Mazina'igan
A Chronicle of the Lake Superior Ojibwe
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Long-running wolf policy debate at finish line in Wisconsin

By GLIFWC Staff

State policymakers have taken a major step in resetting their approach to wolves in Wisconsin. At the October meeting of the Wisconsin Department of Natural Resources' (WDNR) Natural Resources Board (NRB), two important documents relating to wolf management were unanimously passed: the 2023 Wolf Management Plan and the Wolf Management Rule (WM-03-21), which update a 2007 Plan and a 2012 Emergency Rule, respectively. These decisions are just the latest developments in decades of state and federal policies and regulations pertaining to wolf management in Wisconsin.

GLIFWC member tribes have consistently opposed the killing of ma'iingan (wolf) for recreational purposes. While both the proposed Rule and the Plan approved by the NRB allow for a wolf harvest season, as required by Wis. Act 169, the documents do provide significant improvements upon previous versions and would further protect ma'iingan in Wisconsin.

For example, the Plan creates "subzones" around certain reservations and tribal lands to protect reservation wolves. The Plan also includes tribal perspectives toward ma'iingan and recognizes reserved treaty rights and tribal jurisdiction.

Finally, GLIFWC's Voigt Intertribal Task Force (Task Force) supported the Plan's adaptive management strategy (that does not include a numeric population goal), a shorter registration time, and the prohibition of molestation or destruction of occupied wolf dens. While neither the Plan nor the Rule are perfect, both received support from GLIFWC, the Task Force and several individual tribes, and are understood as significant steps in the right direction towards effective wolf stewardship.

On the federal level, following a federal district court ruling in February of 2022, the protected status for wolf under the Endangered Species Act was restored across the lower 48 states. This litigation requires the Fish and Wildlife Service to complete a "Status Assessment" for wolves by February 2024 that may result in a federal rule changing the status of the species under the Endangered Species Act.

Beyond possible action by the Fish and Wildlife Service, Wisconsin Senator Tammy Baldwin recently introduced the *Northern Great Lakes Wolf Recovery Act* which would legislatively delist wolf in Minnesota, Wisconsin, and Michigan's Upper Peninsula. It is unclear yet if this bill will pass, but if it does, Wisconsin will have a new Wolf **(see Wolf Management Plan, page 5)**

LCO v. Voigt 40th a time of unity

By Charlie Otto Rasmussen, Editor

Tom Maulson (seated) reacts after an honoring ceremony during the LCO Voigt 40th at Lac Courte Oreilles September 26. Also pictured from left GLIFWC EA Jason Schlender, Prof Rick St. Germaine, and Fred Maulson. (COR photo)

Reserve, Wis.—Many of the modern day ogichidaag were there. Warriors from the boat landings, warriors from the court rooms. Others had walked on over the past 40 years since the US Seventh Circuit Court of Appeals had ruled that the western Great Lakes Ojibwe had indeed reserved off-reservation rights to hunt, fish and gather natural resources. On September 26-27, all of them were remembered at the *Lac Courte Oreilles v Voigt* 40th Anniversary Celebration.

Master of ceremonies, Professor Rick St Germaine, set out to demystify any questions about the legal footing of treaty rights in the Great Lakes region early on in the celebration.

"In our Constitution, it stipulates that the US government enters into treaties with other nations. Indian tribes are one of those nations," said St. Germaine. "The United States is founded in principles that people, when they sell and purchase land, they can reserve certain rights. Back in the 1830s and 40s, tribal leaders reserved those rights. And so here we are after a tremendous amount of litigation, reflecting back 40 years."

The social and judicial upheaval that followed the *LCO Voigt* decision in 1983 was complicated by another sovereign entity that sought control over reserved Ojibwe rights—the State of Wisconsin.

Journalists struggled to accurately report what this thing called treaty rights meant for Wisconsin residents, sometimes labeling the Ojibwe right to natural resources as "unlimited." Misinformation mixed with racism and a state that wanted to assert its own regulatory scheme upon the tribes created a dangerous environment for Ojibwe harvesters at darkened boat landings across the lake country of Wisconsin.

Closely associated with Lac du Flambeau's Tom Maulson, the name "Walleye Warrior" entered the northwoods lexicon as Ojibwe spearfishermen faced ugly mobs of protestors that crowded onto boatlandings at night during the spring walleye season. Maulson, attorneys Howard Bichler **(see *LCO v. Voigt*, page 12)**

akwa'wa
(spearing through the ice)

COR

ogaa (walleye)

ginoozhe (northern pike)

maashkinoozhe (muskellunge)

Modest manoomin crop fortified by bounty of teachings, experience, & fun for tribal youth

Kathy Smith, GLIFWC, mentors on push pole and ricing techniques on the Minong Flowage. (J. Schelble photo)

By Kathleen Smith, GLIFWC Ganawandang Manoomin
Brandon Byrne, GLIFWC Wetland Ecologist

First, a teaching. The first order of creation—the elements—including the earth, water, air, fire, and light, all play a part in providing the second order—the plant relatives—a place to thrive. The third order—the animals—depend on their relationship with the plants in the order created before them. The fourth order—humans—is the most dependent on all other orders of creation. The first, second and, third orders are not dependent on humans. Those orders thrive without us.

Out in the Gichi-manidoo Gitigaan, harvest was fruitful despite what appeared a mediocre picking season. Although many beds were down compared to last year, notably date-regulated Totogatic Lake (Bayfield County, Wis.) that warranted closure, there were some bright spots. Aurora Lake (Vilas County, Wis.) continued to be one of the champion rice lakes this year.

Following several years of low productivity, some ricers described this year's crop as "almost too good"—its particularly dense beds were not easy on push-polers. The Big Lake Thoroughfare and Mann Creek Flowage also offered good opportunities for ricers on the eastern side of the Wisconsin ceded territories—a boom year on Mann Creek in particular provided seed for a number of manoomin restoration efforts throughout the Ceded Territories in 2023.

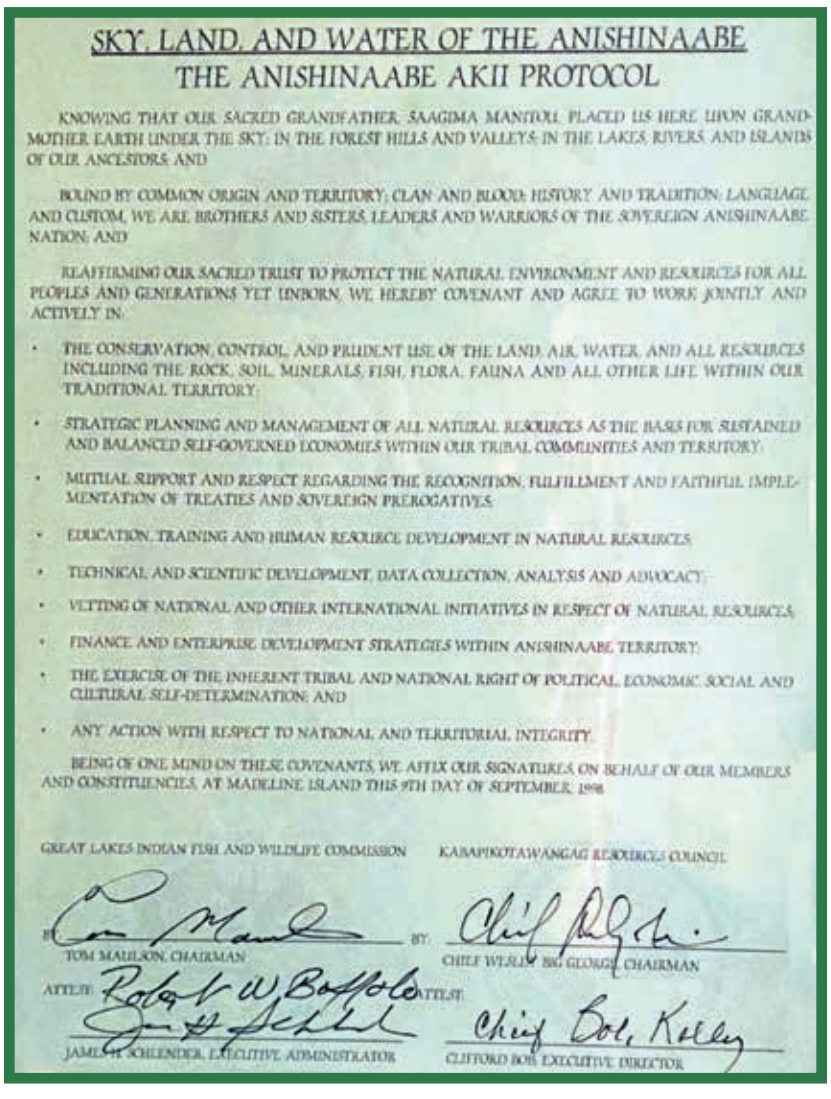
Chippewa Lake (Bayfield County) and Pacwawong Lake (Sawyer County, Wis.) still provided decent picking to harvesters further west in the face of below average manoomin abundance on both lakes. Rice beds on Long Lake (Burnett County, Wis.) were also unusually low, but nearby Clam Lake and slightly further Briggs Lake proved to be reliable rice destinations this season.

Wealth of knowledge in rich cultural landscape

Education and outreach were steadfast this summer to teach our youth and communities the importance of manoomin. Here at GLIFWC, Wildlife Technician Adam Oja, joined us, the authors, in helping plan and support various camps and workshops this summer—including water ceremonies, manoomin ceremonies, and cultural teachings of manoomin. These events provided individual mentorship in programs that engaged youth in toolmaking, harvesting, and processing of wild rice.

(see Manoomin education and outreach, page 16)

Anishinaabe Aki Protocol at 25



SKY, LAND, AND WATER OF THE ANISHINAABE
THE ANISHINAABE AKII PROTOCOL

KNOWING THAT OUR SACRED GRANDFATHER, SAAGIMA MANITOU, PLACED US HERE UPON GRANDMOTHER EARTH UNDER THE SKY; IN THE FOREST HILLS AND VALLEYS; IN THE LAKES, RIVERS, AND ISLANDS OF OUR ANCESTORS; AND

BOUND BY COMMON ORIGIN AND TERRITORY; CLAN AND BLOOD; HISTORY AND TRADITION; LANGUAGE AND CUSTOM, WE ARE BROTHERS AND SISTERS, LEADERS AND WARRIORS OF THE SOVEREIGN ANISHINAABE NATION; AND

REAFFIRMING OUR SACRED TRUST TO PROTECT THE NATURAL ENVIRONMENT AND RESOURCES FOR ALL PEOPLES AND GENERATIONS YET UNBORN, WE HEREBY COVENANT AND AGREE TO WORK JOINTLY AND ACTIVELY IN:

- THE CONSERVATION, CONTROL, AND PRUDENT USE OF THE LAND, AIR, WATER, AND ALL RESOURCES INCLUDING THE ROCK, SOIL, MINERALS, FISH, FLORA, FAUNA AND ALL OTHER LIFE WITHIN OUR TRADITIONAL TERRITORY;
- STRATEGIC PLANNING AND MANAGEMENT OF ALL NATURAL RESOURCES AS THE BASIS FOR SUSTAINED AND BALANCED SELF-GOVERNED ECONOMIES WITHIN OUR TRIBAL COMMUNITIES AND TERRITORY;
- MUTUAL SUPPORT AND RESPECT REGARDING THE RECOGNITION, FULFILLMENT AND FAITHFUL IMPLEMENTATION OF TREATIES AND SOVEREIGN PREROGATIVES;
- EDUCATION, TRAINING AND HUMAN RESOURCE DEVELOPMENT IN NATURAL RESOURCES;
- TECHNICAL AND SCIENTIFIC DEVELOPMENT, DATA COLLECTION, ANALYSIS AND ADVOCACY;
- VETTING OF NATIONAL AND OTHER INTERNATIONAL INITIATIVES IN RESPECT OF NATURAL RESOURCES;
- FINANCE AND ENTERPRISE DEVELOPMENT STRATEGIES WITHIN ANISHINAABE TERRITORY;
- THE EXERCISE OF THE INHERENT TRIBAL AND NATIONAL RIGHT OF POLITICAL, ECONOMIC, SOCIAL AND CULTURAL SELF-DETERMINATION; AND
- ANY ACTION WITH RESPECT TO NATIONAL AND TERRITORIAL INTEGRITY.

BEING OF ONE MIND ON THESE COVENANTS, WE AFFIX OUR SIGNATURES, ON BEHALF OF OUR MEMBERS AND CONSTITUENCIES, AT MADELINE ISLAND THIS 9TH DAY OF SEPTEMBER, 1998

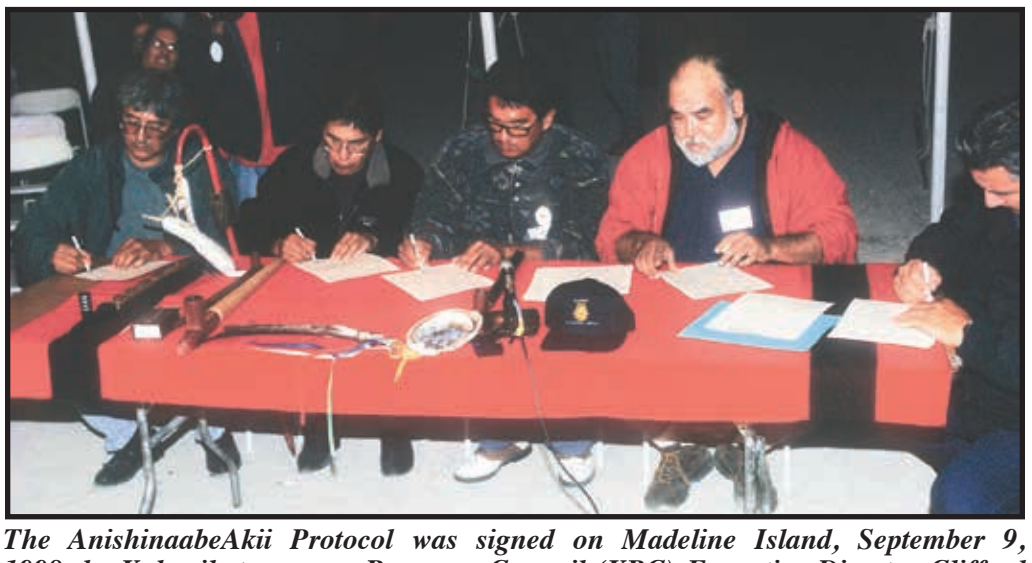
GREAT LAKES INDIAN FISH AND WILDLIFE COMMISSION — KABAPIKOTAWANGAG RESOURCES COUNCIL

BY: TOM MAULSON, CHAIRMAN — BY: CHIEF WESLEY BIG GEORGE, CHAIRMAN

ATTEST: JAMES SCHLENDER, EXECUTIVE ADMINISTRATOR — ATTEST: CLIFFORD BOB, EXECUTIVE DIRECTOR

The 1998 Madeline Island Treaty Conference—an historic gathering of Anishinaabe Ojibwe bands from both sides of the Lake Superior international border—created a forum for exchanging everything from cultural knowledge to academic history. Talking circles and ceremonies were interspersed with history lectures and feasting on the island known as the homeland of Ojibwe people.

The conference culminated with ratification of of the Anishinaabe Aki Protocol singed by representatives from Great Lakes Indian Fish & Wildlife Commission (United States) and Kabapikotawangag Resources Council (Canada), both intertribal resource management agencies for Ojibwe bands with off-reservation harvest rights in their ancestral homelands. Through the Protocol, the bands from Lake Superior and Lake of the Woods regions affirm that despite the artificial, fragmented political boundaries that overlay Ojibwe Country, the Anishinaabe Nation shares the same vision and commitment to the environment and the needs of all the beings that live there. **—CO Rasmussen**



The AnishinaabeAkii Protocol was signed on Madeline Island, September 9, 1998, by Kabapikotawangag Resource Council (KRC) Executive Director Clifford Bob, KRC Chairman Chief Wesley Big George, Red Cliff Hereditary Chief Robert Buffalo, GLIFWC Executive Administrator Jim Schlender, and GLIFWC Board of Commissioners Chairman Tom Maulson. (CORAS photo)

Ceded Territory news briefs

Moose abundance remains flat in Upper Michigan

Marquette, Mich.—Following the first aerial moose population survey completed in four years, Michigan Department of Natural Resources an-nounced that the herd is holding stable in the core range of the western Upper Peninsula. Considering declines in moose abundance in nearby regions of northern Minnesota over the past dozen years, the news is encouraging.

"The 2023 moose survey estimate was 426 individuals, which is not statistically different from the 2019 estimate of 509 individuals," said Tyler Petroelje, northern Michigan wildlife research specialist with the Michigan DNR in Marquette. "This continues the trend of plateauing abundance where population growth over the last 12 years is now less than 1%."

Eastern Upper Michigan also supports a small moose population, where researchers estimate less than 100 animals live in pockets of good habitat made up of young aspen and maple forests along with summertime foraging grounds that contain aquatic plants in marshes, lakes, and rivers. Adult Michigan moose weigh between 700 and 1,100 pounds, needing around 45 pounds of food a day according to the DNR.

While the recent survey did not produce any outstanding results, Michigan researchers are paying particular attention to cow-to-calf ratios as a measure of herd health. Petroelje said the presence of fewer twins could point to a recruitment issue.

"Looking at demographic data, with respect to previous surveys, we observed a comparable—but low—cow-to-calf ratio and percentage of calf numbers," Petroelje said. "A potentially concerning observation is the lesser percentage of twins seen during this survey (9%) compared to the 10-year average of 15%." **—CO Rasmussen**

Manitoba elects Anishinaabe premiere

Winnipeg, Man.—In a breakthrough for Canada's indigenous people, Manitoba elected a government headed by a First Nations member. Wabanakwut Kinew from Ojibways of Onigaming First Nation in the Treaty 3 territory became the provincial premiere of Manitoba October 18. In Canada, the premiere functions as the top provincial executive, similar to an United States governor.

Kinew is a married father of three boys and served as an honorary witness to the Truth and Reconciliation Commission, a national effort to come to terms with the grim history of the Canadian Indian Residential School system, according to his website. The 41-year-old Kinew is the son of Tobasonakwut Kinew, a GLIFWC cultural and spiritual advisor from the mid-1990s until he walked on in 2012. **—CO Rasmussen**

Minnesota tribes subject of new state law

Following a rash of racially tinged boat-landing protests during early Ojibwe spring fishing seasons, the Wisconsin state legislature passed Act 31 in 1989, a law that mandated accurate Indigenous education in Wisconsin schools. Thirty-four years later, Minnesota finally followed suit.

Minnesota Ojibwe artist, Sam Zimmerman, is leading efforts to implement the new MDE law.

The Minnesota state legislature passed a law last summer requiring increased budget, training, and time to be spent on Indigenous history. The bill, 'Indigenous Education for All,' requires all teachers undergoing the relicensing process to attend professional development centered around the "cultural heritage and contemporary contributions of American Indians, with particular emphasis on Minnesota Tribal Nations," according to Minnesota Public Radio. Implementation of this requirement is set to begin on January 1, 2024.

