Mazina'igan

A Chronicle of the Lake Superior Ojibwe

Published by the Great Lakes Indian Fish & Wildlife Commission

Spring 2017

Permits, harvest up in 2016 waawaashkeshi hunt

By Travis Bartnick
GLIFWC Wildlife Biologist

The most deer harvested by tribal members on a single day occurred on November 19, coinciding with the state of Wisconsin's gun deer season opener.

Following a reprieve during the relatively mild 2015-2016 winter, the waawaashkeshi (deer) population seems to be doing fairly well, and the 2016 off-reservation deer hunt turned out to be successful for many tribal members this year.

Overall, the number of deer permits issued was up slightly from 2015 (by about 121 permits), and the off reservation tribal harvest was up compared to 2015 (by about 241 deer).

A total of 9,276 permits were issued to tribal members throughout the season. Of those issued permits, 705 tribal members harvested a total of 1,744 deer throughout the Ceded Territory (Figure 1). This included 1,040 antlerless, 697 antlered deer, and 7 registered as "unknown."

Tribal hunters harvested deer from 39 counties within the Ceded Territory. This included 23 counties in Wisconsin, 12 counties in Michigan, and 4 counties in Minnesota.

Four counties in northwestern Wisconsin accounted for over half (51%) of the total off-reservation deer harvest. Those counties included Burnett, accounting for 21% of the harvested deer, Bayfield (15%), Douglas (8.3%), and Sawyer, with about 7% of the total harvest. The most active and successful part of the hunting season occurred between October 22, 2016 and November 28, 2016, accounting for just over 60 percent of the total deer harvest.

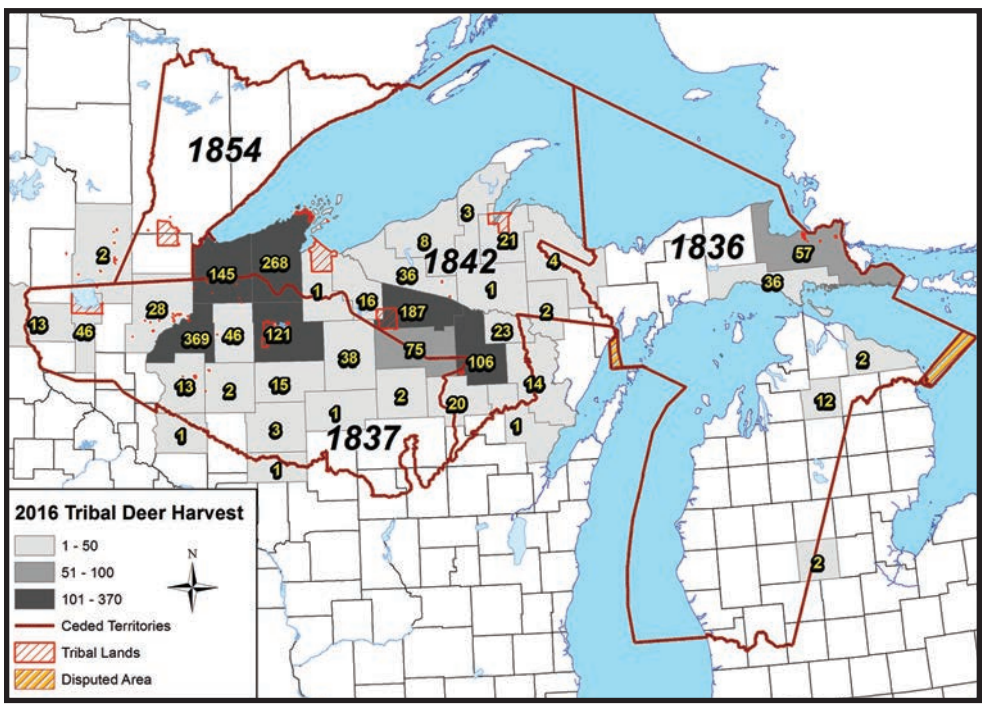


Figure 1. Distribution of waawaashkeshi (deer) harvest by GLIFWC member tribes during the 2016 off-reservation tribal hunting season, summarized by total deer harvested in each county.

Retaining youth, government policies challenge Japan's bear culture

By Charlie Otto Rasmussen, Editor

In the rugged high country of northeastern Honshu, Japan, a Matagi hunter raises a warm black bear hide before a jagged range of snow-capped mountains. Head bowed, he thanks the animal for its sacrifice and offers up prayers to the Mountain Goddess. Once complete the ceremony delivers the spirit of bear to the ancient deity—a being endowed with resurrection powers.

"After she takes back the soul of the bear, another one can be created," said Mitsu Takahashi, University of Toyama professor.

The bear life cycle and associated rituals are central to Matagi culture. Because the goddess is known to be an "ugly lady," Matagi women steer clear of the forested mountains during hunts to avoid inciting her wrath with their "beauty." Hunting in groups of six, men communicate through a variant language called "mountain tongue" to conceal their intentions from the keen ears of animals.

Brown bear on Hokkaido. (photo by Hiromi Taguchi)

But things are changing. As modern society increasingly drains Matagi communities of young people, traditional bear hunting and the rituals that go with it are in jeopardy of fading away, Takahashi said. On his third visit to the Ojibwe Ceded Territory, Takahashi led a six-man delegation to the GLIFWC central office December 7 on a cross-cultural exchange. Among the group, a pair of elder Matagi hunters shared their belief systems along with related challenges that many resource-based native people face in the 21st Century.

"We want to pass on these rich resources to the generations after us," Mitsuo Matsuhashi said though Takahashi. "Conservation for the future is very important."

Traditional hunters and the Ministry of the Environment are often at odds over wildlife, said Takahashi, a law professor. He went on to explain divergent views between government authorities and Matagi leaders. While traditional people see springtime Asian black bear hunts as a spiritual endeavor, Japanese policymakers take a pragmatic, sometimes steely approach to

(see Japan's bear culture, page 3)

Early Ziigwan treats

Fiddlehead ferns, great in soups.

Maple Syrup, great with everything.

Youth-inspired revolution generates hope for our future

By Michael J. Isham, GLIFWC Board of Commissioners Chairman

There's a revolution sweeping through Ojibwe Country. It's not about politics or subversion. This is a revolution of native youth reclaiming a birthright—and a treaty right—to live Anishinaabe lifeways. This gives me hope in what are truly historic, challenging times.

Some seven generations ago, our grandfathers wisely secured the legal right to pursue our lifeways via treaties with the United States that reserve access to the natural resources on our ancestral homelands.

We as Anishinaabe people are defined in so many ways by our relationships with Akii's gifts. Our identity is tied to such things as manoomin beds, upland maple forests, and clean, bountiful waters that feed our bodies and our spirits. All of our relations in the natural world were named long ago in the Ojibwe language. All are part of the web of life that supports and sustains us pitiful two-leggeds. We must be ever grateful to the animals and plants that sacrifice themselves for us. And we must use these gifts to support our communities.

No street gang can rival the Anishinaabe Nation. Who is more powerful: the young man who bullies his family and neighbors with violence, or the one who hunts waawaashkeshi to feed his family and neighbors, or to provide for a naming ceremony?

What of a young woman, practiced in gathering medicines, a skilled healer? No street drug can ever approach the satisfaction that comes with elevating the lives of your people. Traditional ecological knowledge wins every time.

I see this treaty-rights revolution happening within families and at seasonal camps sponsored by individual tribes as well as GLIFWC. Youth are learning when to trap, how to skin the hide-even roasting that muskrat, a dish common at Ojibwe dinner tables not that long ago. Akii provides us with many gifts. Young people are taking note, learning and embracing the ways that have been with us for millenia. When our babies learn who they are, then they will know that they belong to a great "gang"—the Ojibwe Nation.

To maintain momentum on this path, it is so important that the federal government continues to stand with the Anishinaabe. Congress and the President must stay faithful to their treaty obligations and trust responsibilities. They cannot take for granted the benefits the United States gained from all that we were compelled to give up in the treaties. This means protecting our ancestral homelands, both on and off-reservation, supporting self-governance and self-determination, and helping fund basic services for tribal communities.

United States treaty promises have been reaffirmed for years by the courts and on a bipartisan basis by many Presidents and members of Congress. There simply is no reason to change course now in what has been, and should remain, a powerful partnership that continues to benefit all citizens.

As for the youth-fired revolution in Ojibwe Country, we're just getting started. All of us, young and old, have a great deal to learn from our elders, the knowledge-keepers. Our ancestral homelands abound with the gifts that sustain our spirits, our bodies and our communities. Treaty rights are more than a means of surviving in the physical sense. They are a means of reinforcing our Anishinaabe identity and of securing our future. I have high hopes for our future!

Isham is Chairman of the Lac Courte Oreilles Band of Lake Superior Chippewa.

