

Mazina'igan

A Chronicle of the Lake Superior Ojibwe

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Nurturing heritage: returning the cradleboard to Anishinaabe families

By Bay Paulsen, Staff Writer

Since time immemorial, Anishinaabe parents have relied on the dikinaagan, or cradleboard to help raise their babies.

The practice was widespread throughout many nations of Turtle Island, and held not only practical, but also spiritual significance during the early stages of parenthood. Because of this, it's one of many practices that European colonists aimed to erase. But today, many families are bringing this tradition back by carrying their own babies in the cradleboard.

In its most basic form, the cradleboard is a flat wooden board, approximately 32 inches tall and 10 inches wide with soft leather straps crisscrossed up the length. A cushioning material, usually a folded blanket, is situated between a swaddled infant and the hard board, and the leather straps gently yet firmly hold them in place.

The cradleboard often includes a headpiece which arches over the baby's head and provides a great deal of protection; it's also a place to hang trinkets for the baby to enjoy or to drape a protective cloth for insects or bright sunlight.

Raeanne Madison, an Ojibwe teacher with the Postpartum Healing Lodge, and Dr. Casey Church, a Bodewadomi cradleboard craftsman, brought a workshop to the Lac Vieux

Desert Health Center June 22, teaching community members about the practice and sharing cradleboard teachings. (see *Dikinaagan* teachings, page 17)



Raeanne Madison (right) demonstrates how to assemble the cradleboard as workshop participant Sky (left) follows along. (B. Paulsen photo)

Ojibwe teachings, fidelity in abundance at Mikwendaagoziwag Ceremony

By Charlie Otto Rasmussen, Editor



During a drum song at the Mikwendaagoziwag ceremony, Fred Kelly raises a migizi feather from his bundle. In a teaching shared with hundreds, Kelly said people belong to the land; the land does not belong to them. (CO Rasmussen photo)

Libby, Minn.—Under lofty clouds in blue skies, more than 300 Great Lakes Ojibwe, GLIFWC staff, and area residents assembled at Big Sandy Lake to remember a difficult chapter in regional history. In 1850-51, an illegal scheme led by Minnesota Territorial Governor Alexander Ramsey to mislead Ojibwe tribes into moving west of Mississippi River led to some 400 indigenous deaths.

“Your presence here today is a testament to the deep respect and solidarity that exists within our community and beyond,” said Virgil Wind, Mille Lacs Band chief executive. “We cannot underestimate the power of remembrance and healing. As we gather here, we take a collective step to healing the wounds of the past.”

The day of commemoration, July 24, began with a morning ceremony on Sandy's eastern shore. Carrying the memory of the Ojibwe travelers of 1850, paddlers launched a collection of watercraft before noon, aiming for the lake's northwest corner—site of the Mikwendaagoziwag Monument. A rare east wind helped propel the flotilla across the mostly calm water. Amongst the green and silver canoes, and colorful single seat kayaks, motorboats piloted by wardens from GLIFWC and Fond du Lac Band hummed slowly in tandem, ensuring everyone crossed the four-mile water route safely.

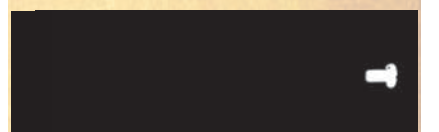
True to the monument's name—mikwendaagoziwag (they are remembered)—a host of speakers shared reflections on Ojibwe ancestors and teachings passed down through the generations. The trickery that led to the Sandy Lake Trag- (see *Mikwendaagoziwag*, page 23)


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 copper  lead



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



KBIC, partners take on legacy mining with trees p4



Wildlands, courtrooms, & navigating life in the Great Lakes Ceded Territories

By Jonathan Gilbert, GLIFWC Gechi-Apiitendaagozid

My journey as a wildlife biologist has taken me from the jungles of Africa to the forests of the upper Great Lakes region. After more than 40 years living and working in Ojibwe Country, I've transitioned into a GLIFWC advisory role known as Gechi-apiitendaagozid, following my retirement in July.

I could reel off a chronology of events during these 40 years, but that would be somewhat boring with no real message. So instead, I'd like to share some "lessons learned" during my career. I hope that they are clear and help to reveal how privileged I feel to have had such a wonderful career.

It's all about relationships, both with people and other living things

We say it all the time, it is all about relationships. And it is often true. Mostly when speaking of relationships we mean among people, people we work for and work with. In my career with GLIFWC I have had relationships that have been transformational and in many ways life changing.

One of the problems with trying to describe these is there are so many that I will not be able to talk about them all, and that may offend some. Please, my friends, this is not my intent. You have all been important to me.

One of my most significant relationships developed over the years was with Ron Parisien Sr. (GLIFWC Wildlife Technician). He taught me much about the natural world, about trapping with respect and humaneness, about life as an Ojibwe man, son, brother and father. I am forever grateful for our time together.

Other people helped me in many ways: Tom Maulson (who served for decades as Chairman of GLIFWC Board of Commissioners, Voigt Intertribal Task Force and President of Lac du Flambeau Band) taught me how to face opposition with bravery, Fred Ackley (elder from Sokaogon Tribe) taught me about how to think in terms of 'seven generations.' Ann McCammon-Soltis (GLIFWC Policy Analyst) taught me how to be respectful with those with whom you do not agree. Jim Schlender Sr. (GLIFWC executive administrator) showed me how to be a leader. Neil Kmiecik (GLIFWC Biological Services



Ron Parisien Sr., Jon Gilbert, Paul Arbuckle, and John Denomie review work plans at GLIFWC offices in the late 1980's. (GLIFWC photo)

director) helped me to grow as a biologist. Marvin DeFoe (Tribal Historic Preservation Officer, Red Cliff) taught me about Anishinology. So many people. And then there is George Newago (Red Cliff elder), a friend who accepted me into his family, ran sled dogs with me, taught me the fine art of sugarbushing and taught me much about living life as an Ojibwe, providing for his family and passing on his traditions.

But I also learned that relationships extend to the natural world as well. As an ecologist I understand that 'all things are related', a basic ecological principle. But relationships also involve how we as humans relate to our more-than-human relatives. We must relate to these plant and animal relatives just as we do amongst ourselves. It is only with this understanding of relationships that I could be the ecologist I am.

(see Navigating life in the Great Lakes Ceded Territories, page 16)

The fight to protect Minnesota's clean water and Indigenous resources from nickel mining

By Kelly Applegate, Mille Lacs Band Commissioner of Natural Resources

The summer months brought significant rainfall to Minnesota and across the Ojibwe Ceded Territory. The swelling rivers and lakes, and the subsequent flooding in cities and towns across the region, serve as a reminder of our ecosystem's delicate balance, particularly when it comes to our water.

Water is central to conversations surrounding a proposed nickel mine in east-central Minnesota, brought forward by Talon Metals. The potential Tamarack Mine is within 1.3 miles of the Mille Lacs Band of Ojibwe community and represents a significant threat to the Mille Lacs Band of Ojibwe—to our people, to the broader Minnesota population and our state's natural resources and watersheds. Nickel mines have a consistent track record of pollution, both

during and after operation. Many abandoned mines have a legacy of pollution that continues to contaminate water, cause ongoing health problems for Indigenous communities, harm wildlife and habitat, and permanently scar natural landscapes. (tinyurl.com/yavsz8pw).

While Talon Metals has kept Mille Lacs Band of Ojibwe officials informed of its activities, the organization has yet to provide any data or science to demonstrate that nickel mining can be done safely. At the same time, Talon Metals continues to expand its mining exploration activities far beyond its original plans that are outlined in the permit submitted to the Minnesota Department of Natural Resources. These actions mirror what we've seen repeated throughout history: a modest proposal that rapidly swells in size and scope, leaving damage in its wake.

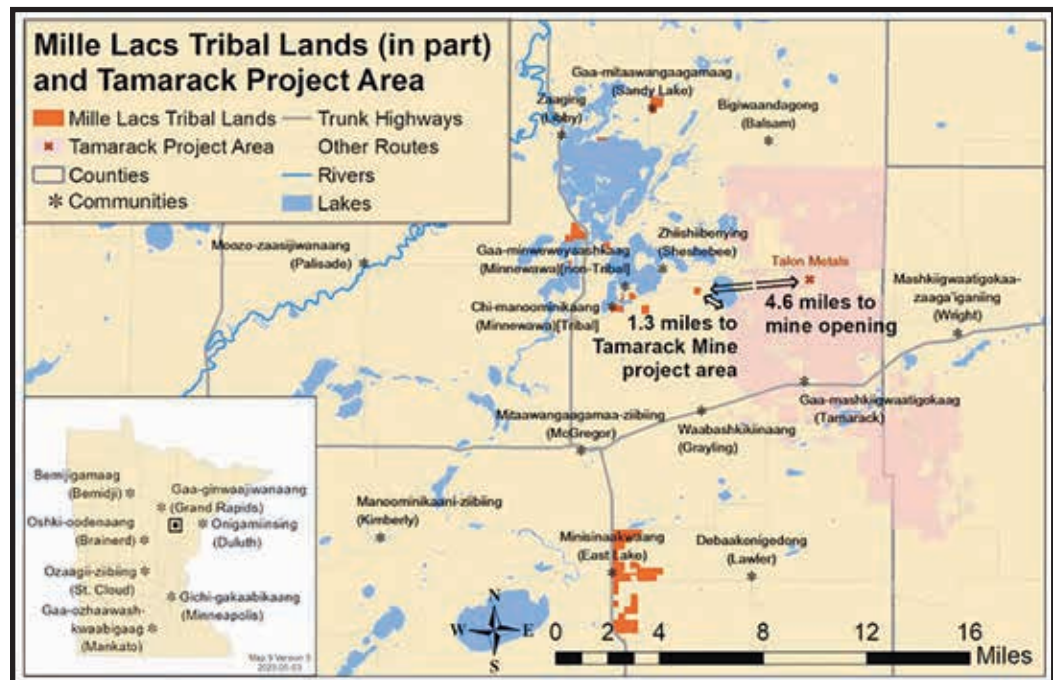
Talon Metals is positioning its nickel mine as an urgent solution to electric vehicle production demand. The Mille Lacs Band supports the transition to a green economy. However, we believe a green economy can be advanced without relying on practices that threaten Indigenous people and resources. Manufacturers should fully explore other options to meet nickel demand, like recycling nickel and metal waste, and we caution against a false sense of urgency to approve mining plans without proper due diligence and full documentation.

The health of our watershed is connected to the health of our people. Our pristine wetlands recharge drinking water for our communities. Our manoomin depends on the flow of clean water. These critical drinking water sources and habitats could be impacted by the pollution associated with the proposed Tamarack mine.

Rallying water protectors

It is in this spirit that the Mille Lacs Band of Ojibwe launched Water Over Nickel (waterovernickel.com), in partnership with allied organizations and experts. All are focused on protecting Minnesota's water, environment and communities from the risks associated with nickel mining and highlighting Indigenous perspectives and concerns.

Since its launch in early 2023, Water Over Nickel has raised awareness of the risks associated with the proposed Tamarack Mine. The initiative has represented the Indigenous perspective in media coverage of the proposed mine, ensuring that Minnesotans and surrounding communities understand the complex nature of this story. We have engaged



The proposed Tamarack Mine site is in close proximity to the Mille Lacs Band of Ojibwe community.

Ceded Territory news briefs

Juvenile walleye surveys coming up on Ceded Territory lakes

Each year during late summer and fall, fisheries biologists with GLIFWC and the tribes survey 70-100 walleye lakes to determine if juvenile walleye have entered (or recruited into) the population. GLIFWC and crews from Bad River, Mole Lake, St. Croix, Fond du Lac, and Mille Lacs Band conduct these recruitment surveys on behalf of member tribes.

Survey data will help in the understanding and management of fisheries resources within the Michigan, Minnesota, and Wisconsin 1837 and 1842 Ceded Territories. These surveys allow fisheries biologists to estimate the strength or weakness of the two most recent (young-of-the-year and age 1) year classes of walleye. Lakes to be surveyed are primarily ones in which a shared state/tribal fishery has developed and lakes that have a naturally reproducing population of walleye.

In 2024, biologists will be paying close attention to whether walleye were able to reproduce successfully in a year when the ice went out very early in much of the Ceded Territory. Additionally, this year's surveys will help to measure whether progress has been made toward restoration of natural reproduction on lakes where rehabilitation efforts are in place.

The list of lakes to be surveyed will be finalized in late August. Depending on the length of the shoreline to be surveyed, one or more electrofishing survey boats may be present on the lake during a given night. Juvenile walleye will be the main focus of the surveys, but larger walleye and other fish species may also be captured. After collecting biological data, sampled fish will be released alive back into the lake. The data will be summarized and finalized sometime before mid-December

—M. Luehring

Fond du Lac Band launches counter measures following EAB discovery

Cloquet, Minn.—Forestry experts from the Fond du Lac Band of Ojibwe are working to ease the negative impacts of the emerald ash borer (EAB) following its detection on the eastern edge of tribal homelands. Band officials confirmed the presence of this forest-transforming beetle last May on the Fond du Lac Reservation. Introduced from eastern Asia in the early 1990's, the EAB has wiped out millions of ash trees across the upper Midwest including large swaths of the Ojibwe Ceded Territory over the past two decades.

"While EAB is virtually impossible to eradicate once established in an area, the Fond du Lac Resource Management Department is implementing various strategies to manage the infestation, including fall sanitation of confirmed infested trees, continued surveillance, planting of replacement trees, and potential use of insecticides and biocontrol methods, pending approval," the tribe announced in a statement.

The Ceded Territory is home to three species of ash, or agimaak in Ojibwemowin. Traditional Anishinaabe crafters rely on healthy black ash stands to create a wide range of baskets used in everything from home storage to seasonal harvesting.

EAB lays its eggs in the nooks and crannies of the outer bark of ash trees. Upon hatching, larvae burrow into the tree to feed, damaging and ultimately killing the tree. Fond du Lac resource officials said community members should avoid moving ash logs and firewood across the landscape to reduce the spread of EAB and other tree predators and diseases. Learn more at: tinyurl.com/3vvt3khd

—CO Rasmussen

Mostly static Upper Michigan wolf population edges higher

The Michigan Department of Natural Resources (DNR) has released the results of their 2024 winter wolf population assessment. The DNR estimates a minimum of 762 wolves in the Upper Peninsula (UP) of Michigan. This is an increase of 131 wolves compared to the 2022 estimate of 631. The survey identified 158 packs, which contained approximately 4.8 wolves per pack. While this is the highest population estimate since 2012, this year's wolf population estimate remains fairly consistent with findings from the past 14 years.

The Michigan DNR estimates the UP wolf population every other year by compiling track surveys and other wolf signs. Surveys are completed mid-winter when the wolf population is at its lowest, which is why the population estimate produces a minimum count.

While it is possible that there are individual ma'iinganag that occupy the Lower Peninsula (LP) of Michigan, wolves are almost exclusively found in the UP. The DNR last surveyed for wolves in the LP in 2019 and found no signs of wolves. A new survey is planned for the LP in early 2025.

The Michigan DNR is also exploring two other methods for estimating the Michigan wolf population. One relies on a track survey similar to the method the DNR already uses. The second involves deploying trail cameras across Upper Michigan. Both new methods would decrease the amount of staff time required to study the wolf population and using cameras would mean a population estimate could be calculated during other times of the year.

—A. Carl

Manoomin impacted by June storms, but good picking opportunities available

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

The September moon, Manoominike giizis (Rice Making moon), is fast approaching. Time to get your rice knocking sticks and push poles ready! By now, everyone has begun scouting their favorite ricing areas. GLIFWC's Manoomin Monitoring Program has been in full swing. I was out early looking at seed germination—it was a beautiful sight seeing the silver threads of the first life as the overwintered seed came to life.

After this past winter, we anticipated low water levels in some waterbodies across the Ceded Territories. There was concern from elders that, with low water levels in the spring, amikwag would not be able to get into their lodges and build up their dams. Mother Earth has her way of catching things up—with the precipitation in June, the thunder beings made it known that they were here. Water levels rose and, after our interns' initial field visits, some beds were impacted. In some lakes with higher water levels, rice along the beds receded. If higher water levels continue, it could mean a longer time for manoomin to ripen.

If you get a chance, throw out some asemaa to ask the storms to go around and ensure a successful harvest.

—KS

(see **Manoomin opportunities**, page 19)



Wild Rice on Sullivan Lake in the Minnesota 1837 Ceded Territory was flattened by mid-summer storms. (B. Byrne photo)

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.

2024-2025 Season

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 tinyurl.com/ybzszrrp
Remote Registration Instructions: <https://tinyurl.com/4urhy8n4>

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.



(see **Whitetails**, page 6)



Trees enlisted to take on legacy mining pollution at KBIC's Sand Point

By Charlie Otto Rasmussen, Editor

Baraga, Mich.—Between the tall grandfather pines standing watch over the powwow grounds, east to the blue-black waters of Keweenaw Bay, a long strip of shoreland bustles with activity. Ankle-high colored flags snap in the breeze as crouched figures attend to rows of holes bored into the ground.

