Chronic wasting disease threat looms across region

GLIFWC launches interactive CWD website

By Travis Bartnick
GLIFWC Wildlife Biologist

Chronic wasting disease (CWD) continues to be a pressing concern for many throughout the Ceded Territories and across the nation. CWD is a contagious neurological disease that affects waawaashkeshi (deer), omashkooz (elk), and mooz (moose).

CWD is not a type of virus or bacteria, but rather a type of abnormally shaped protein called a prion (pree-on). Those prions can cause damage to brain and nerve tissue, and eventually lead to the death of the infected animal.

Fortunately, the only detection of a CWD-positive free-ranging deer within the 1837, 1842, or 1854 Ceded Territories was found in the 1837 Ceded Territory near Shell Lake, Wis. in 2012.

Despite an increase in CWD testing around the Shell Lake area (over 2,000 samples were collected from 2012-2016), no other CWD-positive free-ranging deer have been detected in that area. This is encouraging news for those who hunt deer in the Ceded Territories, but with additional reports of detections at captive deer farms in the region, there is still a great concern over the potential for CWD to spread to the wild herd.

Native fire management returns to Apostle Islands

By Charlie Otto Rasmussen, Editor

Apostle Islands, Wis.—The Ojibwe language blended with the rhythm of white, curling waves along the southwest shore of Stockton Island. Ringed by a half-dozen pipe carriers plus another 60 participants, Leon Boycee Valliere presided over a ceremony October 11 that would consecrate the first cultural burn within the storied Apostle Islands archipelago in generations.

“By doing this ceremony, we’re seeking authorization,” said Valliere of Lac du Flambeau. “We’re looking to do this in a good way.” Valliere said he explained to the island and its spirits in Ojibwemowin that the coming burn would help cleanse and refresh the landscape, restoring plant and animal communities that have faded after years of fire suppression.

A few weeks later the controlled burn was completed over three days, executed by an experienced team comprised of National Park Service, Bureau of Indian Affairs, and US Forest Service specialists. From start to finish, the effort represents a major step toward bringing native know-how into the mainstream.

TEK and a management (r)evolution

When Apostle Islands National Lakeshore (AINL) Park Ranger Damon Panek started fighting wildfires at the turn of the century, natural resource management agencies typically adhered to a long-standing policy of fire suppression. Deadly, monstrous conflagra-

Mii o`apii aadizookeng biboong.

It is the time for storytelling in winter.

Fall harvest = hearty wintertime bread & soups

Acorn squash

Wild rice meal and finished manoomin.

Learn more: www.glifwc.org/publications/#Books

An interagency fire crew led by Dave Pergolisi, Bureau of Indian Affairs, conducts a prescribed burn on the Stockton Island tombolo in late October.Emulating traditional native practices, the burn will help maintain a rare red pine barrens and generate native plant growth including blueberries. (Sara Sutton, NPS APIS photo)

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Line 3 Replacement Project in MN

By Esteban Chiriboga, GLIFWC GIS Specialist

The Minnesota Department of Commerce recently completed the Final Environmental Impact Statement (FEIS) for the Line 3 replacement project that Enbridge Energy is seeking to build. This new pipeline would replace the aging Line 3 pipeline and would continue transporting light crude oil from the Bakken oil fields in North Dakota to the oil terminal in Superior, Wisconsin (see map). GLIFWC, along with many tribes, submitted comments and provided information throughout the development of the document. The FEIS contains a chapter focused on the tribes, and how they may be impacted due to changes in the environment and natural resources; however, in its comments to the Department of Commerce on the FEIS, GLIFWC noted that these impacts do not factor into the overall conclusions and recommendations in a meaningful way.

Environmental risks are considerable

The FEIS developed environmental impact information for a number of proposed pipeline routes and compared them to determine the route with the least impact (“preferred route”). The tribes’ noted that the FEIS did not consider routes outside of the tribes’ Ceded Territories within areas already impacted by more intensive infrastructure development. All of the routes considered in the EIS travel within, or nearby, wild rice lakes.

The preferred route would impact over 675 acres of wild rice lakes, including 181 acres of lakes with documented wild rice harvest. This route would also cross 174 streams over 5,600 acres of sensitive ecological areas, 618 domestic water wells and 20 public water supply wells.

If permitted, the pipeline would cross 174 streams, over 5,600 acres of wildlife habitat and would lead to increased habitat fragmentation. Impacts to wetlands were not fully examined because detailed wetland delineations were not performed during the EIS process.

Amid mounting concerns about the structural safety of Line 5, Michigan officials called on Enbridge to take immediate steps to help ensure the environment is protected from potential spills. Constructed in 1953, the 645-mile Line 5 runs from Superior, Wisconsin to Sarnia, Ontario, transporting up to 540,000 barrels of crude oil daily. The line crosses vast areas of the 1836 and 1842 Ceded Territories where Ojibwe and Ottawa tribes hold off-reservation treaty rights to natural resources.

To support its analysis, the Minnesota Department of Commerce hired an independent energy consultant to conduct an analysis of the oil market. The purpose of the analysis was to establish the need for the pipeline given that there are many other pipelines currently transporting oil throughout the region.

The overall conclusion was that Enbridge has not established a need for the pipeline. Establishing this need is required under state law. The reports indicate that the economic benefits of the new pipeline would mostly occur outside the state, and the Ceded Territories, while environmental and socioeconomic risks would remain in the state.

Michigan orders repairs, safety improvements to Line 5

The need for the pipeline is questionable

To support its analysis, the Minnesota Department of Commerce hired an independent energy consultant to conduct an analysis of the oil market. The purpose of the analysis was to establish the need for the pipeline given that there are many other pipelines currently transporting oil throughout the region.

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The required route would impact 675 acres of wild rice lakes. The preferred route would impact over 675 acres of wild rice lakes.

Deer registrations up, bear registrations down from 2016

The dagawaagin (fall) hunting season has been quite productive for waawasihkosi (beaver) hunters in the Ceded Territories. From the start of the season (the day after Labor Day) through December 1, Ojibwe hunters registered 1,655 deer and 23 black bears. At the same time last year, tribal members had registered 1,448 deer and 48 black bears.

This is the first year tribal hunters have had the option of registering their deer remotely, via phone. Of the 1,655 deer registered so far, 357 (21%) of waawasibehchigow were hunted by hunters directly below the line. Hunters above the line harvested 1,298 deer and 48 black bears. Deer registration numbers from 2016 are below average for waawasibehchigow hunters in the Ceded Territories. The state of Michigan and Huron the state developed a list of requirements after discovering that Enbridge failed to reveal multiple deficiencies in the pipeline at the Straits, including washed ashore pipe supports and missing areas of protective coating on the line.

Another Enbridge pipeline (Line 6B) dumped an historic 1.1 million gallons of oil into the Kalamazoo River system in 2010, devastating waterways and wetlands. The Canadian company spent more than $1 billion over four years in an effort to clean up the massive spill.

Concerned about the age and condition of the line, the Bad River Tribe called for removal of Line 5 from reservation lands in far northern Wisconsin early in 2017. The line also carries natural gas liquids, which are refined into propane.

Zorn to retire from GLIFWC

In a letter to the GLIFWC Board of Commissioners October 20, Executive Administrator James E. Zorn announced his retirement effective May 21, 2018. The six-month interim provides time to complete a smooth and successful transition.

The depth of my gratitude for the opportunity to serve the Commission for nearly 31 years is inexpressible,” Zorn wrote. “It is time for a new phase in my life that offers wonderful opportunities for me and my family.”

GLIFWC has launched a search for Zorn’s successor. The Executive Administrator serves in key leadership and liaison roles regarding the co-management of Ceded Territory natural resources by GLIFWC’s tribes and with external federal, regional, state, local, and international agencies. For more see www.glifwc.org.

On the cover

Ojibwemowin on the go. Join Amik and tap into GLIFWC language resources including audio and interactive website activities at www.glifwc-inwe.com. Learn more on page 23. (Wesley Ballinger graphic)
Ceded Territory news briefs

Stocked walleye prosper on Minocqua Chain, still no natural reproduction

Two years after the Voigt Intertribal Task Force and the Wisconsin Department of Natural Resources (WDNR) agreed to close Minocqua, Kawaguesaga, and Tomahawk Lakes to walleye harvest, stocked fish are surviving well, but natural reproduction has not yet returned.

Ojibwe tribes and WDNR agreed prior to the 2015 fishing season that the walleye population on the chain of lakes was too low to warrant special protection from harvest in order to help the walleye recover. Thus far, extended growth walleye fingerlings stocked in the fall have been surviving in good numbers to their over the past decade, but natural reproduction is lagging.

GLIFWC and WDNR plan to continue annual fall surveys to evaluate natural reproduction and juvenile survival, and will conduct adult walleye population estimates on the chain in spring 2019.

—M. Luehring

GLIFWC receives ANA grant for traditional food code models

As part of an effort to expand use of treaty-harvested fish, game, and plants for food in tribal communities, GLIFWC is establishing a traditional food regulatory system through a 3-year Administration for Native Americans (ANA) SEDS (Social Economic Development Strategies) grant. Entitled “GLIFWC Chippewa Ceded Territory Traditional Food Regulatory System Project,” the program increases tribal self-regulatory capacity and sovereign control over activities relating to the use of treaty resources.

Within the next months, project specialists will be administering a Traditional Food Interest Survey via SurveyMonkey® along with paper surveys in GLIFWC tribal communities. The survey will allow project staff to conduct environmental and legal research into traditional Anishinaabe foods that tribal members would like to see incorporated into a food code model. Stay tuned to the GLIFWC Facebook Page for the survey link.

—L. Coffin

Trumpeter harvest a first in modern era

A St. Croix Tribe hunter registered the first legally harvested trumpeter swans taken in Wisconsin in nearly a century. Two trumpeters were harvested in northwest Wisconsin’s Burnett County December 4.

Extripated from the Ceded Territory generations ago, trumpeter populations have on the rise the past decade through the restoration efforts of state, federal, tribal and private organizations.