Tribal Off-Reservation Birch Lodge-Pole Harvest Regulations in the National Forest and on WI State Land

- A permit is required for cutting birch lodge-poles (available at the tribal conservation department)
- Each permit is valid for 75 trees
- Tribal members must carry their tribal ID
- Only 50% of the trees of a particular species within a given area may be harvested
- Trees may be a maximum of 5 inch diameter at breast height

Great Lakes Indian Fish & Wildlife Commission

For permit information call (715) 682-6619 or visit www.glifwc.org

(Images by Wesley Ballinger)

Retiring St. Arnold made his mark in Michigan and beyond

After nearly 40 years in service to Ojibwe tribes and treaty rights, Nigaani Giizhig—widely known by his English name, Jim St. Arnold—is easing into retirement. While the Keweenaw Bay Indian Community member formally retired from GLIFWC this past winter, he has committed to limited term consulting work, developing standard operating procedures for GLIFWC's internship program, training staff, and preparing private foundation applications to maintain and expand GLIFWC's Ojibwe language program.

After serving in the United States Marines, St. Arnold became increasingly involved in treaty rights and engaged in widespread advocacy for native people with organizations including Michigan Indian Child Welfare Agency and Inter-Tribal Council of Michigan. From the late 1970s into the early 80s, he served on KBIC tribal council, ultimately becoming chairman at the same time treaty tribes were creating GLIFWC.

In ziigwan 1988, Nigaani Giizhig joined the GLIFWC staff, traveling throughout the Ceded Territory and beyond to educate the public about treaty rights. Much of his time would center on his role as Administration for Native Americans Program Director where he developed outstanding grant writing and implementation skills.

The GLIFWC Board of Commissioners formally acknowledged St. Arnold at a meeting in Lac Courte Oreilles January 24. A number of tribal representatives and close friends were on hand to honor St. Arnold with gifts including Dennis Jones and Nancy Jones (pictured with St. Arnold). *—CO Rasmussen*

Ceded Territory news briefs

Good elk hunting for Bay Mills in Lower Michigan

In the 1836 Ceded Territory, the Bay Mills Indian Community issued four omashkooz (elk) harvest permits to tribal hunters for the 2016 elk hunt. Of these four permits, one bull and three cow permits were made available. Bay Mills members successfully filled all four elk permits.

During the first hunt period, one cow was harvested in August and one bull was harvested in September. During the second hunt period, another cow was harvested in December. The third cow was harvested during the tribal season in late December. *–T Bartnick*

Aging Line 5 under increased scrutiny

The Bad River Band formally joined other Ojibwe tribes concerned about the environmental threats posed by a pipeline that spans the Ceded Territory. Citing potential risks to both natural and cultural resources, the tribal council passed a resolution calling for the decommissioning and removal of Enbridge's Line 5 within the Bad River Reservation.

Constructed in 1953, the 30-inch diameter fuel line runs from Superior, Wisconsin to Sarnia, Ontario, lying exposed in the water at the bottom of the Straits of Mackinac—one of the most ecologically sensitive areas in the Ceded Territory. *—CO Rasmussen*

(continued on page 10)

Japan's bear culture

(continued from page 1)

management, conducting mid-winter hunting seasons while bears are hibernating. Matagis also lament the volume of "damage control" permits issued by local authorities, which results in killing unsustainable numbers of bears by using traps.

"Bears are a gift, something that's given to [Matagi people]," said elder Shigemi Saito. "Everyone in the village has a right to benefit from a bear." To illustrate, the visitors played a video depicting the division and distribution of a recently harvested black bear at a ceremony. Using a rope with a complex series of loops, the hunt master invites villagers to select a random loop which, once unfurled, determines what cut of meat or organ a person receives. In this way, the "goddess" decides how the animal is shared.

In the mountains of Honshu a Matagi hunter conducts a ceremony with a bear hide to send the animal's spirit to the Mountain Goddess. (photo by Hiromi Taguchi)

North of the Matagi homeland, the Ainu people of Hokkaido also revere native bears added anthropologist Hiromi Taguchi. For many Ainu people, the island's brown bears—relations to North American grizzlies—are seen as gods.

Preserving native culture

GLIFWC and its member bands also face some of the same issues as traditional Japanese said Executive Administrator James Zorn. To help counter the outflow of youth from Ojibwe lifeways, GLIFWC sponsors events that promote language, culture, plus how-to lessons on harvesting natural resources under reserved treaty rights. Zorn went on to stress the importance of "having a seat at the table" with government agencies—to get into a position to effectively advocate for the needs of native people. "We have many similarities," said Matsuhashi. "I will share what we have learned with our people back home."

On the cover

All ages take to the field for a Lacrosse match. Lacrosse, known as the Creator's game, brought people from Bad River, Red Cliff, and surrounding communities to winter camp in Odanah. *(Photo by Hannah Stonehouse Hudson)*

Correction: Myron Burns Sr. appears with an old winnowing machine, not a threshing machine in the Biboon 2016-17 *Mazina'igan*.

CWD detected on deer farms near Mille Lacs Reservation

By Travis Bartnick, GLIFWC Wildlife Biologist

Chronic wasting disease (CWD) was recently detected at two deer farms in Minnesota, according to a recent press release from the Minnesota Board of Animal Health. One of the deer farms is located in Crow Wing County, just a few miles to the northwest of the 1837 Ceded Territory boundary, and about 20 miles from the Mille Lacs reservation.

After the discovery of the two CWD-positive deer, another deer tested positive at another deer farm in Meeker County. An investigation determined that the deer that tested positive at the Meeker County private deer farm was born on the CWD-positive Crow Wing County deer farm and was transported to the Meeker County deer farm in 2014. Both private deer farms are currently under a quarantine. Additional investigations have determined that one of the two CWD-positive deer at the Crow Wing County deer farm was born at the Crow Wing County deer farm, and the other had been born at a deer farm that is no longer in operation.

In addition, movement records out of the CWD-positive Crow Wing County deer farm indicate that several deer were moved to four other Minnesota deer farms in the past five years. Movement restrictions remain in effect at all associated deer farms. In addition to the CWD-positive deer recently detected at private deer farms, two wild deer in southeastern Minnesota have also tested positive in recent months.

CWD is a disease that affects cervids such as deer, elk, and moose. The disease is caused by an abnormally shaped protein known as a prion. The prions can cause damage to brain and nerve tissue. CWD is always fatal and there are currently no known treatments or vaccines. CWD is likely transmitted when infected animals shed prions in saliva, urine, feces, or from their tissues when the infected animals die. Human activity (transportation of live or dead deer) is likely a major cause of the spread of CWD.

The prions can remain in the environment for an indefinite amount of time, and they are extremely difficult to destroy. Prions can bind to soil and research indicates that some plants can bind, retain, uptake, and transport infectious prions. This means that CWD can potentially be spread by transporting crops (e.g., hay and other livestock feed) grown in CWD-infected areas. There are no known cases of CWD infecting humans, but health experts generally caution people to avoid eating meat from CWD-infected animals.

Choose smaller Mille Lacs pike

By Sara Moses, GLIFWC Environmental Biologist

As with any fish from Ceded Territory waters, northern pike from Mille Lacs do have some mercury in their tissues. Pike are predatory fish that sit near the top of the food chain and they can therefore accumulate enough mercury that it limits the amount of fish that can be safely consumed. The good news is fish from Mille Lacs tend to have mercury levels that are lower than many other Ceded Territory lakes.

GLIFWC tested mercury in northern pike from Mille Lacs in 2013 and 2014. The data collected was analyzed to see what the consumption advice might be. The results of this analysis indicated that children under 15 and women of childbearing age limit their consumption of northern pike from Mille Lacs to two 8-ounce meals per month. Men 15 and older and women beyond-child-bearing age can safely consume up to eight 8-ounce meals per month.

This analysis was based on a 30-inch northern pike. Since mercury levels are higher in bigger fish, the number of safe meals per month is fewer if you are eating pike over 30 inches. Also, remember that if you are consuming other types of fish, such as walleye, the safe number of meals of pike per month will be reduced since all fish contain mercury and the meal frequency categories above are based only on a person eating only northern pike from Mille Lacs.

Mille Lacs northern pike (up to 36") consumption advice	
Sensitive Population (women of childbearing age and children under 15)	**General Population** (women beyond childbearing age and men 15 and older)
Eat up to two meals or 16 oz. per month	Eat up to eight meals or 64 oz. per month

Manoomin project wrapping up, seeds planted for business growth

By Owen Holly Maroney, GLIFWC Community Dietitian

As the "Manoomin—The Good Berry" project nears completion on March 31, program staff are busy working with both wild rice harvesters and processors to develop community relationships—locally and intertribally—through educational youth demonstrations and community events. Relationships like these can help strengthen tribal food systems by increasing community members' access to traditional foods while highlighting Anishinaabe lifeways and supporting sustainable tribal enterprises.

Last spring, GLIFWC was awarded a one-year grant from the First Nations Development Institute to fund the project. Now, here we are in the final weeks of the project, finishing with a flourish of manoomin demonstrations and distributing entrepreneurial bundles to each community.

Throughout the winter and into March, community participants worked with project staff to help educate the next generation of harvesters by providing interactive demonstrations. At one event last November, the Sokaogon T.R.A.I.L.S. program hosted tribal Rice Chiefs and harvesters Pete McGeshick, Jr. and James Polar, Sr. for an after school manoomin demonstration. McGeshick and Polar shared the importance of manoomin to the Anishinaabe people, showed pictures of manoomin at different stages of growth, and demonstrated the process of ricing—from lake to table.