It's planting day at Keweenaw Bay Indian Community's Sand Point where a team of students, researchers, and natural resources professionals are installing specialized trees to help remove mining pollutants from plots within the 34-acre site.

"We're looking to the trees to actually clean the soil, clean the stamp sands of heavy metals, which are copper, cadmium and arsenic," said Ron Zalesny, a research plant geneticist with US Forest Service. "These trees will take up these heavy metals and remove them from the soil."

The process is called phytoremediation. It's an environmental restoration application used successfully in urban brownfields, decommissioned landfills, and similar sites, Zalesny said.

At issue on Sand Point, mine operators dumped an estimated six billion pounds of waste from the nearby Mass Mill directly into the bay and adjacent riparian areas.

For the better part of a century, Mass and other industrial copper mills and smelters on the Keweenaw churned out mining waste byproducts known as stamp sands. And while much of valuable mineral ore had been extracted, the mill tailings contain trace metals including lead that are contaminating Gichigami and its near-shore habitats. Located in the center of the tribe's L'Anse Reservation, cleaning up Sand Point has become a priority for band members.

"KBIC has done a wonderful job here, capping the site, planting trees, herbaceous understory species," Zalesny said.

Beginning in 2006, the tribe's natural resources department led community efforts to add topsoil over the stamp sands and plant trees, pollinator gardens, and native grasses across the site, said Erin Johnston, KBIC biologist. For some 18 years, area volunteers including KBIC Youth Program participants pitched in to sew an ever-growing catalog of indigenous plants.

"It's a very harsh environment we're asking these plants to live in," Johnston said, adding that white pines are moving in on their own, spreading scattershot into the project area from mature seed trees growing along the original lakeshore before the stamp sands arrived.

Now, Zalesny said, the Forest Service is joining the effort as "an impact multiplier" continuing the momentum in Sand Point's recovery. Through



The Sand Point recovery team drilled holes with power augers, creating space for a big scoop of nutrient-rich biochar and a specialized tree seedling. Photo from left: Jeremy Kasprak (USFS), Ken Hayes (USFS), Adam Wiese (USFS), and Brent DeBauche (University of Missouri). INSET: Biochar. (CO Rasmussen photos)

decades of research, the Forest Service and its university partners developed specialized trees to provide phytoremediation services.

From a host of tree varieties available, Zalesny's team selected poplars (Eastern cottonwood × European black poplar) developed at the University of Minnesota Duluth, Natural Resources Research Institute and seven specialized willow varieties from the State University of New York (SUNY) to stabilize the subsurface stamp sands at Sand Point and uptake the site's heavy metal contamination.

"The other important input here is adding different soil treatments with the trees. Adding biochar," Zalesny said. "We're trying to identify the combination of biochar and tree variety that can give us the greatest phytoremediation and phytostabilization."

Looking like a charcoal-meets-mulch amalgam, biochar is a nutrient rich product created by cooking wood to extremely high temperatures. Zalesny said wood acquired through salvage operations, like insect damaged trees in the Western US, make good biochar material.

"It's a high carbon source that increases soil fertility and soil quality," he said, noting that two types of biochar were being tested at Sand Point. With all the variables between biochar amendments and tree varieties—each one identified onsite with colored flags—researchers will get a good idea on how to heal more of the mining-damaged landscape.

Let the trees grow

The Sand Point remediation project team, which includes Michigan Technological University and University of Missouri, are set to conduct long term monitoring at Sand Point, with an eye not only to phytoremediation success but also phytostabilization—how well the trees prevent stamp sands from shifting under the force of wave and wind action off Lake Superior.

"In the long term, the willows and poplars will be removed after cleaning the soil," Zalesny said. "Those trees are like nursery crops, providing the environment for the pines, the spruce, the native plants, to come in. Should KBIC want to expand these plantings [beyond the plots], they'll have the info on what's going to work the best."

With 3,000 fast-growing trees in three sites now in the ground, it won't take long to start seeing results. And KBIC and its partners will have taken a big step in healing a landscape deeply impacted by legacy mining, when companies were free to extract valuable minerals, leaving behind an environmental mess for local communities.

"The Forest Service has been great to work with," Johnston said. "They've listened to our concerns, they've said 'we know this place is important to you, let's make this work so the community gets the greatest benefit from this.'"

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On the cover

GLIFWC's 2024 poster, Ikwewag Oganawendaanaawaa Manoomin (the women take care of the rice) features the art of Amber Waboose, member of the Batchewana First Nation in Ontario. Anishinaabe women are the original caretakers of manoomin. This artwork depicts this way of life with Anishinaabekweg (women) observing, learning, and teaching about manoomin growing in the river. Full size posters measuring 24" x 18" are available from GLIFWC, PO Box 9, Odanah, WI 54861; by phone (715) 685-2108; or by email pjo@glifwc.org.



Juvenile adikameg monitoring

Key indicator of Keweenaw fishery health



↑ *KBIC and GLIFWC survey crews working together at Grand Traverse Bay native sands to collect juvenile whitefish. 100-ft beach seines are moved through shallow water in an arc pattern then pulled out onto the beach where the small fish are collected. Samples are identified by species, measured, and weighed. Upper left: Species other than whitefish, such as this young brook trout, are occasionally captured in the seine. (V. Ripley photo) Lower left: Patrick LaPointe, KBIC Field Fisheries Coordinator, and Presley Rasanen, Aquatic Invasive Species Educator/Boat-Washer, pulling on an end of a beach seine. (B. Michaels photo)*

↓ *GLIFWC interns, Samson Wood (left), Tori Vosburg (middle), and Pawnee Doddridge-Hornett (right) pull a seine onto a beach covered with gray stamp sands within Grand Traverse Bay. This mining byproduct is much coarser than native sand and can contain high levels of copper. Small nearshore fish are rarely detected on stamp sand during the survey, likely due to habitat degradation. (B. Michaels photo)*

Upper Michigan—Adikameg, or lake whitefish, are commercially and culturally important to the Ojibwe Tribes that reside within the Lake Superior basin. To monitor their populations, GLIFWC has tracked juvenile whitefish abundance at various sites around the Keweenaw Peninsula since 1997.

With the help of beach seines to collect young fish near spawning grounds, biologists gain insights into reproductive success.

In recent years, GLIFWC has expanded its efforts in collaboration with the U.S. Geological Survey and the Keweenaw Bay Indian Community (KBIC) to include areas around Keweenaw Bay and Marquette. A primary focus is the impact of stamp sand—a copper mining byproduct—on juvenile whitefish nursery habitat in Grand Traverse Bay.

While stamp sand was deposited by mining companies a century ago, it now threatens fish spawning and rearing habitats. Declining juvenile whitefish numbers in the Grand Traverse Bay are a troubling sign. GLIFWC, KBIC, and USGS will continue to monitor whitefish populations and investigate the effects of stamp sands. —**B. Michaels**



HAACP training

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Gichigami crew plays the wind on summer siscowet survey



GLIFWC Great Lakes Section Intern, Tori Vosburg, untangles a siscowet from an assessment gill net. (B. Michaels photo) Inset: A recently consumed burbot sticking out from a siscowet mouth. (T. Vosburg photo)

GLIFWC's Great Lakes Section crew, along with Bad River Natural Resources Department, put in a full work schedule this summer completing their annual siscowet lake trout survey near the Keweenaw Peninsula, located in Michigan waters of Lake Superior.

The wind was uncooperative during the first half of the survey; however, the crew was eventually rewarded with near-perfect weather conditions, making the rest of their work a breeze.

The goal of this survey is to assess relative abundance, diet, size and age structure of siscowet, which are a deepwater form of lake trout and one of the four known morphotypes (lean, siscowet, redfin, humper) found within Lake Superior.

Gill nets of varying mesh sizes were deployed from the survey vessels within waters ranging from around 50 ft to 800 ft to capture siscowet, which typically inhabit the deeper and colder waters of Lake Superior.

Fish are picked out of the gill net when lifted to the surface, then stomachs and ear bones (otoliths) are extracted to determine siscowet diet composition, which can range from small crustaceans to larger-sized fish such as burbot.

Siscowet growth rates tend to be slower than the other types of lake trout due to more time spent in deeper and colder habitats within the lake, and siscowet are the most abundant of the four morphotypes. —B. Michaels

Whitetails experience extreme winter conditions



As hunters prepare for the upcoming waawaashkeshi hunting season, it is worth reflecting on the extraordinarily mild winter we recently experienced across the Ceded Territory. Winter severity is one of the most important factors in deer survival and deer herd productivity in the northern forests. Just as deer populations tend to decline after a severe winter (like 2022-23 in the far north), they also tend to rebound quickly (within a year or two) after a mild winter.

The winter of 2023-2024 was one of the warmest and mildest winters on record in the western Great Lakes region. The mild winter, with its warm temperatures, lack of snow, and abundance of natural food on the landscape from a bumper crop of acorns and other mast species in the fall of 2023 is likely to lead to a healthy deer population this fall. Throughout a large portion of the northern forests, deer herds were not compelled to retreat to the protection of winter deer yards in the dense coniferous forest stands like they did the previous winter and were observed feeding on the readily available food sources such as acorns in oak stands throughout the winter. Pregnant does that did not have to face the added stressors associated with a severe winter were more likely to make it through the winter with enough fat reserves to produce healthy fawns this year. Anecdotally, there have been many reports of does with twin fawns across areas of Minnesota and Wisconsin this June and July.

Given these favorable factors for deer herd productivity, it remains difficult to say how all of this will translate in this fall's deer hunt. Also consider: sometimes the rebound of the deer herd isn't always immediately apparent the first fall after a mild winter—especially if the one mild winter is immediately followed by a severe winter.

There may have been robust fawn production in the spring following the very mild winter of 2023-2024, but how that factors into future herd health and productivity will depend largely on the severity of this coming winter and its impacts on fawn and yearling survival. From one extreme to the other, it's this variation in winter conditions that makes predicting hunting success and impacts on deer herd productivity so challenging. —T. Bartnick

Adding to the bimiizii control box

By Bill Mattes, GLIFWC Great Lakes Section Leader

For the past two years, GLIFWC's Great Lakes Fisheries Section and the Keweenaw Bay Indian Community staff have cooperated with the USGS Hammond Bay Station and the US Fish & Wildlife Service—Sea Lamprey Control Program to evaluate supplemental controls for bimiizii (sea lamprey) in Gichigami's (Lake Superior) tributary streams.

Funded by the Great Lakes Fishery Commission which oversees the binational sea lamprey control efforts in the basin, supplemental control projects explore methods to suppress sea lamprey numbers. Currently, two primary control tools are used: lampricides and in-stream barriers. These maintain the population at about 10% of the pre-control level.

The recent additions of supplemental controls likely will not replace these highly effective controls, but they could enhance control where lampricides or barriers are less effective. In-development supplemental control tools include trapping adult sea lamprey prior to spawning or netting juvenile lamprey before they leave streams and transform into parasites on fish. Electric weirs and pheromones (think fish baits) are used to attract lamprey to traps or to repel them toward a trap to increase the trap catches. In addition, sterile male sea lampreys are released to further suppress spawning success for any adult lamprey that make it past the spawning areas.

Sea lamprey, a non-native being, came to the Great Lakes from the Atlantic Ocean after shipping canals were constructed to connect the lakes to the ocean. As with many non-native beings, when left uncontrolled their numbers increase, while native beings are negatively affected, and their numbers decrease.

In this case, culturally important fish like adikameg (whitefish), namegos (lake trout), and odoonibiins (cisco, a.k.a. herring) are adversely affected by sea lamprey predation. To ensure that sustainable numbers of culturally important fish remain in Lake Superior, sea lamprey numbers must be controlled. Each sea lamprey that enters the lake to feed consumes about 40 pounds of fish. The current three-year average for adult sea lamprey in Lake Superior is 108,000. This equals 4.3 million pounds of fish removed through sea lamprey predation, as compared to the reported fish harvest of 5.4 million pounds in 2023.

For more information: glfc.org/pubs/factsheets/FACT%205E_HR.pdf



KBIC's Natural Resources Department staff continue to set, monitor, and maintain supplemental control traps in seven streams around the Keweenaw Peninsula. Through the supplemental control research project, a new style of adult assessment trap was set at the Traverse River (pictured), where previously fyke nets had been fished.

Rallying water protectors

(continued from page 2)

tribal communities on this issue, both within the Mille Lacs Band and throughout the U.S., submitting a resolution to the National Congress of American Indians. And as we near a significant milestone in the mine's permitting process, when the Minnesota DNR opens the mine proposal for public comment, we have launched a wide-reaching advertising campaign to engage Minnesotans around the importance of protecting the state's pristine water from the impact of nickel mining.

Our efforts are grounded in our commitment to preserve Minnesota's natural environment and water resources for generations to come. We encourage our community to join us in calling for the protection of our clean water. Our website, WaterOverNickel.com and social media channels are great resources to stay informed and updated on the latest opportunities to engage with this work.

Following Anishinaabe teachings, together we can care for our Earth, for those yet unborn and the next seven generations to come. If we make good decisions, we can protect the earth and water and know that the next seven generations can have a good life.

NAFWS National Conference held in Dakota Country

By Bay Paulsen, Staff Writer

In May 2024, the Native American Fish and Wildlife Society (NAFWS) held their national conference in the Great Lakes region. The event was hosted by the Prairie Island Indian Community in eastern Minnesota, a beautiful site located on the shores of the Mississippi and Vermillion Rivers in the historic Dakota Oyate homeland.

The NAFWS prides itself in being a national network for inter-tribal communication and aims to connect tribes across the United States to bolster the self-determined care of fish and wildlife through the exchange of information and management techniques.

The four-day long national conference was held at the Treasure Island Resort and included professional workshops, presentations, a poster symposium, a natural resources tour of the Prairie Island Indian Community, and of course, feasting.

Ojibwe Ceded Territory perspectives

GLIFWC's Rob Croll, Kathleen Smith, and Hannah Panci, along with Karina Heim from the Lake Superior National Estuarine Research Reserve, presented on the guidebook *Ganawenindiwig* (they take care of each other). Published in 2023, *Ganawenindiwig* is a resource for those looking to undertake restorative projects, particularly around shorelines.

During the presentation, Rob Croll acknowledged how the team's mindset had to change over the course of the three years it took to put this publication together. He described how the cultural advisory committee guided the team: "We started our first meeting with the presentation and said, 'Hey, this is the project we want to do. We want to *use* plants to protect the shoreline.' And what we heard back was, 'No, that's not how this works. These are not tools for you to use; these are your relatives.'"

The book advises readers to build relationships with the plants and view them not as things to be managed, but as equal partners in protecting the landscape. The presentation garnered much interest. Several hard copies were handed out to members of the audience afterward, and when those were exhausted, the rest were directed to view the publication online at glifwc.org/Environmental/ganawenindiwig.pdf.

Later that same day, GLIFWC's Traditional Ecological Knowledge Specialist, Michael Waasegiizhig Price gave a presentation on Anishinaabe perspectives of natural resource management, including *Anwebimagad*, or "letting it rest." He shared insights into how the western ideals of science, data, and top-down management is often very different from Anishinaabe ways of knowing by oral histories, observations, and building relationships with the resources themselves.

Price illustrated this point with an anecdote from his time at GLIFWC working with fisheries in and around the Lac du Flambeau reservation. While the biologists were examining a diminishing walleye population, thinking about ways to manage and restore that fishery, a tribal elder spoke up, saying, "*Anwebimagad zaaga'igan*." Why not just let the lake rest?

"Of course this didn't sound very scientific," Price explained. "But it's very indigenous. Because in our culture, we recognize that a lake has the ability to heal itself. The only thing we need to do as people is to control the pressures that we put on these ecosystems."

Price also shared some Anishinaabe stories, including parts of the Creation story, to illustrate how traditional ecological knowledge was built into the language itself to be passed down through the generations and how there is strength in the recording of knowledge through oral tradition.



Karina Heim (left), Hannah Panci, Rob Croll, and Kathleen Smith gave a presentation at the NAFWS 2024 national conference about the publication *Ganawenindiwig* (they take care of each other). (B. Paulsen photo)

Both presentations, while regarding different topics, each took the time to explain GLIFWC's implementation of traditional ecological knowledge and the idea that humans must be humble when approaching our relatives. That we don't "manage" them, but instead build relationships, knowing that we all help each other.

The Prairie Island Indian Community and Dakota resilience

On the fourth day of the conference, Prairie Island's Environmental Program Manager Gabriel Miller led conference goers to some of the community's restoration projects, including flowering fields of shortgrass prairie, a beautiful oak savannah with two elm bark lodges and a host of plants and medicines, and the Edwin Buck Jr. Memorial Buffalo Project.

The buffalo project began in 1992 with one bull, Shooting Star, gifted to the Prairie Island Indian Community by the Lakota Nation of South Dakota. The tribe had a decision to make about this six-year-old bull, either have a large feast now or take the opportunity to permanently bring buffalo back to Prairie Island.