Recent population estimates indicate that nearly 5,000 birds now live in Wisconsin, more than three times that many in Minnesota. In consultation with US Fish & Wildlife Service, GLIFWC first added a tundra/trumpeter swan hunting season in 2014. Under treaty hunting regulations, the annual general swan season closes if the trumpeter harvest reaches 10 birds —CO Rasmussen

Rain, water levels contribute to uneven manoomin yields

By Peter David, GLIFWC Wildlife Biologist

Every manoomin (wild rice) sea- son seems to bring something new, and something ancient. Often a new teach- ing is provided, along with reminders of lessons shared year after year. In many ways, it was a challenging year for manoomin, especially in Wisconsin, where a summer of cool temperatures and seemingly endless rain elevated water levels across broad regions of rice country. The status of the crop generally reflected an inverse relationship with rainfall.

Northeast Wisconsin was very wet, and the crop was poor—with a reported number of rice and rice lakes remaining closed in that region for the year. Northwest Wisconsin was less drenched, and pulled off a fair to average crop. And remarkably, further west into Minnesota, precipitation lev- els were far lower, and in many areas the rice flourishing.

It will be interesting to see what the respondents to the annual Wisconsin rice harvest survey tell us (and please remember to take a survey), but early returns suggest that despite these tough conditions, the manoomin still provided remarkably generously for those who ventured out to gather the grain. It seems as though one or two things may have combined to make that possible: a bit of technology, a bit of luck, and a bit of respect.

The technology—and part of the luck—came in the form of the air surveys and the internet: a few clear sky days just before rice season allowed GLIFWC to complete its annual aerial surveys of manoomin lakes. Reciers are logging on more than ever to use that information to find the beds most able to provide good (see Manoomin, page 15)

Native fire management continued

(continued from page 1)

tions in late 1800s and early 1900s swallowed lives and entire towns from Wisconsin to the mountains of the West. Backed by a public awareness campaign featuring Smokey the Bear, land manag- ers worked to snuff out every errant flame throughout America’s woodlands. But a fundamental change in attitudes toward wildfire was emerging.

In a sweeping 1996 report chartered jointly by the Secretaries of Interior and Agriculture, federal land managers recognized that a century of fire sup- pression had built up massive woody fuel loads, creating threats to human life and property. Ecosystems, furthermore, were no longer fully functional without the benefit of wildland burning. The seeds for a future with fire management were sown.

“More and more federal agencies identified fire as an important part of the landscape,” Panek said. “They were becoming more receptive to input from tribes too.”

After a few years, Panek took an assignment with the National Park Service, Bob Kremenaker to update fire management plans for the AINL. Experience on western wildfire crews and interviews with elders on the Red Cliff Ojibwe Reservation helped crystalize a vision for the Apostle Islands and mainland portions of the park.

“As I developed an understand- ing, a certain comfort level with fire, I saw cultural opportunities along with a tombolo—an uncommon swath of red pine barrens was long overdue for a low- intensity fire to burn away competitive shrubs, hardwoods and other species. Kremenaker said that without fire, the tombolo would transition into mixed- species forest.

“This is a globally significant eco- logical system. But what’s really unique, what makes it so special, is that it got this way because of humans,” Kremenaker said. “This is both the combination of cultural heritage and land management that I can think of.”

A good burn

Around a week after the ceremony, the 10,054-acre island soaked up a light, steady rain followed by five days of dry- ing. With the arrival of a gentle breeze, Panek said conditions were perfect.

The interagency crew set up around the 5-acre burn site on a mowed fire- break with an assortment of equipment, including hoses that tapped water from an adjacent creek. Pie, spruce and balsam were sawed off well before the drip torches were lit. Between branch removals and spot-spraying with the water hoses kept a lot of the burn confined to the forest floor and out of the tree tops away from the large red pines. Branding at a safe distance from the action, the late October burn on the Stockton tombolo included a handful of natives from Red Cliff, Bad River, and Fond du Lac—many who had attended the ceremony weeks earlier with tribal representatives and GLIFWC staff.

“You think about it, some Bad River Band of Lake Superior Chippewa members out there are descendants of those who used to go out and pick berries, interact with that island,” Panek said. “Now they are back on the island branding a burn like their great grandparents.”

The Park Service, tribes and their partners plan to continue cultural-based management on Stockton Island well into the future.
Tribes putting the MOU to work

By Alex Wrobel, GLIFWC Forest Ecologist

In recent years, due to an increase in costs associated with home heating, the tribes have looked to the Memorandum of Understanding (MOU) entitled Tribal-USDA Forest Service Relations on National Forest Lands within the Ceded Territories in Treaties of 1836, 1837, and 1842 to provide an additional fuelwood source for their communities beyond what can be harvested from reservation lands. Pursuant to the MOU Gathering Code (which provides the basic regulations for tribal members gathering plants in Ceded Territory National Forests), with a small-scale firewood permit tribal members may:

- Harvest up to ten cords of firewood
- Generally only gather dead and down trees.
- Not cut any standing dead trees within 100 feet of any road or designated use area.
- Not cut down standing dead trees on the National Forest within 200 feet of a pond, lake, stream or river.
- Not cut any live tree for firewood unless your tribe has issued you a special permit to do so.

While collecting dead and down trees may suffice for singular household needs, tribes have identified the need to provide fuelwood for their communities at a broader scale. To fulfill this need in an efficient manner, the tribes would need to harvest live standing timber in addition to dead and down trees. Here are some circumstances that you may receive a harvest permit to cut live trees for firewood:

- There is a designated National Forest “firewood sale” location, or
- A sugarbush permit allows you to do so, or
- You possess a small-scale firewood permit which is valid for five live trees.

In addition, your tribe has the opportunity to negotiate an agreement to harvest live standing timber under Appendix C of the MOU, the Tribal Timber Harvest Framework Agreement. Initially, tribes worked with GLIFWC and the appropriate District Ranger to develop locations where live trees could be harvested by hand. However, it was soon discovered that the amount of man-power and resources needed to harvest large amounts of timber are outside of the capacity of hand-felling operations. This started a conversation about tribes contracting to logging companies, not only to harvest the timber needed for the tribe, but to also fulfill management objectives for the US Forest Service (USFS).

Currently, there are four tribes with signed Operating Agreements to carry out mechanized logging operations on National Forest lands in the Ceded Territories with three others under negotiation. While this is a relatively new concept, it is yet another example of the successful working relationship that the tribes have developed with the USFS on ceded lands.

CWD threat looms across region

(continued from page 1)

New CWD detections in 2017

Wisconsin: CWD-positive deer were found on captive hunting ranches in Waupaca and Shawano counties. State authorities announced the new detections in October 2017. Game farms can be problematic because the disease can spread by nose-to-nose contact through the fence, or in the event a captive deer escapes into the wild. The Wisconsin Department of Agriculture, Trade, and Consumer Protection (DATCP) has no plans to depopulate the hunting ranches despite the risk of other potentially undetected CWD-positive deer coming in contact with the free-ranging population.

Michigan: A free-range white-tailed deer in southern Michigan tested positive for CWD in late September. The 1.5-year-old buck was harvested in Montcalm County during the state’s youth hunt. Thus far, 10 free-ranging white-tailed deer have tested positive in Michigan’s Clinton, Ingham, and Montcalm counties.

Minnesota: After officials traced a CWD-positive deer from a Crow Wing County deer farm to a Meeker County deer farm, the Meeker County deer farm was depopulated in April 2017. Of the 14 deer that were euthanized, four tested positive for CWD. Two of the four CWD-positive deer came from a Wright County deer farm in 2014. The Wright County deer farm remains under quarantine.

Education and outreach

GLIFWC wildlife biologists recently worked with other Commission staff, an intertribal CWD working group, and CWD experts to develop and publish an informational brochure, a small-scale firewood permit that disease imposes on the Wisconsin Native American communities.

Elk herd health

One issue that keeps coming up in discussions about CWD is how the disease could also affect the elk (elk) populations that are part of restoration efforts conducted over the past few decades. A great deal of financial and logistical planning has gone into the elk restoration program. Arduous steps were taken to ensure the elk were sourced from an area where CWD has not been detected and that any feed given to the translocated elk while in quarantine pens was sourced from areas that were CWD-free.

Tribal gaming contributions to Wisconsin’s elk reintroduction program total $1.7 million since 2001. State agencies and other groups, such as the Rocky Mountain Elk Foundation have also made significant contributions to the elk restoration efforts in Wisconsin. However, the issue of CWD is not going away and the threat to free-ranging white-tailed deer and elk populations continues to grow as CWD spreads. GLIFWC wildlife biologists will continue to investigate potential actions that can be taken to further protect wild deer and elk populations that are so important to tribal communities throughout the Ceded Territories.
Whitefish traditions, research span northern hemisphere

13th International Coregonid Symposium

By Charlie Otto Rasmussen, Editor

Bayfield, Wis.—Researchers from around the globe gathered in far northern Wisconsin September 10-15 to share insights about coregonids, a broad, silver-scaled fish that forms a centerpiece of some fresh and saltwater fisheries. Best known to anglers and restaurant diners as whitefish, in Lake Superior these also include cisco (lake herring), chubs (bloater, kiyi, shortjaw), and smelt (minnow). The pattern is replicated in Ojibwe Country in places like Bayfield, Paradise, and Potsky. For Ojibwe speakers, the fish is adikamageg. In the Polish language, it’s sieja. Both translations carry deeper meaning, of people and natural resources intertwined.

More than 125 people from three continents attended the 13th International Coregonid Symposium. Sponsored by GLIFWC, Red Cliff Band, and eleven other organizations, the event featured 78 speakers and three-dozen poster presenters—all gathered at the shore of Lake Superior.

Echoing the cultural importance of whitefish to Great Lakes Indians, Scandinavian researchers shared stories that date back to the Middle Ages. Although the Tornionjoki River marks the border between Sweden and Finland, its whitefish resource unites villages on either bank. Local educators are working to preserve the cultural history of the area by incorporating fishing heritage into school curriculum. Oral histories with elder fishermen are also underway to document traditional fishing methods, food preparation, and to draft instructions on how to construct a krenkku—a wooden pier that provides access to whitefish dipnetting locations. For more visit the Symposium website www.coregonid2017.com

By Bill Mattes, GLIFWC Great Lakes Biologist

GLIFWC researchers investigating role of splake on native fish populations

Upper Michigan—Last fall GLIFWC’s Great Lakes Section crew collected samples from splake and lake trout at the Copper Harbor spawning reef in Lake Superior. These samples are being analyzed to determine the genetic makeup of the fish to determine if splake are spawning successfully with lake trout at the reef. The genetic analysis will also verify the accuracy of species identification.