Youth took the opportunity to practice wild rice knocking and 'dancing' techniques. At each demonstration youth handled ricing knockers, interacted with local and regional harvesters, and created their own healthy wild rice snack.

Each participating program receives a gift of 30 pounds of manoomin and a copy of the "Mino Wiisinidaa! (Let's Eat Good!)" cookbook (see below) for future programming. Manoomin demonstrations take place at tribal youth programs, such as T.R.A.I.L.S., Head Start, and the Boys & Girls Club, within each member tribe.

Making connections

Helping our food entrepreneurs build relationships with individual community members is an integral part of the project.

At community events like health fairs, project participants use the opportunity to increase exposure of their traditional food business by showcasing their products, engaging with fellow community members, networking, and even selling their products.

Manoomin events have already helped increase awareness of participants' food businesses by 40%, according to community surveys. Seventy-two percent of respondents indicate that they are "likely" or "very likely" to purchase wild rice from project participants in the future! Numbers like these have already translated into tangible outcomes. Project participants made sales at four of the five community events they attended.

Over the course of the project, participants worked with GLIFWC staff to develop entrepreneurial tools such as business cards, product lists, and wild rice labels. Thanks to their input, the Manoomin project is happy to announce the distribution of five entrepreneurial bundles to each GLIFWC member tribe! Each bundle includes heat sealing bags, manoomin labels with updated nutrition facts, customizable business cards, digital food scales, and customizable product lists to distribute to businesses and programs. Kits are available to tribal members on a first come, first serve basis, while supplies last.

For details about remaining Manoomin project events or for more information about entrepreneurial bundles please check GLIFWC's Facebook page or call Owen Maroney at (715) 682-6619 x2147. More information about the First Nations award can be found in the *Mazina'igan* Ziigwan 2016 edition on page 20.

Essential Ojibwemowin

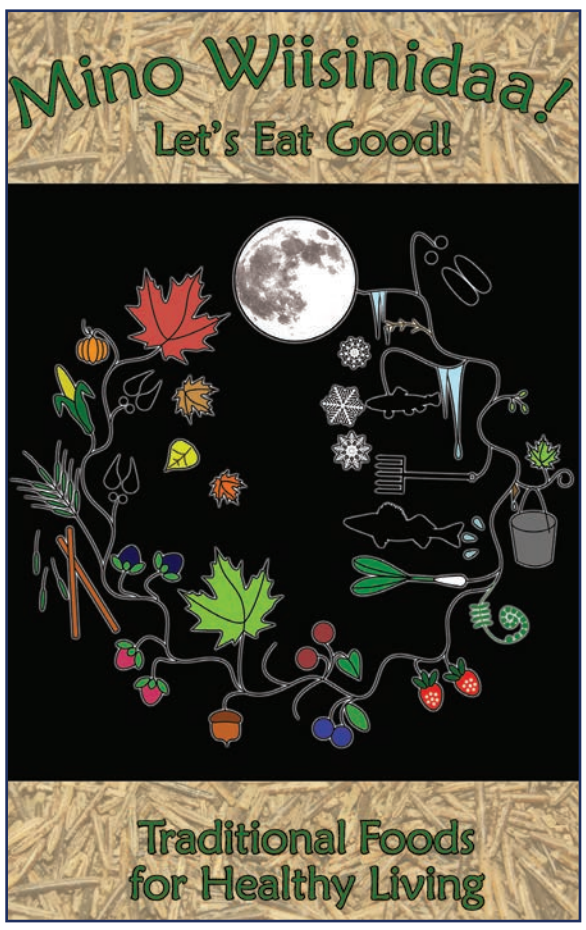
***makak*—birch bark basket**

Mino Wiisinidaa! (Let's Eat Good!)—Traditional Foods for Healthy Living

Aaniin! The second edition of our very popular *Mino Wiisinidaa! (Let's Eat Good!)—Traditional foods for Healthy Living* cookbook is available now! This latest edition includes new photos, additional harvesting information, updated recipes, and more.

Originally funded by the Administration for Native Americans, *Mino Wiisinidaa!* uses original recipes from tribal elders, featuring many traditional Anishinaabe foods from fiddlehead ferns to venison. The cookbook also includes alternatives to help maintain a healthy diet.

A decrease in printing costs means savings for you (see prices and order form to the right)! Orders can also be placed online at *www.glifwc.org/publications* or over the phone at (715) 685-2108, while supplies last.



Order Form

Quantity	Total each
1 book	$14.00
2-4 books	$10.50
5 or more	$7.70

Quantity	Publication	Price (see above)	Total
	Mino Wiisinidaa! Let's Eat Good!		
		subtotal	
		shipping	
		total amount due	

Shipping chart for US orders

Order Total	Shipping
$ 5.00 — $ 29.99	$ 3.25
$ 30.00 — $ 59.99	$ 5.25
$ 60.00 — $ 99.99	$ 7.25
$100.00 — $129.99	$ 9.25
$130.00 — $159.99	$11.25
$160.00 — $199.99	$13.25

Shipping charges are applied to all orders requiring payment. Checks should be made payable to GLIFWC and mailed to PO Box 9, Odanah, WI 54861. Please contact GLIFWC for orders being sent outside the US, or if your total is more than $199.99. Miigwech!

www.glifwc.org

Food web makeover continues on warming Great Lakes

By Bill Mattes, Great Lakes Section Leader

Duluth, Minn.—Six research entities from five Great Lakes states and the Province of Ontario recently collaborated on a project to collect sediment samples from throughout the Great Lakes. Scientists examined samples for plankton and compared the findings to temperature data obtained from the National Oceanic and Atmospheric Administration (NOAA) and Environment Canada. Plankton leave behind an identifiable *'frustule'* made of silica (like a shell). Frustules collect on the lakebed, along with other sediment, in layers that build up over time.

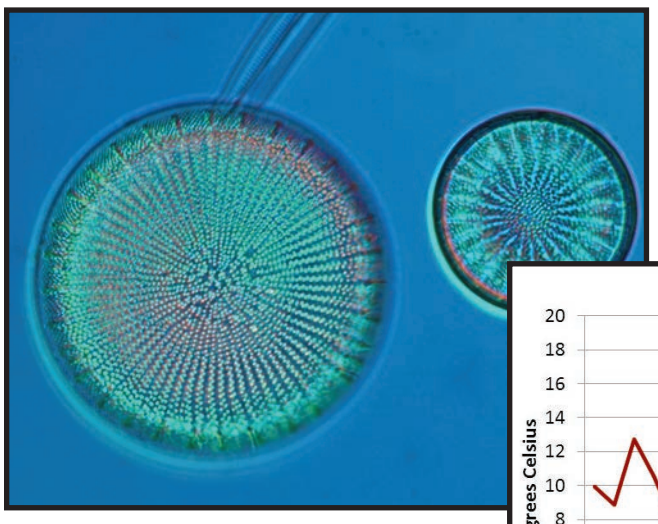
This research looked at the type and number of each plankton frustule in distinct sediment layers over time and compared them to the temperature data available for the same time period.

The research showed recent atmospheric warming had an effect on the number and abundance of different planktons in Lake Superior and the other Great Lakes. Most notably, a smaller type of plankton is doing better and is more abundant, whereas a larger type of plankton is doing worse and is less abundant. Additionally, the researchers noted that many changes are associated with warming water including: duration and extent of open water and ice cover, changes in light and nutrients, and changes in stratification and mixing strength (i.e. where the warm water is in relation to the shoreline and the surface of the lake). Will fish that feed upon the plankton be able to tolerate these changes? Only with time and observation will an answer be found.

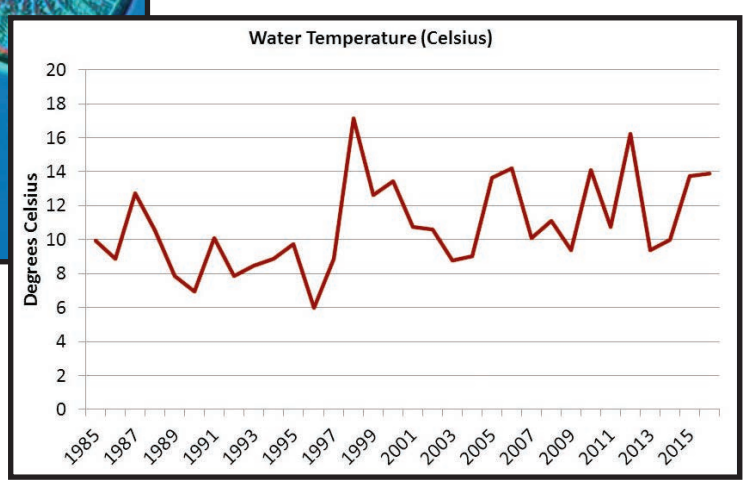
Planktons, microscopic plants and animals that swim in water, are important food items for small fish. The abundance of any given type (or species) of plankton is dependent on the conditions in which it lives such as water temperature. So, just like you won't find many Gold Fish living in Gichigami because it's too cold; you also won't find certain plankton in the lake for the same reason. Nevertheless, small changes due to small increases in temperature over the past 30-50 years have taken place in the Big Lake and these changes have benefited some plankton and harmed others.

