the incubation period, which lasts a minimum of 16 months. During this time, they continue to shed the infectious prions into the environment where it can spread to others in the herd. The infectious prions associated with CWD are a form of misfolded protein. Disease experts are confident that CWD is not

caused by a bacteria or virus. There is no known cure, vaccine, or treatment for CWD, and it is always fatal. It is believed the prions can be transmitted several ways, including through contact with infected saliva, urine, and feces.

Although there is no evidence that CWD can infect humans, the Centers for Disease Control and Prevention (CDC) recommends against the consumption of any animal that tests positive for CWD or shows signs of being sick. The World Health Organization (WHO) recommends keeping the agents of all known prion diseases from entering the human food chain.

GLIFWC will continue to facilitate CWD testing of deer and elk harvested by tribal members within the Ceded Territories in 2020. GLIFWC biologists will collect CWD samples from all elk harvested by tribal members during the 2020 elk season in the Wisconsin Ceded Territory.

Submitting deer heads for CWD sampling helps biologists track CWD on the landscape, which then helps with implementation of additional surveillance, research, and management actions. The level of CWD sampling within the Ceded Territory has been low in recent years. Tribal hunters are encouraged to bring their deer to a tribal registration station and request to have their deer tested. It is important to keep the head plus about 3-5 inches of the neck intact and stored at cool temperatures (at least as cool as a refrigerator). Freezing the head is also an option, and it is helpful to remove the antlers.

Minnesota will be offering self-service CWD sampling drop-off stations within a portion of the 1837 Ceded Territory in Minnesota. CWD sampling stations are located in the East Central CWD Surveillance Area within Pine County in Deer Permit Areas 157, 159, and 225 beginning November 7, coinciding with the state rifle hunting season. Each station will have a set of instructions, a saw to remove the deer head, a container to place heads, and a data form to fill out. Data forms will have a sample number that the hunter can use to look up the test results on the Minnesota DNR CWD sampling results website.

In addition, the Michigan DNR and Wisconsin DNR also offer free CWD testing for state and tribally harvested deer. At Michigan deer check stations, wildlife technicians annually collect information from successful hunters. In the 1842 Michigan Ceded Territory, stations are located in Wakefield, Ontonagon, Baraga, Crystal Falls and other locations. 1836 Ceded Territory deer check sites include Sault Ste. Marie, Newberry, and Shingleton. Tribal hunters can find the location of additional CWD sampling stations in Michigan here: www.midnr.com/Publications/pdfs/ArcGISOnline/interactiveMaps/deercheck/

To find Wisconsin sampling stations and self-service sampling kiosk locations, visit the interactive map here: <https://dnr.wisconsin.gov/topic/WildlifeHabitat/registersample.html>

Tribal members who get their deer tested through state CWD testing programs will generally receive their results in 1-2 weeks. Testing through GLIFWC can take about two weeks, depending on the location of the registration station and time of year. Test results may take longer during and immediately after the state gun deer seasons when most samples are sent to the diagnostic laboratories. Some individual tribal communities might also be offering CWD testing so be sure to check with your tribal natural resources department for more information.

(see **Tribes active in disease management, page 16**)



Waawaashkeshi. (J. Phelps photo CC BY-NC 2.0)

Tribal hunters are encouraged to bring their deer to a tribal registration station and request to have their deer tested.



Juvenile whitefish surveys raise questions about stamp sand impacts

By Bill Mattes, Great Lakes Section Leader

Keweenaw Peninsula, Mich.— Adikameg, lake whitefish, are important to Great Lakes tribes as both a source of food and income. While adikameg start life as just a tiny fish, over the course of about six years grow to a harvestable size.

As with all young fish, adikameg are vulnerable to many deadly obstacles in their first year, and for this reason, biologists are trying to track their abundance over time to determine if changes to where they live are limiting their survival.

It's a good news/bad news story around Gichigami's (Lake Superior's) Keweenaw Peninsula: at Bete Grise Bay, many juvenile adikameg were captured during July's beach seine sampling. However, at Traverse Bay there were none detected.

Bete Grise Bay sits near the tip of the Keweenaw Peninsula in a relatively undeveloped area. Debris deposits from past mining are located inland from the bay in Delaware, Michigan. At Traverse Bay near Gay, Mich., debris from past

mining was deposited along the shore and into the Lake Superior. It is possible the lack of adikameg in Traverse Bay is due to changing habitat conditions at both nearby Buffalo Reef, where adikameg spawn, and along the bottom of the lake where adikameg young travel and feed.

The mining deposits, known as stamp sands, have covered part of the nearby spawning reef. The small stamp sands have covered the large cobble and filled in the spaces between larger rocks where adikameg eggs are deposited to grow and hatch.

Also, stamp sands are known to contain trace amounts of copper which fish are known to avoid. The metal gives off a small electrical charge which the fish evade. Stamp sands in areas where adikameg would normally feed may cause them to move to another location.

Much work is being done to address the issue. Stay tuned for more reports and learn more about the challenges of dealing with stamp sands here: www.youtube.com/embed/VpcFiMx94Zk.



Great Lakes Section staff beach-seine for juvenile adikameg (whitefish) along the shore of Gichigami off Michigan's Keweenaw Peninsula. (B. Mattes photo)

Sea lamprey assessments run late, track population trends

By Bill Mattes, Great Lakes Section Leader

Maple, Wis.—Tracking the number of sea lampreys in Lake Superior is vital for fisheries management in the Great Lakes. Staff from agencies around the basin collaborated to accomplish the workload, gathering essential information on adult sea lamprey abundance in 2020.

Great Lakes Section staff worked cooperatively with the USFWS Sea Lamprey Control program and the Wisconsin Department of Natural Resources to assess sea lamprey spawning runs in the Brule and Middle rivers in Wisconsin.

In Michigan, the Keweenaw Bay Indian Community Natural Resources Department cooperated with GLIFWC and the USFWS to greatly expand their workload and assess five Gichigami tributaries: Misery, Firesteel, Cranberry, Traverse, and Silver Rivers.

Spawning sea lamprey assessments track the success of the control program and the damage done to fish by sea lamprey that were not killed by control efforts. Adult lamprey not used for a population estimate are removed before they can successfully spawn.

Sea lamprey spawning ran later than average in 2020 likely due to colder than normal water temperatures in Lake Superior. However, once the weather turned, the lake warmed at a record pace and sea lampreys (and other fish) ascended rivers to spawn. In the Brule river, staff captured over 800 suckers and passed them upstream of the sea lamprey barrier in what is known as a trap-and-sort fishway. Non-jumping fish, sea lamprey included, are allowed to enter a side channel to be sorted, while jumping fish such as rainbow trout can move upstream on their own.

A significant source of mortality, sea lampreys continue to feed upon and kill substantial numbers of Lake Superior fishes. While their preferred prey is the lake trout, they are known to attack and suck the life blood out of any fish that swims their way, including suckers, whitefish, salmon, and even the heavily armored lake sturgeon. Each sea lamprey consumes around 40 pounds of fish. A preliminary estimate of 796 sea lamprey in the Brule equates to about 31,840 pounds of fish being consumed. If these were all averaged sized lake trout, that's over 9,000 fish!

Due to the Covid19 pandemic, for the first time since 1986 the Bad River was not assessed for adult spawning sea lamprey. However, the Bad River Tribal Council approved a lampricide treatment for this coming fall. Lampricide chemicals selectively target and kill lamprey larvae in rivers. Treatment is scheduled for some time during late September or October.

GLIFWC-generated data are combined with the data from other tributaries on an annual basis to track sea lamprey trends in all of the Great Lakes. Assessment and control of sea lamprey populations in the Great Lakes are coordinated by the Great Lakes Fishery Commission. More information on this work can be found at their website www.glifwc.org.




Joslyn Beaulieu-Newago, Great Lakes fisheries aide captures sea lampreys and other fishes to be sorted and assessed at the Brule River trap, Maple, Wisconsin. (B. Mattes photo)



Sea lampreys continue to feed upon and kill substantial numbers of Lake Superior fishes. Each sea lamprey consumes around 40 pounds of fish. A preliminary estimate of 796 sea lamprey in the Brule equates to about 31,840 pounds of fish being consumed. If these were all averaged sized lake trout, that's over 9,000 fish! (CO Rasmussen photo)

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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.

On the cover

A whitetail ayaabe (buck) uses a "licking branch" to help mark his territory in October around a month before the deer breeding season, or rut, begins. Bucks also rub secretions from their nasal and forehead glands onto licking branches. Along with scrapes and rubs, licking branches are visited by bucks and does from mid-September well into November and make for good deer hunting locations. (CC0)

Minnesota study reveals insights into ma'iingan attitudes

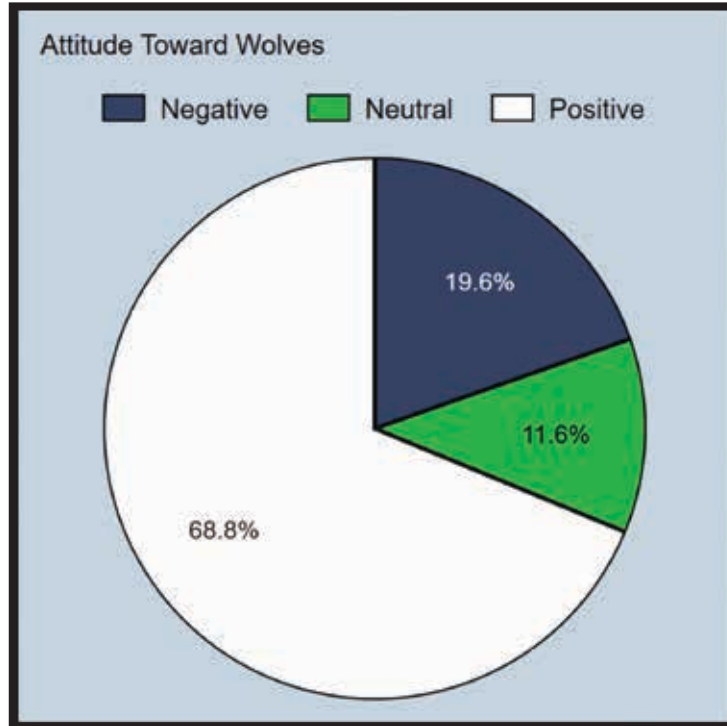
By Peter David

GLIFWC Wildlife Biologist

In the realm of ma'iingan (wolf) stewardship, tribal natural resource agencies often seem to promote positions and policies that are greatly at odds with those established by state agencies. However, a recent Minnesota study suggests that public attitudes towards wolves align remarkably well with many tribal positions.

The study, titled "Minnesotans' Attitudes Toward Wolves and Wolf Management," was conducted by the Minnesota Cooperative Fish & Wildlife Research Unit and the Minnesota Department of Natural Resources. It was conducted, in part, in preparation for an upcoming revision of the state's wolf management plan—now nearly 20 years old. The study looked at the attitudes and experiences of the general public, as well as two special interest groups in the state that often have the ear of politicians and state agencies: deer hunters and livestock producers. Researchers considered surveying tribal members as a unique group, but tribal governments generally felt that tribal attitudes towards ma'iingan were already generally well known, and thus declined to participate.

Perhaps unsurprisingly, livestock producers as a whole generally did not value wolves, providing negative or neutral ratings within 10 possible reasons for assigning value. Deer hunters gave weakly positive ratings (averaging about 4.5 on a 1-7 point scale, with four being neutral) on six of the possible reasons, with the highest marks going to "because they have a right to exist" and "because they are an important part of the ecosystem."



The vast majority of Minnesota residents hold positive or neutral attitudes toward wolves according to a recent survey. (Minnesota Department of Natural Resources image)

The general public, however, saw wolves quite differently. The public gave higher ratings than either deer hunters or livestock producers on nine of the 10 reasons for valuing wolves, with average values often falling into the 5-6 range on a 7-point scale. The one possible reason for valuing wolves that the public ranked lower than the other two groups: "the opportunity to hunt or trap them," with the public disagreeing with this reason by giving it a score of just 2.6.

Another question asked respondents of their attitudes towards wolves on the same 7-point scale, with one being very negative and seven being very positive. Here livestock producers were generally negative (with a rating of about 3.2), deer hunters were nearly neutral, and the public tally was quite positive at 5.2. Overall, about 70% of public respondents held positive attitudes, followed by 10% neutral, and the balance held negative attitudes.

The survey also asked questions with direct management and stewardship implications, such as preferences for wolf population size, or where wolves should be in the state.

Regarding population size, respondents were asked for their preference for the wolf population relative to the level it was at in the winter of 2017-18, when the population was estimated 2,655 wolves. On average, livestock producers preferred to see fewer or many fewer wolves, hunters preferred fewer, and residents preferred about the same number of wolves in the future. Not surprisingly, parallel results were seen on the question about wolf range, with livestock producers and deer hunters wanting wolves to occupy less territory in the state, and the general public wanting the range to stay about the same.

All three groups were also asked about their level of support for hunting and trapping seasons. While there was high support for hunting and trapping seasons by the two special interest groups (80-88% support from either group for each activity), the general public (which also includes people who hunt deer or produce livestock) felt very differently. Among the public, 48.9% opposed a wolf hunting season, 10.5% were neutral, and 40.5% supported. The numbers were even lower in regards to a trapping season, with 58.1% opposing, 11.9% neutral, and 30.0% supporting.

While there a great deal more information available from the study, the results on these key topics suggest great similarities between the desires of many in the tribal and non-tribal communities. GLIFWC's member tribes—and many additional native nations—have voiced support for allowing wolves to determine their own numbers and range—something that has essentially already happened in Minnesota, and appears to be happening in Wisconsin and Michigan as well, where wolf numbers have also been roughly stable for several years.

GLIFWC tribes have long opposed recreational wolf hunting and trapping seasons—consistent with the Minnesota public—but supported the judicial application of lethal control under certain depredation circumstances, an issue ranked very highly by livestock producers in this survey. At a time when society seems very focused on the differences between groups of people, it is encouraging to find areas where our similarities may be greater than commonly thought.

This study includes additional survey results. Both a summary and a detailed report can be found here: www.dnr.state.mn.us/mammals/wolves/wolf-plan.html

Hard autumn frosts signal balsam picking time



From wiigiwaam furnishings to controlling a roiling cauldron of maple sap, boughs cut from balsam trees have long served a utilitarian role for woodland native people. More recently, over the past 50 years, boughs have become an important source of seasonal income from mid-October to early December. Each dagwaagin, tribal members and others across the Ceded Territories supply balsam boughs by the ton to the Christmas wreath and greens industry with the renewable resource known as zhingob in the Ojibwe language.

"The season for picking boughs generally begins after two or three hard frosts," said Alex Wrobel, GLIFWC forest ecologist, noting that starting too early may result in the balsam branch shedding its needles. "Taking boughs from only the lower third of the tree, leaving a portion of the branch intact and not over harvesting from a single tree can help to ensure the regeneration of zhingob. The tree should yield another harvest in around five years."

Many harvesters use the traditional hand-snap method to remove 18"-24" balsam branches, while others prefer metal clippers. Boughs can be delivered to buyers in bales bound by twine, or stacked onto t-sticks; it's always a good idea to call ahead and speak with buyers to determine any special requirements and establish purchase prices. Rates can fluctuate from year-to-year, sometimes

rising in-season when demand exceeds availability. In the past few years, quality balsam bough returns have generated \$.25-to-.35 a pound.

The Ceded Territory is home to four National Forests, rich in woodland resources including zhingob. Wrobel said tribal members interested in gathering woods products in National Forests are required to first obtain a bough gathering permit. Find the details here: <https://data.glifwc.org/regulations/gathering.php>.

Picked with respect and care, the zhingob resource is sustainable and can be productive for generations far into the future. —CO Rasmussen



COR photo



In recent years wolf populations in the western Great Lakes region have become roughly stable as ma'iinganag are allowed to determine their own range—a development widely supported by tribal members and the general public in Minnesota.

GLIFWC control crew gets a little help from some little friends

Tiny flea beetles are powerful allies in controlling leafy spurge

By Steve Garske, GLIFWC Invasive Species Coordinator

Leafy spurge is a rhizomatous perennial that's native to Europe and Asia. It first arrived in North America in the early 1800s, transported across the Atlantic Ocean in ships from Europe. It reached Minnesota in 1890, in a contaminated oat shipment from Russia.

Freed from its natural parasites and predators, leafy spurge spread rapidly, invading natural ecosystems and outcompeting native plants. This sun-loving plant has been especially problematic in the northern Great Plains, where it has overtaken millions of acres of rangeland and remnant prairie.

Leafy spurge does particularly well in dry, sunny habitats, in part because of its extensive root and rhizome network. This network can reach 20 feet underground, and survive for years without aboveground shoots. Pink buds capable of producing new shoots form along nearly the entire network. The milky sap produced by leafy spurge can be toxic to horses and cattle, though they usually avoid it. Deer and elk usually avoid grazing spurge as well. Goats and sheep can consume spurge without harm though.

In its native range, various insects and other organisms suppress leafy spurge populations, preventing it from becoming overly abundant. Among these natural enemies are a group of beetles called flea beetles. These active beetles have long back legs that allow them to jump a foot or more to avoid danger.

Adult flea beetles emerge in spring and early summer, and can significantly damage spurge plants as they nibble on the leaves. Within a week or so the females mate and begin laying eggs, which hatch about two weeks later. The larvae spend the summer mining their way through the roots, eventually moving into the root crown for the winter. In the process, they can greatly weaken and even kill the plants. With the arrival of spring they pupate and emerge as adults, and start the cycle all over again.

After extensive testing by the USDA to make sure they would only attack leafy spurge and its close relatives (including the also-introduced cypress spurge), the USDA approved the release of the flea beetle *Aphthona cyparissiae* in 1986. Since then, five more flea beetle species have been approved and released. Several other insects have also been introduced to control spurge, including the stem-boring beetle *Oberea erythrocephala*.



