

Mazina'igan

A Chronicle of the Lake Superior Ojibwe

Published by the Great Lakes Indian Fish & Wildlife Commission

Winter 2020/2021

Ma'iingan ESA delisting sets up future hunting seasons

GLIFWC member tribes disappointed with recent decision

By Bizikiins Jennings Staff Writer

As the country struggles through political and civil unrest, challenging all citizens to be a little more tolerant of one another, a silent and ancient relative, ma'iingan, stands at the tree line, watching everything unfold. Amid so much uncertainty, one thing has been made clear: people who desire to sport hunt and trap ma'iingan will get their way.

On October 29, 2020 Department of Interior Secretary David L. Bernhardt announced that "state and tribal wildlife agency professionals will resume responsibility for sustainable management and protection of delisted gray wolves in states with gray wolf populations." The statement said that the decision to delist ma'iingan from the Endangered Species Act list was based "solely on the best scientific and commercial data available."

Many conservation organizations and intertribal resource agencies have denounced the recent decision. Great Lakes Indian Fish & Wildlife Commission (GLIFWC) and its member tribes have been staunch advocates for ma'iingan (wolf) protection for decades. The recent decision to delist ma'iingan comes as a disappointment to many GLIFWC member tribes because it will inevitably result in a harvest season for wolves in the surrounding region.

GLIFWC Executive Administrator Michael J. Isham, Jr. condemned the recent decision: "GLIFWC member tribes



have made it clear to Federal and State agencies that they are opposed to delisting ma'iingan and have advocated for high levels of protection of our relative. Furthermore, we remind the Department of the Interior that the trust responsibility to the tribes in the realm of ma'iingan stewardship does not cease with delisting, but rather increases the need for their active involvement in protecting tribal interests." (see **Ma'iingan**, page 5)

Community well-being, good eats drive Red Cliff Fish Company

By Charlie Otto Rasmussen, Editor

Red Cliff, Wis.—Ushering in a new era for Gichigami fishermen in the storied Apostle Islands region, Red Cliff Fish Company opened its doors November 4 to receive its



With fishing season closed for lake whitefish and lake trout during the autumn spawn, Red Cliff Fish Company is primarily accepting lake herring—destined for both local markets and in the Chicago area—through November. (CO Rasmussen photo)

first delivery—41 ice-filled boxes of silver-sided lake herring from Bad River Ojibwe fisherman, Jeremy Milligan.

"These are some really nice fish," said Justin Maki, sliding a box of herring onto a commercial scale. "A few hours ago they were swimming right out there."

Perched on a low ridge above Lake Superior, Red Cliff Fish Company's newly constructed processing facility and retail shop overlooks Buffalo Bay and the heavily forested Basswood Island. A short, paved road connects the building to a renovated dock where fishing tugs moor to unload their daily catch. Maki and Gabrielle VanBergen are part of a small crew dedicated to launching the tribal business that values fair trade principles over profits.

"Historically, tribal fishermen have received a poor return on all the work that goes into fishing Lake Superior," said VanBergen, Deputy Administrator of the Treaty Natural Resources Division at Red Cliff. "The tribe is changing that. Fishermen will receive a good price for their fish. Their families, the community will benefit. And consumers are going to get the freshest, best tasting fish possible."

In addition to premium prices, tug operators have anytime access to complimentary ice right at the fish shop. With the swipe of a key fob, fishermen can get all the ice they need before launching, keeping their catch at an optimum temperature no matter what the weather conditions.

This time of year, lake herring, or cisco, are the primary species targeted by fishermen. As part of managing (see **Red Cliff Fish Company**, page 9)

Foods of Biboon

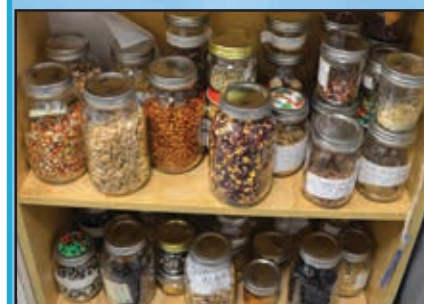
From the earliest times in the upper Great Lakes region through the treaty-making era, manoomin served as a primary overwinter foodstuff in many Woodland Indian lodges. In select locations, corn production also provided a great storage crop. Drawing from home gardens, using modern preservation techniques, native people now put up just about any traditional food in a variety of ways, sometimes with flourishes of introduced fruits and vegetables.



LCO Ojibwe College Extension and its network of community partners across the region are learning, teaching, and experimenting with foods continuously. A demonstration kitchen at the LCO Farm hosts monthly webinars.



Once dried, the best Bear Island Corn seeds are saved for planting, the rest are used in dishes. —COR



Learn more at:
facebook.com/lacourteoreillesextension
 715-634-4790 Ext 156



Anishinaabe insights



Makwa indoodem—I am Bear Clan

By Michael Waasegiizhig Price, GLIFWC TEK Specialist

One of the greatest spiritual journeys that I have undertaken in adulthood was to learn what it means to be Bear Clan. This was a journey that I began in adult life, not in childhood or adolescence, and it has been a powerful chapter in my existence on this earth. The journey wasn't always fruitful, and in some instances, it was painful and heartbreaking, but in the end, it was a necessary endeavor for me to become a well-grounded Anishinaabe person.

According to Basil Johnston, the late Anishinaabe scholar and elder from Cape Croker First Nation, there are five basic necessities for community structure: leadership, protection, sustenance, learning and medicine. These necessities are the foundational structure of Anishinaabe society and each are identified by a doodem, a symbolic animal representative whom exhibits those qualities.

Through the father's lineage, those people who are born in this clan are gifted with these duties and responsibilities. Clan membership creates a tight-knit connections between people of the same clan and they act cooperatively to fulfill their responsibilities to the greater community. Other clans are leadership (crane and loon clans), sustenance (moose, caribou, deer, pine marten clans), learning (sturgeon, whitefish and bullhead Clans), and medicine (turtle, frog, otter clans), keeping in mind that there may be different interpretations for the clans in different communities. The black bear exhibits the qualities of protection for the community and knowledge of the plants.

Protection for the community

Inspired by the words of the late Anishinaabe elder Art Solomon, a protector, or in his words, a warrior, is someone who dedicates his or her life to the health and well-being of their community or nation; a protector is the first one to go hungry and the last one to eat so that all others may partake in the feast; a protector is the first one to give up their shoes for others and the last one to accept new ones. The protector is willing to risk their own well-being for the well-being of others. This dedication is rooted not in anger or rage toward the enemy, but in pure love for their people. This is a spiritual mandate of the Bear Clan.

But, I want to define being a protector a little more in depth. Anarchy is not based upon love for community; anarchy is, by definition, defiance of authority, nothing more. When I watched the cars burning at Standing Rock in 2016 and when I saw the buildings burning in Minneapolis in 2020 during the protests for the murder of George Floyd, I did not see Bear Clan, I saw anarchy, I saw rage.

Anarchy did more harm than good to the cause of bringing awareness to Floyd's murder or the protection of water at Standing Rock, and it triggered everyone's



Bear Spirit by Anishinaabe artist Stanley Panamick, 2001.

fears of violence. Protection of the community sometimes requires a determined amount of defiance, but it must be based upon ethical and spiritual teachings and it must be guided by principles and discipline. Bears do not randomly destroy their habitat when threatened, but they vehemently guard and protect their young and their relatives in the face of that threat.

Knowledge of the plants

The ancient ancestors of the Anishinaabe people learned the usage of plants from the bear. They learned what roots were edible and what plants were medicinal by watching and studying the foraging behavior of bears. The foraging action of bears is very gentle, but powerful at the same time. Their long claws dig into the earth to find the roots of plants that they have already accurately identified.

The bear's livelihood is specifically balanced with the changing seasons. In the autumn, they know when to increase their foraging as winter approaches. Then, in late autumn, they prepare their dens for a long winters' sleep. In February, the pregnant mothers give birth to their cubs inside their dens. In some Anishinaabe communities, February is called Makoonsi-giizis—the Bear Cub Moon for that reason. In April, the cubs emerge from the dens with their mothers and see the sun for the first time. Some elders say that bear cubs have two births: first from their bear mother, the second from their earth mother. There are many spiritual teachings that come from the life of the bear.

My journey in learning my clan has led me to reclaiming my ancestral language for my family, learning about the intricate balance between the plants and all other living beings, and realizing how I personally fit into the larger picture of life. Learning my clan has fortified my responsibilities of protecting the plants and the animals, the landscapes and the waters, as well as Anishinaabe people. I wish everyone well on their spiritual journeys of personal growth in this turbulent world.

For centuries, Anishinaabe communities have been utilizing ojibik (roots) of local plant beings for healing purposes. Makwa has been observed digging up many types of roots including bear root, and utilizing it to cure specific ailments. Makwa not only has a strong presence in the clan system of Ojibwe traditional governance, but also plays a crucial role in the procurement of medicines. Bear root is believed to cure respiratory illness, migraines, and even some viral illnesses. The plant itself is commonly called "Osha" and often grows out West in higher elevations.

—B. Jennings

wisconsin association for environmental education

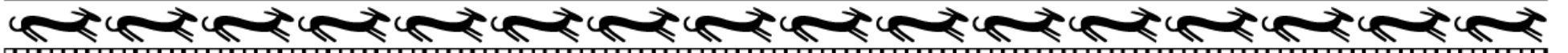
2020 Award Winner: Mazina'igan Staff

ECO-JUSTICE AWARD

Mazina'igan is a publication of the Great Lakes Indian Fish and Wildlife Commission that shares environmental news, phenology, and how-to information connecting readers to traditional and contemporary lifeways. For 37 years, Mazina'igan has been a vital resource for First Nations environmental education, underscoring treaty rights and good relationships with land.

Mazina'igan staff received the 2020 Eco-Justice Award in a virtual ceremony on November 6 from Wisconsin Association for Environmental Education. Educators report regularly turning to Mazina'igan for Ojibwemowin and cultural information, as well as to study fish & wildlife management through GLIFWC's blend of science and traditional ecological knowledge (TEK). The pages of Mazina'igan: A Chronicle of the Lake Superior Ojibwe regularly feature contributions from Commission biologists, language specialists, policy analysts, dietitians, GIS specialists, enforcement officers, and more. We share this recognition with them. Chi miigwech WAAEE!

—Mazina'igan staff



Ceded Territory news briefs

Early season deer and bear registrations up from 2019

Off-reservation harvest registrations for the early dagwaagin (fall) hunting season are up for Ojibwe waawaashkeshi (deer) hunters and makwa (bear) hunters in the 1842 and 1837 Ceded Territories over 2019 registration numbers. Relatively mild and favorable hunting weather throughout the latter half of September and into October helped drive the harvest. From the start of the season September 8 through October 26, Ojibwe off-reservation hunters registered 307 deer and 33 black bears. At the same time last year, tribal members had registered 182 deer and 28 black bears.

This is the fourth year tribal hunters have had the option of registering their deer remotely, via phone, and the second year that online registration has been available for hunters pursuing deer off-reservation within the Ceded Territories. Of the 307 deer that were registered as of October 26, just under half (135 deer) were registered using the phone registration system, and 111 deer were registered using the new online registration system. The remaining 61 deer were registered in person at tribal registration stations. The peak of the off-reservation tribal deer harvest typically falls over the second, third, and fourth weeks of November. —T. Bartnick

Bay Mills submits comments on Enbridge permit applications for Straits tunnel

Brimley, Mich.—Bay Mills Indian Community (BMIC) submitted formal comments to the Michigan Department of Environment on October 19 in opposition to Enbridge's permit applications for the Line 5 pipeline tunnel project at the Straits of Mackinac. BMIC expressed concerns over the lack of information Enbridge has provided to regulators to determine whether the tunnel project satisfies state legal requirements.

"We have said all along that this pipeline poses an existential threat to our rights under treaties we have signed with the United States," said Bryan Newland, BMIC tribal chairman. "This pipeline also poses a grave danger to the watersheds of three of the five Great Lakes. We are going to make sure that the state has a clear picture of these risks, and of their responsibility to protect our waters and our rights."

The limited information provided by Enbridge to date reveals significant threats to fisheries, wetlands, and threatened and endangered species, BMIC said. BMIC is urging the state to reject Enbridge's permit applications in accordance with the Clean Water Act and Michigan's Natural Resources and Environmental Protection Act.

Signatory to the 1836 Treaty with the United States, BMIC is inexorably linked to regional waters where subsistence and commercial harvesters rely on clean natural resources at the Straits and adjacent Great Lakes. Canadian corporation Enbridge has a checkered environmental record, including the 2010 Kalamazoo County pipeline spill that dumped more than one million gallons of tar sands oil into the environment. —CO Rasmussen

Researchers find COVID-19 virus in Lake Superior waters

Duluth, Minn.—Traces of SARS-CoV-2, the virus that causes COVID-19, were detected recently in Lake Superior waters at Duluth, Minnesota area beaches. Researchers from the University of Minnesota Medical School tested water samples at eight popular Duluth beaches since July. Samples taken between September 11 and October 4 showed detectable levels of the virus at various locations, including Brighton Beach, 42nd Avenue, Leif Erikson Park, Franklin Park, Lester River, Pine Forest Preserve, Lafayette Community Center, and Chester Creek. The source of the virus is unknown.

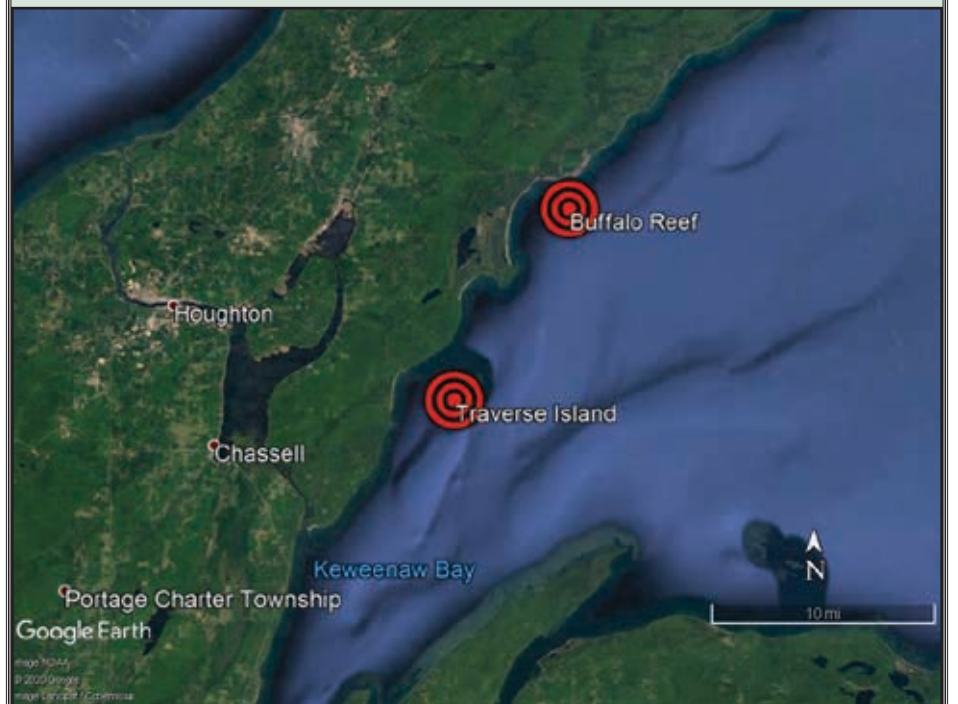
According to the U.S. Centers for Disease Control and Prevention, there is no known evidence that COVID-19 can spread to humans through the use of recreational waters. Richard Melvin, lead researcher and assistant professor at the University of Minnesota Medical School, said the virus detected in Lake Superior is very diluted, and people should not be afraid of the water. "The research team describes the detection level at 100 to 1,000 copies per liter, or 10,000 to 100,000 times lower than levels observed in wastewater," he said.

With many questions emerging from this preliminary research, water testing will continue with additional funding through the Min. Sea Grant, which provided \$10,000 to initiate the project. Researchers will work with lake current experts and the Minn. Department of Health to investigate the source of the virus found in Gichgami, and learn more about how the disease might affect the environment. This is the first time the virus has been detected in lake water in the U.S. Similar monitoring may be a useful tool to detect the presence of COVID-19 in a community. See search results here: seagrant.umn.edu/downloads/2020-10-01-COVID-Melvin-results-v5.pdf —P. Maday

Fur markets remain soft in winter 2020-21

While most furbearers in the region are prime during the month of January, some trappers get underway in search of species including bobcat, coyote, and fisher in early November. From early sales reports, plus ongoing depressed economies in major fur-buying countries like Russia and China, markets are expected to remain weak. North America's largest fur auction house went bankrupt earlier this year and unsold inventory remains from last season. —COR

Keweenaw acoustic receiver deployment advisory



GLIFWC, in partnership with the US Geological Survey, Michigan Department of Natural Resources, and Keweenaw Bay Indian Community, is conducting an acoustic telemetry study aimed at assessing the influence of stamp sand (mining waste) on spawning behavior and movement of lake trout and lake whitefish.

The study area is located on the eastern side of the Keweenaw Peninsula in Michigan waters of Lake Superior where fifty acoustic receivers are located within the Buffalo Reef area and nine receivers are located around the Traverse Island area. Each receiver is marked with a flagged surface buoy and will remain in the water from September to early December 2020.

Questions? Please feel free to contact Ben Michaels at smichaels@glifwc.org.

Ojibwe road signs point the way to stronger communities

By CO Rasmussen
Editor

In an era of seemingly perpetual social division and dispute, the Ojibwe language is generating collaboration from a diverse cast of residents in Lake Superior country. Over the past five years, local municipalities and tribal institutions have found common ground in the value of bringing Ojibwemowin out of schools and onto the streets.

"The reception was overwhelmingly positive. Everyone liked the idea," said Ben Connors about a proposal to update road signs in the Town of Sanborn with bilingual wording—English and Ojibwe.

Sanborn township includes a large portion of the Bad River Ojibwe reservation. Connors is a Town of Sanborn supervisor and program manager for Bad River Tribe's roads department. He and Katie Wolf hatched the idea after reflecting on a directive from the tribal council calling for suggestions on how to help increase use of Ojibwemowin—a native language on a slow and steady rebound since the turn of the 21st Century. Following an endorsement from town leaders, the plan went to the tribe's language table—an informal group that meets weekly to study Ojibwemowin. With the addition of input from tribal member Joseph Gokee, enrolled in an Ojibwe studies program at University of Minnesota, the road sign reboot was ready.