Research organizations in the recent study include: Natural Resources Research Institute, University of Minnesota Duluth; John Carroll University, University Heights, Ohio; Tarleton State University, Stephenville, Texas; University of Wisconsin Oshkosh; National Oceanic and Atmospheric Administration; Great Lakes Environmental Research Laboratory, Ann Arbor, Michigan; Water Quality Monitoring and Surveillance Division, Environment and Climate Change Canada, Burlington, Ontario.

To read more on what researchers found visit *http://onlinelibrary.wiley.com/doi/10.1002/lno.10459/pdf*



Cyclotella are the group of plankton that are benefiting from warmer Lake Superior waters. (http://westerndiatoms.colorado.edu/images/news_images/1567_2.jpg).



Average surface water temperature (degrees Celsius) during July-September at the NOAA Mid Lake Superior data buoy which is 60 nautical miles North-Northeast of Hancock, Michigan in the 1842 Treaty ceded area. Data show a slight increase in temperature over the past 31 years. (www.ndbc.noaa.gov/station_page.php?station=45001).

Share your thoughts, vision for Great Lakes

By Jennifer Ballinger, GLIFWC Outreach Specialist

The public is invited to submit comments and concerns about the Great Lakes through public meetings and online submissions through March.

Under the Great Lakes Water Quality Agreement (GLWQA) between the United States and Canada (the "Parties"), the Parties are required to provide to the public a Progress Report every three years. This report should provide updates on the actions that the Parties have taken to implement the GLWQA and where they are in meeting their obligations and commitments under the Agreement. The first Progress Report of the Parties under the updated Agreement was released in 2016, and can be found at *https://binational.net/wp-content/uploads/2016/09/PRP-160927-EN.pdf*.

In response to each Progress Report of the Parties, the GLWQA requires the International Joint Commission (IJC) to assess the report and the Parties' progress on meeting their obligations. The IJC is an independent binational organization created by Canada and the United States under the B*oundary Waters Treaty of 1909*. The GLWQA gives the IJC a role in assessing progress, engaging the public, and providing scientific and policy advice to help the Parties restore and maintain the chemical, physical, and biological integrity of the waters of the Great Lakes.

The IJC has just released its draft of the Triennial Assessment of Progress (TAP) on Great Lakes Water Quality in response to the 2016 Progress Report of the Parties and is requesting public comment on its assessment of the Parties' report. The draft report assesses the extent to which programs and activities of the Parties are achieving GLWQA objectives based on a review of the IJC, as well as a review of the Parties' Progress Report. Public comments on the IJC's assessment will be compiled and added to the final assessment.

The public can provide comments at a series of public meetings or through an online portal. Public comments are essential because they increase both governments' accountability to its citizens by providing a communication mechanism that addresses perception of how well the GLWQA is being implemented.

The IJC is particularly interested in comments relating to:

- personal, cultural, ecological, spiritual, and economic values that make the Great Lakes important to you and the value of lake protection and restoration;
- a nearshore restoration framework and identification of science and action priorities to incorporate into Lakewide Action and Management Plans;
- emerging chemicals of mutual concern;

(See Public comments welcomed, page 10)

GLWQA public meetings:

March 21, 2017: Detroit, Michigan & Toledo, Ohio
March 22, 2017: Sarnia, Ontario
March 28, 2017: Buffalo, New York
March 29, 2017: St. Catharines, Ontario

Meeting details will be posted on *www.participateIJC.org* and the IJC Facebook page.

Whitefish dinner

In partnership with Keweenaw Bay Indian Community and tribal fishermen, GLIFWC is studying the diets of Lake Superior whitefish to pinpoint their primary food sources. Baseline data on whitefish (adikameg) diets will help biologists better evaluate the impact of invasive species on the fishery.

Significant disruptions in the food webs of other Great Lakes are attributed to quagga and zebra mussels, aquatic invasive organisms that originate from the Black Sea region of Eurasia.

Over the coming years GLIFWC researchers plan to analyze whitefish stomach samples provided by tribal fishermen on an annual basis. Lake whitefish are a cold-water staple for both commercial and home-use harvesters.

GLIFWC Fisheries Technician Ronnie Parisien examines the contents of a whitefish stomach containing critters like clams, mysis (opossum shrimp) and blood-worms (an insect larvae) as Karen Anderson records the findings. Anderson and Patrick LaPointe, KBIC natural resources department, joined Parisien at the GLIFWC laboratory in early December. (CO Rasmussen photo)

Winter camp brings new life to old traditions

Camps held in Sokaogon Mole Lake, Bad River and Lac Courte Oreilles

By Paula Maday and Dylan Jennings, Staff Writers

Ishpaagoonikaa, Sokaogon Mole Lake

The Anishinaabe people originally ice fished using what was called a belly tent. To make a belly tent, a hole is cut through the ice, and a stick-framed, teepee-like structure is built and placed over the hole. Balsam boughs are laid all around the structure, and canvas or blankets are wrapped around it and over it.

Two people crawl under the blankets, lay on their bellies, and peer into the hole, jigging decoys until the fish come. The interior of the belly tent is so dark that "it looks like the sun is shining from underneath," says Lac du Flambeau elder and harvester Sue Johnson.

The sun shone from both beneath the ice and above on February 17-19, as youth from all over the Ceded Territory gathered in 50-degree temperatures for Ishpaagoonikaa (Deep Snow Camp) at the Sokaogon Mole Lake Reservation. Over the course of the weekend, youth attended sessions ranging from ice fishing to trapping to storytelling. Nolan Thorbahn, 13, from Mole Lake said he felt proud to have the camp in his community. "I liked it. It gave us a chance to share our culture, our fishing, our trapping," he said.

And share they did. On Saturday, youth spent a full day on the lakes. At Mole Lake, they speared through the ice using both traditional and modern equipment, as well as set traditional and modern tip-ups. Fresh fish were filleted, cooked, and eaten right on the ice. Josh White, 14, from LCO learned some new tips and tricks from the harvesters leading the ice fishing session. "I didn't know they put beans in the water so they could tell where the bottom of the fishing hole was. I also learned how to fillet a northern [pike]!" he said.

On Oak Lake, youth learned how to set and fish a gill net under the ice, something very few of them had done before.

After a long day outdoors, everyone settled in for special guests Fred and Mike Tribble, who recounted an important personal story, a story that led to the 1983 *Lac Courte Oreilles v. the State of Wisconsin* decision in which inland hunting, fishing and gathering rights were affirmed for six Ojibwe bands in Wisconsin. Tribal leaders Chris McGeshick and Wayne LaBine (Mole Lake), Marvin Defoe (Red Cliff), and John Johnson, Sr. (Lac du Flambeau) also shared their harvesting experiences, including memories from the hardships of the protest era that followed the court decision. Bundled up in sleeping bags, youth listened intently, visually impacted by the stories that were shared.

A look inside a traditional belly tent used by the Anishinaabe for ice fishing. (PM)

"It made me sad that our elders were treated that way," said Josh White. "Our treaties were dishonored. It was cool that the Tribble brothers helped us get our rights renewed."

Sam Bisonette, 11, from LCO, agreed. "They had to be extremely brave to walk by people that were yelling at them (at the landings). It made me think of how strong we are."

According to the Tribble brothers, their strength in standing up for Ojibwe treaty rights came from the knowledge they acquired through higher education.

Ogichidaag Mike and Fred Tribble of LCO spent some time sharing their harvesting stories with youth at winter camp. (PM)

Specifically, they cited their studies in Larry Leventhal's American Indian Law course at the College of St. Scholastica as what led them into action. "Higher education is important!" both brothers stressed.

Mole Lake Tribal Chairman Chris McGeshick echoed these sentiments in his words to the youth. "Education drives us forward," he said. "And we need YOU to read the treaties, to understand the treaties, and to step into leadership roles within your communities."

Campers, harvesters, elders, and organizers of Ishpaagoonikaa (Deep Snow Camp) 2017 in Mole Lake. (Paula Maday photo)

Campers, harvesters, elders, and organizers of Ishpaagoonikaa 2017 in Mole Lake. (PM)

Garrett Ackley, 15, of Mole Lake shows Rion Fountaine, 9, of Baraga, some of his trapping equipment and furs. Ackley has been trapping for two years. (PM)

Bibooni-gabeshiwin, Bad River

One hundred and forty miles away, in Odanah, Wisconsin, children and families were also practicing the ways of their ancestors. Saturday morning started with a pipe ceremony done by Bad River tribal elder Joe Rose. The elder looked to the crowd and said, "We are here to celebrate biboon (winter) and our traditional Anishinaabe wintertime activities. Today many things threaten our very way of life and we will continue to be strong and revitalize these practices."

Groups of youth and families took to the tables and took to the outdoors at Bad River's Bibooni-gabeshiwin (winter camp). Greg Biskakone Johnson of Lac du Flambeau led the moccasin making workshop and assisted over 40 people during the weekend in making their own pair of split toe moccasins.

