Mazina'igan
A Chronicle of the Lake Superior Ojibwe
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1836 Tribes, Michigan ink inland Consent Decree

State recognizes treaty rights of five bands

By Charlie Otto Rasmussen
Staff Writer

Bay Mills, Mich.—The Bay Mills Indian Community and four other tribes struck an historic settlement with the State of Michigan that reaffirms their rights to hunt, fish and gather under the 1836 Treaty. The 2007 Consent Decree outlines harvest guidelines, bag limits and includes quotas for tightly regulated species like elk on inland portions of the 1836 ceded territory.

United States District Judge Richard Enslen made the agreement official November 2 when he approved the Consent Decree between Michigan, Bay Mills, the Sault Ste. Marie Band and three Lower Michigan tribes—Grand Traverse, Little River and Little Traverse Bay Bands. The pact permanently affirms treaty rights in the 1836 inland ceded territory and does away with the specter of a federal court trial.

Determined to maintain off-reservation harvest protocols in place for more than three decades, Bay Mills Indian Community officials entered into settlement negotiations with the State of Michigan in late 2005 over 1836 inland treaty harvest rights. Now two years later, the eastern Upper Peninsula Ojibwe band achieved their goal—and then some.

"We wanted to continue what we had been doing under our Conservation Code," said Bay Mills Vice President Terry Carrick. "We came away with that and a lot more."

The Consent Decree validates tribal harvesting rights on almost 14 million acres across both Michigan peninsulas. Tribal members may access public lands and inland waters to hunt, fish and gather under treaty seasons. During state-established seasons members may harvest natural resources on private lands with permission from the property owner.

Carrick said the Bay Mills Conservation Committee is busy revising treaty harvest codes to include new provisions like panfish bag limits and elk hunting. Each tribe holds two elk tags for the 2007 season, which begins December 5, Carrick said. The three Lower Michigan bands have established a unified conservation code for their members.

In the absence of a formal settlement or court decision, 1836 Treaty bands have managed ceded territory hunting, fishing and gathering seasons for years, imposing harvest limits enforced by tribal conservation wardens.

Bay Mills Vice President Terry Carrick (center) finishes signing a 1836 Treaty map during an October 25 ceremony in Petoskey, Mich. Pictured from right, Bay Mills Indian Community Attorney Katherine Tierney and Jeff Parker, Bay Mills President; plus, Chad DePetro, Tim Kinney and Joshua Parish.

While state officials didn't recognize tribal authority to conduct treaty harvests, no arrests were made to force the issue into court. Several regional treaty rights cases entered litigation in the 1970s following the arrest of tribal members harvesting off-reservation including the LeBlanc case which ultimately upheld tribal fishing privileges on the Great Lakes under the Treaty of 1836.

In addition to harvest allocations, the Consent Decree spells out specific waivers for camping, boat launches and entry fees on state land and parks. No commercial use of inland resources is permitted with the exception of fur sales like beaver and muskrat hides.

(See Consent Decree, page 9)

Gichigami gets a check-up

Scientists & resource managers reveal strengths, problems

By Charlie Otto Rasmussen
Staff Writer

Duluth, Minn.—At the Making a Great Lake Superior Conference, participants walked the talk of improving the health of the earth's greatest lake. Meals were comprised of local foods, requiring minimal energy to ship in. Coded recycling containers replaced catchall trashcans. And some, like Environmental Biologist Matt Hudson, left the car at home, biking 95 miles to reach the Duluth Entertainment and Convention Center.

Researchers, educators and resource managers numbering more than 450 converged at the head of Lake Superior to deliberate environmental challenges and share information about the largest body of fresh water in the world. Hosted by the United States Environmental Protection Agency, Environment Canada and the Minnesota Sea Grant on October 28-31, the state-of-the-lake event was the largest of its kind.

"Protecting and improving the health of Lake Superior is clearly a priority for many organizations and individuals both within and outside the lake's watershed," said Great Lakes Indian Fish & Wildlife Commission's Ann McCammon Soltis, who served on the Making a Great Lake Superior Conference workgroup. One of 26 sponsoring organizations, GLIFWC contributed Gichigami whitefish fillets for dinner, planning support, as well as a contingent of biological and policy staff to address conference participants during breakout sessions.

A tribal commercial fishing tug motors into Saxon Harbor along Gichigami's south shore. While the health of the fishery is largely good, shoreline development and toxic contaminants remain significant threats to fish populations said researchers at the Making a Great Lake Superior conference. (photo by COR)

As Great Lakes go, it's the biggest and the cleanest of them all. But a mixed bag of threats including shoreline development, pollution, climate change and invasive species makes the future health of Gichigami far from certain.

A lake like no other

Lake Superior holds more water than all the other Great Lakes combined with lots of room to spare. The complex freshwater ecosystem that the lake and its basin support has no equal across the globe. This distinctiveness has drawn the international attention of scientists, including experts in fisheries, toxicology and management policy—some who shared research findings and their intimate perspectives at the conference.

"The fish community in Lake Superior really is in good shape," said Mark Ebener, Chippewa Ottawa Resource Authority fisheries biologist. During an overview of recent ecological history, Ebener explained how the fishery went from primarily non-native species dominated by rainbow smelt in the 1970s to the present-day composition of mostly indigenous species featuring whitefish.

Ebener tempered a largely positive analysis of Lake Superior by singling out habitat degradation in near-shore areas

(See Gichigami, page 11)

Involving the youth secures our future

By Mic Isham
GLIFWC Board Chairman

Mic Isham

Lac Courte Oreilles, Wis.—First of all I would like to congratulate the Bay Mills Indian Community, a longstanding GLIFWC member tribe, along with the Sault Ste, Marie Tribe, the Grand Traverse Band, the Little Traverse Bay Band and the Little River Band on the reaffirmation of their 1836 Treaty rights. It's been a long, hard legal struggle, involving extensive negotiations with the State of Michigan, but the resulting affirmation and recognition of those inland hunting, fishing and gathering rights in the 1836 Treaty ceded territory is a great victory for Anishinaabe people, especially our children. Thus, on behalf of GLIFWC and its member tribes, I offer my heartfelt congratulations!

The long, hard-fought legal battles to secure our treaty rights have been for our children. As Anishinaabe people we are taught to make decisions thinking seven generations into the future. Keeping this in mind, I ask myself two questions today: Just what have we accomplished in our generation to benefit our future generations and how effective have we been in passing our knowledge and skills along to our children?"

The first question I can answer without hesitation. In the past 20 years we, GLIFWC member tribes, have accomplished tremendous things. I remember when I was first hired by my Tribe, Lac Courte Oreilles (LCO), our conservation department, like many of the Tribe's other departments, was in its infancy. We had four game wardens who did everything. They were not only on patrols and citing violators like typical game wardens, but they also performed lake surveys, biological monitoring and assessment, and managed the tribal fish hatchery. Plus, they were responsible for various administrative functions, like issuing licenses and burning permits, registering the harvest, and completing all the reports.

Today, we have top-notch, professionally staffed and managed fish hatcheries and environmental departments. We have wildlife and fisheries biologists. We have planners to write grants and administrative assistants and technicians to collect the information and complete reports. We have clerks to register our harvests and issue licenses and permits. We also have inter-tribal boards and committees that serve to strengthen our political efforts and share information.

GLIFWC has also advanced tremendously. We began with only the essential administrative, biological and enforcement staff, but GLIFWC continued to grow as the breadth of our responsibility to implement a meaningful harvest as well as protect and preserve the natural resources expanded. The staff in each of our divisions has increased to meet the needs, and today we have mining experts, invasive species experts and staff monitoring mercury levels. We have the best data collection procedures. We know more about the fishery than ever before, and we are leaders in all areas of off-reservation harvest management. Our treaty harvest opportunities are also expanding with our tribal members actively engaged in an array of hunting, fishing and gathering pursuits. Witness the Memorandum of Understanding with the US Forest Service as one example of expanded opportunity.

So I can say proudly that our generation has advanced our causes. But how effective are we at passing it along to our youth? Our children, after all, will be responsible for the continued protection of our treaty rights. Do they have the skills and commitment necessary for the ongoing task?

To date, I think we have done some very good things to bridge the gap with our youth, but this remains an area where more effort is needed. I say this as a former tribal council member and long-time representative to the GLIFWC Board of Commissioners. During my twelve years on the LCO Tribal Council, it was difficult to find qualified tribal members to fill our natural resource positions. Most times when we received federal or state funding for a program, the grant would require us to hire someone with a college degree in the natural resource field. While many tribal members held college degrees, especially in business and mental health, it seemed difficult to find many in the natural resource fields, and few biologists were to be found. Our fisheries position was reposted four times, and still we could not find a member to fill the job!