Splake are a hybrid fish reared in hatcheries, spawned by crossing a male brook trout with a female lake trout. Splake exhibit hybrid vigor—they grow slightly faster than lake trout or brook trout, making them sought-after by sport fishers in harbors and bays around Lake Superior. Tribal fishers can keep them for subsistence use but currently cannot commercially harvest or sell the fish.

Brook trout and lake trout typically do not hybridize in the wild. Brook trout spawn in streams, or very near reefs, over small gravel where they make redds (small indentations in the gravel). Lake trout spawn on reefs submerged by 15 to 50 feet of water over large cobble where fertilized eggs settle into the spaces between the rocks to grow until they hatch.

Splake, however, have been observed in streams where brook trout are spawning, as well as on reefs where lake trout are spawning. These observations highlight a potential risk associated with the practice of stocking splake in areas where brook trout and lake trout populations thrive. Splake are fertile so there is the possibility of interbreeding. The continued success of brook trout and lake trout restoration in Lake Superior may be at risk if this interbreeding occurs, causing detrimental effects on the wild population of lake trout and brook trout.

Much genetic work has been done documenting the ill effects hatchery fish have on wild populations of fish. This could be the case with splake. Considering the 30-plus year investment in lake trout recovery following the sea lamprey invasion, and the continued need to limit fishing for all species based on the number of lake trout available to harvest, it is prudent to investigate whether or not splake are having a negative impact.

Ishpaagoonikaa
Deep Snow Cultural Camp
Lac Courte Oreilles, Hayward, WI
January 26-28, 2018

Ishpaagoonikaa seeks to increase knowledge and utilization of treaty rights in harvesting and protecting natural resources, encourage environmental stewardship, and promote natural resource careers. Additionally, the program strives to increase leadership skills in tribal youth, foster intergenerational learning opportunities between tribal elders and tribal youth, and focus on passing traditional Anishinaabe winter activity knowledge from generation to generation.

This year’s Ishpaagoonikaa program will be held in Hayward, Wisconsin, on January 26-28, 2018, where GLIFWC’s Law Enforcement Division will partner with the Lac Courte Oreilles Band of Lake Superior Chippewa Indians.

Tribal youth will interact with elders, cultural knowledge sharers and GLIFWC staff in activities such as traditional tip-ups and ice spearing, stovelining, small game trapping and animal processing, outdoor cooking, brain tanning, animal and track identification, winter shelter building, ishkote (fire) making, outdoor survival tactics, snow snake play, snowshoeing, cultural crafting, and mocassin games. This year will also feature an optional sweat lodge. This program seeks youth in grades 4-10. Older youth may apply to serve as mentors.

Participants must spend both nights in the LCO school gym, 8575 N Tregnina Road, Hayward, WI. The program will start on Friday at 6:00 pm CST and conclude Sunday at 1:00 pm. For more information, including an application to attend camp, please contact:

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Ogaa cannibalism, habitat research slated for Mille Lacs Lake

By Mille Lacs and GLIFWC Inland Fisheries Biologists

In spring of 2018, the Mille Lacs Band of Ojibwe, GLIFWC, Fond du Lac Band of Lake Superior Chippewa, and US Fish & Wildlife Service will begin an ogaa (walleye) tracking study in Mille Lacs Lake. Currently in Mille Lacs Lake, adult ogaa are primary consumers of juvenile ogaa, which is resulting in a decline of adult/harvestable fish. While the causes behind the walleye cannibalism are unknown, a recent Minnesota Department of Natural Resources (MDNR) diet study showed that it is occurring during the warmest months of the year (mid-July to October).

The MDNR diet study result is interesting because ogaa (and all gigaan, or fish) prefer to occupy depths and habitats that are close to their preferred temperature (juvenile walleye >22°C />71.6°F; adult walleye 18-22°C /64.4-71.6°F). It is possible that increased water clarity (partially due to invasive species) and climate change are increasing water temperatures at deeper depths in Mille Lacs Lake, thereby shrinking the amount of colder habitat that ogaa and other coldwater gigaonh species need to optimize growth and survival (i.e., squeezing coldwater fish into smaller habitats; Figure 1). A reduction in thermal habitat during the warm months may also be changing the abundance and location of colder water gigaonh (food fish) that buffer/protect juvenile ogaa against cannibalism. These changes may result in overlap of juvenile and adult ogaa thermal habitat, leading to increased encounter rates and as a result, cannibalism.

To test these predictions, biologists will use acoustic tags to track juvenile and adult ogaa in Mille Lacs Lake, and evaluate changes in habitat use (including thermal habitat) across seasons. By doing so, we hope to shed some light on why and where ogaa cannibalism is occurring in Mille Lacs Lake. This research will contribute to the ongoing efforts to rehabilitate walleye stocks in Mille Lacs Lake.

Funding for the project comes from a Bureau of Indian Affairs Tribal Fish and Wildlife Grant. For more information contact Mille Lacs Band Biologist Carl Klimah at Carl.Klimah@millelacsband.com.

Figure 1. Feeling the squeeze: potential reduction of ogaa thermal habitat in Mille Lacs Lake under warmer conditions.

Aquatic invasive species infestations multiply

By Bill Mattes, GLIFWC Great Lakes Biologist

Invasive sea lamprey are ferocious feeders and will attack just about any fish that swim their way. While lake trout are a historic favorite of parasitic lamprey, GLIFWC researchers are finding wounds on less likely suspects like suckers.

Damage inflicted by sea lamprey on Great Lakes fish populations is estimated by tracking wounding rates on lake trout. To accomplish this, fisheries technicians that are out monitoring commercial and sport fishing, or doing research and assessments, make note of lamprey-wounded lake trout as they collect data like measurements and length. These observations are used to develop wounding rates; combined with adult sea lamprey spawning population estimates, biologists track the success of sea lamprey control in the Great Lakes.

Wounding rates, however, might not always follow expected sea lamprey abundances. For instance, in years when sea lamprey numbers have been low, wounding rates on lake trout have been high and vice-versa.

Field staff have observed wounds on various species including lake whitefish, cisco, walleye, and even on the softer undersides of heavily-plated adult lake sturgeon. To better document the scope of lamprey attacks, GLIFWC Great Lakes Section staff have recorded sea lamprey wounds and length from all the fish they handle in assessments and monitoring for the past several years. Sea lamprey clearly prefer more than just lake trout as a meal. By continuing to track sea lamprey wounds on other species fisheries managers anticipate that valuable insights into conflicting trends between lake trout wounding rates and sea lamprey spawning abundances will be gained.

For more information on sea lamprey control in the Great Lakes visit the Great Lakes Fishery Commission website at www.glfic.org. The commission coordinates fisheries research and sea lamprey control, and facilitates cooperative fishery management among the state, provincial, tribal, and federal management agencies surrounding the Great Lakes.

Figure 1: Feeling the squeeze: potential reduction of ogaa thermal habitat in Mille Lacs Lake under warmer conditions.

Sea lamprey wounds reveal a broad diet

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DNR dredging buys time, $3.1 million effort begins to protect Buffalo Reef in Keweenaw County

The Michigan Department of Natural Resources (DNR) recently completed an emergency dredging project in Keweenaw County to restore the Grand Traverse Harbor channel for commercial and recreational boating. The $246,230 dredging project, undertaken by Marine Tech, LLC of Duluth, Minnesota, through the DNR’s Parks and Recreation Division, pumped 9,000 cubic yards of sand to a beach area north of the harbor.

Preceding dredging at the harbor was done by the DNR in 2015 and the U.S. Army Corps of Engineers in 2009 and 2003.

Meanwhile, more extensive sand removal and containment efforts are needed to protect important lake trout and whitefish spawning habitat on Buffalo Reef and a juvenile whitefish area south of the Grand Traverse Harbor, which is situated on the east side of the Keweenaw Peninsula, northeast of Lake Linden.

“Buffalo Reef is a 2,200-acre spawning reef located down drift of stamp sands that have eroded into Lake Superior since the early 1900s,” said Phil Schneeberger, DNR Lake Superior Basin coordinator. “It is currently estimated that this reef, critical to both lake trout and lake whitefish populations in the area, is currently 35 percent unusable by spawning fish due to sand that has filled spaces between rocks, which are necessary for successful fish egg deposit and incubation. Furthermore, migrating sands along the shore have made nursery areas unusable by newly-hatched fish.”

Nearly a quarter of the annual lake trout yield from Lake Superior’s Michigan waters comes from within 50 miles of Buffalo Reef. GLEFWC estimates the annual economic benefit of the reef at $1.7 million.

“The Keweenaw Bay Indian Community (KBIC), as well as other tribes located around Lake Superior, are and have always been, fishing tribes,” said KBIC President Chris Swartz. “Since time immemorial, these tribes have used the resources provided by gitchi-gami (or Lake Superior) to sustain their communities. This sustenance is not only physical; it is also spiritual, cultural, medicinal and economic.” Swartz said modeling predicts that by 2025, 60 percent of the reef will no longer be viable for lake trout and whitefish spawning.

In Keweenaw County, the Keweenaw Black stamp sands threatening the reef were created as a by-product of century-old copper mining at the Mohawk and Wolverine mines.

The mines, located about one mile south of Calumet, 13 miles east of the Keweenaw Black stamp sands threatening the reef, were eventually moved past the harbor and deposit on the natural white sand beach south of the jetty, at the mouth of the Traverse River,” said Steve Check, a project manager with the U.S. Army Corps of Engineers in Detroit. The DNR has applied for a permit from the Department of Environmental Quality (DEQ), under the Great Lakes Submerged Lands Act (Part 325 of Michigan’s Natural Resources and Environmental Protection Act), to allow the Army Corps to remove more of the stamp sands from Lake Superior.

The EPA has provided $3.1 million to the Army Corps to design and carry out the dredging work, scheduled for May 2018. A public comment period on this permit closed Nov. 1. No public hearing for this permit application is planned, with a permitting decision deadline set for Dec. 14.

