Mazina'igan
A Chronicle of the Lake Superior Ojibwe
Published by the Great Lakes Indian Fish & Wildlife Commission Winter 2011-2012

Assessments show Gichigami's **whitefish & lake trout doing well**

By Bill Mattes, GLIFWC Great Lakes Biologist

Gichigami (Lake Superior)—It is that time of year when namaycush (lake trout) and adikameg (whitefish) gather on spawning reefs out in Gichigami. GLIFWC, Bad River, Red Cliff and Keweenaw Bay fisheries crews all head out to set gill nets on known spawning reefs to assess the health of spawning populations by collecting biological information from lake trout and whitefish.

In addition, Keweenaw Bay staff collect eggs and milt to combine and fertilize so that lake trout can be raised in their hatchery and later released into on-reservation waters of Lake Superior.

Whitefish are the backbone of the commercial fishery on Lake Superior, and lake trout, largely a by-catch, are also sought after by the restaurants and fish markets around the region. Whitefish have been doing very well in Lake Superior. Fishery harvest, biological assessments, and population modeling all indicate that whitefish continue to do well with many young whitefish showing up in the populations.

Lake trout are also doing well according to assessments and population modeling. Their numbers have dipped slightly in waters less than 240 feet in recent years after bouncing back to near their 1929-1940 average. However, lake trout numbers remain more than sufficient to provide for commercial and recreational fishing and to suppress rainbow smelt.

Rainbow smelt are an invasive species that competes with and preys upon (eats) young cisco (a.k.a. lake herring) and whitefish. Lake trout keep rainbow smelt numbers in check by eating them. Lake trout in turn are the primary prey of sea lampreys. Therefore, large numbers of lake trout buffer the effects sea lampreys would have on other species, like whitefish and cisco.

Siscowet, a deepwater form of lake trout that is less desirable to the commercial and recreational fishery, are a large player in the fish community of Lake Superior too. Siscowet live primarily in waters greater than 240 feet deep—which is 70% of Lake Superior! However, they have been showing up in larger numbers in water less than 240 feet in more recent years. This fall several were captured hanging around spawning reefs. Although they were not spawning, their presence is noteworthy. It is thought that this movement inshore is mainly because the siscowet population in the lake has increased. Siscowet are also food for lampreys, so they have benefited from lamprey control and in turn serve as a buffer to lamprey predation on other fish. Siscowet primarily feed on kiyi, **(See Gichigami, page 10)**

Ben Michaels, GLIFWC fisheries biologist, holds a lake trout captured during fall spawning assessment work being done around the Keweenaw Peninsula, Michigan. (Photo by Bill Mattes)

Partners celebrate "Changing Climate...Changing Culture" exhibit

By Sue Erickson, Staff Writer

Gichi-wiikwedong (Ashland, WI)—The new 200 square-foot "Changing Climate…Changing Culture" exhibit at the Northern Great Lakes Visitors Center (NGLVC) visually presents a discussion of the potential impact of climate change on natural resources traditionally used by the Ojibwe, particularly manoomin (wild rice). However, it also includes scientific research and asks what impacts changing climate may have on all residents of the Lake Superior region and what we can do about it.

Northland College Professor and Bad River tribal elder Joe Rose provided a pipe ceremony and shared traditional stories at the celebration of the new exhibit at the Northern Great Lakes Visitors Center, Ashland, Wisconsin. (Photo by COR)

Featured as a learning tool, the exhibit is also a springboard for further development such as more interactive components as well as complementary curriculum and teacher training opportunities. The overall project, entitled Gikinoo'wizhiwe Onji Waaban (Guiding for Tomorrow) or G'WOW Initiative, has more work to do.

"This exhibit will serve as a catalyst for conversation. People will not only read it but leave here thinking about what it all means,' stated Forest Supervisor Paul Strong, Chequamegon-Nicolet Forest. "The Chief of the Forest Service has asked us to be an agency ready to address climate change. I think in seeing this exhibit, he would say that we are doing that through these words and the strong partnerships that made this all possible."

About 120 people gathered to join in celebrating the exhibit on October 11 at the NGLVC. The event, jointly emceed by Jim St. Arnold, GLIFWC program director and Jason Maloney, NGLVC director, opened with a prayer and pipe ceremony by Joe Rose Sr., Northland College professor and Bad River elder, followed by a water ceremony by Sue Nichols, Three Fires Midewiwin. Both acknowledgied the spirits and the sacredness of all the resources on which we all rely. Rose, who also shared traditional teachings, noted the need to protect the region's water. He pointed out that even now some people on the Bad River reservation must depend on bottled water to drink, because the water has become too polluted already.

Funded through the Great Lakes Restoration Initiative, UW-Extension, and the Wisconsin Coastal Management Program, the exhibit is a product of a partnership between the US Forest Service, the US Park Service, UW-Extension, the Wisconsin Historical Society (WHS) and the Great Lakes Indian Fish & Wildlife Commission (GLIFWC).

Speakers representing the various partners briefly shared insights on the project and its significance.

(See "Changing Climate...Changing Culture," page 21)

GLIFWC survey crews and partners assess walleye hatch on 105 lakes

By Mark Luehring, GLIFWC Inland Fisheries Biologist

Oodenaang (Odanah), Wis.—Shortly after walleye hatch in the spring, walleye fry move out to the open water zones in inland lakes and feed on plankton for the first few weeks of their lives. About the time the leaves change, the small walleye have moved to near-shore habitats to feed at night on invertebrates and small fish. During this time, GLIFWC survey crews conduct electrofishing surveys to gauge the strength of the walleye year-classes on each lake.

Electrofishing boats use electrical current to temporarily stun fish, so that survey crews can net them, collect length information, and release them alive. Crews target mostly walleye under 12 inches, specifically young-of-the-year and one-year-old walleye.

Biologists use the information gathered here to evaluate year-class strength and long-term trends in natural reproduction. These surveys also provide the first look at the future of the adult walleye populations. Natural reproduction varies widely by year even on lakes with large adult walleye populations, but if fall surveys show a number of consecutive years with poor or low reproduction, biologists have advance warning that the adult population may decline.

Both Ronnie Parisien, one of GLIFWC's seasoned electrofishing crew members, and the walleye smiled for this shot! Although targeting young-of-the-year, some larger fish are also captured and released after collecting biological data. (Photo by Butch Mieloszyk)

While most of the surveys focus on lakes with natural reproduction, some fall surveys are also used to assess the contribution of stocked fish to the year-class. Stocked fish can be marked with oxytetracycline (OTC), and fish can be examined for marks to determine the percentage of stocked fish in the year-class. Survey crews collected OTC samples from Portage Lake in Michigan and Lac Vieux Desert on the Wisconsin/Michigan border.

This fall, crews from GLIFWC, Bad River, Mole Lake, St. Croix, and USFWS surveyed 105 lakes including 13 surveyed in cooperation with Wisconsin DNR, one surveyed in cooperation with Michigan DNR, and Mille Lacs Lake surveyed in cooperation with the Fond du Lac Band. All lakes surveyed were in the 1837 and 1842 ceded territories, including 95 lakes in Wisconsin, 9 in Michigan, and Mille Lacs Lake in Minnesota. Lakes ranged in size from the 123-acre Sherman Lake to 132,516-acre Mille Lacs Lake.

A "chi miigwech" (thank you) goes to electroshocking crew members who spent their nights over a six-week time period on ceded territory lakes collecting this valuable information!

Noah and Kris Arbuckle dip for walleye as GLIFWC Fisheries Technician Ed White guides the electroshocking boat through the shallows of Lake Namekagon during fall assessments. The crew spent six weeks on ceded territory lakes in Wisconsin, Michigan and Minnesota this fall. (Photo by Lynn Plucinski)

Tiny mussels cause big problems

By Sue Erickson
Staff Writer

Oodenaang (Odanah), Wis.—The tiny, striped and notorious zebra mussel, *Dreissena polymorpha,* averages only about an inch in size and seems quite harmless.

But put together an army of these prolific mussels and major problems can happen in the nation's freshwater lakes, including Mille Lacs Lake in Minnesota where the count leaped from 14 mussels per square foot in 2010 to over 900 per square foot in 2011.

Known as a premier walleye lake, Mille Lacs Lake has been experiencing a rise in the zebra mussel density since 2005. Zebra mussels reproduce prolifically and have few predators. A female zebra mussel can produce 30,000 to 1,000,000 eggs in one year! What can be done about it? "Nothing can be done once they enter a lake," according to Tom Jones, Aitkin Fisheries Large Lake Specialist, Minnesota Department of Natural Resources, "However, we should do what we can to prevent the spread to new lakes!"

Next question: What is the potential impact on the fishery? A number of problems can arise, especially related to the forage base for fish.

Zebra mussels feast on phytoplankton (mostly tiny, single-celled, aquatic plants), but phytoplankton is also a food source for zooplankton (microscopic, free swimming animals), which are in turn a forage base for small perch and walleye. So disappearance of a food source like phytoplankton at the bottom of the food chain can start a domino-like event up the food chain, impacting larger fish like walleye and northern pike that depend on the smaller fish for food.

However, for Mille Lacs Lake, Jones says a Cornell University study suggests that the phosphorus level in the lake might be sufficient to help sustain a zooplankton population regardless of the zebra mussel intrusion.

Jones also notes that there is concern about the impact on mayflies. If the zebra mussels cover mayfly burrows, they will not be able to emerge, and mayflies are another important component of fish diets.

Other concerns cited by Jones include intrusion on the walleye spawning grounds, although he says the ice seems to keep the zebra mussels out of the very shallow spawning sites. However, where

(See Zebra mussels, page 15)

The zebra mussels are highly likely to appear in nets and on aquatic vegetation or can be stuck on small rocks. Tom Jones, Aitkin Fisheries Large Lake Specialist, Minnesota Department of Natural Resources, encourages fishermen to check all gear thoroughly and clean nets, boats, gear before leaving the lake to prevent transporting them to other water bodies.

Zebra mussel density intensifies in Minnesota's Mille Lacs Lake. (Photo courtesy of the Minnesota Department of Natural Resources)

Getting the story out

Minwaajimo materials distributed far & wide

By Sue Erickson, Staff Writer

Oodenaang (Odanah), Wis.—GLIFWC's Minwaajimo Project ended with a grand finale' as Minwaajimo Project Director LaTisha McRoy made rounds to GLIFWC member tribes distributing materials that resulted from the 2009 Minwaajimo Conference and celebration of GLIFWC's 25th anniversary.

Minwaajimo means, "telling a good story," and in this case, it is the story of GLIFWC member tribes' treaty struggles and the development of GLIFWC as an intertribal agency designed to assist in the protection and implementation of those rights.

McRoy, a Bad River Tribal member and 2009 UW-Superior graduate, worked with GLIFWC as an intern in 2008-2010, prior to coming aboard full-time under an Administration for Native Americans (ANA) grant designed to pull together the stories told by the 2009 conference panel speakers. Panels were composed of many who experienced the social, political and legal struggles that were encountered with the affirmation of off-reservation treaty rights in the 1980s.

The 336-page *Minwaajimo* book provides both the edited versions of presentations along with the submitted professional papers of panelists. Panels included the Legal Issues and History Panel, the Natural Resources Management Impacts Panels, the Social, Economic and Political Issues Panel, and the Tribal Communities Panel. Accompanying each book is a DVD with recordings of the actual presentations.

"The goal of the Minwaajimo Project is to help tribal youth learn more about their treaty rights and also know the stories of the struggles tribal members went through to implement those treaty rights," McRoy says.

With tribal youth as a primary target, McRoy has been doing the rounds of member tribe reservations, presenting Minwaajimo materials during workshops for tribal youth and elders, encouraging intergenerational interaction.

Each tribe received 100 Minwaajimo materials packets, including the *Minwaajimo* book, DVD and additional treaty-related materials, for distribution in the community. The DVD, edited by Fawn YoungBear-Tibbetts, UW-Madison student and White Earth tribal member, also includes "Dibaajimo," other stories that were told during the 2009 conference. The DVD is specifically targeted for a student audience.

Minwaajimo distribution also included schools, museums, and libraries and has amounted to about 2000 materials packets.

In addition to the materials packet, a Minwaajimo website was developed and will be linked through the GLIFWC website at *www.glifwc.org*. The presentations, professional papers, photos and video clips will also be available there.

With September 29 as the ending date for the one-year Minwaajimo Project, McRoy and staff experienced a whirlwind of activity, organizing, packaging and distributing materials. Acorn Armagost assisted ANA Project Secretary Sharon Nelis in the massive assembly of Minwaajimo materials as they were readied to go out the door.

Remaining Minwaajimo materials will be available for purchase through GLIFWC's website and mail order beginning December 1.

For McRoy, who shepherded the transition of the Minwaajimo conference into print and DVD formats, the year has been one of vast learning and a time for tremendous personal and professional growth. "Just by reading through all the stories, I began to realize what the treaty struggles were all about. And I was well-received by so many at schools who were excited about the materials, and then there were all the tribal contacts I met and who taught me a lot."

With Minwaajimo project completed, McRoy is looking forward to the next challenge, an ANA funded program to encourage healthy diets and the use of traditional foods (see article below)."

Following a Minwaajimo presentation at UW-Superior, LaTisha McRoy (center) was joined by student Jen Schlender (left) and Ivy Vainio, UWS multi-cultural student services specialist. The materials, including the Ojibwe Journeys and Minwaajimo books plus other items, are delivered neatly packaged in a Minwaajimo bag. (Photo by Chip Beal)

Boxes stacked high as several thousand Minwaajimo packets were assembled for distribution this fall by ANA Secretary Sharon Nelis assisted by Acorn Armagost. Materials were mailed to schools, libraries, and museums throughout the ceded territories as well as personally delivered to GLIFWC member tribes. (Photo by Sue Erickson)

On the cover

Spike bull elk near Lower Clam Lake, Sawyer County, Wisconsin. Biologists are translocating young elk from the Clam Lake area to unoccupied habitat within Wisconsin's elk management range in an effort to expand the herd. (See Improving the distribution of elk, page 5.) (Photo by Charlie Otto Rasmussen)

"Mino Wiisinidaa! (Let's Eat Good!)"

New GLIFWC project promotes healthy foods

By LaTisha McRoy
ANA SEDS Project Coord.

Oodenaang (Odanah), Wis.—GLIFWC recently launched a 3-year grant from the Administration for Native Americans (ANA), Administration for Children and Families, and the U.S. Department of Health and Human Services, for the "Mino Wiisinidaa! (Let's Eat Good!)—Traditional Foods for Healthy Living" project.

Responding to the need expressed by GLIFWC's tribal representatives, the "Mino Wiisinidaa! (Let's Eat Good)" grant, which started on September 30, is aimed at bringing awareness to the health benefits of traditional Anishinaabe foods.

The goal of this project is to aid in combating obesity and its negative effects, including diabetes, among tribal members by creating an awareness of the health benefits of traditional Anishinaabe foods.

This will include developing nutritional information and providing community demonstrations on how to process, preserve, and prepare healthy traditional foods—all geared toward promoting healthier lifestyles.

There are three major components of the grant: collection, demonstration, and distribution.

In year one, project staff will be collecting traditional foods from tribal elders and harvesters. With the help of a full-time dietician, recipes will be tested and new recipes created, substituting unhealthy ingredients with healthy alternatives.

Year two includes providing 3-4 cooking demonstrations for each member tribe. Project staff will be working with different tribal programs to host these demonstrations, such as healthy lifestyle/diabetes programs, youth groups, and health fairs.

Finally, in year three, project staff will develop a cookbook consisting of all collected and developed recipes, including nutritional information for each recipe and activities for children.

Accompanying the cookbook will be an instructional DVD that covers different areas from basic cooking methods to preparing traditional foods.

During the "collection" component of the grant, staff will be gathering traditional foods and recipes from tribal elders and tribal harvesters. The recipes will then be tested and healthier foods will be added to substitute unhealthy ingredients, such as sugar, enriched flour, or butter.

Also, new recipes will be created to show how traditional foods can be used in popular, modern-day dishes, like Mexican or Italian influenced entres.

Some examples of traditional foods that might be included in this project are: venison, rabbit, beaver, muskrat, fish, fiddlehead ferns, wild onions, wild potatoes, narrow leaf cattail, and assorted green leaf plants.

In addition to recipes, project staff will collect information on methods of preserving foods, such as freezing, smoking, drying, and canning.

New recipes will be featured in the *Mazina'igan,* which is available in hard copy or online at our website: *www.glifwc.org*.

Workshops dig into regional mining issues

By Charlie Otto Rasmussen
Staff Writer

Oodenaang (Odanah), Wis.— Mining science, industry and regulatory experts from across the United States took center stage at the "Understanding the Impacts of Mining in the Western Lake Superior Region" conference September12-14. Geared for ecosystem managers and resource agency staff, the event held at the Bad River Convention Center commanded high interest with an overflow professional audience.

"The unique feature of this workshop is the diversity of the attendees," said Naomi Tillison, a conference organizer and water resource specialist for the Bad River Band. "We've got tribal, state, federal, and local governments, non-profit organizations, universities and industry all represented. There's a lot of concern about inadequate information regarding current and future mining operations in the Lake Superior region. I think the technical information shared here goes a long way to providing accurate information to everyone involved."

Bad River partnered with the US Geological Service (USGS) to spearhead the three-day conference that included a field trip to the Mellen area to examine rock formations and nearby streams. Co-hosts GLIFWC and the Fond du Lac Band also participated in workshop development.

Among the dozen presenters from federal agencies, the Environmental Protection Agency's (EPA) Carol Russell covered regulations and general risks of mining in the United States. She said one of the most significant issues with mining are inaccurate estimates relating to water usage risk assessments.

"All recent Superfund mining sites had water balance issues," she said. Superfund is an EPA program to clean up polluted sites.

One of the difficulties in assessing how mining would negatively impact water and the environment is delayed contamination, said presenter Chuck Brumleve, Keweenaw Bay Indian Community mining specialist. It may take decades for harmful pollution like acid mine drainage to leach into fresh water.

"Everybody here in this room, we may be dead before the degradation really kicks in," Brumleve said. "That's a lot of responsibility."

While the event focused heavily on the technical information, Bad River elders Joe Rose Sr. and Sylvia Cloud addressed the gathering, sharing traditional Ojibwe perspectives related to mining and its impacts.

"The success of this workshop is attributable to the many people dedicated to planning and coordinating, and to the excellent group of presenters," said organizer, Tillison.

Tribes review sulfide mining

One week after the "Understanding Impacts" conference, regional tribes gathered in Odanah for "*Dazhindandaa-Gidakiiminaan*: Let's Talk About Our Land." With support from a Charles Stewart Mott Foundation grant, tribal leaders and technical staff met September 20-21 to learn about the mining environmental review and permitting process. The workshop featured several speakers and a series of breakout sessions.

Longtime Wisconsin natural resources leader George Meyer (right) chats with Bad River's Joe Rose Sr at the mining workshop. Meyer has served as Executive Director of the Wisconsin Wildlife Federation since leaving his post as Secretary of the Department of Natural Resources Board, 1993-2001. Rose is a Northland College professor, cultural leader and delegate to the Voigt Intertribal Task Force. (Photo by Charlie Otto Rasmussen)

Esteban Chiriboga (right) and a US Forest Service employee measure Presque Isle River characteristics as part of a multi-agency project to monitor watersheds with potential mining activity. Agency managers selected one watershed in Michigan, Wisconsin, and Minnesota respectively, where mineral development is possible. GLIFWC staff coordinated the work with the US Geological Service (USGS), who did sediment sampling and installed stream gages at the sites where water quality samples were taken by GLIFWC. The Forest Service and individual state agency staff assisted with stream flow measurements. Water sampling will be conducted in the three watersheds quarterly for at least the next year, and USGS gauges in each watershed will log stream flow. (Photo by John Coleman)

Changes to WI mining laws subject of hearing

Concern for manoomin, clean water voiced

By Jennifer Burnett, GLIFWC
Great Lakes Outreach Specialist

Hurley, Wis.—Well over 400 hundred people packed into the auditorium of Hurley High School to listen to and offer testimony about the possibility of changing current mining laws in Wisconsin. Sponsored by the Wisconsin Assembly Committee on Jobs, Economy and Small Business, the October 27 public meeting began with a brief summary of current laws before allowing various industry and local officials and then the public to testify on whether or not the laws should be changed.

Proponents for changes, like Tim Sullivan of the Wisconsin Mining Association and Bill Williams of Gogebic Taconite, agreed that new Wisconsin mining laws should distinguish ferrous (iron/taconite) mining from other types, such as sand and sulfide mining. They also asserted that adding specific timelines for the mine permitting would allow Wisconsin to become more competive with Minnesota and Michigan's iron mining.