Across the gym, Bad River Natural Resource Department set up shop with a fur identification station and a hide scraping demonstration. Bad River tribal warden Joseph Cadotte remarked "It was pretty amazing to see both young people and old people all very interested in hides and the many different uses." Many people contributed a little elbow grease throughout the day to both de-hair and flesh a moose hide and a deer hide. Workshop instructors also talked about the history and traditional uses of the animals.

Just through the main doors and out into the 60-degree weather, participants played the traditional hoop and spear game, atlatl throwing, and snow snake game, taught by Wayne Valliere from Lac du Flambeau. GLIFWC Biological Services Director Jon Gilbert and his wife Judy saddled up their sled dogs and demonstrated how to both ride and properly care for a team of sled dogs.

Traditional foods and lacrosse were also big parts of the weekend. Over 30 youth and adults took to the fields to play lacrosse, the Creator's game. Snow didn't stop any age group from grabbing a lacrosse stick and jumping in the game. Participants played hard and returned to the building for steamy hominy soup, and other traditional foods.

GLIFWC wardens Jim Stone and Christina Dzwonkowski took to the forest on Sunday to lead a winter survival and shelter building workshop. After a hearty breakfast in the woods, participants learned about the plants, trees and landscape before constructing their own shelters. Animal habitat was also discussed as Mike Wiggins led a trapping and snaring workshop. Youth helped set snares and also had hands on a few fur bearers. Much like many of the activities, trapping started with gratitude and a handful of asemaa (tobacco) to acknowledge the awesiiyag (animals) that have helped Anishinaabe to survive.

Youth camps are on the rise in Anishinaabe country. It was truly beautiful to see the resurgence of the Anishinaabe lifeway and cultural practices at both of these gatherings. It's a true reminder that the teachings and traditions are all we need to live mino-bimaadiziwin.

Bad River Bibooni-gabeshiwin participants learn about the traditional hoop and spear game. Participants took turns throwing a spear through a moving target, which represents waawaashkeshi. (DJ)

Lac du Flambeau elder Jerry LaBarge leads the fish decoy making workshop at Bad River's winter camp. Participants carved their own decoys from basswood.

As part of their endeavor to integrate izhitwaawin (culture) into every lesson, in every classroom, every day, Waadookodaading and the Lac Courte Oreilles Ojibwe Schools organized two weeks of traditional Ojibwe winter activities for their students from January 23-February 3. Activities included trapping demonstrations and fur identification with GLIFWC Law Enforcement and the creation of beaded necklaces with Dick Mindykowski (below), as well as ice fishing, mini snowshoe making, red willow gathering, tobacco teachings, and a pow wow. (PM)

Waadookodaading, Lac Courte Oreilles

Winter camp takes on a different format in Lac Courte Oreilles, where the Waadookodaading Ojibwe Immersion School incorporates Ojibwe winter activities right into their curriculum.

For two weeks, from Monday, January 23-February 3, the school held their Winter Camp, bringing in guest presenters and heading out for activities such as ice fishing and trapping. Throughout the first week, classes participated in aagimosewin (snow shoe making) with Zhaanwanikwe Dolores Shawinimash, and Ojibwe Language Table with Migizi Michael Sullivan, PhD. They also had a feast and storytelling night, where 6th and 7th graders shared stories with younger children. The week finished with a pow wow.

To kick off the second week, GLIFWC wardens rolled in with chests full of traps, furs, skulls, and scat to teach both Waadookodaading and LCO middle school students about trapping. Rainidawn Kingfisher, 7th grade, assisted GLIFWC wardens Tom Kroeplin and Jordan McKellips by using a wooden stick to demonstrate how traps are set off. Students also learned to identify different furs including bear, wolf, coyote, fox, and raccoon. A favorite amongst the groups was the coyote, whose howl they learned to distinguish from a wolf howl.

Waadookodaading Business Manager Mizhakwad Catherine Begay said that trapping and snaring activities provided a lot of excitement during winter camp this year. "That week, we actually had three third grade boys snare snowshoe rabbits! A week later, we had a feast to honor those waaboozoog," she said.

Another exciting activity during the week was watching LCO tribal member Dick Mindykowski field dress a mink that was found by the side of the road. "He explained everything about the process to the kids," Begay said, "and they loved it!"

The impact of integrating izhitwaawin (culture) into the classroom has been tremendous, according to Begay. "It's good. It's all very good for our students. Our teachers design their curriculum so that they're meeting common core standards while they're out in the woods. It's challenging, but they're doing a great job. After fourth grade, our students' standardized test scores are taking off. It's a good thing we're doing."

Waadookodaading Ojibwe Immersion School was founded in the early 2000s by a group of elders, language activists, and community members who shared a concern about the loss of Ojibwemowin at Lac Courte Oreilles. The mission of the school is to create proficient speakers of the Ojibwe language who are grounded in local culture and traditions and who are able to meet the challenges of the rapidly changing world.

And the world needs these students, and more like them. Just one month after winter camp, unusual weather patterns are pressing Waadookodaading and many other tribal communities to make plans for sugar bush, a harvesting activity that historically hasn't taken place until March-April. Positive participation and response to the camps that were held throughout the Ceded Territory this winter give much hope that the Anishinaabe will have future generations that will be grounded in local culture and tradition as they guide us through a rapidly changing world.

Wazhashkwag (muskrats)

Aaniin Giinawaa! (Hello you!) Wazhashk nindizhanakaz. My name is Muskrat! I am a good friend of Anishinaabeg.

A long time ago, it was I that helped to rebuild akii (earth). There was a large flood and wenabozho asked a few of us to dive down to pick up some earth.

I am a very good swimmer. My feet are webbed and my tail is flat like a paddle which means I can swim fast! I can also hold my breath for up to 12 minutes.

Sometimes you'll see me on shore and sometimes you'll see me in the water. I am nocturnal, which means I am very active at night and in the early morning.

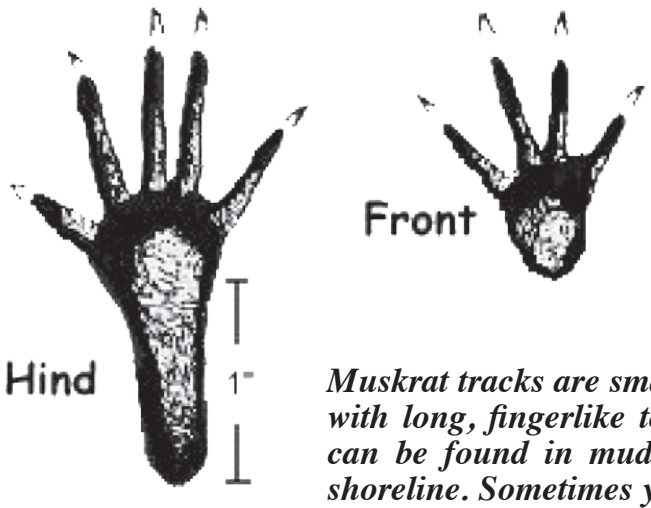
I love to swim to the bottom and eat underwater plants and occasionally a fish or two. Many people say that my presence means that an ecosystem is both safe and healthy.

My fur is really nice and soft, and sometimes I let Anishinaabe use it for clothing, or moccasin lining. One of my jobs is to help keep the ecosystem in balance, and to help Anishinaabe in their time of need. I love to be helpful and stand up for all of creation.

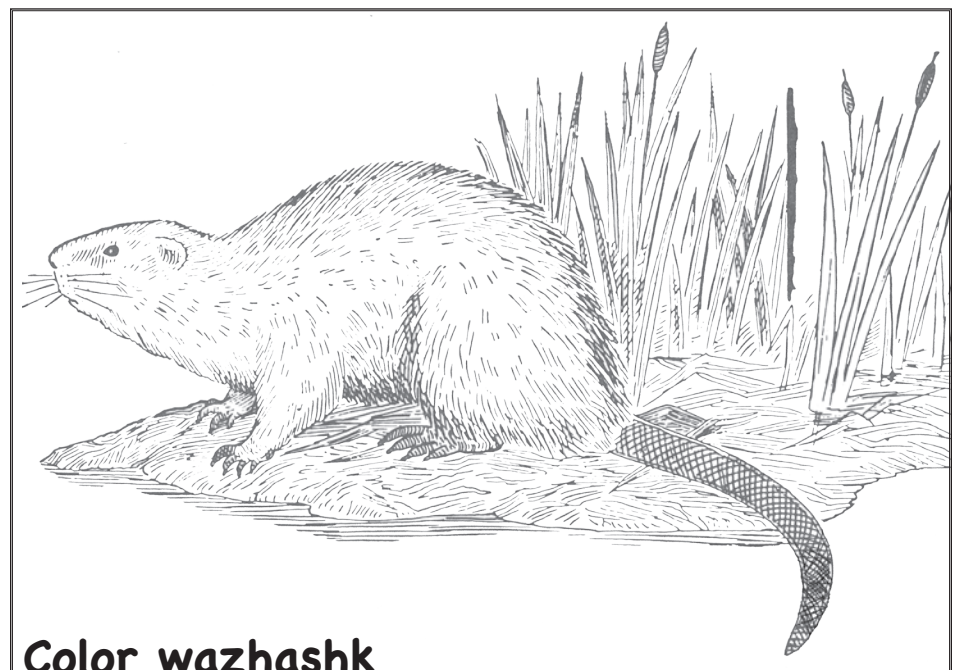
Next time you see me out and about, stop and put some asemaa (tobacco) out for everything that our plants and animals do for us.