Under the permit, a total of 172,500 cubic yards of stamp sands are expected to be removed from an underwater bedrock trough, moving the sand to a 37-acre placement site that has the capacity to store 380,000 cubic yards. This 2,350-foot-long by 700-foot placement area, located about 1.5 miles from the dredge location, would be north of Buffalo Reef, behind a temporary berm.

Another 20,000 cubic yards of sand would be removed from Grand Traverse Harbor, while 10,000 cubic yards of material would be dredged from an upland area next to the harbor, on the beach.

“This dredging project would buy five to seven years of protection for the reef and the whitefish juvenile recruitment area south of the harbor,” said Steve Casey, Upper Peninsula district supervisor for the DEQ’s Water Resources Division. “In the meantime, we need to develop a long-term, adaptive management plan, a solution for the Gay stamp sands problem.”

The EPA has formed a cooperative multi-entity task force to develop that plan over the next couple of years, which will solicit input from many stakeholders, including the public.

(Editor’s note: This Michigan Department of Natural Resources news release is issued in conjunction with the Michigan Department of Environmental Quality, Keweenaw Bay Indian Community and U.S. Army Corps of Engineers.)

Ceded Territory news briefs

Mercy pollution at Grassy Narrows spans some 50 years

A study by Japanese researchers reveals that an alarming 90% of Grassy Narrows First Nation residents in northwest Ontario exhibit signs of mercury poisoning. The results back up what the Asubpeeschoseewagong people have believed for decades—industrial contamination continues to cause serious health problems.

Upstream from the Ojibwe reserve on the English-Wabigoon river system, paper mill operators began dumping mercury in 1962 and continued into the 1970s. A byproduct of the paper-bleaching process, mercury transforms into the neurotoxin methylmercury when released into the environment.

By ingesting mercury-tainted walleye, community members experienced numbness, imbalance, headaches, sensory impairments and a range of disabling conditions. It has been especially harmful to developing children.

While Ontario officials have been slow to fully address the toxic legacy of the old paper mill, authorities are establishing groundwater monitoring stations in an effort to locate mercury-filled drums reportedly buried after direct discharge into the river ended in the 1970s.

At Mazina igar press time, Indigenous Services Minister Jane Philpott announced the government would fund the creation of a treatment center for community members suffering from mercury poisoning.

—CO Rasmussen

NCAI 2017 mid-year conference

The National Congress of American Indians held their mid-year conference in downtown Milwaukee October 15-20. Tribes from all over the United States attended and leaders shared their views at various consultations and working sessions. Over 1,700 people attended more than fifty different sessions.

Among the conference highlights, over 90 tribal youth ambassadors participated in the youth track. A number of sessions included a special youth and elder roundtable, which spurred conversation between the two generations.

Many former federal government appointees and new administration officials spoke out on issues and listened to tribal concerns. A total of 50 resolutions were passed throughout the week.

—D. Jennings
Vulnerability of ginoozhe to climate change

By: Hannah Panci, Kim Stone, Melonee Montano and Aaron Shultz
GLIFWC Staff

Climate Change staff are conducting a climate change vulnerability assessment for the 1837 and 1842 Ceded Territories of over 60 species of importance to GLIFWC’s member tribes. The assessment uses the Climate Change Vulnerability Index (CCVI) tool as well as input from regional species experts.

Climate Change staff have been conducting interviews with tribal elders and harvesters from each of the GLIFWC member tribes. A final report will integrate Traditional Ecological Knowledge (TEK) and Scientific Ecological Knowledge (SEK) to assess the vulnerability of these species to climate change.

To the left, is an example of the results you can expect from this report; look for more results in future editions. If you have any comments or questions about our assessment, please contact Climate Change program coordinator Kim Stone at kstone@glifwc.org.

(see Ginoozhe vulnerability, page 19)

Lemon Baked Fish

Ingredients:
- 1 tbsp sunflower seed oil, divided
- 1 each lemon, cut into 1/4" slices, divided
- 1 each shallot, diced, divided
- 1 tsp fresh chives, minced, divided
- 1 tsp fresh dill, divided
- 1 pound skinless, boneless northern pike fillets, divided

Directions:
1. Using a 9" x 13" baking dish, layer half the oil, lemon, shallot, herbs, and filet and repeat.
2. Position the oven rack so that the fish will be 4-5" below the broiler.
3. Broil on high heat for 10-15 minutes or until fish flakes easily.

Chef note: If you are using an electric oven preheat the broiler for 5-10 minutes before broiling fish. If you are using a gas oven there is no need to preheat the oven. This recipe is great for all different types of fish.

Original concept from biskakone, Lac du Flambeau

More traditional Anishinaabe recipes can be found in Mino Wiisinidaa! Let’s Eat Good! cookbook at: www.glifwc.org/publications/#Books.
Gathering miinikaanan for the future

By GLIFWC Climate Change Program Staff

In an effort to collect and store miinikaanan (seeds) of important tree species in the Ceded Territories, GLIFWC Climate Change staff have been gathering aagimaak (ash) and wiigwaasaatig (birch) miinikaanan for long term storage. The collections are a part of a pilot project to establish a miinikaanan (seed) bank to preserve genetic diversity and store miinikaanan for future use.

For long term storage of the collected miinikaanan, GLIFWC formed a Material Transfer Agreement with the National Center for Genetic Resources Preservation in Fort Collins, Colorado. The Center is a U.S. Department of Agriculture facility, but the agreement ensures that GLIFWC retains ownership of the miinikaanan and must be contacted for any withdrawal requests.

The project’s success will depend on many factors. Each step of the process—finding trees with a good miinikaanan crop, collecting the miinikaanan, and cleaning the miinikaanan—has its own challenges and requires time, equipment, and expertise.

Finding trees with enough miinikaanan can be difficult. Miinikaanan are hard to spot when the canopy is fully leafed out, as they are small and often located in the upper level of the canopy. Some trees do not produce miinikaanan every year; aagimaakoog (ash trees) may only produce large crops every three to five years whereas wiigwaasaatig (paper birch trees) produce at least some miinikaanan annually but typically produce a heavy crop only every other year.

Once trees with ample miinikaanan are located, GLIFWC staff have a small window in which to collect them as miinikaanan must be harvested after they mature and before they have fallen to the ground. The miinikaanan of aagimaakoog are mature when the samara (the papery wing) has faded from green to yellow or brown. The miinikaanan of wiigwaasaatig are mature when the catkins (the structures that store the miinikaanan) have turned brown.

Perhaps the greatest hurdle to successfully collecting miinikaanan has been the physical challenge of obtaining them, as they are typically found high in the canopy. Assisting GLIFWC in this endeavor was Kyle Cadotte, a Red Cliff tribal member, tribal conservation warden, and professional tree climber. Using specialty climbing gear and trimming equipment as well as an arborist’s slingshot, Cadotte was instrumental in helping GLIFWC staff access and obtain the miinikaanan.

To collect the wiigwaasaatig miinikaanan, Cadotte and GLIFWC staff used the arborist slingshot to toss a rope over a branch and shake them out of the tree and onto tarps set out below. This method was successful, although it yielded fewer miinikaanan than is generally recommended for a successful collection. A different technique might be necessary in the future.

For aagimaak, Cadotte assisted GLIFWC staff in cutting miinikaanan-bearing limbs and dropping them onto a tarp and also felled one smaller tree. Once GLIFWC staff gathered the miinikaanan, Bad River member April Stone collected the trunk and trimming equipment as well as an arborist’s tree climber. Using specialty climbing gear and trimming equipment as well as an arborist’s slingshot, Cadotte was instrumental in helping GLIFWC staff access and obtain the miinikaanan.

For cleaning and processing the aagimaak miinikaanan, GLIFWC has the assistance of Dr. Andrew David, a University of Minnesota forest genetics expert (see Gathering miinikaanan, page 15).

Climate change and carbon credits:

An introduction to tribal carbon projects and their potential risks and benefits

By Kim Stone, GLIFWC Climate Change Program Coordinator

As our earth continues to warm due primarily to excess carbon dioxide in the atmosphere, many public and private entities are seeking ways to offset their impact on the environment. One approach is the selling of carbon credits, a method by which those who put carbon into the air pay those whose actions remove carbon or preserve it in existing sources. What does this mean for tribes?

First, a bit of background. Excess carbon dioxide produced by humans warms the earth. This warming occurs because manufacturing and industrial processes produce large amounts of carbon dioxide, in part, because many use fossil fuels to create heat and steam for the production of products. When a fossil fuel is burned it releases energy but also produces carbon dioxide; the carbon stored in fossil fuels to create heat and steam for the production of products. When a fossil fuel is burned it releases energy but also produces carbon dioxide; the carbon stored in fossil fuels to create heat and steam for the production of products.

As carbon dioxide levels in the atmosphere increase, the gas acts as an insulator, trapping the sun’s warmth and causing the earth to warm. This greenhouse gas is a primary contributor to climate change. The largest human source of carbon dioxide emissions comes from the burning of fossil fuels for heat, electricity, and power.

At the other end of the climate change spectrum lie forests and the work they do naturally to counteract climate change. Trees, as they grow, absorb carbon dioxide from the air and build it into their woody material in the form of carbon. Growing and preserving forests—that is sequestering carbon—can counteract the warming effect caused by excess carbon from burning fossil fuels. The cycle can also reverse: when a tree dies and either rots or is burned, much of the stored carbon is released back into the atmosphere, meaning standing trees are huge reservoirs of stored carbon.

The burning of fossil fuels puts carbon dioxide into the air, trapping the sun’s warmth and contributing to the earth’s warming. Trees can counteract this effect because they naturally absorb carbon dioxide from the atmosphere and build it into their woody material. A growing and potentially lucrative market exists whereby landowners can sell the carbon absorbed or sequestered in their forests to those whose fossil fuel-burning activities put carbon into the air. (C. Rasmussen photos)

Putting a dollar amount on pollution

As environmentally conscious companies and governments seek to counteract the impacts of the greenhouse gasses they produce, one way used to lower their carbon footprint is by purchasing carbon credits, also called greenhouse gas offsets or reduction “credits.” Carbon credits originate when a person or entity with forestry holdings measures the amount of carbon in their forest and quantifies this amount into units. The landowner then makes a commitment to keep that forest standing, thereby not releasing the wood’s trapped carbon. This carbon, because it is being stored rather than being added to the atmosphere (and contributing to climate change), becomes a “carbon offset” or “carbon credit” that can be sold in a carbon market.