*Flea beetles on a leafy spurge shoot. These beetles are about 3 mm (just over 1/10th inch) long. Inset: This jet black beetle is either *Aphthona lacertosa* or the nearly identical *A. cwalinae*. (S. Garske photo)*

In late June of this year GLIFWC invasive plant control crew members Ron Parisien and José Estrada (with this writer in tow) traveled to the Douglas County State Wildlife Area to collect flea beetles for release in northern Bayfield County, where leafy spurge had become well-established along sandy roadsides and in nearby fields.

Guided by information from a local Wisconsin Department of Natural Resources biologist, the crew quickly located a patch of spurge with an abundance of flea beetles. The crew swept the spurge plants with nets, capturing dozens of beetles with each sweep. The beetles were transferred to net bags, and a few spurge shoots were added to each bag to make them comfortable.



Ron Parisien and José Estrada use sweep nets to collect flea beetles in the sand plains of Douglas County, Wisconsin. (S. Garske photo)



The beetles are stored inside screen bags with leafy spurge shoots, for their trip to Bayfield County. (S. Garske photo)

It wasn't long until the crew had several bags holding hundreds or even thousand beetles each. (The exact number was a topic of some debate, though no one offered to count them!) They put the bags in the shaded back of one of the vehicles, and headed for Bayfield County. Separate vehicles were taken for social distancing purposes. Within a few hours, the beetles were released to their new home.

It typically takes up to 10 years for flea beetles to build up sufficient numbers to bring spurge populations under control. Once they become well-established though, they are very effective in controlling spurge.

As with just about all biocontrol organisms, these flea beetles won't eradicate their host. They just make spurge play by the same rules as its plant neighbors, who have their own specialist predators to deal with. If all goes well the area's spurge populations will eventually become a minor part of their adopted plant communities, rather than overrunning and dominating them.



Ron Parisien releases the flea beetles while José Estrada records the GPS location and other information using a cell phone app. (S. Garske photo)



Enbridge Line 5 faces new challenges

Philomena Kebec GLIFWC Policy Analyst

Enbridge's Line 5 spans the Ojibwe Ceded Territories from its origin in Superior, Wisconsin, to its terminus in Sarnia, Ontario. Part of the Lakehead pipeline system, the crude oil transportation mechanism was installed in 1953, prior to the enactment of the Clean Water Act or the National Environmental Policy Act.

Enbridge Inc., a company based in Canada, is responsible for several massive oil spills in the United States, including the 1991 oil spill in Grand Rapids, Minnesota (approximately 1.7 million gallons), and the 2010 oil spill at the Kalamazoo River in Michigan (over 1.2 million gallons). Enbridge and other oil transportation companies have faced opposition to the development of new oil and natural gas pipelines and the continued operation of existing pipelines. Many tribal nations and citizens' groups have communicated their opposition to the siting and operation of oil pipelines on their lands. More recently, several states have also expressed opposition to specific projects. This article lays out recent developments related to Enbridge Line 5.

Reroute of Line 5 around the Bad River Reservation

In July, 2019, the Bad River Band filed a federal lawsuit against Enbridge in the Western District of Wisconsin. With that suit, the Band seeks to require the company to remove Line 5 from the exterior boundaries of the Bad River Reservation. Although Enbridge is actively defending that suit, it has also pursued an alternative route for Line 5 to avoid the Bad River Reservation.

In order to establish a new route for an oil pipeline in Wisconsin, state and federal permits are required. Additionally, the company needs to obtain authority, from landowners or the state through an eminent domain process, to construct a pipeline on lands belonging to landowners who refuse to cooperate with the company. In February 2020, the company filed a wetland fill permit and a waterway impact and crossings permit application with the Wisconsin Department of Natural Resources (DNR), and an application for a public interest determination (on the issue of eminent domain) with the Public Service Commission of Wisconsin.

As part of its determination, the Wisconsin DNR will be developing an Environmental Impact Statement (EIS). It released a draft outline of the EIS on June 8.

On July 1, 2020, the Wisconsin DNR held a virtual hearing on both the draft EIS and wetlands and waterways impact/crossing permit applications. GLIFWC Executive Administrator Michael J. Isham, Jr., participated in the public hearing, reminding the WDNR about its duty to consider the impact to tribal communities in its analysis and decision making. Isham was joined by 79 other participants, with 73 of those participants calling for the permit to be denied and/or for additional analysis to be conducted. GLIFWC, other agencies, and individuals, also submitted written comments on the proposals, with approximately 1,600 written comments received by the WDNR. GLIFWC submitted comments on the wetlands and waterways permits and also prepared scoping comments outlining issues that should be covered in the EIS. The WDNR will be developing a draft EIS document, taking into consideration written and verbal comments. The draft EIS will be published for public review, and another public hearing will be scheduled. The WDNR may also engage in government-to-government consultations with affected Indian tribes prior to issuing any permits. After considering comments received, the WDNR will issue a final EIS.

The Wisconsin Public Service Commission (PSC) is the state agency with the statutory authority to determine whether an applicant can be granted access to the land belonging to non-consenting land owners for activities that are deemed to be in the public interest ("eminent domain"). In May 2020, the PSC received nine requests for intervenor/party status and for the holding of a contested case hearing. The requesting parties include the Bad River Band, individual landowners, landowner groups, and environmental organizations. The Wisconsin Public



Enbridge's Ino Pump Station is located in the Chequamegon-Nicolet National Forest. (Charlie Otto Rasmussen photo)



People from around the Ceded Territory gathered in Ashland July 1 to draw attention to Line 5 issues. (D. Kekkak photo)

Service Commission has not acted on Enbridge's application regarding eminent domain because the company requested a stay of the proceeding until July 31, 2020. If the application is not withdrawn at that point, the PSC will respond to the requests that were filed in May.

Separate processes will be undertaken for federal permits issued by the U.S. Army Corps of Engineers, which permits activities in and around "waters of the United States," and the U.S. Fish and Wildlife Service, for activities affecting federally threatened or endangered species. At the time of printing, no announcement about these federal permitting processes has been made.

Line 5 at the Straits of Mackinac

Within the upper Midwest, oil pipelines are generally buried near the surface of land and no parts of the pipe are designed to be exposed to the elements. At the Straits of Mackinac however, Enbridge constructed Line 5 to hug the lakebed. This design exposes Line 5 to highly variable water currents at the Straits and the line has experienced damage from boat anchors. The pipeline has also suffered damage from causes that Enbridge is unable to identify. For several years, Indian tribes in the 1836 Ceded Territory and local citizens' groups have been engaging in public processes to raise awareness about the risks associated with operating an oil pipeline within the Great Lakes.

In June 2019, the Michigan Attorney General filed a suit against Enbridge in the Ingram County Circuit Court, seeking an injunction to stop the continued operation of Line 5 in the Straits and permanently decommission it. Minnesota, Wisconsin, and California filed friends of the court briefs in that suit, supporting Michigan's position that the State has a duty to protect the public rights within navigable waters. In June 2020, Enbridge reported significant damage to its pipeline at the Straits, but failed to respond to requests by state officials about the cause of the damage. On June 22, the State of Michigan formally requested that the court order Enbridge to cease operations at the Straits. The State's motion for a Temporary Restraining Order was granted on June 25, requiring Enbridge to shut down both branches of the line (Line 5 divides into two pipes at the Straits), reasoning that "the severe risk of harm" from an oil spill was "so substantial and irreparable, and endangers so many communities and livelihoods and the natural resources of Michigan, the danger far exceeds the risk of financial loss to the Defendants." The court amended its order on July 1, allowing a restart of the west leg for the company to conduct a safety test and allow it to remain open "subject to the results of the (safety test) and further orders of this court." That case remains active, with many more issues for the court to decide.

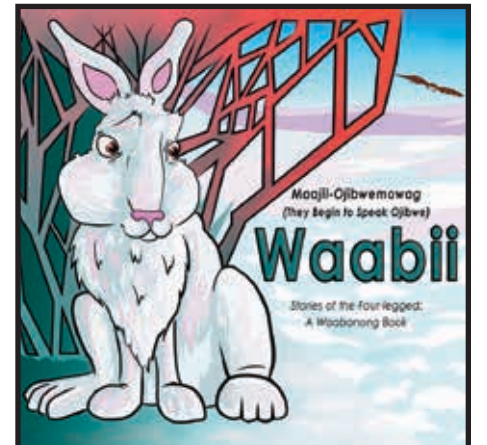
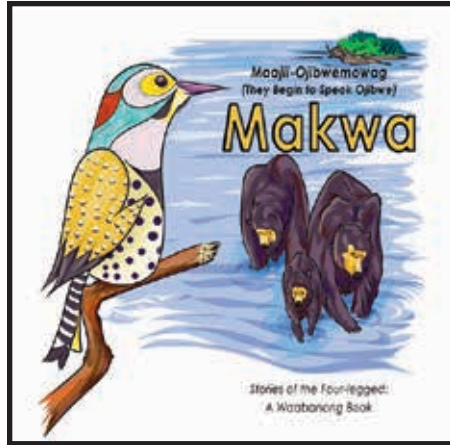
Following the filing of the lawsuit by the State of Michigan, Enbridge began pursuing an alternative manner of crossing Line 5 at the Straits: a tunnel bored into the lakebed to house the pipeline. The Michigan Public Service Commission, the U.S. Army Corps of Engineers, and the Department of Environment, Great Lakes and Energy (EGLE) would need to approve this project. Both agencies have been soliciting comments on the proposal. On May 31, 2020, the Bay Mills Indian Community submitted comments to the Michigan Public Services Commission, imploring the PSC to engage in environmental review of the project and allow the Tribes to participate in the proceedings.

The Bay Mills Indian Community and other Chippewa Ottawa Resource Authority (CORA) tribes have been fishing the Straits for centuries and still conduct commercial and subsistence harvests. The comments of Bay Mills addressed the cultural and spiritual significance of the Straits of Mackinac.

According to oral histories of the Tribe, the creation of North America began with a flooded earth. The animals that survived that Earth received instructions from the Creator to swim deep beneath the earth and collect soil that would be used to recreate the world. All of the animals failed, but the body of the muskrat, the last animal that tried, resurfaced carrying a small handful of wet soil in its paws. According to the history, the Creator used the soil collected and rubbed it on the Great Turtle's back, forming the land that became known as Turtle Island, the Center of creation for all of North (see Enbridge, page 19)

Ojibwemowin materials now available for young learners, caretakers

Project wraps up first year



By Misty Peterson, GLIFWC Language/Outreach Specialist

The first year of GLIFWC's "Maajii-Ojibwemowag (They Begin to Speak Ojibwe)" ANA grant project is finished!

This three-year grant funded by the Administration for Native Americans (ANA), centers on the creation and distribution of simple Ojibwemowin books for tribal children ages 0-5. Along with the books, an accompanying website with interactive activities is available online.

Project staff recently completed our first book set: Waabanong—Stories of the Four-legged, featuring three short books about makwa (bear), ma'iingan (wolf), and waabooz (rabbit) based on stories shared by Sandy Lake/Rice Lake tribal elder David Niib Aubid and illustrated by Wesley Ballinger from the Mille Lacs Band. Printed on durable paper, each short book is accompanied by a supplemental document featuring harvesting and cultural information for teachers and caregivers.

GLIFWC staff will be distributing Waabanong—Stories of the Four-legged book sets to project partners within GLIFWC's 11-member tribes, including Head Starts and daycare facilities beginning in August. The book sets will include coloring books and crayons as well.

The companion Waabanong webpage launched last June, featuring flipbooks of each Waabanong book set with audio and animations, as well as interactive activities with translation and pronunciation word lists. Our language staff invested a lot of effort to complete the first year of the grant successfully and everybody's hard work paid off!

Looking to pick up a copy of the Waabanong books? While they are not yet for sale, you can print off your very own version from the website. To view the Waabanong webpage, activities, and resources, check out our GLIFWC language website at: www.glifwc-inwe.com. If you have questions about this project or the Waabanong book set, please contact Misty Peterson at mpeterson@glifwc.org or phone number (715) 682-6619 ext. 2140.

Traditional foods education & tribal code development make connections online

Ongoing trainings set the stage for tribes to customize community food systems

By Owen Holly Schwartz
GLIFWC Community Dietician

As Safer at Home guidelines kept many people indoors last spring, dozens of community members nestled in with their laptops, sharing and learning with GLIFWC specialists about manoomin (wild rice), oгаа (walleye), adikameg (whitefish), and waawaashkeshi-wiyas (venison).

These important resources were featured on interactive webinars in the GLIFWC Chippewa Ceded Territory Traditional Food Regulatory System Project and associated model food code development. This project is funded by the Administration for Native Americans SEDS grant.

Each webinar, co-hosted by local community partners and project staff, was chock full of information learned or developed during the course of the 3-year project. Webinars included harvesting regulations, reducing consumption or food safety risks (e.g. mercury in walleye, chronic wasting disease in deer, etc.), and a sneak peek at the relevant model food code chapter.

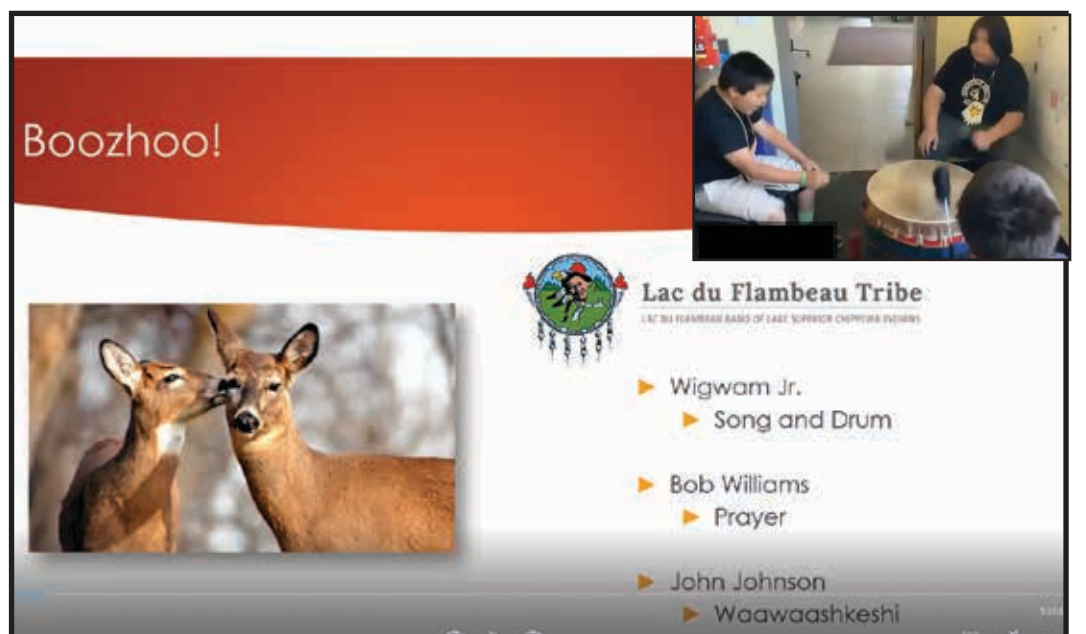
Tribal members from GLIFWC member tribes, employees, as well as tribal members throughout the Midwest and into Canada all tuned into learn and share knowledge. The webinars were recorded and are now available for viewing for free, on-demand through the GLIFWC website.

With the community interest webinars completed, project staff are now scheduling more in-depth trainings for two major roles within tribal food systems: Food Harvester & Food Handler training, and Food Manager and Regulatory training.

The Food Harvester & Handler trainings will primarily be for harvesters and handlers (those who prepare food), especially persons working in a federally funded program such as Head Start or Elderly Nutrition Programs. This four-hour training will focus on ways to reduce food safety risks associated with previously-selected traditional, treaty-harvested foods, the model food code, and food safety methods such as Hazard Analysis Critical Control Point (HACCP).

The selected foods were identified through community surveys in the first year of the project and include staples such as venison, wild turkey, and maple syrup. Training is meant to provide harvesters and handlers information needed to help reduce risk to our most vulnerable populations: children and elders. For example, a harvester hunting deer for a Head Start program might opt for lead-free ammunition to reduce the risk of lead exposure from bullet fragments.

The Food Manager & Regulator training will be longer, focused more extensively on the entire Model Food Code along with harvest regulations and food



The Wigwam Jr singers opened the Lac du Flambeau webinar this past June.

safety information. This type of training will be relevant for food business owners, kitchen managers, regulators, and others who work with regulation or implementation. In addition, project staff are working to provide continuing legal education credits for those who attend the Food Manager & Regulator training.

"We're really excited about the food manager and regulator trainings," said GLIFWC's Philomena Kebec, project policy analyst. "This is where we'll be providing staff working in tribal communities with detailed information about how the regulatory system works, and thinking through with them how to implement a tribally-managed food system that creates new opportunities for their communities to engage in producing and consuming traditional foods."

The trainings will take place over Zoom and will be available first to GLIFWC-member tribes, then to the public. All trainings will be free but will require pre-registration.

Attendees who complete the Food Harvester & Handler or Food Manager & Regulator training will receive a certificate of completion. There will be a gift—which will include wild rice—for the first 75 attendees who complete the Food Harvester & Handler training and the first 25 that complete the Food Manager & Regulator.



As walleye numbers slip, largemouth bass thrive on the evolving Pike Chain of Lakes GLIFWC launches Covid Crew

By Charlie Otto Rasmussen, Editor

Iron River, Wis.—Call it a flip-flop, or switcheroo. But if a dramatic fish population trend continues, the Pike Chain of Lakes will continue to forego its reputation as a walleye hotspot in favor of largemouth bass. Following up on their early spring walleye assessment of the Pike Chain of Lakes, GLIFWC's lone electrofishing team operational in 2020 returned to the northwest Wisconsin waterway in search of bass.

"It won't be a shock to anyone that regularly fishes the Chain, but largemouth bass have become very abundant," said Mark Luehring, an inland fisheries biologist who led GLIFWC's 3-man "Covid Crew" throughout a survey season that ran from April's ice-out to early June.