However, we have been working to change this and are beginning to see results. We did outreach to colleges, including tribal colleges, to promote natural resource degrees. The Native American Fish & Wildlife Society raised money for a scholarship fund to get aide to students in the sciences. GLIFWC has an internship program and is making extra efforts to find tribal members to fill these internships. GLIFWC wardens are active in community outreach, offering spearing and netting seminars and conducting hunter, boating, snowmobile & ATV safety classes on reservations. GLIFWC has been attending many high school and college career days, talking to the youth about a variety of possible careers at GLIFWC and with the tribal natural resource departments.

(See Involving the youth, page 23)

Wisconsin Senate & Assembly pass GLIFWC Warden Bill

Bill moves to the Governor's desk for signature

By Kekek Jason Stark,
GLIFWC Policy Analyst

Madison, Wis.—GLIFWC's Warden Bill passed both the Wisconsin Assembly and the Senate this fall. On October 24, 2007, the Bill, (AB 198), was taken "off the table" by the Wisconsin Assembly and, after some discussion and debate, was passed by the Assembly. On November 7, the Wisconsin Senate followed suit. The Senate adopted the Assembly version of the Bill and went on to pass it. The Senate Committee on the Environment and Natural Resources previously passed the Senate version of the Bill (SB 97) out of Committee with a unanimous 5-0 vote.

The Bill will now be on its way for Governor Doyle's signature, the last step before officially becoming law.

"Although we don't know the time frame, we're very optimistic that the Governor will sign the Bill," said GLIFWC Executive Administrator James Zorn, "and grateful for the Legislature's recognition of our officers and the help they can provide to enforcement in northern Wisconsin."

Assembly Bill 198's primary purpose is to protect GLIFWC wardens. Like DNR wardens, they generally work alone in isolated areas, frequently work at night, and often encounter armed individuals. The bill would afford GLIFWC wardens the same statutory safeguards and protections that are afforded to their DNR counterparts.

Our wardens would have access to criminal history and other information to identify whom they are encountering in the field so that they can determine whether they are about to face a fugitive or some other dangerous individual.

They would have access to emergency services radio frequencies to call for backup, to summon aid in cases of medical or fire emergencies, and to inform another agency of a possible violation falling under that agency's authority. They would be operating statutorily-authorized emergency vehicles that would be treated like other law enforcement vehicles. And, they would fall within criminal statute provisions that protect state and local officers from threats and assaults.

The bill's other purpose is to solidify GLIFWC's long-standing partnership role in Northern Wisconsin's emergency services networks for the benefit of the general public. Our wardens routinely encounter illegal activities, including serious felonies, that fall outside of their primary conservation jurisdiction.

They are properly trained and perfectly competent to stop criminal activities, detain alleged perpetrators, preserve crimes scenes and evidence, and assist victims until the proper authorities arrive. Moreover, our wardens routinely encounter, or are called upon to assist, at car accidents, medical emergencies and other emergencies.

Despite 20 years of providing cooperative law enforcement and emergency services to Wisconsin's guests and citizens, the statutes do not afford GLIFWC wardens the same protections afforded to other law enforcement officers and do not authorize state-certified GLIFWC wardens to assist state and local agencies in times of need.

By addressing these deficiencies, this bill would enhance both our wardens' safety and overall public safety in the northern third of Wisconsin.

GLIFWC's Enforcement Division assigns conservation enforcement officers to all six of GLIFWC's Wisconsin member tribes. Their primary duties are to enforce codes regulating off-reservation treaty harvest in the Wisconsin ceded territory.

On the cover

Sunrise over Lac la Belle, Michigan as Mizhakwad (GLIFWC's enforcement/research vessel) makes her way to Lake Superior. See page 10 for fall assessment news. (photo by Micah Cain)

Tribal issues front and center at human rights conference

Speakers advocate education, teaching tolerance

By Sue Erickson, Staff Writer

Billy Frank Jr., Nisqually Tribe, long-time Chairman of the Northwest Indian Fisheries Commission and also known as the Grandfather of Treaty Rights was honored at the LMRHC annual conference with a presentation of a handmade star quilt. (photo by Sue Erickson)

Mille Lacs reservation, Minn.—Like a thick, silver thread in a dark fabric, the need for more education and fostering intercultural respect and understanding ran through the fabric that composed the one-day conference, "Human Rights, Civil Rights and Treaty Rights," September 29 at the Grand Casino Convention Center on Mille Lacs reservation. Sponsored by the League of Minnesota Human Rights Commissions (LMHRC), the League's 36th annual conference focused much of its attention on Indian human rights issues, regionally, statewide and nationally, while holding the event, for the first time ever, on a reservation.

Mary Sam, Chairman of the Mille Lacs Area Human Rights Commission, hit the proverbial nail on the head in her opening remarks. "It's time to wake up," she said. "Our kids need to be educated on human rights."

And education relating to the status of tribes in the United States, tribal sovereignty and treaty rights is what the approximately 150 conference participants received during the course of the day.

Following through on Sam's theme, Billy Frank Jr., Nisqually Tribe, long-time Chairman of the Northwest Indian Fisheries Commission and also known as the Grandfather of Treaty Rights, had clear advice—"Talk to the next generation and the next generation." Frank put the issues on a national scope early in the day describing his personal experiences, including many incarcerations, during a lifelong struggle to affirm and implement treaty fishing rights held by 20 tribes in the Northwest. The Northwest tribes also endured bitter anti-Indian struggles in the 1980s spurred by organized national and regional groups following the 1974 *Boldt Decision*.

While tribal members can now pursue their off-reservation fishing, which revolves around the salmon fishery, Frank also noted that today, the tribes are confronted with an endangered resource. "But now the Puget Sound is poisoned. No more fish. For the fifth year its dead—no oxygen."

Keynoting for the conference was Morris Dees, chief trial counsel for the Southern Poverty Law Center and recipient of numerous national awards for his work on civil rights. Dees lamented the fact that the "other groups" were not present for the day. "On the other end of the country, we have the same issues," he said, noting the long-time struggle the US has had with prejudice and racial hatred. Referring to his childhood education in a three-room schoolhouse that fostered recognition of "liberty and justice for all," Dees stressed that respecting human rights begins close to home—in schools, homes and workplaces. If not found there, "we will look in vain in other places across the world," he said.

Dees also commented on the need for tolerance and respect during the current period of tremendous change being encountered nationwide with continued immigration and changing demographics. He gave as an example the arrival of Vietnamese refugees following the Vietnam war, many of them fishing people who settled in Texas. Many continued their fishing traditions and out-fished the local, American fishermen. Vietnamese boats ended up being burned, and the people terrorized.

Dees' examples illustrated that the problems of prejudice persist, much of it in the form of institutional racism, and did not, as many believe, go away in the 1960s.

Travis McAdam, Montana Human Rights Network, provided an excellent overview of the "Anti-Indian Movement in the United States." He discussed various groups with a national agenda of opposing tribal governments, federal Indian policy, and essentially any tribal rights—treaty rights, property rights, and water rights. "We want our racism to be overt—cross-burning rather than the more subtle institutional racism," he commented as he pointed out how anti-Indian groups now work through the legal system.

The organizations typically play "name games," using equality and justice terminology and philosophy while peddling a "twisted" equal rights agenda to deprive tribes of sovereignty. "It really comes down to trying to terminate sovereignty and to oppose tribes no matter what the issue," he said.

Many organizations are also part of other movements, such as the Wise Use Movement that focuses on property rights issues, or the Christian Identity Movement. The Citizens Equal Rights Alliance, commonly known by its acronym, CERA, he said was formed to bring anti-Indian issues such as treaty rights to a national level.

In regard to remedies, MacAdam advocated more education, noting that while Montana mandated a curriculum that would include information on the status of tribes in the US, it was not funded for a number of years. In 2005 funding finally came through to implement the mandate. McAdam also encourages fostering state and tribal relationships as well as tribal and non-tribal coalitions.

A number of other speakers also provided basic background education for participants regarding available curriculum and educational resource materials as well as extensive information on the historical relationship between the US government and tribes nationally. This overview included various governmental policies that have seriously impacted tribes over the years, including the era of assimilation as well as the more recent policy of self-determination.