(see Climate change and carbon credits, page 16)
Deer season brings annual crop of new hunters

New hunters took to off-reservation woodlands across the Ceded Territory following several rounds of hunter safety education classes in native communities. Both GLIFWC and tribal wardens taught combined classes of Indian and non-native students from Minnesota across Upper Michigan to Bay Mills.

GLIFWC officers alone certified 117 hunters that included both kids and adults. At some locations families took safety courses together, looking to start their own hunting traditions while harvesting healthy food for home-cooked meals.

At the request of the Lac Courte Oreilles Tribal Governing Board, GLIFWC wardens added a second hunter safety class at the LCO Boys & Girls Club in November. It was first time area wardens offered a combination online class with a mandatory field day. Students completed the lecture portion of the class online, reporting that it took roughly 10 hours. The field day consisted of safe firearm handling, tree-stand safety, a regulation question-and-answer session, and other hands-on skills, before students took the written and practical exams.

“I’ve been teaching hunter education for six years and this is the first class in which every student scored 100% on both the written and practical test,” said Officer Lauren Tuori who taught the class with fellow GLIFWC wardens Mike Popovich and Holly Berkstresser. “I was impressed at that level of proficiency the students gained through the online course and a single day of hands-on practice.”

A total of six students were certified. Look for future offerings from GLIFWC for internet hunter safety classes with a field day. For more information contact your local GLIFWC warden.

CO Rasmussen

Kroepelin retires from law enforcement

Following a second stint working as a conservation officer in the Wisconsin Ceded Territory, Tom Kroepelin says he’s retired for good after turning in his GLIFWC badge, GL91, last October.

Kroepelin joined the GLIFWC Enforcement Division in March 2011 as its inaugural training director. Charged with developing comprehensive programs for GLIFWC’s 20 officers spread across three states, he provided leadership to both new recruits and seasoned personnel.

Kroepelin created annual training sessions in the field as well as in-house activities to review ethics and legal authority. He also served as a liaison for the division with other law enforcement agencies.

His conservation enforcement career first began with the Department of Natural Resources. As a state warden Kroepelin worked alongside a mix of interagency officers at Ceded Territory boatlandings in the 1980s during the early years of off-reservation spearfishing seasons. A fair-minded presence during sometimes chaotic nights along the lakeshore, Kroepelin earned the respect of tribal members for his efforts. Enjoy your retirement, Tom!

CO Rasmussen

Dagwaagin-gabeshiwin

Dagwaagin (fall) is a time for the Ojibwe people to harvest manoomin (wild rice) and to hunt for waawaashkeshi (deer). When the Ojibwe lived off the land, it was also a time to prepare everything for winter. Children often helped with activities such as processing rice, drying meat, and gathering firewood. But it wasn’t all work. Fall was also a time to play games like lacrosse and the moccasin game.

This past fall, Bad River and Mole Lake Bands of Chippewa hosted fall camps aimed at keeping these seasonal traditions alive. On October 27-28, Bad River’s camp got underway despite a nasty rainstorm that forced activities from the outdoor lodge constructed for camp to the community center.

Under a nice dry roof, participants learned how to clean a deer, brain tan a deer hide, can venison, make apple cider, and play the moccasin game. Relatives from nearby Waawwaagning (Lac du Flambeau) and Nagaajiwanaang (Fond du Lac) joined the Bad River community to teach, share, and spend time with all who attended.

P. Maday

Camp participants of the Sokaogon Mole Lake fall camp learn how to set up water sets for trapping. (K. McGeshick photo)

Jarroll Ojibwe, (from the left) David Sam, Bazile Panek and Damon Panek teach moccasin games at the Bad River dagwaagin gabeshiwin. (P. Maday photo)
Health emergency brings out the best

By Dylan Jennings, Staff Writer

Nibin (summer) often brings joy and laughter while youth and adults take to the outdoors. Many kids in the area attend Camp Onji-Akiing at the US Forest Service’s Camp Nesbit property in Upper Michigan. This year, as youth explored the waters, completed the high ropes course, and constructed their own ricing canoe, they also got to step into the emotional, and spiritual aspects are explored.

At the Medicine Wheel, in which mental, physical, emotional, and spiritual aspects are explored.

Not only did kids experience canoeing, fishing, archery, swimming and the team-building low ropes course, they also got to step into the shoes of several natural resources professionals that traveled from far places to share their cultural, collegiate, and outdooor knowledge.

As the kids learned that “water is life,” camp centered around water activities. Campers worked with US Forest Service (USFS) staff to test water quality in Lake Nesbit. Campers also examined water-based plants around the lake and in the bog.

A look back at Onji-Akiing

By Heather Bliss

Surrounded by their plant and animal relatives, tribal youth gathered deep in the heart of the Ottawa National Forest for the 9th annual Onji-Akiing: From the Earth Cultural Youth Camp last summer.

“We, as Lake Superior Ojibwe kids, feel at home here in the woods with all our relatives, human and non. We learn important things from them,” said Saagi Stark, Bad River member, junior camp counselor.

Fifty-five campers and nine Junior Counselors celebrated their indigenous heritage with adventure-based learning activities that connect to the Medicine Wheel, in which mental, physical, emotional, and spiritual aspects are explored.

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Brooks BigJohn, Lac du Flambeau, instructed campers on the cultural and sustainable importance of decoy carving. Each camper constructed their own decoy to use this winter. (H. Bliss photo)

Natassia, a visiting botanist from Belarus, introduced campers to a plant that serves as a bio-indicator for lean water. Natassia told the kids that in her culture, this plant is extremely rare and celebrated when found.

Also this year, students had the pleasure of learning the cultural and the sustainable importance of decoy carving with cultural artist and decoy maker, Brooks BigJohn of Lac du Flambeau. Each student brought a perch decoy home that they painted and will hopefully use for the winter ice spearing season.

For the service project this year, campers painted and placed recycling bins around the camp, making recycling accessible to all the areas of camp for the first time ever. Campers were allowed to get creative and personal with the tops of the cans, bringing a sense of fun and excitement to recycling.

GLIFWC, USFS, US Fish & Wildlife Service, and Michigan Department of Natural Resources staff also reinforced environmental stewardship to Mother Earth through hands-on activities, and held a Natural Resource Career Fair that offered personal experience to the kids. This fair included several colleges and tribal professionals from around the Great Lakes region.

This camp is designed to empower the lives and strengthen the paths of Native American youth today through cultural activities and wisdom. Onji-Akiing works to provide the tools that youth need in order to enrich their lives, their culture, and the communities they live in. If you are interested in information on the 2018 Onji-Akiing Camp Program (scheduled July 16-20), please contact Heather Bliss, outreach officer at hbliss@glifwc.org. Also, please find more information at www.facebook.com/Full-Circle-Project-178945521517941/.
Manoomin camps develop skills, produce manoomin reserves for winter.

Leveraging the skills and knowledge of Anishinaabe youth and cultural leaders, manoomin camps are stepping in to help educate young people about the ecological and cultural importance of wild rice. These camps, often hosted by tribal communities, focus on teaching traditional practices such as canoeing and safely harvesting wild rice. As part of the GLIFWC’s Manoominikewin program, which aims to revitalize and promote the cultural and ecological significance of wild rice, these camps provide a unique opportunity for participants to engage with the land and deepen their cultural knowledge.

Anishinaabe TEK. Traditional Ecological Knowledge (TEK), through youth programs are stepping in to help educate young people about the ecological and cultural importance of wild rice. These camps, often hosted by tribal communities, focus on teaching traditional practices such as canoeing and safely harvesting wild rice. As part of the GLIFWC’s Manoominikewin program, which aims to revitalize and promote the cultural and ecological significance of wild rice, these camps provide a unique opportunity for participants to engage with the land and deepen their cultural knowledge.

Anishinaabe TEK.

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Manoomin camps develop skills, produce manoomin reserves for winter.
In gratitude for manoomin and its many gifts
A view from Upper Michigan

By Valoree S. Gagnon, For Mazina’igan

It began as an idea sparked in the mind of Lac Vieux Desert tribal member Roger LaBine last summer. “Do you think we could host a wild rice camp here this fall?”

LaBine and I were sitting in the Ford Center dining hall in Alberta, Mich. With Scott Herron, Ferris State University faculty member, Evelyn Ravindran, Keweenaw Bay Indian Community’s Natural Resources Department manager, and Center Director Ken Vrana. We’d just finished cleanup of a two-day wild rice camp for area youth. “Of course we can,” Vrana chimed in.

Knowing that manoomin (wild rice) will be ready for harvest in a few short weeks, LaBine points around our circle and says: “If we all work together, I think we can make this happen.”

Wild rice camp came together at the Ford Center & Forest Sept. 22-24, through the tremendous efforts of volunteers, donors, and a partnership team that was established in just two days: KBIC’s Natural Resources Department, Keweenaw Bay Ojibwa Community College, Michigan Tech’s School of Forest Resources and Environmental Science, and Ford Center & Forest, Great Lakes Indian Fish & Wildlife Commission, and our teachers, LaBine and Herron.

More than 20 individuals—including staff, technicians, and college interns—got to work on the registration process, securing funds and in-kind donations, planning the menu, plus inventorying and collecting hundreds of tools, tarps, drills, processing equipment, two dozen canoes, paddles, and life jackets from upper and lower Michigan and Wisconsin. Some went to Minnesota to bring back more than 1,000 pounds of manoomin to seed in local waters.

Volunteers collected forest materials. Michigan Tech forester Jim Schnirmer gathered and transported several 15-foot hardwoods to Alberta. Alan and Canon Gagnon, alongside college interns, located and sawed more than 30 “forks.” Pant Nankervis of the US Forest Service helped to find the much-needed gizhik (cedar), and Harry Miron and Clifford Nankervis each delivered a truckload.

Different manoomin processing methods demonstrated at camps

(continued from page 13)

goers helped to parch rice over propane burners, thresh, and winnow rice using the machines. No impurity too large or small escaped Duffy’s keen eye as he cleaned the rice.