Teachers aren't the only focus of the bill, however, as it also mandates that Indigenous history will become a permanent fixture in Minnesota's K-12 history curriculum. Additionally, the Minnesota Department of Education (MDE) is developing Indigenous education resources that are to be freely available to school districts, teachers, and students alike.

The MDE asserts that its dedication to Indigenous voices be centered in this process and, as such, has added two positions as Indigenous education specialists. Duluth-based Ojibwe educator and artist Zhaawanoogiizhik, also known as Sam Zimmerman, Grand Portage, has been selected as the first Indigenous education specialist. The second position remains to be filled. According to the MDE's website, Zimmerman and his colleague will aid in resource development, implementation of the bill, and corresponding with tribal nations.

Implementation of the bill will take place in phases, with the current first phase focusing on resource development. The second phase will begin in 2024 with continued resource development and a pilot launch of the professional development courses and resource distribution. The final phase will take place in 2025 with full implementation of the bill. For more information, see *education.mn.gov/MDE/dse/indian/all.* **—M. Coleman**

Tribal hatcheries continue focus on large stock

By Charlie Otto Rasmussen, Editor

Reserve, Wis.—Support walleye populations in Ceded Territory lakes and rivers continues to be a priority for GLIFWC member bands. As water temperatures edge ever higher and changing water quality favors other fish communities, biologists are documenting increasing natural reproduction failures for the region's walleyes. While tribal hatcheries have released tens of millions of tiny walleyes known as fry over the decades, the trend towards producing larger, older stock continued in 2023.

Extended growth walleye fingerlings are increasingly being developed for use in walleye restoration and enhancement projects. (P. Christel photo)

"The larger walleyes, the fingerlings, have a better chance to reach adulthood," said Paul Christel, Lac Courte Oreilles fisheries biologist and director of hatchery operations. "At LCO, most of our production fish went in Lake Lac Courte Oreilles this year to shore up low natural reproduction and recruitment."

The northwest Wisconsin tribe's namesake waters of Lake Lac Courte Oreilles has experienced a drop in safe harvest levels, meaning fewer walleyes are available for spearfisherman and state-licensed anglers during the fishing season. Christel said the tribe stocked some 800,000 walleye fry, around 38,000 small fingerlings (averaging 2.4"), and 36,211 extended growth fingerlings that averaged a healthy 7.8" into Lake LCO this past year. Another 22,000 small fingerlings were distributed into other walleye waters.

"An adult walleye population estimate scheduled for 2024 will provide an update on the status of the LCO fishery," Christel said, noting that natural reproduction has been lagging there for the last decade. "I'm hoping we will start to see the benefits of stocking efforts. We're looking at options for additional management actions if we can't get the downward trend to turn around with what we've been trying so far."

With input from GLIFWC walleye research projects, tribal fisheries managers throughout the region are exploring whether strategic stocking can help kickstart walleye spawning success on historically productive Ceded Territory lakes.

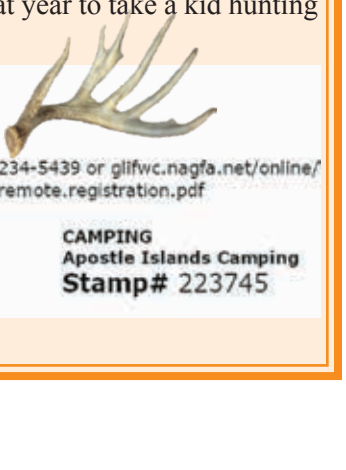
Register your harvest

Off-reservation hunters are reminded that harvest registration is required by tribal conservation codes for many species. Hunters have multiple registration options for deer, bear, turkey, and cranes: in-person, at a tribal registration stations (see *data.glifwc.org/registration* for a map of locations), online (*glifwc.nagfa.net/online*), or by phone (844-234-5439). Swans must be registered in-person.

The benefits of harvest registration are substantial, extending well beyond an exercise in indigenous sovereignty and self-regulation. As co-stewards, tribes work with state and federal counterparts to determine population abundance and coordinate management for a variety of fish and wildlife species. This requires an accounting of both tribal and non-tribal harvest. Having an accurate measure of off-reservation tribal harvest also helps to identify and prioritize important places for protection.

For hunters seeking chronic wasting disease (CWD) testing for their whitetail harvest, in-person registration is the first choice. Clerks will register the deer and take possession of the head—lymph nodes are typically removed to complete a CWD test.

Good luck to hunters of all ages. It's a great year to take a kid hunting and pass on your knowledge.


NAGFA ID #: 6366 Tribe: BRV
Name: JON DOE
Address: 777 Traditional Way Odanah, WI 54861
Phone: 715-685-2125 Hunter Safety #:12345657
Remote Registration (deer, bear, turkey, crane): 1-844-234-5439 or glifwc.nagfa.net/online/
Remote Registration Instructions: glifwc.org/Regulations/remote.registration.pdf

SMALL GAME
Turkey Spring - MI/WI
Stamp# 223394

CAMPING
National Forest Camping
Stamp# 223744

CAMPING
Apostle Islands Camping
Stamp# 223745

Sample license with NAGFA ID highlighted.

Fond du Lac subsistence fishing returns to Gichigami

By Jenny Van Sickle, Staff Writer

While closing out the 2023 open water season on Lake Superior, emotions ran high as tribal elders took part in setting and pulling fishing nets for the first time in generations. On the morning of October 8, Fond du Lac (FdL) Band Department of Natural Resources Fisheries Biologist Eric Torvinen and Technician Matt Weske helped organize two trips from McQuade boat launch in Duluth, Minn. Joining FdL fishery staff, Wayne Dupuis, Jeff Savage, and John Mullen took the lead in harvesting lake trout by gillnet for their families.

"It's tiring work, but it's good to be out here on the water. We do this for our ancestors and for our great grandchildren yet to come," said Savage. Historic conflicts with the state and the sea lamprey invasion, which devastated lake trout populations some 60 years ago, effectively put an end to big lake fishing for band members for well over a century.

The morning before the recent fishing trip, crews set two 500-foot gill nets. The elders followed up, taking turns hand-pulling the nets, anchors, and markers from depths of 75' to 130' underwater. Their hard work yielded 53 lean lake trout on the day to divide between each other and a second crew that headed out for the day.

When shipping lanes expanded in the 1940s to better connect the Great Lakes, so did sea lamprey populations. Bill Mattes, GLIFWC's Great Lakes section leader explained that sea lamprey is a unique kind of parasite in the Great Lakes; instead of preserving their host, the eel-like fish will kill it.

Michael Savage brought his four daughters Bailey Savage, 10; Bethenny Savage, 7; Winnie Savage, 5; and Eleanor Savage, 2 to watch the harvesters creel the catch. He said this could be a way they help provide for their communities one day. Savage added: "I want them to see another way to harvest food." (JVS photo)

Fond du Lac elders Jeff Savage and Wayne Dupuis look on as fisheries technician Matt Weske, untangles a trout on Lake Superior. (JVS photo)

"In the mid 1960's, lamprey were especially bad, and the lake trout numbers got really low," said Mattes.

Every spring, GLIFWC's Great Lakes Fisheries section deploys traps to prevent sea lamprey from reaching Lake Superior. Collaboration with international agencies to restore lake trout and control lamprey populations is crucial. These efforts include GLIFWC member tribes, and state and federal agencies who are signatories to the Joint Strategic Plan for the Management of Great Lakes Fisheries, which is coordinated through the Great Lakes Fishery Commission.

Fond du Lac Band has spent years building capacity to facilitate their lake trout harvest. "This work has been moving along through committees for years,

(see Fond du Lac subsistence fishing, page 22)

Fond du Lac fisheries biologist, Eric Torvinen displays a lean lake trout with severe lamprey wounds. (JVS photo)

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

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Lynn Plucinski ..... Assistant Editor
Jenny Van Sickle ..... Staff Writer

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.

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

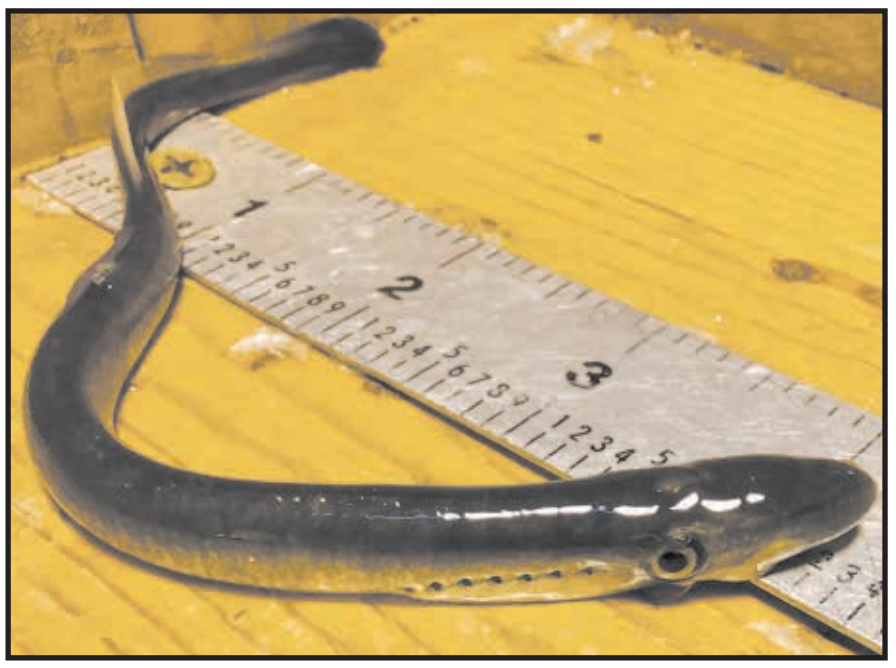
For more information see GLIFWC's website *glifwc.org* and our *Facebook* page.

On the cover

On land and water, nigig, the river otter, is active in Ojibwe Country ecosystems throughout biboon. (Arnold Jack, Lac du Flambeau Ojibwe, photo).

Sea lamprey numbers remain high, control measures continue on Superior tribs

The index for adult sea lampreys in Lake Superior was 62,000 in 2023, a population estimate above the target of 10,000 set by fisheries managers since the turn of the millennium. The strategy for controlling sea lamprey continues to be employing lampricide (TFM or 3-trifluoromethyl-4-nitrophenol) treatments and barrier dams. Some lampreys are removed during adult population assessments and through supplemental controls such as downstream larval lamprey trapping. The elevated 2023 number may be in part attributed to missed lampricide treatments during the 2020-2021 field seasons. In 2023, more Lake Superior streams were treated with lampricide under a targeted treatment strategy, which should help bring down the numbers of non-native lampreys entering Lake Superior to feed on fish. **—B. Mattes**



Staff from the Great Lakes Section are trapping open water streams to remove migrating newly transformed sea lampreys in two waterways: the Marengo and the Middle Rivers. As of October 30, over forty have been removed from the rivers. (B. Mattes photo)

KBIC in cooperation with US Geological Survey-Hammond Bay has been participating in a multi-year project to evaluate supplemental controls for sea lamprey in the Great Lakes. On October 20, 2023, during work to capture out-migrating juvenile sea lamprey, KBIC staff captured an adult spawning sea lamprey from the Traverse River in the Keweenaw Peninsula. This is the first record of a sea lamprey in spawning condition to be captured in October. Sea lampreys generally spawn in Lake Superior tributaries in late-April through early-July. (G. Mensch photo)

Ojibwe educator (finally) collects honor in D.C

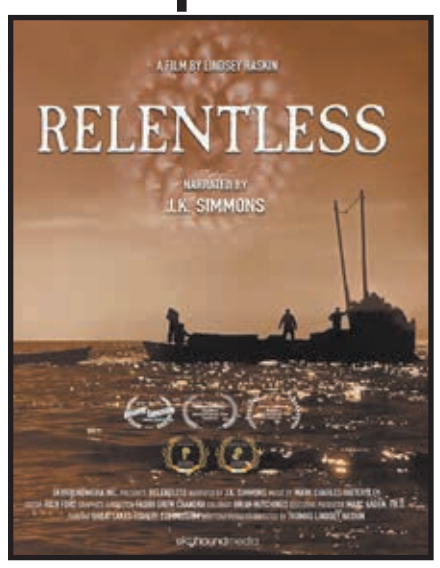
This year's National Endowment for the Arts National Heritage Fellows (NEA) had some very special guests in the audience. Past honorees who couldn't travel for the ceremony in 2020 due to the COVID pandemic, finally got the chance to celebrate in person during NEA's September reception in Washington, DC.

Wayne Mino-Giizhig Valliere a Lac du Flambeau tribal member, educator, and canoe builder visited the Library of Congress for the award ceremony and got to spend personal time with President Biden.

Valliere's bio reads, in part, that he "works as an Ojibwe language and culture teacher at the Lac du Flambeau Public School, has been actively working with apprentices and other Native communities to help keep this important art alive."

In 2021, NEA released a video featuring Valliere as part of "The Culture of America: A Cross-Country Visit" with the National Heritage Fellows. The YouTube video can be viewed at: *youtube.com/watch?v=PXd2wTcx3qA*

Film dives into sea lamprey impacts on Lake Superior



Producer T. Lindsey Haskin's latest work, *Relentless*, was commissioned by the Great Lakes Fisheries Commission to explore the relationship and responsibility to the region's most precious resources. *Relentless* builds on Haskins' *Fresh Water Seas*, that aired on public television from 2010-2012.

Marc Gaden, Deputy Executive Secretary of the Great Lakes Fisheries Commission contacted Haskin to discuss a partnership. *Relentless* fits into Gaden's larger vision of telling fuller stories about the Great Lakes to the broader public but especially to young people so they can start to see their role and responsibilities to the ecosystem.

Indigenous to the Atlantic Ocean, sea lampreys are highly adaptable to changing environments, including positive efforts like cleaning up lakes. "Lamprey benefit from clean lake beds too and are happy to spawn there," explained Haskin.

He stressed the importance of how tribal leadership at GLIFWC is working to combat lamprey with strategy and vigilance before they can ever reach Lake Superior. Bill Mattes, GLIFWC's Great Lakes section leader is featured in the documentary. "Bill was a huge help in developing our understanding of lamprey lifecycles and habitats, we started interviewing him years ago," said Haskin.

Haskin started rolling film for *Relentless* in 2017 and recalls not following the usual documentary process, to prioritize interviewing elders. By the first screening in August 2023, many of the elders had walked on. Haskin said, "we are so thankful for their guidance and knowledge, it truly shaped this film, and we hope we have done their families proud."

Relentless was featured at the Ann Arbor, Mich., and Duluth-Superior Film Festivals. The trailer for *Relentless* is available at *SkyhoundMedia.com* where you can also watch for updates on screening and streaming opportunities. **—JVS**

Wolf Management Plan

(continued from page 1)

Management Rule and Plan to guide management decisions, in consultation with tribes and GLIFWC.

With the Natural Resources Board's approval, the WDNR can now look ahead to implement the new Wolf Management Plan. The Rule is set to go to Governor Evers' desk for final approval. Only time will tell what other state or federal developments may impact ma'iingan, but tribes will continue their unwavering support for this important species.

–Olivia Gower and Ann McCammon Soltis contributed to this article

On the hunt for mooz & omashkooz

Early season heat sets up busy December

By Charlie Otto Rasmussen
Editor

Unseasonably warm and windy weather across the Ceded Territory during the first half of the hunting season seems to have had a chilling effect for Ojibwe harvesters.

Between reduced animal movement during the heat of the day and hunter reluctance to hit the woods with temperatures too often lingering in the 80s-90s during September and into October, registrations for white-tailed deer started off very slow.

For larger, low density four-leggeds like moose and elk, some treaty hunters made the most of their early season opportunities while others are looking to December hunts to provide for community households and tribal nutrition programs.

Mooz (moose)

Ojibwe moose hunting is restricted to the Minnesota 1854 Ceded Territory, where the herd numbers around 4,000 animals. Fond du Lac Band natural resources officials made 70 permits available for the 2023 season, with a maximum harvest cap set at 30 bulls. Between the treaty moose opener September 23 through the first week of November, Fond du Lac members took 19 Ceded Territory bulls.

"Even with the rut running mid-September to early October, it was still hot, and moose may have been laid up during the day," said Mike Schrage, Fond du Lac wildlife biologist. "That may have had an impact on hunter success."

Schrage said if heavy snowfall holds off in the northeast Minnesota moose range, tribal hunters may return to fill some of the remaining harvest tags. "In early November people switch over to deer," Schrage said. "After the heart of the deer season, assuming it doesn't get snowed in up there in December, hunters may get out again after moose."

Each individual moose harvest permit is subject to a late summer application deadline and is required to include 3-4 hunters. Schrage said the joint tags provide increased opportunity for tribal members to participate in the hunt.

People often hunt moose together in family groups, Schrage said—a traditional strategy that helps in handling the massive animals once downed and it streamlines distribution of meat into the wider community back home. The season wraps up December 31 for Fond du Lac moose hunters.

Omashkooz (elk)

In coordination with state wildlife authorities, GLIFWC Ojibwe tribes oversee treaty elk hunts in two regions of the Ceded Territory: north-central Lower Michigan and northern Wisconsin.

Both elk populations are the result of successful 20th Century restoration programs instituted after native omashkooz herds were wiped out during the settlement era.

Bay Mills Indian Community in Michigan entered the 2023 elk season with five tags—split out between three cow-only permits and two bull tags, said Justin Carrick from tribe's conservation office.

Following the September opener, a Bay Mills hunter registered the first elk of the season, a cow harvested in the 1836 Ceded Territory. Carrick said the balance of elk hunting is expected to occur during the cooler late season in December.

West into Wisconsin, Ojibwe treaty bands gathered for the omashkooz season opening ceremony atop the high ground east of Chippewa Lake in the Chequamegon-Nicolet National Forest.

The Friday, September 22 event also included a mandatory hunter orientation by GLIFWC wardens and biologist Travis Bartnick, prepping the intertribal groups for a safe and successful experience.

With four bull-only tags available among the bands, a pair of hunter groups returned to their home reservations to await milder temperatures while the others began their hunt. Tag-holders representing Lac du Flambeau and Keweenaw Bay Indian Community both connected with bulls that weekend in the colorful public woodlands around Clam Lake. The treaty elk season runs until the first Sunday after New Year's Day in 2024 (or, January 7, 2024) in the Wisconsin Ceded Territory.

Early season deer & bear registrations down from 2022

Waawaashkeshi. (COR photo)

The early dagwaagin (fall) waawaashkeshi (deer) hunting season in the 1837 and 1842 Ceded Territories seems to have gotten off to a relatively slow start in 2023, and the take of makwa (bear) was also down from 2022.

From the start of the season on September 5th (the day after Labor Day) through November 7, 2023, Ojibwe off-reservation hunters registered 229 deer and 32 black bears.