Conference attendees left Mille Lacs following a day chock-full of information—an historical perspective, an overview of court cases, and educational opportunities and resources. Perhps most importantly they left with a clearer definition of problems that stem from an institutional racism that runs through our schools and communities and will continue to do so until it is clearly recognized and understood. This will take education, according to the many presenters, and a lot of talking to the "next generation and the next generation," as Billy Frank so clearly pointed out at the beginning of the day.

Walking a Mile: A First Step Toward Mutual Understanding

New study looks at Indian/non-Indian views of each other

The nonpartisan public opinion research and citizen engagement organization Public Agenda recently released a new qualitative study exploring how American Indians and non-Indians think about each other, titled *"Walking a Mile: A First Step Toward Mutual Understanding."*

The research explores Indian's perceptions of their place in contemporary American society and how non-Indians view American Indians, what they know (or think they know), the generalizations they make and stereotypes they hold, how their perceptions were formed and their interest in learning more.

The research is available online at: *www.publicagenda.org/WalkingaMile*.

Given the limited documented opinion research on the topic, this study may be one of the most in-depth examinations of the thinking of these two groups about each other yet undertaken. The findings are based on the views of people in 12 focus groups conducted in 2006 and 2007 throughout the United States: seven with Indians and five with non-Indians.

"This study sheds important light on the challenges created by misperceptions of contemporary Native America. It certainly accords with what we see and hear on the ground," said Joseph P. Kalt, Co-Director of the Harvard Project on American Indian Economic Development at the John F. Kennedy School of Government.

"Public Agenda's report is a critical step in furthering Indian/White relations," said Ruth Yellowhawk of the Indigenous Issues Forums. "Until we examine those places where we are struggling, and key knowledge gaps that exist we cannot understand ways to move forward with dignity and grace. Let's hope that this small step of revealing ways people are thinking allows for the kind of self-reflection that can engender positive action for such disparate nations."

The research details the thinking of both groups regarding Indian history, the present and how better understanding can develop in the future. The research shows how little most Americans know about the diversity of contemporary Indian experience and points to the need for depictions of Indians outside of casinos and impoverished reservations.

While the Indians interviewed for the research described their sadness about the past and widespread prejudice and discrimination against Indians today, they also talked about their hopes and feelings of success—their pride in the great strides Indians have made economically and their sense that their lives are improving.

For more information contact: Michael Hamill Remaley or Claudia Feurey at 212-686-6610.

The GLIFWC Board of Commissioners is comprised of a representative from each member tribe and establishes policy for the Commission. Representatives are generally officers or resource officials from GLIFWC's 11 member tribes. Pictured at the September Commissioner meeting in Odanah: Peter Lemieux, Bad River; Terry Carrick, Bay Mills; Chris McGeshick, Sokaogon Chippewa Community; William Emery, Keweenaw Bay; Agnes Fleming, Lac Courte Oreilles; Mic Isham, Board Chairman; Dee Mayo, Lac Du Flambeau; Arlyn Ackley, Sokaogon Chippewa Community; Rose Soulier, Red Cliff; Leo LaFernier, Red Cliff; Ferdinand Martineau, Fond du Lac; and Curt Kalk, Mille Lacs. Representatives from Lac Vieux Desert and St. Croix were absent. (Photo by Charlie Otto Rasmussen)

The Voigt Intertribal Task Force is comprised of representatives from Ojibwe tribes—nine total—within the 1837 and 1842 ceded territories. The Task Force makes policy recommendations on inland treaty resource issues including management of fish, wildlife, plants and the environment. Pictured at the September Task Force meeting in Odanah: Chris McGeshick, Sokaogon Chippewa Community; Carl Edwards, Lac du Flambeau; Tom Maulson Voigt Intertribal Task Force Chairman; Leonard Sam, Mille Lacs; Chris Swartz, Keweenaw Bay; Leo LaFernier, Red Cliff; David Vetterneck, Lac du Flambeau; George Reynolds, St. Croix; Brian Bisonette, Lac Courte Oreilles; Mic Isham, Lac Courte Oreilles; and Larry Deragon, Red Cliff. Representatives from Lac Vieux Desert and Bad River were absent. (Photo by Charlie Otto Rasmussen)

Linking science and the media

Native youth learn communication skills

Lac Courte Oreilles Reservation, Wis.—Science education does *not* have to be boring! Not when it involves video, music, podcasting, and digital photography. That was the feeling of two dozen middle school kids on the Lac Courte Oreilles Reservation (LCO) this summer. "WLCO Science News" was a unique collaboration between UW-Madison, LCO Community College, the LCO Boys and Girls Club, and the Great Lakes Indian Fish & Wildlife Commission (GLIFWC).

The one week camp introduced young people ages 9-14 to environmental issues such as water, fisheries, wild rice, and the Chippewa Flowage. They were asked to explore those topics in a way that is culturally meaningful to the Ojibwe. The campers shot video interviews with LCO elders and GLIFWC scientists, then wrote, narrated, and edited videos about the topics, even adding original music they composed themselves.

"You wouldn't believe what great storytellers they are!" camp director Patty Loew (Bad River Ojibwe) said. "They learned a lot about science and issues that really matter to their community," the UW communications professor continued. "And best of all, they had fun doing it."

Loew was joined by three colleagues from the Department of Life Sciences Communication: Professor Shiela Reaves, a digital photography expert, Faculty Associate Don Stanley, who teaches web design, and Tim Tynan, a graduate student whose research looks at how to improve science education in Native communities.

Four instructors from LCO College collaborated with the UW team: Ojibwe language expert Gordon Jourdain, communications specialist Pat Shields, math/chemistry teacher Mike Smith, and doctoral student Susan Gooding, a former adjunct at the college.

Campers registered for the one-week experience through the LCO Boys and Girls Club, which provided meals and transportation. The first day campers learned how to operate the cameras and compose aesthetically pleasing shots. Then they researched their topics and prepared interview questions for elders, including Mary Ellen Baker and Rose Tainter, as well as GLIFWC scientists. Wildlife Biologist Peter David explained where and how wild rice grows and its crucial role in a wetland ecosystem.

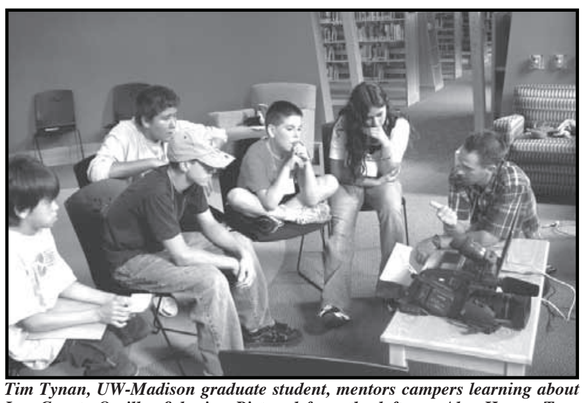
Jon Gilbert, GLIFWC wildlife section leader, was interviewed about water quality and how scientists test for contaminants. Biologist Miles Falck talked about threats to the inland fishery and what the Ojibwe tribes are doing to protect the resource. ANA Program Director Jim St. Arnold, who focuses on culture, helped connect the elder interviews with GLIFWC's scientific mission.

Students spent the latter part of the week writing their stories, choosing clips from GLIFWC's video archive, and editing. The highlight for many of the kids was music composition. Campers learned how to layer audio wave files with special Native American looped sounds. Within minutes, they had composed complex musical backgrounds with drums, flutes, rattles, and chants.

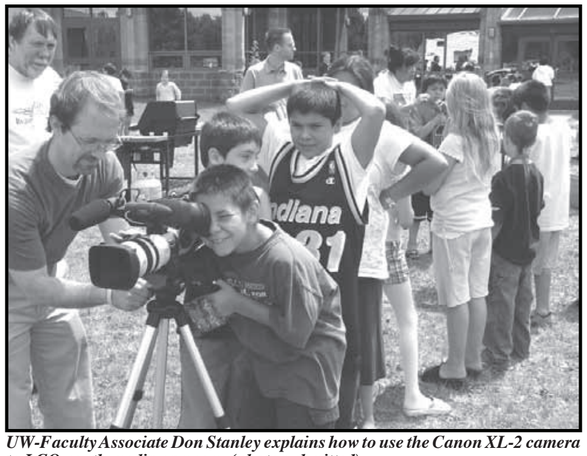
The videos premiered August 17, 2007 at the dedication of the new LCO Library, an event and feast attended by several hundred people. Judging by the amount of applause, the audience appreciated the skills these young tribal members had learned and the stories they had told. In just five days, they had become scientists, media specialists, and storytellers. "Can we do this again next week?" Makoonse, one of the campers asked at the feast. "I wish I could do this all summer," he said.