Opposition to proposed changes in the mining law were expressed by Mike Wiggins, Jr., Bad River Tribal Chairman. Accompanied by Tribal Attorney Glenn Stoddard, Wiggins offered testimony explaining the Bad River Band's opposition to both the proposed Penokee mine project and to the "phenomenal speed" with which the mining legislation may be changed. Concerns about potential water pollution and damage to the wild rice beds were high on his list. Wiggins concluded his testimony with 10 principles for the Committee to follow to ensure that any changes to the law are founded in science, not politics.

Mic Isham, GLIFWC Board of Commissioners Chairman and Lac Courte Oreilles Tribal Council member, accompanied by GLIFWC Executive Director Jim Zorn, testified about GLIFWC's experience working on various mining proposals in Michigan, Minnesota and Wisconsin. In particular GLIFWC reminded the Committee that consultation with treaty tribes was necessary if planned actions would impact treaty resources in the ceded territories.

"As you are aware, the State does not have unfettered discretion to exercise its management prerogatives to the detriment of the tribes' treaty rights and in ways that would be contrary to the requirements of the *Lac Courte Oreilles v. Wisconsin*, commonly known as the *Voigt* case. The State may not legislate away the tribes' treaty rights; similarly, legislating the destruction of treaty resources through destruction of their habitat may not be used to accomplish the same end. Whatever legislation the State may consider, it may not trample on the tribes' treaty rights, and the tribes will be watchful in ensuring that they are protected," Isham stated.

He also pointed out that both ferrous and non-ferrous mines have had, and continue to have, significant environmental impacts, and that weakening of regulations, including environmental reviews and permitting processes, would not dismiss the necessity of protecting treaty resources. Opposition to the weakening of mining regulations Isham said, "stems from deeply held commitments to the protection of tribal lifeways that depend on high quality and abundant natural resources."

GLIFWC also told the Committee that it would make itself available for consultation due to its expertise relating to mining impacts on treaty resources in the ceded territories.

Mic Isham, GLIFWC Board of Commissioners chairman and James Zorn, GLIFWC executive administrator, provided testimony and shared concerns about proposed legislation that would weaken Wisconsin's mining regs at a hearing in Hurley, Wis. The Assembly Committee on Jobs, Economy and Small Business sponsored the event. (Photo by Jen Burnett)

Improving the distribution of elk in Wisconsin through assisted dispersal

By Jonathan Gilbert, Ph.D., GLIFWC Wildlife Section Ldr.

Clam Lake, Wis.—Cooperating agencies are preparing for a second assisted dispersal from the Clam Lake elk herd this winter in an effort to improve the status of the herd. GLIFWC, the Wisconsin Department of Natural Resources (WDNR) and the Chequamegon-Nicolet National Forest (CNNF) successfully dispersed a segment of the population in 2011 as part of a four-year dispersal plan.

Since the release of elk into Wisconsin in 1995, the elk herd has grown in size to approximately 160 animals in 2011. However, most elk remain within only a few miles of the original release sites and are not dispersing to surrounding areas of suitable habitat. In order to encourage the herd's habitat expansion and improve the distribution of elk around Clam Lake, the three agencies launched the 'assisted dispersal project.'

According to Laine Stowell, elk biologist for the WDNR, the relatively sedentary lifestyle witnessed in the Clam Lake herd is common to elk in the eastern US. Unlike elk along the western mountains that move from summer to winter ranges up and down the slopes of the mountains, eastern elk do not exhibit this same kind of seasonal movements. As a result, the elk herd stays within the same general areas throughout the year. This lack of movement keeps elk from exploring and locating new areas of suitable habitat.

Single, isolated populations, especially of a small number of animals, are vulnerable to catastrophic events that can have significant impacts on the sustainability of the population. The elk population in Wisconsin is like this, a relatively small population that is concentrated in an isolated area. This is a worrisome situation from a conservation perspective. Disease, predation or other catastrophic events could more easily harm this population.

In order to secure elk in Wisconsin, it is advisable to establish multiple populations close by each other. If multiple populations are established, and some calamity happens to one of these populations, then animals from the other population will be able to help augment the nearby population. In this way there is some stability to the elk herds.

In other eastern states, elk population growth rates and the size of the elk populations increased following assisted dispersals. Although the population of elk in the Clam Lake area continues to increase, the rate of that population growth has slowed over the past years. It is hoped that the assisted dispersal project will have a similar effect in Clam Lake as it has had elsewhere in the eastern US and that the elk population in Wisconsin will increase its growth rates.

How does an assisted dispersal project work? The assisted dispersal project proposes to take 10–12 elk per year from the main herd and place them in appropriate habitat within the elk management area but greater than 3 miles from the main herd. The goal is to establish another elk herd at the new location far enough from the main herd so they will not wander back. The proposal calls for movement of elk to take place for 3–4 years. Elk will be captured during the winter as part of routine health monitoring and radio-collaring. Of those elk captured, a few 2 or 3-

(See Elk distribution, page 14)

MI considers moose hunt

By Miles Falck, GLIFWC Wildlife Biologist

Oodenaang (Odanah), Wis.—The potential for a Michigan moose hunt is a matter for discussion recently, with managers, sportspersons and tribes all considering the up and down sides of the proposition. Here are some facts about the Michigan moose population.

Michigan has three moose herds. The Isle Royale herd has averaged around 1,000 animals since studies began in 1959. In 2011 this population was estimated to number approximately 515 animals.

Moose in the eastern Upper Peninsula (UP) have been too few and scattered to estimate their population reliably. They are thought to number less than 100 animals.

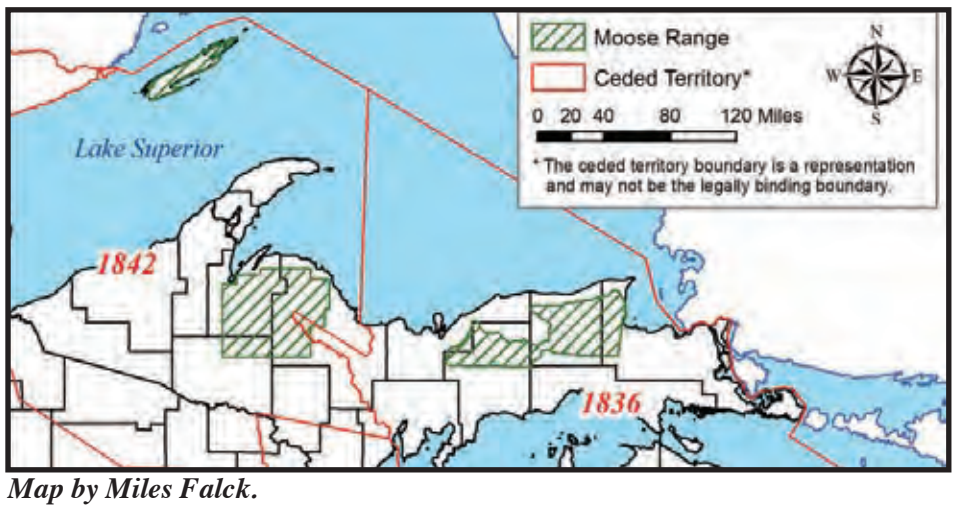
The western UP moose herd was reestablished in the mid 80's when 61 moose were translocated from Ontario, Canada to Marquette County, Michigan. At the time, it was thought that the herd could number 1,000 animals by the year 2000, although there has never been a formal population objective for this reestablished herd. The western UP herd has grown at an annual rate of approximately 8% from 1997-2011. The most recent population surveys conducted in January 2011 estimated 433 moose.

In late 2010, the Michigan legislature passed Public Act 366 authorizing the Natural Resources Commission to consider a possible moose hunt. The act also established a Moose Hunting Advisory Council to consider the impacts of a hunt on the moose population as well as any economic benefits associated with a moose hunt.

The Moose Advisory Council completed their charge and presented their recommendations to the Michigan Natural Resources Commission in September 2011. Their report states that members of the Council want to ensure that moose hunting will only occur if hunting does not reduce the continued presence and expansion of Michigan's moose herd.

Based upon recent population estimates and the herd's reproductive capacity, the Council recommended an initial harvest level of ten bulls from Michigan's western UP moose herd. The Council recommends that future hunts be structured to ensure at least a 3% annual growth rate and only occur in years following a successful population survey. The Council also recognized the need to coordinate harvest with tribes that retain treaty rights in Michigan's core moose range.

The Natural Resources Commission has not taken any action on the Council's report. The report can be found in its entirety at: *www.michigan.gov/documents/dnr/Moose_Council_Final_Report_Sept_2011_363489_7.pdf*.



Map by Miles Falck.

LdF Natural Resources Director Larrry Wawronowicz (center) gestures toward one of the agency's former offices at the September 23 grand opening for the new building. Pictured from left: Tom Maulson, LdF Tribal President; Donald Smith; LdF elder; Max Smith, Administrative Assistant of LdF Tribal Natural Resources Department; Willie Harris Director of American Indian Environmental Office, US EPA Region V; Sid Samuels, owner of the Samuels Group; Larry Wawronowicz; Bruce Bradley, Project Superintendent for The Samuels Group; Liza Diver, LdF Tribal Council Member; Dee Mayo, LdF Tribal Vice President; Terry Allen, LdF Tribal Council Member. (Photo by COR)

Green energy featured at LdF

By Charlie Otto Rasmussen Staff Writer

Waaswaaganing (LdF Reservation), Wis.—Decked out with a roof tiled in solar panels, a powerful geothermal system, and tubular skylights, the recently dedicated tribal natural resources building screams green.

"We wanted the facility to be a community model for sustainability," said Larry Wawronowicz, Lac du Flambeau (LdF) Natural Resources Director. "It's open to the public and has space for community events and college outreach classes."

Two years after ratifying a strategic energy policy, the LdF Tribe took its biggest step toward energy independence when the 7,200 square-foot building came online early last summer. Previously scattered across the village of Lac du Flambeau, all 14 natural resources programs are now under one roof. "It gives us an opportunity to be more efficient managing tribal resources with staff housed in one spot," said Wawronowicz.

Apart from home heating with cordwood, a 2009 review of energy use on the reservation revealed that tribal members were completely reliant on outside sources. A network of transmission lines connected to faraway nuclear and coal plants supplied the reservation's electrical needs; propane purchased from area distributors provided heat for all tribally-owned facilities, and more than half of reservation homes. Tribal leaders recognized that in order to curb their environmental impact and a set a model for sustainability, changes were required.

"Everything is based on clean air, water and land. Without it, we don't have anything," Wawronowicz said. Tribal leaders set a goal of becoming 25% energy independent by 2025.

LdF environmental specialist Bryan Hoover said that the tribe's own project funds were enhanced by a number of key sources including federal and state grants, and assistance from Northwoods Niiji.

For more information contact Hoover at 715.588.4123

2011 manoomin season wrap-up

By Lisa David, GLIFWC Manoomin Biologist

Oodenaang (Odanah), Wis.—Well, it's officially over. The push-pole is back under the porch, and the last of the rice awns have worked their way out of our socks. Thus ends the manoomin harvest season for 2011.

It is every ricer's dream to again experience a wild rice year like 2009—where idyllic weather teamed up with abundant rice beds giving Wisconsin the highest off-reservation reported harvest in the past two decades. Although not mimicking those conditions, we can be happy that this year was better than 2010 when the rice crop was extremely poor, brown spot disease rampant, and harvest was subsequently low.

Overall, the 2011 wild rice season was generally below average, but this year's harvest might turn out to be a little higher than one would expect given crop abundance. After the crop failure of 2010, many people found themselves with a low or even a depleted manoomin supply. But with some effort this year, pickers were able to locate beds and begin restocking their pantries. The more serious pickers who made concerted scouting efforts, and who were also willing to move to beds which offered additional harvest opportunities, faired the best at the end of the season.

There were a few waters of special note this year on both ends of the abundance spectrum. Clam Lake in Burnett County did not produce a rice crop for the fifth year in a row. Research is ongoing, led by the St. Croix Band, into the complexities of a carp age-class population explosion tipping the ecological scale in favor of carp over manoomin. This fall, carp will again be marked and tracked, and a second removal attempt will be made this coming winter.

On the other hand, Hiles Millpond, just north of Hwy 32 in Forest County, was a real success story this year. Initially seeded in cooperation with the U.S. Forest Service in 1998, Hiles Millpond supported an abundant rice bed in 2011. The reseeding in combination with new water level management helped make this site a harvester's destination in 2011.

Interestingly, Pacwawong Lake, in Sawyer County, a consistent rice producer for years, showed a near failure this season; while nearby Totagatic Lake, in Bayfield County, showed some improvement over recent years, reflecting the sometimes confusing variability of wild rice abundance from water to water.

Also a reflection of the manoomin improvement in 2011 was the increase in the sale of wild rice harvesting licenses in Wisconsin. The number of state licenses went up in 2011 to 740 from 611 in 2010. The number of active tribal harvesters probably also increased but is difficult to compare permit levels between years since a new tribal, off-reservation permit issuing format was recently enacted.

If you obtained an off-reservation ricing permit, you may soon be receiving a "Manoomin Harvest Survey" which will ask about your ricing efforts in 2011. We appreciate you taking the time to complete the survey. Participating in the survey is an important way to document tribal, off-reservation harvest efforts and will help ensure the preservation of these rights as well as the preservation of manoomin resources for the seventh generation of harvesters.

Sis Plucinski and granddaughter Melanie teamed up during the August 19 wild rice opener on the Kakagon Sloughs near Lake Superior. (Photo by COR)

So with our rice supplies partially replenished, we await the quiet of winter and the resting of the manoomin waters until next year.

Seeking a 'good way' for manoomin

Teachings & feast at struggling Upper Clam Lake

By Charlie Otto Rasmussen Staff Writer

Siren, Wis.—Along a summer green stretch of shoreline that accommodated traditional manoomin camps into the 1970s, regional Ojibwe representatives assembled, responding to a call from the St. Croix Tribe. Ecologically, perhaps spiritually, Upper Clam Lake is suffering.

"Everybody here, we're all here for the same reason. To put rice back in the lake," said St. Croix's Carmen Butler.

Inside a bent-sapling longhouse jacketed in blue tarp, participants shared manoomin stories, performed songs on hand drums, and many rose to dance in the traditional two-step fashion.

"Carmen, I have to apologize to you, why I didn't get up," called out Louis Taylor, St. Croix elder and past chairman. "But I'd kick up too much dust!"

A few canoe lengths away, Upper Clam Lake's blue, empty water contrasted the classic levity of an Ojibwe gathering. The top wild rice lake in all of Wisconsin had crashed. In only a few years the lush beds, that for generations yielded nutritional and spiritual sustenance, were gone.

And while cordial humor filtered through the discussion on August 11, each of the 30 people seated within the ceremonial lodge acknowledged the striking turn that spanned just three years.

As helpers known as oshkaabewisag carried food into the lodge in preparation for a feast, Taylor produced a tobacco-filled pipe and commenced a ceremony. The spirits that oversee the lake, that provide the manoomin, needed to be recognized and nourished. Under the direction of Taylor and Butler, oshkaabewisag assembled a ceremonial bundle of feast food for the lake and the spirits that live there.

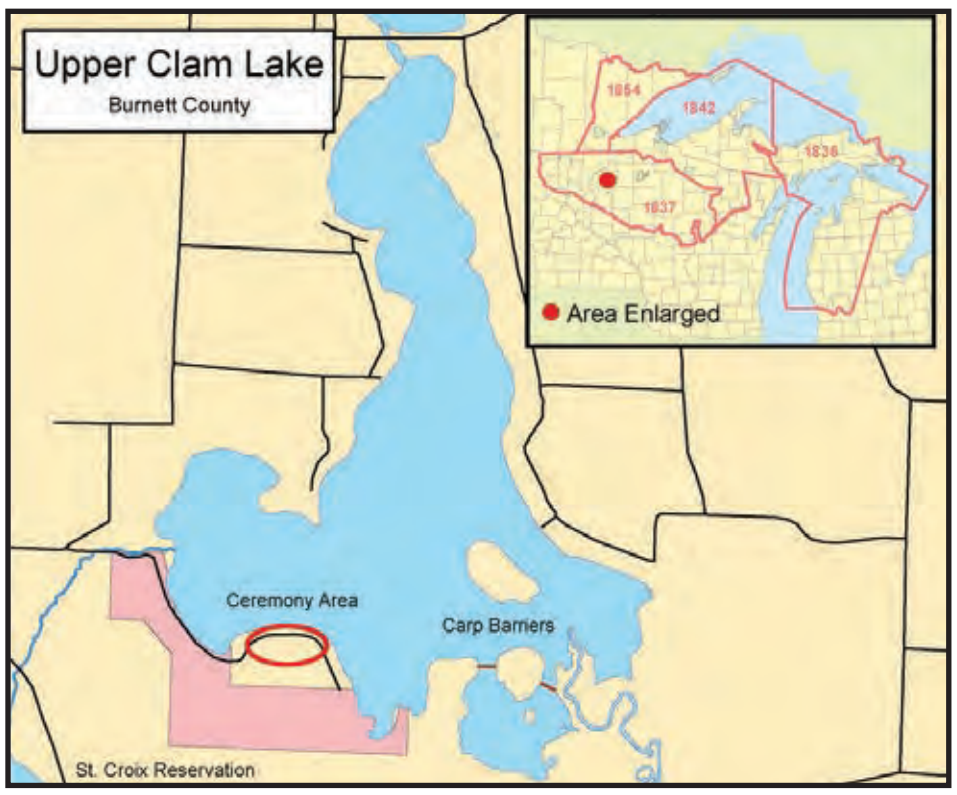
Ben Rogers, a highly respected St. Croix elder, then prayed over the spirit bundle before it was delivered to the waters of the western shore.

"When you're eating, feasting, you're taking care of your grandmas, your grandpas. We're going to feed them, the spirits, and make them happy," said Butler.

Much of Upper Clam is shallow, but the lake stretches broadly, covering 1,207 surface acres. Around one quarter of those acres historically grew manoomin until the crash of 2007. Since then, tribal and state biologists discovered that the common carp population exploded (see *Mazina'igan* Summer 2011.6), contributing to the rapid retreat of the wild rice beds.

St. Croix Land & Water Resources Manager Anthony Havranek addressed the gathering, reporting that nearly one thousand feet of submerged netting protects 84 acres of productive manoomin habitat on the lake's south end. St. Croix environmental staff and local property owners installed the net to block carp from accessing that portion of the lake.

"We specifically chose the design of the nets to allow recreational usage of the bay. Users can simply idle their boats over the nets with props up," Havranek said. "This large exclosure will help determine if manoomin can rebound when carp are removed from the equation."



Northwest Wisconsin's Upper Clam Lake has been among the most significant wild rice lakes in the state. (Map by Esteban Chiriboga, GLIFWC)

Based on reports from project associate Freshwater Scientific Services, widespread patches of wild rice and other aquatic plants sprouted inside the protected bay in late summer—further evidence that carp have a significant impact on the success of Upper Clam's vegetation.

For the St. Croix Tribe and its state and local partners, the current challenges at Upper Clam may ultimately yield a better understanding of how long-standing cultural practices and good science can work together to keep natural wonders like manoomin healthy.

Resolution of U of M & tribal clashes sought with protection of manoomin's integrity

By Peter David, GLIFWC Wildlife Biologist

Oodenaang (Odanah), Wis.— Sometimes, it's all about perspective.

It is no secret that many Minnesota Anishinaabeg have long viewed wild rice research being conducted by the University of Minnesota in strong contempt. Differing cultural perspectives towards this plant, and limited and ineffective intercultural communication, have spawned a distrust of the University among many tribal members, and defensiveness among some in the academic community.

Clashing are perspectives on academic freedom and interests in advancing the paddy wild rice industry with long-held tribal traditions that hold that tribal members must protect and defend natural wild rice—understood to be perfect in the form it was provided by the Creator. And like two nations preparing for a foreseen battle, each has expended considerable energy entrenching their positions over what has been viewed as the ultimate fight: the possibility of genetic engineering in *Zizania palustris*.

For many on both sides, this anticipated clash had come to dominate the relationship between the University and tribes, tainting and limiting the opportunities for positive interaction. More recently, however, as individuals on both sides of the relationship saw the dysfunction spawned by this distrust, some new perspectives began to emerge that may lay the ground work for a different, broader and more cooperative relationship.