Following the demonstration utilizing modern equipment, Red Cliff members Shelly and Charlie Gordon walked event goers through each step of the traditional processing method. Everyone had the opportunity to try their hand at parching, dancing, and winnowing rice.

During a lunch break, a prayer was offered for the food. Excited and hungry, everyone jumped in line for some of Joe Duffy’s famous fried whitefish. Jokes and laughter peppered the air as bits of conversation picked up and stories were shared.

After lunch, the day concluded with broadcasting manoomin into Frog Creek. Staff and event goers worked together to广播 manoomin into the creek bed below along with hope of harvests for generations to come.

—Owen Holly Maroney

Gakiwé’o naning (Keweenaw Bay)

A heavy afternoon downpour prompted Keweenaw Bay Indian Community’s manoomin camp participants to gather their chairs and hand planters under a large tent to share stories and laughter as they worked on fashioning their own rice knockers and parching paddles out of cedar. To help pass the time, GLIFWC Community Dietitian Owen Maroney helped keep campers engaged and their bellies full with an interactive talk on wild rice nutrition. Campers had the opportunity to sample the Wild Rice Berry Salad and ask questions about manoomin and health.

The manoomin camp, held September 22-24 at the Ford Center in Alberta, MI, was sponsored jointly by the Keweenaw Bay Indian Community’s Natural Resources Department, Ojibwa Community College, Michigan Technological Institute’s School of Forest Resources and Environmental Science, and the Ford Center & Forest.

The Ford Center provided the optimal setting for teaching, comradeship and interaction as all participants shared meals together in the cafeteria hall and even lodged or camped overnight at the site as well. Roger LaBine, Lac Vieux Desert tribal member and manoomin knowledge holder, led the day’s activities using his subtle humor to guide and instruct those on hand as the cedar shavings piles grew higher.

Bright sunshine the following day afforded the chance for some to watch LaBine construct a gaandakii’igananka (push pole) with a traditional maple forked footing. Other participants headed off with KBIC Natural Resources staff to assist them in a seedling effort at nearby Net River Impoundment.

Although participants did not have the chance to harvest their own rice this year, traditional finishing was demonstrated the last day of the camp with seed gathered and air dried earlier this season. LaBine described and demonstrated the entire process from fire parching to winnowing and cleaning the finished manoomin grains.

In addition, an electric thresher machine was on hand to show the oft-mechanized steps that combine jiggling and winnowing in what they called the “Manoominator!”

Participants left the camp prepared for the next ricing season, equipped with their new rice knockers, a better understanding of manoomin in the Ojibwe culture, and an even greater appreciation for this special food from the Creator.

—Lisa David
Manoomin
(continued from page 3)
picking. The biggest bit of luck came with the weather: despite a summer of storms, the winds and rains held back enough in many areas to provide a much-needed window for good harvesting.

And then there was the respect. The cool summer meant harvest would be late. Some of the dates we tend to assume will provide ripe rice were not going to this year. Would people hold off and let the rice mature, or would they go anyway, hurting themselves, other pickers, and the manoomin itself?

In the end, I was pleased. Certainly there were exceptions, and perhaps there always will be. But my own impressions, and those of most of the ricers I spoke to, were that most ricers respected the manoomin. Folks held off, or cut early trips short when they realized the rice needed more time. They gave back a bit to the plant that gives so much to us. I think this was an incredibly important part of the season.

This kind of respect really cannot be captured and put in a regulation or be enforced by law. It has to be taught and learned and ingrained as an attitude in the ricer. Not all have it—and we have a ways to go with instilling it into the non-ricing community—but I was heartened by the respect I witnessed in the ricer. Not all have it—and we have a ways to go with instilling it into the non-ricing community—but I was heartened by the respect I witnessed in the ricer. Not all have it—and we have a ways to go with instilling it into the non-ricing community—but I was heartened by the respect I witnessed in the ricer.

By Travis Bartnick, GLIFWC Wildlife Biologist and Hannah Panci, GLIFWC Climate Scientist

Gathering miinikaanan
(continued from page 9)
researcher who heads a conservation effort to protect genetic diversity of aagimaak. After preparing the miinikaanan, Dr. David sends them to the vault in Fort Collins.

For the wiigwaasatig, however, the calendar, based on regional differences in weather patterns and other environmental factors.

The date someone observes ice-out in the southern portion of the Ceded Territories will likely be earlier than the date of ice-out observed in the northern portion. Getting many different observations from across the Ceded Territories could help us understand how some of these observations vary across the region.

Use the two-sided form below to write down your own observations. Make a fun activity out of watching for the events that are listed, or by noting other phenological or seasonal events you observe throughout the year.

GLIFWC’s 2018 fold-out calendar notes some phenological events that occur within the Ceded Territories throughout the year. Since the Ceded Territories span such a large area, there will be variation in the timing of some of the events on the calendar, based on regional differences in weather patterns and other environmental factors.

Aanin ezhiiwebak Anishinaabe-akiling?

Please Help GLIFWC Observe Seasonal Events in the Ceded Territories

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

Help us study phenological and seasonal changes by writing down your observations on this form. Keep it on your bulletin board or refrigerator. Share your knowledge by mailing it back to GLIFWC by June 30, 2018.

For more information on GLIFWC’s miinikaanan banking pilot project, see www.glifwc.org/ClimateChange/SeedBank.html or contact Kim Stone at kstone@glifwc.org.
Climate change and carbon credits

(continued from page 9)

Those who wish to combat climate change can then buy these offsets, claim-
ing the credit for the reduction in carbon emissions and mitigating the effects of their own activities that might be generating greenhouse gases.

Landowners looking to quantify and sell the carbon from their landholdings typically begin by working with a carbon project developer to put together a project. Several types of forest carbon projects exist, but the most common is the “Improved Forest Management” (IFM). An IFM project begins with a feasibility analysis and involves inventorying the property to determine how much carbon it will store over time. When the land’s carbon amount is documented and verified by a third party, it can be registered with one of the three national carbon registries which then issue the credits. The credits can then be sold on the carbon market.

Carbon credits can be developed for sale in either the voluntary market or the compliance market, each of which has specific carbon accounting and eligibility rules. For the compliance market, a carbon project must be maintained for 100 years following the final credit issuance, the forest inventory must be updated at least every 12 years, and the monitoring documentation must be updated every year to account for harvesting, growth, or any significant damage from natural disasters. On the voluntary market, the time commitment can be negotiated between the parties.

BIA: General guidance on carbon credit but no official policy

While many tribes consider whether a carbon project is or is not in their best interests, the Bureau of Indian Affairs (BIA) has yet to publish an official policy on the issue. The agency’s lack of regulations concerning carbon credits is based in part on a lack of directive from Congress. Because Congress has not enacted laws relevant to carbon credits, nor provided any type of funding to develop carbon sequestration projects, there is little for the BIA to act on.

Another factor underlying the BIA’s lack of policy guidance is that carbon credits may or may not be considered a trust asset. If they are not, the agency does not need to approve a tribe’s carbon project as a sale of a trust asset. But the agency still requires general review of a tribal carbon project to evaluate whether the project implicates other regulations or policies. Contracts greater than seven years, for example, require secretarial approval, as do other situations that may arise in a carbon project.

While the BIA officially neither encourages nor discourages carbon agreements, it does recommend that any tribe considering a carbon project proceed with caution, emphasizing that agreements in the compliance market require a limited waiver of sovereign immunity as well as a 100-year commitment (although projects sold in the voluntary market may involve a much shorter time commitment). A carbon agreement might require modifications in a tribe’s current land management plan; if a tribe’s Forest Management Plan specifies a certain amount of harvest, and that amount conflicts with the carbon agreement, one or both will need to be modified. And exiting a carbon agreement can be very costly if a party changes its mind down the road.

For others appreciate the benefits of a tribal carbon project, including the potential revenue stream, Ernest Neptune, forest supervisor for the Passamaquoddy Forestry Department, calls himself a “carbon credit fan” mostly because he sees it as “a stewardship program that holds polluters accountable for their destructive nature.”

For his own tribe and forest lands, Neptune says: “I couldn’t believe we would be paid millions of dollars to keep doing what we were already doing.” In going forward with the project on its tribal lands, the Passamaquoddy Tribe considered its existing forestry reporting efforts (already being done with the BIA) and felt the demands of the carbon project would not be difficult to meet. The tribe recently submitted a 98,000-acre project for a net revenue of $30 million dollars.

Neptune recommends that any tribe considering a project seek an experienced developer that has successfully worked in Indian Country. Neptune also stressed the need for a tribe to have a solid Integrated Forest Management Plan in place, and for the tribe to have a solid Integrated Forest Management Plan in place, and be educated about the 100-year commitment and waiver of sovereign immunity.

Potential rewards and pitfalls of tribal carbon projects

For some tribes, carbon projects can provide an opportunity to develop a revenue stream while at the same time protecting or restoring forest land. Others take a different approach, seeing carbon projects as a way for polluters to continue polluting.

Certainly a big sticking point for any tribe, however, is the requirement that a tribe sign a waiver of sovereign immunity relating to the agreement, meaning that a tribe can be sued in court if disagreements arise concerning the requirements of the program or the rules they committed to.

Carbon credit agreements also cannot contradict a tribe’s existing land management plan. If a tribe’s Forest Management Plan specifies a certain amount of harvest, and that amount conflicts with the carbon agreement, one or both will need to be modified. And exiting a carbon agreement can be very costly if a party changes its mind down the road.

For tribes looking to learn more

One organization assisting tribes with their carbon projects is the National Indian Carbon Coalition (NICC). NICC formed several years ago from a partnership with the Indian Land Tenure Foundation and the Intertribal Agriculture Council. The organization provides education, training and technical assistance to tribes and Indian landowners who are interested in entering the carbon credit market.

NICC also assists tribes and landowners with baseline assessments of their reservation carbon assets and helps to identify resources and potential partners (see Carbon credits, page 22).

Despite a lack of guidance from Congress, the agency does have a draft carbon policy in development that it hopes to publish within the year.