—Dylan Jennings

Muskrat lodge. Muskrats build dome-shaped lodges from aquatic plants, stems, roots, and mud. If you see a mound sticking out of the water in a marshy area, this is probably a muskrat lodge. Larger mounds made with sticks and heavy branches are made by beavers.



Muskrat tracks are small, hand like prints, with long, fingerlike toes. Muskrat tracks can be found in mud or sand along the shoreline. Sometimes you can even see the mark of his tail being dragged.



Color wazhashk

Onji-Akiing Summer Camp
Lake Nesbit Environmental Center
Sidnaw, Michigan ï July 17-21, 2017

Onji-Akiing is open to 5th-8th graders

- Environmental Sciences (e.g., aquatic ecology, bird life, forestry, terrestrial ecology, wildlife, technology, Career Fair, etc.)
- Ropes course/ team building
- Birch bark basket making
- Service learning
- Cultural exploration
- Hunting, fishing, archery
- Fireside programs
- Canoeing/Manoomin safe harvest
- Brain tanning
- Traditional fish smoking

For more information, please contact:
Heather Bliss, GLIFWC, LE Outreach Officer
906.458.3778 or *hnaigus@glifwc.org*

The summer editon of *Mazin'igan* will have additional camp information and registration form. This information will also be posted on GLIFWC's website (*www.glifwc.org*) and Facebook!

Muskrat facts

- Aquatic plants are the main building materials used in muskrat lodges. Muskrats build their homes in the fall.
- Roots and vegetation are favorite foods for muskrats. They also eat clams, crayfish and frogs.
- Muskrats seem to have newborns all the time! They have two or three litters a year, with five or six kits in each litter. That means females give birth to around 14 little muskrats a year!
- Biologists put muskrats in the rodent family. They have four front teeth like their relative amik (beaver).

Aaniin ezhiwebak agwajiing? What is happening outside?

Zoogipon bangii. Wayiiba wii-abaate. Dibikak, agwajiing geyaabi gisinaa.
Noongom mamaajii wa'aw Zhaawani-noodin. Da-onjisewag zhaawanong ingiw aandegwag.
Wiindamaagewag, "Inashke! Maajigaa! Caw, caw!" Daga naazh ingiw akikoog!
Gidaa-nandawaabanmaag ingiw ininaatigoog! Ginegwaakawaanike na?
Gemaa na gidadaawenan negwaakwaanan imaa adaawewigamigong? Ziigwan noongom.
Minwendaagwad! Miigwech.

(It is snowing a little bit. Soon it will be warm. When it is night, it is still cold outside.
Today, the South wind is moving. Those crows are flying in from the south.
They say, "Look! The sap begins to run! Caw, caw!" Please fetch those pails!
You should look for those maple trees! Do you make tree taps? Or do you buy the taps from the store?
It is spring now. It is fun! Thank you.)

Bezhig—1

OJIBWEMOWIN (Ojibwe Language)

Double vowel system of writing Ojibwemowin.
—Long vowels: AA, E, II, OO
W<u>aa</u>booz—as in f<u>a</u>ther
Miigw<u>e</u>ch—as in j<u>ay</u>
Aan<u>ii</u>n—as in s<u>ee</u>n
M<u>oo</u>z—as in m<u>oo</u>n

—Short Vowels: A, I, O
D<u>a</u>sh—as in <u>a</u>bout
<u>I</u>ng<u>i</u>w—as in t<u>i</u>n
Niizh<u>o</u>—as in <u>o</u>nly

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

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

VAI questions

Izhaa.—S/he goes.
Aandi ezhaa**yan**?
(N)indizhaa oodenaang.
Where are **you** going?
I am going to the town.

Aaniindi ezhaa**waad**? Izhaa**wag** imaa zhooniyaaawigamigong.
Where are **they** going?
They are going there to the bank.

Bi-izhaa.—S/he comes.
Aaniin apii w**aa**-bi-izhaa**d**? **Wii**-bi-izhaa gigizheb.
When does **s/he want** to come?
S/he **wants** to come in the morning.

Aaniin apii gaa-bi-izhaa**waad**? Bijiinaago.
When did **they** come? Yesterday.

Niizh—2

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

A. Gaa! Iwidi ningii-waabamaag ingiw <u>manidoonsag</u>.

B. Manidoonsikaa! <u>Inashke</u>! Imaa manidoosiwan.

C. Imaa waakaa'iganing biindigebizowag <u>oojiig</u> miinawaa <u>zagimeg</u>.

D. Ani-ziigwang maajii-gitige. <u>Aandi</u> eyaawaad <u>amoog</u>? Bimaaji'!

E. <u>Nagamowag</u>. Miikawaadiziwag ingiw bineshiiyag. Nandotaw!

F. Baapaase binigwane <u>miigwanan</u>.

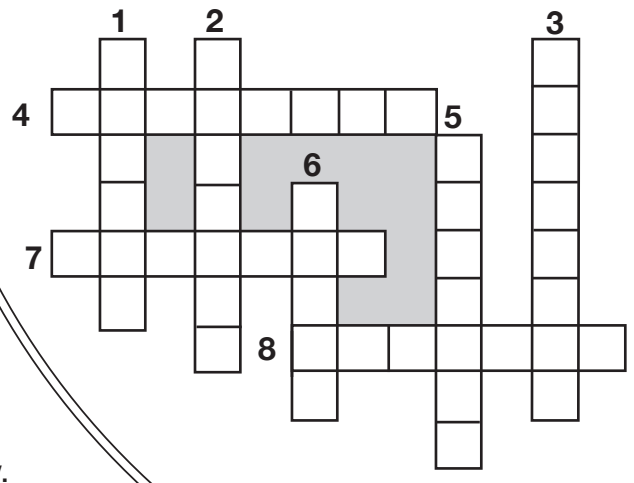
G. Imaa zaaga'iganiing <u>aamiwag</u> ingiw giigoonyag.

H. <u>Izhaadaa</u> agwajiing. Odaminog!

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

Niswi—3

IKIDOWIN ODAMINOWIN (word play)



Down:

1. A little bit.
2. soon
3. Sap begins to flow.
5. now, today
6. Fetch him/her!

Across:

4. S/he is in motion.
7. When it is night.
8. It is spring.

gichigami

Online Resources
ojibwe.lib.umn.edu
umich.edu/~ojibwe
www.glifwc.org

Niiwin—4

Commands/Requests

Biinichige.—S/he cleans things.
Biinichige**n**!—Clean things!
Biinichige**g**!—You all clean things!
Biinichige**daa**!—Let's all clean things!
Gego biinichige**ken**!—Don't you clean things!
Baapi.—S/he laughs.
Baapin!—You laugh!
Baapig!—You all laugh!
Baapidaa!—Let's all laugh!
Gego baapiken!—Don't you laugh!
Gagwejichigen!—Practice things!
Gagwejitoon! Try it!
Mii'iw. That's all.

-g

-n

Gego –ken

Gaawiin —sii

—daa

1. Endaso ziigwan iskigamizige_____!

2. Wayiiba bagizo_____ zaaga'iganing gemaa ziibiing!

3. _____ ningashkendan___. Niminwendam ani-ziigwang omaa.

4. Ningii-ikid _____ bakobiibizo_____! Giwakewaj.

5. Mino-giizhigad. Gigite_____! Zhoomiingweni_____! Anishinaabemo_____ daga noongom.

Translations:

<u>Niizh—2</u> **A.** No! Over there I saw those bugs. **B.** There are a lot of bugs! Look! It has bugs there. **C.** The flies and mosquitoes are flying into the house. **D.** As spring begins, s/he starts gardening. Where are the bees? Save them! **E.** They are singing. Those birds are beautiful. Listen for them! **F.** A red-headed woodpecker is molting feathers. **G.** In the lake, those fish are spawning. **H.** Let's all go outside! You all play!

<u>Niswi—3</u> ***Down:*** **1.** Bangii **2.** Wayiiba **3.** Maajigaa **5.** Noongom **6.** Naazh ***Across:*** **4.** Mamaajii **7.** Dibikak **8.** Ziigwan

<u>Niiwin-4</u> **1.** Every spring **let's all** make maple sugar! (-daa) **2.** Soon **all of you** go swimming at the lake or river! (g) **3. No**, I am **not** sad (Gaawiin -zii). I am happy when spring begins here. **4.** I did say, "**Don't** fall in the water! You get cold easily. (Gego -ken) **5.** It is a good day. **Go garden! You smile! You speak Ojibwe** please today! (n)

Edited by Jennifer Ballinger, Saagajiwe-Gaabawiik.

Leventhal: Indian law, treaty rights pioneer walks on

(StarTribune photo)

American Indian law expert and leading Twin Cities attorney Larry Leventhal walked on January 17. For more than 40 years, Leventhal served as legal counsel to native people, becoming an authority on Ojibwe treaty rights in the upper Midwest.

"His contributions to the practice of Indian law are phenomenal," said Kathryn Tierney, a Leventhal contemporary and longtime attorney at Bay Mills Indian Community.