Today, the fruits of their decision walk the pastures in an impressive herd of over 200 head. Up to 10 bulls are harvested each year. The meat and hides are distributed to community members, and the harvests are used to teach the Prairie Island children about the sacredness of their land, the Dakota language, and the buffalo.



The Prairie Island Indian Community gave a natural resources tour during the NAFWS 2024 national conference, including the Edwin Buck Jr. Memorial Buffalo Project in which the tribe has raised a herd of over 200 buffalo in 30 years. (B. Paulsen photo)



GLIFWC's TEK Specialist, Michael Waasegiizhig Price gave a presentation at the NAFWS 2024 national conference about Anishinaabe perspectives of natural resource management—*Anwebimagad* "letting it rest." (B. Paulsen photo)

Concluding the conference

A poster symposium near the Treasure Island Marina gave a chance for native college students to share their projects with attendees. Students came from across the nation, including many from Alaska, sharing how their own background and the ecological knowledge from their communities influenced and, in many cases, was the foundation of their scientific work.

On the final day, the NAFWS conference concluded with a large banquet, an award ceremony, and many exhausted yet cheerful participants after days of networking and professional development. The sharing of knowledge and information across tribal nations is one of the primary goals of the Native American Fish and Wildlife Society, and this national conference gave GLIFWC staff the opportunity to share and learn together, build stronger connections, and broaden perspectives.

Essential Ojibwemowin
Anwebimagad—Letting it rest



Copperwood project updates

A funding shortfall & GLIFWC report details potential mining waste threat

By John Coleman
GLIFWC Environmental Section Leader

Following the failure of a \$50 million grant from the Michigan Economic Development Corporation (MEDC) to Highland Copper to make it into the state budget for the proposed Copperwood Mine, site development has slowed but continues to move ahead.

Tapping existing funds, Highland Copper is creating wetlands at the Gogebic County site as part of the project's wetland and stream mitigation program.

The MEDC grant was slated to assist in developing the Copperwood project on the shores of Lake Superior but remains contingent on Highland first raising an additional \$150 million of development funds; should Highland generate the required base funding by December 2025, Michigan officials may again offer the \$50 million grant.

In another development, GLIFWC released a tailings basin dam failure report last June. The document details modeling of the spread of tailings should any of the proposed tailings basin dams fail.

Since there had been no publicly available analysis of the consequences of a dam failure, GLIFWC analyzed the effects of an accidental tailings release. The failure modeling found that tailings released by dam failure could reach Anishnaabeg Gichigami in less than an hour, could inundate the Presque Isle River in less than 1.5 hours, and could affect the underground mine entrance and other mine structures.

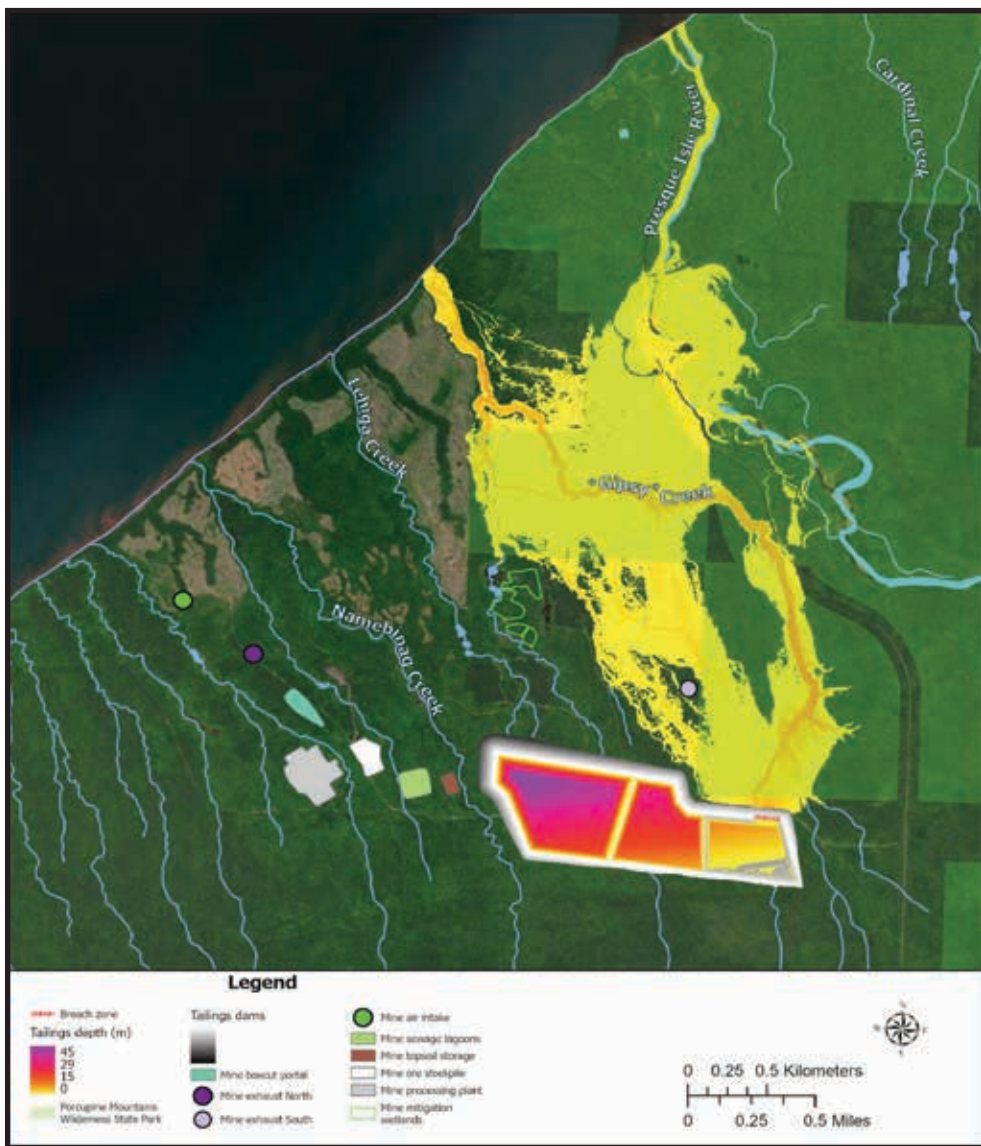
Tailings flowed into the Porcupine Mountains Wilderness State Park in most modeled dam breaches.

The tailings floods could reach up to 46 feet high in parts of the flooded areas. These results suggest unacceptable consequences for downstream lands and waters, including Anishnaabeg Gichigami and the Presque Isle River, and for mine safety. The analysis did not evaluate the probability of a dam breach, only the spread of tailings across the landscape should a dam fail.

The report, and a letter to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) asked that further dam safety and waterway impact analyses be conducted when final dam design has been completed.

Learn more at GLIFWC's report archive (glifwc.org/reports). The analysis describes the likely inundation of rivers, streams and the Lake Superior shore in the event of a potential tailings dam failure.

Watch a video of tailings spread from a breach at: tinyurl.com/3j8srde6



Potential dam inundation map for failure of the north dam of the eastern cell of the proposed Copperwood tailings facility. Downstream tailings depths represent the maximum depth five hours after breach. We did not model tailings flows in Anishnaabeg Gichigami.

The word is out on Ganawenindiwag agamiing (They take care of each other on the shore)

By Rob Croll, GLIFWC
Climate Change Program Coordinator

When Cherie Hagen, Lake Superior Unit Manager in the Wisconsin Department of Natural Resources Office of Great Waters, heard Lake Superior National Estuarine Research Reserve (LSNERR) and GLIFWC staff share a presentation on *Ganawenindiwag: Working with plant relatives to heal and protect Gichigami shorelines* at the 2024 St. Louis River Summit she was excited about this new resource and started thinking about how her team could incorporate it's teachings into their work.

Created by a diverse author team from GLIFWC, LSNERR, the Lake Superior Research Institute, and University of Wisconsin-Madison Extension, and guided by a group of elders and knowledge holders from Mashkiiziibii, Gaa-miskwaabekaang, and Nagaajiwanaang, Ganawenindiwag (They take care of each other) empowers users to grow, promote, and use plant beings specifically from natural plant communities adapted to coastal areas of Gichigami (Lake Superior) to heal and protect Gichigami shorelines.

From its inception, the intent of this guide was to blend different ways of knowing and share about plants in a way that intentionally elevates the knowledge and guidance of indigenous communities.

"We had the perfect restoration to reference Ganawenindiwag, the Town of Port Wing's Michele Wheeler Wetland Restoration," said Hagen. "We selected the plants and seed for this site with a focus on those culturally important plant relatives that were not growing on the site yet, such as sweetgrass."



Aazhaabaakesing, niyaawibagak, (boneset). The seeds, nectar, and vegetation of boneset are food sources for wildlife. This plant supports pollinating honeybees, native bees, beetles, butterflies and flies. (Superior National Forest, CC BY 2.0 photo)

Hagen and her staff planted plugs early in June and will be seeding in the fall.

In addition to wiingashk (sweetgrass) Hagen's team planted zhaawashkoons (blue vervain), wiikenh (sweet flag), aazhaabaakesing (boneset), and bagizown (Joe Pye weed).

Ganawenindiwag profiles 97 different shoreline and wetland plants and the native plant communities in which they live. Plant profiles contain Ojibwe, common, and latin names, known human relationships with the plant, and physical characteristics that determine suitability for shoreline restoration. Other sections of the guide are designed to inspire readers to think about plants and stewardship from an Ojibwe perspective.

Although Ganawenindiwag has only been available since late 2023, other tribal and non-tribal entities are already using it for shoreline restoration in the Ceded Territories and beyond.

For example, Nagaajiwanaang and LSNERR staff are using it for restoration work in the St. Louis Estuary, the US Fish & Wildlife Service (USFWS) used it for selecting plants for a small restoration project on the Lake Michigan shoreline in Racine, Wis. and USFWS, the Superior Rivers Watershed Conservancy, and partners are planning to use it in a demonstration project on Fish Creek Slough in Ashland, Wis.

Copies of the guidebook recently made it as far as Chickasaw Country in Oklahoma, inspiring Chickasaw Nation staff to contemplate creating a similar resource for their communities.

To download a copy of Ganawenindiwag visit glifwc.org/climatechange/ganawenindiwag

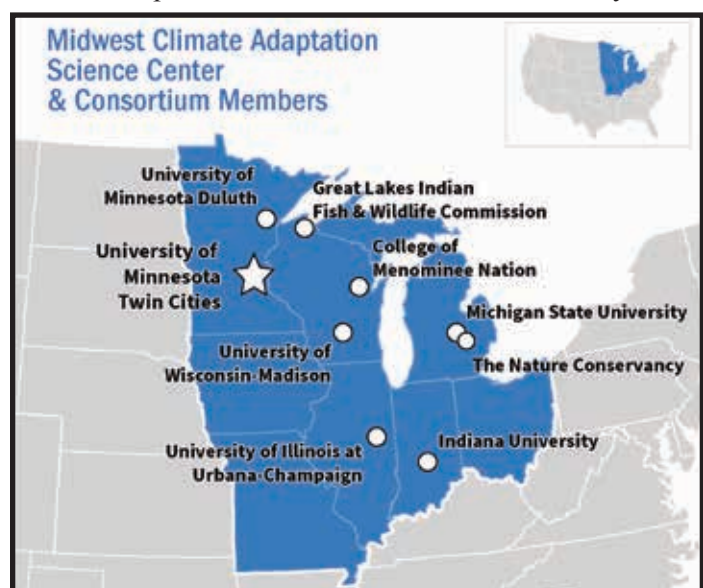
Midwest CASC 101: Working together for the future of natural resources

By Rob Croll, GLIFWC
Climate Change Program Coordinator

The Midwest Climate Adaptation Science Center (MWCASC) is a consortium of research-focused academic, tribal, and non-profit partners working collaboratively with the US Geological Survey (USGS) to deliver science to help fish, wildlife, water, land, and people in the Midwest adapt to a changing climate. The consortium is led by the University of Minnesota and includes the College of Menominee Nation, University of Wisconsin-Madison, Michigan State University, GLIFWC, University of Illinois Urbana-Champaign, Indiana University, and The Nature Conservancy. GLIFWC has been a member of the consortium since 2021.

As a consortium member, GLIFWC and the member tribes help to shape the science agenda and priorities of the MWCASC. In practice this means that research proposals and projects are designed, in part, to respond to tribal needs and priorities related to treaty resources. GLIFWC staff also contribute to the governance of the consortium and routinely assist with tribal engagement and collaboration training for university researchers, graduate and undergraduate students, and USGS staff assigned to the CASC.

There are two types of research performed through the MWCASC. Researchers at the USGS and at consortium member institutions and their various partners submit research proposals in response to an annual USGS statement of interest. Many of these projects, some of which are discussed below, relate directly to treaty resource protection and management. The CASC consortium also conducts synthesis research, which looks at existing knowledge about climate change, land, water, plants, animals, and humans in new ways.



Key MWCASC projects funded by USGS and how they relate to tribal and treaty resource management

Managing and Promoting the Resiliency of Winter-Adapted Species to Climate Change

This recently completed project assessed how wabooz (snowshoe hare) and bine (ruffed grouse) respond to rapidly changing winter conditions. Using the results of this project researchers are now working with federal, state, and tribal partners to identify strategies, including translocation and forest management, to keep these two winter-adapted, culturally important beings on the landscape. Staff from GLIFWC and the Mashkiziibii Natural Resource Department assisted with this project.

Assessing the Impacts of Emerald Ash Borer (EAB) and Adaptation Strategies on Habitat Quality for At Risk Wildlife in Black Ash Forests

This project looks at forest structure and composition and the differences in wildlife communities and habitat quality in baapaagimak (black ash) wetlands before and after EAB invasion with the goal of creating adaptive strategies to preserve existing wetland habitat and beings. Staff from the Leech Lake Band of Ojibwe and 1854 Treaty Authority are working on this project.

Indigenous Perspectives on Lake Sturgeon and the Potential Impact of Climate Change

This ongoing project incorporates existing information on name (lake sturgeon) numbers, habitats, spawning behavior, and response to climate change alongside conversations with Tribal resource managers and community members sharing how they interact with name and their goals for the future. Deliverables include updated adaptation strategies and recommendations for federal, state, and Tribal fisheries managers. Tribal partners include College of Menominee Nation, GLIFWC, 1854 Treaty Authority, Little Traverse Bay Band of Ottawa Indians, Intertribal Council of Michigan, Bay Mills Indian Community, Gun Lake Tribe, Little River Band of Ottawa Indians, Menominee Indian Tribe of Wisconsin, Keeweenaw Bay Indian Community, and the Red Cliff Band of Lake Superior Chippewa.

Prioritizing Site of Habitat Restoration to Enhance Connectivity in the Upper Midwest

Increasing and improving habitat connectivity is an important adaptation strategy for many vulnerable beings. This new project will build connectivity models for forest and prairie ecosystems that managers can use to prioritize habitat restoration that will benefit many culturally important plants and animals. College of Menominee Nation and GLIFWC are project partners.

So, when will results of these and other projects be used to “fix” climate change in the Ceded Territories? First, it’s important to remember that good research takes time. Many of these projects have been underway for two or three years, and the results take time to publish and share. This research won’t “fix” climate change, but hopefully resource managers will eventually be able to use information from these projects to help them make good decisions about how to incorporate climate adaptation into their decision-making process, protecting and preserving beings, ecosystems, habitats, and Anishinaabe mino bimaadiziwin for generations to come.

Public weighs in on Line 5 at hearing

The US Army Corps of Engineers hosted a public hearing on the proposed Enbridge Line 5 reroute around the Bad River Reservation on June 4 at Northwood Technical College in Ashland, Wis. This hearing was for the submission of public comments, both in person and in writing.

Its two sessions, morning and afternoon, included approximately equal parts of supporters and opponents to the project. Those in support were largely Enbridge employees while those opposed consisted of tribal members, tribal employees, and students. Non-tribal Ashland area residents also showed up in large numbers for both sides.

Those in favor of the crude oil pipeline spoke predominately about the financial benefits they believe Line 5 has for Enbridge employees as well as those relying on the oil steadily following on its path to Sarnia, Ontario. Those opposed expressed a severe distrust in Enbridge, specifically citing a history of poor relationships with tribes, numerous disastrous spills due to inadequate pipe maintenance, and the disproportionate risk the Bad River Reservation is expected to take on with a pipeline in the Bad River watershed.

After all registered speakers gave comments, an hour remained in the hearing and the presiding officer opened the floor to anyone who hadn’t yet spoken. Two Anishnaabekweg (Ojibwe women) Nookomis Debra Topping from Fond du Lac, and Gaagigeyaashiik Dawn Goodwin from White Earth had more to say than their original allotted three minutes so they approached the podium. The presiding officer still would not allow them to speak despite the extra time, muting their microphones and adjourning early, but the women continued, expressing frustration about Enbridge’s disregard for the safety of Ojibwe people living with a potential Line 5 spill. They also shared photographic evidence of Enbridge’s lackluster pipe maintenance on the Bad River Reservation.