Other bioboom observations:

<table>
<thead>
<tr>
<th>Biboon / Winter</th>
<th>Date/location</th>
<th>Zlgwgan / Spring</th>
<th>Date/location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ice thickness on January 1* (specify lake)</td>
<td>First dragonfly</td>
<td>First flowers on trees</td>
<td>First rain</td>
</tr>
<tr>
<td>First white coat seen (snowshoe hare, ermine)</td>
<td>First thunderstorm</td>
<td>First leaf buds bursting on trees</td>
<td>First crusty snow</td>
</tr>
<tr>
<td>First snowfall</td>
<td>Last snow before summer</td>
<td>First new needle growth on trees</td>
<td>Last frost before winter</td>
</tr>
<tr>
<td>First snow that sticks</td>
<td>First night above freezing (32°F)</td>
<td>First temperature below zero</td>
<td>Ice out (specify lake)</td>
</tr>
<tr>
<td>Lake freezes (specify lake)</td>
<td>First canoe (lake/river)</td>
<td>First walleye caught through the ice</td>
<td>First muskies harvested</td>
</tr>
<tr>
<td>First ravers building nests</td>
<td>First mushrooms harvested</td>
<td>First snow shoal</td>
<td>Other oon observations:</td>
</tr>
<tr>
<td>First musky speared through ice</td>
<td></td>
<td>First eagles at nests</td>
<td></td>
</tr>
<tr>
<td>First eagles at nests</td>
<td></td>
<td>First snow float</td>
<td></td>
</tr>
<tr>
<td>First snow floas</td>
<td></td>
<td>First skii / snowshoe</td>
<td></td>
</tr>
<tr>
<td>First deer antlers dropped</td>
<td></td>
<td>First deer feaws</td>
<td></td>
</tr>
<tr>
<td>Last deer with antlers seen</td>
<td></td>
<td>First bear</td>
<td></td>
</tr>
<tr>
<td>First day above freezing (32°F)</td>
<td></td>
<td>First frogs calling (species)</td>
<td></td>
</tr>
<tr>
<td>Other bioboom observations:</td>
<td></td>
<td>First walleye speared (lake)</td>
<td></td>
</tr>
</tbody>
</table>

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**Please record the date, location, and species (if applicable) for each observation. Return to GLIFWC by June 30, 2018. Miigwech!
Summary

Biologists often direct their efforts towards natural resources that are declining, yet rarely highlight when a fishery has been stable over time. Lake Gogebic, a large nutrient-poor (oligotrophic) lake in the 1842 Ceded Territory, stands out as a stable walleye fishery relative to many walleye lakes (e.g., Lac Vieux Desert Lake, Mazina’igan Summer 2017, pg. 10) in this region.

There have been boom and bust years for production and/or survival of young walleye (less than one year old) over time (a typical trend in most walleye lakes), but overall the number of young walleye in Lake Gogebic has been stable. This has translated into a relatively constant density (greater than 2.5 fish/acre) of adult walleye (greater than 15 inches) since the mid-1970s. A low combined state and tribal harvest rate of approximately 12.6% may be partially responsible for the success of this fishery. Future management actions should consider the success of managing this fishery with a relatively low exploitation rate as well as the needs of both tribal and state harvesters, with the ultimate goal of sustaining stable stocks of walleye in this lake for future generations.

Technical Summary

A study from the Quantitative Fisheries Center at Michigan State University used long-term datasets from the Michigan Department of Natural Resources and Great Lakes Indian Fish & Wildlife Commission to 1) evaluate the status of walleye in Lake Gogebic and determine if fish stocking or habitat enhancements influenced walleye stocks.

The study revealed that production and/or survival of age-0 walleye (typically 4–8 inches) has been cyclical since yearly surveys began in 1990 (Figure 1). Peaks in production and/or survival of age-0 walleye occur every 5–6 years, but these peaks have not always resulted in high catch rates of age-1 walleye (typically 8–12 inches) the following year.

For example, approximately 200 age-0 walleye were captured per mile of shoreline in 2001, but very few age-1 walleye (<10 fish/mile) were captured in 2002. The number of eggs fertilized during spawning and environmental factors such as temperature in early spring and food availability for young walleye all likely play a large role in determining the variable number of walleye that survive to age-1.

Mark/recapture population estimates of adult walleye (>15 inches) have been conducted in this lake 1–2 times per decade since 1975. The density of adult walleye in Lake Gogebic has been approximately equal to or above 2.5 fish/acre, the average for other large lakes in this region (Figure 2). Previous studies have indicated that angler exploitation is between 7.9% and 9.3% of the adult population. Tribal harvest has consistently been around 3.3%, resulting in a collective upper exploitation rate of 12.6%. This is quite low relative to the maximum sustainable exploitation rates between 24% and 35% used by state and tribal management agencies in this region.

Lastly, walleye were stocked in the 1970s–1980s and baitfish in the late 1980s and 1990s. Based on the assessments conducted, there was no impact on the abundance or growth of walleye in Lake Gogebic (Figure 1, Figure 2).

Habitat enhancement projects (sinking of Christmas trees and wooden structures) also took place on this lake, but it is difficult to determine if this action had a positive impact on walleye production because of minimal to no monitoring efforts after the structures were deployed. Future habitat enhancement projects should also focus on maintaining water quality and rehabilitating shorelines (e.g., adding a riparian zone that mimics a natural shoreline). These projects could benefit fish and other aquatic organisms in Lake Gogebic as well as bring the community members together to protect this valuable natural resource.

We value your feedback. Please send your comments/questions to biologist aaronshultz@glifwc.org.

—Mark Luehring, Adam Ray, Joe Dan Rose, Ben Michaels and Aaron Shultz, GLIFWC Inland Fisheries Staff
Mequon, Wis.—Against the backdrop of the beautiful Lake Michigan, educators from all over Wisconsin came together at Concordia University on October 19-21 for the Wisconsin Association of Environmental Education (WAEE) Conference. Under the conference theme of “Rising: The Time for Youth, the Time for Equity, and the Time for Environmental Education,” they worked in the program welcome.

The 2017 WAEE Conference featured five tracks. The tracks included: Stewardship, Advocacy and Community Engagement; Equity, Access and Inclusion in Environmental Education; Environmental Education and Public Policy, Hands-on-Environment and Recreation; Early Childhood Environmental Education, and Innovative Best Practices in Environmental Education. Some specific session topics includedengaging youth in water monitoring, water and spirituality, the rights of nature, equity, and inclusion in environmental education efforts across the state.

In step with growing global and cross-cultural concerns related to water, WAEE turned their focus for this conference to include ways of embracing diversity, equity, and inclusive education efforts across the state. The opening ceremony included an indigenous pipe ceremony and a water ceremony. Water protectors and members of the Menomini Nation spoke, sharing concerns about environmental threats posed to their homelands by the Back 40 mine.

The closing panel highlighted the work of UW-Madison Earth Partnership, GLIFWC, and Wisconsin Green Muslims, sharing cultural perspectives on environmental education. These major conference events bookended three days of GLIFWC, and Wisconsin Green Muslims, sharing cultural perspectives on environmental education. These major conference events bookended three days of environmental education efforts, and strengthened networks in environmental education, particularly around the theme of water.

Conference co-chairs Crystal Seeley-Schreck of the Wisconsin Technical College System, and Michael Beeth of UW-Oshkosh, recognized that this year’s theme had a lot of connotations. “Water is rising due to climate change; people are rising around the world in defense of clean water; unparalleled hurricanes are causing unprecedented flooding around the world; awareness about water issues is rising in response to your dedicated community actions and hands-on environmental education,” they wrote in the program welcome.

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The closing panel highlighted the work of UW-Madison Earth Partnership, GLIFWC, and Wisconsin Green Muslims, sharing cultural perspectives on environmental education. These major conference events bookended three days of environmental education efforts, and strengthened networks in environmental education, particularly around the theme of water.
I love that term that “ninandotaagonaanig” I heard from University of British Colombia now, they said that clearly the earth is allowing wild parsnips to show up. They’re mean. For example, the farmers where I work, [didn’t want to] grow parsnips. I would be carrying on the responsibility of her relative who carried that name. I truly believe that, every plant has its gift of food, utility, or medicine. Those three right there. And even if they didn’t, they’re giving us air. I truly believe that. It’s like seeing a friend. It’s like looking at that one right there. I believe they have a spirit. Some people say they can’t see them. I think, think that’s probably true. I’m really interested in their gifts of healing through their spirit or medicine within. Also, how they talk to each other on the ground and even above ground, how they talk with their biochemistry. I just love that and how they help each other despite what their differences are. They can help each other. There’s really interesting stuff going on.

I recently asked Ogimawangaanvbik [Nancy Jones] about the difference of the awakanagan and the awesinyan. I said: ‘can you apply that to plants? ‘Sure.’ Does it mean clearly the earth is allowing wild parsnips to show up. They’re going to take off. That’s why I always talk to the kids about. I feel really honored that she did that, and I’m grateful because then she told me that I would be carrying on the responsibility of her relative who carried that name. For the rest of my life, I will be carrying on her work—that’s what I was told.”

Jennifer Ballinger
GLIFWC Outreach Specialist
How makwa got a short tail

Aaniin (hello) friends and relatives! Biboon (winter) is a time for storytelling. Anishinaabe aadizookaan (original/traditional stories) are a big part of the Ojibwe lifeway. They teach us many things about life and how to act. They may also teach us how to treat each other and everything in creation.

Many times these stories are filled with humor, which is a universal form of healing. When listening to these stories, think about what virtues or lessons they might be trying to teach.

When makwa (bear) was created he was given the longest, bushiest, most beautiful tail of all the animals. He was very proud of his tail. He was so proud that he went around bragging to the other animals. He walked around, bragging as he told the other animals that his tail was the best looking of all.

The other animals grew tired of him bragging around. They talked about how makwa was given special treatment when he was given such a nice tail. One time as the waagosh (fox) was walking through the woods he thought of a plan that he thought would punish makwa.

It was getting along towards fall as the lake was icing over when waagosh left, catching giigoonh (fish) and waiting for makwa to come along. Soon he saw the bear approaching on the trail right by the lake. He saw the fox with the fish. “Fox, how did you catch the fish,” asked the bear. “I went to the lake.” “I chopped a hole in the ice.” “I put my tail through the opening, waiting for the fish to grab onto my tail,” said the fox. “Do [you think] that I’ll catch some fish by doing the same thing,” asked the bear. “Maybe,” said the fox.