"They did some English translations but a lot of words are specific to how the community identifies the roads," Connors said "I really like how the language table did the Birch Hill community signs." Platted in a four-road grid, Birch Hill now displays bezhig, niizh, niswi, and niiwin for the roads locally-known as 1-4.

The tribe paid for the new heavy aluminum signs and the township provided the equipment to complete installation. With most of the high traffic intersec- (see Ojibwe road signs, page 7)



In a cooperative project to expand use of the Ojibwe language in everyday life, an installation crew is swapping out road signs on the Bad River reservation. Pictured (l) is Paul Deloney, Bad River Roads Dept. and Sanborn Foreman Mitchell McAuliffe. (COR photo)



Whitetail CWD testing helps biologists monitor disease, increase food safety for tribal families in the Ceded Territory

By Travis Bartnick, GLIFWC Wildlife Biologist

With the off-reservation deer season running through December 31 in the Minnesota 1837 Territory and January 3 in Wisconsin, treaty hunters can still take advantage of CWD testing for their harvest. Chronic wasting disease (CWD) continues to spread throughout the western Great Lakes region, and the future of deer and deer hunting in the Ceded Territories.

Thus far, the number of CWD-positive wild deer in the Ceded Territory has remained low. However, since 2018 several CWD-positive wild deer have been detected just southwest of Rhinelander, Wisconsin near the Lincoln and Oneida County border. Several captive deer facilities in the Ceded Territory have had captive animals test positive for CWD, and the potential for the disease to continue to spread remains a great concern.

Sampling for CWD can help wildlife biologists and researchers gain a better understanding of how the disease may affect the deer population, and can help in the development of management actions in responding to CWD-infected herds. Sampling for CWD can also provide hunters with a level of confidence that they will not be consuming or feeding CWD-infected deer to members of their family or community. There are large areas in the Ceded Territory that have largely not met CWD sampling goals. Increasing CWD surveillance through increased testing across the Ceded Territory can help us gain a better understanding of the distribution and prevalence of the disease in the deer herd.

As in past years, GLIFWC is continuing to facilitate CWD testing for deer harvested by tribal members. Since autumn 2020, GLIFWC has been working with GLIFWC-member tribes to provide CWD sampling drop-off boxes and/or freezers at tribal registration stations. Even if there is not currently a CWD sampling drop-off box at your local tribal registration station, please contact your local tribal registration clerk or a GLIFWC wildlife biologist to get assistance with getting your deer tested. As long as the deer head can be kept cool, it can be sampled for CWD.

What to expect when dropping off a deer head for CWD sampling:

- There will be a set of instructions at each CWD sampling drop-off location.
- Anyone interested in getting their deer tested will need to fill out a brief data form so that the results of the CWD test can be shared with the hunter.
- It is especially important to record the location (to the Township level at a minimum, but GPS coordinates preferred) of where the deer was harvested.
- When removing the deer head, try to leave 3-5 inches of the neck attached to the head. This will ensure the lymph nodes are included with the deer head and makes the sampling easier.
- If the deer has antlers, it is recommended to remove the antlers from the skull prior to dropping the head off for CWD sampling. Removing antlers saves space in the drop-boxes and freezers and makes the sampling process easier.

- Finally, be sure to place each deer head in a garbage bag (double-bagged is preferred) with the completed data form placed in a zip-lock bag with the deer head. The CWD sampling drop-off boxes should have a supply of garbage bags, data forms, and zip-lock baggies to aid in the process.

The coronavirus pandemic is presenting many challenges for all of us in 2020. Many hunters may choose to register their deer remotely rather than in-person at a tribal registration station. It is important to know that even if tribal hunters register their deer using the online or phone registration system, they can still drop off a deer head for CWD sampling.



COR

Wrapping up another manoomin season

By Peter David, GLIFWC Wildlife Biologist

The brown stalks are collapsing below the surface, and thin ice is forming on the edges of the rice lakes. The threshing machines have gone quiet. All that is left to ponder is which recipe you will make next. And, when is that manoomin harvest survey going to show up?

If you got a ricing permit, it's likely coming to a mailbox near you soon. Between Covid-induced delays and pressures on the US Postal system with the election, it works out better to send them out a bit later than usual, but they will be coming.

And as always, we will be deeply interested in learning from all of you who take a few minutes to fill out the survey and send it back.

It was a challenging year in many ways; challenging for the rice, particularly in northcentral Wisconsin, where high water levels continued for an unprecedented (in the last century anyway) 8th straight year; challenging for rice stewards, whose usual activities were significantly altered by Covid restrictions; challenging for tribal rice chiefs, trying to maintain their role in the midst of a pandemic; and challenging for harvesters, who often had to hunt harder than usual to find rice, and even then frequently found beds hit by rain or wind when they did.

Such is the nature of ricing. There are no guarantees the rice sacks will be full at the end of the day, even from manoomin, a more-than-human being that year in, year out, tries her best to provide as much as she can for the rest of creation. But even when the grain sack is light, it seems that each year manoomin reconnects us to each other, and to those special, natural places of the north country. And each year manoomin seems to tell us a bit more of her story, sometimes directly, and sometimes through the information you share with us.

Part of the story this year seems to be a strong reminder that while manoomin depends on water, a little drought can be a wonderful thing. Unlike northcentral Wisconsin, much of Minnesota was on the dry side this year, and the rice loved it, with many autumn lakes looking like hayfields. Some poorly timed storms may have dampened direct human harvest, but there should be some plump mallards in hunter's bags this fall.

In Wisconsin, part of the story is revealed by harvest survey respondents, who have taught us how much we depend on just a handful of our state rice beds. (see **Manoomin season**, page 20)

MAZINA'IGAN STAFF: (Pronounced Muh zin ah' igun)

- Charlie Otto Rasmussen..... Editor
- Lynn Plucinski Assistant Editor
- Dylan Jennings..... PIO Director
- Paula Maday..... Writer/Photographer



MAZINA'IGAN (Talking Paper) is a publication of the Great Lakes Indian Fish & Wildlife Commission, which represents eleven Ojibwe tribes in Michigan, Minnesota and Wisconsin.

Subscriptions to the paper are free to United States and Canadian residents. Subscribe online at: data.glifwc.org/mazinaigan write MAZINA'IGAN, P.O. Box 9, Odanah, WI 54861; phone (715) 682-6619; or e-mail: lynn@glifwc.org. Mazina'igan is also available in electronic form.

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

Ojibwe clan animal and central Anishinaabe creation story figure, Ma'iingan, lost Endangered Species Act protection October 29 following an announcement by the US Fish & Wildlife Service. GLIFWC and Ojibwe tribal leaders denounced the move as premature and spoke out against wolf sport hunting seasons expected in 2021. (Gunnar Ries CC-BY-NC-ND 2.0)

*Full citation page one: Boitani, L., Phillips, M. & Jhala, Y. 2018. *Canis lupus* (errata version published in 2020). The IUCN Red List of Threatened Species 2018: e.T3746A163508960. <https://dx.doi.org/10.2305/IUCN.UK.2018-2.RLTS.T3746A163508960.en>. Downloaded on 10 November 2020.



Bandolier bags carry good medicine at Indian Community School



Rebecca, a fifth-grade student at Indian Community School, uses the ribbon stitch to embroider the Ojibwe woodland floral design on her bandolier bag. (Used with permission by Indian Community School, Inc.)

By Paula Maday, Staff Writer

Franklin, Wis.—Students at the Indian Community School (ICS) have been working on a very special art project this year. But it's not a project that will be critiqued or displayed statically in a glass case or on the wall. It's a project that creates healing medicine for the maker in its making.

GLIFWC recently started offering cotton bandolier bags for purchase as educational supplies. The bags feature an Ojibwe woodland floral design on the front center panel, which can be colored or decorated in any number of fashions. ICS ordered some of the bags last year, and art teacher Christina Ramirez said she was waiting for the right opportunity to bring them out. Then COVID hit.

With about two-thirds of the school's student population attending in-person classes and the other one-third attending virtually, Ramirez had to put together art kits for each student that contained a variety of mediums. She decided this was the perfect time to debut the bandolier bag project.

K5-6th grade classes started by reading and discussing information from a written history that comes with each bag, indicating its style and usage. Ramirez said this led to many students talking about where they'd seen bandolier bags and where they come from.

"A lot of kids started reminiscing about powwows," Ramirez said. "And about getting dressed in their regalia. It was a really special experience."

The act of remembering and talking about Ojibwe ways during a time when we physically can't practice them, helps keep them alive. It also helps us to process grief associated with the temporary loss of a way of life. And once engaged in these discussions, students at ICS did not want to stop.

Ramirez said she fully understood the impact of the project when a group of 6th

grade boys asked if they could bring their bags outside and host a stitching circle outdoors.

Soon, 5th and 6th graders were carrying them around with them throughout the building and even at home.

"I love it because it's something that's there for them, that they can keep returning to over and over again," Ramirez said. "They have a special connection to that woodland floral pattern, to the bandolier bag itself, and to the relationships they forge while working on them. Plus, they can carry all of their supplies right in the bag and work on it whenever they want."

Stylistically, younger students are working in crayon. They use wax to melt crayons and blend colors. Older kids are working in marker and embroidery.

Some of the stitches they are trying out include: the ribbon stitch—where students fill in a shape with a solid color so it looks like a ribbon; the running stitch—where students embroider a dotted line; the back stitch—where students go back and fill in that dotted line; and the chain link stitch—where students stitch forward and then loop back up to create a link with the stitch before. Some students are even decorating or embroidering their names on the sash, leaning into a history of creativity, effort, skill, and love.

Students will be working on the bandolier bag project until the end of the semester, pulling it out in between projects. "It's more of like a healing, or a medicine, for the kids," Ramirez said. "It's completely independent from other projects. It could be assessed via standards, but I'm not using it in that way. I'm using it in this healing way, and that has been so much more powerful."

Each bag is made from 100% cotton and features an Ojibwe woodland floral design on the front center panel. The design can be colored, embroidered, even beaded! Blank space around the edges, on the back and strap allow creativity in making the bag unique.

Bandolier bags are available on the GLIFWC website at glifwc.org/publications or fill in the order blank below.

Ma'iingan delisting

(continued from page 1)

Ojibwe traditional knowledge-holders and elders have long since stressed the cultural significance of ma'iingan (wolf) and the brother-like relationship that developed from the earliest days. Bad River Tribal Elder Joe Rose Sr., in a Wisconsin Public Broadcasting documentary, speaks of the traditional story of ma'iingan and the prophecy that exists for Anishinaabeg. "At one point in our creation story original man and ma'iingan walked this earth together and they named everything in creation. They were then instructed to take separate paths, but to always remember that their fates would forever be intertwined." To hear more about the original story and relationship with ma'iingan visit: pbswisconsin.org/watch/wpt-documentaries/maingan-brother-wolf-9apsy7.

Ojibwe epistemology also reiterates the significance of ma'iingan and the role it continues to play in traditional governance practices. Wolves are part of the doodem or "clan" identities that have traditionally ascribed leadership and responsibility across Ojibwe societies. The clan system has helped in creating a resiliency factor of Ojibwe communities in providing community organization, roles and inherent responsibilities. Ojibwe clans are often marked or symbolized by animal relatives in which wolves are considered a sacred clan animal.

Tribes have worked diligently over the last few decades to promote recovery of the wolf populations that used to be prominent throughout the Ceded Territories. In the late 1800s to the mid 1900s wolves were hunted to extirpation in the State of Wisconsin. Diminished habitat and reduced resources also created difficult conditions for ma'iingan survival.

Considering the teachings of intertwined fates, a quick glance into the realm of Ojibwe history during the late 1800s to the mid 1900s conveys very similar struggle. After the signing of treaties in the 1800s, tribal land base was reduced to significantly smaller parcels known today as reservations. Furthermore, the Federal Government's assimilatory policies and practices during this time period was considered a cultural genocide of sorts. In 1884 tribal ceremonies considered to be "pagan" were outlawed.

The late 1800s and early 1900s were dark times for both ma'iingan and Anishinaabeg, yet both populations remained resilient through extreme adversity. In 1957 wolves were finally listed as a protected species, which ultimately took nearly 60

years for the population to rebound. Likewise, Anishinaabeg were able to withstand decades of cultural oppression until the passage of the Indian Religious Freedom Act of 1978. The recovery of both ma'iingan and Ojibwe lifeway throughout the Ceded Territories is a tremendous example of ecological and cultural restoration that must be preserved for the benefit of future generations.

History has explicitly and continually demonstrated that when traditional knowledge systems are ignored, rippling effects from these consequences can be felt far into the future. Tolerance seems to be at the epicenter of many current and historical issues faced in the United States. In this case: tolerance for each other, tolerance for other lifeways, and tolerance for ma'iingan.

Order Form			
Description	Qty	Price	Total
Bandolier bag		\$2.50	
2020 poster Minjimendandaa gaa-gikinoo'amaagoowiziyang "Let's keep in mind what we have been taught" (limit 1 free)		FREE	FREE
Minjimendandaa gaa-gikinoo'amaagoowiziyang "Let's keep in mind what we have been taught"		\$2.50	
2021 Calendar (limit 5 free)		FREE	FREE
2021 Calendar		.50¢	
Order Total			Total
.01 – \$4.99	US Postage	\$3.00	Shipping
\$5.00 – \$29.99		\$5.00	Grand Total
\$30.00 – \$59.99		\$6.75	
\$60.00 – \$99.99		\$7.75	
\$100.00 – \$129.99		\$9.75	
\$130.00 – \$159.99		\$11.75	
\$160.00 – \$199.99		\$13.75	
**\$200.00 – \$229.99		\$15.75	

Make checks payable to GLIFWC and mail to: GLIFWC • PO Box 9 • Odanah, WI 54861

Email purchase orders to pio@glifwc.org or visit glifwc.org/publications to place your order online.

**Contact pio@glifwc.org for international shipping and for orders totaling over \$229.99.



Unwanted attention

Best practices in addressing harassment while exercising treaty hunting rights

By Paula Maday, Staff Writer

Harassment of tribal members engaged in harvesting activities is a prominent aspect of the historical experience of GLIFWC member tribes. While the intensity of the harassment has significantly decreased in the past thirty years, these incidents continue to occur to the present day.

Ojibwe tribal members have the right to exercise treaty-reserved rights in a safe environment. Harassing tribal harvesters is illegal, and this type of conduct can be reported to law enforcement and prosecuted, subjecting the offenders to unpleasant penalties. Both civil and criminal courses of action may be taken against those who harass tribal members engaged in exercising treaty harvesting rights. It is important to know how to take immediate action, as well as imminent legal action, if this happens to you.

If you are harassed while hunting in the Ceded Territory this season, please follow the guidelines below to keep yourself safe and to properly document the occurrence. Following “The Four Cs” supports both short-term and long-term safety. Reporting harassment allows for enforcement intervention, which creates documentation that is important for prosecution and may reduce future incidents, creating a safer environment for all harvesters.

Create distance

Staying safe should always be your #1 priority. If you are being physically harassed (rocks are being thrown, firecrackers set off, gunshots fired, etc.), immediately move to a location where you will be safe. The same is true if there is a verbal threat of physical harm (“I’m going to get my gun,” etc.). If you are being verbally harassed but there is no immediate threat of physical harm (you are yelled at to leave, called names, etc.), use your best judgement about continuing to harvest in that area. Never engage or provoke harassers.

Confirm your location

Documenting the location where harassment is taking place is important and helpful when contacting law enforcement and when filing a report. One of the easiest ways to confirm your location is to use a smartphone. Location mapping apps allow you to “Drop a Pin” to mark your exact location. Download the app to your phone prior to going out harvesting. Two of the most popular location mapping apps are Maps and Google Maps. The onX Hunt app is also frequently used for hunting. If you don’t have a smartphone, do your best to know and provide directions. Look for easily identifiable roads, landmarks, trees, docks, houses, houselights, etc.

(see **Unwanted attention**, page 10)



COR

Next steps

Pursuing legal action against harassers may involve both civil and criminal proceedings. The following statutes provide legal reference to state laws that may be useful to know in protecting yourself from harassment while hunting, fishing, or gathering in the Ceded Territories.

Civil

Wisconsin

Wisc. Stat. § 29.083 Interference with Hunting, Fishing or Trapping, includes impeding or obstructing a person who is engaged in lawful hunting, fishing or trapping activity, which is a violation punished by forfeiture of not more than \$500 (i.e. quasi-criminal action brought by county attorney). A civil action may be filed against violators, by individuals whose lawful activities were impeded or obstructed, with injunctive relief and damages available, including punitive and special damages.

Wisc. Stat. § 813.125 Harassment Restraining Orders and Injunctions: engaging in a course of conduct or repeatedly committing acts which harass or intimidate another person and which serve no legitimate purpose. This is a civil cause of action filed by the victim against the harasser. Temporary and permanent (up to 10 years) of injunctive relief available (i.e. restraining order preventing the harasser from contacting the victim). Where firearms were used in the harassment, the court can prohibit the defendant from possessing a firearm.

Minnesota

M.S.A. § 609.748 Harassment: repeated incidents of intrusive or unwanted acts, words or gestures that have a substantial adverse effect or are intended to have a substantial adverse effect on the safety, security or privacy of another, regardless of the relationship between the actor and the intended target. The victim of harassment can seek a harassment restraining order from the district court of residence of either party or where the harassment occurred.

Michigan

MI Stat. § 324.40112 Obstruction or interference in lawful taking of animals or fish by another; violations; injunction; penalties; applicability. Similar to other state’s statutes, however intent is not an element of the violation. Provides an option for victims of harassment to obtain an injunction to prevent ongoing harassment.

Criminal

Wisconsin

Wisc. Stat. § 947.013 Harassment: engages in a course of conduct or repeatedly commits acts which harass or intimidate the person and which serve no legitimate purpose (Class B forfeiture); plus accompanied by a credible threat that places the victim in reasonable fear of death or great bodily harm (Class A misdemeanor).

Wisc. Stat. § 947.019 Terroristic Threats: threatens to cause death or of bodily harm to any person or to damage any property, plus “the actor intends to cause public inconvenience” or “the actor intends to cause public panic or fear” (Class I felony).