This is the seventh year treaty hunters have had the option of registering their deer remotely, via phone, and the fifth year that online registration has been available for hunters pursuing whitetails off-reservation within the Ceded Territories.

Of the 229 deer that were registered as of November 7, approximately 85% were registered remotely, including 95 deer registered using the phone registration system and 99 deer registered using the online registration system. The remaining 35 deer were registered in person at tribal registration stations.

Approximately 48% of the deer registered were antlered, and 52% were antlerless deer. The peak of off-reservation tribal deer registrations typically falls over the second, third, and fourth weeks of November.

For the 32 bears registered as of November 7, 25 bears were registered remotely using the online or phone registration system. The remainder were registered in-person at tribal registration stations. Of the 32 bears that were registered, 17 (53%) were males and 15 (47%) were females.

—T. Bartnick

Family elk hunt shines a light on Ojibwe values

By Charlie Otto Rasmussen
Editor

The phone call came as a revelation for the Brown family; their name was drawn following a lottery for a ceremonial bull omashkooz harvest permit in the Wisconsin Ceded Territory.

"What an honor. What a blessing for our family to be chosen," said Keweenaw Bay Indian Community citizen Kristin Brown. Wisconsin treaty elk (omashkooz) tags are very limited. Only four bull harvest permits in the Clam Lake Zone have been available to 10 GLIFWC member bands on an annual basis in recent years.

Experienced deer hunters, Kristin and husband Scott swung into action planning what they saw as an opportunity of lifetime for their family, she said. The Ojibwe elk camp at Chippewa Lake, Wis was a 13-hour drive from their Lower Michigan home. The youngest two children would stay with Kristin's parents in Baraga—dropped off enroute—while the boys aged 10, 12, and 14 rounded out the elk hunting crew. But first, there were school teachers to consult, coaches to inform, and camping gear to assemble.

Keweenaw Bay Indian Community member Scottie Brown (14), shot this 4x5 bull elk in the Chequamegon-Nicolet National Forest. Scott is pictured with his parents Kristine and Scott Brown. (submitted photo)

Plans fell into place and the Brown's rolled into camp deep in the Chequamegon-Nicolet National Forest along with other tribal groups in time for the opening ceremony and hunter orientation on Friday September 22. GLIFWC wardens reviewed hunting regulations, biologists laid-out health sampling protocols for harvested animals, and Ojibwe groups from across the Ceded Territory drew up plans to fan out in the vast northern forest where mix-aged timber stands of pine, popple, and hardwoods produced a mosaic of browse and cover favorable to elk.

"At first, we'd see [elk] cows whenever we went out. One time they were right next to road," Brown said. "We shared camp with other family groups from Lac du Flambeau. We traded information about where we saw animals."

The Lac du Flambeau hunters also included same-age boys as the Browns; before long, breaks from hunting evolved into pick-up football games between Flambeau and KB kids in the rough-chopped grass at camp. Kids scooted down a rutted two-track road to kayak and fish in Chippewa Lake. The atmosphere at camp was outstanding, Brown said.

And then it happened. Back in the wilds, near dusk on the third evening, the Browns worked their way along the edge of a permanent forest opening managed by the US Forest Service. Their pick-up truck was just up ahead along a primitive road. But before they could get there, four elk stepped into the opening, led by a 4X5 bull. The eldest boy, Scottie Brown, took a single shot.

"It dropped on the spot," Brown said. "Just wow. A pretty exciting thing for all of us. We've deer hunted plenty, but never hunted anything as big as elk before. Took over three hours to field dress it. Everybody was elbow deep."

A few days later, the Brown family shared their experience in-person with the Keweenaw Bay Indian Community tribal council in Baraga.

"Hunting an elk for several communities was a huge honor, to be able to provide ceremonial meat for many people—people my children haven't even

(see Omashkooz, page 15)

Black ash trees take another hit

Tiny insects target beleaguered baapaagimaak

By Steve Garske, GLIFWC Invasive Species Coordinator

Mellen, Wis.—As many Mazina'igan readers know, Turtle Island's ash trees are being decimated by the emerald ash borer, an accidental introduction from eastern Asia. The spread of this highly destructive little beetle has (not surprisingly) consumed the time, attention, and effort of a wide variety of people who are concerned about the loss of ash. Meanwhile, another non-local ash-feeding insect has moved into the area, mostly under the radar.

In June of this year, GLIFWC Climate Scientist Hannah Panci noticed that the black ash (*baapaagimaak* in Ojibwemowin) at one of the GLIFWC Climate Change Program's long-term phenology study sites in the Chequamegon-Nicolet National Forest west of Mellen were losing most of their leaves.

After finding an aphid-like insect on one of the leaves, GLIFWC staff contacted Wisconsin Department of Natural Resources Forest Health Specialist Linda Williams, who provided some very helpful information on insects which specialize on ash. These included two aphid species (one native, one introduced) as well as a related insect called the cottony ash psyllid (*Psyllopsis discrepans*, or CAP for short). After GLIFWC staff collected apparent CAPs from three sites in Vilas and Ashland County, Williams recruited Patrick (PJ) Liesch of the Insect Diagnostic Lab at UW-Madison to join the investigation. Following a careful examination, Liesch confirmed that the insect samples were CAPs.

CAPs have nearly defoliated these black ash in this June 2023 photo, taken at GLIFWC's long-term climate study site in the Chequamegon-Nicolet National Forest. (S. Garske photo)

Black ash leaf damaged by feeding CAPs. Heavily damaged leaves fall off prematurely, limiting photosynthesis and depriving the tree of food. (S. Garske photo)

A cryptic invasion

The cottony ash psyllid is native to Europe. It was first detected in North America in 1921, but was apparently only sporadically reported until the last decade or so. Most recent reports have been from the northern Great Plains region, where severe outbreaks have been recorded. These outbreaks have been especially destructive in urban areas, where (for example) the CAP has wiped out nearly all the roughly 1000 black and Manchurian ash planted in the City of Red Deer, Alberta. Until this past summer the CAP had only been reported

(see Tiny insects target baapaagimaak, page 16)

Ojibwe access to Wisconsin State Parks & Trails expands with latest LCO Voigt stipulation review

By James Rasmussen
GLIFWC Policy Analyst II

Forty years following the LCO Voigt Decision affirming off-reservation Ceded Territory hunting, fishing, and gathering rights for Ojibwe tribes in Wisconsin, the State and Plaintiff Tribes—through their biannual "stipulation" review process—reached an agreement expanding treaty opportunity for harvesters.

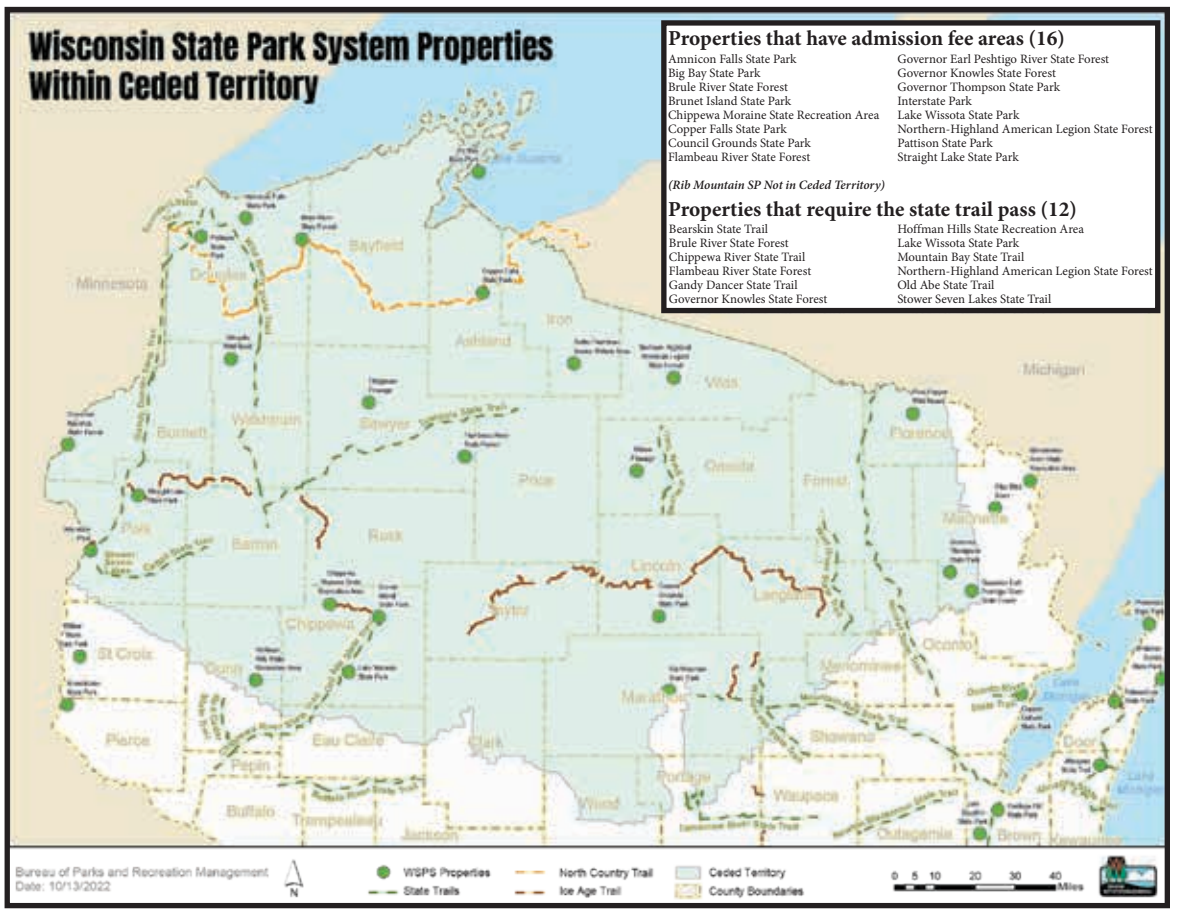
Tribal citizens from GLIFWC's member bands can now access state parks, forests, and recreational areas in the Wisconsin Ceded Territory by displaying their GLIFWC hangtag (see page 1 photo) instead of a daily or annual Wisconsin State Park and Forests System Vehicle Admission Sticker.

There are 16 Wisconsin Ceded Territory properties that have admission fee areas, which no longer will be required for tribal members who properly display their valid hangtag.

This "hangtag," validated with a unique NAGFA ID# for enforcement purposes, can already be used by harvesters from Tribal/Forest Service Memorandum of Understanding (MOU) signatory tribes to access National Forests and certain other federally owned properties for no cost throughout the Ceded Territories; these destinations include the Hiawatha National Forest, Huron-Manistee National Forest, Ottawa National Forest, Chequamegon-Nicolet National Forest, and Apostle Island National Lakeshore. Vehicle hangtags are currently not valid for any other administered lands such as County Parks, ferry service, or municipal boat landings.

Tribal members who do not already have a GLIFWC hangtag may obtain one from their local registration station or by calling GLIFWC. Hangtags may not be transferred or shared by more than one individual and must clearly display their NAGFA ID# to be valid. Harvester hangtags do not expire.

State trail access is also part of this agreement. Accordingly, Ojibwe harvesters may access any Wisconsin state trails in the Ceded Territory for no cost. Members shall carry their tribal ID for enforcement purposes. There are 12 properties in the Wisconsin Ceded Territory that require a state trail pass which no longer shall be required for tribal members who instead present their tribal ID to enforcement.



Additional stipulations approved

In addition to the expanded Wisconsin Ceded Territory state properties access, the Department of Natural Resources and Plaintiff Tribes have agreed to stipulations expanding deer harvest opportunity and a regulation change that impacts minnow baiting. GLIFWC member tribes that choose to do so have the ability to keep deer hunting season open as late as January 31st, the same as state hunters.

The change also includes aquatic invasive species protections by removing live bait prohibitions on certain treated waters and instead regulating the

(see New Wisco stiplations, page 15)

Ojibwemowin project makes final landing with *Giiwedinong: Stories of the Flyers*

By Melissa Maund Rasmussen ANA Grant Projects Director

GLIFWC's Administration for Native Americans (ANA) language staff wrapped up the *Maajii-Ojibwemowag (They Begin to Speak Ojibwe)* language preservation & maintenance project with the distribution of *Giiwedinong: Stories of the Flyers* book sets and launch of *Giiwedinong: Stories of the Flyers* webpages.

Tales were shared about *Opichi (Robin)*, *Gijigijigaaneshiinh (Chickadee)*, and *Aginjibagwesi (Goldfinch)* from tribal storytellers Niiyogiizhig (Wesley Ballinger) and Saagijiwegaabowiik (Jennifer Ballinger). The stories use simple Ojibwe words and phrases highlighting Ojibwe culture and harvesting practices.

Each GLIFWC tribe received 250 Giiwedinong book sets which included: three *Giiwedinong* storybooks, one coloring book adapted from the three storybooks, three supplemental documents relating to each story, and four boxes of "chubby," paperless crayons (200 per box). Sets were distributed to tribal Head Start, Early Head Start, and other early childhood programs.

Don't forget to check out the *Giiwedinong: Stories of the Flyers* interactive webpage! Developed as a companion resource, the *Giiwedinong* webpage activities relate to and expand on the "flyers" and Ojibwe language used in the stories. We've also created a *Printables* page to increase access to the developed *Giiwedinong* materials which includes PDF versions of each storybook, supplemental document, and coloring book which can be downloaded and printed for free.

Visit the *Giiwedinong* interactive webpage at: *glifwc-inwe.com/giiwedinong.html*

Celine Kegley rocks grandson Kieran at Mole Lake's A-Binoojii Daycare Child Development Center, while reading Opichi (Robin) from the Giiwedinong: Stories of the Flyers book set. (M. Maund Rasmussen photo)

Visit the *Giiwedinong Printables* webpage at: *glifwc-inwe.com/giiwedinong-printable.html*

Over the past four years the *Maajii-Ojibwemowag* project has delivered (1) 12,000 *Waabanong: Stories of the Four-Legged* storybooks, 12,000 correlating supplemental documents, and 12,000 coloring books; (2) 12,000 *Zhaawanong: Stories of the Plants* storybooks, 12,000 correlating supplemental documents, and 3,000 coloring books; (3) 12,000 *Ningaabii'anong: Stories of the Swimmers* storybooks, 12,000 correlating supplemental documents, and 3,000 coloring books; and (4) 12,000 *Giiwedinong: Stories of the Flyers* storybooks, 12,000 supplemental documents, and 3,000 coloring books. In addition, a total of 66 boxes of "chubby," paperless crayons were distributed.

The Maajii-Ojibwemowag project has created a companion webpage for each book set. Each webpage includes three language learning activities; three translation and pronunciation guides relating to and expanding on each story; and a digital, listen and read along version of each storybook.

Additionally, a *Printables* webpage was created for each book set which provides PDF versions of each storybook, supplemental document, and coloring book to download and print for free.

Visit the interactive webpages at:

glifwc-inwe.com/waabanong.html
glifwc-inwe.com/zhaawanong.html
glifwc-inwe.com/ningaabiianong.html

Visit the Printables webpages at:

glifwc-inwe.com/waabanong-printables.html
glifwc-inwe.com/zhaawanong-printables.html
glifwc-inwe.com/ningaabii-anong-printable.html

If you have any questions, comments, or concerns, please contact ANA Language Project Staff at *inwe@glifwc.org.*

Tribes, US Forest Service take stock in 25-year collaboration

By Charlie Otto Rasmussen, Editor

Mole Lake, Wis.—From establishing tribal sugar bushes, to long-term research of understory forest plants, and coordinating law enforcement patrols across millions of acres of Great Lakes National Forests, the award winning Tribal-US Forest Service MOU has impacted land use across Wisconsin and Michigan for 25 years.

"It's a real testament to stewardship and what's possible," said Gena Owens, USFS Regional Forester, at the Nov 1 meeting.

Representatives from GLIFWC, Ojibwe tribes, and agencies of the US Department of Agriculture (USDA) reflected on a quarter-century of cooperative work on Great Lakes National Forests, including the Chequamegon-Nicolet, Hiawatha, Huron-Manistee, and the Ottawa.

The full-title of the working document completed in 1998 through extensive discussion and negotiation is: *Memorandum of Understanding Regarding Tribal-USDA Forest Service Relations on National Forest Lands with the Ceded Territory in Treaties of 1836, 1837, and 1842*.

"We've come a long ways," said Red Cliff Band representative Mark Duffy. "We understand each other. We basically have a lot of the same goals. It's important that we make sure we continue forward and make progress; we've created a national model for other agencies."

Led by drumkeeper Bazile Panek, tribal representatives played an honor song on the GLIFWC drum for USFS's Paul Strong (centerframe)—one of the MOU authors who is entering retirement. (CO Rasmussen photo)

While the MOU has helped foster improved communications between treaty tribes and the USDA, Ojibwe representatives noted that frequent turnover in US Forest Service leadership positions means relationships are continuously being rebuilt. The tribes encouraged all the signatory entities—National Forest System, Law Enforcement & Investigation, and Northern Research Station—to implement an ongoing training plan for new staff so they understand Ojibwe off-reservation rights and the federal obligations that come from being a party to treaties.

GLIFWC tribes nevertheless recognized one individual who has long-demonstrated both an appreciation for Ojibwe treaty rights and a desire to help support tribal sovereignty in relation to national forestlands: retiring Forest Supervisor Paul Strong. As one of the MOU authors, Strong frequently engaged GLIFWC's Voigt Intertribal Task Force to appraise tribal forest needs and negotiate solutions with the USFS.

"Paul Strong has been a staunch advocate and supporter of treaty reserved rights, tribal sovereignty, government-to-government dialogue, and tribal natural resource and environmental management, and has sought to include this perspective in the Forest Service's management activities, and decision making," said the VITF in a resolution of recognition.

As new leaders become engaged in the MOU, the parties agreed that all the hard work and dedication exhibited in the first 25 years must continue. Generations of Ojibwe people will rely upon access to healthy forest resources long into the future.

Part Two: Consumers' guide to PFAS

Identifying chemical contamination, taking action

By Caren Ackley, GLIFWC Environmental Biologist

Widely known as "forever chemicals" because of their resistance to breaking down in the environment, Per- and polyfluorinated alkyl substances (or PFAS) are the subject of increasing study by public health and resource agencies. This follow-up to "Part One: Consumers' guide to PFAS, The good, the bad, the ugly," highlights government response to PFAS revelations and the impact of community involvement in the fight for clean water, or *nibi*.

Contamination, detection and response

PFAS contamination has been detected in soils, waterbodies, and their sediments across the country. Following extensive testing, the United States Geological Survey has estimated that more than 45% of US tap water contains detectable levels of PFAS.