While state resource officials in Minnesota, Wisconsin, and Michigan terminated field work due to governor's shutdown orders, GLIFWC's Covid Crew implemented a plan to safely gather much-needed fishery data from Ceded Territory waters.

"We selected lakes that are close to home, like the Pike Chain. No hotel stays. We kept ourselves isolated as a group and got the work done," Luehring said of the singular trio that worked through the first months of the Covid-19 pandemic.

The crew—bolstered by veteran fishery technicians Ed White and Henry Mieloszyk—also completed early season adult walleye assessments on Upper St. Croix Lake in Douglas County and Kawaguesaga Lake in Oneida County.

Rise of the largemouth

Over a six-day survey period ending June 2, the Covid Crew dip-netted a whole lot of Pike Chain largemouth bass from the interconnected lake-system that features Millicent, Hart, Twin Bear, and Buskey Bay. In fact, Luehring said over the past two decades walleye abundance has essentially swapped places with largemouth bass.

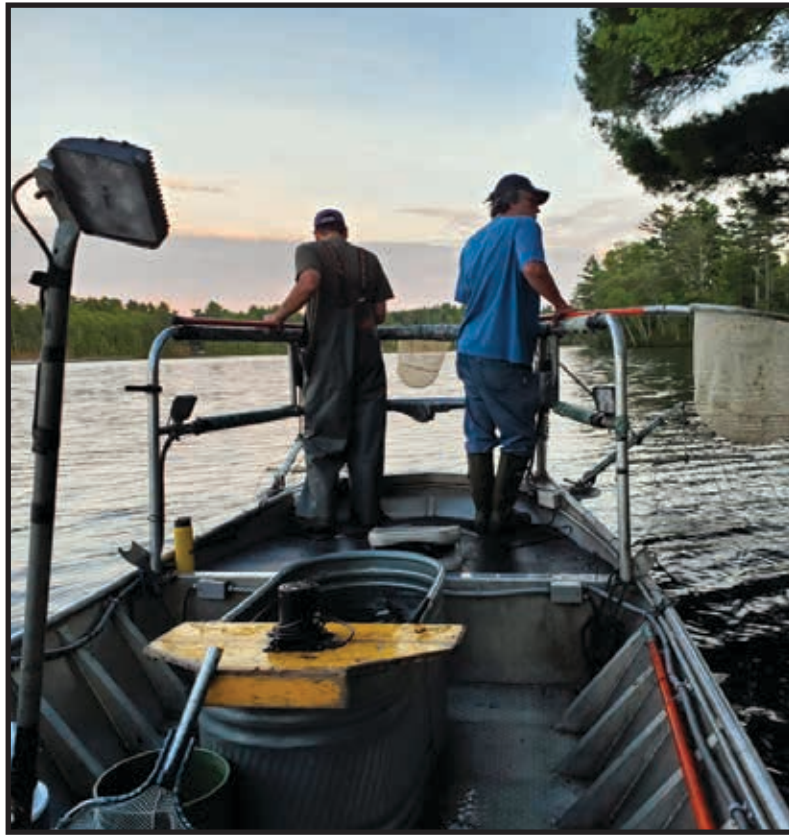
The 6:1 walleye-to-largemouth ratio documented by the Department of Natural Resources in 2001 now favors bass by roughly the same quotient according preliminary data. It's yet another indication that ogaawag dominance on many Ceded Territory lakes continues to erode.

"The smallmouth bass population looks to be holding about the same," Luehring said. "But the Pike Chain appears to be part of a trend where largemouth bass dominate more and more of the fishery. It's consistent with what we're seeing on other lakes"

Tribal fishermen from Red Cliff are also seeing fewer walleyes on the Chain and have become more conservative with their annual spring harvest. Two of the band's lowest harvest totals on the chain have occurred since 2017.

GLIFWC fishery biologists and their state and federal colleagues have tracked the up-swell in ashigan abundance for more than a decade. From the Minocqua Chain of Lakes in northeast Wisconsin to a host of lakes in northwest Wisconsin, ever-rising water temperatures, increases in water clarity, and very little bass harvest appears to be among a myriad of factors that tip the ecological scales against walleye, favoring other species including largemouths.

Luehring points to habitat as a determining factor, selecting which species thrive in a given lake. In recent years, biologists have identified



Outfitted with a pair of dipnets, Mark Luehring and Henry Mieloszyk search for bass from an electrofishing boat on the Pike Chain of Lakes. (E. White photo)

a handful of variables that directly influence habitat and ultimately dictate the composition of a fishery.

"Some lakes have increasing water clarity and support a longer growing season due to warmer water temperatures," he said. "Shoreline development activity can also degrade walleye spawning areas by filling in gravel and cobble bottom types with sedimentation."

Ogaawag are also considered coolwater fish with a range that extends much further to the north of the Ceded Territory than it does to the south. While it holds true that walleye's large marble-eyes give them a competitive edge over many other fish in dark, tannin-stained, or turbid waters, improved water clarity on many lakes works against walleye, particularly vulnerable juvenile fish.

Luehring said all of these habitat factors could permanently shift the balance in favor of largemouth bass, a warmwater species which thrives in clear water environments, and often spawns on softer bottom types. For the Pike Chain, Luehring said ongoing cooperative research with the Department of Natural Resources will help biologists better identify the factors that are altering fish populations.

Path forward

In Ceded Territory lakes outside the Pike Chain where similar fish community changes have occurred, restrictive harvest regulations for walleye along with stocking (if natural reproduction is no longer occurring) have been somewhat effective in increasing walleye abundance.

However, restoration of natural reproduction has been difficult in many cases, Luehring said. The latest climate model projections completed by area researchers* suggest that largemouth bass will become even more prevalent in the next 50 years within the Ceded Territory.

Overall, cooperative management plans seem to give the ogaawag the best chance of recovery in these lakes. Strong habitat protection and rehabilitation components in these plans can ensure good habitat for a healthy fish community even if shifts in species abundance continue.

The DNR and GLIFWC share fishery assessment responsibilities on many Ceded Territory walleye lakes. In recent decades the Pike Chain has been surveyed in 2001, 2010, 2016, and 2020. For more on interagency fisheries management see: www.glifwc.org/publications/pdf/FisheryStatus2019.pdf

*Read, Jordan S., Winslow, Luke A., Hansen, Gretchen J. A., et al. *Shifts in Fish Habitat Under Climate Change*. <https://owi.usgs.gov/vizlab/climate-change-walleye-bass/>. Accessed 30 Apr 2020

ogaawag — walleyes

ashigan — largemouth bass

Ceded Territory — region Ojibwe tribes reserved off-reservation rights in treaties with US.

Final 2020 spring off-reservation harvest figures

Michigan

Walleye: 4,590
Muskellunge: 0

Minnesota

Mille Lacs Lake

Walleye: 17,107 @ 32,015.6#
Perch: 11 @ 11.6#
Northern Pike: 240 @ 1,207#
no other Minnesota lakes

Wisconsin

Walleye: 35,258
Muskellunge: 221
Sturgeon: 14



Meet the warden—Lauren Tuori

From subarctic to Ceded Territory

By Paula Maday, Staff Writer



Lauren Tuori moved to Wisconsin for the warmer weather. All kidding aside, the Wisconsin winters seemed rather temperate to the GLIFWC veteran officer, after seven years of living and working in Alaska.

Lauren came to GLIFWC to serve as a Conservation Enforcement Officer in 2011. Prior to that, she studied environmental science at UMass Amherst and then trekked out to America's Last Frontier, where she worked on commercial fishing vessels in the Bering Sea and Gulf of Alaska.

"I'd been interested in wildlife and fisheries conservation as long as I could remember,"

Lauren said. This interest led her to her next position with the Alaska Department of Fish and Game (ADFG). At ADFG, Lauren worked on a variety of projects, from aerial musk ox surveys to big game harvest database analysis, before settling in as a fisheries biologist serving Alaska Native communities on the Yukon River.

The Yukon River is home to the longest salmon migration in the world. The fish provide important dietary and cultural support for over forty rural Alaskan villages. For many families, the commercial salmon harvest provides the only means of income.

The US has an agreement with Canada to leave a certain percentage of salmon in the river, since they are integral both to the subsistence way of life for Alaskan villagers and for communities across the border. The Yukon River fishery is incredibly complex with many stakeholders, but Lauren's job was more straightforward—to determine whether the subsistence needs were being met so that regulations could be adjusted accordingly in the future. Next, Lauren got her first taste of law enforcement when she moved to a position as a technician with the Alaska Wildlife Troopers. This work again brought her to Yupik, Athabascan, and Inuit communities.

US Navy veteran joins enforcement staff

From a small town in Illinois called Sandwich, Jason Higgins grew up with a strong motivation to always do the right thing.

"Sandwich is a small farm town where everybody knows everybody, and you better not get into any trouble, because someone will tell your mom," Jason chuckled.

Participation in outdoor youth leadership activities taught the new GLIFWC warden how to handle virtually any type of situation, strengthening his motivation and igniting a desire to be a part of something bigger.

That something bigger turned out to be the military. Jason joined up at 23 and spent five years in the United States Navy. Stationed in Norfolk, Virginia, Jason worked as an aviation boatswain's mate handler, a job that required him to learn every detail about the jets used by the Navy, defense systems, and who was coming on board.

Jason says that while many people in the military are motivated by the achievement of ascending the ranks, his biggest achievement was a bit different.

"My biggest achievement in the Navy was being able to help the junior sailors. I always made sure to take care of getting them the help and tools they needed, straight out of boot camp."

Jason's service traveled him throughout Florida, Canada, and off the coast of Pakistan. Today, as he experiences the expansiveness of the Ceded Territories and learns how to navigate and patrol such a large area, he says he is amazed, noting the intimacy one has to develop with the land in order to figure out how to get from one place to another.

"I'm excited to go to work every day. I have learned so much in the last 2-3 months, both on the tribal side and the state side."

Jason will be stationed in Park Falls, Wisconsin. To anyone in the nearby community he encourages, "I am always open for a conversation. I am always willing to learn. If you want to get to know me, all you gotta do is ask."

Jason Higgins graduated from the police academy at Nicolet Community College. This is his premiere position in law enforcement. —P. Maday



After a mishap during an instructional youth manoomin camp at Pacwawong Lake, Lauren Tuori provides guidance on how to reenter a canoe. (COR photo)

In 2010, Lauren decided to head south to family and to warmer weather. Back in the lower 48, she applied for one position and one position only: conservation warden at Great Lakes Indian Fish and Wildlife Commission.

"GLIFWC was the only organization where I applied for a job, because I believe strongly in the core mission here," Lauren said.

For the past nine years, Lauren has worked with Ojibwe communities throughout the Ceded Territory. Her regular patrol area covers off-reservation lands and waters near the Lac Courte Oreilles nation.

Her favorite things about the job include joking around with spearkers during spearing season, teaching first aid and CPR to GLIFWC staff, patrolling from a canoe for wild rice enforcement, lifeguarding at Camp Onji-Akiing, teaching Canoomin class to young people, and participating in the Healing Circle Run.

Lauren's wife Sara also works for GLIFWC as an environmental biologist running the mercury program. In their free time, you can find them enjoying the outdoors and teaching their 3-year old son how to fish.

KBIC's Clement finds the right fit in UP

When the high school abruptly shuts down on a weekday and basketball practice gets called off November 15, there's a good chance you're living in Michigan deer country.

For many, the state gun deer season opener—along with other outdoor happenings—are formative events that can help shape young people in the rural Upper Peninsula. For Cody Clement, add in an interest in law enforcement and a career as a conservation warden seems about right.

It wasn't all that simple for the GLIFWC recruit, but he's on path to stay connected to his roots and protect natural resources in the Ceded Territory. After earning a Criminal Justice BA from Grand Valley State University, he's now completing studies at the Nicolet College Law Enforcement Academy. The Keweenaw Bay Indian Community member grew up in Chassell and L'Anse, then opted for university studies in Michigan's second largest city, Grand Rapids.

"After living in the city, I came to really appreciate where I grew up," he said. "Going hunting and fishing is an important part of my life."

Basketball and weight training have also factored significantly for Clement, however, both are on hold as the coronavirus safety measures and enforcement training often dictate daily life. Still, Clement said he's acquiring a lot of hands on experience at the academy and his firearms knowledge has grown exponentially.

While Clement anticipates he'll ultimately settle into a duty station near Watersmeet and the Lac Vieux Desert Band later in 2021, there's more training ahead, accompanying experienced GLIFWC wardens after graduating the academy. It's the role of understudy, one that Clement found valuable over a pair of summers that bookended his freshman year of college.

"Riding along with Keweenaw Bay tribal police was a good experience over those two summers," he said. "It helped me decide what I wanted to do." —COR





Ceded Territory SCIENCE

Second-year of acoustic tracking features expanded look at Mille Lacs Lake fishery

Study includes walleye, yellow perch, northern pike, and tullibee

Fisheries researchers from Mille Lacs Band of Ojibwe (MLBO) and GLIFWC retrieved 61 acoustic receivers from Mille Lacs Lake last June to obtain data from fish tagged between 2018-2019 (Image 1). The study is a continuation of the walleye tracking study, which was initiated in 2016, in response to historically low numbers of walleye in the lake.

A 2014 MNDNR diet study indicated that adult oga were the primary consumers of juvenile oga in Mille Lacs Lake. Tribal scientists hypothesize that warmer water (due to climate change and invasive species) is “squeezing” juvenile walleye into the same habitat as adults during the summer months, potentially resulting in higher cannibalism.

The study aims to address the following objectives: 1) assess the thermal environment of juvenile and adult walleye across seasons, 2) identify aquatic habitats that are key for both life stages, and 3) identify temporal, spatial, and thermal overlap in habitat use of juvenile and adult walleye. Additionally, northern pike, yellow perch, and tullibee were tagged in 2019 to assess their interactions with walleye.

Specifically, we aim to address new questions such as: do other fish species share the same thermal habitat as juvenile and adult walleye and, if so, during what time of year? How do important forage fish such as yellow perch and tullibee influence walleye movement and survival? These are just a few questions we hope to answer with the addition of new fish species in our study.

In 2018, tribal biologists placed 61 fish listening devices (receivers) in a grid pattern on Mille Lacs Lake (Figure 1). Currently, those receivers are still listening as tagged fish provide location, temperature, and depth data. That same year, 70 adult walleye (17-27”) and 70 juvenile walleye (7-12”) were tagged. (see Acousting Tracking, page 14)



Image 1. Mark Luehring, Inland Fisheries Biologist (GLIFWC), retrieves a receiver from the bottom of Mille Lacs Lake

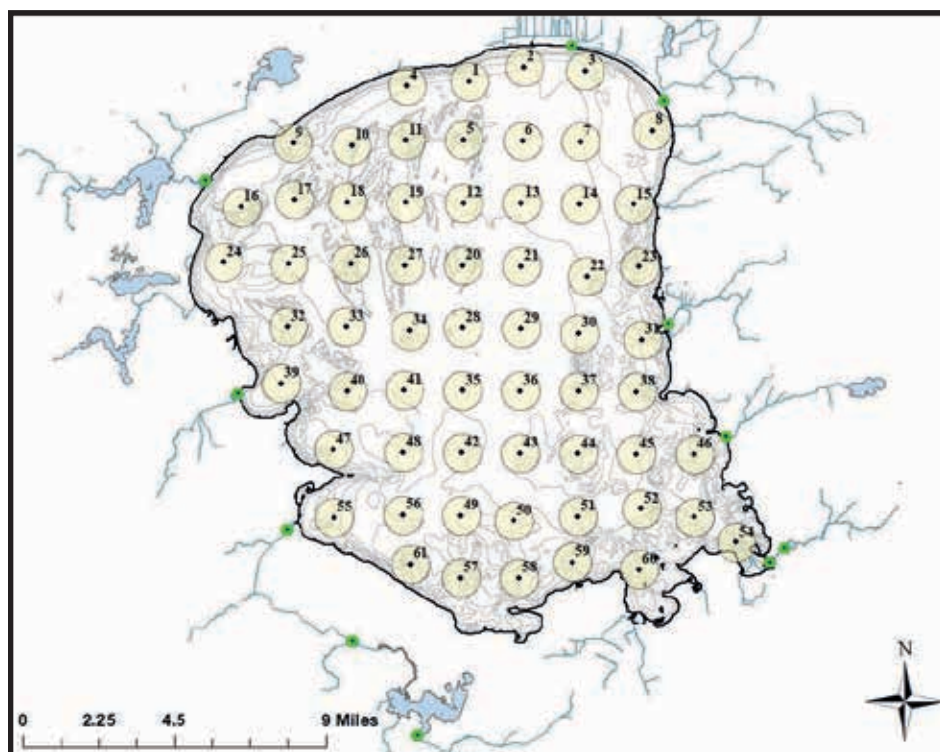


Figure 1. Listening stations (receivers) in Mille Lacs Lake. Small dots indicate the position of each station and yellow circles represent ~1000 yards listening radius. Stations are positioned approximately 3,000 yards apart. Darker yellow hexagons with dots in the middle represent river receivers placed in streams and rivers connected to Mille Lacs Lake. River receivers south of Onamia, Minnesota are not shown.