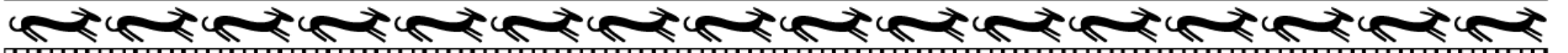
Wisc. Stat. § 941.30 Recklessly Endangering the Safety: recklessly endangering safety under circumstances which show utter disregard for human life (Class F felony); recklessly endangering another’s safety (Class G felony).

Wisc. Stat. § 941.20 Endangering Safety by Use of a Dangerous Weapon: endangers another’s safety by the negligent operation or handling of a dangerous weapon; operates or goes armed with a firearm while he or she is under the influence of an intoxicant; intentionally points a firearm at another (Class A misdemeanor).

Minnesota

M.S.A. § 97A.037 Hunter, Trapper and Angler Harassment Prohibited: Intent to prevent, disrupt, or dissuade the taking of a wild animal or the enjoyment of the out-of-doors, and disturbing or interfering with another person who is lawfully taking a wild animal or preparing to take a wild animal. (“Taking” wild animals includes spearing, netting, killing and capturing wild animals.) The statute withstood a First Amendment challenge. See *State v. Miner*, 556 N.W.2d 578, 586 (Minn. Ct. App. 1996) (“The modified statute restricts speech only when it is intended to directly interfere with the lawful exercise of individual rights, or when it accompanies conduct that is intended to interfere with the lawful exercise of individual rights.”). This violation is treated as a misdemeanor offense. M.S.A. § 97A.301.

(see **Next steps**, page 10)



Sea lamprey control season extends into the fall

By Bill Mattes
Great Lakes Section Leader

Always on the lookout for opportunities to assist partner agencies with fisheries and wildlife management, GLIFWC and KBIC natural resources department staff joined the front-line efforts on sea lamprey trapping and assessment in autumn 2020.

Starting in September, and continuing until the anticipated November freeze-up, Keweenaw Bay Indian Community (KBIC) and GLIFWC crews are combing Lake Superior tributaries with nets catching invasive sea lamprey.

Fyke nets are being fished to remove newly transformed sea lampreys migrating downstream to the lake. A sea lamprey's life cycle starts and ends in the spring. Adult sea lampreys ascend streams to spawn and die. Eggs laid in the spring, develop into larval sea lamprey which live in the stream bottom until they grow to about six inches long. At this size they undergo a change, developing an 'oral disk'—a set of teeth—with which they attach and feed upon fish—removing body fluids and often causing the fish's death.

Fall netting is designed to remove sea lamprey before they make it to the lake to feed on fish. In the past, GLIFWC staff have been successful in removing newly transformed sea lamprey from the Bad and Potato rivers in far northern Wisconsin.

This year KBIC-NRD staff are fishing in the Traverse and Cranberry rivers in Upper Michigan. Back in Wisconsin, GLIFWC staff are fishing lamprey from the Bad, Marengo and White rivers, as well as, Fish Creek.

Barriers and lampricide—3-trifluoromethyl-4-nitrophenol or TFM is used to kill larval lamprey—are the only defenses we currently have against a return to sea lamprey abundances that were seen in Lake Superior during the 1960s. During this time, when the fishery was widely decimated, only one lake trout was captured during spawning assessments on Gull Island Shoal in the Apostle Islands.

Today crews catch hundreds of fish per day during these same assessments. Fortunately, the fish have rebounded and are abundant. Yet, not much has changed in the defense against fighting off the invasive sea lamprey even though much thought and research has gone into alternative methods of control over the past 60 years.

Starting in 2019, the Great Lakes Fishery Commission began to refocus a strategy of alternate control to a strategy of supplemental control. The old toolbox has been reopened and tools that were thought to be of little value are being reexamined.



Fyke nets set on the Traverse River, Michigan to remove newly transformed sea lampreys migrating downstream to Lake Superior.



Larval lamprey (l) captured from Marengo river (B. Mattes photos)

Instead of a replacement to lampricide and barriers, the tools are being reconsidered as supplemental to the tried and true defenses. The expectation is that supplemental controls—such as adult trapping, transformer trapping, sterile male release, electric barriers, semiochemicals, and pheromone antagonists—will reduce the number of lamprey making it to the lake to feed or back to spawning grounds.

If successful, sea lamprey numbers may be reduced enough to allow for less frequent or less extensive lampricide treatments in individual river systems.

For more information on sea lamprey control visit glfc.org and fws.gov/midwest/SeaLamprey.

Ojibwe road signs

(continued from page 3)

tions now fitted with bilingual signs, Connors said the project will move into the undeveloped township interior in 2021—a densely forested region that features names like Elm Hoist Road.

Around Chequamegon Bay

Five years before the appearance of bilingual signs in Sanborn township, Madeline Island's Town of LaPointe launched a project to enhance existing directional placards with Ojibwemowin. The homeland of Ojibwe life and culture, Madeline Island also bears heavy summertime tourist traffic. With guidance from Ojibwe language experts, town leaders and volunteers used upgraded signage to help visitors better appreciate Anishinaabe heritage. Now accompanying the *marina* sign, a painted arrow labeled *niminaaweyaandawaaganing* directs boaters to "the place of docks." Similar language pairings for parks, municipal buildings, churches, and other locations now appear across LaPointe.

Back on the mainland around the same time, a community effort in the City of Ashland produced an Ojibwe language themed mural in a pedestrian gateway tunnel to the Lake Superior shoreline. Providing safe foot traffic from downtown to the shoreline, the passageway features a colorful blast of 600 mosaic fish, animals, and plants from surrounding ecosystems with English and Ojibwe words for creatures ranging from makwa to gaag. A collection of white and indigenous artists, including high school students, melded skill and diversity into the 3,684 square foot work, reflecting a community seeking harmony with the land and with each other.

As elders have explained, the Creator's language is powerful, ingrained with messages that would guide those who listen to live a good life—*mino-bimaadiziwin*. With some folks in the Ceded Territory joining together in a good way—finding ways to share and embrace Ojibwe words—additional communities have a rewarding path to follow.



Bilingual signage on Madeline Island. (COR photo)

GLIFWC, tribal crews survey lakes for juvenile walleye

Health safety precautions remain in force

By Mark Luehring, GLIFWC Inland Fisheries Biologist

GLIFWC Inland Fisheries and tribal crews conducted fall electrofishing surveys on over 40 lakes in the Wisconsin and Michigan Ceded Territories in 2020. While the pandemic limited the amount of survey work that the crews were able to do, extra precautions allowed GLIFWC crews to safely complete a good number of surveys. Overall, weather conditions were good, and most importantly, crew members remained healthy throughout the seasons.

In recent field seasons, GLIFWC would run four electrofishing crews, and the St. Croix, Mole Lake, and Bad River tribes would also conduct surveys. However, this year, GLIFWC was limited to two crews of permanent staff from the Odanah central office, and one crew stationed near Lac Courte Oreilles to keep the number of people exposed to each other low.

Mole Lake and St. Croix also conducted a limited number of surveys. Crew members generally drove separate vehicles to the launches, and often wore masks when working in close proximity to each other.

Because walleye populations have been declining, and a decline in natural reproduction has been identified as a key problem, GLIFWC recognized the need for fall surveys this year. On the water assessments, however were limited to high priority lakes, plus those generally close to the main office in Odanah or near Lac Courte Oreilles reservation.

Overall, some walleye lakes appeared to show good natural reproduction, while others did not. A few naturally reproduced walleyes were caught on the Minocqua Chain, which is in year six of a cooperative rehabilitation project. This was a promising catch, the best since the start of the project, although there are likely not enough naturally reproduced walleyes to provide a big boost to the adult population down the road.

Many of the surveys included other gamefish species, a semi-recent addition to the protocol in some lakes to track fish community changes. In the years ahead, GLIFWC plans to continue monitoring walleye populations as these data are critical to sustaining walleye populations for the future.



Ceded Territory SCIENCE

Resource managers turn to biocontrol to combat EAB beetle

The future looks a bit brighter for Turtle Island's ash trees

By Steve Garske, Invasive Species Coordinator

Sometime in the early-to-mid-1990s, a shipment of industrial supplies arrived in southeastern Lower Michigan, just west of Detroit. Hidden away in wood packing materials from northeastern China were a small number of iridescent emerald-green beetles. The beetles were strong fliers and soon escaped, and quickly found North American ash trees to their liking. By the time people noticed dying ash trees and identified the cause in 2002, the emerald ash borer had spread through much of the Detroit area and into neighboring Windsor, Ontario. Since then this little beetle from halfway around the world has colonized much of eastern North America, killing many millions of ash trees and gaining a reputation as the most destructive invasive insect ever to reach Turtle Island.



The November 2020 USDA quarantine map. Red dots show the location of the first EAB detection in each county. To see the most recent monthly map, go to emeraldashborer.info/documents/MultiState_EABpos.pdf



Adult emerald ash borer on the leaf of a green ash cultivar in Superior, Wisconsin. (S. Garske photo)

As the emerald ash borer (*Agilus planipennis*, or EAB for short) rapidly spread to neighboring states, hope of eradicating the beetle were abandoned, and the focus shifted to slowing its spread. The US Department of Agriculture (USDA), along with state, tribal and local governments, began a massive effort to alert the public and restrict the movement of infested ash logs and firewood from infested areas.

Biological control

Meanwhile USDA-APHIS began an ambitious program to find and raise natural enemies of the EAB. In its native range, a number of specialized insects and diseases attack EAB eggs and larvae. But in eastern North America, native parasitoids (insects that live on or inside a host organism and eventually kill it) were attacking less than five percent of EAB larvae, and no egg parasitoids were found.

The search soon moved to eastern Asia, where more than 20 EAB parasitoids were eventually identified. After extensive testing, three tiny, stingless parasitoid wasps with the scientific names *Oobius agrili*, *Tetrastichus planipennisi*, and *Spathius agrili* were found to be highly host-specific to EAB. More recently a fourth host-specific parasitoid wasp (*Spathius galinae*) was found in the Russian far east. In their home ranges these parasitoids were attacking over 60% of EAB eggs and over 70% of EAB larvae at some sites.

Raising these parasitoids proved difficult and expensive. Nonetheless methods of raising them were worked out, and eventually a facility in Brighton, Michigan was built for that purpose. Permits to release the first three insects were approved in July 2007, and releases of all three began later that year. *Spathius galinae* (which is more tolerant of cold winters than its close relative *S. agrili*) was approved for release in 2015, and first released the following year. These insects have since been released at hundreds of locations across the eastern US and adjacent Canada,

and all but *S. agrili* are now widely established in a number of locations in upper Great Lake region.

The three parasitoid wasps fill somewhat different roles. *Oobius* larvae parasitize EAB eggs on the surface of the bark, while the other two parasitize the larvae underneath the bark. *Tetrastichus* can reach EAB larvae under the bark of trees up to around 6 inches in diameter, while *Spathius* can drill through the bark of larger trees up to 1.6 feet in diameter.



Oobius agrili with EAB egg. This very tiny wasp is barely 1 millimeter long. Females can lay up to about 80 eggs during their short lifetime, one on each EAB egg. The larvae then burrow into the egg, emerging as adults the next spring. (Houping Liu)



Tetrastichus planipennisi. This tiny wasp drills through the tree bark with its tail-like ovipositor, and lays its eggs inside the EAB larvae. The larva consume the EAB larva, pupate and emerge as adults. *Tetrastichus* produces several generations per year. (David Cappaert)



Spathius spp. Females drill through the bark with their long ovipositor, inject venom to paralyze the hapless EAB larvae, and then lay eggs on it. The larvae feed externally on the larva, pupate and emerge from the tree as adults. *Spathius galinae* may complete two or more generations per year. (David Cappaert)



Tetrastichus planipennisi resting on a fingertip. (Bill McNee)

Bugwood.org photos

A massive public information campaign was largely successful in informing people why it's a bad idea to move untreated firewood and logs long distances. (This is still a good practice as the EAB hasn't reached every corner of the Northwoods yet, and because it potentially slows the spread of other invasives as well!) This widespread public cooperation bought time for researchers to perfect mass-rearing techniques for these biocontrol insects, and for people to deploy them on the landscape.

The main reason that EAB has been so devastating to ash populations is that it kills the vast majority of ash trees before they can reach reproductive age and produce seed. The beetle's natural enemies can help level the playing field though. In some parts of southern Michigan where the EAB and its parasitoids have been established the longest, *O. agrili* and *T. planipennisi* are now suppressing EAB populations enough to protect ash saplings and small trees. And hopes are high that as *S. galinae* continues to build in numbers, it will protect adult trees from the EAB long enough to allow them to reproduce.

The USDA-APHIS Plant Protection and Quarantine works with state, tribal and local governments and agencies to release the biocontrol wasps in EAB-infested areas. Their goal is to introduce the EAB parasitoids in every EAB-infested county in the country. Online information summarizing this program seems rather limited, but there's a Question & Answer page at www.aphis.usda.gov/publications/plant_health/faq_eab_biocontrol.pdf. The 75-page "Emerald Ash Borer Biological Control Release and Recovery Guidelines" contains all the information needed for (see The future looks a bit brighter, page 11)



Hard water spearing season: need to know

Within the liquid crystal waterscape anaamikwam—under the ice—Ojibwe spearfishers find long valued food-fish including muskellunge, walleye, and northern pike. Each biboon, tribal members across the Ceded Territory cut holes in the ice, partaking in a fishing tradition that extends centuries into the past using a wooden decoy-on-a-string and a sharpened spear.

While today's fishing methods are largely the same, wintertime lakes are much busier places in the 21st Century, giving rise to safety concerns as snowmobiles and other vehicles crisscross the ice.

"Unless you have a permanent shelter, like an ice house or spearing wiigiwam, it's important to mark the location of the hole before leaving the lake," said GLIFWC Warden Jonas Moermond.

A veteran conservation officer stationed in the Lac du Flambeau's chain-of-lakes region, Moermond said that an encounter with a spearing hole, or cutaway ice block, could produce a jarring bump for a snowmobiler. Or a sudden plunge for a pedestrian after dark. Flambeau-area spearers who leave behind "teepee" sapling frames, or balsam branches stuck vertical in the ice, help snow machine operators steer clear of potential hazards, he said.

"Use something biodegradable to mark your holes," Moermond said. "There's already too much garbage like cans and wrappers leftover from ice fishing anglers that ends up in the lakes."

Spearing holes are generally produced by three or four drops of an ice auger, Moermond said, followed by using an iron chipper to clear the remaining ice in between augered holes. Chainsaws and ice saws are also used to produce spearing holes. In order to create the darkhouse effect, illuminating the water below an ice-hole, spearers ring the opening with balsam branches and top it with a cloth-covered hut.

In some communities, like Lac Courte Oreilles, tribal members often spear from rectangular fish houses constructed with tar paper and wooden slats. Regardless of the spearing structure, ice fishing enclosures are required to include the owner's name and address clearly displayed on the exterior. For more information contact your community registration station, local warden, or see glifwc.org.

—Charlie Otto Rasmussen



Lac du Flambeau



Lac Courte Oreilles

In the Lac du Flambeau region, tribal members generally spearfish from the prone position inside a fishing wiigiwam, or "teepee," covered in heavy fabric.

Treaty spearers are required to identify biboon fishing structures with their name and address. Tribal members across the three-state Ceded Territory spearfish throughout the hard water season. State-licensed fishermen in Minnesota and Michigan also participate in winter spearing—often for northern pike—on inland lakes using methods developed by the Ojibwe.

A tar-paper shack, trimmed with wooden slats, is often used by tribal members in the Lac Courte Oreilles area during the winter spearing season.

—CO Rasmussen photos



Red Cliff Fish Company

(continued from page 1)

a sustainable fishery, tribal authorities annually shutdown the harvest season for lake trout and whitefish from October 24 through November 28 during the spawn. RCFC currently has licensed fishermen from both Red Cliff and Bad River Ojibwe Tribes on the line to supply fish.

Through a US Housing and Urban Development grant, the commercial fishing dock was recently upgraded and expanded by 120 feet, featuring the addition of five power pedestals to supply additional slips for more fishermen to dock right out the back door. Additional support from Administration for Native Americans—Social and Economic Development Strategies (ANASEDS), USDA Rural Business Development, and a Keepseagle grant helped make the operation a reality. Grant funds are also dedicated to improve the hillside road that connects the dock to the



Justin Maki transports iced boxes of fresh herring from the dock on Buffalo Bay to the new fish shop located just uphill. (CO Rasmussen photos)

fish shop receiving door. For Maki and other staff, it's a quick trip down and back on the loader to transfer iced fish boxes by the dozen. That momentum is designed to roll on all the way to the consumer.

"Once we get it all through the door of the shop, we want the fish processed and ready to go for dinnertime. Around four hours from the lake to a restaurant plate," Maki said. In addition, company managers await the arrival of a roll-in blast chiller that will freeze fish fillets within minutes. Fast, or flash, freezing fish as soon as possible is a key technique in ensuring high food quality and safety.

The public is welcome to pick up selections from the daily catch in the shop's retail storefront, which is set for a November 16 soft opening. And RCFC staff are taking restaurant and other wholesale orders over the phone at 715-779-3535. For more see RedCliffFish.com.



The crew at Red Cliff Fish Company sort through its first batch of fish on November 4.



Meet the warden—Steven Amsler

A day in the woods with a GLIFWC Enforcement Officer

By Paula Maday, Staff Writer

Steven Amsler patrols the western end of the Michigan Upper Peninsula. This is part of the 1842 Ceded Territory, and the homelands of the Lac Vieux Desert and Keweenaw Bay Indian Community. This is the land of dense Ottawa National Forest, and no cell phone service.

It's late autumn, and as the last leaves fall from the trees and gentle snows start to blanket the ground, Amsler brings us along for a virtual ride-along with a GLIFWC warden.

Amsler is a nine-year veteran of GLIFWC, joining the organization in March 2011. He earned a degree in Criminology and Anthropology from the University of Minnesota-Duluth and completed the law enforcement academy at Fort McCoy.

Depending on the time of year, Amsler could be out on Lake Superior checking on tribal commercial fishermen, on inland lakes interacting with harvesters, in the forest surveying hunters and gatherers, or in classrooms teaching youth outdoor safety. But right now, it's hunting season, and so he heads into the woods.