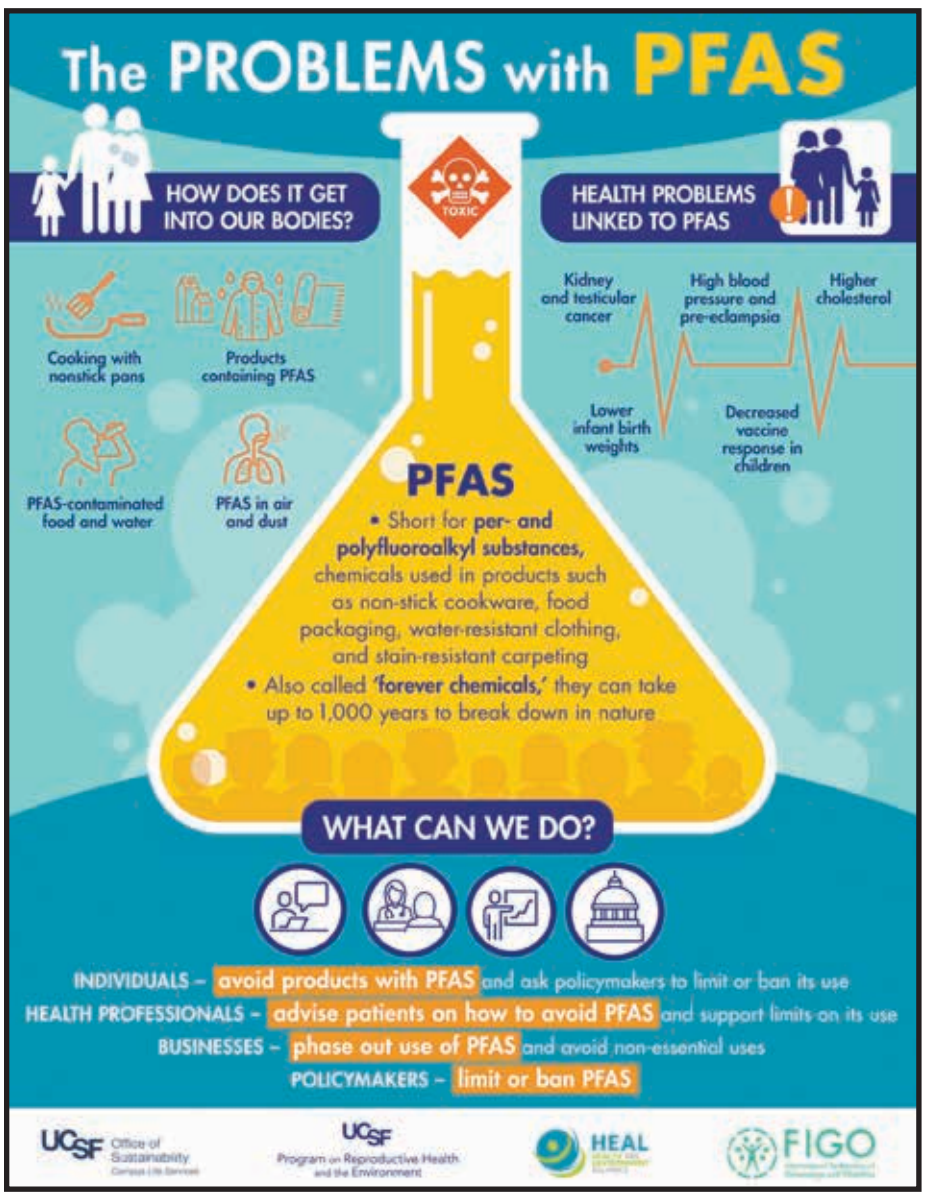
PFAS have even been found in seemingly unlikely places like Arctic ice and seawater, animals from every corner of the planet such as polar bears, monkeys and dolphins, and rainwater across the globe including in extremely remote places like Antarctica and atop the Tibetan Plateau.

In Wisconsin, contaminated drinking water sources have been confirmed in cities including Wausau, Rhinelander, and Marinette. Surface and ground water contamination has been detected around Fort McCoy, in the Madison area, and the Peshtigo and Menominee Rivers near Marinette, and Lake Mohawksin near Tomahawk, to name a few.

Fish consumption advisories have been issued for some species in waterbodies including the Wisconsin River, the Mississippi River south of Minneapolis, several waterbodies in the Madison area including the Yahara River and Lake Monona, and the entire bay of Green Bay. Two high-profile cases are 1) the smelt consumption advisory in western Lake Superior where consumers are advised to eat no more than one meal per month, and 2) the "do not eat" consumption advisory issued for deer liver around Marinette, Wisconsin. PFAS have also been discovered at sites in Minnesota and Michigan.

There are ample resources available to the public to better understand PFAS contamination and exposure risks. Current data on the testing and results of sampling efforts conducted across Wisconsin can be found on the Wisconsin DNR Wisconsin PFAS Interactive Data Viewer web page. The Minnesota Pollution Control Agency (MPCA) has an online Surface water data map and Interactive

(see What is being done about PFAS, page 19)



Record temps in Ceded Territory may lead to potentially warm winter, low ice cover in 23-24

By Illeana Alexander
Tribal Climate Adaptation Specialist

Cooler late fall temperatures were welcome this year after a hot, dry summer. According to the World Meteorological Organization, June through September was the hottest and driest summer on record for most of the world, and even October saw some record-breaking hot days. In Ashland, Wisconsin, both September and October came with heatwaves that broke recorded temperature highs for the region.

These late summer/early fall heat waves can be partially explained by 2023 being an El Niño year. The El Niño Southern Oscillation (ENSO or El Nino for short) is a natural climate pattern produced by a warm front of water in the Pacific Ocean interacting with wind systems that dominoes into an unusually warm weather pattern around the globe. This phenomenon manifests in different ways across different habitats.

For the Ceded Territories this often means a warm, dry summer followed by a mild winter. This natural warming happens every two-to-seven years, interspersed with La Niña years where the opposite happens – a cold water front produces cold weather effects. Many of the hottest years on record are El Niño years, and 2023 is no exception. The most dramatic weather changes generally happen in the winter when El Niño is at its peak strength. As winter brings a chill to the Midwest, predictions favor relatively mild temperatures and snowfall this year.

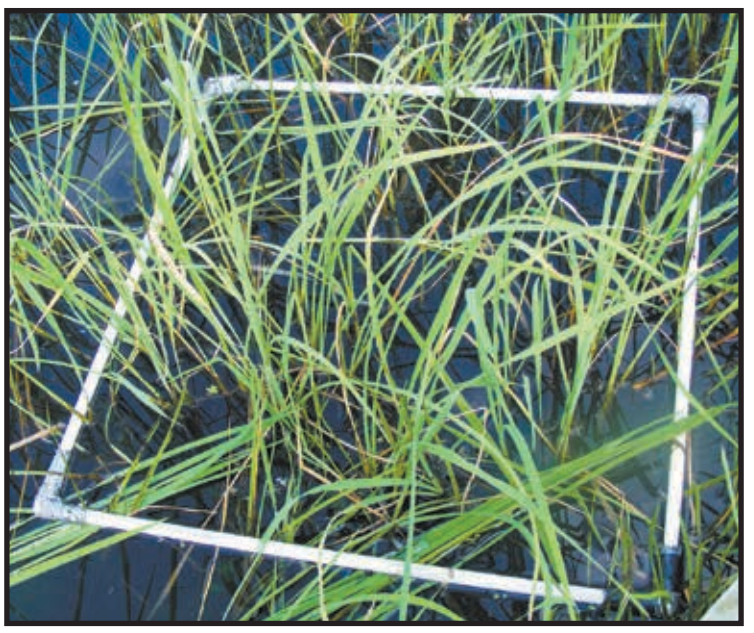
Even with the El Niño explanation, trends still suggest this year was an anomaly. Though a few extra warms days can be nice after an extra soggy winter, many gatherers in the Ceded Territories saw the consequences of the unusual weather patterns. Manoominikewin (wild rice harvesting) was particularly impacted as the start of the ricing season aligned with the start of the fall heatwaves. In August, ricers at Big Sandy Lake had to take extra care to protect themselves from the sun and scorching temperatures. With highs reaching 100F on some days, many individuals had to get off the water early to protect themselves from heat related illnesses. Manoomin is a staple food for many Anishinaabeg and the loss of ricing days can be detrimental to access to manoomin for the coming year.

After this year's manoomin harvest conditions, GLIFWC is keeping a close eye out on next year to assess the impact heat has at the middle stage in the being's life cycle. It may also offer some more insight to how water levels and surface temperatures affect how manoomin grows.

There is also concern for what temperatures will be like this winter. If winter follows the summer and fall trend of dry and warm, there may be less ice-on days for the waterbodies manoomin grows in. Manoomin depends on ice cover in the wintertime before the seeds sprout in the spring. With warmer winters and less ice cover, seeds are not getting as long of a dormancy period.

Aanji-bimaadiziimagak o'ow aki. The world is changing. There is a growing trend towards longer lasting and more frequent heatwaves. These changes are already happening, but the community is also already adapting! With the Climate Change Vulnerability Assessment, Version 2 out, GLIFWC is now starting the planning process for a Climate Adaptation Plan for the Ceded Territories.

Did you experience the unseasonable heat? Share your observations, stories, and concerns with the GLIFWC Climate Change Team at *climate@glifwc.org*.



Extreme weather during wild rice's sensitive summertime development phase may negatively impact Ceded Territory manoomin beds. (GLIFWC photo)

Focus on furbearers

Culture, science drive GLIFWC approach to wildlife

Nigig in the snow. (A. Jack photo)

By Allison Carl, GLIFWC Wildlife Biologist

During the off-reservation furbearer trapping season, GLIFWC wildlife staff assists member tribes implementing their treaty rights to harvest in the Ceded Territories and also conducts furbearer research and stewardship. Furbearers are mammals that are hunted or trapped primarily for their fur.

Common furbearer species that live in the region include beavers, coyotes, raccoons, muskrats, skunks, fishers, otters, bobcats, foxes, and weasels among others. Many tribal members trap furbearer species for their furs and other parts of the animal to be used for ceremonies, food, clothing, and medicines. GLIFWC assists in furbearer stewardship in the Ceded Territories, helping keep track of several species, specifically gidagaa-bizhiw (bobcat), ojiig (fisher), nigig (otter), and waabizheshi (marten).

With so many species to oversee, it's important for staff to be knowledgeable about the cultural importance of trapping and the methods to set traps in a good way. Wildlife biologists and technicians also stay up to date on trapping technology, best management practices, and conservation issues. All this information comes from on-the-job training from GLIFWC's member tribes, knowledge-holders, and colleagues that are already avid trappers out in the woods and waters of Ojibwe Country.

From field to classroom and back again

In early October, GLIFWC's wildlife staff attended Wisconsin Department of Natural Resources' Wildlife Fur School Training to learn about trapping from a different perspective. The purpose of Fur School is to help wildlife professionals become more familiar with trapping furbearers, why trapping is important, and how it plays a part in state furbearer management.

Fur School combines lectures and hands-on training about different types of traps, state trapping laws and regulations, and additional understanding of furbearer ecology. Participants also had the opportunity to brush up on trapping skills in the field as well as process and care for pelts.

Across much of the year, GLIFWC conducts research to better understand and learn from our furbearing relatives. When proposing research ideas, GLIFWC first looks for non-invasive research techniques to study and learn from wildlife. These techniques include placing cameras in the field, setting up hair snares, or collecting scat.

However, these non-invasive sampling techniques can only teach wildlife staff so much about an animal. Answering questions about movement, habitat preferences, survival, or whether a population is likely to survive is hard to do using non-invasive sampling. Sometimes staff need to learn more about an animal to be better stewards and caretakers.

To understand more about habitat preferences, survival, population viability, and movements of wildlife, GLIFWC staff live trap animals and attach a GPS collar. This process, however, is stressful for the animals we capture so the priority is to always honor and respect each being by placing asemaa down before trapping, asking the animal for permission to be trapped, and letting them know GLIFWC's intentions. When each animal is in hand, it is staff's responsibility to provide the best care for them.

With proper wildlife handling in mind, the second training GLIFWC staff attended was safe capture and chemical immobilization (administering anesthesia) courses. Staff brushed up on the ethical issues related to wildlife capture and handling and the field-based practices for immobilization and collecting data. When GLIFWC traps animals for research, staff reduce the effects of the capture as best as they can. These courses reiterated the different ways to demonstrate honor, care, and respect to the animals GLIFWC handles through words, actions, and the techniques they use.

Staff learned how to safely handle wildlife and how to do so in a way that reduces stress and stimuli, which minimizes the number of complications that could occur. Staff learned methods for working and collecting data more efficiently to reduce the amount of time an animal is handled, and how to best provide care while the animal is in our hands.

When GLIFWC does trap and handle wildlife, the staff's obligation is to always respect and look after the wellbeing of each animal. Ongoing education and training ensures GLIFWC wildlife staff continue to improve methods of wildlife handling and immobilization to provide the best care for the animals that they handle.

Odoonibiins: the most vulnerable swimmer

Odoonibiins is the most vulnerable swimmer in Aanjibimaadizimagak o'ow aki (GLIFWC Climate Change Vulnerability Assessment, Version 2). Odoonibiins goes by many names in zhaaganaashiimowin (English) including tullibee, cisco, chub, herring, and lake herring.

Regardless of what name they go by, odoonibiinsag play a crucial role in cultural fishing practices and food sovereignty for Anishinaabeg. While they cover a broad range of northern Turtle Island through what is now considered central and eastern Canada, the southern range near the Great Lakes and US East Coast is shrinking and slowly shifting north.

Odoonibiinsag are found in deep, cold waters in inland lakes and Lake Superior. They require the clear, oxygen rich waters found below the thermocline —the invisible line separating warmer water above from cold water below— to live in. As such, this being is most vulnerable to heat related climate changes.

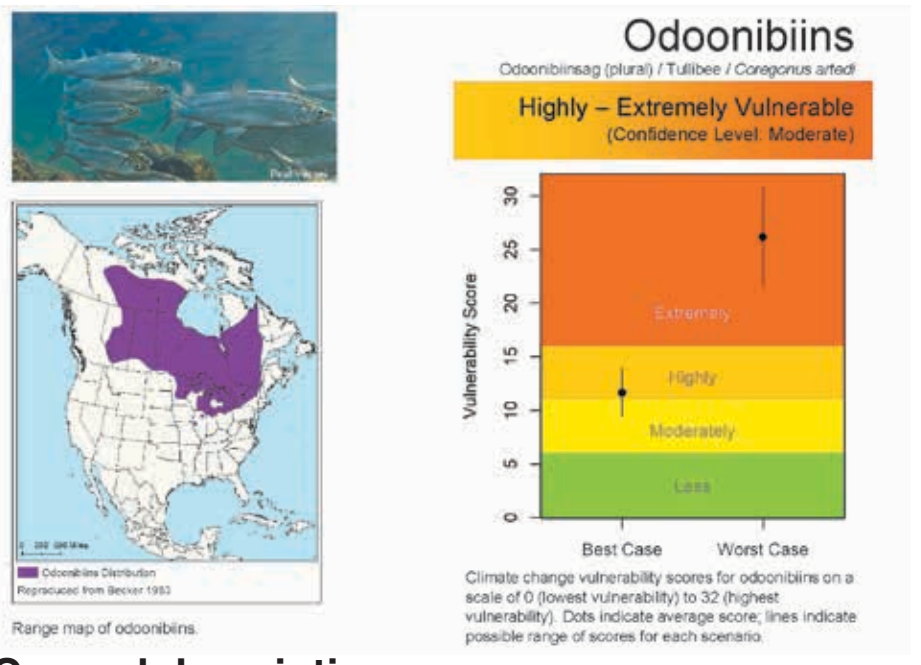
Cooler water stores more oxygen, while warmer water stores more nutrients. Consistent summer days over 95ºF are great news for algae and surface level aquatic plants; but for odoonibiins it means less cold water to live in and less oxygen to breath.

In previous record high heat years, notably 2006, odoonibiins has suffered heat related sudden fish kills. In interviews for the Vulnerability Assessment, individuals recalled odoonibiinsag washed up on the shoreline at both Lake Winnie (Winnibigoshish) and Lake Mille Lacs during exceptionally warm days.

It's not all bad news for Odoonibiins! The Minnesota Department of Natural Resources has been working on a climate refugia plan. This means focusing conservation efforts on lakes that are deeper, colder, and otherwise projected to retain the habitat features best suited for beings like odoonibiins.

Though it is the most vulnerable swimmer in the Vulnerability Analysis, identification, and protection of cold-water lake refugia in the ceded territory should help keep this swimmer around for future generations!

Are you observing changes in the Ceded Territory? Share your observations at *climate@glifwc.org* **—GLIFWC Climate Change Team**



Range map of odoonibiins.

Climate change vulnerability scores for odoonibiins on a scale of 0 (lowest vulnerability) to 32 (highest vulnerability). Dots indicate average score; lines indicate possible range of scores for each scenario.

General description:

The Fish Clan (which includes odoonibiins) is part of the Ojibwe clan system and those who belong to it are known to be sky watchers that hold knowledge of all that is in the sky, such as the sun, stars, and moon, as well as knowledge about the connections between the earth and the sky. However, members of other clans also sometimes hold that same knowledge today.

During Traditional Ecological Knowledge interviews carried out with tribal members, it was noted that various English common names for odoonibiins are used in the different communities, including tullibee, cisco, chub, and most commonly, herring and lake herring.

Odoonibiins lives in rivers and deep lakes (including Lake Superior, Lake Michigan, and rarely Lake Huron) in the Ceded Territories and has been harvested by the Anishinaabeg since time immemorial. Odoonibiins spawns at night in **(see Climate change and odoonibiins, page 19)**

STORIES IN THE SNOW

By Abi Fergus, for Mazina'igan

Winter's here; I am dreaming of tracking in the snow. Following an animal's tracks teaches us about their lifeways. Like people, animals have cultures too, and we can learn about them through the traditional practice of tracking.

Tracking is a pursuit traditional to all humans. It has helped humans to hunt and taught us about ecosystems through the observation of other species like makwa (black bear) or ma'iingan (gray wolf). Tracking can increase our connectedness to ecosystems despite the modern trend of tracking knowledge being "lost" across cultures.

Ma'iingan

Tracking through the seasons teaches us about the phenology of other animals' lives. One winter, I found wolf tracks on the Bad River Reservation that were full of energy yet contained to one area instead of forming a trail typical to wolves of direct, intentional movement. Thanks to my familiarity with animosh (domestic dog), I recognized that the wolf paws all over the fresh snow reflected that they were playing. Wolf packs travel and hunt together more in the winter than the summer.

By late winter, you can find signs of the mating pair in the pack reproducing. Both the male and female will urinate in prominent places to mark territory and the female will leave some blood in her urine while she's in estrus or heat. In the late summer when the pups become more mobile, you might find small tracks along with full-size wolf tracks.

During this time, wolves are also marking their territorial boundaries by depositing scat on country roads and other clearings with a greater concentration around their pack territories. The wolf scats grow in mass during the deer hunting season as the pack scavenges gut piles or finds wounded deer. Ma'iinganag and their prominent tracks and scat remind us of how much we can learn about our ecosystems by tracking changes through the seasons.