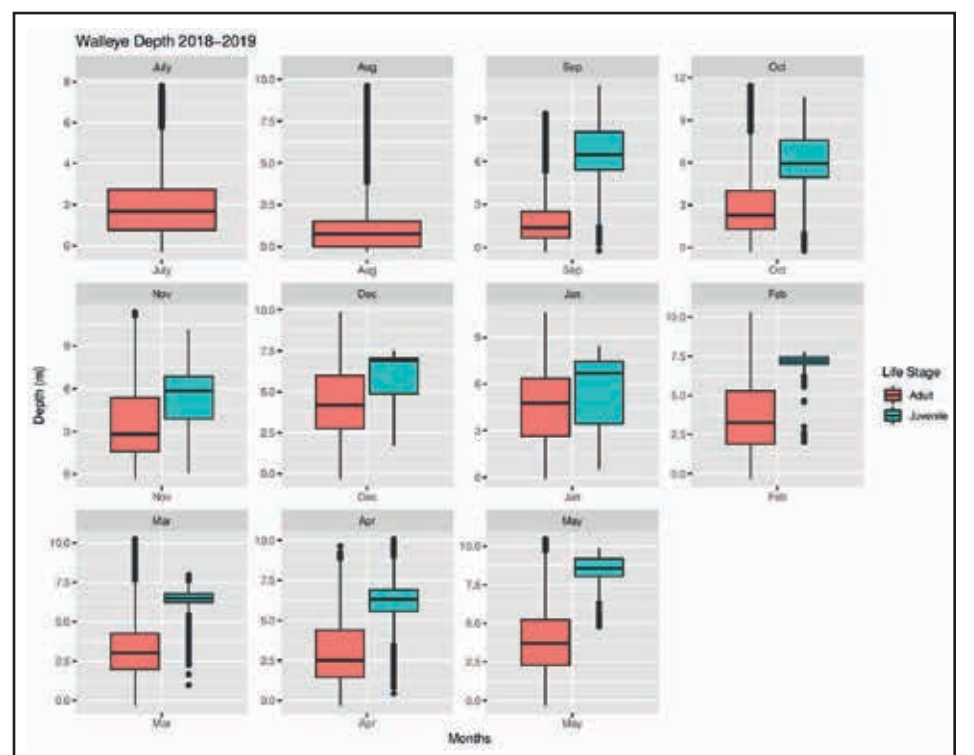


Figure 2. Adult and juvenile oga depth (meters) by month for Mille Lacs Lake 2018-2019. The solid black lines in the boxes are the averages. The distance between the top and bottom of each box indicates where the majority of data points fall.

With homeland resources stressed by climate, tribal adaption programs underway

By paying attention, tribes in the Northwoods are leading the way on climate change

Anishinaabe tribes in Minnesota, Wisconsin, and Michigan are adapting to climate change by prioritizing relationship-building and observation of the land

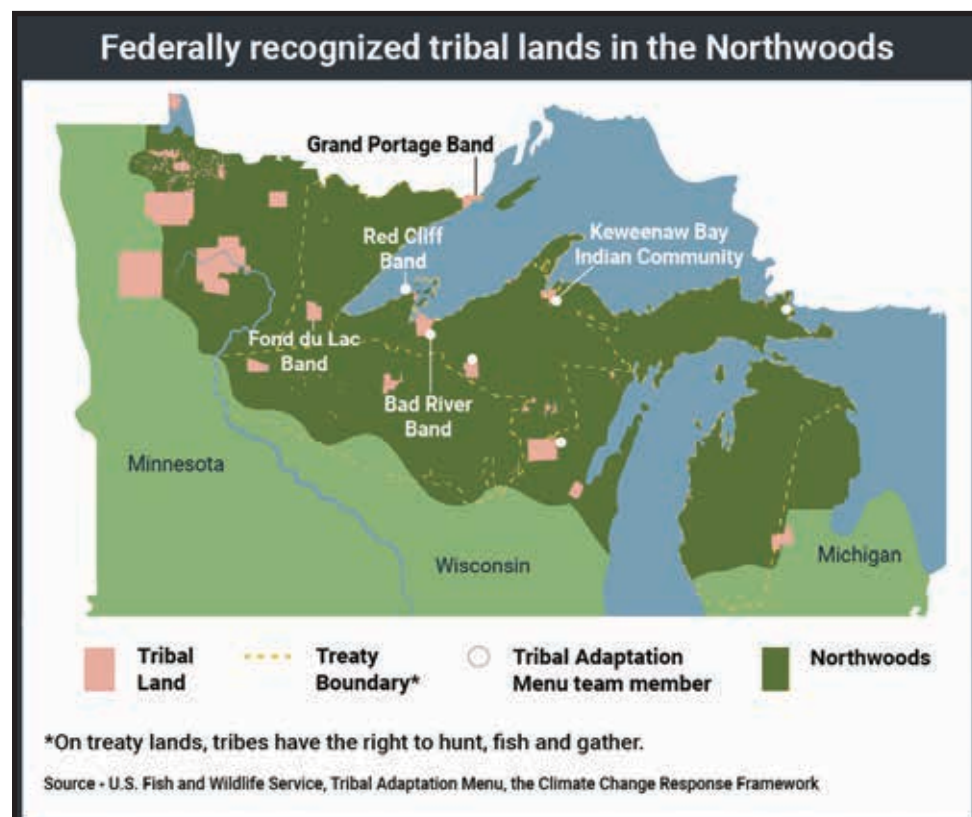
By Samantha Harrington, Yale Climate Connections

If the forests of northern Minnesota, Wisconsin and Michigan keep secrets, it's only because people fail to listen. For about 500 years, since they moved to the region from the Northeastern U.S. and Canada, Anishinaabe tribes have built relationships and history with all beings in the region—from tall trees and moose to grains of sand and manidoonsag, which means “little spirits” in Ojibwe.

Elders and tribal members who have taken the time to observe the landscape have witnessed their community members, both human and otherwise, adapt to harsh winters, wildfires, storms, pest outbreaks, and the arrival of Europeans.

Now they are recognizing the impacts of climate change on their communities. They can taste it in the way that the flavor of beaver worsens sooner as springs warm up earlier in the calendar year. They have heard it in the way the wind blows through declining beds of manoomin, or wild rice. There have been more obvious changes, too. Intense storms have washed out bridges and eroded the shores of small lakes and Lake Superior.

Despite limited financial resources, tribes in the region have prioritized a holistic kind of climate adaptation that is rooted in traditional values of relationship-building and observation. By taking their time, tribes have been proactive while striving to adapt in a way that aligns with their values and that is conscious of a scope and timescale much larger than one human life. As tribes do this work, they come up against the limitations of operating within a cultural system in the U.S. that is often diametrically opposed to the Anishinaabe worldview.



Manoomin is a sacred plant to the Anishinaabeg. (COR photo)

Leading on climate change

In 2007, Wayne Dupuis, the environmental program manager of the Fond du Lac Band of Lake Superior Chippewa, approached the tribal council about adding the goals of the Kyoto Protocol into the tribe's resource management planning. They agreed. A year later, the Grand Portage Band of Lake Superior Chippewa, in far northeastern Minnesota, was the second tribe in the U.S. to begin an adaptation plan. The majority of tribes in the region have since created or begun climate change monitoring and adaptation work.

Those timelines outpace many non-tribal communities in the Upper Midwest. The politically progressive county that houses Wisconsin's state capital did not create its Office of Energy and Climate Change until 2017.

Fifteen years ago in Grand Portage, the tribe began to notice and study the decline of brook trout in Trout Lake, a 61-acre lake on the reservation. Eventually the lake warmed so much that temperature-sensitive trout could no longer survive. The tribe restocked the lake with walleye and yellow perch, which thrive in warmer water. But Minnesota's Department of Natural Resources (DNR) has not taken similar measures in other lakes in the northern part of the state.

"I think we're going to see a massive loss of trout species in northeastern Minnesota, and I think that the Minnesota DNR is going to have to really consider: Is it acceptable to have a whole bunch of lakes with no fish, or do we start trying to change to fish communities that are a bit more resilient?" asked Seth Moore, the director of biology and environment at the Grand Portage Band. "That's a no-brainer in my opinion. It almost feels like they're a decade late."

A close relationship with the land

The guiding force behind much of this early work is the Anishinaabe emphasis on the connectedness of all beings and actions.

"We are here because of our relationship with the land," Dupuis said. "In many of our stories, it's our relationship with the Earth and the animals, the swimmers, the flyers that needs to be in harmony, and if we skew that balance, bad things happen. So our relationship with the Earth is primary—to be aware of what we're doing and considerate in what we do."

Katy Bresette, a member of the Red Cliff Band of Lake Superior Ojibwe and an Ojibwe educator, said that it's important not to romanticize this practice as something mystical and far removed from a process that everyone is capable of. Looking at adaptation from the perspective of all members of the ecosystem and the connections between them helps create solutions that look beyond an individual human life.

"You have to understand that it's not necessarily about understanding whether changes are coming sooner," Bresette said. "It's just understanding that the changes exist and what they look like."

(see Tribes lead the way on climate change, page 15)

Ojibwe nations, states set a course to take on climate change in the Ceded Territory

*By Dylan Jennings
Staff Writer*

The Wisconsin Governor's Task Force on Climate Change hit the ground running in 2020 with several initial meetings that covered a wide array of topics. Wisconsin Governor Tony Evers and Lt. Governor Mandela Barnes created the task force out of necessity, acknowledging that every state needs to commit to the global climate crisis.

The Task Force is working to develop policy recommendations that can be enacted by the current administration and future administrations. These policy recommendations will span a wide range of topics.

The Task Force is comprised of representatives from various agencies, state and tribal elected officials, scientists, business owners, power companies, and agricultural expertise. Three subcommittees were created and representatives were placed in one of the three committees to dive deeper into refining recommendations. The Land Use and Conservation Subcommittee, Healthy Communities and Strong Economy Subcommittee, and Energy, Housing and Infrastructure Subcommittee all meet regularly every month.

Early on, GLIFWC's Climate Change Team initiated multiple presentations to the entire Task Force and Subcommittees, enlightening the dynamic group about tribal treaty rights, and the disproportionate impact of climate change on subsistence harvesting. During one of the presentations, GLIFWC Climate Change Coordinator Rob Croll explained the vulnerability index created by GLIFWC, which he noted, "This index highlights species that are of vital importance for subsistence or cultural and spiritual purposes. Manoomin, or wild rice, is an extremely valuable resource to Anishinaabeg but also an extremely vulnerable species."



Enhancing coaster brook trout populations through releases of hatchery-produced is an important part of fishery management for Keweenaw Bay Indian Community. These brookies were released in Lake Superior by a KBIC crew. (CO Rasmussen photo)

Several states across the Ceded Territory are moving forward with green initiatives or policy development to reduce carbon footprints around the region. Governor Gretchen Whitmer of Michigan, Governor Tim Walz of Minnesota, and Governor Tony Evers of Wisconsin are three governors that have joined and actively participate in the United States Climate Alliance.

Only 24 States are currently participating in these crucial conversations, and by virtue of joining, each participating State has committed to implementing policies that advance the goals of the Paris Agreement aimed at reducing greenhouse gas emissions, reporting progress, and promotion of clean energy and policies.

Climate Change is always a polarized topic, which can easily create divisiveness and diverse reactions. In

2019 the Trump Administration formally submitted notice to the United Nations that the United States would be the only country to pull out of the Paris Climate Agreement. The remnant forces of climate resiliency are plugging away on the state and tribal level and have manifested through participation in the United States Climate Alliance and various task forces.

Tribes lead by example

You might ask where do tribes fit into the mix? Many tribal communities across the nation denounced the United State's abrupt move to leave the global climate pact. GLIFWC member tribes have been especially vocal in the need for adaptation and mitigation plans for their already vulnerable subsistence lifestyles.

The Lac du Flambeau tribal community has been working to develop a multi-faceted climate change plan for their reservation and a buffer zone surrounding their tribal boundaries. Internally they have gathered energy consumption data and the Lac du Flambeau Maintenance Department is implementing better energy efficiency for all tribal buildings.

Sixty miles north, the Bad River Band is in the process of developing a multi-million dollar solar field that will power their Health and Wellness Center and Wastewater Treatment Facility. The brand new head start building that was most recently finished is also adorned with solar panels to offset electricity consumption.

Forty miles north yet, the Red Cliff Tribe has been proactively monitoring water quality and participating in research efforts surrounding harmful algal blooms in Lake Superior. Red Cliff Natural Resources Department staff has also been closely monitoring non-native species such as the emerald ash borer, which threatens local native species utilized for subsistence purposes.

(see Climate change, page 16)



Manoomin, a vulnerable resource to climate change, must be dried after it is harvested because it tends to mold quickly. (COR photo)



Through upgrades and new construction, the Lac du Flambeau Band is increasing energy efficiency in tribal buildings on its northern Wisconsin reserve. The natural resources building was LEED-certified in 2012. Leadership in Energy and Environmental Design, or LEED, is the most widely used green building rating system in the world. (CO Rasmussen photo)



Taking it to the next level

Growing Up Ojibwe: The Game

By Eleanore Falck, GLIFWC Public Information Office
Graphic Design Intern

Have you played *Growing Up Ojibwe: The Game*? Created in 2019, *Growing Up Ojibwe: The Game* is a mobile and web browser game about treaty rights, tribal sovereignty, and traditional harvesting based on the GLIFWC youth publication of the same name, which follows a young Ojibwe

boy named Tommy Sky. I originally developed this game as a Public Information Office summer intern.

This niibin, I again returned as an intern and am adding two new levels for *Growing Up Ojibwe: The Game*. In the two new levels, players will go spearfishing with Tommy's father and harvest wild rice with his mother.

In the new level focusing, players will learn about the history of Ojibwe spearfishing. Tommy's father, a creel clerk, and a GLIFWC warden will teach the player how to spear fish safely and sustainably.

In the next level, Tommy's mother will teach the player how to harvest wild rice. Players will also learn facts about wild rice including how climate change is affecting it.

Creating new animations to portray these activities has been a fun challenge for me. After drawing each frame of an animation, the next step is to program it to play when the character does a certain action. I am also working on timing sound effects with the animations to create a more realistic experience.

Another new addition coming to *Growing Up Ojibwe: The Game* is the ability to play as Tommy's younger sister, Annie. Myself and the rest of the Public Information Office team felt that it was important to include a playable female character

to make the game more inclusive. As a woman seeking a career in the game industry, a male dominated space, representing minorities and women in games is especially important to me.



This summer I also worked to improve the background art of the first three levels of *Growing Up Ojibwe: The Game* to create a more immersive gameplay experience. To achieve this, I am using parallax scrolling. Parallax scrolling is a technique used in 2D media to create an illusion of depth by having objects in the background move past more slowly than objects in the foreground.

Improving the environment art is important to me because I want to better capture the feeling of magic and adventure that being outdoors gives me. This feeling and the beauty of nature greatly inspire my work.

Hopefully, younger players of *Growing Up Ojibwe: The Game* will also gain a deeper appreciation for nature and find inspiration in it. Look for new game levels soon.

Currently, *Growing Up Ojibwe: The Game* is available for Android devices at https://play.google.com/store/apps/details?id=com.GLIFWC.GrowingUpOjibweTheGame&hl=en_US or can be played online at <https://glifwc.itch.io/growing-up-ogaa-the-game>



Acoustic tracking features expanded

look at Mille Lacs Lake fishery

(continued from page 11)

Then in 2019 an additional 20 adult northern pike (16-42"), 20 juvenile yellow perch (5-10"), and 20 adult tullibee (13-15") were tagged. If one of these tagged fish swims close to one of the receivers (~1000 yards) then temperature, location, and depth data is logged and recorded by the receiver.

In addition to the 61 lake receivers 13 receivers were added to streams and rivers connected to Mille Lacs Lake in 2019 to track fish movement into these streams from the lake.

If such movement is temperature related, then data from the 90 light and temperature loggers attached to receivers and underwater anchors will help figure out if fish are moving due to thermal refuges (colder water) in the lake and connected rivers.

For 2020, MLBO and GLIFWC crews replaced the batteries in all the receivers and light/temperature loggers and then redeployed both in the same locations they were retrieved from.

All of the lake receivers were found and had the data downloaded. Retrieving the receivers was tough, but staff managed to complete the field work in two weeks. The receivers will now remain underwater, logging data from tagged fish until spring 2021 when we retrieve them and have the batteries replaced again.

Preliminary data analysis

Data analysis for 2018-2019 began last spring and is still ongoing. Because we tagged adult walleye in the summer of 2018 and juvenile walleye in the fall of 2018, the most useful data comes from September 2018-May 2019.

While we don't have the summer data for juvenile walleye, our preliminary results show us some interesting things during the colder months:

1. Walleye depth vs month shows us that juvenile walleye mainly prefer to be at deeper depths than adults (Figure 2).
2. Walleye temperature vs month indicates that juvenile walleyes generally prefer warmer water than adults (Figure 3).
3. Comparing both temperature and depth data for each month, it becomes clear that in November and December both juvenile and adult thermal habitats overlap. **This may be a window of mortality for juvenile walleye** due to adult food/metabolic demands and a lack a prey fish to act as a buffer against adult ogaa cannibalism.

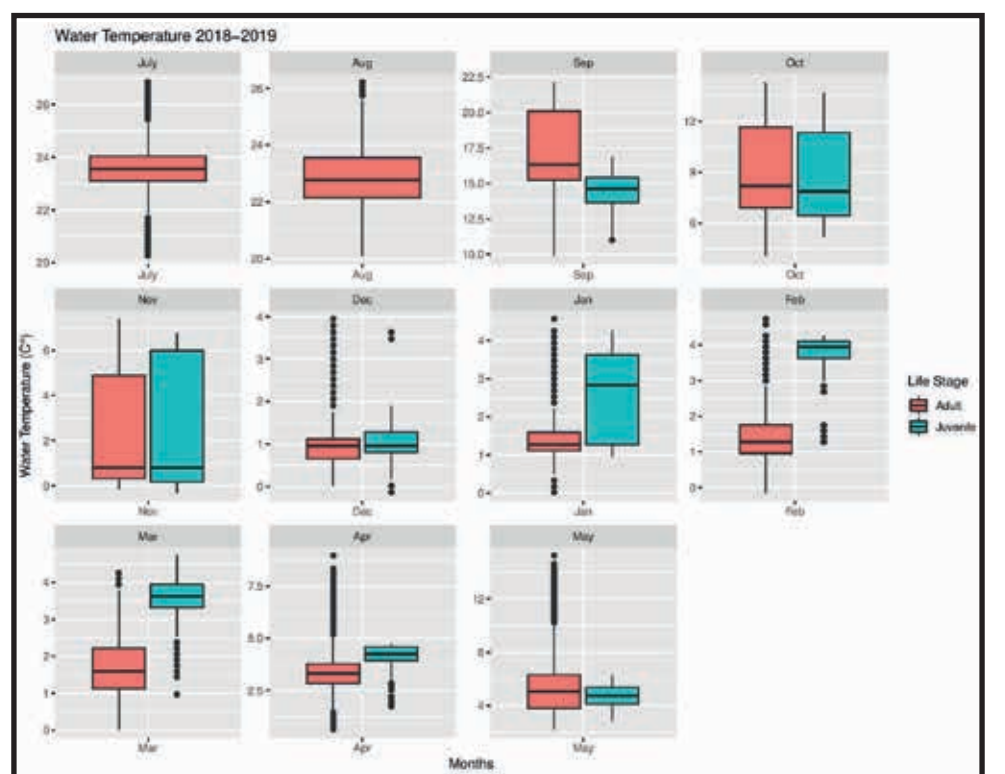


Figure 3. Adult and juvenile ogaa temperature (Celsius) by month for Mille Lacs Lake 2018-2019. The solid black lines in the boxes are the averages. The distance between the top of each box and the bottom indicates where the majority of data points fall.