Patrol within this area can take many forms: motorized, using a truck or ATV, or on foot. The terrain writes the rules here, and a big part of Amsler's job is learning it. "It's important to be out in the woods for enforcement, yes, but also for safety," he says. "Sometimes I get called or hear about lost hunters or hikers in the area. It helps to know the land well, and do what I can with the equipment I have. Equipment



such as GPS and radio communications are critical in situations like these."

The location that Amsler chooses to patrol on any given day is based on the community of harvesters around him. He talks with local hunters to get an on-the-ground feel about how the season is going, what they are seeing in the field, and where.

As he patrols, he does compliance checks with those he encounters—verifying licenses and check-

ing harvests of small and large game including bear, turkey, deer, and grouse.

GLIFWC conservation wardens generally have a larger area to patrol in comparison to state wardens, who are assigned to a specific area within the state. The Ottawa forest is huge, so relationships and interactions with harvesters is really important to his job. "I try to do the enforcement part of my job, and also treat everyone with respect. I love having the ability to be outdoors, connecting with people that enjoy the same things I do, like hunting and fishing. We both want the same thing—to treat animals and our environment in a good way."

At the end of the day, there is administrative work to catch up on: writing reports, responding to emails, and staying up-to-date on current technology. In non-COVID times, there would also be outreach in schools and youth centers. Over a span of the last eight years, Amsler estimates he's provided safety courses to 250+ kids.

After work, Amsler heads home to a big family to help out with homework and housework. Sometimes they journey out toward Baraga and Alberta pond to hike and watch the seasons change. Once it gets a little colder, they will all head to the skating rink, where his kids play hockey and figure skate.

"I always enjoy, after doing the safety classes, going to places like the grocery store or the ice-skating rink, and seeing kids who remember you. Like, 'hey, you're the hunter safety guy!' When they see me there, with my kids, they see me outside of my uniform, and I really appreciate that, as a part of this community," he says.

Prepare for a great wild turkey meal

For domestic turkeys, free range generally means living in an enclosed yard or a grassy pasture bound by a fence. To prevent birds from taking flight, farmers clip their wings, keeping them more manageable until slaughter time. Feed is plentiful and the birds easily pack on the pounds.

Wild turkeys on the other hand are birds on the go, spending daylight hours foraging across hundreds of acres before flying 30 feet into the tree canopy to roost for the evening. They'll do this daily for a year or two before ever making it to your dinner table.

All that exercise and muscle development in wild turkeys—known as mizise in Ojibwemowin—makes for a leaner, low fat bird that can dry out lickety split in the oven. After harvesting my first wild bird in 1992, I served up a dry, leather-strapped breast with door-handle legs. That's when my mom clued me in to oven bags—a priority to keep moisture locked in. A bagged bird is also a good place for vegetables and apple slices before going in the oven.

Years later, my sister revealed the magic of an overnight brine. Whether you roast your bird in the oven (bag it!) or sink it into an oil-filled fryer, a brine mixture including sea salt and vegetable broth helps retain moisture and season the meat. Both methods first require a good-old fashioned plucking, best done when the bird is still warm or quickly dipped into steaming hot water, to help avoid tearing the skin.

Before the hunt

As detailed in GLIFWC Food Code studies, choose hunting shells with larger pellets—#5s and #4s—before going afield. Those larger sizes are easier to remove and it reduces the chances of leaving pellets in the meat. A head and neck shot using a full choke is the best way to dispatch a bird with a shotgun.

The wild turkey seasons runs until December 31 in the Minnesota 1837 Ceded Territory and Wisconsin territories. Both gobblers and hens are legal birds on fall hunts. Get your permits online or at your on-reservation tribal registration station. Have a safe and enjoyable hunt! —CO Rasmussen



Unwanted attention

(continued from page 6)

Call 911

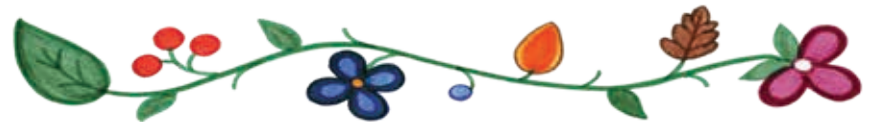
In the event of physical harassment or a verbal threat of physical harm, **CALL 911 IMMEDIATELY**. Give them your name, location, phone number, situation, and any additional information the dispatcher may request. Provide your home phone number in addition to your cell phone in case you get disconnected, especially if you are harvesting in a remote area. You may be asked to stay on the line until officers arrive on scene to provide them with important updates.

Once law enforcement arrives, they will address any active threat or emergency prior to taking a statement. Be prepared to spend some time at a safe location nearby so that you can provide the officer(s) with a detailed report.

Check in with GLIFWC

If the harassment you are being subjected to does not warrant emergency response, call GLIFWC Enforcement at 715-685-2113 to document the incident after you are done harvesting.

Philomena Kebec, GLIFWC Policy Analyst/Attorney, contributed to this article.



Next steps

(continued from page 10)

M.S.A. § 609.66 Dangerous Weapons. Conduct involving recklessly handling or using firearms, pointing a gun at another person, discharging a firearm in the direction of another person. Charged as a misdemeanor, gross misdemeanor or felony, depending on the circumstances.

Michigan

MI Stat. § 324.40112 Obstruction or interference in lawful taking of animals or fish by another; violations; injunction; penalties; applicability. Similar to other state's statutes, however intent is not an element of the violation. First offense is charged as a misdemeanor, with jail time of up to 93 days and/or a fine of \$500-1000; subsequent offenses are punishable by up to a year of jail time or a fine of not less than \$1000. Revocation of a person's hunting/fishing permits and licenses is mandatory.



Food Code Project extended Trainings to continue into 2021

By LaTisha Coffin
ANA SEDS Coordinator

From late dagwaagin into early biboon, many traditional Ojibwe foods, such as wild turkey, grouse, and venison are harvested. Preserving methods like canning and freezing helps provide healthy meals for the sea-

sons ahead. Many of these north country foods are featured in the ongoing food safety trainings presented through the GLIFWC Ceded Territory Traditional Food Regulatory System Project, also known as the Food Code Project.

Since last summer, project staff have been offering two food safety trainings: Food Handler/Harvester trainings and Food Manager Regulator trainings. Both trainings cover safety and contaminant risks for traditional Anishinaabe foods, with the Food Manager Regulator training delving deeper into the developed Model Food Code chapters.

Due to the COVID pandemic, project staff have been hosting these trainings via Zoom, and with a recently-approved extension from Administration for Native Americans, will be able to continue to provide trainings until 2021.

For those interested in attending a training, check out GLIFWC's Facebook page for upcoming events with registration links. In order to obtain a certificate of completion, participants must attend the complete training (four hours for the Handler/Harvester and eight hours for the Manager Regulator), and will also receive an incentive gift, such as wild rice, maple syrup, or harvesting supplies, like handwashing kits or tarps.

GLIFWC tribal communities can also look forward to seeing five new traditional food advisory posters and brochures, which will be made avail-

Lead shot sizes:	12	9	8½	8	7½	6	5	4	2	BB
Pellet diameter (inches)	.05	.080	.085	.090	.095	.110	.120	.130	.150	.180
(mm)	1.27	2.30	2.16	2.29	2.41	2.79	3.05	3.30	3.81	4.57

Buckshot sizes:	No. 4	No. 3	No. 2	No. 1	No. 0	No. 00	No. 000
Pellet diameter (inches)	.24	.25	.27	.30	.32	.33	.36
(mm)	6.10	6.35	6.86	7.62	8.13	8.38	9.14

Steel shot sizes:	6	5	4	3	2	1	Rifle	BB	BBB	T	F
Pellet diameter (in.)	.11	.12	.13	.14	.15	.16	.177	.18	.19	.20	.22
(mm)	2.79	3.05	3.30	3.56	3.81	4.06	4.49	4.57	4.83	5.08	5.59

The size of shot, whether lead or steel, is based on American Standard shot sizes. Thus, a steel No. 4 pellet and a lead No. 4 pellet are both .13 inches (3.3 mm) in diameter. (shotgunworld.com/amm.html graphic)

able to tribal registration stations, health clinics, and project partners. These posters and brochures review food safety and advisory information for venison, lead, botulism, mercury, and produce. Materials will also be available on the new Food Code Project webpage on GLIFWC's website, which is slated for a late November launch. In addition to training materials, the webpage will house recorded training videos, and other foods safety information.

Contact Owen Holly Schwartz at ohschwartz@glifwc.org with any questions regarding upcoming trainings or LaTisha Coffin at lcoffin@glifwc.org with any questions about the project.



The future looks a bit brighter for Turtle Island's ash trees

(continued from page 8)

cooperators to introduce these insects to new areas with EAB (see www.aphis.usda.gov/plant_health/plant_pest_info/emerald_ash_b/downloads/EAB-FieldRelease-Guidelines.pdf).

Even with significant improvements in rearing techniques, these parasitoids are difficult and expensive to raise, so USDA works with partners who agree to gather site data, follow release instructions carefully, and monitor the sites for several years after release.

Lingering ash

Unlike North American ash species, Eastern Asian ash species including Chinese and Manchurian ash evolved with the EAB, and are highly resistant to attack. There is a lot of genetic variability in North American ash populations though, and very rarely an individual ash tree or a small group of related trees will possess genes that provide varying degrees of resistance to EAB. In Lower Michigan, Ohio and elsewhere small numbers of more-or-less healthy trees have been found years after all the surrounding ash trees have been killed. These "lingering ash" trees are very rare, with less than 1 tree in 1000 surviving the initial wave of EAB. These trees apparently possess genes that make them less preferred by EAB and/or more resistant to EAB infestation.

Because surviving mature ash trees are so rare, lingering ash trees tend to be isolated and unable to breed with other, often distant surviving trees. That's why the U.S. Forest Service initiated a selective breeding program to find and breed resistant ash trees in an ash nursery, using grafted twigs of surviving trees. Crosses of various lingering ash genotypes can yield highly EAB-resistant trees within as little as two generations. The USFS welcomes tips from the public who find lingering ash trees in areas where the EAB has recently killed the majority of ash—see srs.fs.fed.us/research/urban-webinars/ash-tree-conservation-resistance-breeding.php for more information!

Ash populations still face an uphill battle. The EAB is still expanding its range and killing large numbers of ash trees. But the future looks brighter than it did even a few years ago. It looks like the path for ash will be more like native elm species which, even though large trees are now rare, have managed to persist



GLIFWC still has 12 x 18 inch aluminum "Don't Move Firewood" signs available. Tribal wardens, natural resource staff and others are encouraged to put them up along main roads into reservations, at tribal campgrounds, at powwows, and other high-traffic areas. Email steveg@glifwc.org for more information.

and reproduce in the face of Dutch elm disease, rather than the American chestnut, which has been all but eliminated from its former range in eastern North America by the chestnut blight fungus.

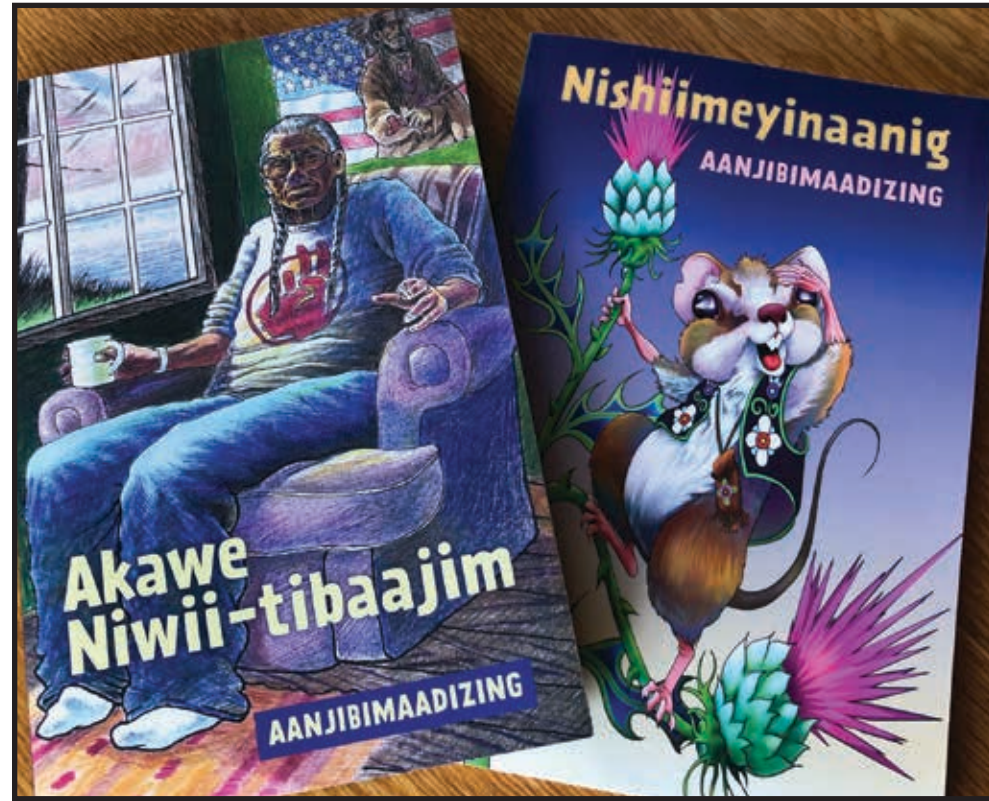
It's worth pointing out that all of these introduced insects and diseases are just doing what the creator made them to do. It's people who have messed up and brought them here, and only people can prevent the introduction of more invasives that will inflict more harm to the forests of Turtle Island.

Language revitalization endures through difficult times

By Bizhikiins Jennings, Staff Writer

As schools struggle with in-person or virtual instruction, GLIFWC and its member tribes are working hard as ever to produce useful tools for all ages. Recently, the Mille Lac's Band of Ojibwe assembled an all-star crew of first language speakers, elders, learners and language scholars to develop multiple large-scale language projects.

The Minnesota Historical Society Press published copies of the group's collective vision, Nishiimeyinaanig and Akawe Niwii-tibaajim, which are already making their impacts across Ojibwe country. Produced by the Aanjibimaadizing program, first language speaking elders, Ojibwe language learners, and scholars spent months recording these stories and drafting the content and editing the final production. Ojibwe artists



Akawe Niwii-tibaajim and Nishiimeyinaanig were recently published by the Minnesota Historical Society Press. (B. Jennings photo)



Nenda-gikendamang Ningo-biboonagak (We Seek to Learn Throughout the Year) provides Ojibwemowin resources for all ages. Materials include animated audio books, language learning games, free supplemental documents to download and print, stories of culture and respect read by tribal elders, and much more! Visit the website often as we are continually adding new resources.

Language project enters year two Waabanong books in tribal communities

The GLIFWC Maajii-Ojibwemowag: They Begin to Speak Ojibwe project has officially entered its second year. The Administration for Native Americans-funded project, focusing on creating Ojibwe language learning

resources targeting youth ages birth to five, will continue with the second theme of the Maajii-Ojibwemowag series, entitled "Zhaawanong: Stories of the Plants" in this upcoming year.

The first theme set, "Waabanong: Stories of the Four-Legged," has been distributed to GLIFWC tribal Head Starts and daycare facilities over the last few months. These materials include three, kid-friendly storybooks featuring traditional tales of waabooz (snowshoe hare), makwa (black bear), and ma'ingan (gray wolf), supplemental documents highlighting cultural and educational resources, coloring books adapted from the storybooks, crayons, and a drawstring bag. To ensure public safety, project staff collated all Waabanong materials wearing masks and disposable gloves, and regularly sanitizing all surfaces.

Waabanong: Stories of the Four-Legged materials can be viewed on GLIFWC's language website: glifwc-inwe.com. Website visitors can download and print all of the Maajii-Ojibwemowag materials for free, as well as play games featuring Ojibwe words and phrases.

Like the Waabanong materials, the "Zhaawanong: Stories of the Plants" set will feature three traditional stories, highlighting: asemaa (tobacco), bagwaji-zhigaagawaanzhiig (wild leeks/ramps), and manoomin (wild rice).

Project staff are working with Dennis and Cleo White, of Lac Courte Oreilles and White Earth, to develop the Zhaawanong: Stories of the Plants materials, webpage, and online activities. Look for the new "Zhaawanong: Stories of the Plants" books in Spring 2021!

To learn more about the project and website, contact Misty Peterson, Language/Outreach Specialist, at mpterson@glifwc.org or Melissa Maund Rasmussen, Intermedia Web Designer, at melras@glifwc.org.

—ANA Language project staff



GLIFWC ANA Projects Coordinator, LaTisha Coffin, collates Waabanong materials in preparation for distribution to GLIFWC member communities including tribal Head Start programs. (M. Rasmussen photo)



Barb Biller, Lac Courte Oreilles Head Start director, received Waabanong materials from GLIFWC Executive Administrator Mic Isham. (submitted photo)

Jonathan Thunder, Steve Premo, and Wesley Ballinger created one of a kind illustrations to succinctly match the monolingual text.

If these publications weren't exciting enough, the crew is not stopping here. In December of 2019, the Mille Lacs Band of Ojibwe Administration released an announcement that the tribe and program will be partnering with Rosetta Stone—the award winning, international language learning platform. To date, Rosetta Stone has only worked with less than 10 tribal communities including Chickasaw Nation and the Navajo Nation. Rosetta Stone has a strong track record of assisting communities around the world in language revitalization efforts. The collaboration marks a big win for Ojibwe country and will be the first Rosetta Stone project of its kind in this region.

Covid-19 and associated travel restrictions have pumped the brakes of progress for many aspects of the project, however, the crew is still finding new virtual outlets to continue producing content. This long-term project will result in a strong compilation of digital media. Once finalized, an entire Ojibwemowin learning app will be developed, making the language ever more accessible to all tribal communities, no matter the location.

When asked about the significance of both projects, Bemidji State professor, scholar, and historian Dr. Anton Waagosh Treuer acknowledged: "Too often we've had people outside native communities saying, 'We know what's best for you,' with a focus on a white set of goals. We need our version of this, and our language, our culture, our ways, and the intergenerational

transmission of this information is the best way to build healthy tribal communities."