The first concrete step in the process of changing this relationship unfolded in August of 2009 on the White Earth Reservation, when the University and tribes hosted *"People Protecting Manoomin: Manoomin Protecting People: A Symposium Bridging Opposing Worldviews."* At the end of that symposium, Dr. Erma Vizenor, White Earth Tribal Chairwoman, requested that a paper be drafted to explore ways the relationship between the University and the tribes could be improved while ensuring the protection of the manoomin resource.

A pair of tribal members work through a lush manoomin bed. (Photo by COR)

Over the next two years, that task was taken on by a core group of University graduate students, with input, direction and contributions coming from a wide range of academic and tribal representatives, including 20 authors in all. Their product, titled *Wild Rice White Paper—Preserving the Integrity of Manoomin in Minnesota,* was unveiled at the August 2011 *"Nibi and Manoomin: Bridging Worldviews Symposium,"* a follow-up to the 2009 event.

This paper holds strongly to the position that the Minnesota Anishinaabe "demand that natural populations of manoomin (wild rice) be protected from potential contamination by genetically engineered wild rice." At the same time, it looks to rebuild a cooperative and mutually beneficial relationship between the University of Minnesota and the tribes by developing an environment of respect and reciprocity between the parties.

The paper pushes for the development of a communication and educational exchange infrastructure at a University-wide level that allows meaningful tribal involvement in manoomin research decision making, noting this can foster a positive relationship promoting innovative research and enhanced funding support in areas of mutual interest.

The paper also encourages the University to formally recognize the tribes' "control over the wild rice resource on Anishinaabe lands and ceded territories."

It takes time and commitment to rebuild damaged relationships, and one document can only do so much. Nevertheless, *"Preserving the Integrity of Manoomin in Minnesota"* holds much significance, not only in the blueprint it provides for healing, but for the commitment towards a new cooperative perspective it reflects. Perhaps someday future generations will look back and see it as another expression of this generation's commitment to manoomin, and so to them.

A full copy of the "Preserving the Integrity of Manoomin in Minnesota" report can be found online at: *www.cfans.umn.edu/diversity/web text/WildRice/WhitePaper--Final Version2011.pdf.*

Ojibwe People

By Shyenne LaTourell, student Medford, Wisconsin

In Canada we started
Before it was named
'till a prophecy told us
We were to change

To travel on south
'till on water food grew
And when we found rice
It was then that we knew

This was our future
The Great Lakes we called home
This was our future
No more would we roam

Rice has become
A part of our soul
With a canoe we ride through
Knock it in with a pole

This tradition is honored
Passed down through the ages
Through family and teachings,
Not lifeless worn pages

Such is the way
Our culture stays strong
Through words it is taught
Through stories and song

Family, community
Are weaved in our soul
With them we're strong
With them we're whole

The Chippewa, Ojibwe
Anishinaabe, they call
We are a people
Forever tall.

13 Moons first manoomin camp promotes traditional skills/language

By Sue Erickson Staff Writer

Nagaajiwanaang (Fond du Lac reservation), Minn.—Using about 50 pounds of manoomin (wild rice) harvested by Charlie Nahgahnub and Fond du Lac (FdL) Resource Management, the first Manoomin Camp at Perch Lake, focused on learning how to process freshly harvested manoomin.

The fall camp drew about 40 high school and college-age participants on Saturday, September 10, according to Nikki Crowe, 13 Moons program coordinator. Under the tutelage of experienced Fond du Lac ricer Charlie Nahgahnub, students learned the steps required to turn-out traditionally processed manoomin. The camp continued after-school during the week to complete the parching, winnowing and finishing of the manoomin.

In addition, the program incorporated the Ojibwe language into the camp's environment, using signage to indicate Ojibwe terms for the various aspects of the manoominike (ricing) experience. "We really try to bring the language into programs and encourage its use throughout," says Crowe.

Sponsored by the 13 Moons Tribal College Extension Program and FdL Resource Management, the Manoomin Camp is one that will likely occur again next fall, Crowe says, pleased with the interest demonstrated this fall. The camp, free and open to all, drew both native and non-native participants.

The 2012 Manoomin Camp will offer some on-water experience, actually harvesting the manoomin in canoes as well as add cultural activities such as making birch bark winnowing trays, poles, knockers, and having a feast for the rice.

Crowe says chi-miigwech to a number of FdL folks who helped with Manoomin Camp, including Nahgahnub, Josh Whitebird, Pete Durfee and Jimmie Northrup.

"Community involvement really made this camp a rich experience for all of us," Crowe states. "We listened, learned and laughed a lot and ended up with some manoomin to share!"

13 Moons: Fond du Lac Tribal College Extension program goals are to connect the community to natural resources and the Ojibwe culture through social networking. You can learn more about 13 Moons by reading the latest online newspaper, "Nahgahchiwanong Dibahjimowinnan," at *www.fdlrez.com* and learn about new events and workshops on the 13 Moons Ashiniswi giizisoog Facebook page.

Todd Soukkala parches wild rice at 13 Moons Rice Camp on the Fond du Lac reservation. The focus of the camp was learning to process manoomin. 2011 was the first year for the camp which drew about 40 high school and college-age participants. Observing in the back are James and Mario Loyoza, Cheyenne Moore and Shelden Misquadace. (Photo by Ivy Vainio)

Multiple methods applied to battle sea lamprey

As part of an integrated approach to sea lamprey management

By Bill Mattes, GLIFWC Great Lakes Biologist

Oodenaang (Odanah), Wis.—It was a less than stellar year for adult sea lamprey trapping in the Bad River. A cool spring slowed the start of the adult migration from Lake Superior up the Bad River, and rain in the spring and early summer kept the portable assessment traps from fishing at full efficiency. One rain event in June led to a flood event that collapsed a portion of the upstream riverbank, littered the falls with massive trees (root-balls intact), and dislodged one trap and relocated it ¼ mile downstream where, at press time, has yet to be rescued from its resting place in the lower falls.

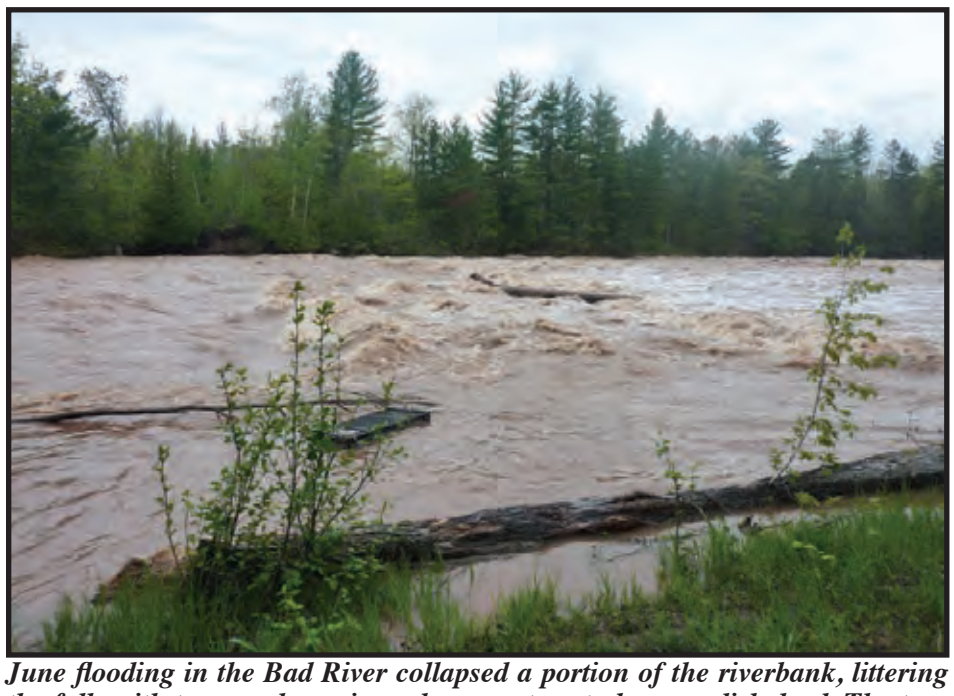
Despite the sub-optimal conditions, the GLIFWC crew, led by Great Lakes Technician Mike Plucinski, pressed on and did catch 257 spawning sea lampreys from the Bad River, of which 51 were marked and released and 206 were kept. The trapping is one method used in the fight against sea lampreys in the Great Lakes. Trapped female lampreys were frozen; most were disposed of; some were used by youth to dissect and examine, and male lampreys were caged until they could be transported to a sterilization facility.

Once sterilized, they were released into the St. Mary's River to nest with female lampreys and produce infertile eggs. This is part of the Sterile Male Release Technology (SMRT), another component of the overall integrated management of sea lampreys in the Great Lakes Basin, which is spearheaded by the Great Lakes Fishery Commission with the field implementation managed by the United Sates Fish & Wildlife Service (USFWS) Sea Lamprey Control Program. GLIFWC crews also assisted with capturing sea lampreys on the Middle, Poplar, and Amnicon rivers in Wisconsin where 744, 53, and 2 lampreys were captured, respectively.

In Michigan, through hiring Fisheries Aid Kyle Seppanen and subcontracting with the Keweenaw Bay Natural Resource Department, three additional tributaries were trapped. Catches were low in two of these rivers: the Firesteel (19 lampreys) and Silver (5 lampreys) rivers. However, in the Misery River 144 sea lampreys were captured. This river also had a "pheromone drip"—another tool in the toolbox for the integrated management of sea lampreys. Pheromones are chemicals released by animals that can be smelled by other animals! In the Misery River the pheromone drip releases a chemical which mimics those released by larval lamprey. When an adult spawning lamprey smells the pheromone, it is attracted to the stream because it thinks that if there is a lot of pheromone being released from the stream then there are a lot of larvae and good spawning grounds exist upstream. So upstream the spawning lampreys go, only to be captured by the assessment traps and destroyed before they can spawn.

GLIFWC crew and Bad River Tribal members Kris Arbuckle (left) and Tony Corbine (right) assemble the screw trap they will be maintaining in the Bad River as Greg Klingler (USFWS) looks on. (Photo by Bill Mattes)

Check GLIFWC's Facebook page for a link to video showing the screw trap in operation.



June flooding in the Bad River collapsed a portion of the riverbank, littering the falls with trees and causing a lamprey trap to become dislodged. The trap was retrieved approximately ¼ mile downstream. (Photo by Bill Mattes)

New trap targets lamprey transformers

As part of the integrated management approach, a new method of targeting lamprey was also introduced to the Bad River this season. On a beautiful October day—80°, sunny, with black flies swarming—a crew from USFWS Sea Lamprey Control Program, Marquette, Michigan, met up with GLIFWC's crew on Government Road outside Odanah. The task at hand was to deliver and set a new screw trap to capture and remove sea lampreys from the Bad River.

Normally, GLIFWC has trapped adult spawning lampreys in the spring, and no, climate change has not caused sea lampreys to spawn year round. This trap removes "transformers." These are lampreys that hatched from eggs laid by adult spawning lampreys several springs earlier. They have lived 3-5 years burrowed into the stream's bottom.

Sea lampreys start their lives as benign larvae that burrow into the soft sediments along the shores and backwaters of streams; the only harm they cause as larvae is occasionally bumping a native lamprey from its home. Once the larval lampreys reach about six inches long, they undergo metamorphosis and transform, not into a lovely butterfly, but into a vicious, toothed parasite that literally sucks the body fluid from its host.

The trap set in the Bad River is part of the Bad River Natural Resources Department's (BRNRD) overall sea lamprey strategy and control plan for the watershed. This plan calls for alternative control methods to be sought out and applied to the Bad River sea lamprey population. This is where the screw trap fits in.

Through a cooperative agreement between the BRNRD, the USFWS and GLIFWC, and with funding from the Great Lakes Fishery Commission, the screw-trap found its way to the Bad River for the first time. The charge for the two-person crew manning the trap is to keep it fishing and remove all captured transformers from the Bad River and ultimately keep them from entering Lake Superior.

Each transformer which makes its way onto a fish in Lake Superior will consume about 40 pounds of fish as it grows to adulthood during its 18 months in the lake. So it's easy to see the benefit of the trapping and removing transformers before they can inflict damage upon the fishes of Lake Superior.

The primary tool to the integrated management of sea lampreys since the 1960s has been lampricide which specifically targets larval lamprey and kills them while they are still in the stream and before they can inflict any damage upon the fishes of Lake Superior. This fall the Bad River was one of many tributaries treated with the chemical. Treatments took place in early September while flows were still sufficient to carry the lampricide downstream after sensitive fish, like the lake sturgeon, had left the system for Lake Superior.

The lampricide is added to the water at a level that is just above the lethal limit for sea lampreys so that non-target mortality is limited. Personnel from the Bad River Natural Resources Department were on hand to examine the stream and note any mortality other than sea lamprey. Lampricide has been under increasing scrutiny due to it being a chemical and due to its effects on non-target fish, in particular the lake sturgeon. This, in part, is why time and effort are being spent on the other control methods mentioned above. However, lampricide remains the primary tool for controlling sea lampreys in the Great Lakes and without its use lamprey populations would increase dramatically, fish mortality would increase above acceptable levels, and significantly fewer fish would be available for harvest. Currently, in Lake Superior with this multifaceted approach, lampreys are contained at about 10% of their pre-control numbers. At this level it is estimated that they remove as many lake trout from Lake Superior as all the commercial and recreational fisheries combined. So, as we continue to keep lamprey numbers low, it leaves fish in the lake to be harvested by the fisheries.

The battle to seriously reduce the number of sea lampreys in Lake Superior has been waging over decades, but as new tools become available, it is hoped that agencies and tribes working together can more effectively and efficiently realize an even more significant decline in the population of this invasive species.

Mercury trends in walleye and largemouth bass in the Great Lakes Region

By Sara Moses, GLIFWC Environmental Biologist

Editor's note: Sara Moses co-authored the paper entitled: *Spatiotemporal trends of mercury in walleye and largemouth bass from the Laurentian Great Lakes Region* published in the journal *Ecotoxicology.*

Oodenaang (Odanah), Wis.—Mercury is routinely monitored in fish throughout the Great Lakes region as part of numerous tribal, state, provincial and federal contaminant monitoring programs. Many of these programs began as early as the 1970s and early 1980s in response to concerns about the risk of mercury exposure to humans and wildlife through fish consumption. Since the establishment of these programs, regulatory actions have resulted in decreased mercury emissions from the U.S. and Canada, but increased emissions overall globally. The U.S. Environmental Protection Agency estimates U.S. mercury emissions declined by 48% between 1990 and 2005. Within the Lake Superior basin, emissions have decreased by 80% since 1990. But, total mercury emissions rose by an estimated 17% worldwide between 1996 and 2006.

A recent publication in the journal *Ecotoxicology* looks at how these changes in mercury emissions—decreasing regionally but increasing globally—have affected mercury levels in fish across the Great Lakes region. The study was the result of collaboration among scientists from GLIFWC, Minnesota Pollution Control Agency, Minnesota Department of Natural Resources, Ontario Ministry of the Environment, Clarkson University, Environment Canada, and the BioDiversity Research Institute.

The study compiled mercury data in nearly 64,000 walleye and largemouth bass collected in lakes, rivers and impoundments across the Great Lakes region between 1970 and 2009. This included over 4,800 walleye from the ceded territories that were assessed for mercury by GLIFWC as part of its mercury monitoring program established in 1989 in an effort to provide tribal members with safe consumption advice. Fish mercury data for the study was also provided by the governments of the eight Great Lakes states, the U.S., and Canada.

The study results showed that, overall, mercury declined in walleye and largemouth bass across the Great Lakes region from 1970-2009 by about 1% per year on average. This is certainly an encouraging trend, but it does not reveal the whole story. A closer look at walleye across the U.S. portion of the Great Lakes region suggested that decreases in mercury levels began to level off beginning at some point during the 1990s and have been relatively stable ever since. This finding was even more pronounced for Canadian walleye, which showed mercury levels leveling off during the early 1990s and actually increasing from 1997 through 2009.

This is not the first study to find evidence that mercury levels may now be increasing in certain fish species after decades of declines. Similar trends have been seen in burbot and yellow perch from the Canadian Arctic and Arctic char from Greenland. In the Great Lakes, mercury in walleye from Lake Erie increased from 2000-2007. Mercury in walleye and northern pike throughout Minnesota decreased by nearly 5% per year between 1982 and 1992, but has since increased at a rate of over 1% per year. While mercury in walleye from northern Wisconsin lakes decreased from 1982 to 2005, the levels increased by about 1% per year in the southern part of the state.

The causes for the observed trends are not fully understood. They are likely due, at least in part, to the rising global emissions of mercury, despite local reductions. Some scientists also believe that the warming climate may also be contributing to these observations by affecting the way in which mercury behaves in the environment and within food webs. This highlights the need for continued contaminant monitoring in order to understand what causes observed changes in mercury levels in fish and how this may impact the people who consume them.

To date, GLIFWC has collected over 5,000 fish for mercury testing within the ceded territories. If you are interested in learning more about how to safely consume fish you can refer to GLIFWC's mercury maps *(www.glifwc.org/Mercury/mercury.html)* or contact GLIFWC Environmental Biologist Sara Moses at (715) 682-6619 x2109.

Attention
Great Lakes tribal retail & wholesale fish outlets

GLIFWC is updating our database of tribal retail and wholesale outlets for Great Lakes commercial fishermen to be listed on the web and in print format. If you are a commercial fisherman with a GLIFWC member tribe and would like to have your business added to our list, please call 715-682-6619 ext. 2108 or email your information to *pio@glifwc.org*. If you are already listed and have changes/updates to your information, please contact us.

Children's book in Ojibwemowin wins recognition

"**Awesiinyensag: Dibaajimowinan Ji-gikinoo'amaageng (Little Animals: Stories for Teaching)**," a children's book written in Ojibwemowin, was selected as "Minnesota's Best Read for 2011." Illustrated by GLIFWC's Language Specialist Wesley Ballinger, the book was also part of the National Book Festival in Washington, DC this fall.

This colorful book features fanciful animal characters created by Ballinger—Migiziins (Little eagle), Makoons (Little Bear), Gaagoons (Little Porcupine), Nigigoons (Little Otter), and Mikinaakoons (Little Turtle). Their adventures related to common themes that youth might face today, such as bullying, sharing, working together, and playing in the woods.

The book, which is entirely monolingual, was created specifically for immersion school curriculum and funded through the We the People Foundation in partnership with the Minnesota Humanities Center.

Selected for the honor by the Center for the Book of the Library of Congress, the book was published by Heid and Louise Erdich's Wiigwaas Press in Minneapoplis, and was a collaborative effort by editors Anton Treuer, Nancy Jones, Eugene Stillday, Rose Tainter, Anna Gibbs, Marlene Stately, Keller Paap, Lisa LaRonge, Michael Sullivan, John Nichols, Lucia Bonacci and Heather Fairbanks.

Grandmothers gather, speak for the water

By Jennifer Burnett, GLIFWC Great Lakes Outreach Spec.

Mooningwanekaaning-minis (Madeline Island, Wis.)—"When the Grandmothers speak, the earth will heal." That was one of the many teachings shared at the 2nd Annual Grandmother's Gathering for *Gichigami* (Lake Superior), which was a retreat on Madeline Island August 11–14 for elder women to come and reflect about the valuable resource of Lake Superior's freshwater. Fifty-four women from all over the Americas, including one from Paraguay, attended.

There was a community event free and open to the public on August 13. The event began with a Midewiwin water ceremony to pray for, respect and bless the water. During the ceremony, Josephine Mandamin, Thunder Bay, told the story about how the Little Boy Water Drum, a ceremonial drum, was gifted to the Anishinaabeg.

Following the water ceremony, thirteen of the fifty-four grandmothers were selected to share their experiences at the retreat as well as what they learned from Gichigami. All of the grandmothers who spoke believe that Gichigami wants Anishinaabeg to "come home" to its shore. Many of the elder women also spoke about the importance of respecting the water as a vital resource and the role that women have to play in order to protect the water. Women are traditionally water bearers in ceremonies so that is why women have a unique relationship with water. Since women tend to the water during ceremonies, they should tend to its well-being by appreciating, caring, protecting and speaking for it outside of ceremony as well.

Attendees were able to talk with the grandmothers individually after the thirteen spoke. After supper, the day wrapped up with a full moon ceremony. The moon has an effect on water and women, which is why it was fitting for the grandmothers to honor the moon along with Gichigami.

The grandmothers were confident that this gathering is the start of a larger movement towards appreciating and protecting the world's freshwater. The grandmothers are looking forward to next year's gathering.