Makwa

In the late spring, when the ferns unfurl and turn floodplains into jungle-like mazes, I have tracked makwa. Black bears clear a path through the fern fronds—unlike the other animals that glide under and through these prehistoric plants. I have found a bear bed in the ferns fresh enough that engorged ticks still remained in the depression the bear's body made in the vegetation.

Bears maintain long-used trails by grinding their feet into the earth as they walk, leaving their imprint on the land. Bears maintain and pass down their stomping grounds in matriarchal lines shaped by knowledge of where there are berries and roots to eat or fawns and crickets to hunt. It's rare to see makwa's tracks in the snow due to their winter sleep. In the growing season, they remind us that we can still track by paying attention to the ways that vegetation is damaged whether it's the ferns they stomp on or the trees they climb.

Ajidamoo

When you're in the woods, you are being observed by many other animals. The birds and squirrels are especially alert and will call out to warn each other of any suspicious behavior, so it's important to move through the forest with intention. In part, this means wearing colors that blend in with the natural environment and materials that will remain quiet as you move. It's also important to move with relaxed body language.

The loud cries of ajidamoo (red squirrel) or aandeg (crow) are more likely to give away your presence if you're tense or crouched like a stalking predator. If you move with a sense of casual belonging, you can avoid birds and squirrels announcing your presence to the rest of the forest.

Once when I was tracking two waawaashkeshiwag (white-tailed deer), two red squirrels came running along a log and froze when they noticed me. We looked at one another for a while after they scaled nearby trees. They didn't alarm call to warn everyone else in the woods. They just carried on their way, leaving me with a wonder-spurred grin. Ajidamoo reminds us to move with calmness and stealth.

A russula mushroom perched on a balsam bough by a squirrel. Squirrels dehydrate mushrooms in the fall to cache for winter food. (A. Fergus photo)

Bear tracks in the snow are an uncommon sight due to makwa's overwinter slumbering period. (CO Rasmussen photo)

Getting out tracking

You don't have to be rural to track. Sit outside and track what the squirrels and birds do. How do they respond to your presence? What do they eat? How do they move? There's a growing base of resources for identifying and recognizing tracks based on measurements and morphology (shape). Some resources include:

Tracking books like *Mammal Track & Sign* by March Elbroch
Apps like *iTrack*
Websites like *originalwisdom.com* and *queernature.org*
Online communities like "*Animals Don't Cover Their Tracks*" on Facebook

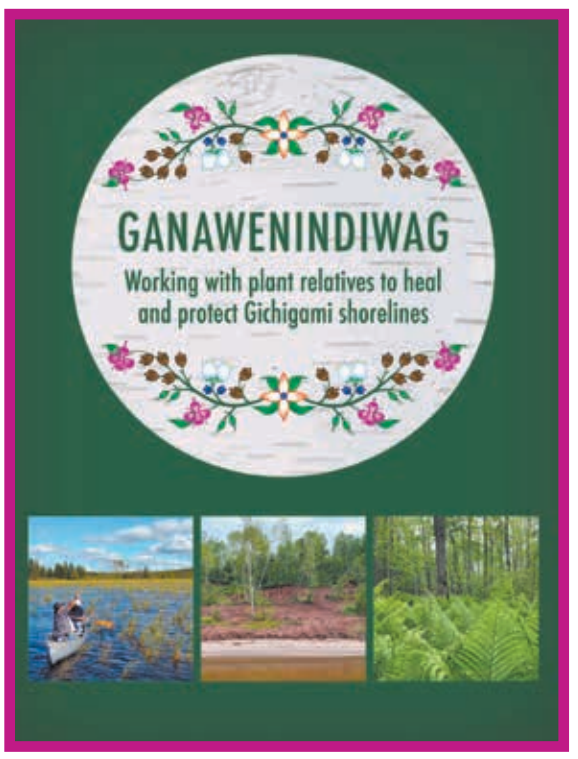
I am always happy to discuss tracking, get out tracking together, or to help identify tracks. When taking pictures of tracks, take the photo from directly above the track and include a sense of scale—ideally a ruler. I can be reached through my website at beacanhollow.gracenovie.com. I hope you learn and connect with your wild kin through tracking this year.

Looking after coastal plant relatives –a guidebook

Ganawenindiwag (they take care of each other) empowers users to grow, promote, and use plants adapted to coastal areas of Gichigami (Lake Superior) to heal and protect shorelines.

Focused on the Wisconsin coast, Ganawenindiwag is designed for use by coastal-land caretakers, resource managers, and anyone who interacts with the Gichigami shoreline.

Users are introduced to plants that have thrived on this landscape, and with whom Ojibwe people have developed long-standing relationships.



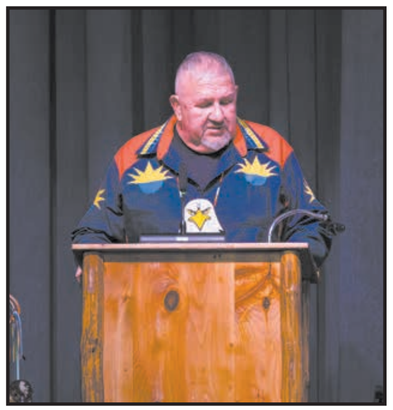
The guide was developed by a team from the Lake Superior Reserve, GLIFWC, the Lake Superior Research Institute, and UW–Madison Division of Extension Natural Resources Institute.

The title describes the plant–human relationship from the Ojibwe perspective. According to the Ojibwe creation story, our plant relatives agreed to care for humans by giving what we need to survive.

Our responsibility is to treat them with respect, use their gifts in a good way, and speak for those who cannot speak for themselves. Investing in our relationship with plants, rather than in concrete, is one way for humans to live up to our responsibilities to our plant relatives. **—R. Croll**

The faces of Ojibwe treaty rights in Wisconsin

Cliff Korn, AMVETS post #1998 Hayward, Wisconsin presents the colors. (R. Comfort photo)



President, Lac du Flambeau John D. Johnson greets the audience. (R. Comfort photo)

Henry Buffalo, Jr., Kathryn Tierney, Howard Bichler, and GLIWC's Ann McCammon Soltis share their perspective on the LCO v. Voigt *panel. (RC)*

Attorney Kathryn Tierney recalls her work on the LCO case. (R. Comfort photo)

Jim Schlender, LCO Attorney General, Jason Schlender, GLIFWC Executive Administrator, Fred Maulson, and emcee Rick St. Germaine listen to one of the evening's honorees, Tom Maulson of Lac du Flambeau. (COR photo)

All the way from Oklahoma, singer/songwriter Mitch Walking Elk played a variety of songs and told stories. (COR)

Governor Tony Evers greets students from Lac du Flambeau following his remarks during the conference. (R. Comfort photo)

Leon Boycee Valliere, Sadie Valliere, Neil Kmiecik, and firekeeper Michael Demain visit between panels. (COR)

LCO v. Voigt Celebration

(continued from page 1)

and Kathryn Tierney, fishermen Fred and Mike Tribble, GLIFWC's first Executive Administrator Henry Buffalo Jr. and many more shared their experiences from those heady days with more than 300 community members and guests including a visit by Wisconsin Governor Tony Evers.

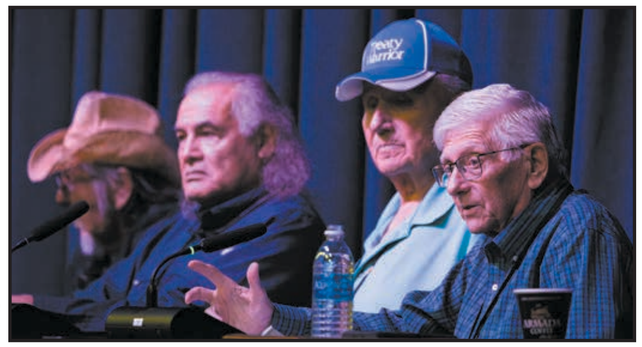
Governor Evers looked to continue building better relationships with tribes, acknowledging the difficult road that many Ojibwe people have faced. "It's our responsibility to uphold these rights and treaties, protect against harvesting harassment, and call out anti-Native hate and racism when we hear it and see it," he said.

Find video of the *LCO v Voigt* 40th Anniversary Celebration, including speakers and panelists, at *facebook.com/GLIFWC*.

A drum song by Fry Bread Nation closed out the LCO v. Voigt 40th Celebration. (COR photo)

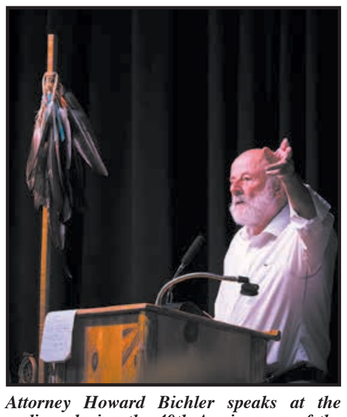
Brothers Mike and Fred Tribble, Lac Courte Oreilles, are recognized helping kickstart legal proceedings leading up to the 1983 Voigt decision. (RC)

Henry Buffalo Jr., and Tom Maulson share the stage in celebration during the festivites (RC photo)



Lewis Taylor, Henry Buffalo Jr., Tom Maulson and former DNR official, George Meyer share their stories on the Leadership in the post-Voigt era panel. (RC photo)

Harvesting in the Ceded Territory: Rick St. Germaine (LCO), Mark Duffy (Red Cliff), George Morrow Jr., (LCO) Leon Boycee Valliere (LdF), and Joe Dan Rose (Bad River) (RC photo)



Attorney Howard Bichler speaks at the podium during the 40th Anniversary of the LCO Decision. (RC photo)

Michael "Laughing Fox" Charette, Red Cliff, plays the flute during lunch. (RC photo)

Stickmaker Tom Howes (Fond du Lac) leaps during the afternoon baaga'adowewin (lacrosse) exhibition. (RC photo)

Deep woods camp connects youth to culture, nature

By Olivia Gower, GLIFWC Litigation and Outreach Assist.

Watton, Mich.—Nestled in the Ottawa National Forest in Michigan's Upper Peninsula is the rustic property of Camp Nesbit, rising from the shores of Nesbit Lake. Each summer children arrive at Camp Nesbit to take part in a week of adventure, education, cultural connection, and environmental stewardship as a part of Camp Onji-Akiing (From the Earth), facilitated by GLIFWC's Enforcement Division and the US Forest Service. Last August, around forty-five children from tribes and communities across the Great Lakes region attended the camp.

The campers, entering 5th-8th grades, arrived at Camp Nesbit on a Monday afternoon, ready to learn, connect, and have fun in the sun. The children were split into four clans—bear, deer, eagle, and loon—and each clan included a boys' cabin and a girls' cabin. Most of the campers' time was spent in these clans doing fun and educational activities, completing chores, and bonding, but sometimes the clans would get together for whole-camp activities. The clan structure of the camp not only facilitated the activity schedules but also helped kids learn how to connect with each other; many of the activities required them to connect with and depend upon the others in their clan.

Campers and staff take part in a drum song as part of the opening ceremony of Camp Onji-Akiing. (O. Gower)

Up with the sun

The kids began their mornings early with a "spirit run," which brought them along trails, through the woods, and over trickling creeks around the forested property. Bright and early, the campers and junior counselors joined the counselors and wardens at the firepit where they would make their way along the edge of the lake to a clearing where they did their morning stretches. The once quiet, crisp morning air slowly filled with the chatter of the children as they came alive and greeted their new-found friends.

After stretches led by a warden, and with the help of a camper every so often, the kids started their short run back to the dining hall at the center of camp. The spirit run was a way for the kids to start their day in a good way and set the tone for the day to come.

Each day brought new adventures and opportunities to learn for the kids. Some of the activities they participated in focused on environmental education and stewardship, while others provided connections to specific aspects of Ojibwe culture, like learning how to make ricing sticks from Roger LaBine, Lac Vieux Desert, or making beaded necklaces with birch bark pendants with Steve Perry, Little Traverse Bay Band of Odawa.

Camp was also a place for the kids to simply enjoy the outdoors and have fun. They tried their hands at archery, went swimming in the lake, fished, and canoed. Many of the campers particularly enjoyed canoeing and getting to see some of the wardens fall out of their canoes to demonstrate how to get back in.

Elder Steve Perry, Little Traverse Bay Band of Odawa, helps kids bead necklaces and make pendants from wiigwaas (birch bark). (O. Gower photo)

Nikki Crowe, Fond du Lac Band of Lake Superior Chippewa, and Kathy Smith, Keweenaw Bay Indian Community, teach one of the groups about traditional foods, while the kids help separate manoomin (wild rice) from its husk. (O. Gower photo)

Warrior Games inspiration

At the end of each day, after learning about and engaging with the world around them, the kids had Warrior Games. This was the part of camp that the kids looked forward to the most, and some even used their free time during the day to practice for the Warrior Games. The game is similar to capture the flag, with the addition of an "ogimaa" (leader) who must be the one to take the main flag from the other team. The game is fast-paced, intense, and full of strategy and plotting. During the many rounds that they played each night, the teams would weave their way through the wooded area surrounding the central field of play, running from the opposing team and trying to work with their partners. The game is full of joy and laughter but also fierce competition. Even the counselors and wardens joined in on the fun.

The final chapter to each night took place at the firepit. As the fire crackled and the embers burned bright against the dark sky, the campers listened to stories told by elders and learned how to play drum songs. This time allowed the campers to relax and re-center themselves before heading to bed.

Looking to the future

On the last full day of camp, the kids attended the career fair, where they connected with natural resource professionals and representatives from university partners and tribal agencies. The US Forest Service brought people to talk about forest conservation, mapping, firefighting, law enforcement, and more. Regional colleges had students and professors from their environmental programs at the fair. GLIFWC's Division of Intergovernmental Affairs, Public Information Office, Planning & Development, and the fisheries sections of Biological Services were also represented at the career fair. The career fair yielded a great opportunity for the campers and junior counselors to learn about college programs and job paths that they could pursue to carry on the teachings they received during their time at camp.

For more than a decade, Camp Onji-Akiing has provided children with an opportunity to engage with and promote environmental stewardship, Ojibwe teachings, and collaboration. Thank you to everyone who helped make this experience happen!

Keep an eye out on *www.glifwc.org* and social media platforms for upcoming information about Camp Onji-Akiing 2024, or contact GLIFWC's Enforcement Division for details on how to get involved. We hope to see you at camp next year!

Some campers took the opportunity to dissect sea lampreys. (COR)

Deputy administrator returns to Lake Superior

Julianna Saari, a member of the Red Cliff Band of Lake Superior Ojibwe is the new GLIFWC deputy administrator. Saari's role focuses on efficient management of daily operations, budget oversight, and improving training and overall execution of the Commission's procedures and processes.

In 2004, Saari completed an associate's degree in Liberal Arts & Native American Studies from Lac Courte Oreilles Ojibwe University and went on to earn a Bachelor's degree in Business Administration from the University of Wisconsin-Superior in 2012.

Over the last decade, Saari has honed her skills in business operations during her corporate tenure at Jack Link's and through working with the Department of Defense for a small Native-owned subcontractor where she primarily worked in a human resources capacity.

Saari is a proud mother of two sons. Diante, 24, who works at LCO Financial Services in Hayward. Her younger son Wendell, 17, is a senior in high school and is excited to graduate this year.

"Although I spent the last 17 years in Hayward, my heart remains firmly tied to Lake Superior," said Saari. Outside of work, she enjoys gardening, traveling, and any activity that promotes holistic wellbeing.

Saari is excited to embrace her new role as deputy administrator and is looking forward to contributing to GLIFWC's missions, strengthening its rich legacy, and fostering connections with all the individuals and communities involved in preserving the natural heritage of the Great Lakes region. **—JVS**

Tribal climate adaptation specialist takes the pulse of the Ceded Territory

Illeana Alexander joins GLIFWC as the new Tribal climate adaptation specialist. In their new role in the climate team, Alexander is focused on adaptation planning and the Tribal Adaptation Menu (TAM).

In addition to joining the TAM team in hosting presentations and workshops, they will also be heavily involved in the process of designing, writing, and implementing a Ceded Territory Climate Adaptation Plan; this will include getting more involved with member tribes and reaching out to communities and GLIFWC partners to gather information and identify gaps in current adaptation strategies. They will also be assisting with fieldwork for the ongoing phenology study, ice monitoring, and other climate specific data gathering.

Originally from Astoria, Oregon, Alexander grew up mostly in northern California along the Sacramento River. Alexander brings a diverse background of ocean and coastal resource management, hazardous spill response, policy, and early childhood education.

Alexander attended the University of Puget Sound in Tacoma, Washington and graduated in 2017 with a bachelor's degree in international political economy. In 2019, Alexander returned to California for graduate school. They received their masters in international environmental policy from Middlebury Institute of International Studies in Monterey, California.

Alexander has worked with the Tohono O'odham Nation and Pascua Yaqui Tribe and Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians where they worked on contaminated land clean up and climate related emergency planning. **—JVS**

GLIFWC's Division of Intergovernmental Affairs adds litigation assistant

Originally from southern Oregon, Olivia Gower graduated from George Washington University in Washington, D.C., with a bachelor's degree in Anthropology and a minor in Political Science. Over the summer, Gower discovered northern Wisconsin through her dual internship with GLIFWC's Division of Intergovernmental Affairs and Public Information Office.

Since making the transition from intern to permanent staff, Gower's priority project has been to compile all stipulations from the *LCO v. Wisconsin* case into one cohesive, easy-to-understand document. She will also assist with analysis of legislative, administrative, judicial, and policy initiatives that may impact treaty rights across the Ceded Territory.

After living in the tight quarters of D.C., part of what kept Gower in the area was getting to explore the outdoors; she also enjoys creating art, knitting, and crocheting.

"I have learned so much about the communities we work with, and the legal landscape we contend with. I felt like I had more work to give," said Gower about her internship-turned-LTE position.

Gower plans to attend law school after her time with GLIFWC and is looking forward to opportunities to learn more and take part in Ojibwe cultural practices and events. **—JVS**

Omashkooz continued

(continued from page 6)

met. The biggest gift was being able to give. That's what our people are about: giving and sharing and helping," Brown said.

Most of the meat from the hunt is managed by GLIFWC staff for processing and intertribal distribution in the new year. For the Browns, they returned to Lower Michigan with a pair of tenderloins and held a family feast for the boys and the bull elk that made itself available to them.

"It wasn't a trophy hunt, there was real meaning and real purpose behind the whole thing," she said. "That made it special."

Sustainable ecosystems: Restoring walleyes in native lakes

GLIFWC's latest collaboration with partner agencies and Into the Outdoors television explores the status of walleyes in Wisconsin and beyond. Viewers will learn about the impacts of altered habitats, fishing impacts, and the actions all stakeholders are taking to mitigate those impacts.