The camp was paid for through a grant from the Baldwin "Wisconsin Idea" Fund, Sonymedia Software, and IBM's Native American Family Technology Journey.

Check out the videos, photographs, and music at *www.youthmediacamp.org*.



Tim Tynan, UW-Madison graduate student, mentors campers learning about Lac Courte Oreilles fisheries. Pictured from the left are, Alex House, Tony Rougeau, Donny Gokey, Jon Cadotte, Mariah Cooper and Tim Tynan. (photo submitted)



UW-Faculty Associate Don Stanley explains how to use the Canon XL-2 camera to LCO youth media campers. (photo submitted)

Manoomin harvest varied

Crop impacted by unusual conditions

By Peter David, GLIFWC Wildlife Biologist

Odanah, Wis.—After twenty years of watching the annual passing of the ricing moon, one might start to think that they had seen just about every variation that moon had to offer. One who begins to think this way is likely to be wrong.

Over the last two decades I have witnessed rice seasons that were unique in terms of temperature, precipitation, harvest conditions and crop abundance, but I do not believe I have ever seen such a complex mix of conditions and situations as occurred in 2007.

Perhaps it was foreshadowed early in the ricing moon, when the Bad River Tribe decided—for the first time ever—to not open the on-reservation rice beds for harvest this year. The famous beds of the Kakagon Sloughs, always among the first beds in the state to ripen, would remain closed as the nourishing pulse of the Lake Superior waters which feed these beds—and allows for their harvest by traditional canoe—fell to near record low levels.

However, the Kakagon beds are unique in many ways, and it can be risky to extrapolate what is happening there to inland waters. Often times, low water years stimulate rice growth, and much of the rice range was experiencing a fair touch of drought. The early reports out of Minnesota were that it looked headed for a bumper crop, even better than the fine crop experienced in 2006. GLIFWC's own surveys of rice beds in the ceded territories suggested that despite a few notable failures, like Burnett County's Clam Lake (see pictures), there was some rice to be had by those willing to seek it out.

But in Wisconsin at least, the season just seemed to get tougher the further it unfolded. The drought on inland waters became more intense. This was made vivid to me when I stopped at one site to collect a plant for display at the Minnesota State Fair; the bed looked pretty good from a distance, so I strapped on my sandals to go slog through muck, but discovered I could walk right up to it without even getting my feet wet. Even its roots were dry.

These dry conditions kept many ricers off of their favorite beds; one fellow even called and asked if he could strap on snowshoes and push his partner's canoe through the rice. Several untimely wind storms also hit pickers hard. In addition, aerial observations and some early harvest survey returns suggest that some stressed beds may have experienced greater than average disease problems. My guesstimate of the where the final harvest would end up kept dropping as the season progressed. I now suspect that we will end up well below half of the 2006 estimate.

Now, those of you who have read my rice musings in the past know the great respect I hold for the giving nature of this plant, and you may think that a year like this may strip that respect a little. It has not. Because even in a year like this, the manoomin fought some tough conditions to give again. True, less of that giving went directly to us human harvesters. But some of those lakes that were too shallow to float a canoe became havens for ducks. And undoubtedly there were mice and voles and other species that normally do not get to dine on rice that were able to this year when the seed fell on solid ground. And certainly, the plant gave me much to think about this year.

What might all this mean for next year? The more I learn, the less I care to hazard a guess. But we do know that rice has been through tough times before, and I suspect it will come through this year as well. In the long run, these kind of years probably are, strangely perhaps, good for rice, because they probably also will knock back some of the perennial plants that competes with manoomin. When the water comes back (and if October is any indicator, it may already be starting to do that) rice, as an annual, may be the first to respond. Then next fall, we can all give thanks and head out to the beds again.

Burnett County's Clam Lake, known for its abundant wild rice, had little manoomin available for harvesters this fall, reflecting the widely variable abundance this plant can show from year to year. A comparison of GLIFWC's aerial survey photos reveal the difference from 2006 (top) to 2007.

Fall wild turkey kill edges higher

By Charlie Otto Rasmussen, Staff Writer

Odanah, Wis.—While it's a modest milestone by any measure, Wisconsin treaty hunters are poised to set a new fall wild turkey harvest record. Tribal members registered 27 birds by late October with approximately five weeks left in the season. In autumn 2006 Ojibwe hunters established the existing high mark, registering 30 wild turkeys in the Wisconsin ceded territory.

"This is the first year that most everyone has wanted a carcass tag," said Maggie Kolodziejski, a treaty reservation clerk stationed at Bad River. Tribal members must obtain a carcass tag and possess an off-reservation harvest permit validated for small game to hunt turkeys. Kolodziejski said that tribal members are consistently sighting autumn flocks, raising interest in hunting the big birds known as *mizise* in the Ojibwe language.

The rising harvest tally in recent years coincides with natural wild turkey expansion in Wisconsin's northern tier, plus several trap-and-transfer projects organized by Department of Natural Resources wildlife staff and citizen volunteers. The most recent (and possibly last) ceded territory wild turkey release occurred in March 2006 in northern Iron County near Saxon.

The fall wild turkey season runs from the day after Labor Day to December 1. A consistent leader in turkey kills, St. Croix Band officials reported eight birds harvested midway through the 2007 season, ahead of Bad River, Lac du Flambeau, Lac Courte Oreilles and Sokaogan respectively.

Treaty hunters are subject to weapon restrictions and only shotguns, muzzle-loading shotguns, bows and arrows and crossbows are allowed. General information on off-reservation turkey hunting is available through Wildlife Technician Dan North at GLIFWC's central office (715-682-6619).

Hunters are advised that individual tribes may impose additional restrictions or requirements on their members. For details on obtaining permits and a complete set of regulations contact your local GLIFWC conservation officer or registration clerk.

Wild turkeys take flight in northern Iron County, Wisconsin following a March 2006 trap-and-transfer release conducted by local volunteers and Department of Natural Resources wildlife staff. (photo by Charlie Otto Rasmussen)

Down from Basswood—Revisited

By Nick VanderPuy, For Mazina'igan

Mike Chosa harvests manoomin. (photo by Nick VanderPuy)

Henry Chosa lived near Basswood Lake on the Canadian-Minnesota boundary. Back in the nineteen thirties, the naturalist Sigurd Olson was canoeing through the territory when he met Chosa.

Chosa told Olson, "Give me five hundred pounds of rice and I can feed my family for a year. A few fish now and then, some snared rabbits, a bear and some deer meat, and there's nothing to worry about. Rice, bear fat, and fish are all an Indian needs to keep him strong and healthy." Henry Chosa was Mike Chosa's grandfather.

Mike Chosa, a Lac du Flambeau tribal member, remembers visiting his grandpa Henry in the early nineteen forties, during the early fall ricing season. Some Canadian Ojibwe paddled over sixty miles to set up a rice camp. They built wigwams and started knocking rice. In the afternoon they returned to shore for processing.

When they weren't ricing, Chosa played with his cousins. They didn't speak English. There was drumming and dancing and feasting at night.The harvest went on for several weeks. One day he came down to the shore and the camp and canoes were gone.

One of Chosa's young cousins left him a hunting knife made from moose antler as a gift. He had it pinned on a tree with a note written by his elders, "Giga-wabimin Nagaag." "That was a good time, being on the lake with my cousins." Chosa says, "It was one of highlights of my young life."

This past ricing season Mike Chosa arrived at our home near Springbrook, Wisconsin to go ricing. He was driving a van with a small canoe, some cedar ricing sticks, and a duckbill push pole made from a fourteen-foot long pine closet rod. I quickly claimed the light push pole. We gathered rice in northwestern Wisconsin.

During the day Mike gently knocked the rice, while I poled through the tawny stalks with my new push pole. The pole was wrapped in duct tape. I kidded Mike, "What's this high tech pole made from, anyway—titanium?" We laughed about the "titanium" push pole because I'd been using a long tamarack pole. The new pole was lighter and more maneuverable.

After some practice and pointers from Mike, I was able to throw and catch the pole, moving our canoe slowly and steadily forward. The pole helped me conserve energy as the day wore on.