Grandmother's gathering on Madeline Island. (Photo by Jennifer Burnett)

VITF recognizes Deragon for 24 years as Red Cliff rep

WHEREAS, Larry Deragon was a Voigt Intertribal Task Force representative for the Red Cliff Band of Lake Superior Chippewa from 1987 until 2011; and

WHEREAS, Larry Deragon, through the Voigt Intertribal Task Force, worked diligently to defend and implement treaty rights, tribal sovereignty, and tribal natural resource and environmental management prerogatives; and

WHEREAS, Larry Deragon was instrumental in the overall development, implementation, and enforcement of off-reservation regulatory systems, facilitated and promoted intertribal co-management and unity, and educated tribal members, tribal leaders, and the public in issues pertaining to the implementation of ceded territory treaty rights; and

WHEREAS, Larry Deragon played a substantial leadership role in negotiations with the National Park Service, Apostle Islands National Lakeshore, to achieve recognition and implementation of the tribes' treaty reserved rights to hunt, fish and gather within the boundaries of the Lakeshore;

NOW THEREFORE BE IT RESOLVED that the Voigt Intertribal Task Force of the Great Lakes Indian Fish and Wildlife Commission recognizes and expresses its sincere gratitude and appreciation to Larry Deragon for his years of service, and commends him for his leadership in and commitment to the protection and implementation of tribal sovereignty and off-reservation treaty-reserved hunting, fishing and gathering rights.

BE IT FURTHER RESOLVED, that the Voigt Intertribal Task Force extends its congratulations to Larry Deragon on the occasion of his retirement and wishes him success in his future endeavors.

GLIFWC's Voigt Intertribal Task Force (VITF) recognized Larry Deragon (center), Red Cliff's retiring VITF representative during the October 6th VITF meeting at Red Cliff. Deragon served on the Task Force since 1987. The VITF unanimously passed a resolution commending and thanking Deragon for his long-term dedication and also presented him with a Pendleton blanket as a token of appreciation. Recognizing Deragon were Red Cliff VITF Representative Leo LaFernier (left) and GLIFWC Board of Commissioners Chairman Mic Isham (right). (Photo by Sue Erickson)

Ceded Territory news briefs

Opportunities for salvage from NW Wisconsin windstorm damage

By Kekek Jason Stark, GLIFWC Policy Analyst

Oodenaang (Odanah), Wis.—On July 1, a windstorm occurred across Polk, Burnett, Washburn, Douglas and Bayfield Counties leaving major damage to state, private and tribal lands. In response Governor Scott Walker proclaimed a state of emergency for the area as a means to protect the public from hazardous conditions as downed and flattened trees may be extremely dangerous. The Wisconsin Department of Natural Resources (WDNR) was charged with being the lead agency on salvage (or harvesting) efforts as the salvage of blown down timber is critical to reduce insect problems, encourage regeneration, and reduce fuel loads for wildfire potential.

Interested in how tribes may benefit from salvage efforts, James Zorn, GLIFWC executive administrator, met with Governor Scott Walker and other state and county resource managers to discuss potential salvage solutions. Subsequently, on September 1, representatives from the WDNR attended the Voigt Intertribal Task Force meeting to engage in a dialogue with the tribes to discuss how the tribes can effectively participate in this salvage effort. At the Task Force meeting, tribal representatives were provided with maps of the affected areas and discussion pursued on ways the tribes can assist in the removal of residual timber through the designation of specific areas for tribal harvest as well as efforts to inform tribal hunters and gatherers about the potential hazards in these areas.

Please contact the GLIFWC Biological Services Division if anyone would like more information regarding the northwest Wisconsin windstorm in general, about the potential hazards in these area, or how a tribe can effectively participate in this salvage effort.

GLIFWC hosts tribal judicial conference

By Kekek Jason Stark, GLIFWC Policy Analyst & Baaswewe Fred Maulson, GLIFWC Chief Warden

Waaswaaganing (LdF Reservation), Wis.—The tribal judicial conference, *Gaa-Izhi-Indwaa Ishkonan Aandaakonigewinan*—The Law of Treaty Reserved Rights: Understanding and Implementing Principles of Tribal Self-Regulation Judicial Conference was held at Lac du Flambeau on August 30-31. The conference was a wonderful success with over sixty participants registered representing fourteen tribes or organizations ranging from tribal judges, tribal court staff, tribal prosecutors, tribal representatives, tribal elders, and attorneys.

The conference kicked off on the afternoon of August 30 with an historical overview of the tribal court systems and treaty reserved rights followed by an overview of tribal court codes, manuals and procedures. That evening the participants gathered for a fish fry meal and socializing which included fishing on the Lac du Flambeau chain.

The remainder of the conference was held the following day with discussions encompassing: the fundamental principles of tribal off-reservation treaty reserved rights; an overview of an effective tribal self-regulatory system—a case study of tribal management and regulation; an overview of tribal ceded territory conservation codes, regulatory changes and amendments; and an overview and discussion of common off-reservation treaty rights enforcement scenarios.

Please contact the GLIFWC Division of Intergovernmental Affairs (715.685.2106) if anyone would like more information or a copy of the conference materials.

EPA approves Bad River Band's water quality standards

Oodenaang (Odanah), Wis.—On October 5, the Bad River Band of Lake Superior Chippewa proudly announced its Water Quality Standards had been approved by the U.S. Environmental Protection Agency (EPA). These standards build upon a rich tradition of conservation and a recognition that access to clean and healthy water is an inherent human right and the foundation of life.

Chairman Mike Wiggins commented: "Our water quality standards are our Nation's proud proclamation of how we value our waterways and wetlands. From just north of the Penokee Mountain area to Lake Superior, our Tribe is ready to stand up and protect Nibi (water) for all peoples and future generations."

Guiding these standards is an awareness that rivers and streams are the lifeblood of the earth, connecting the past and the present with the fate of future generations. The Bad River Reservation is a water-rich environment located in the downstream portion of the Bad River Watershed.

The reservation contains diverse water resources that are both culturally and ecologically important. The Bad River Band has, therefore, sought to exercise its sovereign rights, and those rights under the Clean Water Act, to adopt its own Water Quality Standards. The U.S. EPA recently reviewed the Tribe's standards and concluded that the Tribe's water quality standards are consistent with the Clean Water Act and federal regulations.

The Tribe's water quality standards contain a set of designated uses, numeric and narrative criteria designed to protect those uses, and an antidegradation policy to protect waters from becoming unnecessarily degraded. Wild rice *(manoomin)* waters, such as the Kakagon/Bad River Sloughs, are classified as Outstanding Tribal Resource Waters (*Chi minosingbii*), which require the highest level of protection.

The Bad River Band is excited its federally-approved standards will enhance protection of its precious water resources, especially in the face of a multitude of health and environmental challenges, such as industrialization, loosening of environmental regulations, and a changing climate. As a sovereign nation, the Bad River Tribal Government is committed to preserving and enhancing its natural resources for future generations and believes clean water should not be sacrificed for short term speculative economics.

For more information contact the Bad River Natural Resources Department at 715.682.7103.

Gichigami's whitefish & lake trout doing well

(Continued from page 1)

bloater chubs, and deepwater sculpin. When venturing shallower, they will eat the same things as lake trout—i.e. cisco and rainbow smelt.

Lake Superior's fish community is bountiful and provides food and employment for many tribal members, and with continued cooperative management among all agencies, the future of Gichigami's fishery looks promising.

Mitigoog (trees)

Story by: Ogimaawigwanebiik (Nancy Jones)
Edited by: Pebaamibines (Dennis Jones), Zhooniyaa-ikwe (Michelle Goose) Niiyo-giizhig (Wesley Ballinger)

Note: *Ogimaawigwanebiik (Nancy Jones) is from Nigigoosiminikaaniing First Nation Community located in Rainy Lake, Ontario, Canada. Ogimaawigwanebiik shared this teaching with us as part of GLIFWC's on-going language project, "Gidaadizookaaninaanig" which documents stories and teachings of traditional Anishinaabe cultural practices. We at GLIFWC are very grateful and appreciate the wisdom and knowledge of all the speakers who have shared their teachings with us. Chi-miigwech!*

Ahaw, nashke sa miinawaa ogowe aya'aag, mitigoog inga-dazhimaag, ezhinikaanagindwaa niinawind ongowe. Zhingobii-waatigoog omaa gii-ayaayaang Nigigoonsiminkaaning. Maagizhaa ge bakaan giinawaa gidizhinikaanaawaato-genag. Mii iye ko gaa-onji-ikidoyaan bebakaan, bebakaan awiiya gegoo gii-izhi-gikino'amawaa gii-bi-ombigit awiiya. Mii eta go ge-niin owe ayaabajitooyaan gaa-izhi-gikino'amawiwaat ogowe gichi-anishinaabeg gaa-gii-nitaawigi'iwaat. Maagizhaa ge bakaan, bakaan wiinawaa awiiyag, day-ikidowag.

Okay then, now again, I shall talk about these trees—what we call them (here on this side of the border), these ones (these trees). There are many pine-needled trees here where we live, here at Nigigoonsiminikaaning. Perhaps you (over the border) probably call them differently. This is why I say this; everybody has different teachings (have their own teachings) the way they were raised. This is what I am using, the way they taught me, those elders that raised me—perhaps differently. Someone different may say it another way.

A'awe aya'aa zhingobiiwaatik, sesegaandag gaay-izhinikaaazot…Aya'ii tagiin omaa akawe niwii-tazhindaan. Ogowe mitigoog gaa-waabamangwaa omaa noopiming gakina Anishinaabewinikaazowag ogowe mitigoog. Gakina wiinzowag, gakina ogii-wiinaa' awe Nanabosh omaa gii-ozhitoot iy aki. Mii giin ge-izhinikaazoyin, mii iye gaa-inaad. Mii dash owe gaa-onji-wiindamaawagwaa-ko awiiyag. Aapiji gichi-apiitendaagwat owe wiinzowin awiiya gii-ayaat. Mii iwe ge-giinawind gaa-onji-Anishinaabewinikaazoyang. Gigii-miinigonaan awe. Manidoo gigii-miinigonaan inowen wiinzowinan gaa-bimiwidamaageyang. Mii dash owe gaa-onji-gichi-apiitendaakogin. Mii omaa ge-onji-mino-bimaadizid awiiya weweni kanawendang awiiya owe wiinzowin. Mii niin, mii niin ako gaa-izhit awe nookomisiban. Nashke naanaagadawenimadwaa igiwe mitigook gakina. Anishinaabewinikaazowag. Mii dash ge-giin gaa-onji-anishinaabewinikaazoyan mii, mii iye gaa-izhit aw nookomisban.

Now this tree with needles, the one called white spruce—oops! I just remembered. First I need to talk about this. All these trees we see in the bush have Indian names. Nanabush gave them all Indian names when he made the earth. And that is why, that is what I tell them, people. It is very sacred when someone has a spirit name. That is why we were given Anishinaabe names. The spirit gave these to us. The spirit gave us these names so that we can carry them in a sacred manner. That is why they were so sacred, highly honored. That is why. That is how one receives good life when they take care of, or honor, their name. This is what my late grandmother told to me. If you think about those trees, they all have spirit names. That is why you have a spirit name. This is what my grandmother told me.

Mii dash iwe gaa-izhichiget owe Nanabozhoo, gakina ogii-wiinaa' iwe miti-goo'. Mii awe zesegaandag gaa-inind. Niibiyo gegoo inaabadizi awe zesegaan-dag. Miidog igo gaye wiin gaa-izhi-gagwejimind "Aaniin giin waa-izhichigeyan wii'wiiji`at awe, Anishinaabe gaa-wii-tagoshing. "Oh niibiiyo go gegoo ninga-inaabaji'ig" gii-ikido "booshke go ingoding oga-mashkikikaagenan inowe, owe nimitigom, owe ge shingop. "Spruce" iidog izhinikaazo, zhaaganaashiiwag wemitigoozhiwag ezhinikaanaawaat. Iwe wiin igo geniin ingii-izhi-kikendaan gii.. aazhaa gaa-inaabaji'ag owe zesegaandag. Owe gii-nisind aa mooz. Owe dash eyii, onagish omaa biinjaya'ii gaa-ayaag aa mooz. Mii awe gaa-aabachi'ag sesegaandag ingii-ondaabiishaan i'i. Ingii-aabooda'aan iw onagish. Mii dash omaa ga-izhi-odaabiishamaan ingii-pootawe. Miish dash omaa gaa-izhi-asag aa sesegaandag. Miish dash ogidaandag ga-izhi-odaabiishamaan owe aya'ii mooz onagish. Aapiji minopogwad inakeya'ii gii-izhichigeng.

This is what Nanaboozhoo did; he gave all trees names. That is the white spruce that was named. There are a lot of uses for the white spruce. So he (the tree) was asked (by Nanabush), "How are you going to help the Anishinaabe when they get here?"

"Oh there is a lot they can use me for," he said. "They might even make medicine out of me; they can use my tree-ness and my needles." "Spruce" apparently is what he is called in the English. When one were to use the English language, that is what the white people (French) call them. And I have this one teaching, one of the ways I use the white spruce—when the moose is killed. And this, a certain intestine part of the moose has inside of him, that is what I used. That white spruce, I shrink it (using heat and smoke). I turned it inside out, that certain part of the intestine. And then I heated up the intestine. I made a fire. And then I put that spruce there. Then on top of that smoky spruce I put that moose intestine to shrink. Does it ever taste good when you do it this way.

(Cultural note: The moose is pleased when all of his parts are eaten. Every part of the moose has a special gift for the woman who is the life giver.)

Mii awe bezhik miinawaa. Giizhikaandak, cedar tree, mii awe iidog aw bezhig ga-kagwejimind. "Aaniin giin waa-izhi-wiiji'at aw Anishinaabe?" odinaan Nana-bosh. "Oh niibowa go gegoo inga-izhi-wiiji'aa" ikido iinzan. Nashke owe gii-ayaat,

Grand Portage's little cedar spirit tree. (Photo by Travis Novitsky ©1980)

kii-odabinoojiimit a'a, kii-odabinoojiimiyaat. "Niin,onowen nimitigooman oga-aabaji'aan ji-ozhitood owe tikinaaagan" gii-ikido. "Aapiji dash inga-zhawenimaa aw abinoojiinh. Inga-miinaa ge onowe bawaajiganan minik omaa ge-agwaakwapizod omaa tikinaaganing. Da-bawaajige ge. Aapiji ge oda-minogininiwan onowe opik-wan ono sa go ezhi-okaanit apichi oda-minogininiwan owe giishpin aabaji'ind awe akikaandag giishkaandag. Niibiyo sach igo ge gegoo indaa-aan inga-miinag ogowe, ge-onji-mashkikiimiyaat onowen, onowen nimitig ezhi-mitigowiyaan. Oshke na awe gii-chiimaanikeng mii owe bezhig ge-ni-aabajitoowaat onowen owe giishka' gii-ozhi'aad awiiya. Booch ge naa ge apakwaanan owe gii-ozhitoowaat awiiya awe waa-dazhi-giizhoozit awiiya gii-biboong". Mii owe a giishkanagek mii iniwen oga-pakweyaat. Miinawaa ogowe a'aag mitigoog oga-ozhitoonaawaan gegoo boosh ke naa iniwe bawa'iganaakoon gii-ikidong. Mii omaa ge onji. "Niibiwa go gegoo inga-izhi-wiiji'aa aw Anishinaabe aaniishinaa inga-zhawenimaa geniin."

And then there is the next one. The cedar tree, that was another one that was asked, "How will you help the Anishinaabe?" Nanabush asked. "Oh there are a lot of ways I can help the Anishinaabe," he said. "When somebody has a child, when a couple has a child, they will use my wood to make the cradle board," he said. "I will give him all the love that I have to offer to the child. I shall bestow many visions onto him for the duration that he is in the cradle board. And he shall dream too. The child will have healthy bones, have a straight spine, strong and straight bones just be totally healthy if one uses the cedar. I have many uses that I can give them, when they want to make medicine from my being a tree. When someone is making a canoe, that is one use that will be used to make the strips of cedar on the bottom when someone makes it. They can make a cedar bark covering for their shelter when they want to stay warm during the winter." That is the one, the cedar bark that will be utilized for a roof covering. And also these trees they will make other things like rice knockers, how it was said. This is where it will come from. "There are many ways I can help the Anishinaabe. I shall care for them too."

Mii sa miinawaa owe akikaandag, oh geniin igo. Okikaandag enind Jack Pine maawiin izhinkaazo awe. "Geniin igo awe indaa-wiiji'aa aw Anishinaabe. Geniin igo indaayaan owe mashkiki ge-aabajitoowaad ogowe Anishinaabe." Baamaa oga-ni-gikendaanaawaa. Aaniin owe ge-naabajitoowaad ge-naabaji'aawaat iniwe owe okiikaandag. Aya'iin igo gegoo bezhig indaa-dibaadodaan. Nashke ogowe a'aag binewag gaa-aya'aag, mishkodese gaa-inindwaa. Mii onowen [akikaandagoog] gii-amoowaat ogowe mishkodesek. Mii dash omaa gaa-onji-tebinaad owe anishinaabe wii-amwaat inowen mishkodeseg gii-ikidong. Aapiji waangawizi aw mishkodese. Anishinaa mii iwe geniin enendamaan ge-zhi-wiichitwaayaan. Mii go bizaan igo ge-izhi-michi-naabigo'oonaawaa owe mishkodese gegoo wiin baabiiginamowaat. "Mii dash owe geniin ge-izhi-wiichi'ag awe aw Anishinaabe."

Next I will talk about the jack pine. "I will also help." That whom they call the jack pine, perhaps is what he is called. "Oh me too, I could help out the Anishinaabe. Me too! I have medicine that the Anishinaabe could use." They will learn more about it (as the world grows.) There is something, one thing, I would like to tell about. For instance these certain partridges, the ones

(See Mitigoog, page 22)

Changing climate felt across native North America

Overview: Future coming into unsettling focus

Oodenaang (Odanah), Wis.—North American Indians understand resilience. Outsider claims to native land, to culture, to lifeways, have festered for centuries. Through it all first peoples found ways to outlast an assortment of impediments, retaining their core identities.

In the 21st Century a different kind of threat is fast emerging as the leading challenge to tribal communities—to "being Indian." The earth's climate is changing. And with it, water resources, plant and animal communities, and humans are all being affected.

In 2011, an international collection of indigenous people brought their stories to Wisconsin Indian Country, discussing climate change impacts and assessing strategies on how to tackle shared dilemmas. From the Alaskan arctic down the length of Turtle Island to El Salvador, native people report a shift significant enough to rework ancient relationships with the land and water.

Climate scientists, including Atmospheric Sciences Professor, Dr. Donald Wuebbles, University of Illinois at Urbana–Champaign, understand where they're coming from. Hard data reveals that 2005 and 2010 were the warmest years on record; the 2000s simmer to the top of the warmest decades. In the last 40 years, changes have been accelerating.

"There is no disagreement going on in the scientific community (about the existence of climate change); there's just no way around it," Wuebbles said at the College of Menominee Nation's 'Shifting Seasons' summit. "And it's largely dominated by what we're doing. The Midwest's heavy use of coal makes us one of the biggest emitters."

Carbon dioxide released from coal-burning power plants are a leading cause of global warming. According to the United States Environmental Protection Agency, other greenhouse gases released into the atmosphere from human activity include methane, nitrous oxide and fluorinated gases. Collectively, the gases act like blankets spread across the earth, trapping heat that would otherwise dissipate into space. Continued gas emissions translates to more blankets, layer upon layer.

"The emissions we've made already will impact our climate for the next thirty years," Wuebbles said. "Warming is not and will not be uniform. And it isn't all about temperatures," he explained. "The frequency of major storms is increasing. The 20-year-storm is now the 12-year-storm."

In the Ojibwe ceded territories, temperatures are expected to settle in between four and nine degrees higher by mid-century, according to climatologists at the Wisconsin Center for Climate Research. Southern tree species are expected to colonize northern forests and swings in precipitation levels will create water level shortages. Environmental and, ultimately, the human impacts are expected to be more severe with each added degree.

For so many Indian people that rely on traditional local foods, that are coupled culturally and spiritually to native homelands, adapting to an uncertain climate poses great challenges to the present generation and those that follow.

Articles by
Charlie Otto Rasmussen, Staff Writer

Culture, science & sustainability merge at 'Shifting Seasons'

Keshena, Wis.—Larry Merculieff scoffs at talk of global climate change. The Aleut from maritime Alaska has lived long enough to gauge anything amiss in his homeland of islands pressed against the Bering Sea.

"This is a climate *crisis*," he exclaimed. "Call it what it is." At the August 23-25 conference hosted by the College of Menominee Nation's Sustainable Development Institute, Merculieff led off a roster that included more than a dozen featured presenters. From the outset Merculieff struck an urgent chord, making clear to the 170-some participants at the "Shifting Seasons: Great Lakes Tribal Climate Change Summit" that our world is warming, and ecosystems are in flux.