If "the squeeze" is in fact occurring, we will see a similar pattern during the summer months. More results will come soon, which analyze fish movements, other fish species interactions, and where the most important habitats are for walleye in Mille Lacs Lake.

Stay tuned and if you have any questions be sure to contact Carl Klimah (320-733-0837) or the Inland Fisheries Section at GLIFWC (715-682-6619)

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



Tribes lead the way on climate change

(continued from page 12)

Ojibwe lands are particularly vulnerable to warming temperatures. The Northwoods lie in a transition zone between southern forests and the boreal forests of the north. Many of the region's cold-loving species, like paper birch and moose, are living in the southernmost reaches of their range. Warmer winters have already prompted the decline of some cold-weather species and the northerly migration of new species that were once killed off by the cold.

In addition to their inherent value as beings, many vulnerable species are culturally significant for their direct roles in tribal ceremonies and subsistence. Ash trees, threatened as warmer temperatures allow emerald ash borer to gain a stronger foothold in the forests, have long been used to make baskets, fishing tools, pipe stems, and lacrosse sticks.

Alex Mehne, forest manager of the Fond du Lac (FdL) Band, said that black ash trees—which are the dominant tree species in the area—are critical in maintaining water levels in wetlands. Black ash trees grow in large groups in forested wetlands, where they absorb water from the ground.

That process helps protect critical manoomin beds downstream, particularly as rainstorms get more intense. Manoomin is sensitive to water changes, especially in June and July. “If the water level goes too high the plant will drown, and if it goes too low it’ll be destroyed,” said Eric Andrews, climate change coordinator of the Bad River Band of Lake Superior Chippewa.

After an intense storm in 2012, the FdL manoomin crop failed.

As they noticed these vulnerabilities, Anishinaabe people began work to ease the coming changes. The FdL Band is experimenting with planting alternative wetland tree species to see if they could play a similar role in the ecosystem to the ash trees. So far, swamp white oak and silver maple seem to be succeeding.

Documenting tribal adaptation strategies

Tribal adaptation in the Northwoods depends upon collaborative relationships between tribes and other regional resource managers. Those relationships were essential in the creation of the 2019 Tribal Climate Adaptation Menu (TAM), a document that includes 14 different adaptation strategies that can be used to help guide climate planning. It was born from an inclusive, community-centered process that contrasts with Western-style approaches in the region.



Manoominike opportunities

(continued from page 2)

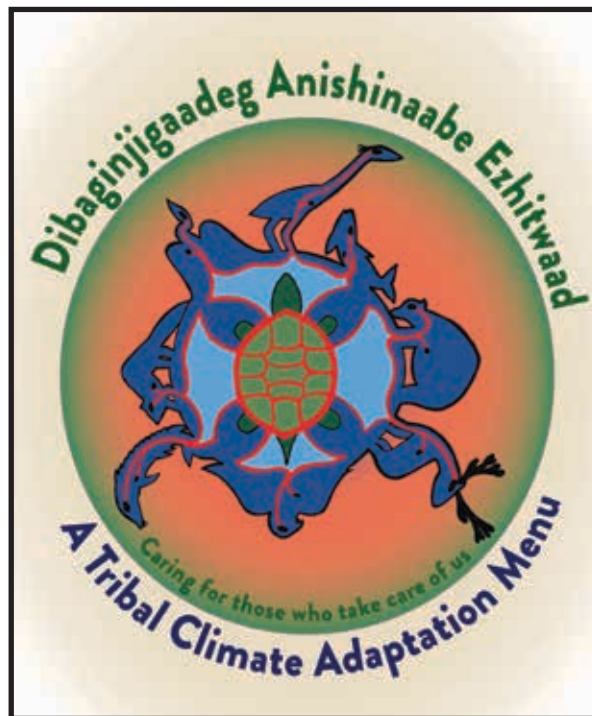
Since all this is a bit new, I am frankly not certain how it will all work out. The ground-based surveys will not be as intensive as in the past since we will be trying to check many more waters this way than we normally do. And while the state pilots are extremely capable, it will be difficult for them to replicate the air surveys we have done in the past.

I certainly am curious to see what we will learn. On a landscape as big as the Ceded Territory, there is a lot of variability. Much of Minnesota has been experiencing appreciable drought—which may be good for rice—while conditions generally grow wetter as one moves east. There have been some major, multiple-inch rainfall events in some areas. The summer so far seems to be as hot as any I remember, which may affect growth, fertilization and maturation. And of course, a lot can change between the first week of August and the time those first seeds have filled out and become ready to let go at the coaxing of the bawa'iganaatigoog (ricing sticks).

Nevertheless, despite all this uncertainty we are confident that we should be able to gather information that will help tribal rice chiefs fulfill their responsibility to open date-regulated lakes, and help ricers locate good harvest opportunities while avoiding trips to unproductive waters. While pandemics and climate and other factors constantly seem to be changing our world, manoomin continues to do all it can to fulfill its commitment to provide for us. This year, and every year, we need to uphold our responsibility to the rice with equal commitment.

Best wishes for a great season. Be sure to check our website for abundance information as the season approaches, and miigwech for protecting and respecting the manoomin!

Find Ceded Territory wild rice lakes, including up-to-date manoomin abundance estimates on select waters, here: <https://data.glifwc.org/manoomin.harvest.info/?fbclid=IwAR2dbxKUeatarbcxHkKlaPWHnTzj1awoonlpdyCjBulwnPTnCFRmfqWg-7l#rice.abundance>



Download a copy of the Tribal Climate Adaptation Menu at: www.glifwc.org/ClimateChange/TribalAdaptationMenuV1.pdf.

The menu came into being after some tribal members were involved in a watershed adaptation workshop put on by the Northern Institute of Applied Climate Science. The institute, which is a partnership of federal agencies, universities and conservation organizations, has developed a variety of “menus” that present climate change adaptation strategy options for forest managers. At the watershed menu workshop, tribal members realized that while the process was useful, it was missing important context for tribal planning, such as shared values and community engagement.

“Eventually it came out that we needed a whole separate menu,” said Nisogaabo Ikwe Melonee Montano, a member of the Red Cliff Band of Lake Superior Ojibwe and the traditional ecological knowledge outreach specialist GLIFWC.

An essential part of creating this menu was establishing deep relationships and trust among the 19 creators of the document, who included both tribal and non-tribal members. “Early on we kind of started joking with each other that it was actually the TAM fam,” Bresette said. “There has been reciprocity here, and there has been love for each other.”

All decisions about what to include in the menu were made by consensus. The menu’s stated values are specific to the Great Lakes Anishinaabe perspective, but it is intended to be a living document that helps other tribes and non-tribal communities create plans for managing the impacts of climate change.

Nikki Cooley, of the Diné (Navajo) Nation, manages the Tribal Climate Change Program at the Institute for Tribal Environmental Professionals at Northern Arizona University. She said that there has been a lot of interest in expanding the menu to include values and languages from other tribes.

“In all my time, whether it’s been in Glennallen, Alaska, which is a super small town four hours from Anchorage, or on the shores of La Jolla beach in San Diego, the commonality is that tribes are always very concerned about how climate change is going to affect their culture,” Cooley said.

Members of the TAM team emphasized that people should spend time observing the environment before implementing any of the strategies so that they can make decisions informed by elders and non-human members of the community.

“They’re giving us the things that we need to know and understand,” Bresette said. “We’re the only ones who aren’t in the classroom. We’re the ones who aren’t spending time on our lessons. We’re the ones not doing our homework.”

Caught between conflicting cultural values

The TAM process centered native voices, but that is not always the case, even in tribal projects. Additionally, choices made by neighboring landowners can complicate work that tribes are doing.

Climate program leaders and resource managers at Red Cliff, Bad River, and Fond du Lac noted how much time they spend trying to prevent resource extraction companies from damaging their environment.

Andrews at Bad River is particularly concerned about the Line 5 natural gas and oil pipeline, operated by Enbridge, a Canadian energy company. The Bad River is eroding where it crosses the pipeline, particularly as heavy rainstorms become more frequent. The erosion is expected to expose the pipeline and put it at increased risk of breaking—worrisome as downstream of the intersection of the river and pipeline are the Kakagon Sloughs, a protected wetland and wild rice bed. It is a critical resource for the tribe.

Gidigaa-bizhiw (Jerry Jondreau), a member of the TAM team from the Keweenaw Bay Indian Community who founded his tribe’s forestry department, said that the practice of prioritizing the use of natural resources for financial gain over the health of the whole ecological community is incredibly frustrating. “We’re fighting with a system that is essentially backwards,” Gidigaa-bizhiw said. “It’s designed from that Western viewpoint.”

Gidigaa-bizhiw, said that he often found himself the only indigenous voice in the room in forestry conversations. He said that traditional knowledge was often brushed off and that native voices need to be, at minimum, equally represented in order to be heard. Native communities, he said, have been doing the work of caring for the environment for millennia and that people with resources need to recognize that expertise and support it.

“Relinquish authority,” Gidigaa-bizhiw said. “If you have money, and you want it to go to a good place, then give it to the people that are doing this work and don’t make them jump through 10,000 hoops to try to get this stuff, because then you spend all your time working on the damn grants and not doing the work.”

The Northern Institute of Applied Climate Science demonstrated support for elevating the expertise of native communities in the Upper Midwest in their commitment to developing the TAM. And some in Wisconsin’s state government express interest in doing the same. “We owe it to the first stewards of this land to listen to them, partner with them, and follow their lead in making Wisconsin a more sustainable and equitable place for everyone,” Wisconsin Lieutenant Governor Mandela Barnes said via email.

Reginald DeFoe, the director of resource management for the FdL Band in Minnesota, remains deeply worried about the lack of leadership on climate action in the U.S. and the world. “I think the only way out of this kind of mess is we can’t look backwards and blame everyone for what happened. The only way is to look forward,” DeFoe said. “But right now the leadership is on a different track; they want to exploit more resources—mining, oil—and it just goes on and on.”

(Reprinted with permission from yaleclimateconnections.org/2020/06/by-paying-attention-tribes-in-the-northwoods-are-leading-the-way-on-climate-change)



IT director comes online

Filling a new position created to oversee management of GLIFWC's ever-expanding digital infrastructure, Jacob Aufderheide has logged in as Director of Information Technology (IT). From his most recent stop at 3M in a global systems administrator position, Aufderheide arrived in the Ceded Territory last May, joining his wife of 11 years, Libby, who serves as IT Infrastructure Specialist for the Red Cliff Band.



"With Covid ongoing, it's been a challenge getting settled," he said. "But we have positions that really fit our skill set. Problem solving and matching people's needs with technology is something I really like to do."

Aufderheide is tasked with developing and maintaining GLIFWC IT systems across all divisions—from Biological Services to Conservation Law Enforcement—as well as basic day-to-day operations. Security and helping GLIFWC staff adapt to working remotely during the pandemic are high priorities. Just a handful of GLIFWC staff occupy the central office on any given day as most employees work from home or conduct field work in relative isolation. Aufderheide is investing considerable time collaborating on both the individual staff level and the broader division level.

"On this career path I've found a niche where I can have a conversation in plain English, establish what a person's needs are, and develop the right technological solutions," he said. "In spite of Covid and the world we're all living in right now, we've got some important projects underway that'll help people stay safe and effectively support tribal treaty rights."

Following computer engineering studies at Mankato State University, Aufderheide compiled 18 years of IT work experience. A New Ulm, Minnesota native, he currently lives with his wife in Ashland. —CO Rasmussen

LTE position serves up insights into traditional food

GLIFWC recently welcomed Bad River tribal member Madelyn Wiggins to an Limited Term Employment (LTE) position in the Planning and Development Division. As Community Food Project Assistant, she works on the GLIFWC Chippewa Ceded Territory Traditional Food Regulatory System Project. This project is part of a grant GLIFWC received from the Administration for Native Americans under their Social and Economic Development Strategies funding opportunity.

Through this position, Wiggins said she has learned a lot about treaty rights, traditionally harvested foods, and how food is regulated. She said she enjoys learning something new every day. After her LTE position is complete in December of this year, she plans on returning to college to complete her general education credits. Wiggins lives on the Bad River Reservation and enjoys spending time with her family, being outside, and eating good food. —K. Plucinski

Climate change in the Ceded Territory

(continued from page 13)

Looking eastward, the Keweenaw Bay Indian Community has made great strides in the fish hatchery realm, which re-stocks populations of walleye, coaster brook trout, brook trout, and lake trout to local water bodies. In 2018, KBIC transplanted a reported 1,071,180 fish of varying size back to their local waters. Climate Change has made natural reproduction of certain fish species difficult through increased water temperatures, prevalence of non-native species, and other related factors.

These are just a couple examples of the great work being done in relation to climate change by local tribal communities. The lists go on for ways that tribe's are responding to the climate change threats. One common theme seen across many tribal communities was the notion of food sovereignty. Many tribal programs have been working diligently to empower their citizens with the knowledge and resources to grow their own food and increase community food production.

As climate change impacts begin to flood the globe with reoccurring issues, it's reassuring to know that many communities and states are taking steps to address and mitigate the problem. This however is no reason to sit idle and let the rest of the world deal with an anthropogenic problem. Instead, let's learn from these local communities and take steps to ensure a good life for our future generations.

Waawaashkeshi

(continued from page 1)

in the top five all-time as spearfishers expressed both a sense of urgency to bring home fish and a feeling of gratitude for having access to traditional resources. As the pandemic elevated economic hardships for virtually every community, natural foods of Ojibwe Country have helped tribal members meet their nutritional needs.

Get it registered

Off-reservation hunters have multiple registration options this dagwaagin for their white-tailed deer as well as black bear, wild turkey and cranes: traditional in-person registration at reservation community stations, by phone, or online. Falck said the benefits of harvest registration are substantial, extending well beyond an exercise in indigenous sovereignty and self-regulation.

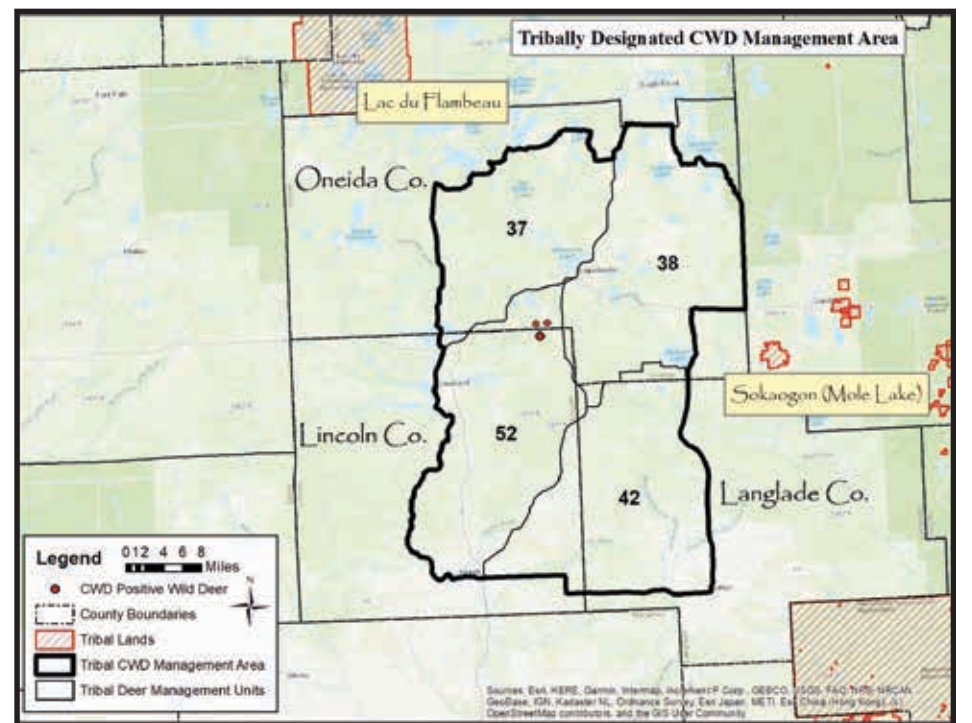
"Whether it's development, like a proposed mine, or a land swap that turns a parcel of property from public to private, it's important to track and document harvest," Falck said. "Having an accurate measure of off-reservation tribal harvest can help us protect important places. And as natural resources comanagers, we pool tribal and state registration figures to help determine abundance and coordinate management decisions."

For hunters seeking chronic wasting disease (CWD) testing for their whitetail kill, in-person registration is the first choice. Clerks will register the deer and take possession of the head—lymph nodes are typically removed to complete a CWD test. Phone registration (844) 234-5439 and online registration www.nagfa.net/online are also available to off reservation hunters.

Good luck hunters of all ages. It's a great year to take a kid hunting and pass on your knowledge, hunting traditions, and bring home that giving resource known as waawaashkeshi in the Ojibwe language.