Check out this powerful video produced by the Mille Lacs Band of Ojibwe about historic and current language revitalization projects: youtu.be/XtGugHy-syU

Tribal communities all across Turtle Island have had to make difficult decisions about how they both prioritize and subsequently revitalize language and culture. Dr. Michael Sullivan, a Linguist and member of the Lac Courte Oreilles tribal community reminisces on the big picture.

"They say that each generation of Anishinaabe people inherits a fight. For the previous generation, the fight was for treaty rights and sovereignty. We won that fight. Our current generation, it's the fight for our language. If we don't win this fight, it's going to die in our lifetime. I think everyone here, will not let that happen."

And as always, GLIFWC language resources are available online at any time. Visitors will find the website glifwc-inwe.com extremely user-friendly. The activities are great classroom additions that can be used virtually or on a smartboard. With continued determination and efforts from Ojibwe tribes, programs and other entities, the creator's language will continue to sound throughout Turtle Island.

Each direction of the medicine wheel page pertains to stories about each form of creation. Zhaawanong—Stories of the plants, Ningsaabii'anong—Stories of the swimmers, and Giwedinihong—Stories of the flyers will all be released in the coming year. Be on the lookout for more stories and activities!



As the world copes with the global COVID-19 pandemic, Anishinaabe teachings of mutualism and environmental symbiosis resonate loudly across Indian country.

It is prudent at this time to remember that our first, original treaties were agreements with every order of creation. Anishinaabe epistemology reiterates that we as humans were placed on this earth last. Each order of creation—from the four-leggeds to the plants—stood up for Anishinaabeg and agreed to lend us the sustenance needed to live a good life.

As the earth and humans attempt to create a new relationship moving forward, these original teachings lay the foundation for realizing true balance.

The original clan animals remind us that we are not the only beings that exist in this world and that we all have responsibilities to take care of the environment. Our traditional doodem (clan) teachings hold the capacity to reconnect all of us to our purpose and our responsibilities. Among many things, it is the clan system that has played a great role in Anishinaabe governance and strength as a nation.

Today in many tribal communities this strength and nationhood emanates across Turtle Island as

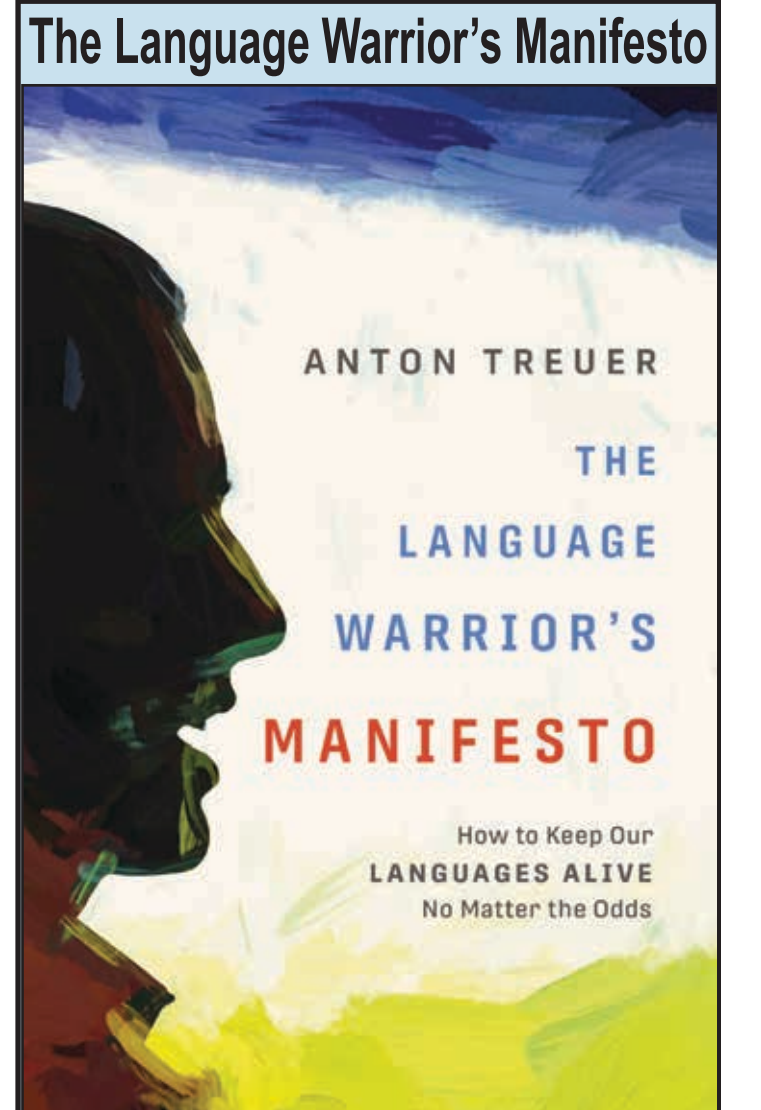
people draw from blood memory. They are returning to the landscape, returning to the medicines, and returning to the ceremonies that have always been vital for survival. These many returns are a homecoming to a way of life that has been calling out to us to remember it for some time.

Ojibwe artist Sarah Howes of the Fond du Lac Band created this year's poster in hopes of inspiring and providing a sense of optimism for those most impacted by the COVID-19 pandemic. It serves as a raw reminder that when we remember our teachings, we receive the gifts of strength and clarity. The other orders of creation have helped us to survive, and they will continue to help if we remember these important relationships.

Dr. Michael Sullivan, an Ojibwe linguist and immersion instructor at the Waadookodaading Ojibwe Language Institute pondered the notion of Anishinaabe clan teachings and the current pandemic, remarking "Minjimendandaa gaa-gikinoo'amaagoowiziyang—Let's keep in mind what we have been taught."

24" x 18" posters are available by emailing pio@glifwc.org, online at glifwc.org/publications/#Posters or by filling out the order form on page 5.

Find GLIFWC's all-ages, no-cost Ojibwemowin online resources at glifwc-inwe.com.



Following a long period of deliberate suppression by United States and Canadian authorities, some five hundred languages spoken on Turtle Island before European contact have dwindled to about 150. From the upper Great Lakes region through western North America, language warriors are now leading a revitalization of indigenous languages and cultures.

In his 2020 release, *The Language Warrior's Manifesto: How to Keep Our Languages Alive No Matter the Odds*, Anton Treuer discusses the interrelationship between language and culture, the problems of language loss, strategies and tactics for resisting, and the stories of successful language warriors. The powerful, sometimes humorous, narrative is filled with inspiration and personal insights. Find a copy from your local bookseller or mhsp.org/mhspress.



Enduring human-made chemicals raise red flags PFAS in deer, fish, and the environment

By Travis Bartnick, GLIFWC Wildlife Biologist

The State of Wisconsin recently issued a “Do Not Eat” advisory for the liver from deer harvested within five miles of the JCI/Tyco Fire Technology Center (FTC) in Marinette, Wisconsin. The advisory was issued in response to a report released by the Wisconsin Department of Natural Resources (WDNR) suggesting elevated levels of per- and polyfluoroalkyl substances (PFAS) in the liver of deer that were sampled near the JCI/Tyco FTC in Marinette. The “Do Not Eat” area is located approximately 25 miles outside of the 1842 Ceded Territory boundary, and does not apply to any deer harvested within the Wisconsin Ceded Territory.

“PFAS chemicals were commonly added to aqueous film-forming foams used in firefighting, which is one of the major sources of contaminated sites in Wisconsin, Michigan, and Minnesota,” said Sara Moses, GLIFWC Environmental Biologist. “Regulations on PFAS are being strengthened in many states. In some cases, the chemicals are being phased out from certain uses.”

PFAS are part of a group of synthetic chemicals that are often used in everyday products such as non-stick cooking utensils, food packaging, cleaning products, and paints. Chemicals in the PFAS group are very strong and stable, which means they are resistant to breaking down in the environment. The persistence of these chemicals also means they can accumulate in our bodies, and the bodies of other animals such as deer and fish. The recent WDNR report indicates that heart, skeletal muscle, and liver tissues were sampled from deer near the JCI/Tyco FTC in Marinette. The PFAS levels were low in deer heart and muscle tissues, but elevated levels were found in the deer liver samples. The WDNR is currently in the process of collecting additional samples from deer throughout the state to compare PFAS levels in deer elsewhere. According to the Wisconsin DNR, there are currently no designated areas of concern within the Wisconsin Ceded Territory.

In response to the “Do Not Eat” advisory in Wisconsin, the Minnesota Department of Natural Resources (MNDNR) will be sampling deer in two PFAS-contaminated locations in Minnesota. One of the sites is near the Twin Cities Metro area. The other contaminated site is located within the 1854 Ceded Territory, between the Duluth airport and south of Wild Rice Lake. Sampling at the Duluth location began in mid-September after the start of the archery season. The MNDNR is collecting samples on a voluntary basis, working with hunters near the sampling sites. They have set a goal of collecting liver and muscle tissue from 60 deer to establish a baseline dataset on PFAS levels in the Minnesota deer herds near these contaminated sites.



PFAS chemicals were commonly added to aqueous film-forming foams used in firefighting. PFAS are often used in everyday products such as non-stick cooking utensils, food packaging, cleaning products, and paint. (Matt Hecht CC PDM 1.0)

This is not the first time a “Do Not Eat” advisory has been issued for elevated levels of PFAS in white-tailed deer. In October 2018, the Michigan Department of Health and Human Services issued a “Do Not Eat” advisory for deer harvested within five miles of the Wurtsmith Air Force Base, near Oscoda, Mich. The five-mile advisory area included Clark’s Marsh, located just inland from the Lake Huron shoreline in Michigan’s lower peninsula. One of the deer sampled was found to have elevated PFAS levels in the muscle tissue, which triggered the “Do Not Eat” advisory.

Environmental and public health experts have placed a lot of focus on PFAS in recent years. Many recent studies have suggested that increased exposure to these chemicals can have a wide range of negative effects on our health, as they have been found to accumulate in our livers, kidneys, and blood. According to the Environmental Protection Agency (EPA), some human epidemiology studies on the adverse health impacts associated with elevated levels of PFAS have sug-

gested increased cholesterol levels, and more limited evidence has suggested low infant birth weights, effects to the immune system, cancer development, and thyroid hormone disruption.

PFAS can also enter aquatic food webs in contaminated areas. In recent years, states have increased their testing of PFAS chemicals in fish leading to PFAS-based consumption advisories in certain waters of Minnesota, Wisconsin, and Michigan. In Minnesota and Wisconsin, these advisories are in waters well outside the Ceded Territories. Minnesota advisories are concentrated near the Twin Cities metro area. In Wisconsin, PFAS-based fish consumption advisories exist for the Mississippi River and Lake Monona in Madison. In Michigan, a number of waters have PFAS-based advisories for fish, but only one of these waters is within the Upper Peninsula—Silver Lead Creek in Marquette. The states and U.S. Environmental Protection Agency continue to expand testing efforts for PFAS in fish to include additional species and locations in both inland and Great Lakes waters as well as a greater number of PFAS chemicals.

Correction: An error appears in the *Mazina'igan* Dagwaagin 2020 edition page one, “With custom processing equipment, GLIFWC helping tribes make the most of manoomin season.” Individual processors are designed to process 200 pounds of wild rice in two hours, rather than the reported 400 lbs per hour. Manoomin processors were delivered to GLIFWC member tribe communities in pairs, which together can turn out 400 lbs.

Minnesota update on wolf management plan underway

By Peter David, Wildlife Biologist

The Minnesota Department of Natural Resources has begun an extensive process to update its existing wolf management plan, which will turn 20 years old in February. The update creates an opportunity to revisit wolf stewardship goals, and to incorporate knowledge and insights gained over the last two decades.

It’s interesting to look back at what has changed since the plan was written. A great deal of additional research and understanding of wolf ecology has been achieved, and that will no doubt increase over the next 20 years. But one thing that hasn’t changed very much is the estimated wolf population in the state.

In 1998 (the year from which the most recent population estimate was available when the existing plan was written) the Minnesota wolf population was estimated at 2,450 animals, and appeared to be trending fairly strongly upward. An estimate made over the winter of 2003-2004 climbed to just over 3,000 animals. But this would turn out to be the highest estimate in recent times. The estimates from the last four years have averaged about 2,730 wolves, and have not trended up or down, indicating the population has roughly stabilized. This population leveling has notably transpired in the absence of a regulated harvest.

The Minnesota Department of Natural Resources has developed a thorough process to guide the update. One important first step was to conduct a public attitudes survey in cooperation with the Minnesota Cooperative Fish and Wildlife Research Unit. That study documented high levels of positive attitudes towards wolves among the Minnesota public, and strong support for existing wolf populations and

their distribution on the landscape (see Dagwaagin 2020 *Mazina'igan*, page 5).

The DNR also developed a 20-member, highly diverse Wolf Advisory Committee to provide input on plan revisions, held a series of virtual “open houses” to get additional public input, and worked with the International Wolf Center to host webinars focused on topics like estimating the wolf population and living with wolves.

Finally, they assembled a large Wolf Technical Team to provide scientific insight and evaluation from the biological community. Tribal natural resource departments have a significant presence on the Technical Team. In addition, tribes and intertribal agencies will be in discussions on wolf stewardship through government-to-government consultations with the state as well.

The heavy lifting in updating the plan is really just getting underway. Meetings with the Advisory Committee have been hampered somewhat by Covid-19 restrictions, as the day-long, face-to-face meetings originally envisioned for this committee have been replaced by shorter virtual meetings.

The expansion of the ma’iingan population in Minnesota since it gained protection under the ESA, and the recovery of ma’iingan in Wisconsin the Upper Peninsula of Michigan that it generated, have been hopeful events for Ojibwe people who understand their future is interwoven with ma’iingan’s.

Ojibwe people might now meet their brother nearly anywhere in the 1837 or 1842 ceded territories, a condition that did not exist for generations of tribal members. Hopefully the gains made over the last 20 years can be preserved as the tribal and non-tribal communities look ahead. But expectations are tempered by the recent announcement from US Fish & Wildlife Service that wolves were no longer under the protection of the Endangered Species Act.



What's in a name?

Efforts to erase "squaw" from landscape continue

By Bizhikiins Jennings, Staff Writer

English English English! It's what is commonly spoken in our neck of the woods. It's what we read, it's what we listen to, and in many circles, it's how we communicate with one another. Despite English presence everywhere, many of the places we travel to or call home, are named in indigenous languages or named after indigenous concepts.

GLIFWC member tribes have long been engaged in the movement to both eliminate the harmful usage of mascots and misappropriated language. Place names like "Squaw Lake" have been topics of recent conversations with tribal leadership. Squaw is a derogatory term to describe a Native American woman. It has no ethical use or space in tribal circles or gatherings. In fact, it's quite an offensive name. However, names like this appear all over the United States. Many people remember in the late 1980s when treaty protestors held signs reiterating harsh racial rhetoric like "save a walleye, spear a pregnant squaw."

A lake that has been historically used by the Lac du Flambeau Tribe has been acknowledged as Squaw Lake, through maps and signage. Lac du Flambeau Tribal President John Goober Johnson noted: "Tom Maulson Jr. has been a huge mover in our community to address this issue. It's unfortunate that these names can be

difficult to change—we shouldn't have to argue or spend our valuable time pushing these initiatives. I'm hopeful we can get all derogatory names changed to more culturally sensitive names."

Communities like the Red Cliff Tribal Community have also dealt with similar circumstances. In 2007 after many years of bringing the issue to light, the Red Cliff community was able to successfully change the name of Squaw Bay to Mawikwe Bay, a more appropriate word that tribal members agreed helps to describe the sound of the water—literally meaning "weeping woman."

Ojibwemowin is the language that was given to Anishinaabeg, also known as the creator's language. It's a beautiful, vibrant and extremely descriptive language with respect and empathy embedded within the language itself.

Travel anywhere around the United States, and more often than not, you will see indigenous languages present. Have you ever heard of Pasadena, California? Pasadena when correctly pronounced "Basadinaa" is actually an Ojibwe word that describes a valley or place of valleys. The majority of people probably don't spend too much time considering place-names and their respective origins. These conversations will continue through the years as the United States struggles to become more culturally adept and culturally sensitive to the Nation's first inhabitants. Through dedicated commitment and meaningful consultation, place names can be successfully changed with positive learning outcomes for all.

2021 phenology calendar

Are you still working at home? Traveling less than you used to? We have a great activity for you, particularly if you have kids! This Mazina'igan issue contains our winter/spring phenology form for you to record your own phenology observations.

Phenology is the study of the timing of biological events throughout the year—when maple sap starts running, ruffed grouse begin drumming, or blueberries ripen. Observing the timing of seasonal events and harvesting accordingly is how indigenous people have been surviving for thousands of generations.

The form is found below and continues on page 16. Cut it out, put it on your refrigerator and fill it in as you notice changes, and when spring rolls around, send


it back to us—we will use your observations to help us track changes on treaty resources, and some of your observations will be included in future phenology calendars!


If you would like to submit observations online instead, visit data.glifwc.org/phenology.calendar. The form is quick and easy, and you can add pictures from your phone of your observations.

This can be a fun activity for schools, families, or anyone that enjoys spending time outdoors! Miigwech!

—Climate Change Program staff

(see **What are you observing in the Ceded Territories**, page 16)





PLACE
STAMP
HERE

Tape and stamp this form and return to GLIFWC by June 30, 2021. Make sure to include the information below:

Name: _____

Address: _____


Tribal affiliation (if any): _____

Phone number or email: _____

To submit observations via our online submission form or for additional copies of this form, go to:

data.glifwc.org/phenology.calendar

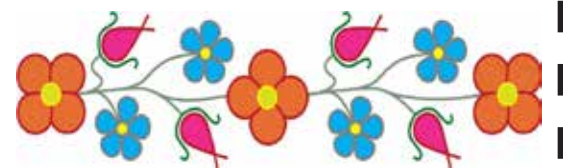
Please print return address :



GLIFWC — Climate Change
72682 Maple Street
P.O. Box 9
Odanah, WI 54861

Aaniin ezhiwebak Anishinaabe- akiing?

Please Help GLIFWC
Observe Seasonal
Events in the Ceded
Territories



GLIFWC is trying to understand how environmental changes could be affecting treaty resources.