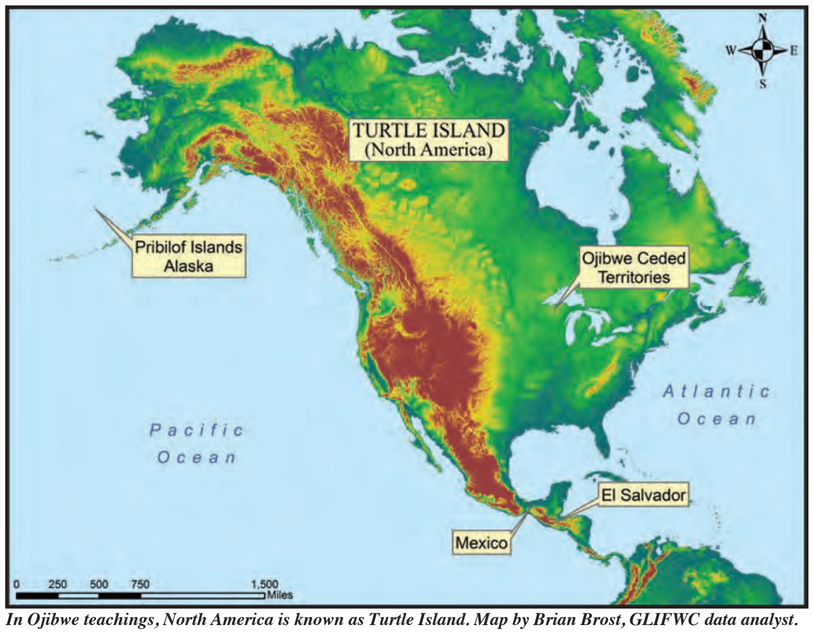
In Alaska the dramatic loss of sea ice—a hallmark of climate change—is responsible for rising mortality among aquatic mammals, fish and some humans, he said. Ice forms later in the season and melts earlier. Thin ice, or ice that dangerously varies in thickness, make matters worse.

"We've lost experienced hunters because of the inability to read ice safety conditions," Merculieff said. "Approaches to hunting used for 5,000 years are no longer practical."

Within the food web of Merculieff's Pribilof Islands, sea lions and fur seals lounge and dive for fish and mussels from ice sheets; Aleuts, in turn, traverse the ice to hunt the large mammals for their meat and thick hides. Merculieff said the hunts serve as the primary mechanism for learning how to be a man, a member of the community. As adult men and apprentice teens forego risky hunting trips, the broader impact of unsafe ice serves to degrade the social health of Aleut communities.

"Young people are not being acculturated, not learning about value systems," he said. As a result, the mortality rate for wayward 18-27 year-olds is skyrocketing. "They are self-destructing."

Alaska sea lions. (Photo by NOAA)



In Ojibwe teachings, North America is known as Turtle Island. Map by Brian Brost, GLIFWC data analyst.

Along with struggling Aleut village life, Merculieff bears witness to an ecosystem reeling from rising temperature and climate disruptions. Sea lion numbers have dropped by a gut wrenching 80% over the past three decades; pure stands of invasive purple loosestrife supplant native marsh vegetation; massive, unprecedented wildfires sweep across the tundra.

"The North is the air conditioner of Mother Earth, and that air conditioner is being shut off," he said.

Growing with the changes

On the southern end of Turtle Island native people are working to resolve ancient agricultural practices with the erratic rains wrought by climate change in El Salvador. Historically predictable winter rains now appear later and later in the growing season. A holistic farming approach known as permaculture may help improve food security for indigenous communities that are also feeling pinched by large, international agribusinesses.

"It is permanent agriculture for a permanent culture," said Juan Rojas, Permaculture Institute of El Salvador. "We use ancestral and traditional wisdom with nature as the model—how everything is interdependent. The concept is to counter the actions by resource-seeking entities."

Multinational companies—with the backing of the Salvadoran government—have discouraged native farmers from using traditional vegetable and grain seed varieties in favor of engineered hybrids, Rojas said. Permaculture advocates hope to reverse that trend. Small-scale farmers are learning how to collect native seeds, and select the varieties best suited to the climate. For Salvadoran natives, that means identifying seed that can prosper despite the unpredictable rainfall that has thrown off planting schedules over the last two decades.

Rojas said native farming societies tend to identify with specific plants. In El Salvador, it's corn. "Our civilization is a civilization based on corn. A civilization of maize," he said. Rojas counseled that cultural survival is dependent, in part, on safeguarding and making traditional foods available. To be successful, people must act with humility before nature and make wise land-use decisions.

"Humankind (needs) to learn how to behave," he said.

Planning for the future

Scientists agree that climate change will grind along unchecked for the immediate future. While people can alleviate the severest impacts for grandchildren and generations beyond by slashing carbon emissions, this leading edge of the new climate regime is happening—the next three decades or so are in the can. How Indian nations and native communities, respond to the changes, however, is very much controllable.

Dr. Daniel Wildcat from Haskell Indian Nations University offered up some advice centered on living a traditional life and adhering to a sustainable, climate-friendly standard in native homelands.

"We have the opportunity to restore the symbiotic relationship between people and place," said Wildcat, a Yuchi member of the Muscogee Nation of Oklahoma. "Are we talking about resources or relatives? The trees, plants, rocks and water are part of our communities."

Wildcat said indigenous people have a distinct cultural identity based on where they live. When tribal planners look to the future, they should consider how their actions impact everyone and everything in the environment.

"Sustainability is unique to each native nation. Tribes should develop what works best with them before a sustainability model is imposed upon them," he advised.

For more information on the Shifting Seasons conference and planning resources for tribal communities contact the Sustainable Development Institute, College of Menominee Nation: 715.799.6226 or *www.SustainableDevelopmentInstitute.org*.

Our evolving landscape

Wrapping your mind around what climate change looks like in Ojibwe Country is a little washy: unformed. Many notice that winter just isn't what it used to be. Low water on ceded territory lakes is becoming more familiar. But on a grand scale, a broad sweep across the forested landscape, what is climate change going to deliver?

Something a lot like Kansas.

The University of Minnesota's Dr. Lee Frelich, said the boreal forests of the upper Great Lakes are destined to become savanna—a countryside of coarse grass and scattered trees like the lower Midwest.

"Southern trees will outcompete and push out the native trees before they can adapt," said Frelich, UMN Center for Forest Ecology Director. That's especially in lighter, sandy soils, he added. Where the duff and leaf litter lies thick on rich earth, native trees should do better. But within this landscape, invasive European earthworms (the descendents of fishermen's leavings) all too efficiently process the epidermal soils into a thin layer that allows moisture to escape.

In Minnesota, Frelich said the climate is moving north at the rate of three miles a year.

With climate in flux Mexicans look to adapt

Oodenaang (Odanah), Wis.— New invasive species appear in native homelands every year; medicinal plants are increasingly difficult to find in historically productive forestlands; major storms grow more frequent, more intense. Sound familiar?

For upper Great Lakes Indian communities the machinations of climate change are gradually being revealed. In southeast Mexico, however, indigenous people already feel the smack of a world growing warmer and unpredictable.

"The seasons have changed," said Jose Antonio Medina Oviedo (Medina). "We always did our ceremonies right before the rains came. We asked Mother Earth for a good harvest before planting our crops. Now we don't know when to do the ceremonies. The dates we used to do our ceremonies keep getting pushed back."

Medina, a Pueblo Masahua Indian, toured northern Wisconsin with a delegation that included the Mexican Forest Service, national conservation groups, and indigenous leaders. With three interpreters in tow, the group from temperate southern and eastern Mexico visited the Menominee and Oneida nations, wrapping up at Great Lakes Indian Fish & Wildlife Commission offices on the Bad River reservation July 28.

In conversations with GLIFWC staff, Medina revealed that important cultural resources used in ceremonies had become severely depleted by ecological changes and no longer available on native territories. In some cases, native and government officials execute agreements, transferring ceremonial wildlife from one region of Mexico to another. Iguanas are one such species. Captured in the northwestern Baja California, the lizards are sent to spiritual leaders in Pueblo Masahua and other communities in southern Mexico.

As indigenous people find ways to adapt with the changes, recent surges in wildfire and disease outbreaks hit native populations hard. Juan Manuel Frausto Leyva, Mexican Fund for the Conservation of Nature, said a 50% spike in major wild land fires has scorched north-central Mexico in recent years. In the southern mountain ranges, communities previously insulated from tropical diseases now endure potentially deadly ailments like dengue fever (characterized by a sudden high fever). Drawn by warming temperatures disease-carrying mosquitoes are appearing with unsettling frequency in mountain villages and cities. Dengue fever increased by more than 600% over the last decade across Mexico where government officials struggle to keep pace with health costs and mosquito control efforts.

Bridges across Turtle Island

The US Forest Service International Programs sponsored the Mexican delegation, yielding a unique opportunity for foresters and native people to share ideas on managing climate change. The visit united both local stakeholders—Mexican Forest Service (or CONAFOR) and indigenous leaders—and their counterparts in Wisconsin.

"The lovely part of the exchange is when folks realize just how interconnected we are and how our actions can influence people or the environment on the other side of the world," said the Forest Service's Toby Bloom, Latin America and Caribbean Specialist. "I think everyone is interested to learn how others deal with similar challenges and situations."

Near the rural Bad River community Aspen Acres, the group visited a reforestation demonstration site, guided by Doug Tutor, a tribal forestry technician, and Bureau of Indian Affairs Forester Mike Fitzgibbon. The near-80-acre parcel serves primarily as a natural laboratory to determine the most effective white pine restoration techniques. Following extensive logging on the reservation a century ago, fast-growing deciduous trees replaced the pine-dominated forest. Foresters are experimenting with a track-propelled Bobcat outfitted with a cutting attachment that both mows competing vegetation, and breaks up topsoil to help pine seeds connect with rich mineral soil.

"We're looking to return large stands of pine to the landscape," said Tutor. Over their considerable lifetime—300 years and more—white pines store considerable amounts of carbon dioxide, a key greenhouse gas that contributes to global warming.

Tutor said Bad River natural resources staff is also drawing up plans to plant non-native, southern deciduous tree species on the test plot. Should some trees in the reservation's current forest mosaic fadeout, mangers want desirable replacements like oak tested and available for planting.

Representatives from the Mexican Forest Service, national conservation groups and indigenous communities toured northern Wisconsin last June, discussing climate change impacts and mitigation strategies with tribal resource staff. Above, Bad River Forestry Technician Doug Tutor (2nd from right) and Mike Fitzgibbon, BIA Forester, explain white pine restoration efforts on the reservation using an all-terrain Bobcat fitted with an attachment. (Photo by Charlie Otto Rasmussen.)

GLIFWC study on the effects of logging on understory plants

By Alex Wrobel
GLIFWC Forest Ecologist

Oodenaang (Odanah), Wis.— Much of the original forest cover of the ceded territories was old-growth northern hardwood forests. In addition to important tree species such as sugar maple (ininaatig), hemlock (gaagaagiwa), and yellow birch (wiinizik), this plant community type includes 35 herb and shrub species traditionally and presently used by the Great Lakes Ojibwe (Meeker et al. 1993), and many other species with no recorded uses.

Many of the understory plant species have adapted to the environmental conditions existing under deciduous tree canopies. The spring ephemerals begin their growth cycles in the early spring while there is plenty of sunlight under the still leafless trees. Once the trees leaf out, these plants will either go to seed or die back, giving way to the late summer understory species.

Extensive logging activity as well as changes in fire suppression policies in the ceded territories have altered the natural disturbance regime (i.e. wind events and fires), and in turn altered the natural dynamics of the forest ecosystems. Increased light and temperature on the forest floor, compaction or erosion of soils, the introduction of non-native invasive species and various others conditions may be changing the distribution and abundance of the native plants in the understory.

While small-scale logging operations using horses and small machinery in the winter months may have caused some changes in the understory of northern hardwood forests, large-scale operations using larger machinery and year-round logging may be having more dramatic effects.

One way to test if modern logging activities are causing changes in the understory of our northern forests is to compare the species composition and abundance of understory plants "before logging" against the "after logging" understory. Because forests recover slowly from logging, one challenge we face is capturing the very gradual changes over an extended period of time, which could range anywhere from 10-50+ years from now. Will these sites ever return to the pre-logging conditions, or are there permanent changes in the composition of the understory? Are species being lost or added?

In 1997, GLIFWC and the USDA Forest Service entered into a Memorandum of Agreement to conduct a long-term research project to study the impact of selective cut harvest on understory plants. Four study sites were established on the Medford District of the Chequamegon-Nicolet National Forest. They all have a history of logging, but have had minimal disturbance since the 1920's. Paired plots, one treatment plot (to be logged) and one control plot (to remain un-logged) were established at each site.

Data collection began in 1997, six years prior to the start of treatment (logging) activities. This is one unique aspect of this study in that we have significant pre-treatment data to compare to the post-treatment data. Sampling occurs twice each year, once in late May to record the early blooming spring ephemerals and again in late July to record the late blooming summer plants.

Logging activities began in 2003 and included a selective-cut harvest with trees being hand felled, cut into logs and removed from the sites by a forwarder. All logging was completed at all sites by 2006. Post-treatment sampling occurred twice each year beginning when the logging on an individual site was completed until 2007. Due to personnel changes at GLIFWC, the sites were not sampled again until this year (2011).

The information collected to this point provides us with a good picture of what species grow in the sampled northern hardwood forests and how common they are. We also know what species are absent from the forest. Logging has occurred, and we will now discover what changes have happened to these forested stands after the logging activities.

We will be able to document how much of a change occurred, how many species declined in abundance, how many increased in abundance, what species (if any) disappeared and what species were present post-harvest that were not present pre-harvest. This is the short-term information. Over the long term we will discover how these new plant communities change over time and whether they 'return' to their pre-harvest conditions. Stay tuned, we will let you know in about 50 years…..

Flowering spring beauty and wild leek (near the tree stump) make springtime appearances in one of GLIFWC's study plots in the Chequamegon-Nicolet National Forest, Medford area. The plot is part of a long-term study on the impact of logging on understory plants. (Photo by Dale Thomas)

GLIFWC Executive Administrator James Zorn (right) joined Terry Williams, Tulalip Tribes' Natural Resources Commissioner, during a break at the two-day "Sustaining our Culture: Management and Access to Traditional Plants on Public Lands" conference. Both men, long time advocates of treaty rights, provided presentations during the October conference on the Tulalip Reservation as did GLIFWC's forest ecologist, Alex Wrobel. The primary goal of the conference was to work toward partnerships and agreements dealing with cultural plants and plant gathering. The MOU between the US Forest Service and ten GLIFWC member tribes provided a helpful model for western Washington treaty tribes. (Photo by Alex Wrobel)

Elk distribution

(Continued from page 5)

year old cows and the remainder yearlings (both cows and bulls) would be inspected, have a health check, be radio-collared, and then be transported to a holding pen.

The holding pen is a 3–acre fenced enclosure that is designed to hold the elk until spring. Elk will be provisioned with food and water throughout the winter, but human contact will be minimized.After green-up and there is green forage available to the elk, the holding pen will be opened, and the elk allowed to go free. It is hoped that the older cows will have calves shortly after release and that these cows will become the leaders of new elk maternal groups.

The three agencies (GLIFWC, WDNR and CNNF) have met several times over the past year to identify potential release sites for the dispersal project. It is anticipated that releases will occur for the next three years and a series of potential locations have been identified. Plans are well underway for the dispersal of 10–12 more animals this winter. (Watch GLIFWC's Facebook page for updates!)

DNR Biologist Laine Stowell, prepares an elk tranquilizer serum near Clam Lake. (COR)

During the 2011 dispersal, the elk that were moved were blessed by a Lac Courte Oreilles spiritual leader during a ceremony at the dispersal site. Ceremonies also welcomed the elk when they were first released at Clam Lake in 1995 during the initial phase of the elk restoration project. It is important to recognize these ceremonies and to thank those who conduct them for us (and the elk).

NAFWS addresses broad spectrum of interests: fisheries, wildlife, conservation enforcement

By Tanya Aldred, GLIFWC Wildlife Biologist

Keshena, Wis.—The Smokey Town and Red River Drums opened the 24th Annual Regional Great Lakes Native American Fish and Wildlife Society (GLNAFWS) conference. The Drums were followed by the presentation of the Colors carried by the Menominee and Mohican veterans and an opening prayer by Dave "Nahwahquaw" Grignon.

This set the stage for a broad spectrum of events for the September 12–16 conference at the Menominee Nation Casino, Bingo and Hotel Convention Center. Co-hosted by the Menominee Indian Tribe of Wisconsin and the Mohican Nation Stockbridge-Munsee Band, the annual GLNAFWS event drew tribal natural resource and enforcement staff to a program that featured hands-on training as well as diverse educational opportunities.

Recently elected as president of the National Native American Fish and Wildlife Society (NAFWS) Arthur "Butch" Blazer provided an overview of Our Natural Resources, an alliance of tribal natural resources organizations and tribes committed to develop and advance a national tribal natural resources strategy. Among a variety of other presenters during the conference were, Tanya Aldred, GLIFWC wildlife biologist, who shared information about her research on American pine marten and Peter David, GLIFWC wildlife biologist specializing in wild rice management. (Photo by Tanya Aldred)

Blazer appointed as USDA deputy undersecretary

As of October 11, Arthur "Butch" Blazer, Mescalero Apache, was appointed to serve as Deputy Under Secretary, US Department of Agriculture, Natural Resources and Environment. Blazer established his own conservation consulting firm, Blazer Conservation Connections, after serving as the Director of the Forestry Division of New Mexico's Energy and Natural Resources Department.

As a consultant he specialized in helping establish sustainable partnerships that would create positive impacts on the nation's natural resources. He was the first Native American to be appointed as "State Forester" for New Mexico and was also recently elected as President of the Native American Fish and Wildlife Society's Board of Directors.

Zebra mussels

(Continued from page 2)

walleyes spawn deeper than about four feet, ice will not scour the mussels.

The zebra mussels are highly likely to appear in nets and on aquatic vegetation or can be stuck on small rocks. He encourages fishermen to check all gear thoroughly and clean nets, boats, gear before leaving the lake to prevent transporting them to other water bodies.

Zebra mussels can also be transported in the veliger stage. Once zebra mussel eggs are fertilized, they develop into veligers, so tiny they are difficult to see. Veligers feed on tiny phytoplankton while they grow their shells. Swimming freely as veligers, they can also travel great distances carried along by water currents. Of course, man-made transportation can also help, such as being caught on boots or in fishing gear or boats.

After about a month, the weight of the veligers' shells causes them to sink to the bottom where they find something to which they can attach. This could be another mussel, a crayfish, intake pipes, piers, boat bottoms, whatever.

Damages caused by the attached mussels include killing native mussels by smothering them, clogging pipes, and cleaning the water.

While clean water sounds like a good thing, there are negative impacts, such as the removal of plankton and allowing more light through to the bottom of the lake, which may stimulate more growth of aquatic vegetation, changing the nature of a lake's habitat.

Break-out sessions featured Conservation Enforcement/Training, Environmental Protection/Training, Tribal Trust Issues, and Fisheries and Wildlife Issues/Diseases. Presentations covered a variety of research topics which focused on species such as lake sturgeon (namé), walleye (ogaa), elk (omashkooz), moose (mooz), marten (waabizheshi), bear (makwa) and wolves (ma'iinganag). There were also presentations discussing issues related to wild rice (manoomin) management, fish and wildlife habitat restoration projects, and climate change.

Jennifer "Gigi" Modrich, Indian Law Practice Group, Holland and Night; Jeannine Brooks, BIA Office of Trust Services, and Garrit Voggesser, Tribal Lands Conservation Program, National Wildlife Federation, presented information regarding Congressional funding levels, discretionary, and non-discretionary funding.

A particular highlight this year was a presentation on bald eagle (migizi) management and handling raptors. Marge Gibson, the executive director and one of the original founders of the Raptor Education Group, Inc. (REGI), brought two live raptors for her presentation, a red-tailed hawk (mishkwan naniisi) and a bald eagle. REGI is a non-profit organization that rehabilitates orphaned or injured native birds and educates the public on various wildlife issues.

Gibson discussed key points on handling raptors, such as remaining calm and reminding people they don't need to try and "overpower" the eagle; it is simply a matter of getting them to cooperate with us and is not a matter of strength. There is a quote she likes to use which says, "Nothing is so strong as gentleness, nothing so gentle as real strength."