Tribes active in disease management



(continued from page 3)

The Voigt Intertribal Task Force approved the establishment of a tribal CWD management area in 2018, which will remain in effect in 2020. The tribal CWD management area has special regulations concerning the transport, disposal, and registration of deer harvested within the tribal CWD management area. The purpose of the special regulations is to prevent hunters from transporting whole deer or deer parts with a higher risk of being infected with CWD back to their communities.

Deer harvested within the tribal CWD management area must be registered remotely to prevent whole carcass transportation outside of the management area. Parts of the deer, including the spinal column and head, cannot be transported outside of the area. Carcass waste must be disposed of in a landfill or carcass waste collection site within the management area.

The tribal CWD management area consists of tribal wildlife management units 37, 38, 42, and 52, in portions of Oneida, Lincoln, and Langlade Counties of Wisconsin (see map), between the Lac du Flambeau and Sokaogon (Mole Lake) tribal communities. There are a number of testing drop-off sites within the tribal CWD management area. State DNR agencies have developed CWD websites with maps and additional information on the location of testing sites and carcass waste collection sites.

Please visit GLIFWC's CWD webpage (<https://data.glifwc.org/cwd/>), which includes an interactive map of known locations of CWD-positive wild deer and captive cervid facilities that have tested positive for CWD. There are also safe handling and disposal recommendations, answers to frequently asked questions, and links to a video series that covers safely field dressing and boning-out deer meat using methods to avoid areas where CWD prions accumulate in deer. There will also be links to the Minnesota, Michigan, and Wisconsin DNR CWD pages with more detailed information about sampling station and carcass dumpster locations.

Scaled-back summer intern program yields valuable experience for native students

GLIFWC online resources, foods program get a youth-powered boost

By Kayla Plucinski, GLIFWC PIO Intern

Many things have changed over the past several months, including GLIFWC's summer internship program. Usually a diverse group of approximately 20 interns from different parts of the Ceded Territory, and even the country, come to GLIFWC's main office in Odanah, Wisconsin for a summer of work in the office and in the field. In its seventh official year, the summer internship program hosted six regional interns whose work was largely done remotely and away from the office due to COVID-19.

Biological Services

Returning for a second year with GLIFWC is Sasheen Goslin. This Red Cliff and Prairie Band Potawatomi member continues her work as the Environmental and Mining Intern and will be graduating in December from Haskell Indian Nations University with a degree in Environmental Science. This summer she worked on developing a website to host GLIFWC mining documents. Her favorite part of the internship this summer was learning new things every day and using new tools out in the woods.

Public Information Office

GLIFWC's Public Information Office (PIO) welcomed back its 2019 interns Eleanore Falck and me, Kayla Plucinski.

Eleanore (Oneida Nation) attends the University of Wisconsin–Stout as a Game Design and Development–Art student. Eleanore carried on with the work she started last summer developing an educational video game that can accompany the Growing Up Ojibwe publications PIO produced. Using the skills she has learned at school, she continues to add levels to Growing Up Ojibwe: The Game. The best part of the internship for Eleanore is creating something educational with her skills and seeing her growth from last year.

PIO's second intern was myself. Going into my third year as a GLIFWC intern, I found myself working on some new projects around PIO. One project was uploading close to 100 issues of the Mazina'igan to the GLIFWC website for staff and the public to view. Another project had me working closely with other GLIFWC

staff members to develop plans for the Virtual Healing Circle Run and a Virtual Sandy Lake Ceremony. I am a Bad River Tribal member and am attending Vermillion Community College in the fall to work on a Veterinary Technology degree.

Planning and Development

The Planning and Development (P&D) division hosted a pair of interns this summer including Hannah Arbuckle and Joslyn Beaulieu-Newago.

Bad River tribal member Hannah Arbuckle is a senior at the University of Wisconsin—Madison studying Community and Environmental Sociology with certificates in Food Systems and American Indian Studies. This summer she was the Keepseagle Project Intern. This project is part of an effort to increase manoomin production within the Ceded Territories. Hannah worked with harvester and producer surveys to make them more accessible. Using the survey information, she assisted the Keepseagle coordinator in distributing equipment and supplies to the wild rice harvesters and producers. Hannah's favorite part of the internship is learning about GLIFWC and its eleven member tribes.

Joslyn Beaulieu-Newago was Planning and Development's second intern this summer. This is Joslyn's third year as a GLIFWC intern and she will be a junior at Northern Michigan University studying Native American Studies and Fisheries and Wildlife Management. She is spending the summer working on two different grants, the SEDS grant and the Administration for Native Americans grant, in the Planning and Development Division. Through these, Joslyn is learning about traditional foods, harvest methods and preparation, and how important it is to keep tribal members informed and updated. Her favorite part of the internship is being part of a hard-working team and continuing to assist GLIFWC's member tribes.

Division of Intergovernmental Affairs

The Division of Intergovernmental Affairs was able to host an intern this summer as well. John Crawford (Forest County Potawatomi) had the opportunity to work on a mix of projects that ranged from creating a treaty harvest harassment form to working with GLIFWC's Model Food Code. John attends Yale University and is a junior studying History and Global Affairs. His favorite part of the internship is learning about the Ojibwe language and culture.



Sasheen Goslin, environmental mining intern.



Eleanore Falck, Public Information Office graphic design intern.



Kayla Plucinski, Public Information Office intern.



Hannah Arbuckle, Keeps Eagle Project intern.



Joslyn Beaulieu-Newago, Planning & Development intern.



John Crawford, Division of Intergovernmental Affairs intern.



Tribal Colleges and Universities of the Ceded Territory

By Paula Maday, Staff Writer

Tribal Colleges and Universities (TCUs) are special places where indigenous language, culture, and tradition is fostered alongside academics. In the best environments, these studies are interdisciplinary, and inseparable from one another. They are living, breathing ecosystems that move and adapt in their own modern and resilient ways, annihilating the antiquated idea that American Indian Studies is static and confined to the pages of a history book.

The TCU movement took hold in 1968—according to the American Indian College Fund—when the Navajo Nation established Navajo Community College (today called Diné College) in order to meet its citizens' unmet need for post-secondary higher education and ensure the continuation of Navajo language and culture. Fast forward to today, and there are 32 fully accredited Tribal Colleges and Universities in the United States, with another formal candidate for accreditation, according to the U.S. Department of Education. These institutions offer 358 total programs, including 181 associate degree programs, 40 bachelor's degree programs and five master's degree programs. The breadth of these programs span the culinary arts to the cinematic arts to environmental science.

Most TCUs are located on or near a reservation, with an aim to help support and strengthen tribal nations. A heavy concentration of TCUs have found their home in the Midwest and Southwest regions of the United States, with several TCUs located within the Ojibwe Ceded Territory. These institutions serve traditional and non-traditional students looking for a positive educational experience that balances life, culture, and academic study. With flexible learning options and specialized courses, they prepare a wide range of students for work and leadership within tribal nations.

COVID-19 has thrown everyone's lives into change, and transition. But for many, it has also lifted the veil on goals, dreams, and priorities that may have lay dormant at the center of their hearts for a long time.

If your future involves pivoting into a new position or moving into an entirely different profession, the help and skills you need may be right around the corner at your local tribal college. Here are the TCU options within GLIFWC member communities.

Bay Mills Community College

Bay Mills Community College (BMCC) was chartered by the Bay Mills Indian Community in 1984. It was created to meet the training needs of the tribe's growing workforce. The college received initial accreditation in 1995, and today "is a fully operating Tribal College and Land Grant Institution with an open admissions policy for students of any race, creed, color, and national or ethnic origin."

BMCC offers 13 Associate degree programs, one Bachelor degree program, seven certificates of completion, four certificate programs, and one diploma. The diploma is for the college's Anishnaabemwin Pane ('pun-ay') Immersion Program. This four- and six-year program is designed to develop fluent Anishnaabe language speakers. According to the program's website, it takes about 2,000 hours of listening to any language in its full natural form for a young child to fully understand his/her first language. Pane Immersion students complete 1,890 hours by the end of year three. Another unique, place-based area of study at BMCC is Great Lakes Native American Studies, a major comprised of classes such as People and the Land/Seasonal Life Ways, and History and Organization of Michigan Indian Tribes.

A special spot at BMCC is the Waishkey Bay Farm, a 40-acre property developed as a teaching, research, and incubator facility focusing on sustainable agriculture and food production that is consistent with traditional Anishnaabe values. The farm's current operations include hoop house vegetable production, community garden space, pasture poultry production and processing, domestic blueberry production and novel berry research, honey bee hive tending, the raising of grass-fed beef, and industrial hemp research.

For more information on Bay Mills Community College, visit bmcc.edu.

Keweenaw Bay Ojibwa Community College



Keweenaw Bay Ojibwa Community College

Keweenaw Bay Ojibwa Community College (KBOCC) became a fully-accredited tribal college in 2013. Their mission statement asserts: "Formed out of our American Indian identity, the mission of Keweenaw Bay Ojibwa Community College is to provide post-secondary education rich in Ojibwa culture, tradition, and beliefs that promotes lifelong learning."



KBOCC offers five Associate degree programs and 10 one-year certificate programs. Environmental science is a major area of focus, with the college offering two certificates related to this field of study (environmental science; environmental studies and sustainability), and one degree. The Environmental Science degree program seeks to provide an "interdisciplinary approach to resource conservation and management that integrates classroom and lab training in the natural sciences with hands-on field experiences that focus on wildlife, fish, forests, water, and other resources.

The selection of coursework emphasizes the ecology of terrestrial and aquatic ecosystems, and how these systems can be managed to conserve biodiversity and protect ecosystem functions while providing sustainable benefits to society. Particular attention is paid to resource management concerns on tribal lands."

The college's certificate offerings are robust. The Small Business Start-Up Certificate provides student entrepreneurs with the tools and expertise to pursue their own business venture. The Tribal Management Certificate prepares students for entry-level management positions within tribes or tribal organizations, and includes coursework in Decolonizing Tribal Organizations. The Culinary Arts Certificate has a course devoted to local and native cuisine.

Speaking of food, KBOCC has a cafe right on campus, as well as a beautiful fitness center that is available to all students.

For more information on Keweenaw Bay Ojibwa Community College, visit kbocc.edu.



Fond du Lac Tribal and Community College

Fond du Lac Tribal and Community College (FDLTCC) was created by the Minnesota Legislature in 1987 and chartered as a tribal college by the Fond du Lac Band the same year. Its mission is "to provide higher education opportunities for its communities in a welcoming, culturally diverse environment."

The college adheres to five core values that are used as guiding principles on campus. These include: respect (manaaji'idiwin), integrity (gwayakwaadiziwin), stewardship (ganawenjigewin), innovation (maamamiikaajinendamowin), and compassion (zhawenjigewin).

FDLTCC offers 15 Associate degree programs and 10 certificates and diplomas. Areas of study range from law enforcement to clean energy technology to art. The Associate of Science degree in Anishinaabe and American Elementary Education includes unique courses in the Foundations of American/Anishinaabe Education and American Indian Children's Literature. The college also offers a "Weekend College" as a flexible scheduling option to those working full-time during the week.

FDLTCC operates a full campus with on-campus housing, athletics, and student clubs and organizations including the American Indian Business Leaders, Anishinaabe Culture Club, even a rocketry club! The college's Environmental Institute has housed some really cool initiatives from sustainability to water-quality monitoring to a bee symposium, and the Ojibwemowining Resource Center serves as an inviting gathering space that features the area's largest collection of contemporary Ojibwe art. This space is filled with language, culture, and stories that celebrate and inspire all those who visit it.

For more information on Fond du Lac Tribal and Community College, visit fdltcc.edu.

Lac Courte Oreilles Ojibwe College

In 1982, a task force of educators and parents undertook the establishment of Lac Courte Oreilles Ojibwa Community College. The mission of the college is "to provide Anishinaabe communities with post-secondary and continuing education while advancing the language, culture, and history of the Ojibwe."

The college changed its name to Lac Courte Oreilles Ojibwe College (LCOOC) in December 2019.

LCOOC offers 10 Associate degree programs and 11 certificates. Areas of study include several that are imperative to tribal nations: AODA (substance abuse counseling), Tribal Court Lay Advocate, Native American Tribal Management, Ojibwe Language, and Agriculture and Natural Resource Management.

Earlier this year, on May 13, 2020, LCOOC announced that it had received authorization from the Higher Learning Commission to offer fully accredited Bachelor's degree programs in Business Administration and Human Services beginning Fall 2020. Many of these courses will be offered via distance learning or on weekends.

In addition to its main campus location on the Lac Courte Oreilles reservation, LCOOC also operates outreach locations on the Bad River reservation, Red Cliff reservation, Lac du Flambeau reservation, and St. Croix reservation. During (see [Tribal Colleges and Universities, page 19](#))





Native American educational resources for distance learning

By Paula Maday, Staff Writer

Educational efforts around the US were disrupted this past spring with the spread of the COVID-19 virus on a global scale. Schools and teachers quickly had to pivot, figuring out how to deliver education via distance learning methods.

For some, distance learning has been more about finding and becoming fluent in technologies that can be used to connect. For others, it has been about developing content and making it accessible. For almost everyone, though, it has been about both, and with COVID-19 still on the rise, most schools are now preparing to offer distance learning options for the next academic year. With this in mind, here are five resources offering a multitude of ways for educators to incorporate Native American worldview, culture, language, and ways into their distance learning curriculum.

Native Education for All

<https://illuminatives.org/nefa/>

IllumiNative has partnered with the National Indian Education Association and Amplifier to create and disseminate digital education tools, lesson plans, and resources about Native American art, culture, history and contemporary life. Activities for PK-8 are easily browsable on their website and specify materials needed, steps, tips, and links for more information. These activity guides are available for free and downloadable at the link above. The project has already disseminated its resources to more than one million students and families learning at home.

Native Knowledge 360°

<https://americanindian.si.edu/nk360/>

The Smithsonian's National Museum of the American Indian (NMAI) developed its Native Knowledge 360° project to provide educational materials and teacher training that incorporate Native American narratives, histories, and other information. You can search lesson plans by subject, nation, grade, language, region, and format. You could also do a keyword search. The content includes both historical information as well as information about today's living culture of over 80 Native nations.

Enbridge Line 5

(continued from page 7)

America...It is believed that the Great Turtle emerged from the flood at the Straits of Mackinac. Because the creation of North America took place in the Great Lakes, the Great Lakes are considered the heart of Turtle Island and as such, the heart of North America. The word "Mackinac" is, in fact, derived from the original name of the Great Turtle from the Ojibwe story of creation.

On July 14, Bay Mills petitioned the Army Corps of Engineers, urging the Corps to deny Enbridge authorization to construct the tunnel. Bay Mills was joined by many other Great Lakes Tribes opposing the project. In its comments, Bay Mills discusses the significant risks posed to its community in the ongoing operation of the damaged legs of Line 5 and highlights the company's pattern of failing to provide safety information requested by regulators. "Enbridge's rushed, chaotic and incomplete submission of its permit materials and the ongoing safety problems with its Line 5 operation do not instill a confidence in [its] ability to proceed with the project in a way that protects the precious Great Lakes resource."

GLIFWC Biological Service Division and Division of Intergovernmental Affairs will continue to monitor permitting processes related to Line 5 and GLIFWC will provide ongoing technical assistance to its member Tribes where their treaty rights may be implicated.

Tribal Colleges & Universities

(continued from page 18)

COVID-19, the LCOOC Extension program has offered free Zoom classes in a variety of topics to anyone who is interested in learning. These classes have ranged from birch bark basket making to cooking to creating little people villages.

For more information about Lac Courte Oreilles Ojibwe College, visit lco.edu.

Providing student success

In a somewhat jarring statistic from the American Indian College Fund, it is reported that 86% of TCU students complete their chosen program of study, while fewer than 10% of American Indian/Alaska Native students who go directly from reservation high schools to mainstream colleges and universities finish their Bachelor's degree.

Tribal Colleges and Universities provide the unique support that American Indian students need, and if they don't already offer a Bachelor's degree program, they often have transfer and articulation agreements with local 4-year institutions so that students can start close to home and finish strong with the knowledge and cultural confidence that bring great value to tribal nations.

The NMAI Essential Understandings serve as a foundation for all materials developed by NMAI and can be used by educators, curriculum developers, administrators, and others to conceptualize new curricula, lessons, and learning activities. They serve as an educational framework of key concepts based on the ten themes of the National Council for the Social Studies standards. The framework can be found here: <https://americanindian.si.edu/nk360/pdf/NMAI-Essential-Understandings.pdf>

Lessons of our Land

<https://www.lessonsofourland.org>

Lessons of Our Land is an inter-disciplinary curriculum that aligns with state academic standards, and is adaptable to include the history and culture of a region's Native nations. It offers more than 200 searchable lessons that are ready to use in the classroom. It enables PK-12 teachers to easily incorporate Native American stories, lessons, and even games into regular classroom instruction. View five sample lessons for free, then create a free account to access the others. The lessons I viewed included the topics of Mother Earth, distinct worldview, wild rice, and tribal resource departments. This free curriculum was developed by the Indian Land Tenure Foundation, a national, community-based non-profit organization focused on American Indian land recovery and management.

Wisconsin First Nations

<https://wisconsinfirstnations.org>

Wisconsin First Nations provides educators and pre-service teachers accurate and authentic educational resources for teaching about the Native Nations of Wisconsin. Featuring a collection of educational videos, teacher professional development resources, lesson plans for all grades, and learning tools for the classroom and library, it's a one-stop shop for locating dependable content on WI Native Nations. You can narrow your resource search by treaty land, grade level, and resource type, and the website even includes a list of exemplars—educators who are known for their success in teaching and supporting American Indian Studies, and who share their stories and curriculum to help others.