—B. Paulsen



Nookomis Debra Topping, Fond du Lac (left), and Gaagigeyaashiik Dawn Goodwin, White Earth spoke about Enbridge’s disregard for the safety of Ojibwe people living with a potential Line 5 spill. (B. Paulsen photo)



Ceded Territory SCIENCE

Ogaawag mortality associated with catch-and-release angling: a call to action for natural resource agencies and anglers

By Mac McPherson, Aaron Shultz, Cory Suski, & Adam Ray

The Anishinaabe people serve as stewards of the land, preserving and taking care of ogaawag (walleye) for current and future generations to come. Ogaawag is a vital source of sustenance to the Anishinaabe people through diet and culture. Ultimately, the knowledge and wisdom passed down by elders from generations ensure the spiritual connection lives on between ogaawag and the Anishinaabe people.

Throughout the Ceded Territory, ogaawag populations have been declining due to a variety of known and unknown factors. One factor is the warming of the atmosphere, which, in turn, increases water temperature in lakes and streams, and is a stressor for cool- and coldwater giigoon (fish). A compounding factor that can cause population-level declines in ogaawag is indirect mortality as a result of catch-and-release fishing regulations and practices (Image 1).



Image 1. An angler posing for a photo after exercising a fish and exposing it to air. The fish cannot breathe unless it is in water.

Currently, hooking mortality is accounted for by the Minnesota Department of Natural Resources in management of ogaawag population in Mille Lacs Lake; however, it is not directly accounted for by the Wisconsin Department of Natural Resources.

In 2023, a study was initiated to look at the impacts of catch and release mortality on ogaawag populations in Tenderfoot Lake. This study was led by Mac McPherson, a Menominee tribal member and a graduate student at the University of Illinois Urbana-Champaign, with the help of GLIFWC's inland fisheries biologists, technicians, and interns.

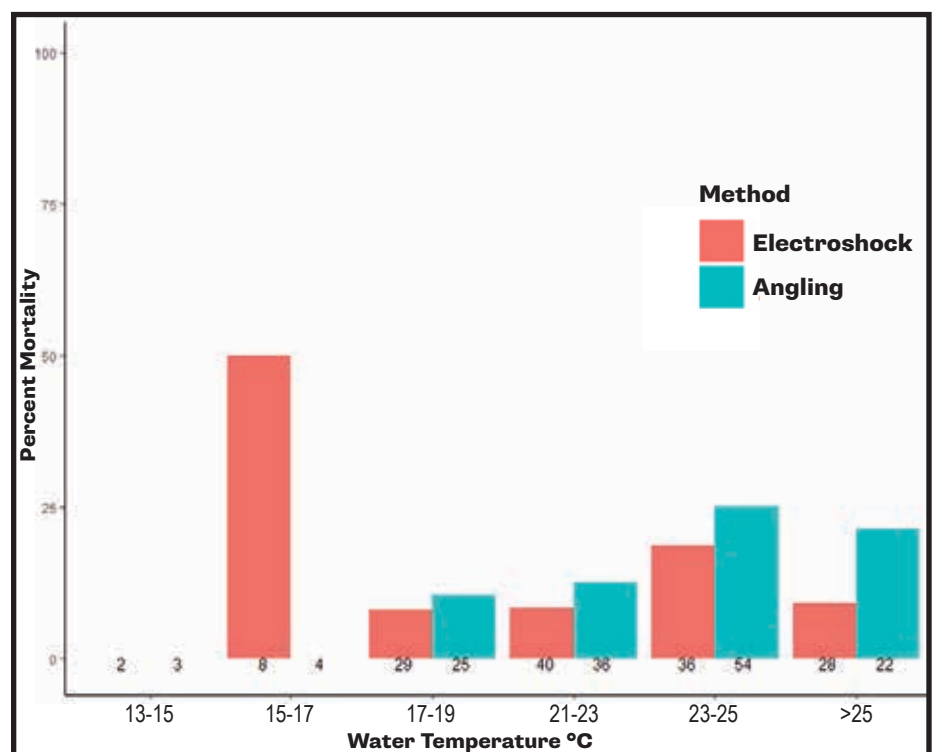


Figure 1. Mortality (%) of caught and released by hook and line (blue bars) or electrofished (red bars) ogaawag across a range of temperatures in the spring, summer, and fall in Tenderfoot Lake. Numbers on each bar indicate sample size.

The focus was two different handling techniques, angling (high stress) and electrofishing (low stress) at a range of water temperatures from spring through fall. Fish were held in a net pen for five days and monitored for mortality. After five days the surviving fish were returned to the lake.

Preliminary analysis indicates a relationship between water temperature, fish size, and mortality (Figure 1). As the water temperature warmed above 17°C (62.6°F), mortality increased for both angled and electrofished ogaawag. Size of the giigoon also played a role in mortality; 16.5% of the angled fish less than 38.1 cm (15 inches) experienced mortality whereas 18.6% of the electrofished ogaawag greater than 38.1 cm did not survive (Figure 2).

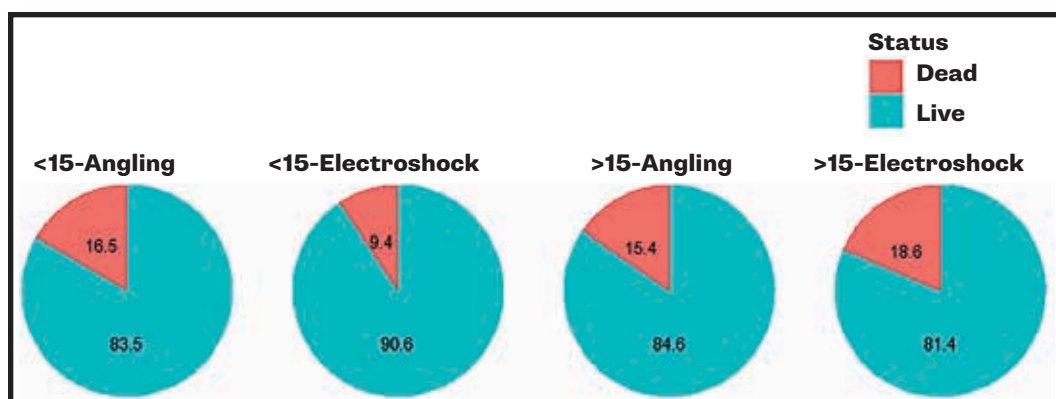


Figure 2. Mortality (%) of caught and released (hook and line) or electrofished ogaawag based on size across a range of temperatures in the spring, summer, and fall in Tenderfoot Lake.

These findings (i.e., handling ogaawag when water temperatures are above 17°C can result in mortality) need to be accounted for when determining the total amount of ogaawag that can be removed from a given lake in the Ceded Territories in the Upper Midwest, USA.

Overall, this study highlights another stressor (i.e., catch-and-release angling) that will increase the vulnerability of this being/species as the climate changes. Stewardship of this gift for future generations will require natural resource agencies to account for additional mortality associated with catch-and-release angling, and should be included in management decisions (e.g., ogaawag rehabilitation efforts) and regulations for anglers.

For example, a closed season for ogaawag could be initiated when the water temperature exceeds 17°C or, perhaps, bait restrictions (e.g., no live bait) could reduce catch rates when the water temperature is above this threshold.

In addition to changes in management and regulations, there is an opportunity to develop a best handling practices guide for anglers so they can be informed about how to increase the chances fish survive post release (e.g., decrease air exposure, catch fish at cool water temperatures). Through these efforts, we can help mother earth sustain ogaawag for current and future generations.

Mac McPherson, graduate student University of Illinois Urbana-Champaign
 Aaron Shultz, GLIFWC Climate Change Inland Fisheries Biologist
 Cory Suski, Professor, University of Illinois Urbana-Champaign
 Adam Ray, GLIFWC Inland Fisheries Biologist

Lac du Flambeau Hunter Safety Class

September 7 @ Lac du Flambeau Youth Center
 Hybrid Course • 12+ • \$10 fee for in-person portion

For online portion, go to WI DNR Go Wild (gowild.wi.gov) Log in → Manage Safety Education → Search for Class → hunter internet field day/Vilas county → Enroll

Complete online portion before field day. Course material: hunter-ed.com/wisconsin-hunt.

On field day, bring printed certificate of completion and \$10 fee. Dress for the weather!

More info: Warden Riley Brooks @ 715.562.0300 or rbrooks@glifwc.org



Walleye, the wilderness fish

By Mark Luehring, GLIFWC
Inland Fisheries Biologist

“Flag up!” I yelled to my friend across the frozen waters of a southern Wisconsin lake. The year was 1998 and we were picking up the last of our tip-ups as darkness descended and snowflakes drifted onto the glassy ice.

We were about to head back to the boat launch after a day of ice fishing for pike and panfish. Before we could grab the last tip-up, the spindle started slowly turning. He pulled the rig out, grabbed the line and set the hook. After a few big headshakes and some heavy pulling, we saw the fish under the hole. “It’s a WALLEYE!!!,” we both yelled.

We pulled the fish out and sat looking astonished at the healthy and plump 25” walleye that had chomped his shiner. This fish was a rarity in the lake we were fishing. Apparently years earlier, it was a good walleye lake with natural reproduction, but those days were gone long, the community now dominated by pike and bluegills.

Later that year, I took an ice fishing trip with another friend to a remote lake on the Wisconsin/Michigan border. I couldn’t wait to go up north and set some tip-ups. We had to take a snowmobile across the lake to a cabin on a peninsula.

When the sun began to fade near the tree line, our tip ups sprung to life. Multiple flags went up, and walleye were the main fish we were catching. A rarity in this lake? Not at all. Walleye were the dominant predator, and it was no surprise to my friend that they were what was biting.

The next summer, my friend and I loaded up his truck to take advantage of a Canadian fishing trip he’d won in a raffle. We drove north deep into Ontario. The roads turned from pavement to gravel, and the traffic dwindled to a few random logging trucks that didn’t seem to think sharing the road was entirely necessary.

We pulled up to a backwoods resort for a week-long stay. After a day or two, our host used a four-wheeler to trailer a boat down a two track for us to an even more remote lake. We found a mid-lake rock bar, and caught walleyes cast after cast, even in the bright sunshine. Another of my friends shared stories of a fly-in fishing trip he’d taken even further into the Canadian bush country. He caught one walleye after the next. The fishing was so good, it was hard to come home to southern Wisconsin and fish. The walleye were indeed abundant in the north country wilderness.

More development, fewer walleye

A quick Google search for walleye pictures seems to confirm the idea of walleye that we have in our minds. I had to scroll through quite a few pictures before I found one with someone holding a walleye that had any sign of lakeshore development in the background. Instead of houses, piers, high rises, and concrete, walleye pictures are full of natural backgrounds.



Natural shorelines provide high quality walleye habitat as well as productive fishing opportunities. In these wild, undeveloped areas, adult fish spawn, young hatchlings develop and all ages of fish use near-shore habitat to feed during their lifetimes. (CO Rasmussen)

INSET: As overdevelopment continues on inland lakeshores fish like walleyes suffer from habitat loss. (F. Luehring photo)



Scientists at the University of Wisconsin further confirmed the connection between walleye and wilderness in a recent paper. The manuscript, entitled “Lakeshore residential development as a driver of aquatic habitat and littoral fish communities: a cross system study,” was published in 2023 in the journal *Ecological Applications* (Perales and Vander Zanden 2023).

In this study, the scientists, compared the amount of development around 57 lakes in northern Wisconsin to the fish communities that were in the lakes. What they found was that walleye and lakeshore residential development are negatively associated. Specifically, there are fewer walleye in lakes that have more development, and more walleye in lakes that have less development. The exact mechanism for this could not be easily determined in the study, but we know that increased lakeshore residential development often results in destruction of nearshore habitat, potentially increased fishing pressure, increased pollution, and increased boating activity.

The Ceded Territories of 1837 and 1842 are water-rich areas. Thousands of lakes dot the landscape, and those who live in these areas depend on the water of the region. But because we love these waters, they are the first places in to be developed.

Recent maps using census data show that the bulk of development in the north country is on and around lakes. This development has been ongoing for (see **The Wilderness fish**, page 20)

‘Partners,’ special guests affirm commitment to Ceded Territory fishery

By Charlie Otto Rasmussen
Editor

The 31st rendition of the great interagency get-together, Partners in Fishing, convened at Lac du Flambeau, Wis. on June 6. Joining fishery professionals from federal, state, and Ojibwe tribal organizations, leaders from the State of Wisconsin attended to share a meal and enjoy a day of fishing the storied Flambeau Chain.

“This is a really good partnership that we have going. Native people have been partners with the land and water forever. We’re here to recognize that,” said Wisconsin Governor Tony Evers, acknowledging Ojibweg treaty-negotiated provisions to hunting, fishing, and gathering in the 1837, 1842, and 1854 treaty-ceded territories. “I believe in these tribal rights and responsibilities that they have taken on for forever. And they will continue doing that for forever.”

Ojibwe treaty tribes and the State of Wisconsin share management of the Ceded Territory fishery, home to more than 900 ogaa, or walleye lakes, scattered throughout the northwoods region. While the state, tribes, and



Governor Tony Evers holds a birch bark medallion by Nathan Gordon, Red Cliff. (JVS photo)

GLIFWC regularly coordinate seasonal population surveys and walleye research projects, Partners in Fishing serves as an informal setting for agency officials and biologists to network and expand professional relationships. For everyone involved, working to maintain a healthy walleye fishery in the face of climate-driven ecosystem changes and



On Lac du Flambeau’s Lake Pokegama, GLIFWC Inland Fisheries Biologist Adam Ray admires an ashigan (largemouth bass) he caught during the evening session of Partners in Fishing June 6. (CO Rasmussen photo)

riparian development is the foremost goal.

Since 1999, members of the Green Bay Packers have attended, promoting the merits of teamwork in accomplishing shared goals. A trio of Super

Bowl XXXI champions returned this year, engaging with natural resources Partners from Wisconsin, in addition to several guests from Michigan and Minnesota.

(see **Partners**, page 23)

Reclaiming the Game: Baaga'adowewin brings healing to Gichigami tribes and beyond

By Bay Paulsen
Staff Writer

Upon hearing the word “lacrosse” the first thing the average person might think of is the spectator sport played by college teams across the American Northeast.

They might picture the standardized field, plastic composite sticks, and bulky gear; teams playing on college fields surrounded by cheering onlookers, a Western game enjoyed by Western people.

They might not know that the modern style is derived from a game native people played across the continent for countless generations, often simplified in English as the “stick game.” Matches were observed and documented by French Jesuit missionaries in modern-day Canada, given the name “lacrosse,” and promptly condemned as “the foolish affairs of the Devil” wrote Thomas Vennum, Jr. in his book, *American Indian Lacrosse: Little Brother of War*.

Vennum continues to explain that by the mid-1800's, English colonists had taken an interest in the game, forming their own clubs and leagues, heavily modifying the game to better fit their own ideals. As its popularity spread, traditional teams from Haudenosaunee nations as well as from the Chickasaw and Choctaw nations became public spectacles, paraded around and made to uphold the “uncivilized” stereotype, as their version of the game was considered “untamed” by their European onlookers.

Through a long series of rules and regulations set in place to make it more difficult for native people to play lacrosse, as well as the poverty placed systematically upon their communities, native involvement in the sport with the English-speaking world was effectively stamped out. Additionally, the heavy-handed assimilation policy which tore kids from their families, communities, and culture helped to erase the game further, leading to today, when many people don't understand the origins of the game and will only picture the Westernized version when hearing the word “lacrosse.”

Lacrosse in Ojibwe Country

The Ojibwe game is called “baaga'adowewin,” a term that references the repeated sound of the sticks cracking against each other. The Ojibwe-style sticks, called baaga'adowaanan, are shorter than the standardized lacrosse sticks and have

Ba-Ga-Dwa-In or La Crosse Team, Odanah, Wis.



1918 photo of the baaga'adowewin or lacrosse team in Odanah, Wisconsin. (Ashland Historical Society Museum photo)

a smaller basket, just large enough to cradle a leather bikwaakwad, or ball, similar in size to a tennis ball. The sticks are hand-crafted from ash, and the basket is typically made from leather or sinew.

In the Ojibwe game, two teams each have a goal post, a white one placed Ningaabii'anong (in the west) and a blue one placed Waabanong (in the east), and the teams are named accordingly. The field does not have a standardized size or defined boundaries and will depend on a variety of factors, including the size of the teams, the heat of the day, the age and experience of the players, and length of the game.

To start, the players form a circle in the center of the field and raise their sticks. The ball is tossed up into the air, and with a war cry, the game begins. To score, the ball must simply touch the opposing team's post, however there is one overarching rule: the players cannot touch the ball with their hands.

While tribes like the Choctaw, Cherokee, Mvskoke, and Haudenosaunee nations were able to retain their stick games for ceremony and secular entertainment, the game was nearly wiped out from the Great Lakes Region, explained Biidaasige (Tom Howes), a stickmaker and member of the Fond du Lac Band.



B. Paulsen

A community game of baaga'adowewin was held at the Fond du Lac Reservation where almost 50 players of all ages and backgrounds joined the game.