Help us study phenological and seasonal changes by writing down your observations on this form. Keep it on your bulletin board or refrigerator. Share your knowledge by mailing it back to GLIFWC by June 30, 2021.





Healing Circle Run goes virtual for 2020

By Paula Maday & Bizhikiins Jennings
Staff Writers

One of the teachings that participants of GLIFWC's Healing Circle Run often learn is that you don't always have to complete your miles along the designated route. The run is a ceremony, every step a prayer, and you can do that ceremony wherever you are and whenever you need to. Prayer is not limited by location or by time.

In 2020, this teaching was put into practice and many, many people across the world found the Healing Circle Run at a time when they needed it most.

Approximately five months into the COVID-19 outbreak in the United States, Centers for Disease Control guidelines and safe practices had families hunkered down at home and social events cancelled. No school. No pow wow summer. No visiting with aunties, uncles, grandparents, or anyone outside of immediate households.

Tribal communities maintain disproportionate levels of health impairments compared to other Americans and many tribal leaders were forced to make difficult social and economic decisions throughout the summer in an effort to keep their communities safe. But while necessary, amidst this fight for safety and survival, people's hearts grew lonely and their heads filled with fear.

The initial inception of the Healing Circle Run—the 1989 Peace and Solidarity Run—was borne out of circumstances not completely unlike these. Created at a time when people were separate from one another in their views about treaty rights, many aggressive and threatening to the Ojibwe way of life and our survival, the run was an attempt to bring peace and solidarity. In a way, the Healing Circle Run has been training us for times like these all along. Life is circular.

The Healing Circle Run is usually circular too, connecting many of the GLIFWC member tribes throughout Michigan, Wisconsin, and Minnesota. The process takes seven days, starting from Lac Courte Oreilles and traveling to Lac du Flambeau, Mole Lake, Lac Vieux Desert, Bad River, Red Cliff, Fond du Lac, Mille Lacs, St. Croix, and back to LCO. At every juncture, group gatherings are typically held and ceremony ensues.

This year, instead of the regular route and procedures, GLIFWC and each tribal community began developing plans for a virtual run event. GLIFWC Board of Commissioners and Voigt Intertribal Task Force were both adamant that some form of safe event happen—in order to carry on the teachings, practices and positive energies. And so the virtual Healing Circle Run was born, a declaration of hope, resiliency, and return to ceremony in a time of unknown.



Thomas and Nashay Howes and their children completed 20+ miles together walking, running, biking, playing lacrosse, even skateboarding! On day two of the run, the family did an aquatic mile, canoeing in a circle around the old island village in Fond du Lac. (Thomas Howes photo)

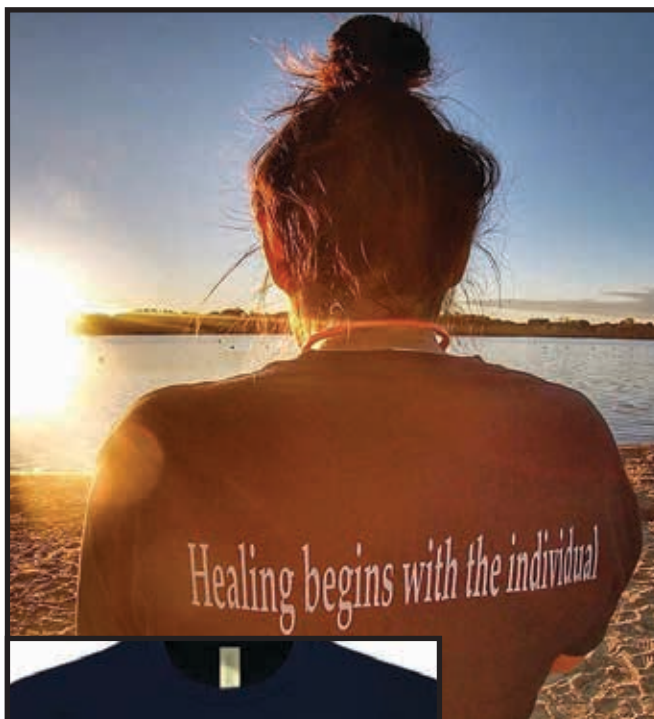


Faye Maday and her grandson Cecil put in miles along the forest paths of the Ceded Territory, near Little Lost Creek Falls in northern Wisconsin. (L. Wrazidlo photo)

Starting in a good way

On August 1, a small group of ten individuals gathered at the Bad River pow-wow grounds in the early morning hours to feast the ceremonial items and staffs used during the Healing Circle Run. Water was lifted, and the women offered up beautiful songs and prayers on behalf of all communities. Each tribal community was also encouraged to host their own small ceremonial gathering and promote some form of online event to create a similar atmosphere and camaraderie.

All participants wore masks and sat a safe distance apart. Once pipes were lit and a few songs were sung, participants shared about their experiences with the Healing Circle Run. Bad River Tribe Director of Social Services Esie Leoso-Corbine reminded everyone of the importance of ceremony. "I'm glad that something is still being done (See Healing Circle Run, page 19)



Verna Volker, founder of Native Women Running, completed 21 miles in Minneapolis as part of Healing Circle Run 2020. Here, she wears this year's t-shirt, designed by Sarah Agaton Howes of Fond du Lac. The front features a runner's staff with Ojibwe floral design and the phrase "Booshke wiin waa-izhi-maajii-noojimod," translated on the back to read, "Healing begins with the individual." (Verna Volker photo)

Healing Circle Run newsfeed Participants check in from the road

This run was a blessing during a difficult time, and I'm thankful for the ability and opportunity it provided. ❤️ I pledged 20 miles but ended up completing almost 27 spending time outside and enjoying the peace of nature.
—Portia Lassiter

My husband and I completed 12 miles together. We are grateful to be able to run and show our children a healthy lifestyle.
—Melisa Gomez

On today's walk, I reflected on the sustained quiet that has come about as a result of the lengthy "pause" we have been observing, and what that is teaching me. I have learned that I don't need a lot of the things, the distractions that I'm doing without. Good riddance! The quiet is helping me focus on paying better attention to the small wonders on my path.
—Allie Raven

Although this year was different, the KwePack is honored to be a part of this strong community. Miigwech to GLIFWC and their partners for organizing this every year. We will all be back next year running across our homelands together.
—Sarah Agaton Howes

Today my cane and I did our mile in Minocqua. Walked on the route of the Unity Walk organized by young people in our area about a month ago to highlight the connections of all people in the circle of life and the importance of respecting all living things. Lots of people from Waaswasgaming and the surrounding communities joined together in the event and it was very positive. Much needed good energy in an area where there was so much negative energy back when the Healing Walk was started. The work is not over, but progress has been made, much of it inspired by the miles run and prayers offered during the GLIFWC Healing Run each year. Miigwech to the organizers and all those who have run, walked, inline skated and mire over the years.
—Carol Amour

Today I prayed for healing, wellness, and prosperity for our community. Had a great discussion with my coworker about changing our narratives and also with a friend about allowing yourself to shine & soar after a season or a lifetime of hiding. It's ok to do well!! Be well niijis!
—Melissa Marcelle

I ran my 6 pledged miles this morning for GLIFWC's virtual Healing Run along trails that hug the Lake Superior shoreline. I thought about my relatives, especially about my grandmothers who were so strong and smart and beautiful and resilient. I thought about what the trip to Sandy Lake must have been like so long ago. I thought about how beautiful the woods are and how grateful I am for this life, my family and the trails that I can run.
—Beth Paap

It's a great day to be indigenous 🌈 5 miles down all the way from Texas! We saw alligators, giant spiders, and about 6 billion hawk size super fast mosquitoes. Feeling blessed to participate with my family up north.
—Christina Renaud

Little over 10 miles of trails today. Running has always been a time for me to reflect and speak to those who are gone, but never forgotten. Prayed for healing, strength, and the health and safety of our community.
—Pamela Butterfield

I ran 2 miles to the big Lake and back from my home in Washburn. I put tobacco in the water to thank it and the ancestors who are buried in the area. I'm thankful to be a part in all of it.
—Dawn White



Protecting the harvest

Tribal-UMN partnership prioritizes indigenous knowledge to study and learn from wild rice

St. Paul, Minn.—As Minnesota’s 2020 wild rice harvesting season opened on August 15, a unique research collaboration involving tribes, inter-tribal organizations, and the University of Minnesota (UMN), is beginning to share findings from its first two years of work to protect and learn from *Manoomin/Psiñ/wild rice*.

The collaboration, given the Ojibwe name Kawe Gidaa-Naanaagadawendaamin *Manoomin/Psiñ* (First we must consider Manoomin) by members of the Fond du Lac Band of Lake Superior Chippewa, has generated several interdisciplinary studies, including a mail survey of Minnesota state-permitted, or non-tribal, wild rice harvesters in 2018.

More than half of the 1,339 state permit holders responded to the survey. The survey results reveal that:

- 80 percent of respondents believe that wild rice and wild rice waters need better protection
- 87 percent support enforcing water quality regulations to protect wild rice
- 79 percent support increasing water quality regulations to protect wild rice.

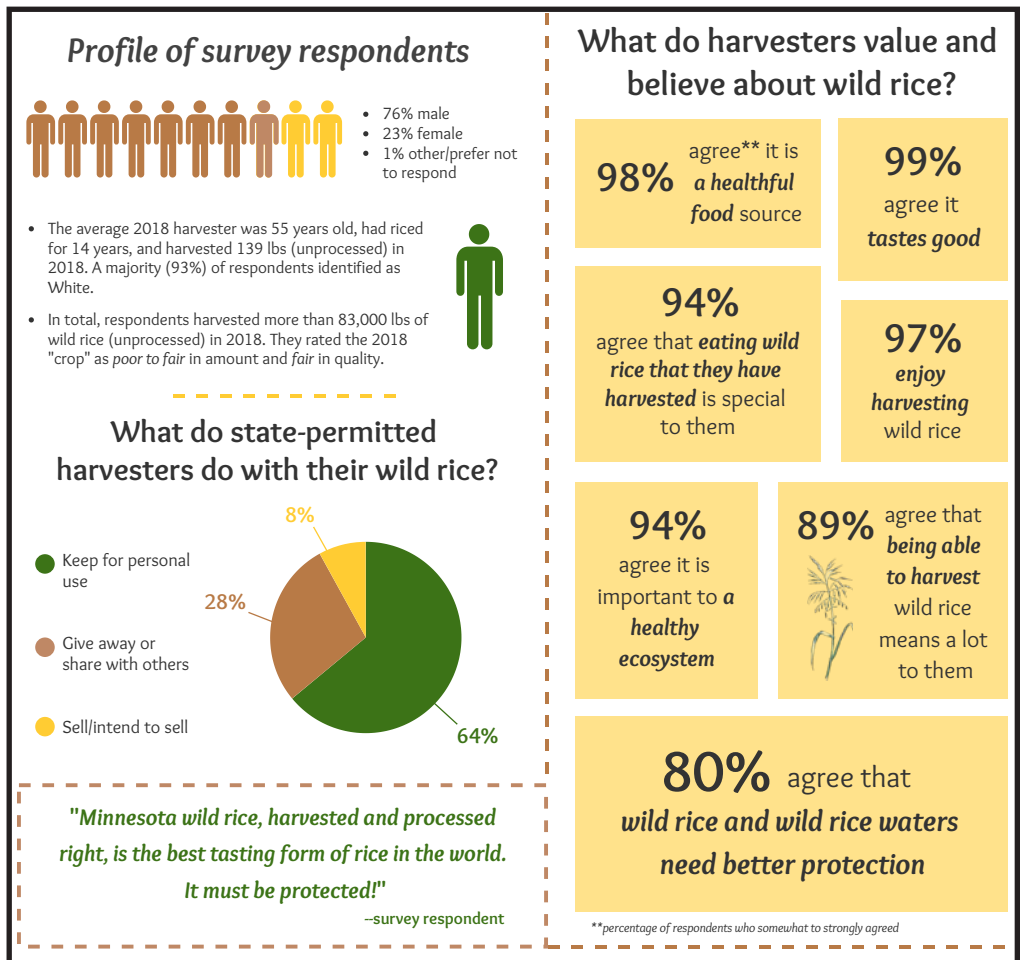
The study confirms that wild rice is an important food source and cultural resource to non-tribal harvesters, and supports the ongoing wild rice research and stewardship of tribal and non-tribal resource management agencies.

Wild rice is Minnesota’s state grain and to the Ojibwe tribes across the Great Lakes it is a sacred food, medicine, and gift from the Creator. Indigenous people have been hand-harvesting wild rice in this area for millenia; since European settlement, hand-harvesting has become an important tradition to non-tribal members, who are required to purchase a state permit.

It is important to note that while harvesters are allowed to take ripe wild rice each year between Aug. 15 and Sept. 30, Minnesota’s green rice law makes it illegal to harvest unripe or “green” rice, even within the dates of the harvest season. The Minnesota Department of Natural Resources states that “although rice beds may look like they are ready, ricers must make sure the grain is ripe and falling easily from the stalk before attempting to harvest it.”

Manoomin is also a sensitive plant; it is nearly gone in Michigan, and one-third of Manoomin stands have disappeared across Wisconsin and Minnesota as a result of multiple stressors including habitat fragmentation, disturbed hydrology, climate change, and impaired water quality.

The First we must consider Manoomin collaboration was launched in 2017 with the principal aim of supporting tribal communities in their goals to restore



University of Minnesota graphic.

Manoomin/Psiñ ecosystems, ensure a healthy food source and promote greater food security for indigenous communities. The collaboration is unique in its commitment to prioritize tribal knowledge, perspectives, and needs related to wild rice.

“Tribes in this area have such a long-standing, deep relationship with Manoomin and our study reinforces that many non-native people share this value,” said Mike Dockry, assistant professor in the Department of Forest Resources at UMN’s College of Food, Agricultural and Natural Resource Sciences. “In these times of such turmoil and division in society, Manoomin can really bring people together around protecting the harvest and caring for our environment.”

The collaboration also is motivated by the need to repair and enhance relationships between the University of Minnesota and tribal nations.

According to Darren Vogt, Resource Management Division Director for the 1854 Treaty Authority, “This project really re-set the start point for these relationships between tribes and the University. It has shown that it is possible to do really important research that takes into consideration tribal views and tribal values.”

In addition to the harvester survey, Kawe Gidaa-Naanaagadawendaamin *Manoomin/Psiñ* collaborators have collected biophysical data on Manoomin waters and interviewed resource managers about the state-tribal consultation process.

“We all work side-by-side to compose research questions, design research plans, co-analyze data, and understand the implications of our findings,” said Dockry.

In addition to the biophysical and social science research, the collaboration brings all partners together twice annually (virtually if necessary) for a conference to build relationships, develop trust, shape the direction of the project, organize field work, discuss research results, and disseminate findings.

Collaborator Kari Jacobson-Hedin, Watershed Specialist with the Fond du Lac Band of Lake Superior Chippewa, noted, “This project is really powerful in supporting indigenous students to bring their knowledge, and the knowledge of their communities, to the table.”

Project collaborators hope the tribally-centered approach will not only protect Manoomin, but also will enhance the ways in which the University works and interacts with tribes, and impact how natural resource research is done.

“I am hoping that, long-term, other projects at the University will implement the model of Tribally identified and driven research that respect Tribal sovereignty and traditional knowledge as science,” said former Fond du Lac Chairwoman and Obama Native American Affairs Advisor Karen Diver. “The interdisciplinary nature of this project, fully informed and cooperative with Tribal partners, makes this unique in natural resources research.”

For more information about the state-permitted wild rice harvester survey contact: Mae Davenport, mdavenport@umn.edu.

For more information about the Kawe Gidaa Naanaagadawendaamin *Manoomin/Psiñ* (First we must consider Manoomin) project: manoominpsin.umn.edu/.

Manoomin threshers

Delivering a boost to GLIFWC member tribe’s ability to process wild rice, Keepseagle staff completed distribution of manoomin threshers to communities across the Ceded Territories. Through Keepseagle grant funds, GLIFWC evaluated services and supplies available to tribal wild rice harvesters and followed through with material and technical assistance. Mechanical threshers help speed the work of separating wild rice grain from its hull.



Lynda Nguyen, Red Cliff Natural Resources environmental director.



Mark Soulier (l), St. Croix TRAILS youth coordinator, William Reynolds and Frances Sonatay, tribal council members.



Chris McGeshick, Sokaogon Chippewa Community representative.



Terry Perrault, Jr., Fond du Lac Natural Resources Department.



Early study results reveal juvenile, adult walleye patterns in Lake Mille Lacs

Additional species on tap for ongoing acoustic telemetry

By Kris Jensen, For Mazina'igan

In 2020 staff from Mille Lacs Band Department of Natural Resources and GLIFWC began the process of collecting and analyzing data as a part of the Band's ongoing acoustic telemetry study of fish movements, habitat, and temperature preferences in Mille Lacs Lake.

For two weeks in late June staff worked to retrieve 61 receivers which had been submerged in the lake since the Spring of 2019 logging fish detection data. After collection, the fish detection data was downloaded, and the receivers were redeployed in the same locations to continue collecting data.

The fish detection data from 2019-2020 includes depth, temperature, and location information from tagged northern pike, walleye, tullibee, and yellow perch. In addition, data from over 90 light and temperature loggers were also collected

to determine how water temperature varies by depth for each season. In addition, 11 receivers were also deployed in rivers and streams connected to Mille Lacs Lake. Those receivers detected fish movement as far away as Milaca (30 miles south, Rum River).

The telemetry study will help tribal biologists understand whether factors like increased water temperature and clarity are reducing the amount of available habitat for Walleye, leading to potentially greater predation of juvenile walleye by adult walleye. The other fish species will inform tribal biologists on how forage fish impact juvenile walleye cannibalism and movement.

"Analyzing the data is the exciting part of this study," said Carl Klimah, fisheries manager for the Mille Lacs Band Department of Natural Resources. "All of the hard work is now paying off and we are starting to build an important understanding of fish movement in the lake that could help us understand what factors are impacting walleye abundance and health."

Mille Lacs Band and GLIFWC staff are in the process of analyzing the 2018-2019 fish detection data. Preliminary results were drafted into a presentation which was presented by Klimah at the 2020 American Fisheries Society Virtual Conference.