Mike taught me to listen to the rice in order to keep him in the falling stuff. He insisted I take sightings on another shore to line up our paths through the beds. This helped us stay in the rice and get more.

Chosa carried his cell phone with him on the water. He'd check in with Flambeau ricers who were looking for rice, too. We got reports back from some Flambeau ricers about the water being low on Allequash Lake.

We were concerned earlier this summer when the Bad River Tribe, for the first time, closed down their ricing season. The drought exposed mud flats on the Kakagon Slough. There's concern the low water is making an entry point for more invasive species like purple loosestrife.

During our travels in northwestern Wisconsin we found low water and many ricing areas inaccessible, too. "Today, the lakes are drying up." Chosa says, "Creeks are drying up. A lot of empties. It's a good day when you can go out and get thirty to forty pounds of rice. And that's what we did on the days you could get rice. We got rice. It added up, enough for my family for the winter, anyway."

When Chosa was a young man, you could harvest two-three hundred pounds green rice everyday.

Although the lakes are changing, the water birds still appear. A highlight of the season involved some sand cranes on Miller Flowage near Medford.

Chosa remembers, "Late in the afternoon we heard a strange, really…it was like a beautiful noise…sand cranes calling for others to come in and land, something I've rarely heard before. I don't think too many human beings have heard the call of the sand crane."

Another day on Minong Flowage we heard some geese talking across the lake. It sounded like they were telling their young, "Ricing isn't what it used to be."

After ricing, sitting close to the wood stove at night, we ate sour dough bread, crappies, deer meat, wild rice and squash. We drank swamp tea. Chosa's arms grew stronger from paddling and knocking.

"To me the season was good. Got kind of healthy in the rice bed. My legs are still weak I can't walk very far. But I say the ricing was good for me," he comments. Chosa wants to see the Lac du Flambeau Tribe take a more active role in re-propagating wild rice on the reservation. The west side of Alderson, the north end of Squirrel, the north end of Pokegema, Sugar Bush—all used to have abundant rice.

The seventy-one year old elder says, "Its not there anymore, and my belief is that the reason its not there is because the people themselves didn't take care of it.

They didn't reseed the beds like they're supposed to. They didn't have good offerings. I have never seen on my reservation yet where they had a summer ceremony for the rice, for the rice picker to kind of feast the rice beds. I've never seen again, after the ricing season, where they had any kind of ceremony to celebrate the harvest, and those kind of things are necessary for rice beds to live; they got to be about that business.

But even more so, the tribal governments need to spend more money on making our rice beds like they use to be."

What makes Mike Chosa even sadder is how few Indian people today harvest rice. We saw mostly non-Indian ricers on the water. Chosa says, "A lot of our Indian people don't rice anymore. They don't know how to take care of it when they get it. Wild rice isn't a staple of our people anymore. It seems macaroni and things like that are.

Why is manoomin (wild rice) important? Anishinaabe spirituality is connected to the health of the wild rice. Wild rice is why the people came to live here—the place where food grows on water.

Chosa says, "That the Great Spirit put the rice here for our people to survive on. When we eat rice in our meals and as a stapl,e it makes us more healthy as Indian people, but it is also a connection; we have a spiritual connection to the earth, to our Great Spirit.

I know every time I go on a rice bed, I put tobacco in the water and thank the Spirit for putting the rice there for us, and I know most my people in Flambeau do that too. They put their tobacco out—that's good. That is one sign that our people, that our common people, care for what is happening out there.

So rice is important and you notice all the feasts that we have especially at Flambeau, probably all the reservations, rice, it is important to have rice, almost as important as it is to have 'frybread.'"

Well, next year to save money on gas, we're going to camp on the water. Maybe we'll see you there.

At the left, Joe Graveen, Lac du Flambeau, parches manoomin over a camp fire. The parching dries the husks, making them brittle and easy to break. Following the parching, the rice will be either mechanically threshed or "danced," the traditional method of husking manoomin. (photos submitted)

The cost of invasive species

Invasive species onslaught as scary as any Halloween story

Article and photos by GLIFWC Staff

Odanah, Wis.—Like Halloween, introduced invasive species have provided lots of scary stories. Hardly a week goes by that one doesn't hear about some plant, animal, insect, or other organism from far away, that is wreaking havoc in some lake, forest, or wetland.

Over the last few hundred years, an estimated 50,000 non-native plants, animals, insects, spiders, fungi, and other organisms have been introduced to North America. About 29% of the approximately 2640 plant species now found in Wisconsin are not native to the state. Fully one-third of the 2729 plants found in Michigan are introduced as well.

Most of these organisms arrived accidentally. Many weeds and soil invertebrates (including insects, earthworms, and mites) first arrived in soil used as ship ballast, before water pumps came into use in the 1880s. Others hitched a ride in animal bedding, in packing material, or as contaminants in agricultural seed. And others, including those used in agriculture and landscaping, were introduced intentionally. Some introduced species, especially those grown for food and fiber, have clearly benefitted society. But others have caused major economic and environmental harm.

Introduced plant pests have transformed our forests

One of the most tragic invasive species stories is that of the American chestnut. Until the early 1900s, an estimated 4 billion chestnut trees inhabited the eastern deciduous forest. In parts of the northeastern US, one in four trees were American chestnut trees. These trees could be huge, with individuals growing to more than 15 feet in diameter and reaching over 120 feet tall.

The American chestnut was once a major source of food for both wildlife and humans. These huge trees were so productive that the nuts would cover the ground several inches deep in the fall, supporting huge populations of turkeys, deer, bear, squirrels and other wildlife. A bread made from chestnut meal mixed with corn was a staple food of the Cherokee Nation. The chestnut also played a major role in the Appalachian economy, where people gathered the nuts as a cash crop and used the tannic acid from the bark in the leather industry. The strong, durable, straight-grained wood was lighter than oak and more rot-resistant than redwood, and was used for everything from construction to musical instruments.

The accidental introduction around 1904 of an Asian rust fungus that causes chestnut blight marked the beginning of the end for this magnificent tree. By 1940 the disease had spread throughout the chestnut's range, leaving dead and dying trees in its wake. Today the wild population consists of the root systems of surviving old trees, that shoot out periodically until the shoots are again infected and die back to the ground. An exception is a stand of large trees near LaCrosse, Wisconsin, that was planted before the blight arrived and escaped the disease until 1987! This stand has now become a focal point of efforts to save the American chestnut (see web address on page 22).

More recently, Dutch elm disease swept through the eastern and central US, devastating the American elm. This disease is caused by another introduced fungus that is carried by both native and introduced elm bark beetles. Unlike the American chestnut, the American elm will survive in the wild, in part because some strains have sufficient natural resistance to the elm fungus to reach maturity and produce seed. Through natural selection, successive generations should become more and more disease resistant.

Barring some unforseen solution (such as an effective biological control agent), the tragedy of the American chestnut and American elm may soon be repeated, as an introduced beetle, the emerald ash borer, sweeps through eastern North America, destroying native ash trees.

Hidden costs can be astronomical

The huge costs of some invasives may seem incredible at first, until you realize the extent to which they have multiplied, with each one using resources at the expense of native species and the human economy. For example, the roughly 1 billion Norway rats on farms and 250 million in urban areas in the US have been estimated to each cause $15 per year in damage. Simple multiplication leads to a cost of almost $19 billion annually. Another very expensive introduction has been the zebra mussel. First found in North America in 1986, these animals have spread through the Great Lakes and to a number of inland lakes and rivers, reaching bottom densities of up to 65,000 per square foot! In addition to having huge negative impacts on aquatic environments, they clog water intake pipes of electric power plants and municipal water intake facilities. While technology has solved some of these problems, ongoing damage and control costs are estimated at $1 billion per year.

Introduced agricultural weeds have caused tremendous economic losses. These introduced weeds include yellow rocket, leafy spurge, common tansy, ox-eyed daisy, orange hawkweed, black bindweed, quackgrass, bull thistle, Canada thistle, sow thistle, and many others. Weeds are estimated to reduce crop yields in the US by 12%, costing farmers $33 billion per year. About 73% of these weeds are introduced, contributing $24 billion of this total. If you include 73% of the approximately $4 billion in herbicides applied by farmers each year, the cost of introduced weeds rises to $27 billion. Forage losses in pastures add another $1 billion. And controlling weeds in lawns and gardens adds another $36 billion per year.