So the bear went out to the middle of the ice on the lake and chopped a hole, immersing his tail through the opening. The bear sat for a long time. The bear didn’t feel anything trying to grab his tail. The bear finally decided to pull his tail out of the hole. But he had sat for so long that his tail was encased in a thick circle of ice. He tried to no avail to pull his tail from the ice, as his tail was frozen solid. He jerked it with such force that he broke off the end of his tail. He looked at his tail but it was gone. All he had was a short little tail.

So his long, beautiful, bushy tail was now broken off. That’s how he got a short tail.

Based on a story by the late Anna Gibbs, an Ojibwe spiritual leader from Ponemah, Minnesota.

What have you learned?

1) What is the Ojibwe name for the black bear? ___________
2) How much does the black bear weigh? _______________
3) What do black bears eat? __________________
4) How fast can black bears run? _______________
5) Can black bears climb trees? ___________

Makwa facts

- American black bears are found in Canada, Mexico and North America.
- They mostly eat grasses, herbs and fruit.
- The bear’s coat has lots of layers of shaggy fur, which keeps it warm in cold winter months.
- They may be called black bears, but their coat can be blue-gray or blue-black, brown and even sometimes white!
- Their short claws make black bears expert tree climbers.
- They may be large, weighing as much as 300 pounds, and can run as fast as 25-30 mph!
- These big bears have a very good sense of smell, and they can often be seen standing on their hind legs, sniffing scents!
- They usually live in forests but black bears are also found in mountains and swamps.
- Black bears spend winters sleeping in their dens, feeding on body fat they built up over the summer and autumn.

Artwork by Jonathan Thunder thunderfineart.com
You can watch this animated video at: https://vimeo.com/117458136
Aaniin ezhiewebak agwajing? What is happening outside?


(’It is snowing. It is really cold weather outside. Please tell a story about him to me. Tell traditional stories, tell stories! Stop! Let’s all stop! We should listen when they speak, those sacred storytellers. Turn off the television! Put away the telephone! We should gather these children. Please will you tell stories about the beaver, fisher, muskrat, moose, rabbit, and loon? We will listen to them. We are getting ready. Walk with me. Yes, thanks a lot again.)

• OJIBWEMOWIN •

Bezhig—1

Niswi—3

IKIDOWIN
ODAMINOWIN (word play)

Down:
1. moose
2. It is cold.
3. 4 (in counting)
4. 5 (in counting)
5. beaver
7. Thank you.

Across:
6. I work
8. loon
9. fisher
10. yes

Niizh—2

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

A. Megwaawaak ishkwaa-anami’e-gizhigak, nindaagimoose.
B. Oodenaamen niizho-gizhigak nindizhaa aadawigamigong.
C. Waakaa’iingan aabitooseeg, nijibaakwe minawaa nimbiiin.
D. Agindaasooewigamigong niiyo-gizhigak, nindanokii.
E. Zhoninayaawigamigong naano-gizhigak, poye nindanokii.
F. Zaaga’a-ignaing giziibi-igisagingigizhigak, nindanokii’wa’a.
G. Aname’e-wigamigong ogidda’anama’e-gizhigak, nimawadishiwe.

Niizh—4

VII Grammar
Inanimate color describes inanimate (nonliving) things.

It is yellow/brown?—Ozaawaa na?
It is green/blue?—Ozhaawaashkwaa na?
It is red now.—Miskwaana noongom.

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

E. At the church on the hill when it is Sunday (praying-day), I visit with people.
C. In the woods when it is Monday (the day after praying day), I snowshoe.
B. When it is a good day, I have a big-smile. (d -> k)
A. When it is good, —I am glad. Thank you. (Gaawiin)
G. If/When it is snowing.
H. If/When it is cold,
I. No, it is not snowing.
J. Yes, It is white.—Eya’, waabishkaa.
K. Yes, It is black.—Eya’, makadewaa.
L. It is green/blue?—Ozhaawaashkwaa na?
M. It is red now.—Miskwaana noongom.
N. It is yellow/brown?—Ozaawaa na?

Translators:
Niizh—2 A. John J. Nichols and Earl Nyholm. All inquiries are made to MAZINA’IGAN, P.O. Box 9, Odanah, WI 54861 or email jnnym@glifwc.org.

Niizh—3 A. In the woods when it is Monday (the day after praying day), I snowshoe. B. In the town, when it is Tuesday, I go to the store. C. In the house when it is Wednesday, I cook and I clean. D. At the library when it is Thursday, I work. E. At the bank when it is Friday, also I work. F. On the lake, when it is Saturday, I ice-fish. G. At the church on the hill when it is Sunday (praying-day), I visit with people.

Niizhiin—4 1. When it is a good day, I have a big-smile. (d -> k) 2. Is it snowing outside? When it was noon, it was raining. (ina) 3. No, that shovel is not yellow. (-sinoon) It is white. Please use it on the footpath. 4. When it is snowy, (-g) I go indoors. I bring him/her indoors. 5. There is slippery ice.

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 are made to MAZINA’IGAN, P.O. Box 9, Odanah, WI 54861 or email jnnym@glifwc.org.
Ojibwe communities build strength, resilience through run/walks

By Jason Schlender, For Mazina'igan

Every step is a prayer. Drive up 10 and do 2. Praying with sandwiches. Saunipi. EEEEYAAAAKEEE! If you are familiar with these words then you are familiar with the long-standing, powerful, and influential GLIFWC Healing Circle Run/Walk (HCR). The HCR was inspired by the Peace & Solidarity Runs, which were rooted in a dream by Ernie St. Germaine as a way to foster and promote peace and solidarity in a very tumultuous time—the spearfishing controversy of the 1980’s & 90’s. It was a time when many communities that neighbor tribal nations were openly opposed to the treaty rights exercised by Ojibwe people in northern Wisconsin.

Since its beginning in 2001, the HCR has transformed into a movement of healing, pride, and cultural strength. Under the tutelage of ZaaGjiweyibian (James Schlender Sr. and Kinwì (Neil Kmiecik), those two men, with assistance from Agnes “Punkin” Flemming and Giwigewizhigaa (J. Forkner), were able to set forth a model of prayer, healing, bonding, and friendship that has now spread to other Ojibwe communities.

In all of our communities we struggle with many social issues. Opiates, meth, heroin, and now fentanyl have shown no mercy to our people in recent years. We still struggle with diabetes, smoking, and our longtime nemesis, alcohol. It seems so many negative things happen to our people that all hope is lost.

Don’t be discouraged by all of that, though. One just needs to listen and learn from our great Uncle for he is our cultural hero. We rely on his teachings and stories in our sarà and addictions, and we apply those teachings to our lives and then we start to see gradual change for the better.

The summer of 2017 culminated with three prominent acts of bravery, healing, and community wanting to also focus on their loved ones that are sick. The community came out together to promote healthy lifestyles and choices. The closeness of Red Cliff community wanted to also focus on their loved ones that are sick. The community came out together to promote healthy lifestyles and choices. The closeness of Red Cliff and runners are smudged before the run/walk begins and they start going around the community to promote healing and prayer.

In Miskwaabekong (Red Cliff) the community held the Red Cliff Healing Walk. In addition to the drug epidemics that plague our communities this community wanted to also focus on their loved ones that are sick. The community came out together to promote healthy lifestyles and choices. The closeness of Red Cliff was on full display as elders walked with children and many people participated in this event.

All of these community events were inspired by the GLIFWC Healing Circle Run/Walk. The model of consistency preached by such great teachers has impacted many more than we truly know. The power of asemaa, our music, and our language is evident by the testimony of the ones that have overcome addiction and have recovered from sickness. To the many people out there looking for some way out of the endless spiral of addiction and sickness join one of these healing run/walks and you’ll see the difference in your life. Don’t be afraid to start something for your own community because you can’t go wrong when showing love and compassion for your people.

Miigwech to Brad Harrington, Rosalie Gokee, and Carolyn Gouge for having faith in the model and the many people that have contributed miles and prayers along the way. Every step is a prayer.

—Jason Schlender is Vice Chairman of the Lac Courte Oreilles Band.

Thomas Vennum a distinguished figure in Ojibwe Country

Thomas Vennum dedicated much of his life to understanding American Indian culture and music, sharing his knowledge with people across the country. The author, teacher, and ethnomusicologist walked on September 24 in Washburn, Wis. He was 82.

In 1999 Vennum was a featured speaker at GLIFWC’s Wild Rice Research & Management Conference at the Fond du Lac Reservation in Minnesota. Conference organizer and current GLIFWC manoomin biologist Lisa David said Vennum’s 1988 book Wild Rice and the Ojibway People & Management remains required reading for researchers.

“For anyone doing work with manoomin, his wild rice book is an essential resource,” David said. Vennum also published scholarly research on lacrosse and native drums as well.

A US Army veteran, Vennum went on to become Senior Ethnomusicologist in Folklife Programs at the Smithsonian Institute in Washington DC. He spent most summers on Madeline Island and built many friendships with Ojibwe people and others throughout the region.

—CO Rasmussen

Carbon credits continued

(continued from page 16)
Omashkooz

Bi-azhegiwemagak mashkikiin

Omashkooz—Return of the Medicines

GLIFWC’s 2017 poster featuring omashkooz (elk) is work of renowned Fond du Lac artist Sarah Agaton Howes. In her rendition of omashkooz, Howes not only envisioned omashkooz, but many of the plants and medicines that have returned and helped to sustain their healthy survival. Much like omashkoozoog* returning to their favorite plant foods, humans should also be following the food sovereignty movement backwards to a time of healthy and unprocessed foods. Howes delicately parallels omashkooz to the resurgence of Anishinaabe lifeway through language and cultural revitalization efforts. Wiigwaas (birch bark) is seen in the background, gently reminding viewers of the preservation of oral tradition. Wiigwaas embodies the concept of old teachings and the interconnectivity that exists between the natural world and Anishinaabe way of life.

18 x 24″ posters are available from GLIFWC at PO Box 9, Odanah, WI 54861, by phone (715) 685-2108 or email lynn@glifwc.org. One copy is available free-of-charge, additional posters are $2.50 plus $2.00 postage for orders up to $4.99. You may also place your order online at www.glifwc.org/publications.

*Nomashkoozoog is the plural for elk.