His brother, Naawakwe (William Howes), added that native people had to play the game in hiding, if they played at all. They played in remote places or kept it indoors, simply tossing a ball with the traditional stick, but communities would have remembered the rules through oral tradition and teachings passed on by older generations.

“When I was growing up in Fond du Lac, this was completely gone. I'd never seen a stick like this,” said Biidaasige as he held one of his own baaga'adowaanan (lacrosse sticks). “In the early 2000's I started seeing games here and there. Then in 2017 these folks from the Twin Cities were growing the game with all the indigenous people who had been displaced there. It was a way for them to connect to their own culture.”

Both brothers teach the game to young ones in order to help revitalize it in Ojibwe communities, and Biidaasige is a baaga'adowaanan craftsman, having made hundreds of sticks by hand over the past few years. He taught GLIFWC employees how to play during their strategic planning conference at Big Sandy Lake in June, presenting many different regional stick styles and explaining where they come from. He first showed the Haudenosaunee stick, which the standardized lacrosse stick is derived from and most recognizable to the layperson; it's a long, two-handed stick with a wide basket. He also had Mvskoke and Choctaw sticks, which are smaller than even the Ojibwe sticks. They are two per player, one in each hand.

Biidaasige explained that baaga'adowewin is a healing game, given to the community by the manidoog (spirits) for health and kinship, and he believes in the importance of revitalizing the game for all Ojibwe people.

“We in Ojibwe country suffer from a lot of physical, mental—all these traumas and ailments. My hope for everyone is that they live a better quality of life,” he said.

Mashkiiziibing Baaga'adowewin

The youth of the Bad River Tribe (Mashkiiziibii) enjoy playing the sport every chance they can get on their field in Odanah, Wis. The Boys and Girls Club hosts the game for young kids every Thursday afternoon during the summer months, and the high school-aged players travel to games and tournaments at other reservations. The goal is to include young children in the activity, teaching them about their game and the significance of playing it.

“This is the first generation to grow up with sticks in their hands since the 1800's,” said Joy Schelble who works with Bad River youth and tribal food sovereignty and regularly plays baaga'adowewin with the kids. She and Joseph Gokee, Bad River member and stickmaker, along with the older kids, teach the young ones how to play in order to get them involved with their sport.

“We're working with the younger kids and teaching them so they can grow up with it,” said Eva Neveaux, 16, one of the players on the Bad River team. She and many of her peers have been playing since middle school or younger. Daniel Cadotte Jr., 11, and self-proclaimed finest baaga'adowewin player on the reservation, had been playing since he was six and will join the Bad River team when he is old enough.

“Joy taught me how to play lacrosse. She taught me how to carry this game with love and respect,” he said, explaining the obligation the players have to play without anger or frustration.

Players are consistently reminded to play the game with a good attitude and to work out their grievances with other players, whether on the same team or not, before getting on the field. (see Baaga'adowewin, page 22)



Fond du Lac member and stickmaker Biidaasige (Tom Howes) shows GLIFWC staff baaga'adowaanan (lacrosse sticks) and sticks of other regional styles. (B. Paulsen photo)



5-year-old Bagamwewe from Bad River plays baaga'adowewin and runs with the ball towards the Waabanong post to score a point for her team. (B. Paulsen photo)

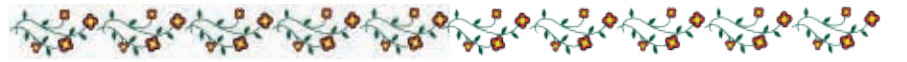


From left: GLIFWC employees Adam Ray, Ann McCammon-Soltis, Aaron Shultz, and Mark Luehring practice handling a tennis ball with a baaga'adowaanan (Ojibwe-style lacrosse stick). (B. Paulsen photo)



A summer full of interns

By Mikayla Swanson, Public Information Office Intern



Sixteen eager students from all over came to GLIFWC to spend their summer as an intern in various positions. The interns were able to partake in many ceremonies and learning opportunities throughout the summer, hoping that they can take some knowledge with them to wherever their paths lead.

Administration

There were two administration interns this summer. First, **Viddy Wabindato** is a native of the Bad River Band, going into her sophomore year studying anthropology and computer science at Notre Dame. Wabindato has not interned here before, but felt a strong pull towards coming back to her community to learn. "I was interested in the work that GLIFWC does, and it seemed like a good opportunity," said Wabindato. After the summer, Wabindato is going to lean more into the data and logistical side of anthropology studies.

Parker Krueger is the other half of the admin intern duo. Krueger is a member of the Red Cliff Band of Lake Superior Chippewa, and is an incoming sophomore at Northland College majoring in natural resources. This is Krueger's third summer here at GLIFWC, but his first being in an official intern role. "I haven't had internships here before, but I have had a Limited Term Employee (LTE) position. My first one being an invasive species control crew aid. The summer after that I had another LTE position under Gilbert in the biology department as a forest ecology aide," said Krueger. Krueger plans to continue at Northland College for his natural resources degree after this, despite the near-closure the college experienced recently.

Intergovernmental Affairs

L Wilkins is originally from the Green Bay area. Wilkins traveled up north to attend school at Northland College and spent the summer with GLIFWC as a climate change intern. "I went to Northland and I was a junior at Northland and I was majoring in Native American studies, but I'm transferring to Lawrence University for my senior year and I will be doing ethnic studies there." Wilkins said that many of their friends have done internships with GLIFWC and heard great things. "I really love going out in the field and watching the plants change from week to week with our phenology project," Wilkins said.

Before heading to the University of New Mexico in Albuquerque as a freshman, **Ireland Chosa** interned with GLIFWC in the Department of Intergovernmental Affairs. Originally from Chase, Michigan and a member of the Keweenaw Bay Indian Community, Chosa plans to study Native American Studies with a concentration in leadership and building Native nations and double major in political science and a minor from the Honors College.

Chosa decided to come to GLIFWC for an internship to get a feel if the career path she is choosing fits with what she wants to do. "Well, because I've been really focusing on policy for a long time and I kind of wanted to figure that out before I went to college."

Conservation Enforcement

Destiny Hering was a returning intern with the conservation law enforcement. Hering is a member of the Red Cliff Band of Lake Superior Chippewa Indians. Originally from Superior, Wisconsin, Hering decided to pursue a higher education at the Vermillion Technical College in Ely, Minnesota. "I decided to come to GLIFWC because I really liked GLIFWC my first year. I had no idea about GLIFWC until my dad was like 'hey I think you'd really enjoy this! I came back and was really excited because it allows me to reconnect to my culture after being away from it growing up.'" After the summer with GLIFWC, Hering is hoping to become a conservation officer.

Biological Services

Ethan Greene is a native of Ashland, Wis. and a member of the Bad River Band of Lake Superior Chippewa. This is the second year that Greene has come to GLIFWC during the summer, but first time in an intern position. "Last year I worked under Gilbert, I was just out in the woods every day as a forestry technician." This summer, Greene is an intern with the Biological Services Division. "It's nice to be outside after being in the city for eight months," Greene said. A student at UW-Madison double majoring in real estate and urban land economics and risk management and insurance, Greene decided to come back to GLIFWC because it's close to home and a fun experience.

Environmental

Lelia Elaine Burley-Sanford just graduated this past May from the University of Michigan Ann Arbor with a bachelor of science in environmental studies with a specialization in environmental chemistry and a minor in sustainability. Burley-Sanford chose to intern with GLIFWC because of a pair of books: "I became interested in learning more about the Ojibwe culture after reading a couple of books by Ojibwe authors, notably *Plants Have so Much to Give us All We Have to do is Ask* and, of course, *Braiding Sweetgrass*. These books were very validating to me, especially in my beliefs about all of life being the same as we are, including plants." After the internship, Burley-Sanford plans to return to Ann Arbor while continuing a pursuit in finding a full time position that aligns with their values, grad school might be on the horizon as well.

(see Teachings that will last a lifetime, page 15)



Viddy Wabindato



Parker Krueger



L Wilkins



Ireland Chosa



Destiny Hering



Ethan Greene



Lelia Burley-Sanford



Pawnee Doddridge-Hornett



Teachings that will last a lifetime



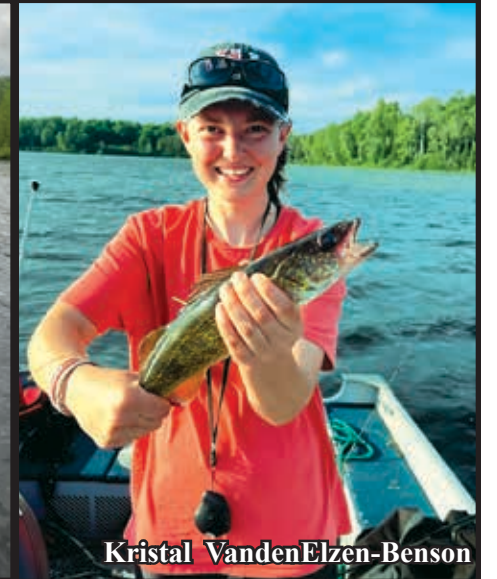
Tori Vosburg



Brayden Bender



Forest Gordon



Kristal VandenElzen-Benson



Greta Nashold



Shaniah Kagigebi



Mikayla Swanson

(continued from page 14)

Great Lakes

Bad River tribal member **Pawnee Doddridge-Hornett** spent the summer with the Great Lakes Section. Currently residing in Tomah, Wis., Doddridge-Hornett plans to attend Luther College, leaning towards an environmental science study. “Environmental sciences are so important, especially nowadays, so I thought I could get a head start in my career by interning at GLIFWC,” said Doddridge-Hornett.

Tori Vosburg is from Cloquet, Minn. and attends school at the University of Wisconsin-Superior. Vosburg will be a 5th year senior majoring in biology and environmental science with a minor in GIS. Vosburg grew up on the Fond du Lac Reservation, despite not being a tribal member. “One of my professors had actually sent me a link for this position, and with it being so much field work I thought it would be interesting to try it out,” said Vosburg.

Inland Fisheries

In the inland fisheries group, four interns spent their summer out on the water. **Brayden Bender** is a senior at the University of Wisconsin-Superior, studying biology and minoring in anthropology. Bender enjoyed the summer at GLIFWC interning with the inland fisheries for a few reasons. “It is a lot of fun because we get to go out on the boat and get paid to go fishing,” Bender said. Bender said that leaving this summer, there will be a lot of stories to tell. “Everytime we go out on the lake to fish we always come back with a story to tell. Whether it’s hooking into and losing a giant muskie, or fighting to pull in a fish just to realize it’s the littlest perch you’ve ever seen. There is always something happening out there!”

Forest Gordon is from Hancock, Michigan, currently majoring in ecology at Northern Michigan University in Marquette, Mich. Gordon is a member of the Red Cliff Band of Lake Superior Chippewa. “I’ve had an interest in environmental research and conservation for as long as I can remember, and when I was younger I attended Camp Onji-akiing and was introduced to GLIFWC. Since then, I’ve been attending camp as camper, junior counselor, and counselor, and continued my schooling with the idea that I am going to go work for or with GLIFWC,” Gordon said. After the internship is over, Gordon will just relax at home before the semester starts up once again.

Kristal VandenElzen-Benson is from the Green Bay, Wis. area and is a senior at the University of Wisconsin-Green Bay studying geoscience and water science. VandenElzen-Benson is interning with the Inland Fisheries this summer as well. Being the first time at GLIFWC, VandenElzen-Benson said “This internship has given me the opportunity to interact with a more diverse group of people than I would have gotten anywhere else.” After the summer with GLIFWC, VandenElzen-Benson will be starting research for an upcoming independent study on the effects that shoreline development has on the nutrients in lakes.

From Menomonee Falls, Wis., **Jimmie Drexel** is attending college at the University of Wisconsin-Stevens Point with a major in fisheries and water resource. Drexel was eager to intern with GLIFWC this summer. “I was job searching for internships and this position sounded like a good fit for me. It fit

my area of study and I was excited to finally work in my field,” Drexel said. Drexel’s favorite part of the summer was being able to do a hobby for work. But, the summer is coming to an end quickly. Drexel said “after the internship, my plan is to relax for the remainder of the summer and prepare myself for my last year of undergrad.”

Manoomin

Greta Nashold is from the small town Stoughton, about 20 miles outside of Madison, Wis. Nashold is an incoming senior at UW-Madison this fall, majoring in environmental studies and psychology with certificates in global health, German, and sustainability. A first time manoomin intern, Nashold said it felt like a “dream come true” finding this position. “I heard about GLIFWC and the manoomin program through word-of-mouth at a conservation retreat this past winter, and knew I had to apply,” Nashold said. Before coming to GLIFWC, Nashold had never fished. But finally got the chance to during strategic planning with some fellow colleagues. After the internship, Nashold plans to finish at UW and will look into getting a Masters degree, and hopefully will find a way back to GLIFWC.

Shaniah Kagigebi is from Hayward, Wis., a member of the Lac Courte Oreilles Band of Lake Superior Chippewa, and attends UW-Stevens Point as a senior majoring in biology with an emphasis in botany. While doing research for a project in plant ecology, Kagigebi found a manoomin intern position here at GLIFWC. “I love manoomin and I know that it is a staple food for us as well as ecologically important. I wanted to be part of the efforts to protect the rice,” Kagigebi said. After the summer, Kagigebi plans to finish their last year at Stevens Point and go on to get their masters in horticulture from UM-Twin Cities. Kagigebi also plans to go back to their community and help establish a food sovereignty garden.

Public Information

And now you’re probably wondering who I am. Well, my name is **Mikayla Swanson** and I am the Public Information Office intern. I recently graduated from the University of Wisconsin-Superior with a Bachelors of Science in multimedia journalism and a minor in marketing. I am a proud member of the Bad River Tribe, and I have enjoyed working within my community so much.

Throughout this summer, I genuinely learned so much about myself and my culture more than I could have imagined. I came in not knowing what to expect, and left with so much knowledge and understanding. After the summer I am officially thrown into adulthood. I will be looking for a full time job in a field that I can use my degree in and hopefully continue to grow both creatively and as an individual.





Navigating life in the Great Lakes Ceded Territories

(continued from page 2)

I didn't learn to be an expert witness in school

The first seven years of my time at GLIFWC (I actually worked for the Voigt Intertribal Task Force and was paid by Lac Courte Oreilles Band for the first year) were spent as an expert witness during several bouts of litigation in federal courts as well as a long string of interim season negotiations. Remember, until a final decision was reached in 1991, we had to negotiate each individual season annually. It was a time of high stress, but also some good fun.

For example, the time Jim Schlender recorded a session with the Wisconsin Department of Natural Resources. George Meyer, lead state negotiator, demanded a copy of the tape. So, during a break Jim took the cassette tape and put it on the photocopy machine, producing a paper copy of the tape. Jim left this copy for George when the meeting resumed.

Lawyers can be funny sometimes, like with Jim Schlender above, but I have seen that as one gets close to litigation days the stress levels increase dramatically. One of the Voigt litigation team told me that "litigation is a contact sport", meaning it is rough and tumble. I found this to be true. But one of my best memories as an expert occurred when testifying in the Deer Trial. I was going through what they call "voir dire", or my professional qualifications. When I started talking about my master's research in Ivory Coast, West Africa, Judge Crabb (who was the presiding judge in the *LCO et al. v. Voigt* case) started questioning me about my West Africa experience, what is a kob (a savannah antelope), just a few questions but a nice break from the tension in the room.

Continuing lifelong learning

My mother taught me the value of lifelong learning. I have tried to put this into practice. I am proud that I received one educational degree per decade for three decades. Those achievements comprised my formal educational experiences, but as my mother said, you can find lessons in all of life. I continue to learn. My wife Judy taught me that love can overcome everything, she also showed me how trees can teach you about life.

I have tried to pick up a little Ojibwemowin and thanks to Michael Waasegiizhig Price I have learned about this language. I have had several cultural instructors that helped me to better understand Ojibwe culture, people like Jason Kekek Stark (GLIFWC policy analyst), Tobasonakwut (elder from Treaty Three) and Jason Schlender (current GLIFWC executive administrator). I hope that this lifelong learning continues.

Animals don't read your books, Dr. Gilbert

I have too many letters after my name (BS, MS, PhD, some people say 'Bull Sh_t, More Sh_t and Piled Higher and Deeper). All these letters imply that I know a lot about wildlife. One day I was explaining the relationships among wolves, coyotes, and foxes.



Gilbert examines a sedated fisher. (GLIFWC photo)

The theory goes that coyotes out compete foxes, but wolves out compete coyotes allowing foxes to find places to live.

I was explaining this theoretical relationship in sugarbush at Red Cliff when George Newago says to me: 'Gilbert, those animals don't read your books'. He was remarking on seeing all three species in the same area. I wanted to explain about territories and inter-territorial spaces and how this enabled the three to be around each other. But I soon realized that George was right, ecological theories are just that and no theory is 100% right. So, make observations on your own, regardless of what the books say. You can always change the books.