Some of the most spectacular losses to introduced weeds occur in the western US. For example, a species of knapweed called yellow star thistle has overrun about 8 million acres of formerly productive grassland in California alone, making this land economically worthless for grazing. Another introduced plant, cheatgrass, now covers million of acres of western grasslands. This annual grass is highly flammable, and has greatly increased the frequency at which these open grasslands burn. Whereas these grasslands once burned every 60 years or more on average, they now burn every 3-5 years. Native plants that once dominated these habitats, while somewhat fire-adapted, are not able to withstand this frequent burning. Other weeds causing major economic and environmental damage in the western US include spotted knapweed, leafy spurge and Dalmatian toadflax.

An aggressive, weedy aquatic plant from Asia called hydrilla has become abundant in some eastern and southern states. This federally noxious weed clogs waterways with dense growth, costing these states millions in control costs and lost recreational opportunities.

Florida alone spends about $14.5 million per year to control hydrilla. In August 2007 this plant was found in a large constructed pond in Marinette County, Wisconsin, where it had apparently been growing since 2005. While this population will (if all goes well) be eradicated, hydrilla is one of many invasives that we must prevent from getting a foothold in the Midwest.

The invasive reed canary grass dominates an isolated wetland near the headwaters of the Presque Isle River in Vilas County, Wisconsin. (GLIFWC photo)

Environmental costs huge

Invasive species can change the way natural environments function and are a major factor behind declining biodiversity and species extinctions. A 1998 study found that about 57% of the plants and 39% of the animals listed as endangered under the Federal Endangered Species Act are threatened in part because of invasive plants, animals and diseases.

Aquatic animals such as the sea lamprey and the alewife were able to make their way through newly-dug canals from the Atlantic Ocean to the Great Lakes. The sea lamprey in particular has required expensive and ongoing control efforts to keep it from further decimating Great Lakes fisheries. The rusty crayfish, now widely established in lakes and rivers in Wisconsin and neighboring states, is notorious for clipping vegetation on a huge scale, decimating aquatic plant communities and destroying fish habitat. Zebra and quagga mussels have completely altered conditions in the Great Lakes and inland lakes and rivers.

Woodland invasives are widely established in the Upper Great Lakes region. Having left their natural pests behind, garlic mustard, common and glossy buckthorn, introduced honeysuckles, Japanese barberry and other introduced plants can take over a forest, severely hampering tree regeneration and displacing native plants and the insects, birds, and other organisms that depend on them. In many cases, invasion by these plants has been facilitated by earthworms. Introduced from Europe, these earthworms destroy the natural "duff" layer of decaying leaves and other debris, thereby favoring the seedlings of invasive plants to the detriment of native plants.

Perhaps the most destructive large mammal introduced to North America so far are various subspecies of feral pigs. Also known as wild hogs, wild boars, European wild boars, Russian wild boars, or razorbacks, they are close relatives of domestic swine. Native to Europe and Asia, these aggressive animals are highly destructive to natural environments, because of their habit of rooting up the forest floor for roots, grubs, and small mammals, and creating muddy wallows in wetlands. They are also a serious problem for farmers, because they destroy crops and carry livestock diseases. They have even been known to kill fawns and young and injured livestock. Until recently these animals have mostly been a problem in the southern US. But in recent years they have been sighted or shot in a number of Wisconsin counties.

It all adds up

The economic cost of introduced invasive species nationwide is staggering. One well-regarded study, published by the US Office of Technology Assessment (OTA) in 1993, reported damages of about $97 billion from 79 introduced species in the US, from 1906 to 1991. Another study, published in 2005 by researchers

(See Cost of invasive species, page 22)

Where the rubber meets the road

GLIFWC tackles invasives on public, private lands

By Miles Falck, GLIFWC Wildlife Biologist

Odanah, Wis.—The goal of GLIFWC's control program is to protect natural communities from being overrun by invasive plants and losing their value as sources of food, medicine and wildlife habitat. Control efforts are focused within the Bad River–Chequamegon Bay watershed in Bayfield, Ashland, and Iron Counties of northern Wisconsin in an attempt to provide off-reservation protection to the Kokagon Sloughs on the Bad River Reservation. Priority habitats for protection within this watershed include the coastal wetlands along Lake Superior, and the globally-rare Moquah Barrens in Bayfield County.

Invasive herbs native to Europe and Asia, Purple loosestrife and leafy spurge are among the most disruptive plants in the region. Purple loosestrife infests wetlands and shorelines. The many coastal wetlands and shorelines in Bayfield County are threatened, if not already infested, by purple loosestrife. Leafy spurge thrives in well-drained soils in open sunlight. It is a serious threat to the Moquah Barrens in Bayfield County. Both plants spread rapidly, displacing native vegetation that wildlife depend on for food and shelter. Leafy spurge is also toxic to deer and cattle.

GLIFWC's control efforts minimize the use of herbicide by prioritizing treatment of small infestations, using herbicides that degrade rapidly in the soil, using selective herbicides where possible, and targeting the application of herbicide to individual plants to avoid harming native vegetation. Biological controls have been released at the largest purple loosestrife sites and at one large leafy spurge site. Integrated pest management is practiced at some sites to achieve more effective control. This method uses a combination of biological control and herbicide. These sites are treated with herbicide in late summer and fall, after the biocontrol organisms have settled into the soil and litter to overwinter.

Joining forces

The majority of control work is carried out along road rights-of-way. Roadside ditches provide a perfect avenue for the floating seeds of purple loosestrife to spread into new habitats. The shoulder of the road also provides a dry sunny environment where leafy spurge can thrive and spread. However, GLIFWC's control crew also works cooperatively with other landowners to help control the spread of invasives on adjacent lands.

In the lake-rich area around Iron River, Wisconsin, GLIFWC crews teamed up with volunteer aquatic invasive species coordinator Jane Swenson to tackle a festering problem with purple loosestrife. For the last five years Swenson has worked to reign in invasives, especially on the Pike Chain of Lakes.

"The lake residents in this area have come to really look forward to the visit of this crew," said Swenson. "I know that without their help, purple loosestrife would be running rampant by now on the Pike Chain and would easily have spread over thousands of feet of shoreline,"

Swenson said that applying chemical controls to loosestrife in muck and wetlands is both physically demanding and requires great care to avoid harming non-target plant species. "I know from my own experience that these working conditions are some of the worst I've seen," she said.

On Madeline Island where GLIFWC tackles another loosestrife outbreak, Town of LaPointe Foreman Keith Sowl said having an experienced crew accessible is both a time and money saver for local residents.

"I'm really happy the GLIFWC crew is available. The town has so many issues to deal with without having to train people on safety and use procedures for herbicide applications," he said.

In the town of Washburn an annual leafy spurge workday pools resources and labor from various agencies and private landowners to treat some especially large infestations of leafy spurge near the eastern border of the Moquah Barrens. GLIFWC's control crew annually provides herbicide, equipment, and labor to help bring this large infestation under control. GLIFWC's control crew also reponds to multiple requests for assistance with purple loosestrife control throughout the watershed, including the Bad River Tribe and private landowners.

Ron Parisien has led GLIFWC's control crew since 1988. Ron's diligence to this work is apparent from the bright green hues of Fish Creek Sloughs just west of Ashland. This area used to be awash in bright purple blooms during July and August when purple loosestrife grew there in abundance. This was the first area to benefit from the work of GLIFWC's control crew, starting in 1988. Biological controls have also been released here to help keep the loosestrife in check, and free up time for the crew to treat smaller sites before they become large and unwieldly.

GLIFWC's control crew records the location, species, plant abundance, and amount of herbicide used at each site to keep track of control efforts and monitor progress. These records can be viewed online at *www.glifwc-maps.org*. Sharing this information makes it possible to coordinate management with other cooperators.

The purple loosestrife eradication team pauses for a break near Iron River, Wis. From left: John Bressette, Jake Parisien, Jane Swenson, Ron Parisien and Dennis Soulier. Swenson is a volunteer coordinator for the Pike Chain of Lakes and facilitates private land access for the GLIFWC crew. (GLIFWC photo)

Great Lakes Regional Collaboration reports on progress & new strategies

By Reggie Cadotte
GLIFWC Policy Analyst

Chicago, Ill.—The room was filled with representatives from all sectors involved with the Great Lakes—federal, state, local, and tribal governments; environmentally concerned citizens and advocacy groups; non-profit, public, and private organizations and corporations, and many others via webcast.