Initial data indicates that adult and juvenile walleye are typically not at the same depth in the lake, with juveniles preferring much deeper water. This would suggest that, while there are periods of overlap that provide limited windows for cannibalism, these windows may be short and occur during specific times of the year. For instance, tribal biologists found that during the daytime in January there was geographic, temperature, and depth overlap between adults and juveniles. It is important to note that this is based off one year of data, and it is unknown if there is year-to-year variability to fish movement and behavior.

While the 2018-2019 fish detection data focuses only on adult and juvenile walleye, the newly downloaded results from June 2020 also include northern pike, tullibee, and yellow perch. Klimah said the team hopes to have all data from 2018-2020 analyzed and compiled into shareable reports and presentations by spring 2021. However, advanced analysis of the data will most likely be ongoing and continue past 2021.

"Next year we hope to tag smallmouth bass and, or, muskellunge as a part of our fish tracking study to continue to deepen our understanding of the complex biology of Mille Lacs Lake," Klimah said.



Mille Lacs Band fisheries staff retrieve receivers from Mille Lacs Lake to download fish detection data, replace batteries, and inspect the units for damage. The receivers are then placed back into the lake to collect additional data.

Dr. Aaron Shultz, GLIFWC, (right) and George BigBear, Mille Lacs Band Department of Natural Resources, work to insert a telemetry tag into a northern pike. After making a small incision, a tag is inserted into the fish. The incision is then surgically stitched closed and the fish is briefly monitored before being returned to the lake. (Mille Lacs Band of Ojibwe photos)



Lac Courte Oreilles Conservation Department collected walleye raised in new ponds at the LCO fish hatchery for release into area lakes.

Healing Circle Run 2020

(continued from page 17)

his year," she said. "People all over have had a hard time with this pandemic. Anishinaabeg haven't had the ability to participate in many ceremonies this year, and our communities need them more than ever."

The GLIFWC staffs each traveled with a different community and helped to guide participants on their personal miles. Carolyn Gouge of Red Cliff held one of the staffs and spoke about the youth. "When I walk this year, I'll be thinking of my grandbabies and all of our children."

Kind words of encouragement and gifts were passed to each pipe carrier and the 2020 Healing Circle Run began, with first steps taken on routes that led all across the world.

Sharing the journey over social media

So how does a virtual run actually work? Well, prior to start day, individuals and groups registered on the GLIFWC website and pledged the number of miles they wanted to complete during the course of the run, August 1-7. Then, participants were encouraged to join the GLIFWC Healing Circle Run event page on Facebook. This page served as the central hub for virtual activity, with participants checking in every day with updates about miles completed, reasons for walking/running, photos, and videos.

GLIFWC staff provided guidance and support during the entire week on this social media platform, responding to questions, commenting on posts, and creating content to keep participants engaged. In a time of social distancing, the Facebook event page was one way to try and recreate the bond that is formed among runners during the Healing Circle Run, and many participants expressed gratitude for it. In fact, in a poll taken on the event page, all but one who responded said that they would like to see a virtual component to the Healing Circle Run in years to come.

The normal Healing Circle Run route follows 793 miles across three states. In 2020, Healing Circle Run participants completed 5,680.52 miles in 22 states, plus Canada and Japan. Over 300 registered individuals and 60 groups of varying sizes put feet to pavement to pray, heal, and elevate their energy and health.

And, as always, the most moving part of this annual journey is seeing the changes that take place in ourselves and in others when we remember how to pray. This year, prayers were offered for everything from water, to our Native men and fathers, to those battling COVID, to our ancestors. Prayers put out into the world via words on a social media page and steps grounding to the Earth.

The Healing Circle Run reminds us that even though our routes may change, our steps will always get us where we need to be, as long as they are taken in ceremony with love, prayer, and sincerity. See you on the road next year.



Waabizheshi fosters cross-cultural learning

By Allison Moser Scott
Associate Wildlife Biologist

Odanah, Wis.—I couldn't contain my laughter when, after asking a room of elementary school students to guess what mice typically eat, the group unanimously shouted, "Cheese!" I should have seen it coming. I was a Master of Science student in wildlife ecology at the University of Wisconsin-Madison, and though I had been hired to study wild mice, voles, and their forest-dwelling counterparts, my research also resulted in a unique opportunity to work with the Mashkisibi Boys and Girls Club.

Mice and voles had my attention because they are the primary food for the American marten (*Martes americana*). The marten is declining throughout the Great Lakes region, posing not only an ecological threat but a cultural one as well: waabizheshi, as it is known in the Ojibwe language, is a clan animal. Maintaining martens in Wisconsin supports both ecological integrity and Ojibwe cultural identity on ancestral lands. If my thesis focused exclusively on ecology, it would be incomplete.

My project was funded through GLIFWC, providing a natural opportunity to meet and work with Ojibwe people during fieldwork and community gatherings. These experiences offered meaningful insights into indigenous perspectives, history, activities, and ultimately provided me with context for a more active cross-cultural partnership.

Fostering two-way knowledge transfer was an important goal, which I pursued by working with the Boys and Girls Club. We played games and learned about ways that scientists study wild animals. The students also taught me about their traditional ecological knowledge, especially relating to clan animals. The students were excited to share their knowledge, and I now know that I should never point at a bald eagle if I want to avoid bad luck.

But I came to realize that many kids were not familiar with the ecology of these species. They did not have a strong concept of which species are local versus exotic, and though almost everyone had heard of a marten, they didn't know much about them. In a critically important lesson, we learned that martens eat mice and voles, which usually eat seeds, nuts, and fungi—not cheese.

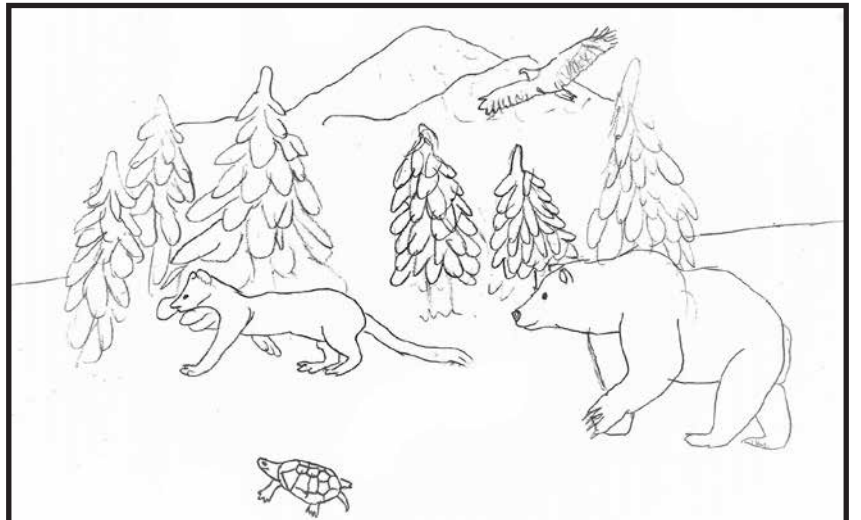
To synthesize our shared learning, the students and I wrote and illustrated a children's book, *Waabizheshi's Journey*. I am incredibly proud of their hard work and the final product they created, and I am thrilled that GLIFWC published their book so that each of them may keep a copy. I hope our time together made these animals real to the students just as their insights enlivened them for me.

Learning about Ojibwe culture and experiences caused me to reflect on my own cultural perspectives. I was especially compelled by the emphasis that the Ojibwe place on being a whole person. In contrast, much of my own life has been compartmentalized, as the expectation of objectivity and detachment is especially reinforced for scientists.

I also came to appreciate that many Ojibwe treat information as a gift and promote a person-centered perspective on information sharing. This attitude often facilitates a more holistic exchange of ideas because it values the cumulative wisdom of personal experience and encourages collaboration between people with different perspectives.

My experience showed me that members of indigenous communities are excited for others to have an interest in learning about their culture. I learned that being an ally and advocate for indigenous peoples is my responsibility as a scientist performing research on the ancestral lands of the Ojibwe, as a resident in the ancestral lands of the Ho-Chunk, and as a neighbor to numerous and diverse tribal communities throughout the United States.

I encourage everyone to meet and build relationships with their tribal neighbors, and I hope that other graduate students also incorporate cross-cultural learning into their work.



Images reprinted from *Waabizheshi's Journey*, written and illustrated by the students of the Mashkisibi Boys and Girls Club, edited by Ally Scott.

Arbuckle joins GLIFWC in multifunctional role



For Hannah Arbuckle, food holds the memories and emotions of a community. Like DNA imprinted within its structure, one bite or act of preparation can unlock laughter, reverence, or knowledge. As a young girl, the newly minted GLIFWC outreach coordinator remembers going to her dad's house on the Bad River Indian Reservation and processing wild rice.

"I remember all the equipment, and everyone who was there, processing together," she said. "It was a great time."

These early memories of wild rice, like ripe hulls ready to be knocked into the sediment for new growth, planted the seed for Hannah's future career path.

In high school, she gravitated toward cooking classes like sunlight. Here, she was exposed to new and different methods of cooking and baking. "I didn't know I was interested in cooking and nutrition until I took a few classes," she said. "It was a part of me that I didn't realize was there until I was exposed to it again."

Post-high school, Arbuckle's love affair with food continued. She pursued her Bachelor of Science degree at UW-

Madison, where she majored in Community and Environmental Sociology. This area of study explores the relationship between communities in which people live, work and play, and their natural environments. She also completed certificates in Food Systems and American Indian Studies.

"The whole thing that drew me to food was the idea of community. Food brings people together. It's one of the most basic things of life and yet a lot of times it can be ignored. I wanted to focus on how food can build community and nutrition."

This past summer, Arbuckle worked as an intern in the GLIFWC planning and development division. Her work included project outreach for the Keepseagle Project, which assisted tribal wild rice harvesters with equipment, supplies, and information.

"My internship at GLIFWC was one of the best experiences I've had in my life so far! This was the first time I was able to be on the reservation for a long period of time, immerse myself in the community and be with my family. At one point during the internship, we needed some wild rice and couldn't find any, so my supervisor and I just went out and harvested it and processed it together. It was my first time actually harvesting! Being able to do that was such a special experience and feeling," Arbuckle said.

With such a positive internship experience, Arbuckle decided to sow the seeds of her passion and apply for an open position at GLIFWC as Outreach Coordinator. This position will have her involved in Great Lakes Restoration Initiative work, as well as education and outreach related to mercury, invasive species, and treaty rights. And for her, this work continues to be personal, raw, and in support of healthy harvesting for healthy communities.

"I like the idea of working for my community and working for my family through this organization," she said. "I've never had a job where I could interact with the community in this way."

Today, Arbuckle grows her own food, in a garden that she tends with her dad. That relationship of caring for food, still strong between them, all these years after it started. They have plans next year for growing and selling food to the community.

—P. Maday

Manoomin season

(continued from page 4)

Over the many years we have asked ricers to share their harvest information with us, we have logged 278 different waters where at least one pound of harvest was reported—pretty interesting. But perhaps more dramatic: the 12 most heavily harvested waters have produced one-half of the total off-reservation harvest in the state. Where would be without them?

This harvest information is also not just of curious interest, but is applied in real ways to rice stewardship. Recently, the State/Tribal Wild Rice Management Committee unanimously supported making some modifications to the list of date-regulated lakes in the state. Our long data-base on harvest information helped point out which lakes would be best to regulate, and where it was largely unnecessary.

So, as always, miigwech to all the ricers who share their information, for the good of manoomin. (And spoiler alert: we are going to be asking you a little about how you finished yours this year, so we can understand challenges ricers face after the rice is in the canoe.) It is deeply appreciated. Now until that survey shows up... which recipe are we going to make next?

GLIFWC would like to recognize the hard work and dedication of the tribal rice chiefs who all put in time and effort to help gather and share manoomin information with their communities. This fall saw the passing of former rice chief and respected manoomin knowledge holder, Pete McGeckick, Jr. of the Sokaogon Indian Community. Pete always brought keen awareness, respect, and pure devotion to the stewardship of manoomin in the Ceded Territories. His insights and knowledge will be greatly missed.



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

Aaniin. Biindigen! Apabiwining omaa, daga namadabin! Nimiwendam waabaminan noongom. Aaniin ezhi-ayaayan? Gimino-ayaa na? Gaye niin, nimino-ayaa. Gisinaa miinawaa dakaanimad. Ingiikajj bangii. Noodin ina? Ganabaj wii-soogipon miinawaa waabang. Giminikwen ina aniibiishaaboo? Niwii-aniibiishaabooke. Eya', miigwech. Gigii-kiiyosem na gii-tawaaging? Eya', ingii-kiiyosemin gitagaaning. Nishiime Steve ogii-aabaji'aan mitigwaabiin. Ogii-paashkizaan waawaashkiwan. Gii-oshki-nitaage. Gotaamigozi. Noongom ina giwii-shooshkwaagime? Eya'! Mii'iw.

(Hello. Come in! On the chair here please sit down. I am happy to see you today. How are you? Are you well? I too am feeling well. It is cold weather and it is a cold wind. I am a bit cold. Is it windy? Maybe it will snow again tomorrow. Do you drink tea? I will make tea. Yes, thanks. Did you all go hunting when it was fall? Yes, we went hunting at the farm. My younger brother Steve used a bow. He shot a deer. He had his first kill. He is a good provider. Now, do you want to go skiing? Yes! That's it.)

Bezbig—1

OJIBWEMOWIN (Ojibwe Language)

Double vowel system of writing Ojibwemowin.
—Long vowels: AA, E, II, OO
Waabooz—as in father
Miigwech—as in jay
Aaniin—as in seen
Mooz—as in moon
—Short Vowels: A, I, O
Dash—as in about
Ingiw—as in tin
Niizho—as in only
—A glottal stop is a voiceless nasal sound as in A'aw.
—Respectfully enlist an elder for help in pronunciation and dialect differences.

VAI: Verbs, Intransitive, speaks of the **Animate (WE exclusive & WE ALL)**
Niinawind miinawaa Giinawind
Patterns: Use S/he verbs roots.
VAI root: Aagime.—S/he snowshoes.
(N)indaagimemin.—We (exclusive) snowshoe.
Gidaagimemin.—We all snowshoe.
VAI root: Zhooshkwaagime.—S/he skis.
Nizhooshkwaagimemin.—We (exclusive) ski.
Gizhooshkwaagimemin.—We all ski.
Gaye ozaagitoonaawaa.—Also **they** love it.
VAI root: Akwa'waa.—She spears/ice fish.
(N)indakwa'waamin.—We (exclusive) spear/ice fish.
Gidakwa'waamin.—We all spear/ice fish.
VAI root: Zhooshkwaada'e.—S/he skates.
Pattern: Zhooshkwaada'ewag.—**They** are skating.
Nizooshkwaada'emin.—We (exclusive) skate.
Gizhooshkwaada'emin.—We all skate.

Niizh—2

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

A. Maamaa, zoogipon! Izhaadaa agwajiing!
B. Miinjikaawanag! Ingiwiiwakwaane. Wewiib!
C. Niminwendam zoogipong. Minwendaagwad omaa.
D. Iwidi zhingwaakwag gooniwiiwag.
E. Gego amwaagoneken! Ganabaj goon wiinizi. Noongom zhakipon.
F. Gibichipon. Gii-mamaangipon.
G. Nizidan dakaawan. Biindigedaa!
H. Goonikaa, biboong.

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

Niswi—3

IKIDOWIN ODAMINOWIN (word play)

- Down:**
1. Question marker/indicator
3. It is cold.
4. Tomorrow.
5. It is snowing.
6. S/he snowshoes.

Across:

2. A little bit.
7. Sit down!
8. Greetings.
9. Don't!



Michizigwaa.
There's bare ice.
Mamaangipon.
There are big snowflakes.

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

Niiwin—4

Aaniin ezhi-ayaayeg? How are you all?

(VAI) Anishinaabewi.—S/he is Anishinaabe.
Gidanishinaabew.—You are Anishinaabe.
Nindanishinaabew.—I am Anishinaabe.
(VAI) Ojibwewi.—S/he is Ojibwe.
Gidoobjibwew.—You are Ojibwe.
Nindoojibwew.—I am Ojibwe.
Gidoobjibwewimin.—We all are Ojibwe.
Gizaagi'aawaa.—You all love him/her.
Minode'e.—S/he is kind.
Giminode'emin.—We all are kind.
Niminode'e.—**I** am kind.
Minode'ewag apane.—
They are kind always.
Miigwech!

1. _____ anishinaabew _____ idash niwii-objibwemomin noongom.
2. _____ anishinaabew. Endaso-giizhik niminwendam, objibwemoyaang.
3. Giminode'e. Giminode'min idash minode'e _____.
4. _____ minode'e _____. Apane _____ wiidookaage _____ imaa.
5. _____ minode'e. Giminwaadiz. Giwiidookaage. Giminwabaminaagoz giminotaagoz idash. Howah!

Gid—
Gid— -min
Gi— -m
Nind—
-wag

Translations:

Niizh—2 A. Mom! It is snowing. Let's all go outside! B. Mittens. I am wearing a hat. Hurry! C. I am happy when it snows. It is fun here. D. Over there, the white pine trees have snow on them. E. Don't eat snow. Maybe the snow is dirty. Now wet snow is falling. F. The snow is letting up. There were big snowflakes. G. My feet are cold. Let's all go inside! H. There is a lot of snow, when it is winter.

Niswi—3 Down: 1. ina 3. gisinaa 4. waabang 5. zoogipon 6. aagime Across: 2. bangi 7. namadabin 8. aaniin 9. gego

Niiwin—4 1. **We all** are Anishinaabe and we will/want to-speak Ojibwe today. (Gid- -min) 2. **I am** Anishinaabe. Every day I am happy when we speak the Ojibwe language. (Nind) 3. **You** are kind. We all are kind and **they** are kind. (-wag) 4. **You all** are kind. All the time, **you all** are helping people there. (Gi- -m) 5. **You** are kind. You lead a good life. You help people. You look good and you sound good. Alright! (Gi-)

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. © 2020 Shelly Ceglar • Edited by Jennifer Ballinger, Saagajiwe-Gaabawiik

Fishing continues in biboon

The cold weather is here and it's time to hit the ice! Every biboon (winter) the lakes and rivers freeze over. The ice is so thick that you can safely walk out to your favorite fishing spots.