She remembers Leventhal as one of the few attorneys in the region with an interest in Indian law in the early 1970s. That interest evolved into support for the American Indian Movement (AIM) along with seminal work on Ojibwe treaty rights.

His influence on treaty rights was recently highlighted in the GLIFWC short biography, "Crossing the Line." Leventhal advised Lac Courte Oreilles (LCO) members Fred and Mike Tribble to fish off-reservation in order to launch a legal case. That case, *LCO v Wisconsin*, culminated in the 1983 Voigt Decision, affirming inland treaty rights in the Wisconsin Ceded Territory. Leventhal also represented LCO in successful, long-running negotiations with Northern States Power over management and control of the Winter Dam, which regulates water levels on the Chippewa Flowage.

"Larry never bragged, never yelled, he was never anything other than a gentleman," Tierney said. "Native people throughout the upper Midwest owe him many debts of gratitude."

Tierney first met Leventhal in 1973 during the prosecution of AIM leaders Russell Means and Dennis Banks in St. Paul following the takeover at Wounded Knee, SD. They further collaborated on treaty rights issues in the 1980s.

Leventhal died of pancreatic cancer in Minneapolis. He was 75. *—COR*

Ceded Territory news briefs

Treaty rules update for Red Cliff authorities

GLIFWC staff met with staff of the Red Cliff Tribal Court and the Red Cliff conservation wardens February 22 to share updates on the tribes' model conservation codes for off-reservation treaty harvesting. Chief Judge Steve Boulley requested the training to learn about updates to the codes, especially the deer night hunting provisions.

The training began with a discussion of the nature of the tribes' harvesting rights. "The right of the tribes to harvest plants and animals was not given to the tribes when they signed the treaties," said Philomena Kebec, GLIFWC policy analyst. "Those harvesting rights are part of the tribes' inherent rights and relate to their status as sovereign nations, preexisting the formation of the United States."

Conservation wardens from Red Cliff and GLIFWC shared their experiences in the field when the conversation moved to various enforcement scenarios. GLIFWC staff is available to provide training to member tribes on a variety of subjects. Please contact Kebec at 715.682.6619 for more information.

Get ready for a new planting season

Food Sovereignty is the right to food that is healthy, culturally-appropriate, and produced using sustainable methods. Many believe that if you lose your traditional harvesting methods and foods you may ultimately lose your cultural identity. Bad River Food Sovereignty Program (BRFS) Coordinator Shelley Maday invites the public to learn about planting snow peas in a high tunnel greenhouse during cold seasons. The BRFS program also is making plans to plant romaine lettuce, spinach, giving away garden plants, and sugar bushing soon! Stop by the BRFS building at 54026 Birch St. Odanah, WI 54861 (old tribal school) or call 715.682.7840 x1611 for more information. *—G. Anderson*

Public comments welcomed

(continued from page 5)

- tools to assess and restore wetland health in the Great Lakes basin;
- mandatory controls to improve the water quality in western and central Lake Erie;
- preventing new invasive species from establishing in the Great Lakes and the best ways to eradicate or control the ones that already present; and
- developing an effective binational approach to minimize impacts of climate change.

Comments on the 2016 Progress Report of the Parties and TAP are due April 15, 2017 and can be submitted at one of the public IJC meetings or online at *www.participateijc.org*. *—Jennifer Vanator contributed to this article.*

Minnesota spring surveys: A shockingly good time

By Ben Michaels, GLIFWC Fisheries Biologist

As spring rapidly approaches, GLIFWC Inland Fisheries personnel are gearing up for another busy season conducting a spring juvenile walleye survey on Mille Lacs Lake and adult walleye surveys on other smaller lakes within the 1837 Ceded Territory of Minnesota.

The purpose of the juvenile walleye survey on Mille Lacs Lake is to gauge walleye survivability during their first year of life. During this survey, GLIFWC and Fond du Lac electrofishing crews sample the entire 78-mile shoreline in order to collect, count, and measure age-1 walleye, which are typically found foraging near the shoreline at night. This biological information provides insight for fisheries biologists when predicting the future abundance of adult walleye, and ultimately helps inform walleye management decisions on Mille Lacs Lake. Currently, few juvenile walleye are surviving to adulthood. Although the cause of poor survival remains unclear, fisheries biologists suspect that a combination of factors such as predation, presence of invasive species, changes in food availability, and changing climatic conditions could be negatively affecting the walleye population.

The objective of adult walleye surveys in the other smaller lakes is to estimate the overall population size of adult fish. This is accomplished by electrofishing along the shoreline in two stages. The first stage, the 'marking run', involves collecting adult-sized walleye, which are measured, sexed, and marked with floy tags. After waiting a few days, electrofishing crews return to these lakes for the second stage, 'recapture run', which involves electrofishing crews collecting fish along the shoreline for a second time. Based on the number of marked and unmarked fish that the crews collect, biologists are able to estimate the adult walleye population for each lake. Contact Ben Michaels at 715-685-2175 for more information.

Proposal may remove wolf protections in Great Lakes region

Washington, DC—United States Senators Tammy Baldwin and Ron Johnson of Wisconsin, along with Amy Klobuchar of Minnesota, introduced legislation January 17 to remove Great Lakes ma'iinganag from the list of federally endangered species. This bill would allow states to authorize wolf hunting seasons again, and it would prevent review by the courts.

Historically, ma'iinganag enjoyed an extensive territory across most regions within North America. With the expansion of non-Indian settlement, ma'iingan populations decreased. By the time ma'iinganag were listed as an endangered species in 1974, only remnants of the former populations survived. Within the Great Lakes region, federally protected ma'iinganag in northern Minnesota were able to repopulate areas within the Ojibwe Ceded Territory. This expansion of ma'iingan territory is correlated with the Anishinaabe tribes' assertion of reserved rights and on-and off-reservation sovereignty that gained traction in the 1970s.

Efforts to delist ma'iingan began in 2006. The U.S. Fish & Wildlife Service determined that ma'iinganag in certain areas, including the Great Lakes region, had healthy populations and that federal protections were no longer necessary. In order to lift federal protection, the U.S. Fish & Wildlife Service attempted to make Great Lakes ma'iinganag a "Distinct Population Segment" or DPS. This action was challenged in the courts, with the courts finding that Service's method for delisting ma'iinganag was improper under the Endangered Species Act. Basically, the courts have concluded that the Endangered Species Act was written to make a DPS operate only one way. A DPS could be created to protect a small group of a species of plants or animals in need of protection due to its location or genetic variation. However, a DPS could not be created to undo protection under the Endangered Species Act because a small group of a species is doing better. In the case of wolves, the courts have concluded that even though the Great Lakes population is doing well, the fact remains that ma'iinganag are absent from much of their former territory.

A 2014 court order relisted ma'iinganag on the Endangered Species List and blocked states from conducting general wolf hunting seasons. The recently proposed legislation would end federal protection. *—Phoebe Kebec and Peter David*

Resources like waaboozoog, snow sheds light on climate trends

By Kim Stone, GLIFWC Policy Analyst

A traditional teaching about the waabooz (snowshoe hare or rabbit) describes him telling Wenabozho* how he would help the Anishinaabe when they arrived:

> "Here I have something too. I too have something to offer the Anishinaabe." The rabbit was looking at Nenabozhoo.
>
> "Who do you think you are? Look at you and how small you are. You don't even have much meat on you."
>
> And the rabbit said: "Nope, don't think of me that way. I will sense when the Anishinaabe is struggling to find food to eat. I will not go anywhere. Whenever I see a round snare, that is where I will put my head into. That is how much I care about the Anishinaabe.
>
> There are a lot more, such as my white fur jacket. Anishinaabe will know how to use my gift, like sometimes, somewhere, when they get a skin rash, such as how children suffer with that. They will use my rabbit fur, my hide.
>
> I will not be far away. All they need to do is look around, and they will find my trail; this is where they can get me."
>
> From "Animals" spoken by Ogimaagwanebiik (Nancy Jones) in *Dibaajimowinan: Anishinaabe Stories of Culture and Respect* (GLIFWC Press)
>
> *The Anishinaabe cultural hero has many different names, such as Wenabozho, Nenabozho, Nanabush. Each dialect and community may have a preferred name to use, but people can and often use different names interchangeably.

The story illustrates how traditional ecological knowledge (TEK) is an integral part of assessing climate change impacts on treaty rights; it teaches how the waabooz were frequent in the winter and how they could be located not by their winter white coat but by their trail in the snow.

Understanding how climate change may impact traditional harvesting requires listening to and learning from all sources of knowledge. Through interviews with knowledge holders, elders, and harvesters for stories like these, the Climate Change Program learns from Anishinaabe experience and cultural traditions and how they reflect environmental changes over time.

By weaving TEK and the scientific ecological knowledge (SEK) gathered by GLIFWC's climate scientists, the Climate Change Program hopes to produce work that integrates these distinct but complimentary systems of knowledge.

Already, GLIFWC is seeing an overlap within the information gathered using TEK and SEK. Nearly all TEK interviewees express concerns about a decline in the waabooz population. The days of noticing tracks in the snow, setting numerous snares, and sighting them in the backyard are now mostly gone.