A "Nokomis," or Grandmother, Song, set the tone for the Great Lakes Regional Collaboration (GLRC) annual meeting on October 2, which began with good thoughts and spirits! The song by Mark Montano, Red Cliff vice-chairman followed an invocation and introductory comments.

In his remarks, Montano addressed the history, accomplishments, and threats identified through the GLRC and the GLRC Strategy, stating that as human beings, "it's time we own up to our responsibilities…we need to live in harmony with Mother Earth…if she wanted to, she can shake us off her back."

Montano's message compared the human race's assault on the environment to terroristic attacks against Mother Earth in the form of pollution, development, and the introduction of invasive species to the Great Lakes.

According to Montano, "We need to begin to change how we think, because if we don't, it will be worse than it is now." He also advised that we "pay attention to your surroundings, pay attention to Mother Earth" and "listen to your spirit."

The meeting was highly anticipated by all stakeholders including the GLRC Executive Subcommittee. The GLRC Executive Subcommittee planned the event to relay the status of the current joint initiatives, introduce three new initiatives of the GLRC, and to receive comments on the progress of the GLRC.

The current initiatives include the Rapid Response Communication Protocol, Mercury Phase-Down Strategy, and the Great Lakes Habitat and Wetlands Initiative. The new initiatives of the GLRC include the Great Lakes Clean Boat Initiative, Beach Project Initiative, and a Mercury Emission Reduction Initiative. All six of these initiatives can be found on the GLRC website at *www.glrc.us*.

During the course of the meeting GLIFWC staff presented on the Rapid Response Communication Protocol and Great Lakes Clean Boat Initiative.

Many leaders were allowed to comment on the progress of the GLRC Strategy. Tribal leaders Mic Isham, Chairman of GLIFWC's Board of Commissioners, and Frank Ettawageshik, Chairman, Little Traverse Bay Band of Odawa, spoke to the group, voicing tribal issues and concerns in regard to the Great Lakes Basin. They related a tribal perspective on the progress of the GLRC and implementation of the GLRC Strategy by tribes of the Great Lakes.

Ettawageshik talked about Native American planning strategies that looked to the seventh generation of the future. He stated that "(the) problems we have did not occur in one generation…they are not going to go away quickly."

Ettawageshik also told a story about an elder that told the same story over and over again about the good and bad choices which confront us daily as human beings. Someone once asked the elder why he always told the same story. The elder responded, "I don't think they got it yet!" Ettawageshik continued his speech, stating that "we cannot save our water without saving everyone's water" and asked everyone what they are going to do individually to protect our precious resources.

Over 150 people attended the meeting, not including those watching via internet. The meeting ended with a comment session by meeting participants in attendance who provided suggestions on ways to increase the effectiveness of the GLRC Strategy. The meeting concluded with an opportunity to informally discuss the next steps and implementation efforts of the Collaboration.

In addition to participating in the GLRC's annual meeting GLIFWC Executive Administrator Jim Zorn and staff from the Intergovernmental Affairs Office also attended the Binational Executive

(See GLRC, page 20)

Overview of the 1836 Consent Decree

Negotiated by the United States,
Five Tribes and the State of Michigan
to Settle Litigation Concerning Inland
Rights Reserved in
Article XIII of Treaty of March 28, 1836

Background of Litigation

When the United States sued the State of Michigan in 1973 for not recognizing the right to fish in the Great Lakes waters ceded in the 1836 Treaty, it was agreed to leave for separate litigation the question of the scope of the right to hunt, fish, and gather on the lands and inland waters of the 1836 cession. All rights to continue such activities are based on Art. XIII of the 1836 Treaty, which states:

The Indians stipulate for the right of hunting on the lands ceded, with the other usual privileges of occupancy, until the land is required for settlement.

Bay Mills adopted a comprehensive Conservation Code, covering both Great Lakes and inland hunting, fishing, and trapping, in 1973. Since 1991, it has worked with both the Michigan DNR and the Great Lakes Fish and Wildlife Commission to update its regulations and to expand the permitted activities to include migratory bird hunting and gathering of plants.

In October, 2003, the State of Michigan requested the federal court to decide whether inland treaty rights continue to exist, and if they do, where they can be exercised. The five 1836 Treaty Tribes (Bay Mills, Grand Traverse Band, Little Traverse Bay Bands, Little River Band and Sault Ste. Marie Tribe), along with the United States, agreed that inland treaty rights needed to be resolved.

All litigants agreed that the first set of issues that would be tried concerned:
* whether any rights continue to exist under Art. XIII
* if they do continue to exist, where can they be exercised

Trial on these issues was scheduled for January, 2006. All parties understood that another trial would be required (if the inland treaty rights were determined to continue to exist, and all appeals on that decision had been exhausted) to determine what regulations of the hunting, fishing, trapping and gathering activities of tribal members were permissible, if done by Michigan DNR, or whether tribal regulations were adequate to protect the resource. All parties also understood that additional trials might be required for allocating scarce resources (such as elk) among tribal and non-tribal harvesters.

Throughout 2004 and through June, 2005, the parties focused on preparing for the 2006 trial. In late summer of 2005, the parties and their attorneys explored the willingness of everyone to resolve *all* the issues related to 1836 Treaty inland rights by negotiation, rather than litigation. Their efforts caused the federal court to cancel the January 2006 trial date, and reschedule for July 10, 2006. As settlement negotiations continued, the trial was rescheduled again, for October 23, 2006. Negotiations resulted in an Agreement in Principle (AIP), which was ratified by the General Tribal Council on August 21, 2006. The federal court was informed on October 16, 2006, that the five Tribes, the United States and the State of Michigan had reached agreement to settle the litigation, and that additional time was required to finalize a proposed Consent Decree. The details of the Consent Decree were negotiated by all parties and were finalized in a document in early September, 2007.

What Is Covered by the Consent Decree?

It covers *all* the issues that a federal court would have to decide in a trial; they are:
* existence of inland treaty rights
* where the rights can be exercised
* what regulations apply to tribal members
* allocation of scarce resources

How Long Will the Consent Decree Last?

The Consent Decree lasts forever; it is not a limited term judgment, like the Great Lakes allocation decrees of 1985 and 2000.

Existence of Inland Treaty Rights

The Consent Decree contains acknowledgement by the State of Michigan that the permanent Consent Decree "will recognize the existence of...the Tribes' Inland Article 13 Rights." These rights will be established forever.

Where Can Inland Rights Be Exercised?

The Consent Decree creates two categories of land and inland waters; those on which tribal members are subject to tribal seasons, and those on which tribal members are subject to State seasons. Limited ceremonial use permits can be utilized anywhere in the 1836 cession area regardless of season, but will require the consent of the private landowner if used on private lands.

Tribal season lands and waters

* Lands and adjoining waters owned by the State of Michigan, the United States, and any other government body
* Lands and adjoining waters owned by a Commercial Forest Act (CFA) owner (permission to hunt under tribal season required from CFA owners who own less than 1,000 acres)
* Lands and adjoining waters owned by a Tribe, a tribal member, or tribal member's spouse
* Waters open to the public through public access sites or road crossings
* Private waters with consent of riparian owner (private means a lake with no public access or a non-navigable stream segment on private property)

State season lands and waters

* State, county and municipal parks, wildlife refuges and research areas
* Private land with permission of the owner
* Recreational Trespass lands (not posted)

What Regulations Apply to Tribal Member Hunting and Fishing?

All activities of tribal members—whether hunting, fishing, trapping, or gathering—will be subject to the exclusive regulation of their Tribe. Violations of those regulations will be referred to the Tribal Court.

Who Will Enforce Tribal Regulations?

Tribal wardens will have the primary responsibility of enforcement. Michigan DNR wardens will also be permitted to enforce the regulations, but only after receiving special training in Native American issues and only after tribal wardens' authority to stop non-members off-Reservation is recognized by the State.

Is Commercial Use of Inland Resources Permitted?

The only commercial use the Tribes will permit is sale of furs. Tribal members may sell handicrafts which utilize animal and fish parts and plants, and may sell or barter food items within their communities.

Does the Consent Decree Cover Every Species of Game, Fish and Plant?

No. Many species regulations are left to the Tribes' Conservation Codes, and for migratory birds, those tribal regulations approved by the U.S. Fish and Wildlife Service. The Consent Decree covers only those species which are limited in number and require allocation between the users.

What Species Are Allocated in the Consent Decree?