Great Lakes Indian Fish & Wildlife Commission

www.glifwc.org/publications/

At GLIFWC, we create and publish a wide range of materials that can be used for educating about Ojibwe culture and lifeways. Many of our publications are now available for download as PDFs right on our website. Formal 6-12 educators should make sure to visit the link above to check out the Ogichidaa Storytellers video series, and then download the accompanying education materials available here: www.glifwc.org/publications/pdf/whs_glifw_classroom_resource_revised.pdf.



Custom processing equipment

(continued from page 1)

well as including a rice processing instructional manual. GLIFWC will provide continued support and technical assistance to tribal harvesters/producers to assist current and future tribal wild rice harvesters with processing equipment.

Wild rice is harvested during August and September and has long been an important commodity to GLIFWC member tribes who live in the areas where it grows abundantly. Making kitchen-ready wild rice is a long process and involves a large amount of manual labor.

Harvesting consists of knocking the rice into a canoe, then air-drying, and parching the rice over heat to loosen the outer husks. The next step, which replaces a process called jiggling, utilizes the new threshers, further separating the husks from the grain.

Traditional wild rice jiggling consists of placing the rice in a shallow pit that has been lined with skin or tub. The "jigger" wears special moccasins with cuffs wrapped around their ankles to prevent the rice from getting inside. Stepping into the pit and dancing on the rice further loosens the rice from the husk. The final step is to separate the rice grains completely from their husks. This is usually done with birch bark winnowing trays and flipping them into the air. The husk blew away and the heavy grains sank to the bottom of the tray.

The annual wild rice harvest has evolved over the years with mechanization that helps the process go that much smoother. Our wild rice threshers have been modernized and have replaced the difficult laborious tasks of parching and hulling.

Beginning in August 2020, we will be delivering a wild rice package to each of our communities that consists of two wild rice threshers, two cazo pans, storage bags, labels, and a heat sealer along with a manual.

The programs or individuals chosen to receive the wild rice package will be determined by the Chairman of each individual community. This will provide the necessary equipment to the communities to process the wild rice obtained. By providing this equipment within tribal communities, GLIFWC will continue to provide services to tribal wild rice harvesters/producers.

Please do not hesitate to contact Wabanungoquay Alakayak, Keepseagle Project Coordinator at 715-663-0160, with any questions or concerns.



Giiwosewin season is here

Each year around the same time that school starts, hunting season starts too. Fall giiwosewin (hunting) season is about four months long. Some people like to go out and hunt right away. Other times people wait until after leaves fall from the trees to see through the forest better.

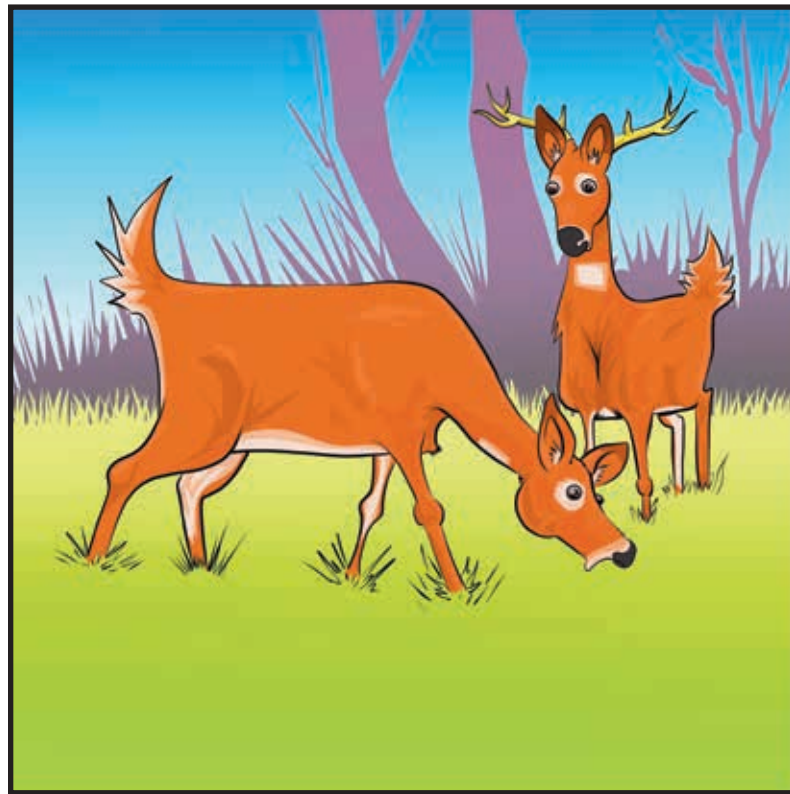
To get ready to hunt, it is important to practice with a gun or bow, and to spend time in the woods to learn where to find animals. A parent, a grandparent, or maybe an uncle can help you. The wolf, or ma'iingan, also helps people be successful hunters.

A long time ago when the earth was new, ma'iingan showed Anishinaabe how to hunt and live a good life. Since that time, wolves and native people have been relatives, like brothers.

Ma'iingan teaches people to be patient hunters and to move through the forest quietly. We also learn to be very observant, to look for the tracks of deer and other animals, and hunt along trails where animals like to walk. Giiwosewin season is a special time of the year.

For more, follow along while listening to a short hunting story shared by Niibaagaabaaw (David Aubid) and read by Language/Outreach Specialist Misty Peterson here: https://glifwc-inwe.com/2Wolf_Flip/story.html*

—CO Rasmussen



“Ma'iingan teaches us to be good hunters and to be patient.”



Color the picture of ma'iingan teaching man to be good and patient hunters.

Search-A-Word

D	E	E	R	H
P	F	R	M	B
E	O	E	A	R
R	R	L	'	O
D	E	A	I	T
H	S	T	I	H
H	T	I	N	E
U	K	V	G	R
N	S	E	A	S
T	V	S	N	W

BROTHERS	DEER	FOREST
HUNT	MA'IINGAN	RELATIVES

Illustrations by Wesley Ballinger/Niiyogiizhig (Mille Lacs Band Member)

*Made possible through grant funding from the Administration for Native Americans (ANA), GLIFWC is publishing a series of storybooks for tribal Head Start, Early Head Start, and other early childhood programs. The theme of the first Maajii-Ojibwemowag (They Begin to Speak Ojibwe) book set focuses on the four-legged including waabooz, makwa, and ma'iingan.



Ojibwemotaadiwag Anishinaabewakiing. They speak Ojibwe to each other in Indian Country.

Howah! Agwajing, gii-kichi-giizhaate. Gii-kiizhaateg, ingii-izhaa zaaga'iganing. Anwaatin noongom. Endaso-gigizheb, niwii-pimose. Nibabaamose. Maagizhaa, niwii-waabamaag bineshiinyag, zhishiibag, nikag, binewag, gaagaawiwag, ingiw wiinaangeg, gekekweg, migiziwag. Asiginaakweg, gijigijigaaneshiinyag, baapaaseg bakadewag. Niwii-waabamaag awesiinyag giyosewaad, ganabaj ingiw waagoshag gemaa ma'inganag. Akawe megwayaak niwaabamaa giyosewinini. Mii dash gitigaaning, ganawaabamag a'aw gitigewinini. Mii'iw."

("Wow! Outside, it was very hot weather. When it was hot, I went to the lake. It is calm weather now. Every morning, I want to walk. I take a stroll. Maybe, I'll see birds, ducks, Canada geese, grouses, ravens, those turkey vultures, hawks, eagles. Blackbirds, chickadees, woodpeckers are hungry. I want to see wild animals as they hunt, maybe those foxes or wolves. First in the woods I see a hunter. And then in the field, I watch that farmer. That's all.")

<p>Bezbig—1</p> <p>Double vowel system of writing Ojibwemowin. —Long vowels: AA, E, II, OO <u>W</u>aabooz—as in father Mii<u>g</u>w<u>e</u>ch—as in <u>j</u>ay A<u>an</u>i<u>i</u>n—as in <u>s</u>een Moo<u>o</u>z—as in moon</p> <p>—Short Vowels: A, I, O D<u>a</u>sh—as in <u>a</u>bout I<u>n</u>g<u>i</u>w—as in <u>t</u>in Ni<u>i</u>zh<u>o</u>—as in <u>o</u>nly</p> <p>—A glottal stop is a voiceless nasal sound as in A'aw. —Respectfully enlist an elder for help in pronunciation and dialect differences.</p>	<p>OJIBWEMOWIN (Ojibwe Language)</p> <p>VTI Verbs: Transitive—, speaks of the Inanimate (non-living-singular & plural) Root verb—a command/ expands in patterns; switch verbs and nouns. (VTI class 1).</p> <p>Waabandan!—See it! Niwaabandaan mazina'igan.— I see a book. Niwaabandaanan iniw mazina'iganan.— I see those books. Gaapizan!—Parch/Roast it dry! Nigaapizaan manoomin.—I parch wild rice. Gigii-kaapizaan ina?—Did you parch it? (VTI class 2 commands ends: -oon -in -en) Ozhitoon!—Build it! Zaagitooon!—Love it! Gigii-oozhitoon i'iw jiimaan?—Did you build that canoe? Nizaagitooon.—I love it. Gaye ozaagitooonaaawaa.—They love it too.</p>	<p>Niizh—2 <i>Circle the 10 underlined Ojibwe words in the letter maze. (Translations below)</i></p> <p>A. Gichi-<u>ziibi</u> gemaa misi-ziibi. Eya'! Aabijijiwan. <u>Bimijiwan</u>. B. Gichi-zaaga'iganing, <u>waabanong</u>, gakaamikijiwan <u>imaa</u>. C. <u>Gii-awan</u> Niigaani-gichigamiing gii-waabandamaan. D. Gich-aazhoogami-gichigamiing, <u>giuwedinong</u>, giishkadinaa. E. Gaa-bapkiteyaashkaamagak Gichigami <u>michaa</u>. Maamakaadendaagwad. F. <u>Michigami</u> ingii-waabandaan. G. Ingii-waabamaag mazhoominag. H. Nizaagitooon <u>iniw</u> zaaga'iganan.</p> <p>M E W B M I N G O I Z C A I P C M I H G E N H B I G A I Y W I A O J E A I M I G W C A I M W A Z W A O A G O W A C W K Y M M A M H I A A O A A J I O O W A Z B N C N W A A B A N O N G I J G I I W E D I N O N G</p>
<p>Niswi—3</p> <p>IKIDOWIN ODAMINOWIN (word play)</p> <p>Down: 1. It is calm weather. 2. In the garden/field</p> <p>Across: 3. ravens 4. grouses 5. those (animate) 6. first 7. that (animate) 8. Canada geese 9. That is all.</p>	<p>Niiwin—4</p> <p>Gikinoo'amaadiwigamigong. At the/to the/in the school.</p> <p>Agindan!—Read/Count it! <i>Indagindaan mazina'igan. I read a book/paper. Odagindaan...—S/he reads it...</i> Ozhibii'an!—Write it! <i>Indoozhibii'aaan mazina'igan.— I write a paper. Odoozhibii'aaan...—S/he writes it...</i> Nandagikendan!—Seek to know it! Nisidotan!—Understand it! <i>Ninisidotaan Ojibwemowin.—I understand Ojibwe language.</i> Aabajitoon!—Use it! <i>Odaabajitoonaaawaa Ojibwemowin.—They use Ojibwe language.</i> DAZHIKAN!—Work on it! <i>Indazhikaan Ojibwe.—I work on Ojibwe language.</i> Niwii-dazhiikaamin.— We will work on it! Miigwech!</p> <p>1. _____ agind _____ ina iniw Ojibwewi-ikidowinan? 2. Noongom nishiime dash niin _____ dazhiikaa _____ Ojibwemowin. 3. Gikinoo'amaadiwigamigong _____ nandagikendaa _____. 4. _____ nishidotaa _____ Ojibwemowin bangi. Ninzaagitooon. 5. Nisayenh ogikendaan Ojibwemowin. _____ agind _____ Ojibwemo.</p>	<p>Od— –aan Ni— –min Ni— –aan giwii— –min Gid— –an</p>



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

Translations:
Niizh—2 A. Great river or spread out river. Yes! It flows continuously. It flows along. B. At Lake Ontario, in the east, there is a waterfall there. C. It was foggy at Lake Erie when I went to see it. D. On Lake Huron, to the north, there are rock cliffs. E. Lake Superior is big. It is amazing. F. Lake Michigan, I saw it. G. I saw grapes. H. I love those lakes. (*Lake names from book, Aaniin Ekidong: Ojibwe Vocabulary Project.*)
Niswi—3 **Down:** 1. Anwaatin 2. Gitigaaning **Across:** 3. Gaagaawiwag 4. Binewag 5. Ingiw 6. Nitam 7. A'aw 8. Nikag 9. Mii'iw
Niiwin-4 1. Are you reading those Ojibwe words? (Gid- -an) 2. Today my younger sibling, you and I (we all) will work on the Ojibwe language. (giwii- -min) 3. At school, we (not you) seek to know it. (Ni- -min) 4. I understand Ojibwe a little. I like it. (Ni- -aan) 5. My older brother knows Ojibwe. He reads it. He speaks Ojibwe. (Od- -aan)
 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 lynn@glifwc.org.
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Walking on: Sharon Metz passes the torch

By Sue Erickson, For Mazina'igan

There were marches; there were speeches; there were educational booths to be set-up and taken down; there were coalitions to be formed. There was a lot of leg work needed to promote social justice and tolerance when Ojibwe treaty rights issues hit the northwoods in the 1980s. Sharon Metz signed up early to support Ojibwe people and joined the effort to educate an often angry and ignorant public.

Sharon Metz's legacy is that of a warrior. One who never gave up the fight. Hers was the fight for social justice. Thoughtful, but also a person of action, Sharon played a significant role in helping state residents overcome the fear and uncertainty that surrounded the emergence of Ojibwe off-reservation harvest rights following a 1983 federal court decision.

Having served in the Wisconsin State Assembly, and also having worked closely with the churches in the past, she had widespread ties and the political savvy to help generate a coalition of non-Indians as advocates for tribes during a time of social and political turmoil in the upper Midwest. She was successful in the formation of the advocacy organization Honor Our Neighbors Origins & Rights. HONOR Inc. grew to include a broad spectrum of native issues, including but not limited to land returns, mascots, religious freedom, protection of burial sites, and public education on native history. Through work at local, state, and national levels, all these issues were covered extensively in the HONOR Digest.

Along with husband Tom Metz, Sharon kept the battle for better public education going into her retirement years. Tom's HONOR Resources offered a substantial library of native publications available especially to educators who were searching for information on a spectrum of tribal topics.

I was privileged to work with Sharon over those years. A true leader and friend has walked on! I wish her well in that journey. But I think, as usual, she tells her own story the best.

In the following presentation at GLIFWC's Minwaajimo Conference in 2009 she presents a clear historical synopsis surrounding the treaty struggles in the 1980s and early 90s, and also issues a challenge for others to take up the torch.

(Editor's note: Sue Erickson is the former editor of Mazina'igan.)

Just Keep on Walking

Good morning. It's good to be back here. Some of you are wondering what a nice white girl is doing here and I want to tell you a story. I really did some genealogy as I started working with the tribes. I looked to see if I didn't have an Indian relative in my family background. I looked and looked and all I found were Germans, so what you see is what you got.

But we have something in common and that is German people like to tell stories too. I'm going to prevail on you to listen to my story because there are so many young people here today, and what I see happening are seeds being planted. Seeds being planted in the hearts and minds of young people that may not blossom and may not flourish and may not grow for a while, but they're being planted.

I had a seed planted in me that I think prompted me to take this path. When my great-grandfather bought the place that we now live on, in the 1880s, there were some burial sites there. The neighbors said, "Oh, you know, dig them up, you'll never know what you'll find. You might find jewelry, you might find arrowheads and just go ahead, that's what we've done." And my great-grandfather was not an educated man, but he thought it wasn't right. So he decided that he would never plow or plant or build on these burial sites, but would preserve them. So they're fenced off. It was always there for when my grandpa grew up and my dad grew up and we could see them. You could go back in the pasture and see them.

Well, then in 1939, I was five years old and a big car came up our driveway. My dad looked at this big shiny car. My dad's a typical German farmer. He walked out to see what this person wanted and I tagged along. A man got out of the car and he had a nice suit on and a great big briefcase and he said, "Well, Mr. Weisner, I represent the University and the museum and the historical people,



Local law enforcement officers would sometimes side with anti-Indian protestors in the late 1980s, Metz recalled. The State of Wisconsin responded by sending in troopers to boatlanding protests to provide adequate protection for Ojibwe spearfishers, their families, and GLIFWC monitoring staff. (GLIFWC photo)



Sharon Metz talks with a Minnesota legislator at a GLIFWC informational meeting for elected officials in St Paul in 1993. (S. Erickson photo)

and we know there's some burial sites here on the farm. What we'd like to do is dig them up and put the relics in their proper place in the museum. We would level everything again and plant grass, or whatever you want planted, so you'd never know that we've been here."

And my dad is puffing on his pipe looking at this man, and I didn't know what was going on but I thought, "Don't let him do it." And my dad didn't say anything. Well, the guy thought he was holding out for money. So he said, "Well, you know we could put together a nice stipend for you for your inconvenience and we could pay you." And my dad puffed on his pipe and he looked at the man and he said, "You know, I don't think we're going to do that." He said, "I think we're going to let these people rest. We've done enough to them already." That was the seed that was planted in me and it didn't blossom for a while but it did blossom after a while.

Wisconsin changed forever in the '80s. It had survived the Peshtigo fire. It had survived a depression and World War II. I had thought that racial hostility was resolved because it had just resolved some of the racial issues by court case in Milwaukee. And then the treaties that were signed long ago didn't have the grace to disappear. They not only didn't disappear, but the tribal people read them and began to exercise what the treaties said was the thing to do. And when they read them, they knew it wasn't right.

And it started slowly at first with a few tribal people taking fish by spearing and starting to exercise the treaties, and the outrage was like a cork popped out of the bottle. All this hostility that had been underground and not apparent just popped out. It was outrage. Now, I come from a political background and of course I'm involved in campaigns yet, but I think, it's my opinion that Barack Obama got his slogan "Yes, We Can" from the tribal spearers. It was just apparent in what they were doing and how they handled themselves.