Other events at this year's conference included a director's reception, Red Lake walleye fry, a softball game followed by a traditional feast, and natural resources tours. During the awards banquet, a silent auction raised money for the Great Lakes region with items such as paintings, t-shirts, birch bark baskets and wild rice bundles. The raffle, golf tournaments and the silent auction provided funding for Great Lakes Native American Fish and Wildlife Society scholarships.

2011 scholarship award winners

- Wade Reiter, Menominee, freshman, natural resources major, University of Wisconsin Stevens Point
- Kayln Sargeant, Red Lake, junior, biology major, Bemidji State University
- Jamie Brown, Pokagon Band, sophomore, natural resources major, Grand Valley State University
- Gary R. Auginash, Jr., Red Lake, junior, forest technology major, Northwest Technical College, Bemidji
- Richard Isham, Lac du Flambeau, junior, zoology and environmental conservation major, University of Wisconsin-Madison

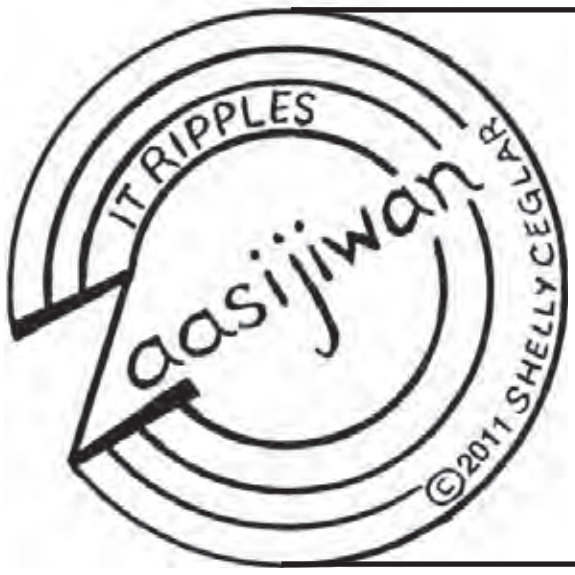
2011 regional GLNAFWS award winnners

- Patricia Zakovek Conservation Officer of the Year Award—Roger Willis, Little Traverse Bay
- Glen T. Miller Tribal Leadership Award—Derek Bailey, Grand Traverse
- William Eger Biologist of the Year Award—Brett Fessell, Grand Traverse
- Great Lakes Technician of the Year Award—Joseph Poupart, Lac du Flambeau

2011 shoot team winners

1st Eric Chapman, Lac du Flambeau
2nd Mike Bailey, Grand Traverse
3rd Bill Cox, Menominee
4th Terry Carrick, Bay Mills
5th Ray Wolf, Lac du Flambeau
6th Bill Bailey, Grand Traverse
7th Roger Willis, Little Traverse Bay

Bob Jackson, biologist with the Bureau of Indian Affairs, Minneapolis Area Office, emceed during the NAFWS annual awards ceremony. Receiving the Great Lakes Technician of the Year Award is Lac du Flambeau's Joseph Poupart. (Photo by Tanya Aldred)



Bibooning—When it is winter

Bibooning, biindig nimbimose. Ningwaashkewez bimoseyaan. Daga wiidosemishin!
Ningii-kizhiibizomin. Ayaangodinong ninoondeshin. Gichi-adaawewigamigong, nimbabaamose.
Gaye gikinoo'amaadiiwigamigong, nimbabaamose. Daga wiijiiwishin oodenaang.
Niwii-pabaamosemin. Gaawiin niwii-namadabisiimin. Gidaa na Maanazaadiiwakiing?
Bimosen endaso-giizhik! Gidaa na Michigamiing? Bimosen! Gidaa na Wazhashkwadoong?
Bimosen! Miish waamino-giizhigak.

(When it is winter, inside I walk. I am more energetic when I walk. Please walk with me!
We will move fast. Sometimes I am exhausted. In those big stores I walk around.
Also in the school, I walk around. Please, accompany me to town.
We will walk around. No, we will not sit down. Do you live in MN? Walk every day.
Do you live in Michigan? Walk! Do you live in Wisconsin? Walk! And then it will be a good-day.)

Bezhig—1

OJIBWEMOWIN (Ojibwe Language)

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

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

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

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

It is verbs, VII's Negation.

Use "no"–Gaawiin & suffix -sinoon, or zinoon.
Zoogipon. It is snowing.
Gaawiin zoogiponzinoon.–No, it is not snowing.
Gashkidin.–It is freezing over.
Gaawiin gazhkidnzinoon.–No, it is not freezing over.
Gisinaa.–Its cold.
Gaawiin gisinaasinoon.—It is not cold.
Voice correct syllable sounds...Giigoo, Gego, Gegoo, Gegaa, Gidagaa, Gikaa, Giige, Gekek, Gemaa.
Fish, Don't, Something, Almost, Its spotted. S/he is elderly. S/he heals up. Hawk. Maybe/or.

Niizh—2

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

A. Aatebidoon i'iw mazinaatesijigan <u>idash</u> <u>giigidowin</u>. Boonim.

B. <u>Ani-biboong</u>, niwii-minwendaamin aadizookeyaang.

C. <u>Gibaapimin</u> idash gimawadishiwemin. Ginoondaamin gaye.

D. <u>Onaagoshing</u> gidonji-aadizooka waag ingiw abinoojiiyag. Gigikinoo'amaagemin.

E. <u>Gego</u> wanishkwemiken! Gego waniskweyendamiken.

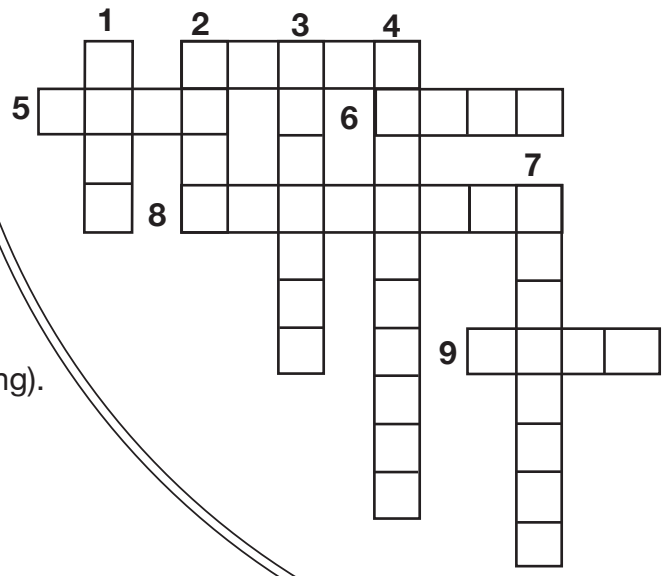
F. Ningo-biboon, <u>niizho</u>-biboon, <u>niso</u>-biboon, bizindang!

G. <u>Awesiiyag</u>, bi-neshiiyag, giigooyag, <u>mitigoog</u> idash Anishinaabeg. Bemaadizijig.

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

Niswi—3

IKIDOWIN ODAMINOWIN (word play)



Down:
1. Three (in counting).
2. Don't.
3. It is spotted.
4. cars
7. I farted.

Across:
5. partridge (grouse)
6. please
8. frog
9. moose

Niiwin—4

Anishaa, wawiyazhitawad, wawiyazh Ojibwewi-ikidowinan.

Just for fun, it sounds funny, funny Ojibwe words. Doodooshaaboo—milk. Omakakii—frog. Baaka'aakwe—chicken. Boogidi—S/he farts. mboogid—I fart. Giboogid—You fart. Mooz—moose. Mayagi-bine—exotic or strange partridge; a pheasant. Zhooshkwaagime.—S/he skis. Zhooshkwaada'e.—S/he skates. Odaabaan(ag).—Car(s), Sleigh. Biboonodaabaan.—Sleigh. Waasomoowidaabaan.—Electric/Lightning Car.

Zhooshkwaada'e

Imboogid

Baaka'aakwe

Gaawiin ...-sinoon

Gidagaa

Goojitoon! Try it!
Translation below.

1. Minwaabamewizin! Gidikid, "Nimaanedam, _____ ."

2. Gigii-waabandaan na i'iw apikweshimon?_____

3. Nindaanis zhooshkwagime dash ningozis_____ zhooshkwaada'ewigamigong imaa.

4. _____ gisinaa_____. Naazh biboonodaabaan!

5. Daga ikidon _____. Niminotam baaka'aakwe.

Translations:

<u>Niizh—2</u> **A.** Turn off that TV and telephone. Stop talking. **B.** As winter is going along, we are glad when we tell sacred stories. **C.** We laugh and we visit. We hear, too. **D.** When it is evening we tell for a reason—sacred stories to children. We teach. **E.** Don't interrupt by speaking! Don't be distracted! **F.** One-year/winter, two-years/winters, three-years/winters, listen! **G.** Animals, birds, fish, trees, Ojibwe people, Those who live.

<u>Niswi—3</u> ***Down:*** **1.** Niso **2.** Gego **3.** Gidagaa **4.** Odaabaanag **7.** Imboogid**.** ***Across:*** **5.** Bine **6.** Daga **8.** Omakakii **9.** Mooz

<u>Niiwin-4</u> **1.** Be respected! Say it, "I feel bad, **I farted**." **2.** Did you see it that pillow? **It is spotted**. **3.** My daughter she skis and my son **he skates** at the rink there. **4. No it is not** raining. Get him/her the sleigh! **5.** Please say it! "**Chicken**." I like the sound chicken.

There are various Ojibwe dialects; check for correct usage in your area. 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 transaltions from <u>The Concise Dictionary of Minnesota Ojibwe</u> by John D. Nichols and Earl Nyholm. All inquiries can be made to **MAZINA'IGAN**, P.O. Box 9, Odanah, WI 54861 <u>pio@glifwc.org</u>.

HAVE FUN IN THE SNOW!

Try playing the snow snake game

With winter approaching, it's fun to think of things to do in the snow. Northern tribes, including the Ojibwe, have a great snow game using snow snakes made out of wood. The game was, and still is, played be many different tribes, so there are some differences in the way the game is played.

To play the snow snake game you will need:

- Smooth sticks around 2 to 4 feet long
- Paint or markers
- Snow

The sticks should be smoothed and decorated to look like a snake. Then an alley, like a narrow bowling alley, needs to be made in the snow at least 12–feet long or longer using a shovel or by pulling a log through the snow.

Next, using an underhanded throw, players take turns tossing their snow snakes down the alley. The person whose snake goes furthest wins. Sometimes, players can have more than one snow snake, each being marked with a notch—1, 2, and 3. Scores are added up at the end, and the person with the highest score wins.

Traditionally, the snow snake game was considered for men only, and people liked to bet on the game. Some snow snakes were up to 8-feet long. One end of the stick was bigger, like a snake head. They would smooth the stick and make eyes and a mouth like a snake. Snow snakes were rubbed with different oils and waxes to help them slide further. Some were even weighted with metal at the head end. The Iroquois still play snow snake, and sometimes their snow track is a mile long.

Adapted from: Winter Day Play, Castalado, ISBN 1-55652-381-5 and "The Winer Game of Snow Snake," at *www.mpm.edu/wirp/ICW-49.html*

Helen Kogima, Burt Lake Band Elder, who has now walked-on, tried her hand at the Snowsnake game in 2009. Hosted by the Burt Lake Band under an Administration for Native Americans grant project entitled "Ottawa Bmaadiziwin: The Ottawa Way of Sustainable Life, Environmental Project," the event drew participants from four Michigan tribes. The STEM Education Center and National Science Foundation funding were also used to fund the program. (Photo by Kathy Kae)

Michele Holmes, Burt Lake Band youth, sent a snowsnake down the snowy trough during the Burt Lake Band Snowsnake Festival, an event that encouraged intergenerational and inter-tribal fun. The 2009 festival was the first snowsnake game hosted by the Band since the 80's. (Photo by Kathy Kae)

Snowsnakes come in different lengths and with individual ornamentation. Most participants at the Burt Lake Band Snowsnake Festival created their own snowsnake. Some used secret methods to make their snake travel longer and faster, and they were reluctant to share their secrets. (Photo by Kathy Kae)

BIBOON (WINTER) WORD SEARCH

S	G	C	T	A	H	H	G	L	S	P	D	J	C	Q	E	S	H	P	Q
R	N	N	O	C	S	N	O	W	L	E	R	O	J	L	I	S	O	C	E
S	E	O	I	A	A	U	I	O	E	K	A	K	G	T	H	P	T	B	B
F	N	W	W	I	T	U	W	Y	D	A	Z	E	W	O	J	Z	C	V	R
W	Y	O	O	B	K	Y	T	P	S	N	Z	E	V	K	H	O	H	W	Q
U	S	T	W	L	O	S	M	N	L	S	I	E	Q	N	H	B	O	Y	S
H	G	N	O	F	B	A	O	J	S	W	L	N	E	L	C	I	C	I	T
I	I	N	O	Y	L	W	R	N	P	O	B	Y	L	Z	E	H	O	K	O
M	Y	E	U	W	P	A	O	D	W	N	N	S	B	U	X	O	L	S	O
C	H	S	C	A	M	W	K	N	I	S	M	E	F	M	E	B	A	M	B
L	R	R	N	I	M	A	U	E	S	N	T	N	R	S	W	I	T	U	Q
D	W	T	R	O	F	G	N	T	T	A	G	K	O	Y	J	D	E	V	X
X	S	G	B	R	N	O	T	C	N	O	Y	S	S	W	S	S	H	N	M
E	H	I	A	I	S	K	C	R	P	O	T	T	T	A	U	K	C	W	H
Z	L	C	T	M	Z	N	E	E	O	S	G	G	B	Q	T	A	E	H	X
E	S	N	R	H	Q	B	H	O	W	F	L	G	I	S	M	T	P	I	J
D	U	D	G	N	I	P	P	A	R	T	W	G	T	E	F	I	K	D	O
H	G	B	F	H	M	I	T	T	E	N	S	O	E	R	G	N	J	N	B
S	N	O	W	B	A	L	L	F	I	G	H	T	N	C	A	G	E	L	G
G	N	I	H	S	I	F	E	C	I	S	N	O	W	S	H	O	E	S	Z

Circle the following words associated with winter. Words appear straight across, backwords, up and down, down and up, and diagonally. Minose (have good luck)!

BLIZZARD
BOOTS
COAT
FROSTBITE
HAT
HIBERNATE
HOTCHOCOLATE
HUNTING
ICE
ICEFISHING
ICICLE
MITTENS
PLOW
SCARF
SHOVEL
SKATING
SKIING
SLED
SNOW
SNOWBALLFIGHT
SNOWBLOWER
SNOWBOARDING
SNOWFLAKE
SNOWFORT
SNOWMAN
SNOWMOBILE
SNOWPANTS
SNOWSHOES
SNOWSNAKE
TRAPPING

GLIFWC Wardens Vern Stone and Jessica Gokey provided security to the Iowa National Guard's Blackhawk helicopter on August 9. The helicopter was used the following day in a coordinated enforcement operation to eradicate illegal drugs and apprehend drug growers in the Chequamegon-Nicolet National Forest. (Photo by Lauren Tuori)

GLIFWC Wardens Jessica Gokey and Dan North demonstrate "search and arrest" tactics during workshops presented at the Great Lakes Regional Native American Fish and Wildlife Society Conference at Menominee this summer. (Photo by Brad Kacizak)

GLIFWC Enforcement officers spent October 8-9 at an ATV tactical training session sponsored by North Central Technical College, Green Bay. Using a variety of scenarios that officers may encounter while patrolling on ATVs, the training provided practical, hands-on experience. Inset photo: GLIFWC Warden Jessica Gokey takes aim from her ATV during the tactical training session. (Photos by Fred Maulson)

Another component of enforcement training at the Great Lakes Regional Native American Fish and Wildlife Society's (NAFWS) Conference involved scenarios requiring on-water shooting. Above GLIFWC Warden Tom Kroplin, training director instructs, using a platform mounted on an inner tube to simulate the rocking motion of a boat during on-water encounters. GLIFWC staff have provided training at both regional and national NAFWS conferences over the past four years, working with enforcement personnel from tribes across the nation. Typically, training involves search and arrest tactics and firearms tactics. GLIFWC Wardens Mike Soulier and Jim Stone are both certified firearms instructors. (Photo by Fred Maulson)

After years of fundraising and a lot of volunteer elbow grease, the Bad River Woods and Waters Club completed a shooting range south of Odanah. On land donated by the tribal council, the facility features targets up to 200 yards away from a covered rectangular pavilion. Inside the treated-wood structure club leaders Vern Stone (pictured left) and Dave D'Acquisto (right) assembled a series of elevated shooting benches that includes lower gun rests accessible to young and disabled hunters. Stone, a veteran GLIFWC conservation officer, said the range is also suitable for law enforcement qualification training exercises. D'Acquisto, Stone and other Bad River members formed the club a decade ago to encourage family participation in the outdoors. Annual club sponsored activities include a fishing contest, a shooting competition and various raffles during the year. (Photo by Charlie Otto Rasmussen)

Retreiving a lost net, GLIFWC Warden Steven Amsler working with Warden Dan North, brings the deteriorating gillnet aboard GLIFWC's enforcement vessel. GLIFWC enforcement staff were notified of the net's GPS position by personnel from Michigan Technical College who were doing research in the vicinity of Houghton, Michigan. (Photo by Dan North)

St. Croix youth tried their hands at archery under the supervision of GLIFWC Warden Brad Kacizak who spent two days at the St. Croix Youth Culture Camp this summer. Fifteen youth participated in the archery safety components of the camp and received plenty of hands-on opportunities with the bows. The week-long camp was organized by St. Croix AODA Coordinator Brent Belisle. (Photo by Brad Kacizak)

GLIFWC Warden Vern Stone and Intern Tony Corbine spent two days with fifteen Bad River youth presenting a practical ricing workshop in early August. Participants made their own rice sticks and discussed the importance of ricing in the Ojibwe culture. (Photo by Lisa David)

Gearing up for some fun on the trails, nine participants in Bad River's ATV Safety Class learned the basics about ATV operation last June. The course, instructed by GLIFWC Warden Vern Stone and Bad River Tribal Warden Bob Wilmer, includes classroom work as well as practical experience. (Photo submitted)

The third year of GLIFWC's Onji-Akiing Camp at Michigan's Camp Nesbitt brought 43 campers for the week-long experience that featured archery, canoeing, high ropes, and fishing. Traditional Ojibwe ceremonies and participation in a sweat lodge where incorporated as cultural aspects of the camp. (Photo by Tony Corbine)

"Take a Kid Fishing Day" meant a fun day out with the kids for GLIFWC Warden Robin Arunagiri and Enforcement Intern Tony Corbine. Staff helped their young crew learn to bait, cast and take a few fish off the hook. Aimed at involving youth in more outdoor oriented activities, GLIFWC Enforcement staff use a variety of formats to get the kids outside and develop important outdoor skills. (Photo submitted)

Warden Roger McGeshick instructed an ATV/Snowmobile Safety class this summer on the Sokaogon/Mole Lake reservation. The instruction also included instructor certification training for GLIFWC warden recruits and officers from the Menominee County Sheriff's Department (MCSD) and the Menominee Tribal Conservation Department (MTCD). GLIFWC recruits were all certified as instructors in ATV/Snowmobile Safety this fall. McGeshick will be traveling to Menominee County for another training segment with Menominee personnel. Students pictured in the front row: Rayfield Tallier, Joey Tallier, Benjamin Kalata, Josie McHugh, Kayla McHugh, Sky Reimer, Desiree Reimer, and Steve Amsler (GLIFWC). Back row: Lauren Tuori (GLIFWC), Michael Vreeke (MCSD), Erik Wright (MCSD), William Cox III (Menominee Conservation), Walter Cox (MTCD, Chief Warden), Matt Kniskern (GLIFWC), Todd James (MTCD) & Brian Finch (GLIFWC). (Photo by Roger McGeshick)

Teaming up with Minnesota Department of Natural Resources (MDNR) conservation officers, GLIFWC Warden Robin Arunagiri offered Minnesota Hunter Safety training at the Mille Lacs reservation in September. Twenty-one students attended, and the average score for the class was 95%. Assisting Arunagiri were MDNR Conservation Officers John Shanoff, Charles Walther, and Greg Verkuillen. (Photo by Tony Corbine)

Community feasts on organic veggies thanks to Mino Bimaadiziiwin Garden

By Sue Erickson, Staff Writer

Gaa-miskwaabikaang (Red Cliff Reservation), Wis.—The aroma of home cooking met you at the door of the Red Cliff Elderly Center the evening of October 16. A roaster full of steaming veggies gently simmered on the counter, its fragrance making everyone hungry as they passed by. That, combined with fresh fish, home-made dumplings and an assortment of other goodies was a gift from the community garden to the community.