Leading from the back has value

I have heard that 'leading from the back' is not something that true leaders do. But my perspective on this conventional wisdom is informed from my experience running sled dogs. Me, the musher, is on the sled at the back. The team is out in front. I am leading them, from the back. This works well as long as the musher and the team are all on the same page and working together to get to where we are going. It requires teamwork, a common objective, and the willingness to pull together.

This model (sorry, I just love models) has informed my leadership style at GLIFWC. We in the Biological Services Division have tried to implement a 'share leadership model' of working together. No single leader. All people are empowered to make decisions and their decisions are respected whether I agree with them or not. As long as we all have the same objectives and are all pulling together, we will get to where we are going. Leading from the back does have value and can lead to success (thank you, doggies).

Six essential elements when working with indigenous people

Several years ago, I was asked to provide a lecture to graduate students in ecology at the University of Minnesota about how to work with and do research with Indigenous people. This was a challenge and I looked back at my career and came up with six essential elements in working with Indigenous people. These elements came from my life experiences. Communication, early and often; Respect for the culture; Empathy for the people and their perspectives; Flexibility in adjusting research methods in the face of cultural input; it takes Time to develop relationships and to practice respect and empathy; and finally Humor, a critical element.

Humor has been important in my relationships with tribes. It all started one day, early in the 1984 when Neil K, Jim S. and I were playing a round of golf after a negotiation session with the State. I was eager to prove myself and saw a distinct browse line in the hemlocks lining the fairway. I had noticed lots of deer pellets under the trees and so remarked that there must be lots of deer here (as a browse line is indicative of over abundant deer). Jim asked me how I knew it was deer creating the browse line I pointed to what I thought was one of those piles of deer pellets. But it turns out that it was a pile of hemlock cones. Oh boy did that get a laugh, and of course Jim had to tell all the tribal reps about how our new biologist could not tell the difference between cones and pellets. That story has served me well over the years. Humor is wonderful.

Lines versus grey areas

Nature hates lines. Nature likes gray areas rather than lines. Things in nature do not go along swimmingly until a certain point (a line) when all of a sudden bad things happen. But I have learned over the years that regulators need lines. A contaminant is OK until it hits the line, then it is bad. But nature does not work this way. This is a frustration sometimes for me.

But I do think about a line in my work with the Ojibwe. I have been privileged to learn about and to even participate in cultural activities with my friends and colleagues. But as I say in my introduction in Ojibwe, I am just a white guy from New York, not an Ojibwe person. I can appreciate Ojibwe culture but should not appropriate that culture. But where does appreciation turn into appropriation? At what point am I going too far in my cultural appreciation? Where is that line? This has been a constant struggle for me. I do not want to go past the line, but I want to understand and appreciate all that I can in the Ojibwe world view. But perhaps here, as in nature, there is no line, just gray areas. Nature can teach us much.

Judy was my rock through all of this

I cannot finish my story without a word about Judy, my life partner. She took a chance with me, moving from East Lansing to Lake Tomahawk in 1984. I had nothing, dead broke, but she came with me (I had to even take her car after just two days in Wisconsin to go with John Olson to see deer yards in northern Bayfield County, leaving her alone in a cold house with tons of unopened boxes). Judy has been my rock through all these years, all of these lessons, all of the good times and hard times. Without her there would be no Jon as you know him now. Please take a moment to recognize her and her contributions.

Gechi-apiitendaagozid

The final honor that I have received from GLIFWC is my new designation as gechi-apiitendaagozid (one who is greatly respected). This new status at GLIFWC is designed to acknowledge the continuing contributions of those who have dedicated their journey to GLIFWC and its member tribes. I hope that I am just the first in a long line of such respected elders. I continue to feel greatly honored by the Ojibwe people.

Bohman selected to head BSD

Alexandra Bohman officially took the reins July 1st and is just the 4th Director of GLIFWC's Biological Services Division, in the organization's 40-year history.

"The way I approach leadership is through building—building relationships and building trust," said Bohman. Although she accepted the role in May, she spent most of the summer working closely with retiring director, Jon Gilbert, Emeritus.

Born and raised in Michigan, Bohman is a member of the Walpole Island Nation, Ontario and grew up on Hansen's Island in the Bkejwanong "where the waters divide" Territory between Lakes Erie and Huron.

GLIFWC's Board of Commissioners Chair, Jim Williams of Lac Vieux Desert said, "One thing that really stands out about Alex is her level of experience in the field." Bohman has worked for the Commission as a forest ecologist since 2010.

—JVS

Rediscovering the “Anishinaabe Baby”

By Jenny Van Sickle, Staff Writer

In a welcome blast from the past, *Mazina'igan* caught up with Valerie Ross Zhawendaagozikwe.

Back in 1991, GLIFWC photographer Amoose snapped a picture of infant Ross during a powwow at Fond du Lac. The poster, “Anishinaabe Baby” was published with the Chief Seattle quote, “Preserve the land for all children and love it...” in 1991.

Ross Zhawendaagozikwe is Coast Salish/Duwamish, Ojibwe, and Dakota who grew up between the ocean and evergreens of the Pacific Northwest. She is an enrolled member of Muckleshoot Indian Tribe of Washington State and is an enrolled member of Long Plain First Nation, Treaty 1, Manitoba, Canada, and descendant of the Fond du Lac Band of Lake Superior.

Just before starting high school, Ross moved to the land of 10,000 lakes to be closer to her paternal side of the family in Cloquet, Minnesota. As a student at Fond du Lac Ojibwe High School, Ross entered the American Indian Science & Engineering Fair. Her project, “Chemical Properties of Ledum Groenlandicum (Mushkiigebug) explored the organic elements of swamp teas and earned her 2nd place in the national competition.

When she was ready to head back to school, she never strayed too far from home or her love of science. At FDL Tribal & Community College, Ross' work shined at the Environmental Institute.

Courtney Kowalczak, Director, Environmental Institute at Fond du Lac Tribal and Community College, watched Ross grow with each challenge, “She started working on various projects, including the SnowEx project with NASA, and really became a leader during the Nimaawanji'idimin Giiwitaashkodeng, traditional Ishkode (fire) field work,” said Kowalczak.

NASA's SnowEx project studies snowpack and run off. Ross went on to complete an internship with NASA at their Goddard Space Flight Center in Greenbelt, Maryland. Kowalczak remembers noticing Ross lean into her path during the fire research project.



Valerie Ross then and now. (JVS photo)

“This is where I saw her grow as a mentor, and gain more confidence as a researcher, especially a researcher on her own terms,” said Kowalczak.

In 2023, Ross was named FDLTCC's Student of the Year and was selected to give the commencement speech during their graduation ceremony. Ross earned her A.S. in Environmental Science, an A.A. in American Indian Studies, and a Certificate in Ojibwe language.

Today, Ross is back in school and working on her bachelor's degrees in biology and environmental sciences at the University of Wisconsin-Superior. To complete her summer internship, Ross pulled on her waders to map the details of wetland habitats across the St. Louis River Estuary in partnership with the State of Wisconsin Cartography Office and the Lake Superior National Estuary Research Reserve (NERR).

“Cartography essentially documents the ecology, function, and development of coastal areas with geo-tagged information to better prepare communities against hazards that shoreline communities are more vulnerable to,” explained Ross.

In late July, Ross took a brief break from field work to paddle in memory of those lost during the Sandy Lake Tragedy with her cousin (and fellow student) Ashla Ojibway.

Kowalczak emphasized the importance of Ojibway and Ross' strong support and shared experience in higher education, “You can't talk about Val without talking about the relationship and mutual support she has with Ashla Ojibway. I look at them as a wonderful example of how relationships, and community makes a such an impact on students pursuing their dreams.”

While Ross doesn't know what the future holds, she fondly recalls her work as a certified, practicing tribal doula; her work with new families and infants felt special. Ross said, “That's an area of work where I'd like to incorporate more use of plants and medicines.”

Ross' picture was republished for *Mazina'igan* 2008-2009 Biboon cover, and for GLIFWC's 2009 calendar.

Dikinaagan teachings

(continued from page 1)

Participants traveled from across Anishinaabe Country, including both expecting parents as well as those who may welcome babies in the future. Dr. Church graciously offered his skills to the event by providing the cradleboards. Additionally, the LVD Health Center Family Wellness Program provided excellent leadership in coordinating for the event, providing a meal for all participants, and supplying blankets to accompany the cradleboards.

Dikinaagan teachings

Dr. Church started the event in a good way with an opening prayer before he gave a brief history of the cradleboard and regional styles, his experience becoming a craftsman, and how he began using the cradleboard to raise his children. He explained the many ways parents will decorate their boards with paints, woodburning, and staining to give a personal and spiritual touch to their babies' first experiences in this life.

Holding up one of the cradleboards for the group to see, Madison shared teachings given by some communities. She explained that while the artistic touches parents often choose to decorate their boards hold a very special place spiritually and symbolically, the board itself is not an art piece. It's not meant to sit in museums or be used as decoration; the cradleboard is an item of utility and is meant to welcome new babies into the world or as a teaching tool.

In Anishinaabe teachings, Madison explained, our bodies are temporary vessels for this lifetime, but our spirits are eternal. Before we are born, our



Cradleboard workshop participant Mary Lynn practices swaddling and placing a doll onto a board. (B. Paulsen photo)

spirits travel here from the Land of Everlasting Happiness by walking along the Pathway of Souls, seen in the night sky as the Milky Way. On this journey, we pass by the spirits of elders who are going the other direction. Therefore, it is our young children and our elders who are closest to divinity and must be held in high regard and taken great care of. The cradleboard accomplishes this for our young ones by introducing them to the world gradually.

Human babies, compared to many other creatures, are born helpless. They are not up and running like newborn horses. Instead, they must be held and cared for as carefully as they were in the womb until they are old enough to begin exploring the world as separate beings. The cradleboard keeps babies secure, safe, and comfortable while parents carry them on their backs or prop them close by to do their work. The babies are secured in the position that is safest for them to sleep, and they are constantly building strength by testing small movements against the gentle pressure of the swaddle.

“The cradleboard is not here to replace our arms. It's not to put them in 24/7 and go off to do whatever we want. We're still holding our babies, breastfeeding them, rocking with them. The cradleboard is practical for us because it gives a safe space when we need to do things,” said Madison.



Dr. Casey Church provided his skills as a cradleboard craftsman to the workshop by providing the boards for participants to practice with and take home.g. (B. Paulsen photo)



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

Agwajiing, ninzaagitoon. Gichi-gigizheb. Gitigaaning, indizhaa. Mandaaminaak(oon), niwiikobidoon(an).
 Gaye, ingiw mashkodesiminag, nimanibinaag. Gaye, ogosimaanag nimbimiwinaag.
 Ingiw "Niso-nimiseyag" gitigaaning, maamawi anokiiwag. Ninzaagi-toon naawakweg.
 Niminwendam ishkwa-naawakweg. Iwidi, nimbimose meg-waayaak. Nindebaabamaa a'aw wadiswan-migiziwag.
 Minwendamoog zaaga'iganing, gaye. Onagoshing imaa, ninamadab niminaawaandawaaganing. Nimiigwechiwendam.
 Apekish menoseyeg gaye, waawiyebii'iganing. Mii'iw, gichi-miigwech.

(Outside, I love it. It is early morning. To the garden I go. Ear(s) of corn, I pull it (them). Also, those beans, I pick them.
 Also, squash, I carry them along. Those "three sisters" in the garden, together they work. I love it when it is noon.
 I am happy when it is afternoon. Over there, I walk in the woods. I check him/her and inspect that eagle's nest.
 They are happy at the lake, also. In the evening, there, I sit on the dock. I am thankful.
 I wish you all goodness/wellness also, in the circle. That's all, big thanks.)

Bezhiig—1

OJIBWEMOWIN (Ojibwe Language)

Double vowel system of writing Ojibwemowin.
 —Long vowels: AA, E, II, OO
 Waabooz—as in father
 Miigwech—as in jay
 Aaniin—as in seen
 Mooz—as in moon

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

—A glottal stop is a voiceless nasal sound as in A'aw.
 —Respectfully enlist an elder for help in pronunciation and dialect differences.

Minikwen!
 —S/he drinks it!
 Nibi—H2O water
Niminikwe.—I drink.
Giminikwe.—You drink.
Minikwewag.—They drink.
 Niminikwen gegabe-giizhik.
 —I drink *IT* all day, every day.
 Ganabaj ningodwaaswi dasonaagaans.
 —Maybe 6 cups.
 Gaye, ingoding ni-minikwen iniw waashkobaagamigin.—Also, sometime I drink those (sweet) soft drinks/pops.
Biindigen!—Come in!
 Makade-mashkiki-waaboo(n) ina?
 —Black-medicine-liquid(s) Coffee want it?
 Doodooshaaboo na?—Milk?
 Noobaajigan ina?—Baby bottle?
 Minikwedaa! Let's all drink!

Niizh—2

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

A. Agim! Nindagimaag. Gidagimaag. Miigwech miinawaa.
 B. Daga noongom agindaason bezhigo biinish midaaswi.
 C. Noongom agim ingiw bezhizhooniyaansag imaa.
 D. Zhooniyaa. Zhooniyaansag. Zhooniyaawaabik.
 E. Gigii-ishkonaag ina zhooniyaawigamigong imaa?
 F. Ishkon! Inga-ishkonaan Nindasigizhooniyaawe.
 G. Miigwech, mii'iw.

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



Niswi—3

IKIDOWIN ODAMINOWIN (word play)

DOWN:

- 1. three
- 2. I go
- 3. to/in the garden
- 5. together

Across:

- 4. they work
- 6. eagle
- 7. after
- 8. over there



ininaatigobag (oon)
maple leaf (leaves)

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

Niiwin—4

Aaniin minik? -How much?
Onzaam. Onzaam niibiwa.—Too much. Too many.
Gaye niin.—Also me.

VTI: Nana'inan!—Fix it, put it away/order!
 Ninana'inaan.—I put it away in order.
 Ginana'inaan.—You put it away in order.

VAI: Miigiwe.—S/he gives things away.
 Nimiigiwe. Gimiigiwe.
Miigiwewag.—I give away. You.... They....

Anishinaabeg Ojibwemodaa!
 —You all-Let's all speak Ojibwe!
 Speech patterns are helpful!
 There are four verb types; each has their own rules/patterns to create speech. Learn "Root" verbs and more of each.

- 1. _____ minikwe. Giin ina?
- 2. Minikw _____ ina iwidi?
- 3. Baamaa _____, ningiizhkaabaagwesii noongom.
- 4. Jo! Aaniin ezhi-ayaayan? _____gii-wiidige na? Howah!
- 5. VAI is a : _____.

Learn VAI "S/he verbs" and patterns to speak of actions/feelings for I..., You..., They..., We..., and more.

Gi-
Gaawiin
Ni
Verb—Animate—
Intransitive.
Root—S/he verbs.
—wag

Translations:

Niizh—2 A. Count him/her! I count them. You count them. Thanks again. B. Please now count one up to ten. C. Now you count them those 10¢/dimes there. D. Money. Coins. Metal coin. E. Did you save your money at the money bldg./bank there? F. Save him/her! I will save it. I save/collect for a donation. G. Thanks, that's all.

Niswi—3 Down: 1. Niswi 2. Indizhaa 3. Gitigaaning 5. Maamawi Across: 4. Anokiiwag 6. Migizi 7. Ishkwa 8. Iwidi

Niiwin-4 1. I drink. You? (Ni) 2. They are drinking over there? (wag) 3. Later. No, I am not thirsty now. (Gaawiin) 4. Jo! How are you? You got married? (Gi) Wow! 5. VAI is a Verb- for Animate/living- and Intransitive/doesn't take a noun. Root VAI's: S/he...does or feels; Also spoken for I..., You..., They... We... feel/do something.)

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

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Giwii-baaga'adowe na? Do you want to play lacrosse?

The game baaga'adowewin, also called lacrosse, used to be played only by Native people on Turtle Island (North America), but when European missionaries and colonists began living here in the 1600's, they wanted Native people to stop playing.

They thought the game was bad and that people who played were too violent. They didn't know that it was a good game given to tribes by the manidoog (spirits) to help them avoid wars and other conflicts.

Then, in the 1800's, the settlers wanted the game for themselves, so they took it, changed the rules to suit themselves, and made it really hard for Native people to play.

Soon, the original game stopped being played commonly in the Great Lakes region, but now, Anishinaabe people are playing again to honor their history, the manidoog, and their communities.

APAGIDOON—THROW IT
OMAA—HERE



Color the baaga'adowewin picture.