And, like the ripples on the lake, the effects of the spearing affected many politically and economically. We've talked a lot today and yesterday and the day before about the natural resources and that's as it should be, but other institutions and entities were affected, too. The state, local, federal and tribal governments were all affected. The education system was affected. Believe it or not, religious organizations were affected. Citizen organizations sprung up in support of the tribal spearers and opposing tribal spearers. Media, definitely media was affected. Law enforcement agencies were affected.

The state, local and tribal governments scrambled. They scrambled to adjust to the new situation. The local governments tried to pass resolutions and initially tried to do something about it or thought they could and discovered we can't do anything about it, this is a federal matter. And in a way to some of the local governments, it was a relief to say, "It wasn't our fault. It's the federal government's fault."

The state government, on the other hand, was responsible for the safety of the people and the natural resources and the general peace in the community. Now some elected representatives and senators from the state deserve mentioning here. I don't remember how many of you remember Frank Boyle. He represented this area as a state representative. Raise your hands if you remember Frank Boyle. Well, I served with Frank Boyle and the late Pat Smith from Rice Lake, and they were fearless in the state capitol in trying to introduce legislation and to bring the state into the positive side of making peace. I watched Frank Boyle walk down the halls of the state capitol and he'd walk by other offices and other legislators, not their staff, not people who were cleaning the halls, but other legislators would go "woo-woo-woo-woo" when Frank Boyle walked by. He took it on the chin there, and some of you may not know that, but he was one of the people that really made a difference.

The eleven federally recognized tribal governments were scrambling. They were trying to figure out what to do. They had people in their own communities that were active in spearing or not active. Some of the tribal governments at first weren't supportive, but they knew they had to do something. And the white ignorance about tribes just became very apparent. Now, of the eleven tribes in Wisconsin, we know there are six Chippewa tribes. Well, I had an Oneida friend, who obviously, was an American Indian. You could tell when he walked in the room, and he said, "I'm looking for hats that say 'I am not Chippewa'" because to white people all Indians were alike."

Recognizing education, protection of the natural resources, and the federal state partnership was key. The federal government held the cards. They held the cards because of the treaties. One of the watershed moments came when Senator Daniel Inouye brought his committee to northern Wisconsin. He brought resources, money for a fish study and grants that would help in saying, "It isn't about fish, it's about treaties." He also, brought with him the stature that the federal legal system had spoken. It was federal law, make no mistake about it. You couldn't argue with Daniel Inouye.

The Indian children in the school districts in Wisconsin felt the impact. Some of you were probably in the grade schools and have your own stories to tell. Some Indian children stayed home from school because it was just too much. And one of the effects is there are more Indian tribal schools. We also have Act 31, the act that requires that teachers take a course in Indian education and that it is taught three times during the school life of the child all through Wisconsin. Sometimes it's not implemented very well. Sometimes the teachers aren't all that interested. There's work to be done. The fact is the law is there and the frame work is there.

The religious institutions were affected, too. Churches and synagogues and religious organizations struggled with the whole situation. You know, the premise of love your neighbor is one (see Just Keep Walking, page 23)

GLIFWC welcomes interagency interns

By Paula Maday, Staff Writer and
Kayla Plucinski, GLIFWC PIO Intern

Wisconsin Sea Grant Intern

The Public Information Office (PIO) at GLIFWC recently began a partnership with Wisconsin Sea Grant (WSG) aimed at integrating indigenous science and perspectives into freshwater education programs.

GLIFWC PIO and WSG began this partnership this summer by working with Brenna DeNamur. She will be creating a story map highlighting tribal conservation and protection efforts related to water.

This education tool will be a valuable, visual way for the public to see and understand all the different ways our tribes take care of our relative, *nibi*.

DeNamur will be reaching out to tribal natural resources staff and traditional and cultural knowledge holders to gather information for the story-map over the course of the summer. She will give a sneak peek of the map during the August VITF meeting.

DeNamur grew up in northern Wisconsin on Post Lake in Elcho, Wisconsin, a small town between Rhinelander and Antigo. Being inspired by a nature-loving elementary teacher, she decided that she wanted to be a wildlife biologist at the age of ten. DeNamur is a senior at the University of Wisconsin–Madison studying under the Wildlife Ecology and Life Sciences Communication Departments.

She has worked with several graduate students on their wildlife research, studied wildlife conservation with Mexican professors in a Jalisco biosphere, interned with Marge Gibson at the Raptor Education Group in Antigo, and worked as a communications assistant for the College of Agriculture and Life Sciences at UW-Madison. DeNamur has a deep passion for conservation and hopes to go into journalism and filmmaking for wildlife conservation after graduation.



University of Wisconsin–Madison Nelson Institute Intern

GLIFWC was also fortunate enough to be working with Choua Xiong, a graduate student intern with the UW–Madison Nelson Institute for Environmental Studies. Working through UW-Extension and GLIFWC, this gifted visual storyteller is assisting on a few different projects this summer.

Xiong is creating a visual manoomin story to go along with the Gikinoo'wizhiwe Onji Waaban (G-WOW) Changing Climate, Changing Culture website; creating a visual depiction of how climate change is affecting tribes and how our Wisconsin, Minnesota, and Michigan GLIFWC member tribes are leading the response using Traditional Ecological Knowledge (TEK) and Scientific Ecological Knowledge (SEK); and also using visual storytelling to translate the GLIFWC Climate Vulnerability Index into information that middle school audiences can understand and use.

Xiong, who is from Oshkosh, Wisconsin, is now completing her master's in Environment Conservation after she finished her undergrad with a B.S. in Zoology and a certificate in Environmental Studies. She has not previously held another internship, so this partnership with UW-Extension's Environmental Outreach Program was an intimidating but exciting opportunity for her.

Xiong was inspired to be in this field of work from a young age. Her parents would take her to their plot of rented land that they used to cultivate their own traditional foods. This is where she first became interested in wildlife and plants and immersing herself in nature. Xiong hopes to enter the field of wildlife and/or environmental conservation.

With a passion for nature, she would love any work that involves conservation planning for a variety of species. Xiong would also like to pursue work in community-based conservation with underserved communities.



Just Keep on Walking

(continued from page 22)

thing, but spearing on our lakes, that's something else. And they struggled. We got reports that the church council president or some of the big givers in the churches and synagogues had been seen at the boat landings protesting the night before. The effect in the pews was pretty significant because some of the clergy were afraid to speak out and some of them were not.

I don't know if you remember Bishop William Wantland, himself an Indian person. He was an Episcopal bishop and was on the side of the treaty rights and he was very articulate. He did a couple videos that were widely circulated. And he brought the National Council of Churches' Racial Justice Working Group to northern Wisconsin for a fact-finding mission. That got a lot of publicity in church circles but not so much in northern Wisconsin. It had a big effect on the churches.

And today many of the churches have Indian ministries. Many of them have taken their examples from the Friends Committee on National Legislation which has always been a stalwart resource for Indian people. And even the fact that Indian people have their own spiritual practices and beliefs is now on the radar screen with many religious organizations. They don't fully understand it, but they're trying. So it did have an effect. The spearing did affect the churches too, as an institution.

And the media outlook was quite a heyday. You couldn't even script anything like that. The graphic picture of Indian people at night in boats with these lights and a thousand people on the shore and the shouting and the drumming, was just a media person's dream. You couldn't script something like this. We had media from not only all over Wisconsin but national media too. It dominated the 10:00 news for weeks and weeks, and after that, it was always a story line on the 10:00 news, radio programs and radio talk shows. The media had a heyday with this, and there was a slow evolution because media people, like everybody else, really didn't understand that it wasn't about fish. It was about treaty rights. And slowly they began to catch on too.

The newspapers editorialized. They felt compelled to take a stand. The stands that the newspaper took were ranged from "Yes, these are legal treaty rights and we all ought to recognize them" and "No, the Indians ought to not exercise them." One stand was "We'll recognize them if the Indians would only have the good sense not to exercise the treaty rights." Some stands were "This is ridiculous, we ought to abdicate the treaties and get rid of them so we can save the fish in northern Wisconsin." And just a few courageous newspaper editorials urged "Wisconsin to get with it. These are legal rights and let's settle down and recognize these legal rights." So the newspaper industry and the media, they were all over the map, too.

Law enforcement agencies were another story. Some of the local law enforcement agencies really sided with the protestors, so any protection and law enforcement was half-hearted at best. The state had to step in. It was their responsibility to the citizens of the state, and so the state had to keep sending north more and more officers.

As the protesting grew and the crowds grew they had to have more law enforcement. The figure that sticks in my mind, it's just imprinted on my brain, is that the state spent eight million dollars just on law enforcement; not on education, not on anything else. They spent eight million dollars on law enforcement alone. Now, eight million dollars sounds like chump change when we're talking about billions and trillions, but to a state the size of Wisconsin, eight million dollars was a lot of money, just on law enforcement.

The economic effect on the school districts was they didn't have much Indian material. Their teachers hadn't been trained. They didn't know where to get materials. Not much existed at the time, so they were being forced to make expenditures that were not budgeted for, and this caused turmoil in the school boards. Act 31 was sort of half-heartedly received but there was an economic impact.

The federal government even had an economic impact because it had to deal with court cases. It had to deal with the grants and the money and programs that Senator Inouye had forwarded. Senator Inouye was just a stalwart in trying to get money to the tribes and money for the natural resource studies.

The fishing-based tourism industry suffered some, in terms of people didn't come up to fish because of the controversy. That was offset because the hotels and motels were full. They were full of media people. They were full of curiosity seekers. The sporting goods stores were out of wrist rockets. And most of you know what a wrist rocket is. It's like a slingshot you strap on your wrist and many of the people were shooting ball bearings from them, trying to hit the Indian spears.

The restaurants and the liquor stores and the gas stations all benefited from the protestors and the curiosity seekers that came up. The little temporary blip in the drop in tourism was more than offset by other people that came up here.

The tribal budgets were affected. The tribes were struggling to cope with the whole situation. Tribal budgets never had enough to go around to start with. They had to cope with transportation, law enforcement, publications, meeting places and personnel. They were being asked to come up with support and those budgets were strapped.

Well, where are we today? Overall, I think we're better than we had been. The cork, maybe, is back in the bottle. We have to be sure that the cork doesn't come off again and explode into another situation. I don't think it's going to happen because I see young people here today to carry on. You know, you have to remember that if you don't know your history, you're destined to repeat the mistakes. So it's very important what we're doing here today and listening to the stories. You know, the whole fear that there wouldn't be enough fish, that really never took place.

There were some turning points. One of the turning points was when the Chamber of Commerce people from northern Wisconsin had a major press conference that this has got to stop. And on the same weekend, the Wisconsin Council of Churches led by Reverend John Fisher representing the Wisconsin Council of Churches had a major press conference supporting the rights of Indian people to exercise their treaty rights. These two simultaneous press conferences did capture the media attention and people were starting to rethink this.

One of the organizations that sprung up as a result of the treaty rights was Protect American Rights and Resources out of Park Falls led by Larry Peterson. They promoted people going to the landings and put out a newsletter and a lot of misinformation. And previously on this panel, we talked about Dean Crist of Stop Treaty Abuse and his activities in literally trying to abdicate the treaties and bring the tribes to their knees.

A couple pro-treaty organizations sprung up. I was pleased to be part of organizing a group called HONOR, Honor Our Neighbors Origins and Rights. The person who doesn't get that much credit, who helped me brainstorm that and bring it to fruition, is Sue Erickson. She was the quiet person behind the scenes sort of holding my coat. She needs to be recognized, too. Another group was the Midwest Treaty Support Organization that organized counter demonstrations and provided a presence of non-Indian people at the landings.

There were lots of ripple and spin-off effects and today we are better off. I think, we're moving ahead and while the Indian education courses need some work, some attention and better participation, the frame work is there. And politically, the tribal governments have gained in credibility. They've gained in expertise. They've gained in participation and the tribal governments have made quantum leaps in terms of their participation on the scene as equals. Sometimes they have a better sense than the local, state and federal governments.

I think, there are two continuing factors that we have to deal with. One is the perception by all non-Indian people is that Indians are all rich because of Indian gaming. That perception is just really hard to counter. It sort of goes along with all Indians are alike and there are some successful casinos and so all Indians must be rich. That's something that has a ripple effect on the economy because it means that there's less support. There's less federal and state support for Indian communities and the needs of Indian communities because they think Indians don't need it. That's an underlying, unspoken kind of premise.

And the other is, and it's always been frustrating to me, that people don't recognize that every band and tribe is unique. You know, it just boggles my mind how someone can compare the Hopis and the Anishinaabe people. It's just every tribe is unique and that concept still hasn't penetrated the psyche of most non-Indian people.

Where are we today? How did we get this far and what made it happen? Why are we here today in relative peace? Jim Zorn asked me to comment on that and my response is: Duh. Of course, everyone was hurting because of the controversy. There were upsets to it and people began to realize it. And so it's better to have peace and harmony and work together, but it took a while to realize that.

And then I think about the civil rights member who responded to the question: "What are you doing next, where are you going to go now, what are you going to do?" And the response was: Just keep on walking, just keep on walking. Yes, we can.

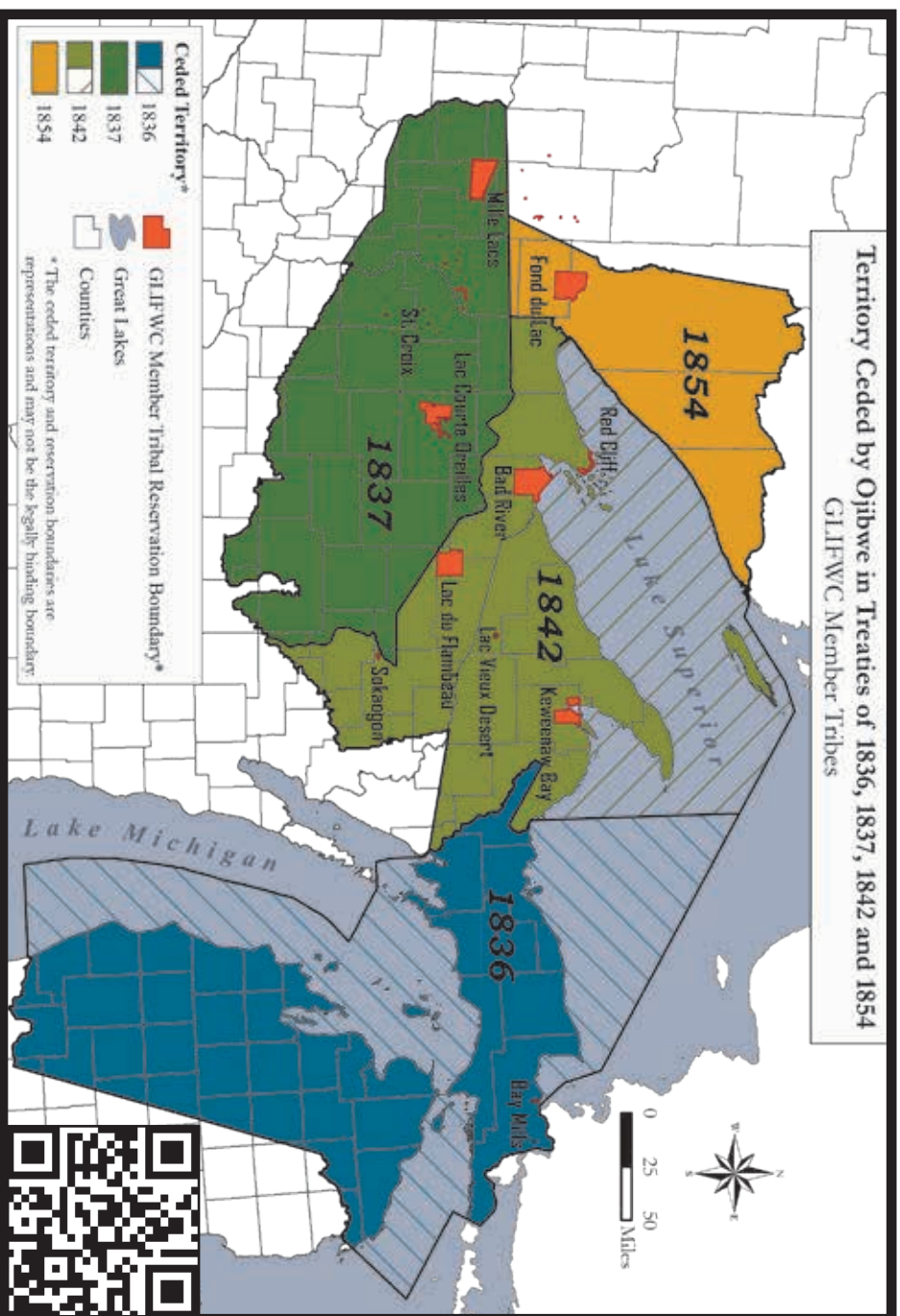


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Healing Circle Run goes virtual in 2020

With COVID-19 still spreading across the nation and social distancing protocols still in place, the Healing Circle Run went virtual in 2020.

In place of the route linking 10 Ojibwe bands across 793 miles, people from all across the country pledged to walk/run miles close to home.

Participants checked in with mile counts and connected with other runners via the Facebook Healing Circle Run event page, many expressing gratitude for being able to continue this tradition during such uncertain times. Indeed, the



Healing Circle Run's original intent to foster solidarity, unity, peace, and healing seems relevant now more than ever, as our nation and our world face a myriad of challenges, from a global pandemic to climate change and racial relations.

Watch for a full report on the Healing Circle Run in the next issue of Mazina'igan.

—P. Maday

Madison Bear, (l) Kianna Bear, and Sashen Goslin, checked in with miles for this year's Healing Circle Run from the Kansas State Capitol. (S. Goslin photo)

Mazina'igan

A Chronicle of the Lake Superior Ojibwe



DAGWAAAGIN 2020

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