Through collaboration efforts, tribal, state and federal agencies are working together to restore and support walleye populations in Wisconsin lakes. *intotheoutdoors.org/segments/sustainable-ecosystems-restoring-walleyes-in-native-lakes/*

New Wisco stiplations

(continued from page 7)

'comingling' of water with bait that is then used on another water body. Moving potentially infected waters from one water body to another through a minnow bucket, livewell, or ballast tank, is a top threat that may aid in unwanted spread of non-local aquatic species and fish disease to minimize disturbance to our shared sensitive aquatic resources. The tribes expect state co-managers to move forward through proposed rulemaking already underway that will place additional restrictions on state licensed live bait dealers (WDNR FH-13-22).

The Parties intend to file another update to stipulations by the end of 2023 to "catch up" for a missed filing during the pandemic.

Manoomin education and outreach

Alina Shively, Lac Vieux Desert (LVD) tribal historic preservation officer winnows the rice, removing the shaft from the grain during LVD's rice camp. (K. Smith photo)

Chris McGeshick, Mole Lake (left), Wayne LaBine, Mole Lake, and Roger LaBine, Lac Vieux Desert construct a push pole at the Mole Lake rice camp. (K. Smith photo)

(continued from page 2)

As manoomin processing comes to an end, fall feasts begin. Manoomin is one of our most valued plant relatives and is often present at many of these feasts. We exercise our rights given to us by the Great Mystery to harvest sustainably and connect us to a clean, healthy food system. In doing so, we depend on the orders of creation to be our helpers.

Participants at the Keweenaw Bay Indian Community (KBIC) manoomin camp learned to parch rice. KBIC Tribal Council member Austin Aryes keeps the fire stoked as Theresa Pitts, KBIC, and Erika Vye, Michigan Technological University carefully stir the rice. (K. Smith photo)

Manoomin harvester survey

GLIFWC staff sent out our annual harvester survey in mid-November. Your responses provide us invaluable information relating to the abundance and harvest of manoomin throughout the Ceded Territories, as well as factors that can affect the growth and abundance of rice plants. This year, there's a raffle incentive for tribal harvester respondents—stay tuned and keep an eye out for your survey in the mail!

While the Manidoo Gitigaan gets ready to rest for the winter, we begin to prepare for the next harvest season. It's a yearlong process to make the tools and pass on the knowledge needed for harvesting. To get ready for manoomin camp coming next fall, we depend on the first order of creation as mama Aki protects and many helpers help the manoomin seed grow. The seed needs to know winter. When the elements come into alignment, the manoomin grows, but at a time when it is meant for us.

The Anishinaabeg use cedar, tamarack, birch, and other trees to craft the many tools needed to harvest and process manoomin. We take standing material to fashion our rice knockers, craft push poles, and build fires for rice parching. Deer provide us with meat for feasts, as well as hides for moccasins to dance the rice. Birch winnowing baskets are used to separate the rice grains from chaff.

We always give our asemaa first to ask permission to take from the lands and express much gratitude with a feast to all the orders for taking care of us. Many communities are continuing to do this and our culture and people are thriving today.

(see Chi miigwech, page 22)

When the Earth was young, it had a family.

The Moon is called Grandmother, and the Sun is called Grandfather. This family is the basis of all creation in the universe. This family was created by Gitchi Manitou, the Creator. Earth is said to be a woman. She preceded man, and her name is Mother Earth because all living things live from her gifts. Water is her life blood. It flows through her, nourishes her, and purifies her.

Mother Earth was given Four Sacred Directions—North, South, East, and West. Each direction contributes a vital part of her wholeness. Each direction and all things on Mother Earth have physical powers and spiritual powers.

When she was young, Mother Earth was filled with beauty. The Creator sent his singers in the form of birds to carry the seeds of life to all Four Sacred Directions. Life was spread across the land. The Creator placed the swimming creatures in the water. He placed the crawling things and the four-legged animals on the land. He gave life to all the plants and insects of the world. All parts of life lived in harmony with each other on Mother Earth.

Gitchi Manitou took the four parts of Mother Earth and blew them into a Sacred Megis Shell. From the union of the Four Sacred Elements and his breath, man was created. It is said that Gitchi Manitou then lowered man to the Earth. Thus, man was the last form of life to be placed on Earth. From this Original Man came the Anishinaabe people. This man was created in the image of Gitchi Manitou. Man was part of Mother Earth. He lived in brotherhood with all life that surrounded him. **—Eddie Benton-Banai, *The Mishomis Book***

Tiny insects target baapaagimaak

(continued from page 7)

in Wisconsin twice, from Wood and St. Croix Counties. But this year it was apparently widespread in northern Wisconsin and western Upper Michigan.

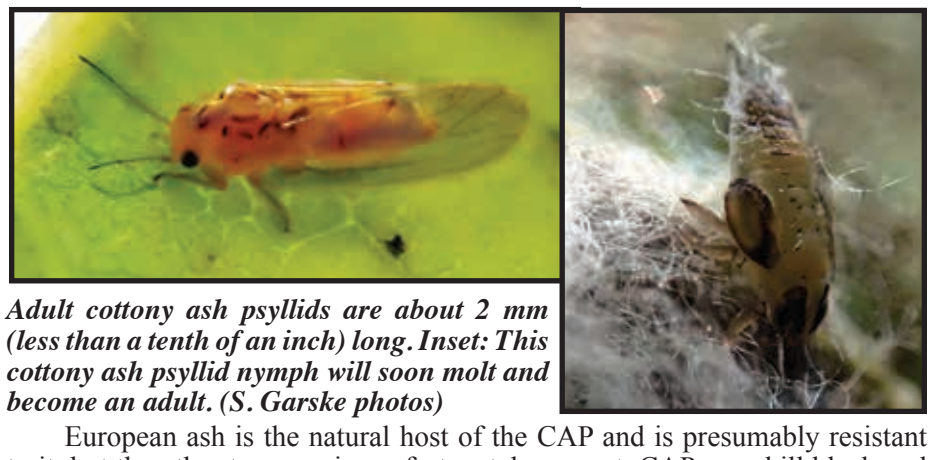
Adult CAPs are only about 2 mm long and resemble miniature cicadas or leafhoppers. They're yellow with black markings, and they often jump when disturbed. Like other members of this large group of insects (members of the order Hemiptera), CAPs have sucking mouthparts that resemble tiny straws.

The CAP overwinters as eggs, deposited between the buds and the twigs. The eggs hatch about the time the buds begin to open in spring. Juvenile CAPs, called nymphs, feed on the sap of the expanding leaves, causing them to become curled and distorted. (There is some evidence that this leaf damage is caused not by the insects themselves, but by a bacteria they carry.)

The nymphs cover themselves in cottony deposits of waxy material, which they excrete on the lower surfaces of the leaves. They turn into adults in July, and lay another batch of eggs. The second generation of CAPs feed on the remaining leaves into the fall. Heavily damaged leaves drop off, causing the canopy to thin and weakening the trees.

Unlike EAB-infested trees, where the canopy seems to fade more or less evenly from the top down, CAP infested trees may have some branches which are nearly bare, while other branches still support nearly a full complement of mostly healthy-looking leaves. Damage to black ash consistent with cottony ash psyllid feeding seemed to be widespread in northern Wisconsin this summer.

More selective than EAB, which attacks all ash (*Fraxinus*) species, the CAP only attacks one subgroup of closely related ash, which includes European ash (*F. excelsior*), Manchurian ash (*F. mandshurica*), and the native black ash (*F. nigra*, Ojibwe *baapaagimaak*).



Adult cottony ash psyllids are about 2 mm (less than a tenth of an inch) long. Inset: This cottony ash psyllid nymph will soon molt and become an adult. (S. Garske photos)

European ash is the natural host of the CAP and is presumably resistant to it, but the other two species unfortunately are not. CAPs can kill black and Manchurian ash trees, especially when the trees are already under stress from heat, drought, or disease. Heavily infested trees may be killed within a year or two. Perhaps the only bright spot in all this is that CAP isn't known to feed or reproduce on green or white ash, though you can sometimes find the adults on the leaves of these trees too.

At this point little can be done to lessen the damage to black ash stands caused by this insect. How much additional pressure it will exert on any black ash populations that manage to withstand the EAB (so-called lingering ash) remains to be seen. But there can be little doubt that the battle for survival has become even more difficult for this beleaguered, iconic tree.

Eyes on the skies, woods & water

Phenology submissions

Seasonal observations are important to record from year to year. Records—help determine trends in reliable changes—such as the average ice-on or ice-out dates on lakes, the date of the first snowfall, or when the first sandhill cranes return.

GLIFWC is trying to understand how environmental changes could be affecting treaty resources and having first-hand observations from across the Ceded Territory gives staff a better understanding of seasonal changes year to year.

Make a fun activity out of watching for the events that are listed, or by noting other phenological or seasonal events you observe throughout the year. This can be a fun activity for teachers, families, or anyone who enjoys spending time outdoors!

Ajijaak, sandhill crane. (ShareAlike 3.0)

Help us study phenological and seasonal changes by writing down your observations on the form. Share your knowledge by mailing it back to GLIFWC by June 30, 2024 You can also submit observations online at *data.glifwc.org/phenology.calendar.*

—GLIFWC Climate Change Team

Additional copies of the 2024 phenology calendar can be ordered at *pio@glifwc.org*.

2024 phenology competition

Submit your observations to win prizes!

In 2024, the GLIFWC Climate Change Team is hosting a small competition! Submit your observations for the opportunity to win prizes!

Prize options include a notebook, shirt, reusable canvas bag, sticker set, and seasonal foods such as manoomin, baashkiminasigan (jam), and anishinaabe-zhiiwaagamizigan (maple syrup).

The prize categories are:

- Most Observations from a **Youth** Observer (must submit for all four seasons—keep an eye out for the summer-fall form in upcoming issues)
- Most Observations from an **Adult** Observer (must submit for all four seasons—keep an eye out for the summer-fall form in upcoming issues)
- Most Interesting or Unique Observation (one winner per season)

The GLIFWC Climate Change Team will judge the entries and winners and their observations will be featured in a future *Mazina'igan* article!

Help us study phenological and seasonal changes by writing down your observations on the form. Share your knowledge by mailing it back to GLIFWC by June 30, 2024

You can also submit observations online at *data.glifwc.org/phenology.calendar.*

What are you observing in the Ceded Territories? Ozhibii'an ezhiwebak noopiming.

PLACE STAMP HERE

Tape and stamp this form and return to GLIFWC by June 30, 2024. Make sure to include the information below:

Name:_____

Address:_____

_____

Tribal affiliation (if any):_____

_____

Phone number or email:_____

Are you a:

☐ Youth observer

☐ Adult observer

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 clearly:

GLIFWC—Climate Change
72682 Maple Street
PO 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, 2024.

Environmental educators look to tribes as climate, land-based relationships in flux

By Charlie Otto Rasmussen, Editor

La Crosse, Wis.—Teachers, students, and natural resources professionals from across the region experienced a sweeping look at Indigenous lifeways at the Midwest Environmental Education Conference November 2-4.

From Ho-Chunk Tribe territory along the Mississippi River, the native-centric event entitled "To Hinukwaseja: Restoring Connections to Land and Each Other" brought together nearly 300 participants from Wisconsin, Iowa, Minnesota and Illinois.

"The La Crosse area has been shared by different groups of indigenous people for thousands of years," said Ho Chunk Tribal Historic Preservation Officer Bill Quackenbush, noting the Ho Chunk word for the city is Hinukwaseja. "We have to acclimate ourselves to the region we live in; the Ho Chunk people have not only survived living here in our ancestral homeland, but thrived."

Bill Quackenbush. (Wisconsin Association of Environmental Educators photo)

Conference participants hailed from a variety of landscapes—from dense northern forests to rolling prairielands. While this swath of middle America is adorned with environmental diversity, residents all share the singular understanding that change is afoot as temperature and precipitation extremes are accelerating. It's an observation that hits home with place-based tribes.

"There's this heightened awareness that tribes have had within the last decade—or more—that the environment's changing so fast and rapidly right before our eyes. All in just one generation of time," Quackenbush said. "It's alarming."

To effectively take on climate challenges, tribes and neighboring communities need to do a better job sharing information and developing mitigation strategies, Quackenbush said: "tribes have oral history and knowledge of how our earth has changed over time."

One method for communities to work together effectively, to understand and address an environment in flux, comes from the "G-WOW" model. Developed through a partnership between Great Lakes Indian Fish & Wildlife Commission, University of Wisconsin-Extension, US Forest Service and National Park Service, G-WOW integrates science, place-based evidence, and traditional ecological knowledge [TEK] into a curriculum that increases public awareness and promotes action to address climate change.

Ho Chunk Education Director Michelle Cloud (left) joined UW-Extension's Cathy Techtmann during the "Changing Climate, Changing Cultures: Integrating TEK into Climate Education" session. (CO Rasmussen photo)

"By linking SEK [scientific ecological knowledge] & TEK we can make climate change come alive and become more relatable," Cathy Techtmann, UW-Extension, told a group of educators during a Saturday morning session. Coming together, developing goals—like how to protect highly vulnerable plants from climate change—is essential in building relationships and achieving results. Learn more about G-WOW at: *g-wow.org/en-us/default.aspx*.

What are you observing in the Ceded Territories? Ozhibii'an ezhiwebak noopiming.

Please record the date, location, and species (if applicable) for each observation. Return to GLIFWC by June 30, 2024. Miigwech!

Biboon / Winter — **Date/Location**

Ice thickness on January 1st (specify lake)

First white coat seen (snowshoe hare, ermine)

First snowfall

First snow that sticks

First temperature below zero

Ice storms/unusual storms

Lake freezes (specify lake)

First walleye caught through the ice

First ravens building nests

First musky speared through ice

First eagles at nests

First snow fleas

First ski / snowshoe

First deer antlers dropped

Last deer with antlers seen

First day above freezing (32°F)

Other biboon observations:

Ziigwan / Spring — **Date/Location**

First flowers on trees

First leaf buds bursting on trees

First new needle growth on trees

First maple sap flowing

End of maple sap season

First plants (species)

First leeks harvested

First wildflowers blooming (species)

First fiddleheads harvested

First deer fawns

First bear

First frogs calling (species)

First walleye speared (lake)

Walleye spawning (lake)

First fish caught (species)

First fish spawning (species)

First suckers running (river)

First arrivals of birds (species)

First woodcock mating call

First grouse drumming

First turtle laying eggs (species)

First tick

First mosquito

First hummingbird

First dragonfly

First rain

First thunderstorm

First crusty snow

Last snow before summer

Last frost before summer

First night above freezing (32°F)

Ice out (specify lake)

First canoe (lake/river)

First mushrooms harvested

Other ziigwan observations:

Climate change and odoonibiins

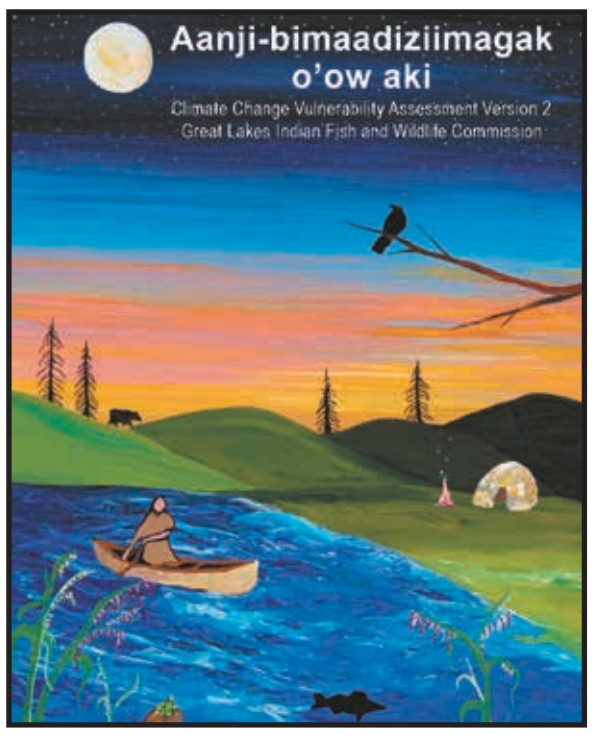
(continued from page 10)
late fall (late November–early December), when the water temperature reaches 42.8–39.2°F, typically in 10–90 feet of water. Eggs hatch in late April–early May, with the optimal temperature range for development being 35.6–46.4°F. Fry occupy shallow areas in protected bays until they are a month old. The location of juvenile odoonibiins remains a mystery, but adult odoonibiinsag are found at water depth of 0–40 feet in inland waterbodies and at greater depths (75–200 feet) in Lake Superior.

The population of odoonibiins is unknown in most water bodies in the Ceded Territories. In the well-studied Mille Lacs Lake, the population of odoonibiins tends to be variable with peaks in abundance occurring every 4-6 years. For example, the number of odoonibiinsag captured in a standardized gill survey was over 50 per net in 2009, declined to less than 10 per net in 2014, and increased to over 80 per net in 2015. In Lake Superior, the odoonibiins population has been steadily declining, from approximately 900 fish per hectare in 1984 to less than 50 fish per hectare in 2011. A decline in the odoonibiins population might indicate abiotic conditions have changed because this being prefers cold, oligotrophic (low nutrients), and well-oxygenated water.

Although no traditional stories were shared about odoonibiins, its importance was stressed in several interviews with tribal members, primarily from those in Misi-zaaga'iganiing (Mille Lacs) and Gaa-miskwaabikaang (Red Cliff). Interviewees were also concerned about effects climate change may have on this being.

It was mentioned that as bottom feeders, they are one of the first giigoonh (fish) beings to be affected by changes in water temperature and clarity. They are also known to be hypersensitive to low oxygen levels and algae blooms, which are seen as contributing factors to sudden fish kills. This was seen during a particularly warm year in Lake Winnie (Winnibigoshish) when large numbers of odoonibiinsag were observed dead on the shoreline. This has also been observed in Lake Mille Lacs, though it has not happened as frequently after 2013. These fish kills are known to happen when the air temperature reaches about 95°F and oxygen levels drop.

It was also expressed that in Mille Lacs Lake, recent odoonibiinsag numbers are lower, but the existing individuals are larger in size. Odoonibiinsag used to average about 12" in length but are now commonly seen around 19". This has been raising concerns about preparation practices of these giigoonh. Years ago, they were hung in a smoker but the increase in size has caused them to fall off the hangers as they heat up. They are now more commonly laid flat on racks.



It was said that the odoonibiinsag start to run two weeks before it freezes and stop once the lake freezes. Many years ago, in the Gaa-miskwaabikaang area the "herring season" would start a few weeks before Thanksgiving. At that time about 15 boats were fishing for odoonibiinsag, and at the end of the day each boat would have 8 to 10 tons of fish. The men would bring the odoonibiinsag onto the dock and into a nearby "herring shed," which still exists today. The women would pack the catch by placing the odoonibiinsag bellies down and putting salt around them. After the season was over, they would repack them and discard most of the salt before shipping hundreds of kegs full of them by rail to major distribution centers in Chicago, Illinois, and Minneapolis/St. Paul, Minnesota. At times they were sent to satellite towns around those areas as well as exported through Sault Ste. Marie, Michigan.