Reaping the rewards of the *Mino Bimaadiziiwin* (Back to the good life) Garden, Red Cliff community members benefited from the vegetables planted and pampered through the summer by Red Cliff's Friends of the Dirt Committee (volunteers) and Volunteers in Service to America (VISTA) workers. But this feast was not only a recognition of a season's work and the garden's gifts, but also of the vision and long-term commitment of Jean Buffalo.

Honoring Buffalo, who walked-on this summer following an extended fight with cancer, the community members recognized her vision, spirit and hard work —all which spurred the development of the community garden at the old Aitken farm on the reservation.

Leon (Ole) Basina, formerly the diabetes coordinator for the tribe, has worked alongside Jean since the onset of the garden. He says it was in 2000 that the Tribal Council was first approached about using the Aitkin farm for a community garden. "The idea was to teach people how to survive without the chemicals found in so many of our foods today. That was Jean's concept," he says. Both Basina and Buffalo were on the Council at the time, and it was a struggle pushing through the community garden idea, but it happened, and 40 acres were set aside for the project.

Working side-by-side at the onset, Basina decribes himself as handling the gardening aspects and Buffalo the political aspects of the project, although Buffalo was up at the garden almost daily watering, weeding, hands in the earth. Able to acquire a garden tractor through a US Department of Agriculture program, Jean hopped on the tractor herself, plowing and tilling up the land—turning a vision into reality. She would dig and weed, whatever needed to happen, she would do it.

"Although, Jean wasn't really a gardener," Basina says, "She didn't know too much about the practical end. She wanted to use organic, heritage seeds only, so she ordered them. But now what do you do with two whole pounds of carrot seeds?" Basina chuckles at the thought of planting a full two pounds of the miniscule seeds—which didn't happen.

The garden produces a great assortment of veggies—tomatoes, radishes, broccoli, brussel sprouts, carrots, pumpkins, squash, and cucumbers.

Getting help to tend the garden has been another aspect of the struggle. But help did arrive with the involvement of VISTA workers at the garden; however, there were limitations on the amount of physical work they were allowed to perform. Their role was primarily as teachers and helping with grant writing, Basina explains.

For himself, Basina helped salvage a few of the old buildings on the farm like the old milk house where he used to help milk cows as a youth while Jean looked for outlets for the produce, like getting involved in the Bayfield Farmers Market, as well as for other avenues of funding. He has also helped plan the lay-out of the garden, aiming at a wide-row, mounded garden which is easy to till.

In a continuing battle with cancer, Buffalo ultimately decided to turn over her role in her beloved garden project to Melonee Montano, who has followed through, and the garden has continued to flourish and grow.

Red Cliff was also fortunate enough to get their own VISTA workers directly from the community, and they, along with members of the Red Cliff Friends of the Dirt Committee, have been responsible for much of the hard work in tending the one-acre garden plot.

Carl Butterfield and Jeanne Gordon, Friends of the Dirt committee members, dish up steaming veggies harvested from Red Cliff's Mino Bimaadiziiwin Garden during a community harvest feast this fall. (Photo by Sue Erickson)

In addition to the community garden, about 40 home plots were tilled this year at local residences. VISTA workers helped with the tilling and have also been available to teach about gardening techniques. VISTA workers also constructed a raised garden for Red Cliff's Early Childhood Center at the farm. These efforts continued Buffalo's primary mission: to introduce healthier, chemical-free foods to community diets.

Each season, things keep improving. Currently the garden uses wind houses, or hogan-like structures, to cover areas of the garden in order to give plants an earlier start in the spring and an extended growing season in the fall.

Further outlets for produce are also being explored. They have participated in the Bayfield Farmers Market, but would like to develop their own farmers market and also a mobile farmers market to get fresh produce to elders. They are looking at the potential for getting their organic produce into school cafeterias and the feeding programs for the Early Childhood Center.

Basina says a "chi miigwech" goes to the VISTA workers, Sarah Gordon, Carl Butterfield and Melanie Taeorene, for their hard work caring for the community garden and working with home gardeners on the reservation. Red Cliff Friends of the Dirt Committee members also play a big role as volunteers. Committee members include: Ole Basina, president; Shelley Gordon, vice president; Jeanne Gordon, secretary; Dorie Jensen, treasurer; Melonee Montano, member; Chuck Bainsa, member; Sarah Gordon, member; and Frank Montano, member.

The Mino Bimaadiziiwin Garden receives support from the VISTA program, grants from the Bureau of Indian Affairs, donations from the Red Cliff Tribe and individuals.

During a late summer tour of Wisconsin Indian nations that included Menominee and Oneida, Professor Peng Duoyi of China's Yunnan University visited the offices of Bad River and Great Lakes Indian Fish & Wildlife Commission in Odanah. Traveling with a pair of University of Wisconsin-Madison (UW) students, Peng learned about traditional agricultural and gathering practices used in native communities. Peng said that rapid natural resource development in China is creating hardships for indigenous communities that rely on diverse, healthy ecosystems. Pictured from left: Christine Shives, UW; Peng Duoyi, Yunnan University; Dana Jackson, Bad River Education Director; and Mary Sanders, UW. (Photo by Charlie Otto Rasmussen)

A delegation of indigenous Peruvians met with GLIFWC staff and Bad River Chairman Mike Wiggins October 21 in Odanah. Sponsored by the US State Department, the group of ten included natural resources managers, educators and the first native to be elected to the Congress of the Republic. The visit centered on discussing how native communities and governments can best work together to manage ecosystems and resolve conflicts. Pictured at the Bad River Band's Chief Blackbird Center: Peru's Max Erich Silva is seated; standing from left: Ed Nava (interpreter), Ann McCammon Soltis (GLIFWC) Peruvian Congressman Eduardo Nayap, Christina Lopez (Peru), Maria Rebeca Deten (Peru), Walter Hera (Peru), Sue Erickson (GLIFWC), Vicente Otta (Peru), Julio Cusurichi (Peru), Kekek Stark (GLIFWC), Lidia Rengifo (Peru), Edwin Cunachi (Peru), Neil Kmiecik (GLIFWC), Maria Elena Diaz (Peru), Joe Dan Rose (GLIFWC), and interpreters Kim Lane and Elena Klavers. (Photo by COR)

Mooningwanekaaning-minis Anishinaabeg Maawanji'iding

Madeline Island Anishinaabeg Gathering

By Sue Erickson, Staff Writer

Mooningwanekaaning-minis (Madeline Island, Wis.)—The Pipe was lit; the Waterdrum sounded; songs and drumbeats filled the air; people feasted and danced—all were part of the Mooningwanekaaning-minis Anishinaabeg Maawanji'iding that occurred September 23-25 on Madeline Island.

Slightly chill and damp weather did not dull the spirits of people from many native nations who came to experience the second Anishinaabeg Gathering and to touch their feet on "homeland" soil.

Seeking to explore ways the Anishinaabeg can maintain their historical connection to Madeline Island in the future, the program, emceed by Jason Schlender, Lac Courte Oreilles (LCO), featured speakers who shared their views under a big white tent at the Island's Memorial Park.

One theme that reverberated throughout the day was the positive feeling of "being home"—standing on the same grounds the ancestors once walked, being able to envision a shoreline once filled with canoes, feeling a closeness to adjacent burial sites, one of them the resting place of Chief Buffalo. Calling the Island the "Heart of the Ojibwe Nation," Bad River Tribal Chairman Mike Wiggins noted the spiritual and cultural connections to the Island were empowering as he welcomed the participants. Joining Wiggins in the welcoming were Red Cliff Vice Chairman Marvin Defoe, Kaye Garcia, Forest County Potawatomi, and Mike Miller, President, Northland College.

Another common thread in the presentations stemmed from a fear that the Earth and her resources were not being cared for, that pollution would taint the water and sicken the wildlife. As Josephine Mandamin, founder of the Mother Earth Water Walk, quietly but powerfully reminded those present, there is a need to act on behalf of the water and Mother Earth, a need to step forward, be heard, and protect precious resources.

Mandamin also remarked about her first experience visiting Madeline Island. Expecting to see Anishinaabeg people, she asked herself, "Where are the Indians here? Why aren't they here? How are they going to come back if they don't know the stories of our people?"

A special guest at the event on Saturday was Chief Bizhiiki's (Buffalo's) pipe, recently returned to the Red Cliff tribe after being gone 162 years. Carried over by the pipe's keeper, Red Cliff Vice Chairman Marvin Defoe, the pipe was there to view as Defoe spoke about its significance and the story of Chief Buffalo's trek to Washington DC to stop the Removal Order. "The Chiefs said 'gaawiin'—we stay!" Defoe emphasized. He also expressed gratitude for Jean Buffalo's tireless search for Buffalo's pipe.

Brian McInnes, UM–Duluth, reminded people that it was Madeline Island where the Megis Shell chose to reveal itself to the people. "We must acknowledge the sacredness of this place," he said. "We honor it by returning to this gathering. It is the time of the Seventh Fire when Anishinaabeg would pause, look around and see what is needed for the future." McInnes also reminded people that it is good for people to come together and help each other. "Giiniwind," he said, "people united together."

Attended by over 600 people over the three-day event, the Gathering featured an "Education Day" on Friday, hosting school tour groups. Saturday's events began with a Pipe Ceremony by LCO's Jason Schlender and Jason Stark, Turtle Mountain Chippewa, and a Water Ceremony performed by Sue Nichols, Bad River, and Penny Charette, Red Cliff. Brian McInnes led a prayer in Ojibwemowin.

Welcoming remarks came from Mike Wiggins, Marvin Defoe, Kaye Garcia, representing Forest County Potawatomi, and Mike Miller, President, Northland College. Speakers included Renee Dillard, Odawa; Jason Stark, GLIFWC; Brian McInnes, Josphine Mandamin; and Winona LaDuke, White Earth.

Using both flute and guitar, Frank Montano, Red Cliff, entertained participants during the Moonningwanekaaning-minis (Madeline Island) gathering. Montano was one of several musicians who played or sang between speakers during the day. (Photo by Don Albrecht)

Intermittant with speakers, native artists shared their music. Among them, Red Cliff's Frank Montana with flute and guitar, the Oshkii Giizhick Singers from Fond du Lac, Michael Charette, Red Cliff, and young handdrum artist Nizhoo Sullivan.

Concluding with a traditional feast and a celebrational dance emceed by Larry Amik Smallwood, Mille Lacs, the day's end rang with the voice of the drum carrying into the night sky and over the waters of Gichigami.

The event was made possible through a host of sponsors; however, the lead sponsor was the Forest County Potawatomi Foundation. Hard work and planning fell to the organizing committee: Sue Nichols, Pastor Marina Lachecki, Sharon Nelis, Carolyn Gouge, Demetri Morris, Steve Cotherman, Jason Schlender, Brian McInnes, Chantal Norrgard, Gabriel Peltier, Lorraine Norrgard, Sue Smith, Madelaine Karowski, and Nick Vander Puy. They were assisted by numerous volunteers, many from Northland College and the Red Lake Urban Office, Duluth.

The next biennial Gathering is slated for 2013. Volunteers interested in helping with that event are encouraged to contact the Gathering at: *madelineislandanishinaabeg@yahoo.com*.

"Changing Climate... Changing Culture"

(Continued from page 1)

Bad River Tribal Chairman Mike Wiggins emphasized the importance of the protecting the land and water and the rice beds from degradation—which is equivalent to protecting a culture and a lifeway. Similarly, Mic Isham, GLIFWC Board of Commissioners chairman and Lac Courte Oreilles tribal council member, noted that while he lives at LCO, this whole region is traditionally his homeland—the place where the natural resources have sustained the Ojibwe people for centuries. His concerns for the well being of the resources, therefore, extend through the entire region.

Isham also noted that the new exhibit was not only an important educational tool, but it was also accurate. "I have seen many exhibits and usually there is something that is not quite right, but not in this one."

Also speaking on behalf of their agencies and emphasizing the importance of education as well as collaboration were Apostle Islands National Lakeshore Superintendent Bob Krumenaker, US National Park Service; Paul Strong, Forest Supervisor, Chequamegon-Nicolet National Forest; Rick Pifer, Director of Reference and Public Services, WHS; Ralph Garono, Director, Lake Superior National Estuarine Research Reserve, UW-Extension, and GLIFWC Deputy Administrator Gerald DePerry.

A feast featuring manoomin, venison, Lake Superior whitefish and fry bread, plus numerous potluck contributions was followed by dancing to the sound and songs of the Anishinaabe Dawn drum.

Partners will continue to work together to develop G'WOW student learning curriculum for middle and high school age students. The curriculum will feature seasonal training modules demonstrating impacts on seasonal Ojibwe activities that have traditionally relied on resources, such as fishing, gathering maple sap, birch bark harvesting and wild ricing. The project will build a network of climate change educators, and teacher-training institutes will be developed to promote further networking and outreach on using the G'WOW climate change and culture model.

Madeline Island Anishinaabeg Gathering wins Touchstone Award

Duluth, Minn.—The Madeline Island Anishinaabeg Gathering was one of four recipients of Touchstone Awards from the Community Foundation. Grand Marais Art Colony and Second Harvest were honored in the category of generosity for their efforts to feed the hungry in 2009, when the need for food spiked with the economic downturn. Sustainable Twin Ports won the civic engagement award for its work to transform businesses and organizations from sustainability students to teachers of the innovative approach. The Madeline Island group was recognized for organizing a gathering of more than 650 on the island to discuss the history and future of the Anishinaabeg people, who consider the island sacred.

The Community Foundation granted all four groups funds in 2009 for their initial work. As Touchstone Award winners, each will receive an additional $2,500.

"This is work that makes our community stronger and makes our community special," said Holly C. Sampson, president of the Community Foundation. "All nine of our Touchstone Award nominees this year offer great examples of the concepts of generosity, civic engagement and inclusiveness. They make this a better place to live."

The winners and the five other nominees were recognized at the Touchstone Award luncheon at the Duluth Entertainment and Convention Center.

Mitigoog

(Continued from page 11)

ones called spruce hens. It is these [jack pine] boughs that these spruce hens eat. That is where the Anishinaabe looked for them to go get when he wanted to eat the spruce hen, it is said. The spruce hen is very tame. "And that is the way I will try to help the Anishinaabe." They are easy to snare the spruce hen whenever they use a snare (on a long stick). "That is the way that I shall help the Anishinaabe."

(Cultural note: The jack pine instructed the spruce hen to make himself available to the Anishinaabe. The spruce hen is not dumb. The jack pine promised Nanabush that he would help the Anishinaabe, and this is how he is keeping his promise.)

Ininaandag iidog omaa gii-pi-tagoshin. Mii iitog owe balsam tree gaa-inind. Oh geniin, niibiyo gegoo inga-wiiji'aa. Nashke owe gii-ozhiget aw Anishinaabe. Mii onowen ge-apishamod onowen owe ninzhingobiim mii owe gaa-izhi-apishimod. Nashke-ch ge onowen gaa-ayaagin owe gaa-izhinaagoziyaan owe ii Giishpin baashka'ang awe owe gegoo gii-pikobiit awe mitig. Mii omaa oga-ondinaan omaa gegoo ini mashkiki. Mashkiki omaa oga-ondinaan baamaa ogikendaan aaniin ge-ni-aabajitoot awe mashkiki. Kegoo go owe wenji-izhinaagoziyaan. Owe gii-babiikobiit owe mitik. Niibiyo go gegoo da-inaabadizi. Mii sa iniwen aapiji oga-apishimonikenaawaaa booshke ge aanind oga-aabaji'aawaan owe ezhi-mashkikiwaabooket awiiya. Bijiinag oga-ni-gikendaanaawaa da-ani-bawaajigewag ogowe Anishinaabeg waa-tagoshinowaad.

Then next the balsam tree arrived. It is the balsam tree which is called this way. "Oh me too, I shall help in many ways. For instance, when the Anishinaabe makes camp. They will use my boughs as a floor when they need something to lie on. And for instance these things, the way that I look, (my pitch) it is. If someone pokes at the lumpy pitch, the blister part of that tree, from there they will get medicine. The medicine they will get from here, and they know later on how to use this medicine. There is a reason why I look like this, when the tree has all this sticky pitch. There are many uses for this (pitch.) They will use this for flooring, and others will use this when they make medicine. They will have dreams as to how to use it, those Anishinaabeg when they arrive."

Mii awe miinawaa bezhig. Biisaandago-shingwaak mii iidog igo awe a white pine, gaa-inind. Gaawin igo aapiji awe gegoo ingii-noondanzii aaniin enaabadizid awe. Aapiji dash a, aapiji dash minokwane awe gii-manisaanind awiiya iniwen biisaandago-shingwaakwan.

And there is another one, the next one. The white pine, the one they call white pine, is what they named it. I did not hear of many uses for this tree. However, it burns very well when used as firewood this pine tree.

Mii awe miinawaa, mii go bezhigon ge awe gii-mashkikiiwit awe mitik.Gakina go ogowe mitigoog gaa-badakizowaat gakina mashkikiwaatigoog igi. Miish sa eta go ji bijiinag awiiyag gegoo gii-ani-gikendang aaniin ge-ni-aabaji'aad aaniin ini mitigoon ge-ni-aabaji'aat. Mii iye niin ko gaa-igowaan ge-waawiindamaagowaan gegoo. Baamaa giga-kikendaan. Nashke ge owe shingwaak gaa-inind. Mii go bezhig ge owe, ngii-waabamaa ko owe. Omisimiiwaat iniwen obiisaga'owaawaan ogo, ogiishgiboonaawaan. Ingii-ayaamin ako gii-odaminwaagemin gii-abinojiiwiyaang owe. Ingii-maaminopinaanaanig ogowe a'aag, ingii-aagimesikemin. Mii iye gaa-izhichigeyang. Aagimesag omaa tibishkoo go gii-odaminot aw abinoojiinh.

And then the next one, he is like the others, too. He, too, is medicinal. All the trees that grow there, they are all medicinal trees. It is only – someone will come to know how—how a person would utilize this tree, how it would be used. This is what I was told when I was being instructed in something. You will live and learn about it. Now look at this [red] pine. It is the same this one, when I used to see that tree. When they used to split it up in little pieces (with an ax), and they would saw it up. We used to make play things out of it when we were children. We would bend the needles to make little snowshoes—little snow shoes just like when a child is at play. That is what we did.

Mii awe miinawaa bezhig iidog gaa-ikidod, ge-niin nigoo nimbim-miitoon i'i mashkiki. Baamaa oga-kikendaan aa Anishinaabe gii-ikidogwen. Miinawaa awe wiigwaasaatik, mii owe ge miinawaa bezhik niibiyo gegoo, inaabadizi awe.

Niibiyo aapiji gegoo omaa onji-ozhichigaate. Shke omaa, wiin igo geniin eko de-bi-kikendamaan ingii-kanawaabamaa owe gaa-oosiiyaan. Aagima'omaa ogii-onji-ozhi'aa' ogii-waaginaan iniwen wiigwaasaatigoon. Miinawaa odaabaanaakwan ogii-ozhi'aan. Miinawaa owe ezhi-onagekod, wiigwaasaatik niibiyo omaa gegoo gii-onji-izhichigaatewan. Miinawaa ge piskitenaaganan gii-ikidong. Miinawaa onowen aya'ii ezhi-apakwet aw Anishinaabe. Gaawiin nimijimendanzii ezhinikaatek (wiigwaasabak). Gii-maawandoogwaadeg i'i wiigwaas . Mii iye oda-apakwaanid mewinzha, Geyaabi sa go aapi gii-apakawed awiiya. Mii awe aa birch tree gaa-inind.

Then another one spoke up. "Me too! I carry medicine. Later on the Anishinaabeg will know how to use me," the tree said. And now that white birch tree, he, too, has many uses. This is where a variety of things are made from. For example, as far back as I can remember, I would watch my late father. He would make snowshoes by bending that birch tree. He also made a toboggan. And when he used the bark, he made many things with it. Also the folding birch bark basket, it was said. Also when the Anishinaabe needed something for roofing. I do not remember what it is called (wiigwaasabak), when they sew the birch bark (pieces) together. That is what one would use for roofing material long ago, even nowadays whenever one wants to make a roof. That is the birch tree that I am talking about.