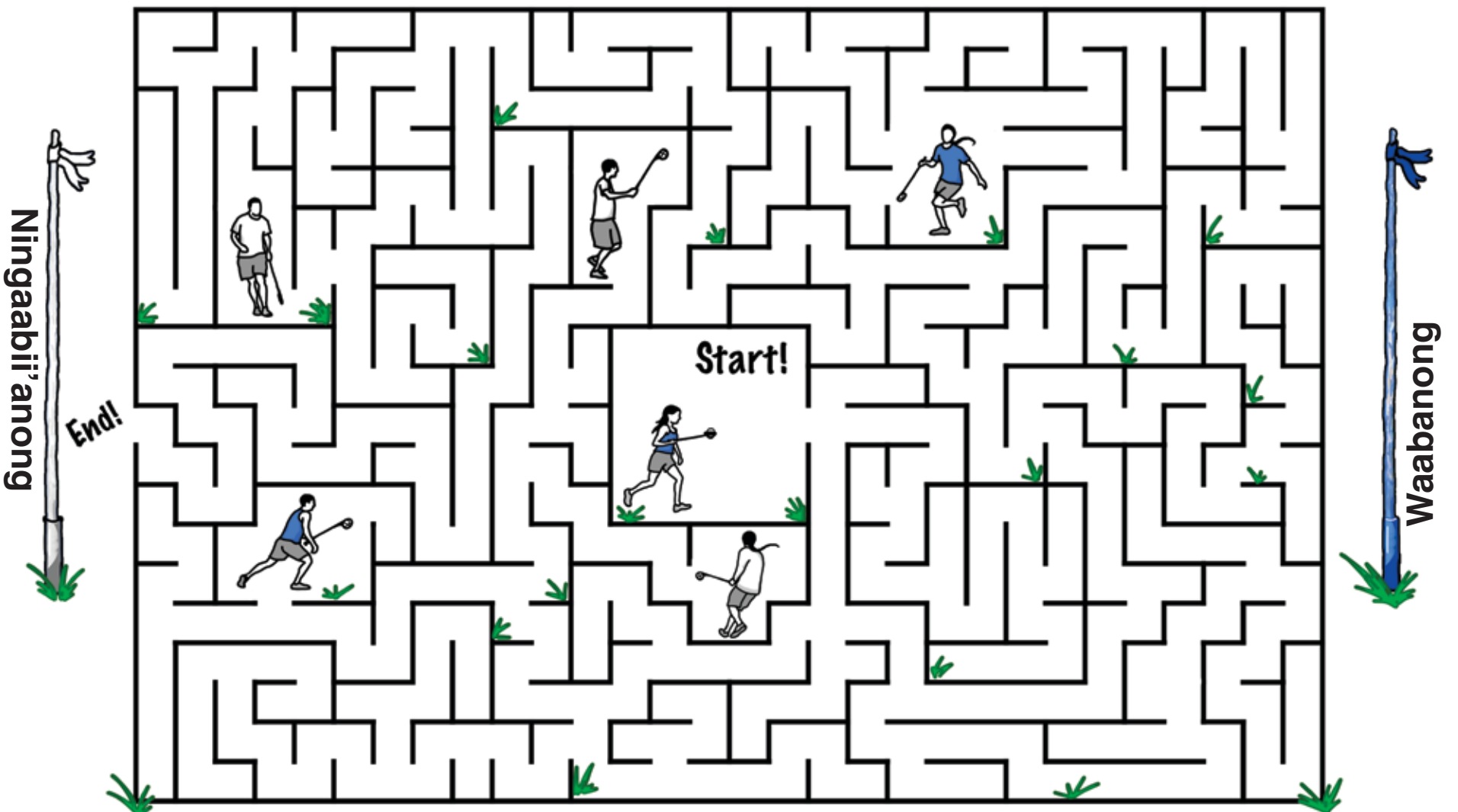


Early 19th century Native American baaga'adowaan.

Maze instructions: "You are on team Waabanong (blue), and you have the ball in your baaga'adowaan (lacrosse stick)! Run and touch it to team Ningaabii'anong's pole to score!" (answer on page 22)

Ojibwemowin

- waabanong—in the east
- ningaabii'anong—in the west
- baaga'adowaan—lacrosse stick
- baaga'adowewin—lacrosse
- baaga'adowewinini—lacrosse player
- baaga'adowe—s/he plays lacrosse



(baaga'adowewin graphics by B. Paulsen)



Interns explore natural remedies

By Bay Paulsen, Staff Writer

During the fourth week of June, the summer interns at GLIFWC kept their hands busy picking and processing medicines that were used during the 2024 Healing Circle Run. They picked wiingashk (sweetgrass) near Lake Gogebic in Michigan and gathered many components for apaakozigan (kinnikinnick or traditional tobacco mixture) near the Moquah Barrens in the Chequamegon-Nicolet National Forest.

The Healing Circle Run is an annual tradition in which several communities gather for a week-long prayer for healing. It connects 10 Ojibwe nations across three states, and participants run or walk a collective 725 miles. Each day begins and ends with a pipe ceremony in which asemaa (tobacco) is smoked to send prayers skyward.

“They used to use commercial tobacco,” said Jenny Krueger-Bear, GLIFWC’s executive assistant, who has been helping with and organizing the annual Healing Circle Run for many years. She explained that at the end of the long week, many of the runners would become sick from daily use.

So, a system was set in place in which a traditional asemaa (tobacco) mix could be made by GLIFWC’s summer interns specially for the event. It’s both gentler on runners’ lungs and gives the interns a chance to work hands-on with gathering and processing traditional medicines.

This year, the interns began by gathering sweetgrass from a roadside population in Upper Michigan where they picked two basketsful, which was then brought back to the GLIFWC main office and braided. “Our medicines are growing in abundance this year,” said Kathy Smith, one of the leaders and teachers who helped with the sweetgrass gathering.



Interns Parker Krueger (left) and Ethan Greene gathering wiingashk (sweetgrass). (B. Paulsen photo)

Kathy Smith and Dawn White, both GLIFWC biologists and Ojibwe Ikwegwag showed the interns how to put tobacco down and ask permission for the grass to be picked. They also explained that sometimes the grass will be brown or look to have been eaten by bugs. Those pieces should not be taken because that medicine has already been claimed.

The interns spent two days picking and braiding the sweetgrass, and more than enough was prepared for the Healing Circle Run.



Interns, led by Miles Falck, gathered around the table to sort and pick stems out from last year's dried medicines in the GLIFWC offices. (B. Paulsen photo)

Finding the right blend

The GLIFWC crew spent the next day gathering medicines in the Moquah Barrens for the asemaa mixture, led by Miles Falck, Oneida citizen and Wildlife Section Leader. They were searching for bearberry, mullein, and sweet fern. Harvesters also picked wintergreen for tea making.

Everything gathered from this day is dried for a year, and the medicines that were processed this year are what was gathered by the previous year’s interns.

Back at the office, GLIFWC interns picked stems out of last year’s dried medicines and scraped inner bark from fresh red osier dogwood branches that had been brought in.

According to the teachings Falck gave the interns, the three main components of a traditional asemaa mixture are tobacco, bearberry, and inner bark of the dogwood, and the interns practiced mixing them together as well as adding sweet fern, mullein, and sweetgrass clippings.

Everyone also enjoyed wintergreen tea brought in by Lori Lemieux, GLIFWC’s Manoomin Wiidookaage (she who helps with the wild rice) and Bad River member whose family picks a lot of wintergreen for tea making.

The interns enjoy this experience year after year, appreciating the chance it gives them to slow down and participate in traditional cultural practices. “It’s one thing to read about sweetgrass in a book,” explained Climate Change intern L Wilkens, “but it’s another thing to get out there and do it. To have that connection between you and the earth.”

Thanks to the interns and coordinators, the 2024 Healing Circle Run had plenty of good medicine to use in ceremony to start and end each day in a good way while keeping the runners safe and healthy.

(M. Swanson contributed to this article)



Manoomin opportunities

(continued from page 3)

As Kathy noted, June storms seem to have had notable impact on many rice beds. Still, there should be a number of good picking opportunities across Ceded Territory in 2024!

Ground surveys began the last week of June around the Mille Lacs area of the Minnesota 1837 Territory. Large patches of rice were uprooted on Sullivan Lake (Morrison County), but beds still looked decent enough to rice and extended west well into the Platte River. Platte Lake, immediately northeast of Sullivan, showed similar abundance and, unfortunately, similar storm damage. Rice in western portions of the 1837 Territory of Wisconsin seem to have felt similar impacts from June. Clam Lake’s (Burnett County) western bed receded somewhat from 2023, but it should still be a worthwhile visit.

Further east, rice beds in the 1842 Territory of Wisconsin too have felt the weather, but overall impacts seem less—at least through my optimistic eyes. The Big Lake Thoroughfare (Oneida County) and Island Lake (Vilas County) should be reliable picking spots, and Aurora Lake (Vilas County) looks absolutely beautiful for another season!

Ground surveys will continue into the summer, and aerial surveys are slated to begin the first week of August. GLIFWC’s website will be updated with the latest outlooks for ricers, as well as lake opening dates.

As ricing season nears again, we offer a heartfelt chi-miigwech to manoomin for its teachings and to all the harvesters who help to steward this gift in a good way each season.

—BB

The wilderness fish

(continued from page 11)

a century and is happening one house at a time. Lakes that were previously considered to have a true ‘up north’ feel are beginning to look like lakes that are near population centers. Houses, garages, sheds, and lawns are replacing pines, hemlocks, maples, oaks, birches, spruces, and tamaracks on the shoreline. Rainwater is beginning to rush into the lakeshore, bringing sediments and pollution with it instead of splashing on leaves and filtering through forests, wetlands, and groundwater before joining the lakes. In the nearshore areas, rocks, gravel, and fallen trees are being replaced by boathouses, lifts, docks, sand, and silt. All of these changes have far-reaching effects on aquatic communities.

These changes happen one house and one shoreline stretch at a time. Rarely do plans exist to fully develop lake shorelines. Rather, shorelines become fully developed over time as the result of dozens of individual actions.

A new house is built on the west side of the lake. Next to it, an old rickety cabin becomes a shiny new mansion. A resident on the east side clears trees from the shoreline for a better view, and dumps sand in the shallows for better swimming. On the south side, a resort expands their pier system to accommodate recently built cabins and 10 new shiny boats. A landowner on the north divides up their parcel and sells three lots to three different families looking to build their own lakeshore home and create their own slice of paradise. This is the course being charted by individual actions, seemingly unconnected.

And that brings us all the way back to that wilderness fish, the walleye. Just as they were once abundant in that southern Wisconsin lake, but were a novelty by 1998, so they are becoming a novelty where they were once abundant in many Ceded Territory lakes in the north.

Walleyes are experiencing a widespread decline in many lakes where they were once the most abundant predator. The wilderness of the north that used to surround so many lakes is diminishing one piece at a time. The walleye are providing a warning sign to us. Do we want them to stay? What will we leave for their children, and for ours?

References

Perales, K.M., M.J. Vander Zanden. 2023. Lakeshore residential development as a driver of aquatic habitat and littoral fish communities: A cross-system study. Ecological Applications. E2896.



Healing Circle Run unites ten tribes

#2024hcr

The annual Healing Circle Run (July 13-19) is a week-long prayer in which participants collectively traverse over 700 miles of road, connecting 10 Ojibwe nations in a counterclockwise loop.

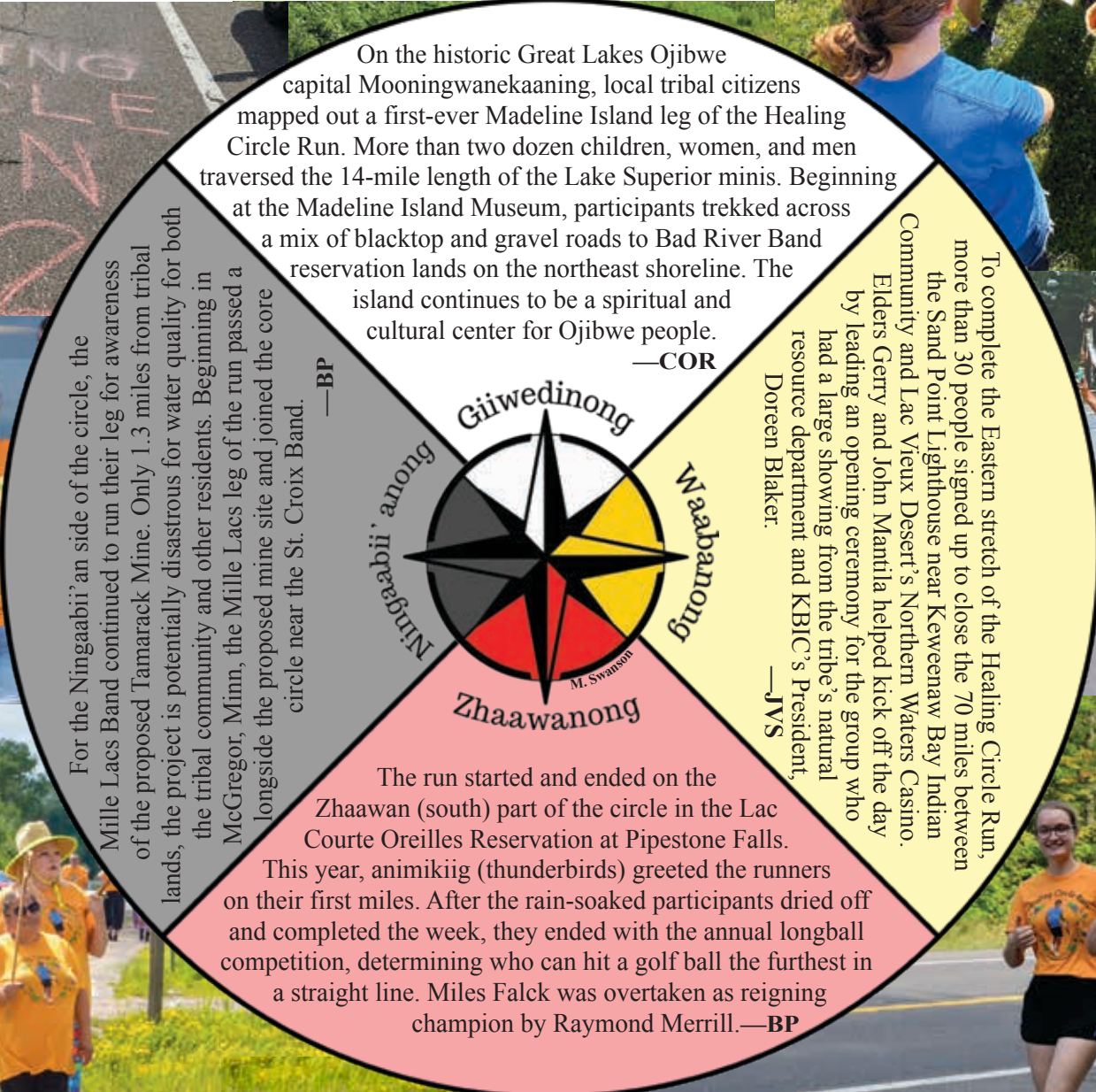
This year, the Bad River Band added more than 10 miles to their stretch when over two dozen runners walked Mooningwanekaaning-minis from the Madeline Island Museum to Bad River's reservation lands.

The Mille Lacs leg began in McGregor, MN, near the proposed site of Talon Metals Corp.'s nickel mine, to continue raising aware-

ness about the mine's danger to their waterways and homelands.

Each year, the run begins and ends at the sacred site of Pipestone Falls on the Lac Courte Oreilles Reservation where the opening and closing ceremony is conducted. Likewise, each day of the run starts and ends in ceremony.

"Every step we take is a prayer." The words of Eugene Begay Sr. have echoed throughout the Healing Circle Run since its beginning. The runners pray for healing for themselves, their families, their communities, their nations, and the earth.





Dagwaagin! It's time to hunt and gather food in preparation for the long winter months. Nigig and his friends are harvesting and finishing manoomin (wild rice).

Aaniin ezhichigewaad? (What are they doing?)

Write the correct Ojibwemowin word from the list below on the line under each image that describes the activity shown.

asemaake	gaapizige	mimigoshkam
gaandakil'ige	ziigwebinan	wiisini
biinichige	nooshkaachige	bawa'am

Listen to and read along with a story about Nigig and friends venturing out to harvest manoomin at glifwc-inwe.com/dagwaagin.html.

(she/he knocks rice)

(she/he poles a boat)

(she/he pours things out)

(she/he winnows rice)

(she/he eats rice)

(she/he cleans things)

(she/he parches rice)

(she/he jigs rice)

(she/he makes a tobacco offering)

(answers on page 23)

Baaga'adowewin in the Ceded Territory

(continued from page 13)

"If you play in a hurtful way, it brings bad energy to the game," said Evan Neff, a senior in high school who also plays on the Bad River team. "If we have somebody with bad energy, we tell them to go take a break and come back with better energy."

This makes it clear how the game can be healing for individual players as well as entire nations. Not only are they exerting physical energy and keeping their bodies healthy, but they are learning how to set down anger and hold onto love for the game, their communities, and themselves.

"When I play, it quiets my mind," said team member and high school senior, Preston Oja. "You get to have fun with everyone, it's just a fun game. You can feel the joy—scoring, talking to people, playing for somebody."

This is evident in seeing how they play; laughter permeates the air as players run hard, jump for the ball, and dodge their opponents. Words like "Omaa!" (Over here!), and "Apagidoon!" (Throw it!) can be

heard in between the cheering and laughing. They are proud, knowing they honor their history, ancestors, and the manidoog by playing their ancient Ojibwe game, and in doing so, they are healing their minds, bodies, and communities.