Summary of climate threats:

Odoonibiins was the most vulnerable swimmer and in the 97th percentile relative to other beings in the vulnerability assessment. Factors that increased odoonibiins vulnerability to climate change included natural barriers (temperature and low oxygen barriers), anthropogenic barriers (dams), dispersal (limited larval mobility), physiological thermal niche (cool water beings), hydrological niche (lower rainfall), disturbance (heat waves, heavy rainfall), ice cover (influence prey production), dietary versatility (restricted to small prey items), pathogens (parasites and viruses), competition (bakaan ingoji gaa-ondaadag (non-local beings)), documented response to climate change (reduce abundance), modeled response to climate change (20-70% loss in habitat), and change in future range (contraction at the southern edge of the Ceded Territories).

Odoonibiinsag are transferred into selected waters throughout the Ceded Territories (i.e., fish populations are supported by human intervention). In the short term, this strategy may resist the effects of climate change by reintroducing this being into water bodies. In the long term, reintroducing odoonibiins has the potential to increase vulnerability scores for several factors in the Climate Change Vulnerability Index. These factors include dispersal and movement, physiological thermal niche, sensitivity to pathogens and natural enemies, sensitivity to competition, interspecific interactions, measured genetic diversity, and phenological response to climate change. Collectively, these factors may increase the overall vulnerability scores for odoonibiins in waterbodies where reintroductions occur.

(For more information on factors that increase vulnerability to odoonibiins, see GLIFWC Aanji-bimaadiziimagak o'ow aki at *tinyurl.com/mry265b6.)*

What is being done about PFAS

(continued from page 9)
Dashboard for PFAS Testing in Drinking Water. The Michigan PFAS Action Response Team hosts the MPART PFAS Geographic Information System with site-specific information for surface water, and the Statewide PFAS Survey of Public Water Supplies provides test results for drinking water.

What is being done?

Governments and communities across the Ceded Territories and beyond are working to find real-world solutions to this real-world problem. The first step in addressing contamination, of PFAS or any contaminant, is to prevent it in the first place. But once it is released into the environment, we must determine where it is located and at what concentrations through testing and monitoring. Once we know the threat, we can work toward reducing exposure, minimizing further spread, then ideally cleaning up this mess.

The Environmental Protection Agency (EPA) has developed a PFAS Strategic Roadmap, and on March 14, 2023, issued legally enforceable Proposed Maximum Contaminant Levels (MCLs) for drinking water for six PFAS. The most commonly detected and extremely toxic compounds, PFOS and PFOA, are each regulated at 4.0 parts per trillion (ppt). That is four drops of PFOS per one trillion (1,000,000,000,000) drops of water, or just shy of twenty Olympic-sized swimming pools, meaning there is virtually no safe level of exposure in drinking water.

In Wisconsin, Governor Tony Evers declared 2019 the "The Year of Clean Drinking Water." The WI PFAS Action Plan is a great resource to find out how Wisconsin is addressing this threat to human and environmental health. Minnesota developed a PFAS Blueprint, and the Michigan PFAS Action Response Team website has an abundance of resources and information.

Researchers are working diligently to create technologically and economically feasible methods to filter PFAS from public water supplies with some success, but many of these technologies are still in developmental stages with the main challenges being cost and scaling.

In Wausau, Wisconsin, a PFAS-attracting resin with an anion exchange filtering system was installed at the treatment facility as the temporary solution to provide safe drinking water to the community, but this system costs about $800,000 per year to operate and maintain. Granular activated carbon, or GAC, filters like those used in home water pitchers, have proven effective at removing PFAS, but once PFAS are filtered out, we are left with highly contaminated filtration media. To avoid reintroducing PFAS back into the waste stream, the only solution is to develop technologies to destroy them, and because they are virtually indestructible, current innovations are not feasible at large scales because they are energy- and resource-intensive.

The following state websites provide resources on the current state of knowledge on PFAS, and actions being taken to prevent, monitor, detect and remediate PFAS contamination.

PFAS | Minnesota Pollution Control Agency
pca.state.mn.us/pollutants-and-contaminants/pfas
PFAS | Wisconsin DNR
dnr.wisconsin.gov/topic/PFAS
Michigan PFAS Action Response Team (MPART)
michigan.gov/pfasresponse

What can we do?

Knowledge is power, and awareness is essential to reducing your exposure to PFAS as much as possible. Learn the most likely routes of exposure and assess the risks to you and your family. Know where PFAS are hiding in the stores and in your home and seek out PFAS-free alternatives. Find out if your water supply has been tested and what the results were. If it has not been tested, pressure your local authorities to get it tested. If you are on a private well, talk to your state health department and natural resources agencies to find out what resources are available to you. Talk to your community leaders, healthcare providers, family, friends, and neighbors.

The good news is that we can also demand change. Once we are aware of the current state of PFAS contamination in our areas and the actions being taken and resources being offered by our municipalities, states, and the federal government, we can hold polluters accountable.

Once we know the sources of PFAS that we encounter in our day-to-day lives and understand our risks to exposure, we can take steps to reduce our exposure, including avoiding purchasing, using, and consuming PFAS-laden products. We can ask our favorite carry-out restaurants if they use PFAS-treated packaging. Chances are they don't know, and even more likely they are, but we can pressure them to find out and make changes accordingly. Fortunately, or unfortunately, money talks, and we can use our dollars and encourage others to use their dollars to demand change. The next seven generations deserve better.

Zaasijiwan
•It Ripples•

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

Gii-piboonong, ningii-izhaa zhaawanong. Gii-paniziyaan biboong, ningii-gashkendam bangi.
"Gigiiwanaadiz. Agim goon! Goonikaa idash gashkadin imaa giiwedinong," ikido. Ingii-ikid, "Niminwendaan.
Ningiizhookonayen. Nindayaanan biitookizinan. Ningigibabiinzikawaagane. Nimbiichiminjikaawane.
Ningigiwiiwakwaane gaye. Odaabaaniiwigamigong indayaawaa aawadaasoowi-daabaanens.
Gaye, waasigani-bimide-gizhaabikizigan idash waasamoo-gizhaabikizigan. Nimiikawaadendaan maajipong.
Gaye, mamaangadepong. Biboon! Biindigen noongom! Mii'iw.

(Last winter, I did go toward the south. As I did miss out on it when it was winter, I was a little bit sad.
"You are crazy. Count him/her snow! There is so much snow, and it is freezing there to the north," s/he said.
I said, "I like it. I dress warmly. I have overshoes. I wear a coat. I put on mittens. I wear a hat, also.
In the garage, I have the pickup. Also, gas/propane stove and electric stove.
I think it is beautiful when it starts to snow. Also, it snows big flakes. It is winter! Come in now! That is all.)

Bezhig—1 OJIBWEMOWIN (Ojibwe Language)

Double vowel system of writing Ojibwemowin.

Long vowels: AA, E, II, OO
Waabooz—aa as in father
Miigwech—e as in jay
Aaniin—ii as in seen
Mooz—oo as in moon

Short Vowels: A, I, O
Dash—a as in about
Ingiw—i as in tin
Niizho—o 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.
- English can lose its natural flow in language translations.

Howah!

Aaniin apii gaa-anokii**waad**?
When did **they** work?

Mewinzha gii-anokii**wag**.
They worked some time ago.

Aandi *gaa*-waakaa'igewaad?
Where *did* they build a house?

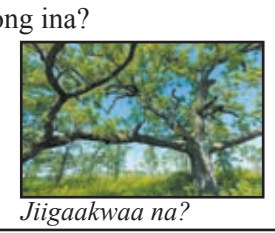
Gichi-oodenaang gii-goziwag imaa.
In the big-town they moved there.

Zhaawanong ina? Waabanong ina?
To the South? To the East?

Giiwedinong ina? Ningaabii'anong ina?
To the North? To the West?

Jiigaakwaa na?
Near the woods?

Gaawiin, dibi iidog.
No, I don't know where.


Jiigaakwaa na?

Niizh—2 *Circle the eleven underlined Ojibwe words in the letter maze. (Translations below)*

A. Gizaagitoon ina wiisiniwin? Nimaadizekwe omaa.

B. Ningwekiwebiniganike omaa. Inga-dagonaanan miinan.

C. Ginaadin ina anishinaabe-zhiiwaagamizigan imaa?

D. Dodooshaaboo-bimide omaa. Giga-atoon ina adoopowining daga?

E. Gizaagitoon ina aniibiish? Makade-aniibiish ina?

F. Gaye dash ozhaawashko-aniibiish nindayaan.

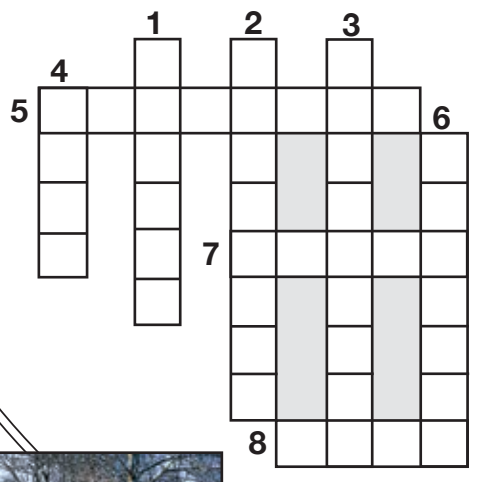
G. Daga wiisinin!

W	G	O	W	B							
N	I	S	I	S	I						
A	Z	I	I	O	G	M					
A	A	'	S	D	Y	W	I				
Y	A	M	I	I	N	A	N	D			
A	G	J	N	K	N	N	'	T	E		
D	I	A	I	W	O	I	K	G	A	M	
N	T	I	N	O	B	E	W	G	O	A	B
I	O	S	T	N	A	N	A	I	O	K	E
N	O	A	G	Z	H	D	S	I	N	A	S
A	N	I	I	B	I	I	S	H	A	D	W
E	G	I	N	A	A	D	I	N	Y	E	O


Goonikaa.
(Lots of snow.)

Niswi—3

IKIDOWIN ODAMINOWIN (word play)



DOWN:
1. it is winter
2. there is lots of snow
3. as it starts to snow
4. there
6. now

Across:
5. they speak
7. she speaks
8. count him/her


Gooniwi. (S/he has snow on him/her.)

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

Niiwin—4

Biboong.—When it's winter.

Bibooni-Giizis—Winter Moon (December)
Gichi-Manidoo-Giizis—Great Spirit Moon (January)
Namebini-Giizis—Sucker Moon (February)
biboong omaa—when it's Winter here...
Ningigi-giboodiyegwaazone.—I wear pants.
Nimbizikaan biitoo-babagiwayaan.
—I wear an undershirt.
Nin-gigiwiiwakwaane.—I wear a hat.
Nin-gigibabiinzikawaagane imaa.
—I wear a coat there.
Nimbabiichii.—I put on shoes.
Nindayaan zenibaanh-babagiwayaan.
—I have a ribbon shirt.
Howah!–Wow!

biitoo–
Nin
–ong
–Giizis
gi–

1. Agwajiing zaaga'iganing _____gigibabiinzikawaagane.

2. _____gigiminjikaawane noongom agwajiin

3. Nimbaabaa, obiizikaan i'iw _____babagiwayaan.

4. Giiwedinong, ningiikaj. Biibooni-_____ wa'aw giizis.

5. Giga-akwa'waa na akwawewigamig_____?

6. Zaaga'iganing giisinaa. Ganabaj gaye, dakaanimad.

Translations:

Niizh—2 **A.** Do you love food? I will start cooking here. **B.** I will make pancakes. I will add in blueberries. **C.** Will you get the maple syrup there? **D.** Butter (milk-grease) here. You will put it on the table please? **E.** Do you love tea? Black tea? **F.** Also, I have green tea. **G.** Please, eat!

Niswi—3 ***Down:*** **1.** biboon ***2.*** goonikaa ***3.*** maajipong ***4.*** imaa ***6.*** noongom ***Across:*** ***5.*** ikidowag ***7.*** ikido ***8.*** agim

Niiwin-4 **1.** Outside on the lake, **you** wear a coat. (gi-) **2. I** wear mittens now outside. (Nin) **3.** My father, he wears that **under**-shirt. (biitoo-) **4.** To the North, I am cold. It is the Winter-**Moon** this moon. (-Giizis) **5.** Will you go ice fishing **in the** icehouse? (-ong) **6.** At the lake, it is cold. Perhaps also, it is a cold wind!

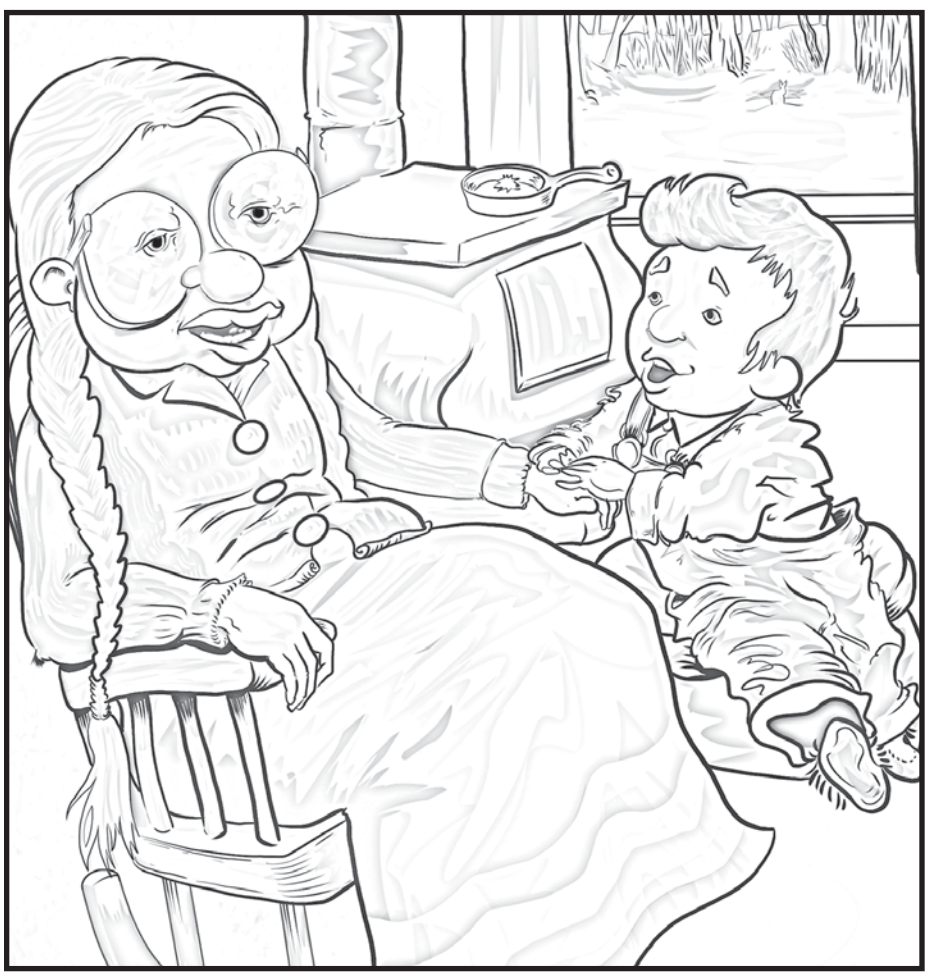
There are various Ojibwe dialects; check for correct usage in your area. The grammar patterns may help a beginner voice inanimate and animate nouns and verbs correctly, as well as create questions and negate statements. Note that the English translation will lose its natural flow as in any world language 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*.

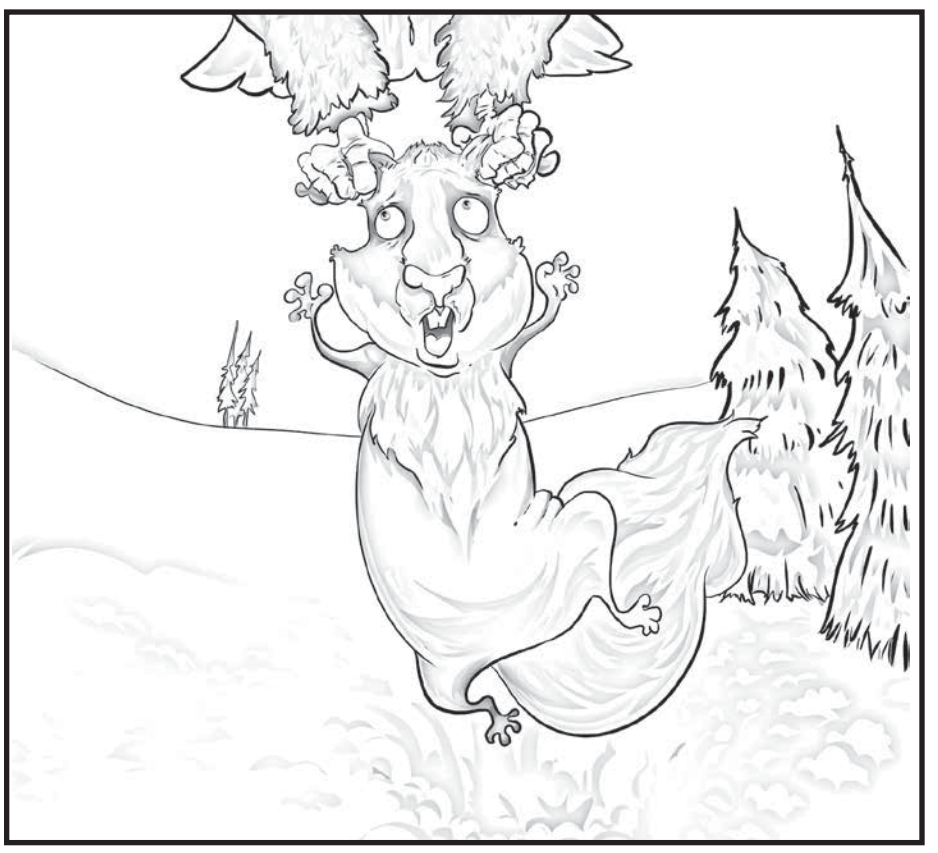
Edited by Michael Waasegiizhig Price

Maajii-Ojibwemowag They Begin to Speak Ojibwe

Waabii

Stories of the four-legged: A Waabanong Book





For more information

Waabii—Stories of the Four Legged: A Waabanong Book is produced by GLIFWC's Administration for Native Americans Language Preservation and Maintenance project. There are four sets of books in this series: *Waabaanong: Stories of the Four-legged*, *Zhaanong: Stories of the Plants*, *Ningaabii'anong: Stories of the Swimmers*, and *Giiwedinong: Stories of the Flyers*.

Interactive webpages have been developed as a companion resource to Maajii-Ojibwemowag. The webpage (*glifwc-inwe.com*) features digital versions of the storybooks with audio and simple animations, and age-appropriate language learning games.