When TEK interviewees were asked how long they had been noticing the population decline, the average response was 15 years. Most interviewees also noted a decrease in snowfall during that time frame, which some feel is contributing to the waabooz decline. Fewer waaboozoog also leads to great concerns about traditional teachings and stories regarding the waabooz and waabooz trapping. Tribal members fear the traditional knowledge and stories about them will soon only be memories and younger generations will have never seen a waabooz in their backyard.

Meanwhile, GLIFWC's climate change scientists are finding similar patterns. Preliminary results show that waaboozoog are moderately to highly vulnerable to climate change, depending on the severity of changes. Waaboozoog are dependent on a cool climate and snow cover during the winter.

One study (Mills et al. 2013) found a phenological mismatch (a difference in the timing) of when waaboozoog turn white and when we have snow—specifically, our snow is falling later in the year, but waaboozoog are turning white before the snow falls. This makes them more susceptible to predators.

Another study (Sultaire et al. 2016) found that waabooz range is already shifting north due to climate change. Since we are at the southern end of waabooz range, this means that its range will likely be leaving the Ceded Territory as climate change continues.

Look for more updates from GLIFWC's Climate Change Program and the integration of TEK and SEK in future issues! For more on SEK and waaboozoog see:

Mills, L. S., M. Zimova, J. Oyler, S. Running, J. T. Abatzoglou, and P. M. Lukacs. 2013. Camouflage mismatch in seasonal coat color due to decreased snow duration. Proceedings of the National Academy of Sciences 110:7360–7365.

Sultaire, S. M., J. N. Pauli, K. J. Martin, M. W. Meyer, M. Notaro, and B. Zuckerberg. 2016. Climate change surpasses land-use change in the contracting range boundary of a winter-adapted mammal. Proceedings of the Royal Society B: Biological Sciences 283:20153104.

Winter small mammal study underway at GLIFWC

By Paula Maday, Staff Writer

Clam Lake, Wis.—Studies about the American marten have historically been conducted at specific, set times of the year. Scientists survey marten, or waabizheshi, activity during the winter, when snow conditions allow tracking along routes near the population core. Marten eating patterns, however, are usually studied during the summer, as snow and harsh seasonal conditions can affect the survival of small prey animals. With studies about the ecology of the marten happening in the winter and studies about eating patterns happening in the summer, a question arises: how do scientists know that marten food sources are the same in the winter?

This year, the GLIFWC Biological Division has undertaken a small mammal study to answer this very question. The study is the brainchild of Division Director Jonathan Gilbert and Wildlife Technician Ron Parisien, Sr. To address small mammal survivability in winter, the wildlife expert did some trap engineering.

Martens like to eat small mammals. With this in mind, Gilbert and Parisien developed a trapping device that will help them sample small mammals during the winter and perhaps answer some questions about the types of prey that are available for martens to consume during the winter months.

The contraption itself is a 30" culvert with holes cut around the bottom. Stakes are attached to each side to hold it taut to the ground, and a removable top cover allows food and live traps to be placed inside. A camera inside of the cover takes pictures of the animals that are visiting.

Eight of these culverts were made and placed in two locations within the Chequamegon National Forest: four in a hemlock forest and four in a sugar maple forest.

Flying squirrel.

Throughout the fall, food and seeds were placed inside the trap. Over time, small mammals visited the trap and grew accustomed to finding food there. It was important to establish food-seeking habits before winter set in.

With the onset of biboon, snow began to pile along the sides of the trap, blocking the holes. However, with food-seeking habits established, small mammals such as mice, shrews, and flying squirrels tunneled underground from their nests to the trap holes to gather food from inside and bring it back to their nests.

In its initial year, the project is generating good data. There have been some challenges along the way for which they have had to adapt. For example, the trapping device is made out of metal and when it would get really cold, any animals trapped inside could freeze. The solution? Insulation and hand warmers taped to the bottom of the enclosed trap. This helps keep the trap warm enough for small mammals to survive.

Another question that arose during the project was about the visitors themselves. Were the same visitors coming to the trap over and over or were different individual mammals making multiple visits? The solution: live trap and tag the ears of visitors to better track how many unique visitors are coming to the trap.

So far, the project has yielded some expected results—deer mice have been the primary visitors to the trap, and some surprising results—mice babies have also been visiting the trap. This means that mice are having babies in the middle of the winter. Additionally, Gilbert and Parisien have tracked five different flying squirrels that have been visiting.

Through this project, Gilbert and Parisien have figured out a way to sample small mammal populations in the winter, the first time this has been done. The next step will be to expand it on a larger scale, with about 25 traps per area.

The study will be conducted again in the summer and then again in the winter. From there, our scientists will be able to deduce the change in winter eating patterns for the American marten.

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

CHANGE SERVICE REQUESTED

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

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

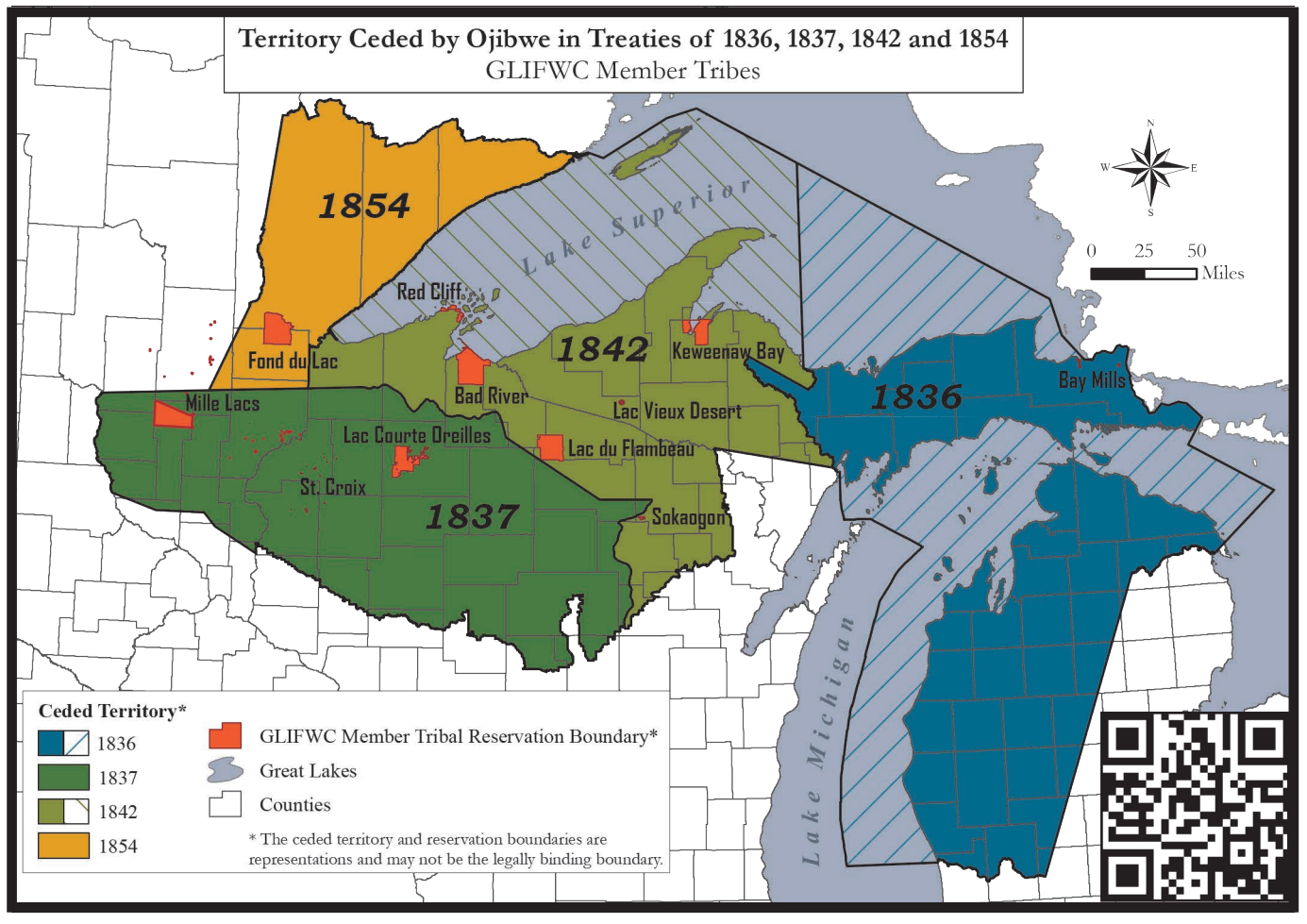
MAZINA'IGAN (Talking Paper) is a publication of the Great Lakes Indian Fish & Wildlife Commission, which represents eleven Ojibwe tribes in Michigan, Minnesota and Wisconsin.

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

To recieve the e-edition contact *lynn@glifwc.org* and provide your email address.

If you have moved, or are planning to move, please keep us informed so we can keep our mailing list current. If you plan to be away for an extended period of time, please let us know so we can suspend your subscription until you return.

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



Mazina'igan

A Chronicle of the Lake Superior Ojibwe

Ziigwan 2017

INSIDE:
Great Lakes Research
Youth Camps
Deer, Hares & Black Bears