On July 27, the Bad River baaga'adowewin team played in the second annual Gichigami-baaga'adowewin Aazaabandaagewin, the Lake Superior Baaga'adowewin Tournament at the Fond du Lac Reservation in Minnesota, where they held their place as reigning champions for the second year in a row.

This tournament was a "gift game" which is a common way to play. Players bring gifts and anyone who scores a point may select one. Gifts include anything from baaga'adowaanan, to medicine bundles, to t-shirts and miscellaneous trinkets; and in the spirit of giving, anyone who wins one is encouraged to give it away.

Prior to the tournament, a community game was held, in which players of any age or ability could pick

up a stick and join. There were almost 50 people on the field, young and old, native and non-native.

One of the youngest was 5-year-old Bagamwewe from Bad River who can often be found playing with the older kids in Odanah. Like the other players her age, she was not shy about going after the ball and scoring points for her team, all while being cheered on by players from both sides.

For the Bad River team as well as others playing for their own communities, the game of baaga'adowewin holds a very special place in their hearts, and they truly appreciate what it means to be able to play openly and proudly as Anishinaabe.

"It's stuck around for how many hundreds of years?" pondered Gunnar Crowe, one of the players for Bad River and a senior in high school. "It has been adapted into the modern lacrosse, but at the same time we have been able to stick to these traditions. We can use our traditional sticks and our traditional balls, and our youth have the opportunity to play in the exact same way our ancestors did."



The Bad River Baaga'adowewin team plays with GLIFWC staff during their strategic planning conference. GLIFWC's Jonathan Gilbert runs in the background. (JVS photo)

Baaga'adowewin maze answer from page 19



Manoomin Wiidookaage (Wild Rice Helper) in support of wild rice



Born and raised in Old Odanah in far northern Wisconsin, Lori Mae Lemieux is a Bad River member from the bear clan and belongs to Three Fires Midewiwin.

As GLIFWC's first Manoomin Wiidookaage (Wild Rice Helper), Lemieux joins the Biological Services Division with support from the America the Beautiful grant to work on protecting and restoring wild rice.

Lemieux has fond memories of dancing manoomin in Mashkiiziibii (Bad River) when she was just four-five years old in her grandma's back yard. By the time she was 11, she remembers getting out into a canoe to harvest rice and fish.

After graduating high school in Flandreau, South Dakota, Lemieux spent a handful of years in the Twin Cities area. In 2000, Lemieux earned her first of two associate degrees from LCO University in business administration. She completed her second associates in native studies in 2006.

After a start in the gaming industry, Lemieux switched gears to work for Bad River Natural Resources Department under the direction of Ervin Soulier as an Administrative Assistant. Lemieux's work in the NRD taught her the importance of interpersonal relationships with local, state, and federal agencies, as well as overseeing grants, contracts, and accounting.

As a member of Bad River's repatriation committee, she travelled across Turtle Island assessing articles of tribal importance at museums, universities, historical societies, and national archival collections. In 2017, Lemieux joined Bad River Education Department as the Indigenous Arts & Science Coordinator where she focused on bringing together families and communities with UW-Madison and Wisconsin DNR to integrate traditional knowledge into local school district programming.

At GLIFWC, Lemieux joins Wildlife Section's wild plants program with Genawendang Manoomin (She Who Takes Care of the Wild Rice) Kathleen Smith in archiving, research, and outreach initiatives for wild rice. She's looking forward to a busy 2024 manoomin season and putting her experience to work for GLIFWC's member tribes. —JVS

Enforcement division adds warden for Wisconsin Ceded Territory

David Bonlander grew up south of the Ojibwe Ceded Territory in the traditional homelands of the Potawomi, Sac, and Fox tribes. From the community of Fond du Lac, Wis, Bonlander spent most summers fishing and boating on Lake Winnebago and hiking just about every park in the Fox River Valley.

Between playing baseball in the spring and lacing up his skates for hockey practice during the winter, Bonlander stayed busy preparing his bow for deer season in the fall.

Immediately following high school graduation, he left for college at the University of Wisconsin Stevens-Point. In 2022, Bonlander completed Mid-State Technical College's 720-hour Law Enforcement Academy and earned his bachelor's degree in wildlife ecology & management with minors in conservation law enforcement and biology in 2023.

"As a conservation warden, I'm looking forward to protecting fish and wildlife in the Ceded Territory," said Bonlander, who describes working for GLIFWC as being at the perfect intersection of a teacher and a student. "I'll be able to share my love and respect for the outdoors with the people I serve, while learning more about how science, research, and tribal leadership protect our natural resources."

GLIFWC conservation wardens are stationed across the three-state Ojibwe Ceded Territories of Minnesota, Wisconsin, and Michigan. Through conducting outreach education and enforcing tribal off-reservation conservations codes, wardens work closely with Ojibwe communities throughout the year. When Bonlander completes his field training, he will be stationed near Lac Courte Oreilles, Wis. —JVS



Partners in Fishing

(continued from page 11)

"Every year that I'm blessed to be here with you is just wonderful," said retired Packers fullback William Henderson, who was joined by Dorsey Levens and Gilbert Brown. "You do a great job with the fishing. Being together and working together is really the way to go."

The latest gathering marks the 14th time that Lac du Flambeau hosted the event, said Partners co-founder Bob Jackson, a retired Bureau of Indian Affairs biologist. When he and Discover Wisconsin's Dick Rose launched Partners in 1993 near St. Germaine, they had less than a dozen participants.

This year, Jackson said, more than 180 were in attendance, representing 36 different entities between the tribes, states, and federal government; local fishing guides rounded out crew and helped the Partners land a wide assortment of fish from bluegills to northern pike.

Jackson reeled in the longest catch of the day in the form of a 23.5-inch walleye.



Partners in Fishing co-founder Bob Jackson with the catch of the day: a 23.5-inch walleye from the Flambeau Chain of Lakes. (submitted photo)

Mikwendaagoziwag



(continued from page 1)

edy, those government officials issuing supposed lawful orders that treaty tribes must travel far to the west of their homelands to receive payments due for land cessions to the United States, were on the minds of many in the talking circle.

Making a return visit to the annual Mikwendaagoziwag Ceremony, Ojibways of Onigaming elder Fred Kelly said while Canada and the United States make laws and impose them on native people, those governments should know in turn that Anishinaabe people have laws too.

"I speak to the young people when I say we encourage you, we stand behind you to go and get that education and master that education," Kelly said. "I myself had made up my mind that I was going to learn their language [English] and try to master it as best as I can so I can debate with you, argue with you, and try to convince you in a kind way. And that, really is trying to talk with them about our laws."

Kelly said that Anishinaabe law is revealed in ceremonies; there, people learn that they belong to the land; the land does not belong to them. This concept and many more are important for all people to understand, including indigenous attorneys that engage with non-native governments, he said.

The US Army Corps of Engineers occupies and operates a dam at the site where the Mikwendaagoziwag Memorial rests. Since the first ceremonial gathering of GLIFWC and Ojibwe tribes in March 1999, the Corps has demonstrated thoughtful leadership at Big Sandy Lake that lays a roadmap for Federal and Crown agencies alike to follow.

"I'm thankful for the opportunity to recommit to the importance of ceremonies like today, recommit to the importance of the relationships that are among us today because there's lots of important work to do," said Deputy District Commander Major Joshua Rud, speaking on behalf of the Corps' pledge to engage Ojibwe tribes in a good way. "And we do recommit, so the next generation has an example to follow."

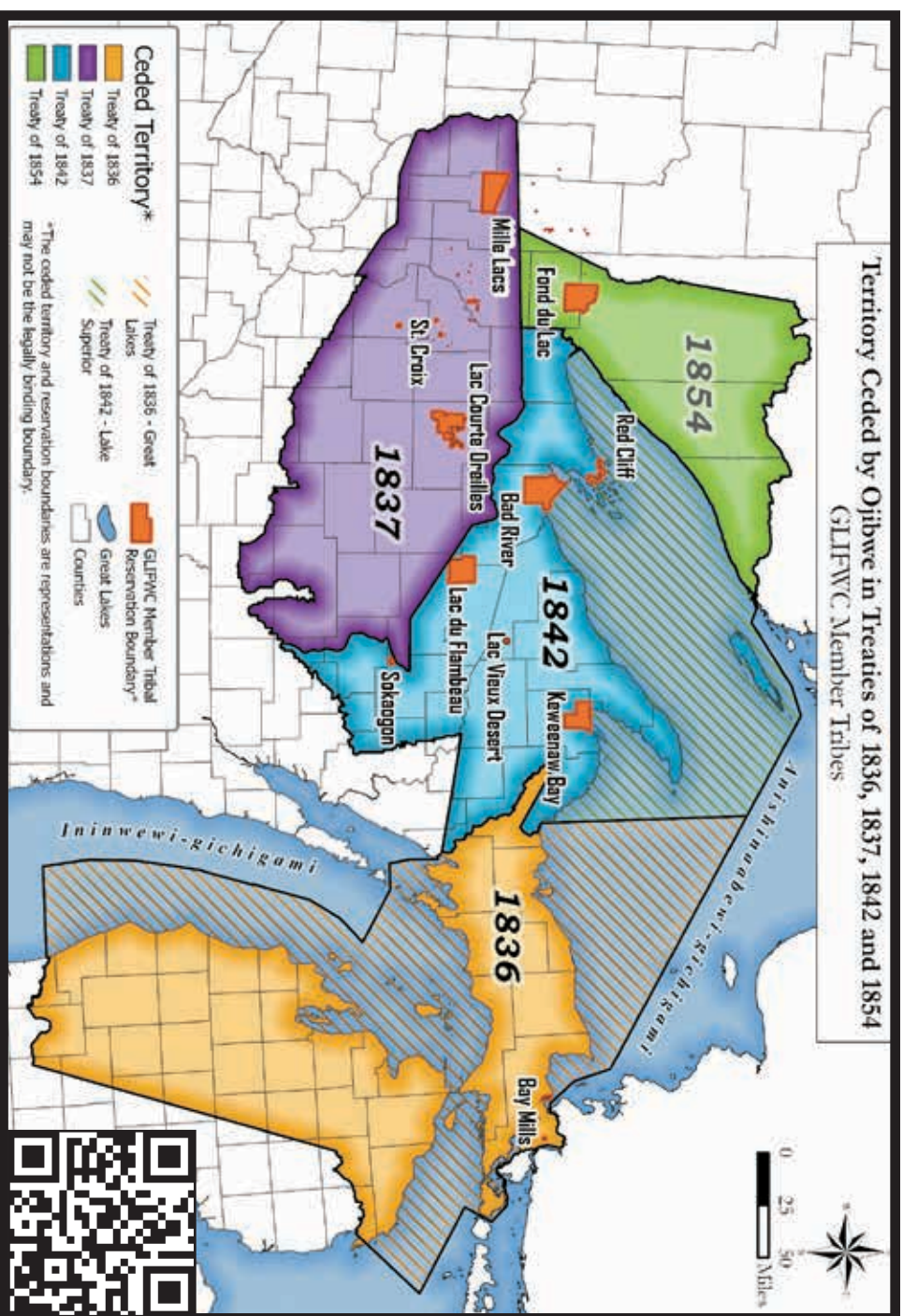
Page 22 answer key: s/he knocks rice —bawa'am; she/he poles a boat—gaanakii'ige; s/he winnows rice—nooskaachige; she/he pours things out—ziigwebinan; s/he makes a tobacco offering—asemaake; she/he eats rice—wiisini; she/he cleans things—biinichige; she/he parches rice—gaapizige; she/he jigs rice—mimigoshkam



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Community well-being, native teachings shine in Ojibwe “Providers”

Look for the first episode of our new video series Gwetamigozijiig (The Providers) online and on GLIFWC social media platforms.

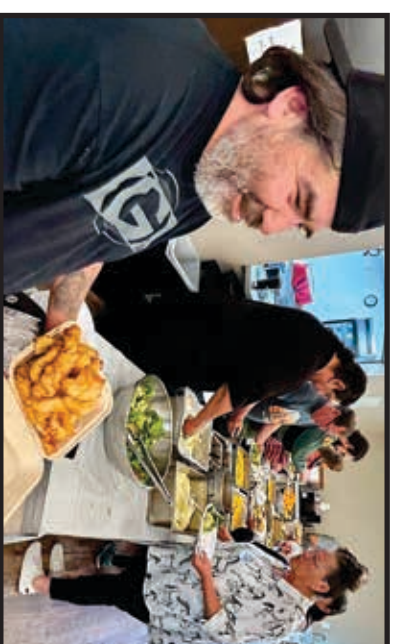
Gwetamigozijiig: Spring-time Oga Spearfishing explores the Ojibwe communal approach in harvesting walleyes and other fish during the short spring season.

Drawing cues from nature, traditional ecological knowledge

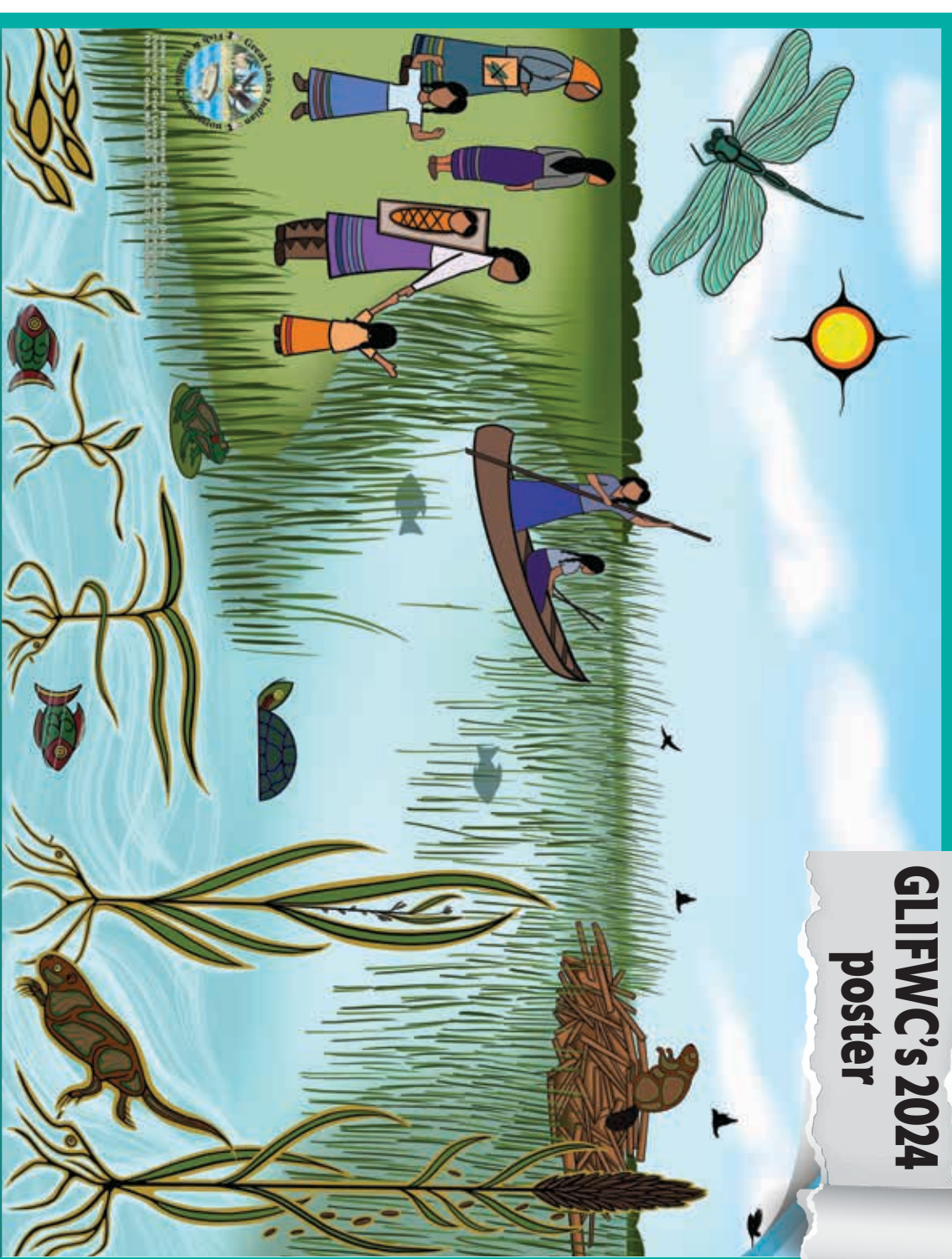
guides young and otherwise able bodied Ojibwe people to Ceded Territory lakes to harvest food for the wider community, including tribal elders.

Youth from St. Croix and Lac Courte Oreilles appear alongside elders, service providers, and knowledge-keepers in a firsthand look at maintaining both traditional practices and healthy diets in Ojibwe

Country. —CO Rasmussen



GLIFWC's 2024 poster



DAGWAAGIN 2024

INSIDE:

Healing stamp sand's legacy
Baaga'adowewin comeback
For oga, wilder is better