A printables webpage provides a PDF version of each storybook, supplemental documents, and a coloring book adapted from each storybook can be downloaded and printed for free.

Waabooz and the Ojibwe

Waabooz, the snowshoe hare, is an important animal to the Ojibwe people. The snowshoe hare was a staple to surviving the winter when the Ojibwe lived in waaginogaanan (lodges, wigwams). When a rabbit is killed, all parts of the rabbit are used. The meat, heart, and liver is eaten, and the stomach is saved and used for medicine.

The hide and fur are used in a number of ways. The rabbit skins are sometimes tanned with the fur on to line moccasins. The fur hide can also be used to make caps, mittens, scarves, and ankle coverings.

Rabbit skins were also tanned in the winter time after turning white, to make waaboozwaanag (rabbit skin blankets), which could be as big as six feet. (*Waabooz Teacher/Caregiver Supplemental Document)*

Storyteller Niibaagaabaaw (David Aubid)
Illustrations by Niiyogiizhig (Wesley Ballinger)

Aapidaajimoowinini: The Eternal Storyteller

Michael Migizi Sullivan, Sr., PhD.

In mid-September I arrived at my house in a hurry, having received notification that the books had been delivered. As I ripped open the tape binding the cardboard with my car keys (Shinaab pocket knife), I realized that this was the moment we had talked about, the work we put into our language effort now had come to fruition.

From the very first time I ever had the pleasure of recording Amik, the late Larry Smallwood, we had discussed the idea of him writing a book of his stories, or perhaps more accurately stated, him telling me his stories to type up and compile in his book. Starting on the project over 10 years ago, and over six years since his passing, the book was in my hands. *Plums or Nuts*, baapiniziwaagani-dog!

Amik was a godsend to the Ojibwe people at a critical time. He was a life-long language teacher and knew people from every single Anishinaabe community in our region. He began getting involved with language work and recording in the 1970s and had a hand in shaping the teaching of the Ojibwe language in tribal schools, urban settings, and other community programs.

B. Larson photo

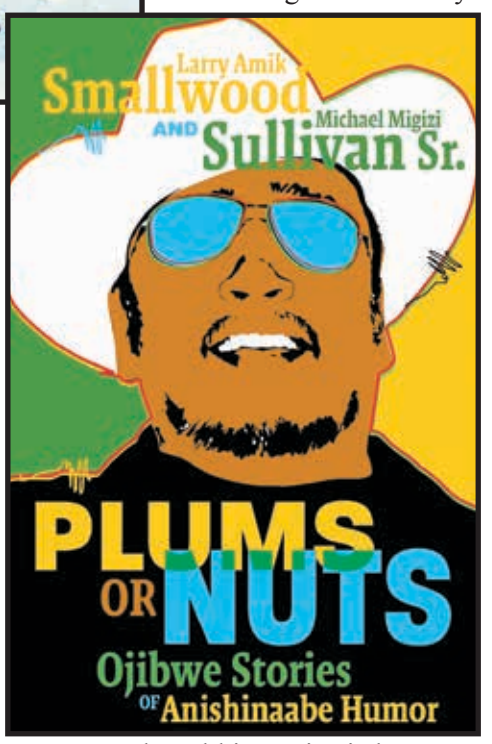
Larry Amik Smallwood.

He had a voice that you never grew tired of and a sense of humor that would turn your ears red. He often stated that with the passing of each decade, his hopes regarding the future of the language were diminishing, until the last few years of his life.

Amik then began to get involved with language programming that he hadn't been involved with prior. He started taking many of the younger second-language (L2) learners under his wing, whom he affectionately referred to as weshki-ojibwemojig, 'the new speakers.' He began hanging out in the younger L2 circles, going to immersion-style camps where he often served as a life-line for words, phrases, and expressions for the eager new generation and their interests. He gave the weshki-ojibwemojig hope, and the weshki-ojibwemojig gave him hope. He had waited a long time for some of us younger ones to finally get his jokes.

Amik was often called upon by GLIFWC, serving as an advisory elder and consultant for language projects they were working on at the Commission, offering his services for translation and cultural expertise. He was a featured speaker in *Dibaajimowinan: Anishinaabe Stories of Culture and Respect*, a book with accompanying audio now featured on the Commission's website. He had a special friendship with Wesley Ballinger, whom he worked with regularly at the Commission, and the two of them did several seasonal children's projects featuring Amik's words and Wesley's artwork. They were an awesome combination.

The new book, *Plums or Nuts: Ojibwe Stories of Anishinaabe Humor*, is available now from the Minnesota Historical Society Press and can be purchased online through many major outlets including Amazon, Barnes & Noble, and others. It contains 25 short stories that Amik had told me over the course of several recording sessions spanning many years. The stories are all humorous and definitely add a unique contribution to the growing body of Ojibwemowin literature.



The audio recordings of Amik telling the stories are now featured on *The Ojibwe People's Dictionary* online at *www.ojibwemowin.com*. Much of the humor weaved throughout the stories is best reflected through Amik's voice, and language learners have been left a treasure in the form of this resource.

Amik shared his gift of storytelling in many circles, often invited to schools, college campuses, universities, and other community settings to share aadizookaan, or winter stories. He told stories he learned from his uncle Netaawaash, who according to Amik, was the premier traditional storyteller of his time. As Amik grew into his role as a language educator and cultural expert, he then sought out more stories, specifically from his elders such as Jimmy Jackson, Pipe Mustache, and Albert Churchill. He stressed the importance of our stories as they connect us to our history, our environment, and our relationship with all creation.

In addition to Amik's role as an educator and a traditional storyteller, he was also in high demand as an emcee on the powwow trail and other social gatherings of the Anishinaabe. His skills and experience as a teacher and storyteller complemented his performance on the microphone where he entertained Anishinaabe audiences while cleverly and affectionately teasing many in attendance. He had a well-known teaching that he shared often: "Gigikenimaa awiya zhawenimik iishpin miikinzomik," or you can tell someone cares about you if they tease you.

While the stories presented in *Plums or Nuts* are all secular in nature, light-hearted, and even somewhat naughty, they show glimpses of what life was like for our elders growing up in their time. They remind that as Anishinaabe, maybe we shouldn't take ourselves so seriously. We laugh at ourselves, and we laugh hard at one another. We are encouraged to stay humble, realizing that we are weakest and most vulnerable beings that our Creator put here. When we fail to stay humble, our culture has a way of seeing to it, often resulting in hilarious stories such as those in *Plums or Nuts*.

As we move forward with the teachings left behind for us by our elders like Amik, knowing our history and the experiences of the ones who paved our way and maintained our way of life in spite of continuous pressure to abandon our language and culture, we are connected to them and in many ways, they are still with us.

Although the significance of Amik's work and his stories is best appreciated by language learners, teachers, activists, and enthusiasts, *Plums or Nuts* provides access to everyone from this point forward. And with the impact that the publishing of a simple book can make, it dawns on us just how special Amik truly was, and the beauty of his gifts that he so graciously shared.

Fond du Lac subsistence fishing

(continued from page 4)

I expect and hope to see their progress expanded in the years to come," said GLIFWC Great Lakes Fisheries Biologist Ben Michaels.

Once the boats returned to the dock, crews opened the latches and doors to activate their mobile creeling trailer. Then, one by one, each fish was sexed, weighed, measured, and examined for lamprey marks and/or clipped fins (a form of tagging for stocked fish, which largely ceased about a decade ago). To collect age data, the creel team also collected some ear bones. The vast majority of harvested fish are males, and the goal is to see less than 5% of the total season's harvest with lamprey marks on them.

Lake trout take 10-15 years to fully mature; it has taken over 30 years to restore their numbers in Lake Superior since sea lamprey control was initiated. Lake trout restoration in the Minnesota waters of Lake Superior lagged due to the reintroduction program being established later in the Western arm of the lake

This year, the short August-October season had a small quota and the harvest was carefully tracked by technicians. The Fond du Lac Band set the quota, provided nets, issued the permits, and required a boaters safety course for harvesters. After compiling the season's full data, the information will be shared with Minnesota DNR.

Torvinen documented and categorized lamprey wounds from several fish and reported they have seen a 90% drop in lamprey populations since the peak, but is something that must be monitored closely. Torvinen added: "Sea lampreys easily kill more lake trout than all harvests combined."

Savage looked around the landing and said: "Understanding more about our way of life by the public seems to have shifted. Education has come a long way since the 80's and 90's."

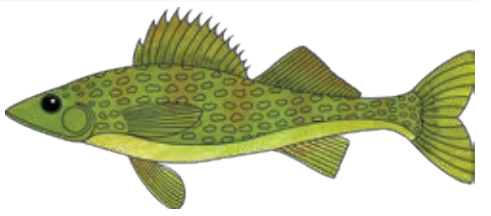
Chi-miigwech

(continued from page 16)

We extend a big miigwech to all the individuals, communities, and partners that made a very eventful summer of cultural gatherings and educating our youth possible: Cassandra Graikowski, Mole Lake; Katie Koch, Bad River; Roger LaBine, Lac Vieux Desert; Wayne LaBine, Mole Lake; Chris McGeshick, Mole Lake/Bad River; David Nevala, Bad River; Maria Nevala, Bad River; Joy Schelble, UW-Extension; Nathanael Secor, Bad River; Jim Stone, Bad River/GLIFWC; Leelyn VanZile, Mole Lake; Mike Wiggins, Bad River; Ashland School District; Bad River Administration & Food Sovereignty; Bad River Boys & Girls Club; GLIFWC; Earth Partnership; Great Lakes Intertribal Council; Lac Vieux Desert Band; Mole Lake Band; LVD Boys & Girls Club; SPARK–Ignite program; USFS Ottawa National Forest; and UW-Extension. Please forgive us if we have forgotten anyone.

Roger LaBine, Lac Vieux Desert, and Chris McGeshick, Mole Lake, educate campers on canoe safety a Bad River's manoomin camp held at Chequamegon Waters. (K. Smith photo)

mino-wiiji'idiwin



Full size mino-wiiji'idiwin posters measuring 24 ½" x 19" are available from GLIFWC, PO Box 9, Odanah, WI 54861; by phone at 715.685.2108; or by email** pio@glifwc.org**. First copy is free of charge.

Inspired by the vast biodiversity found in her Lac Courte Oreilles homelands, Ojibwe artist Jessica Leigh Gokey created a three-tier portraiture of the Northwoods featuring sky, land, and water she calls "Affinity of Nature's Harmony."

A sub-panel of Gokey's sweeping landscape explores the subsurface space found **naawij**—out in the lake—and is GLIFWC's 2023 Annual Poster. The full color drawing is entitled **mino-wiiji'idiwin**, a term that translates into English as being together, or coexisting, peacefully.

Covered in lakes great and small, the Ojibwe Ceded Territory supports a rich collection of aquatic life. Gokey's snapshot of a water column features creatures both mysterious and familiar. Members of the abundant panfish family are represented—collectively bluegill and sunfish are both known as **agwadaashi** in the Ojibwe language.

Other finned swimmers include **ogaa** (walleye) and **asaawe** (yellow perch). Animals like the industrious **wazhashk** (muskrat) and diving **maangwag** (loons) make their living right alongside aquatic plants and **biimiskodisiig** (snails). They all rely on each other—and clean water to live in—to maintain a healthy community and a successful food web. What other living beings can you find?

A new historical marker was unveiled on Mooningwanekaaning (Madeline Island) at a dedication held on September 30. The Wisconsin Historical Society's marker features some of the Anishinaabeg creation story and was developed in consultation with tribal members, language department staff, and tribal Historic Preservation Officers from the Red Cliff and Bad River Bands of Lake Superior Chippewa Indians.

The dedication was part of the 1854 Treaty Day Commemoration on Mooningwanekaaning, which included remarks from former Bad River Chairman Mike Wiggins, Jr., Red Cliff Chairwoman Nicole Boyd, and Wisconsin Historical Society Director & CEO Christian Overland.

Signed at La Pointe on September 30, 1854, the treaty established permanent reservations in Wisconsin and neighboring states and stopped the forced removal of the Ojibwe from Wisconsin. The William G. Pomeroy Foundation® funded the Mooningwanekaaning marker.

(Wisconsin Historical Society photo)

Hawaiian delegation shares language recovery experiences at Anishinaabemowin Camp

By Ursula Charles, for Mazina'igan

Anishinaabemowin Gabeshiwin, or Language Camp, took place the week of July 3rd at Raspberry Campground in Gaa-miskwaabekong (Red Cliff). The annual gathering offered an abundance of cultural activities and engaging teachers, featuring moccasin making, traditional games, traditional cooking, birch basket making, and more.

In the two days I attended, it was a joyous and uplifting occasion, and no doubt this energy continued throughout the whole week. It was wonderful to see older generations teaching children cultural practices, like moccasin game and dish game, and having so many kids fully engaged and quick to learn.

A language group from Hawaii was in attendance and spoke on language revitalization. In this talk they shared their success story of revitalizing the Hawaiian language, ʻŌlelo Hawaiʻi.

The story of Ōlelo Hawai'i has many similarities to Anishinaabemowin here in the Great Lakes region; it was banned in schools, and people faced great punishment for speaking it and it thus experienced a great decline. Often, it is said that it takes one generation to lose a language and three to recover it. Hawaii is now with its second generation of language speakers after starting language immersion preschools in 1983. The group spoke about how they now hear Hawaiian in hospitals, grocery stores, on airplanes—all over.

Another thing that stuck with me was the group's appreciation for people who are not Indigenous to Hawaii learning the language, and their own interest in learning some Ojibwemowin because of their gratitude to visiting here. This impacted me as a non-Anishinaabe person because of their emphasis on learning the language of the land you are on, honoring the land and all of its beings, and that this is a responsibility for everyone. It's wonderful to see the work that is being done at GLIFWC and all over Ojibwe country to revitalize Ojibwemowin, specially to see how much this work spans across generations and how successful it is.

Red Cliff's Anishinaabemowin Gabeshiwin was a success, encouraging young and new learners and inviting them into a week-long celebration of Ojibwe culture. It was empowering to have members of a Hawaiian language program attend and to imagine how far Ojibwemowin will be carried with the seeds planted today.

(Ursula Charles was a summer 2023 GLIFWC intern in the Biological Services Division.)

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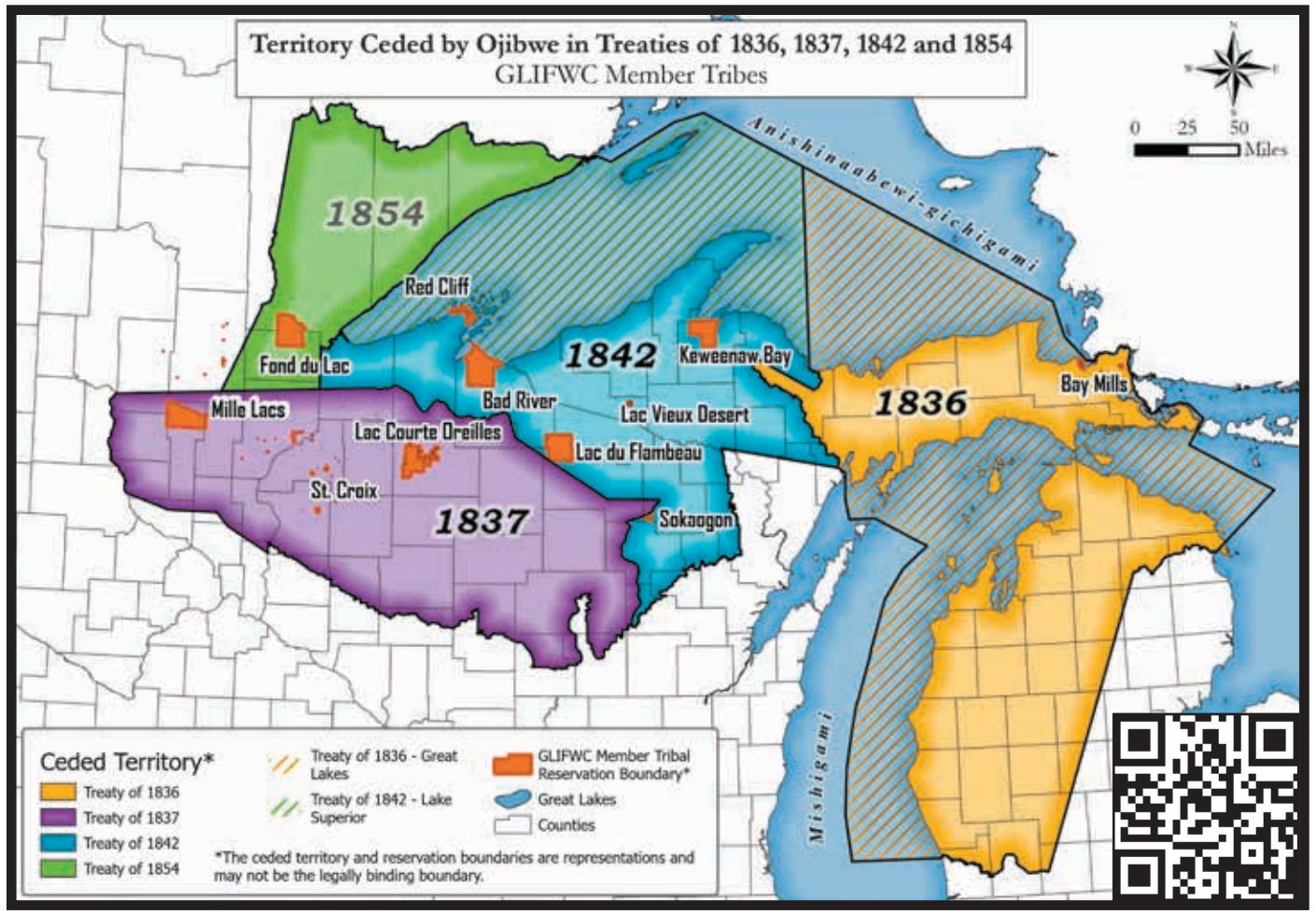

Fishery health check-up at Buffalo Reef


M. Plucinski photo

As winter weather settles into the Keweenaw region, GLIFWC's Great Lakes Fishery staff are wrapping up annual surveys for lake trout and whitefish using traditional gill nets. For both species—together forming the nucleus of tribal commercial and subsistence fish harvested from Lake Superior—November means spawning time as adult fish congregate on their ancient breeding grounds.

"We see lake trout spawning really start taking off when water temperatures drop to around 44-45F," said Ben Michaels, a GLIFWC fishery biologist who oversees survey work that includes capturing and releasing fish to gather biological information.

For GLIFWC, an essential part of the work includes testing important fish species for contaminants. Environmental Biologist Caren Ackley (photo) joined the crew of the *Mizhakwad* on a recent research outing at Buffalo Reef, helping collect fish samples to test for mercury in fillet tissue. Ackley collects fish tissue samples on waters across the Lake Superior basin to monitor trends in mercury levels. **—CO Rasmussen**

Mazina'igan
A Chronicle of the Lake Superior Ojibwe

Biboon 2023-2024

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