Sometimes the ice is so thick you can drive a vehicle out on the ice. Nindede (my father) tells me that we should always wait until there is at least 4-6 inches of solid ice on the water. We check each season by drilling a couple of holes close to shore with an auger.

Nindede has both a hand auger, and an electric auger for drilling holes. I can drill a hole with the hand auger in about five minutes flat, but the electric auger only takes me one minute.

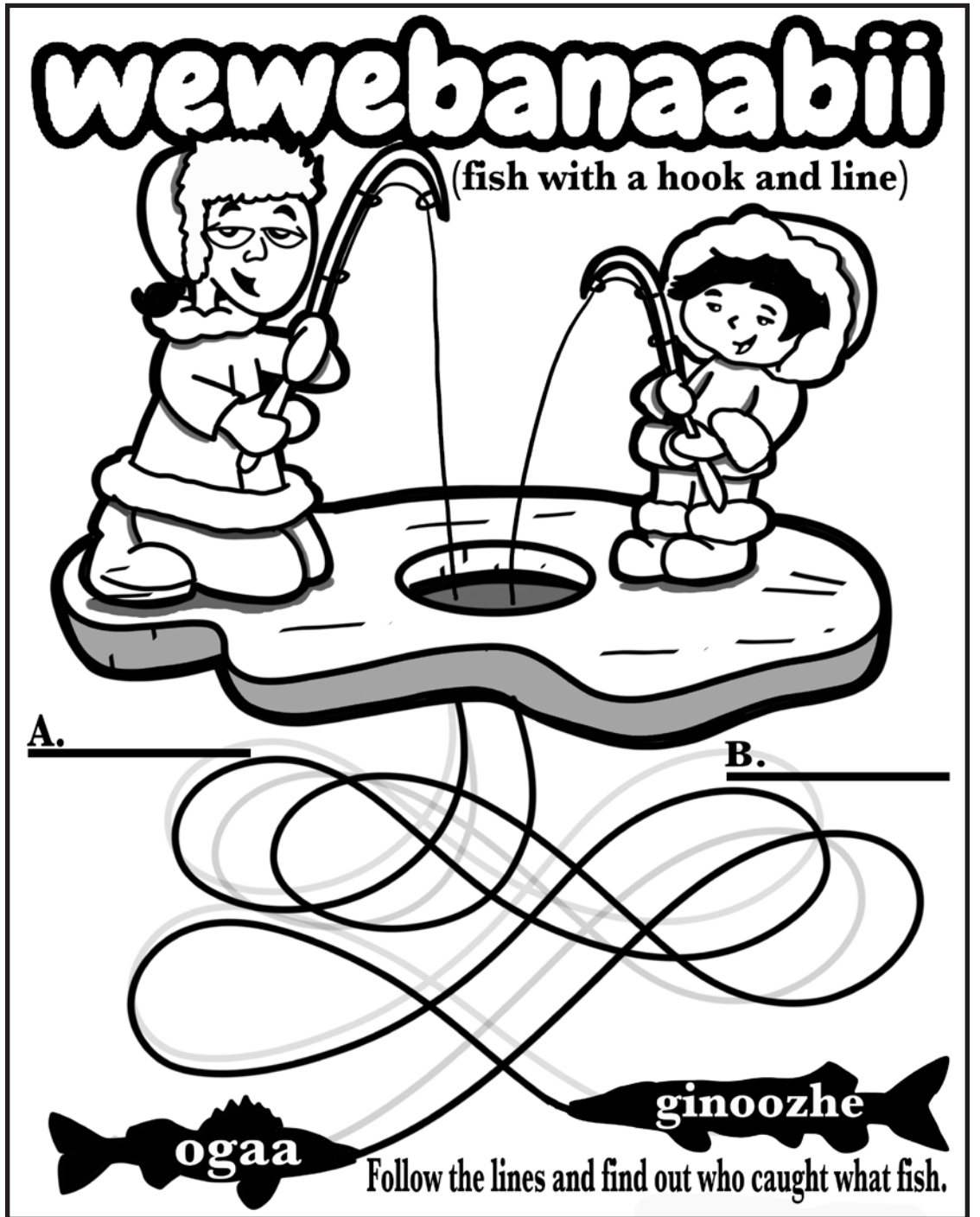
Before we even set foot on the ice we offer asemaa for safe access to the water and to potentially catch some giigoonyag (fish). We set up two different fishing styles, Akwa'waa—spearing through the ice, and wewebanaabii—hook and line fishing. I love to do both!

We spend almost all day out on the ice, fishing, telling stories, eating snacks and exploring. We have been taught to be patient when we harvest giigoonyag. We usually don't catch a fish every single minute, so it's good to get used to the beautiful cold weather and to have fun while you wait.

I can tell when a giigoonh is interested in my bait. I sometimes use live grubs or minnows as bait. I feel a little "tap" on my ice fishing pole. Then it's usually followed by a "hit" and I know that I need to set the hook. I jerk my wrist and then I know the giigoonh is on my hook. I reel up the line and sure enough, a beautiful ogaa (walleye) is on my line. Next time I hope to catch a ginoozhe (northern pike).

Nindede and I are going to cook up this ogaa for a late lunch—so I have to run. Gigawaabamin! (Complete the code buster below to see the translation.)

—B. Jennings



CODE BUSTER

Each letter is assigned a number, match the numbers to the letter and uncover the hidden message.

1 8 1 3 4 3 3 5 3 15 8 7

2 6 6 13 14 12 9 3 10 6 11

1	g	2	s	3	a	4	w	5	b
6	e	7	n	8	i	9	L	10	t
11	r	12	u	13	y	14	o	15	m

Activities by Josh Whitebird, Fond du Lac Ojibwe

Draw a line from the Ojibwe word to the English word

akwa'waa	fish
biboon	hook and line fishing
gigawaabamin	my father
giigoonh	northern pike
ginoozhe	see you later
nindede	spearing through the ice
ogaa	walleye
wewebanaabi	winter

Answers: Wewebanaabi—A. ginoozhe; B. ogaa. Code Buster—Banaabi→hook and line fishing; ginoozhe→northern pike; nindede→my father; ogaa→walleye; wewebanaabi→winter; gigawaabamin→see you later; giigoonh→fish; ice; biboon→winter; spearing through the ice; akwa'waa→spearing through the ice; walleye; winter.

Notables

GLIFWC's Kebec receives MEA environmental justice award

Madison, Wis.—From protecting treaty resources to supporting the Ojibwe lifeway, Philomena Kebec has become a formidable attorney in the upper Great Lakes region and was recently elected to serve on the Ashland County Board. A leading non-profit law center, Midwest Environmental Advocates (MEA), took notice, selecting Kebec for the 2020 Bill Iwen Environmental Justice Award.

“Since Philomena has been out of college, she has been on the front lines of the legal battles of our tribes in the Northern Country to protect our treaty rights and to protect our water,” said Winona LaDuke, White Earth Ojibwe and environmental activist, at an October 14 ceremony. “She has worked tirelessly for our communities, with great love and with great attention to all of the details of our culture and our way of life.”

Through her work as a GLIFWC policy analyst, as well as community organizer on the Bad River Reservation, Kebec focuses on delivering positive outcomes for Native people across the Ceded Territories. A powerful advocate for both Ojibwe culture and natural resources for the past decade, her focus at GLIFWC is ensuring the fullest possible exercise of tribal lifeways, working to promote traditional foods in tribal communities, as well as ongoing updates

to the *Lac Courte Oreilles v Wisconsin* case, also known as the *Voigt Decision*. With the recent decision by federal officials to remove ma'iingan from the Endangered Species Act list, protection for this important animal is of special concern for GLIFWC tribes and also a priority for Kebec.

“I was surprised to be picked for this special recognition. I see myself as a worker bee living in an incredible community—all working together on healing our collective trauma and reconnecting the people to our waters and lands,” Kebec said. “Even though it's challenging, we chose to be living here during the times of the Eighth Fire. I'm humbled and honored to be in a position to serve the Anishinaabeg.”

The environmental justice award's namesake, Bill Iwen, is a leading figure in tackling water resources degradation in east-central Wisconsin. MEA said Kebec's work is emblematic of the award's leadership-by-example spirit as she strives to bring about positive community change by advocating for the rights of all people—regardless of race, income, or zip code—to live in a clean and healthy environment. Learn more about MEA and its work to safeguard public health and natural resources at midwestadvocates.org. —CO Rasmussen



Bad River Anishinaabekweg Aurora Conley (left) and Philomena Kebec (right) visiting Rep. Deb Haaland (center) during AIDS Watch 2019. (submitted photo)

Scholarship supports indigenous natural resources, law students

Seeking to help develop a new generation of natural resources and law professionals, a Lac Courte Oreilles father and daughter have established a college scholarship targeting Native American students. GLIFWC Executive Administrator Michael J. Isham and daughter Monica Chase have pledged \$8,000 over four years for the scholarship available at LCO Ojibwe College in northwest Wisconsin. The Isham-Chase scholarship is set to award \$1,000 to successful applicants twice annually—fall and spring semesters.

“LCO College is a great asset to the community, helping put Anishinaabe people on a good path. A path to success,” said Isham who attended in the 1980s before going to earn a bachelor degree from Northland College.

Isham said scholarships are a key part of the financial puzzle as many students must piece together funds to cover tuition, textbooks, and fees. LCO



Monica Chase (l) and Michael J. Isham presented checks to Jessica Wagner-Schultz, director of institutional advancement at Lac Courte Oreilles Ojibwe College.

Techtmann recognized for climate adaptation leadership



For over twenty years, Cathy “Cat” Techtmann has been a force in bringing innovative climate change education and adaptation to the Wisconsin Lake Superior region. This year, the Association of Fish & Wildlife Agencies (AFWA) recognized her efforts, bestowing her with an Honorable Mention in their Climate Adaptation Leadership Awards (CALA).

CALA recognizes outstanding efforts to increase the resilience of America's valuable living natural resources and the many people who have demonstrated determination to reduce climate impacts and advance adaptation of the nation's vital natural resources in a changing world.

Techtmann's impactful projects have included the Gikinoo'wizhiwe Onji Waaban (G-WOW) Changing Climate, Changing Culture Initiative and the Climate Strong! Educator Professional Development Institute.

The G-WOW Initiative is an interactive web-based curriculum with seasonal and climate change units that engage middle school to adult learners. The curriculum applies scientific research, Ojibwe traditional ecological knowledge (TEK) and place-based investigations to determine how climate change is and will continue to affect the environment, people, cultures, and economies. You can view the curriculum and accommodating resources at g-wow.org.

The Climate Strong! Institute builds the capacity of youth and educators to act in creating community climate resilience within the Ojibwe Ceded Territory (Minnesota, Wisconsin & Michigan). The Educator Institute utilizes classroom sessions, field tours and hands-on demonstrations of tools that educators can use to build youth climate leadership. The project is a partnership between the Fond du Lac Tribal and Community College, University of Wisconsin-Extension, GLIFWC, 1854 Treaty Authority, and Lake Superior National Estuarine Research Reserve, with funding through a NOAA Climate Resiliency Grant. For more information visit fyi.extension.wisc.edu/nglvc/climate-strong.

Techtmann has also created interactive outreach and environmental education curricula for UW-Extension and the Northern Great Lakes Visitor Center in Ashland, Wis. These educational tools teach local middle and high school students, UW-Stevens Point natural resources students, and visitors to the Lake Superior basin, sharing content about climate change impacts to tribal communities and the fish, wildlife and plants that tribal and non-tribal people rely upon for subsistence, recreation and healthy ecosystem management.

The influence of Techtmann's projects has reached far and wide. Literally thousands of visitors pass through the Northern Great Lakes Visitor Center every year and interact with the exhibit on the culture surrounding manoomin (wild rice). The G-WOW model has been used in schools throughout the region and as far away as Colorado to tie culture, place and climate impacts and teach resiliency.

Near home, Techtmann's efforts support the revitalization of traditional knowledge, language, and relationships with the natural world. In tribal communities throughout the region, she is considered a friend. One of her greatest strengths: the ability to bring diverse cultures, world views, and institutional values together via different partners, all of whom value and appreciate her knowledge, skill, advocacy, and camaraderie. Congratulations Cat!

Cat Techtmann is the Environmental Outreach Specialist for the Community Development Institute, University of Wisconsin Madison—Division of Extension.

Robert Croll, GLIFWC Policy Analyst/Climate Change Program Coordinator contributed to this article.

—P. Maday

College draws students from across the reservation as well as neighboring communities.

“The growth that LCOOC has experienced over the past two years—developing bachelors programs, launching a capital campaign, athletics—is a part of how we support student success in our community,” said Chase, attorney for LCO Child Support Services, and LCOOC Board of Regents Vice Chair. My dad and I decided to collaborate our backgrounds and provide this scholarship to students who are interested in the natural resources or legal fields.”

The Lac Courte Oreilles Ojibwe College provides Anishinaabe communities with post-secondary and continuing education while advancing the language, culture, and history of the Ojibwe. In addition to the main campus at LCO, the college maintains outreach locations at Bad River, Lac du Flambeau, Red Cliff, and St. Croix reservations.

—CO Rasmussen

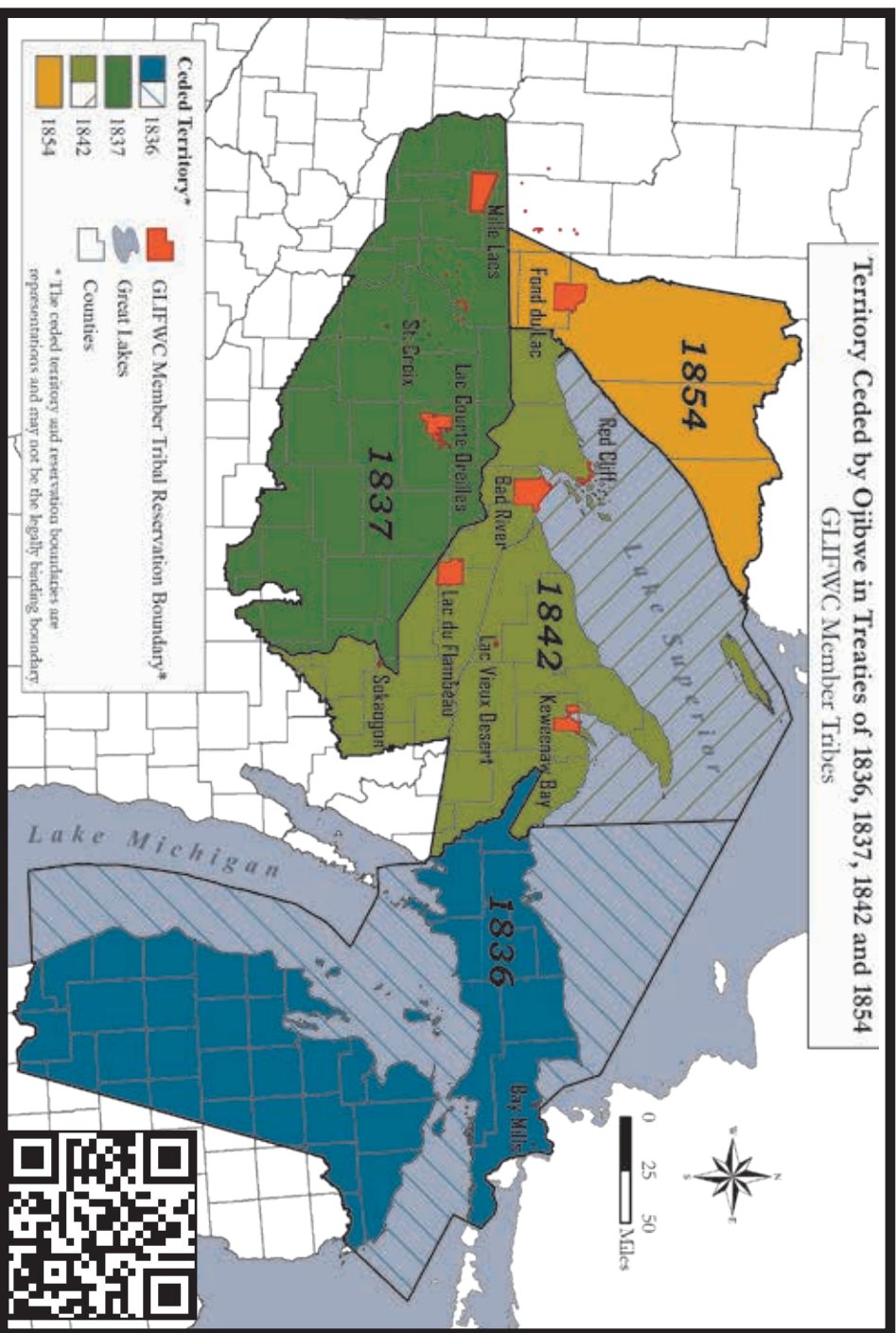


RETURN ADDRESS:
GLIFWC
P.O. BOX 9
ODANAH, WI 54861

CHANGE SERVICE REQUESTED

NON-PROFIT ORG
POSTAGE PAID
PERMIT # 203
EAU CLAIRE, WI

Printed by: EAU CLAIRE PRESS COMPANY, EAU CLAIRE, WI 54701



Classrooms, individuals log-in for Mikwendaaigoziwag Ceremony

In a Mikwendaaigoziwag Ceremony first, GLIFWC hosted a virtual gathering of remembrance for the Ojibweg of the 1850s who helped shaped today's upper Great Lakes region—home to land-based tribal nations with off-reservation harvest rights.

Among the 115 log-ins on the Zoom platform, several in-person classrooms joined an all-ages attendance led by GLIFWC's first executive administrator, Henry Buffalo Jr. A longtime Indian law attorney, Buffalo described the United States government trickier that led to 400 Ojibwe deaths at and



around Sandy Lake, Minnesota over the winter of 1850-51 as a pivotal time. "As we know in many different histories, there's always an event that unifies, that brings together a vision about what needs to be done," Buffalo said. "I believe that Sandy Lake was the event [that coalesced the Ojibwe Nation]."

Following the Sandy Lake Tragedy, Ojibwe headmen insisted on creating permanent home-land reservations—in addition reserving off-res harvest rights—in the 1854 Treaty with the United States. Learn more at glifwc.org.
—CO Rasmussen



BIBOON 2020/2021

INSIDE:
Managing harvester harassment
All ages Ojibwemowin
Fair trade for Gichigami fishermen