Miinawaa awe a'a azaadi. Poplar tree maawiin izhinikaazo. Mii go ge awe iidog aapiji gaa-pi-dibaajimot. "Niibiyo ge niin gegoo indayaan ge-izhi-wiiji'ag aa Anishinaabe." "Nashke awe gaa-izhinaagozit awe nimitik." Aanind ge ogowe ga-babiiwizhe'iwaat mitigoonsag. Mii omaa ge-ondinamowaad owe ge omashkikiimowaat ogowe Anishinaabeg. Owe chi go ge-niin ezhi-minjimendamaan gii-abinoojiiwiyaan. Ingii-ozibinikaanaanaan ako owe ozaadi ga-inind. Ingii-bishagaakwawaanaan. Miich imaa gaa-ondinimaan. Aapichi onzaam gii-minopogwad awe. Oziban izhinikaate. Dibishko gegaa go, gegaa go ziinzibaakwat izhipogwat iye. Mii dash iye gaa-noojitooyaang gaa-izhi-ishpi-niibing igo. Aapiji niin, aapiji ningii-minopitaamin mii sa go gaa-ikidod awe nookomisiban. "Kinoojimoo'idiz iye gii-miijiman owe oziban, mashkikii gaa-miijiyan" ingii-ig ako. Howah sa ingii-minotawaa. Mii go apane noopiming gii-pabaa-ayaawaan geniin, babaa-ozibanikeyaan. Niibiyo gegoo enaabadizi a'a azaadi.

And now for the poplar tree. Poplar tree is probably the name of it. And he too spoke up. "I too have many gifts to help the Anishinaabe. For example when the way that my tree looks and even the smaller trees, this is where the Anishinaabe will get medicine from when they make medicine." I also remember back when I was a child. We would eat the sap from the bark from the poplar tree. We would peel the bark of the tree. This is where we would get it from. Boy, did it ever taste good that one! It was called thick sap. It almost tastes like sugar. That is what we use to go after, later on into the summer. I, we, really liked the taste of it and this is what my late grandmother told me. "You are medicating yourselves when you eat that sap. That is medicine that you are eating" is what she used to tell me. I really liked what she said to me. I would hang out in the woods eating the sap of the tree. There are many uses for that poplar tree.

Miinawaa awe maanazaadi. Gaawiin igo aapiji gegoo awe ingii-noondanzii, enaabidizit. Owe dash wiin ago ko gaa-izhi-noondawagwaa ogowe kichi-anishinaabeg. Nashke iwe gii-ani-ziigwang, Gakina awiiya obii'toon owe ji-ayaag, jibwaa baabagoshkaag owe wiigwaas gegoo gii-ozhichigaadeg omaa wiigwaasing. Mii dash ako gaa-izhit a'a bezhig a'a ingii-onoshe'inan mindimooye-iban, aazha gii-maajaa. Owe gidaa-naanaagadawaabamaa maanizaadi. Aapii kiizhibagizit a maanizaadi, mii omaa ji-kikendaman. Mii ji-baabagoshkaag i'i, ji- baabagoshkaag i'i wiigwaas mii o'apii ge-ando-waabandaman giizhibagizit a'a maanizadi aapji mamaangibagizi etino'o. Aspen I guess that's the name of it, mii ezhi-zhaaganaashiiwinikaazod.

And then there is the big tooth aspen. I don't remember hearing any uses for this one. I do remember hearing something from the old time Anishinaabe. It was when spring was approaching. Everyone would wait for the birch bark to be ready to be peeled so they could make their things out of birch bark. There was this one lady, my aunt, that is now deceased, that told me this. You should study the big tooth aspen. When the aspen has finished growing leaves, this is how you will know. That is when the bark is ready; that is when you will go and look it when the aspen is finished growing leaves. This tree really has big leaves. I can't say the name of it—big tooth, something.

Wiigobiiwaatik, mii owe miinawaa a'a bezhig. A'awe minawaa aa, wiigobiiwaatik gaa-inind, wiigop maayiin igo izhinikaazo aw mitik mii owe basswood enind. Miinawaa awe bezhig aapiji gichi-aabadat owe wiigop gii-baabagonind a'awe wiigobiiwaatig. Apane go geniin awe noongom indizhichige. Nashke-ch dash ge awe gii-ayaat gikiizhibaabagonind giikii… ginii-biitobiigibinind. Ingii-naanaagajitoon noongom niibinong ini mitigoon, betinaa sa onzaam naaganoon ini mitigoon. Aapiji nanaagaakododewan gii-baategin. Mii dash omaa gaa-onji-ozhitoowaan eyii bawaa'iganaakoon. Wiingenaa ozaam, naanganoon wiinge ge zhooshkwaakwatoon. Kaa memwech gegoo ingii-izhikotanziinan. Mii eta go michipikotamaan aaapiji naangane a'a mitik. Niibiyo maawiin igo gegoo inaabadizi iidog a'aw mashkikiwaatik. Gakina mashkikiwaatigoog ogowe aya'aag gaa-tazhimigwaa mitigoog. Mii owe a'a basswood gaa-inind.

The basswood, that is yet another one. And then this one called basswood, wiigop, is also what it is called, this tree called basswood. And this one is very—there are many uses for the basswood when one peels the bark of the tree. I still do this today. After you peel the top bark, then you peel the layers off in strips. (After I peeled the bark), I studied the sticks from this tree this summer, and I learned that it was very light. It was very light when it got dried. And so I made my rice knockers out of them. They are very light and smooth. I did not even need to carve it. I only had to sharpen it at one end; the wood is very light. There are probably many other uses for this medicine tree that is called basswood (in English).

Miinawaa awe adoop, tabaskobaang omaa ayaad aw adoop. Mii go ge iye niibiyo gegoo inaabadad. Bezhig aazha ingii-wiindamaagoban awiiya; ji ayaabajitowaan owe gii-ayaat, gegoo gii-izhi-ayaat aw abinoojiinh. Gii-biigozhaandizot, kaawiin dash wiin igo owe indaa-dibaajimosii aaniin awe ezhichigaateg. Aanishinaa gigootaazimigoomin owe onjigo weweni gegoo ji-izhichigeyan jibwaa ozhitooyan owe mashkiki. Mii niin ako gaa-igoowaan. Akawe weweni gagwejim awiiya owe dash ke gaa-izhichigeng gegoo gii-bagidinigaadeg asemaa, Nashke

Graphic by Wesley Ballinger

Mitigoog

Nancy Jones, Nigigoosiminikaaniing First Nation. (Photo by COR)

ge omaa aanind owiiya wiisiniiwin odabagidinaanaawaa owe jibwaa giishka'ang owe mitik. Mii awe miinawaa bezhig gechii-inaabadak aaniin ezhinikaazot... (what's it's name…) speckled alder. Speckled alder iidog izhinikaazo. He'enh… Mii owe miinawaa a'a mii niin ako owe gaa-igoowaan owe webinige-giizis gaa-izhinikaazod. Awegwen giinawaa. A'aa niin ingii-ayaabaji'aa ko awe aya'aa andego-giizis gaa-inind. Mii owe mii kwa apii gaa-bi-izhi-kino'amaawangwaa ge gaa-pi-ombigi'aawasoyaan (ombigi'aawaso watch children grow). Ge niin sa go gaa-izhi-gikino'amaagowaan. Webinige-giizis awe, mii apii ge-aabajitooyan awe adoopiiwaatik. Aapiji go owe gaa-biigijiisagowang. Mii dash awe ge-apagidamowat awe…a'awe giizis kii-tibikak gaa-agoojiing. Mii dash omaa wiindamowat awe aaniin wegonen dinowa webinaman "Niwebinige."

Maagizhaa ingoding awiiya, adaakoziwin owebinaan awiiya ingoding maagizhaa ge onishkaadendamowin owebinaan maagizhaa ge gegoo, gegoo owe gaa-migoshkaasikaagod. Mii omaa mii wiindamowat a'a giizis ji odaapinamawig ji-maajiidood "gaawiin geyaabi owe niwii-babaamendanziin" ingoding ako gii-ikidod awiiya. Aapiji go awe gaa-biigajiisagowid mii niin gaa-igoowaan. Mii awe ge-apagidamowat awe dibikigiizis gaa-agoojing, mii dash omaa ji-maajiidood owe gidaakoziiwin maagizhaa ge gimaanendamowin. Mii iye…mii iwe ni-bezhig gaa-izhi-noondamaan ako enaabadizit awe adoop gaa-inind.

And there is the speckled alder. It grows in lower brush areas that alder. That too has many uses. Someone once told me this—to use this tree when something is wrong with a child, when the child suffers from a diaper rash, but I would not go into detail how it is used. (I am not at liberty to discuss how this is done.) There are special protocols before someone does things like making medicine. This is what I was told. Seek out someone's advice when you do something in a sacred manner, especially when tobacco is offered. Some offer food before cutting down a tree. This one too has its special use. Speckled alder is what it is called.

This is what I was also told about this moon that is called throw-sickness-away-moon. You may have a different name for it. As for me I use the moon that is named the crows-return-moon, (March). That is it how I taught my children as I watched them grow. This is the way I was taught, too. The-throw-away-sickness-moon one, that is when you will use the speckled alder tree.

Choose one that is old and almost falling apart. That is the one that you use to throw with, at the moon that is up in the sky. This is when you tell her (the moon) what you are throwing away. "I am throwing it away." Sometimes perhaps someone will throw away their sickness, or they could throw away their anger and anything that is plaguing you. This is what they tell the moon, to take the sickness away, "I do not want it to bother me anymore" is what someone will sometimes say. Use the wood that is almost falling apart, that is what I was told. That is what one would throw to the moon, the moon that at night (in the heavens). It is then that your sickness or your sorrow is taken from you. So that is what one uses that I heard how it is used, this one called the speckled alder.

Miskwaa-biimak, miskwaa-biimak... red willow. Miinawaa awe, bezhig gichi-mashkikiwaatig. Mii iidog gaa-ikidogobanen awe miskwaa-biimag "Aapiji niibiyo gegoo inga-inaabaji'ig owe a'a Anishinaabe omaa waa-tagoshing Bijiinag sago, da-ani-gikendamoog, omaa ge maagizhaa gegoo oga-ani-bawaadaanaawaan." Minik igo idash wiin igo ge-niin ezhi-gikendamaan awe miskwaa-biimagoons indaabaji'aa gii-ozhitoowaan onowe wiigwaasi-naaganensan. Mii awe egwa'ag imaa ge-onji-siito'ayaag owe wiigwaasi-naagan. Mii sa go ge nooshkaachinaagan owe gegoo gii-ozhitood owe gii... manoomin gaa-izhi-nooshkaachigaateg. Mii awe ko aabajiag [miskwaabiimagoons] apiji miinwaagishkaa gegoo gii.. Aapiji, minwaagishkaag gii-aabadizid.

Red willow. This is yet another one, a great medicine tree. Apparently the red willow said, "The Anishinaabe that are going to arrive will have many uses for me. They will come to know or perhaps they will come to dream of how to use these things." And then again as for me I, too, know about this one. This red willow I use when I make little birch bark baskets. I use them to sew on the trimmings, so that it can secure/reinforce around the birch bark basket, also when one makes a winnowing basket or when wild rice is winnowed. That is the part I use, the willow part. It bends/curves nicely. It bends/curves very well when one uses it. Also that one, they are all like that… they are all medicine trees, the whole lot of them.

Bagaanimizhiig, hazel nut. Mii go ge awe bezhig a'a… mii maawiin igo gakina ayaawaad mashkikiwaatigo-iwaat igiwe. Aya'ii dash ko geniin bezhig nindizhi-gikendaan gaa-inaabaji'ag owe sago abinoojiiwiyaan. Bagaanag omaa gii-nitaa-wigiwag gii-ani-tagwaagig. Babiikwaadaminagiziwag igiwe bagaanag, hazel nut iidog izhinikaazo zhaaganaashiiwinikaazod. Mii dash iko igiwe gaa-maawanji'angidwaa gii-abinoojiiwiyaang mii dash gaa-izhi-amowangidwaa mii go bizaan igo mii sa eta baasa'angidwaa. Mii omaa gaa-onji-wiisiniyaang babaa-ando-bagaaneyaang. Mii awe miinawaa bezhig niibiyo gegoo inaabadizi awe, niibiyo aazha gegoo o'apii nindizhi-noondam enaabaji'aawaad ogiwe gaa-nanaandawi'iwewaad awiiyag. Niibiyo gegoo inaabadizi. Mii owe gaa-onji-izhinikaazod bagaanimizh, bagaanag omaa nitaawigiwag.

Then there is one thing that I know of—the way that I use it when I was a child. This tree had hazelnuts growing on them. They are round/ball-like nuts. Probably hazelnut is what they are called in English. We use to gather them when we were children, and we ate them by breaking open the shell. This is how we got our food, how we ate by going around collecting hazelnuts. There is a lot of ways that you can use that. I've heard of many ways of how the medicine people use this tree. They use it in a lot of ways. That is why it is called hazelnut tree because hazelnuts grow on there.

Bawa'iminaanagazh, mii go awe bezhigwan ge-wiin. Niibiyo omaa gegoo agoodeni omaa ezhi-nitaawiging. Ingii-ig ako nookomisiban ji-moozhaginamaan iniwen bawa'iminaanan gaa-izhinikaadegin. Gegoo dash go ogii-ozhitoonan, ogii-gabaatoonan. "Nashke owe minikwen" indig. Mii dog omaa… mii iidog owe omashkikiiwaaboom gaawiin-shk ke ingii-gagwejimaasii aaniin enwaadang iwe Anishinaa ingii-manaazimaa aapiji nookomisiban. Mii go gegoo wiindamawid mii iye gaa- mii go iye gaa-ani-izhichigeyaan.

Pin cherry—this too is another one with medicine. There are a lot of berries growing on it. My grandmother used to tell me to gather up the berries. She used to make something out of it. She made it into tea. "Here take a drink of this," she said to me. This must be her medicine water; however, I did not ask her what it was for. I had a lot of respect for my grandmother, and whatever she told me, that is what I did.

Miinawaa awe a'a asasaweminaganzh izhinikaazo. Mii go ge awe, aapiji niibiyo gegoo omaa nitaawiginoon asasaweminan. Niibiyo go ge-niin aazha gegoo nin-bi-inaabajitoon iwe. Aabiding ingii-ozhitoon eya'ii baashkiminsigan ingii-baashkiminisaanan iniwen asasaweminan. Aapiji…aapiji mino-pogwadoon eya'ii. Mii owe ge bezhig gichi-mashkikiiwaatig.

Juniper. This is another one of the needled trees. Wherever it is a smooth rocky area is where this can be seen. This is what the white man calls juniper. Again this one has many good uses also. All the trees that we see have many uses for them.

Opwaaganaatig. Mii awe miinawaa bezhig. Miziwe aapiji nitaawigi a'a dinowa. Eya'ii omaa ingii-miijimin ako gii-abinoojiiwiyaang onowen gaa-nitaawigingin omaa e'iing. Aapiji minopogwadoon. Amanji igo ezhinikaategwen owe, indigo miskominensan ezhinaagokin. Sumac iidog odizhinikaanaawaan wemitigoozhi-wag. Mii dash omaa wenji-ozhi'aawaad…wenji-ozhichigaadeg okij. Okijiiwaatig a'a opwaagan awiiya gii-ozhi'aad. Anishinaa gigikendaamin owe ezhichigeyang.

Sumac (pipe stem tree). And then there is this another one. This one grows all over the place. As children we would eat the things that grew on this tree. They taste really good. I am not sure what they are called, They look like little red berries. I think the white-man calls it sumac. This is where the pipe stem is made from. When someone makes a pipe, this is where the stem is made from.

Gaa wiikaa awiiya anishaa odaa-giishka'waasiin ini mitigoon. Onjida igo gegoo wii-… ji-inaabadizid awe mitig. Mii go ge-niin gaa-onji'igowaan. Gego wiin anishaa go giishka'waakwen (giishkigawaakwen) igi mitigoog. Gego eta go wii-inaabaji'ad wii-mashkikikaageyan gemaa ge owe gegoo okij awiiya gii-ozhitood. Gemaa-ch ge awe a'a adoopiiwaatig. Aanawi gii-biigijiisagowid aw mitig ge… Weweni…weweni gidaa-izhi'aa gegoo. Weweni ge gidaa-gagiizomaa aaniin wiin wenji-giishkiga'wad a'aw mitig. Mii iye niin ako gaa-izhi-wiindamaagowaan. Awiiya go ogowe. Awiiya igiwe mitigoog ingoji gii-waabamad badakizod aw mitig. Awiiya owe gaa-niibawid. Wiinzowin ge odayaan. Mii dash wenji-manaaji'ad. Gaawiin anishaa gigiishkiga'waasii. Mii niin ako iye gaa-izhi-waawiindamaagowaan gidaa-manaajitoon gegoo.

We know what to do when we are doing these things. No one should cut down a tree for no reason. Only if one has a purpose for it. That is what I was told not to do. Do not cut down a tree without a purpose. Only if you have a reason to use it like making medicine or if one were to make a pipe stem. It is the same as when you use the alder. Even though the tree is rotten or falling or… You should do something for the tree. You should also honor the tree and tell it why you are cutting it down. This is what I was always told. They are someone. (They are people. They are alive.) All the trees that you see standing, all of them are someone. That is someone that is standing. It also has a name. That is why you show respect to it. You do not cut it down for no reason. This is what I was told; you should have respect for all things.

Miigwech. Thank you.

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

CHANGE SERVICE REQUESTED

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

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

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

Susan Erickson..... Editor
Lynn Plucinski ..... Assistant Editor
Charlie Otto Rasmussen..... Writer/Photographer

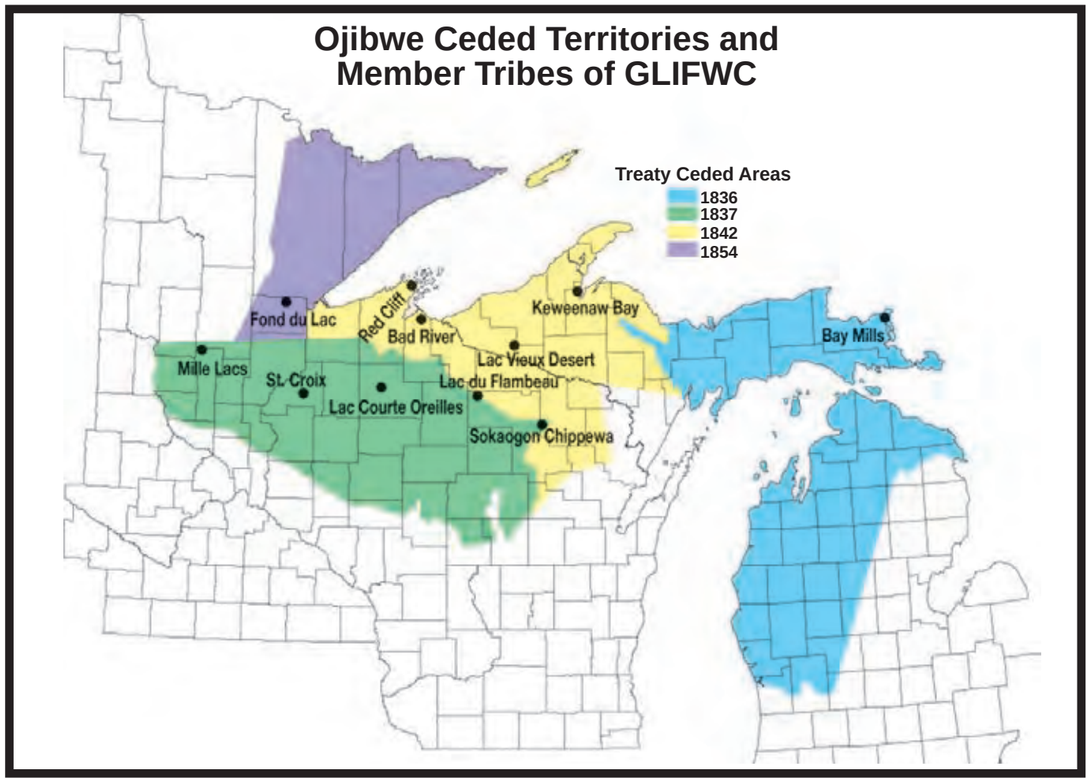
MAZINA'IGAN (Talking Paper) is a publication of the Great Lakes Indian Fish & Wildlife Commission, which represents eleven Ojibwe tribes in Michigan, Minnesota and Wisconsin.

Subscriptions to the paper are free to United States and Canadian residents. Write: **MAZINA'IGAN**, P.O. Box 9, Odanah, WI 54861, phone (715) 682-6619, e-mail: *Pio@glifwc.org.*

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

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

For more information see GLIFWC's website: **www.glifwc.org**.



Mazina'igan

A Chronicle of the Lake Superior Ojibwe