The Consent Decree lists certain species which are limited in number and are subject to hunting by State-licensed hunters only by permit. These species, and any others subject to allocation in the future, will be shared equally among the Tribes, with each Tribe entitled to 1/5 of the available number. Those species for which allocation is required in the Consent Decree are:

Elk
An allocation of elk is provided to the Tribes, which is 10% of the permits issued by the State. Each Tribe is guaranteed not less than one (1) elk annually. Elk season will begin when the State season begins, but may extend 15 days past the State's December season closure. Unused elk permits may be transferred among the Tribes.

Bear
An allocation for bear is 10% of the number of permits issued by the State in each bear management unit. The allocation may increase to 12 ½% in any bear management unit in which tribal members harvest 10%. Tribal bear permits may be transferred among the Tribes.

Regulated Species

Some game species, and many fish species, are the subject of specific season and bag restrictions in the Consent Decree. Many fish regulations are based on location, as well. The most important are:

Deer
For Bay Mills, the number of deer available annually equals 5 times the number tribal members eligible to hunt. Deer hunting season begins the day after Labor Day and lasts until the Sunday of the first full weekend in January. Hunting with firearms will be prohibited from November 1st to the 14th.

Turkey
Turkey seasons will be in the spring (male only) from April 15 to June 15, and in the fall from October 1 to November 14.

Sport Fish
Hook and line fishing for sport fish is authorized throughout the 1836 cession area. Fishing with spears, bows, dip nets or hands is restricted near state salmon and steelhead egg collection weirs, on designated trout streams and lakes, and on quality lakes. Spearing for walleye, steelhead and salmon is subject to daily permitting by the Tribes, which must specify the authorized location and the authorized number of fish.

Does the Consent Decree modify the terms of the 2000 Great Lakes Consent Decree?

No. Fishing in Lakes Michigan, Huron, and Superior and their connecting waters are not affected at all by the Consent Decree. Treaty fishing in the Great Lakes continues to be exclusively governed by the 2000 Consent Decree.

(See 1836 Consent Decree, page 21)

Cisco (a.k.a. lake herring) join whitefish as Lake Superior fish low in contaminants

By Matt Hudson, GLIFWC Environmental Biologist

Odanah, Wis.—With the completion of its cisco contaminant study, The Great Lakes Indian Fish & Wildlife Commission (GLIFWC) has now conducted chemical contaminant studies on all four species of Lake Superior fish important to tribal commercial harvest in the lake. The data gathered provides valuable information to tribal fishermen needing to meet federal regulations to sell their fish commercially and to consumers of Lake Superior fish concerned about contaminant levels in these fish.

Levels of commonly measured contaminants such as mercury and PCBs were very low or not detectable in most of the cisco that were tested. All sizes of cisco tested were well below United States Food and Drug Administration (FDA) regulations governing the commercial sale of fish (Figures 1 and 2). The results are also good news to people who enjoy consuming Lake Superior fish and want to maximize the health benefits from consuming fish while minimizing health risks from contaminants in the fish.

The story continues— Conflicting messages on safely eating fish

The completion of the cisco contaminant study comes at a time when fish consumption and your health are once again in the news. The saga of conflicting advice as to whether fish are safe to eat because of contamination from mercury and other chemical pollutants continues to confuse consumers.

A recent press release from the National Healthy Mothers, Healthy Babies Coalition, a coalition of over 150 local, state and national organizations dedicated to improving maternal and child health, stated that "women who want to become pregnant, are pregnant or are breastfeeding should eat a minimum of 12 ounces per week of fish like salmon, tuna, sardines and mackerel, and can do so safely." This advice fails to account for the potentially harmful effects of mercury and other contaminants in fish to the developing brain and conflicts with what the United States FDA and Environmental Protection Agency (EPA), along with most state and tribal health departments, who advise people to safely consume fish.

The paradox of health versus harm that exists with consuming fish is a complicated one in a world where we all just want simple, easy-to-follow advice on how to be healthy and safe.

Toxicologists and medical health professionals may never completely agree on what a safe level of fish is to consume. Sure, fish contain some level of contaminants, but they are also a very healthy source of protein and heart-healthy omega-3 oils. The developing brain is particularly at risk from the potential health effects of mercury but a growing body of evidence also suggests that it stands to gain from the nutrients available in fish.

No one is going to argue that you should stop eating fish completely and no one is going to argue that mercury is not a "neuro" or "brain" toxin. In between these two positions is where the argument lies and where, as a fish consumer, you should arm yourself with the best tools we have to minimize risk from contaminants in fish and maximize the benefits. GLIFWC's Lake Superior contaminant studies provide some of these tools.

Fish consumption advisories, such as GLIFWC's mercury maps and those published by the states of Wisconsin, Michigan and Minnesota, also provide the most specific, health-based information about contaminant levels in individual water bodies. In addition, remembering a few basic rules is a great way to make informed choices about the fish you eat.

Fish Consumption Rules of Thumb

1. Know where your fish comes from. Not all water bodies are the same when it comes to contaminants in fish. Lake Superior fish, especially whitefish and cisco, are low in contaminants compared to other Great Lakes fish.
2. Choose species of fish known to be low in contaminants. Lake Superior whitefish and cisco have low mercury levels compared to many other commercially available fish species and contain low levels of other contaminants as well (Figure 3). Top predators such as lake trout, siscowet, walleye and musky tend to have higher levels of contaminants than whitefish, cisco and panfish that are lower in the food chain.
3. Choose smaller sizes of fish. It has been well-established that contaminant concentrations are related to the length of a fish. Eating the small ones is a great way to reduce contaminant exposure, and they usually taste better!
4. Trim skin and fatty tissue from fillets before cooking. Many organic contaminants like PCBs and DDT are found primarily in the fatty tissues of fish and can be significantly reduced by trimming both the skin and fat from fish fillets. While this technique works to reduce organic contaminants, it will not reduce mercury because it binds to the edible, muscle tissue of the fillet.
6. Cook fish so fat drips away. Cooking fish in this manner provides another way to reduce organic contaminants like PCBs and DDT, but again, it won't work with mercury.

Further information about contaminants in Lake Superior lake trout, whitefish, cisco and dioxins/furans in Lake Superior fish is available on GLIFWC's website *www.glifwc.org* under "Biological Services" and "Reports."

For additional information contact Matt Hudson at (715) 682-6619 ext. 109 or email *mhuson@glifwc.org*.

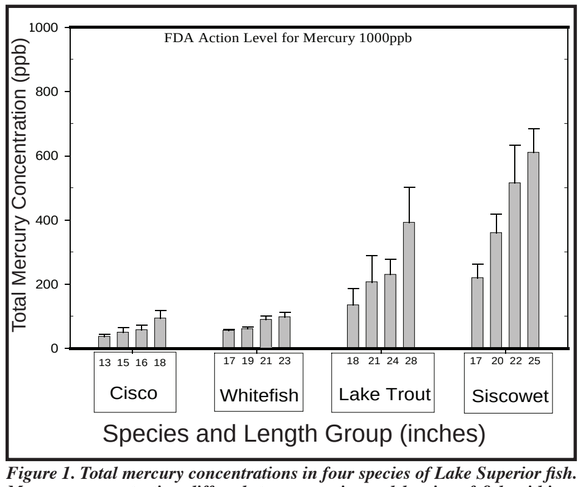


Figure 1. Total mercury concentrations in four species of Lake Superior fish. Mercury concentration differs between species and by size of fish within a species. (ppb = parts per billion)

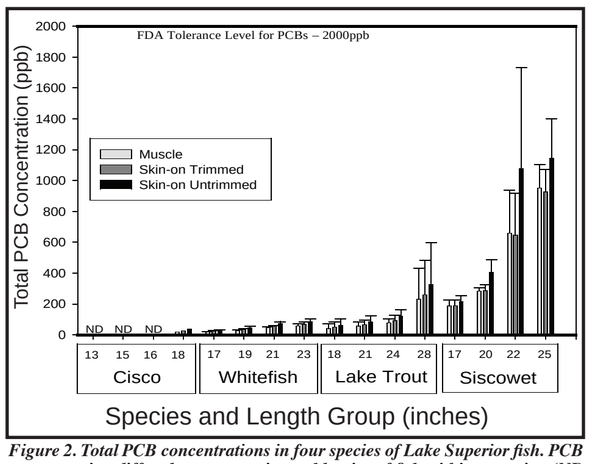


Figure 2. Total PCB concentrations in four species of Lake Superior fish. PCB concentration differs between species and by size of fish within a species. (ND = not detected)

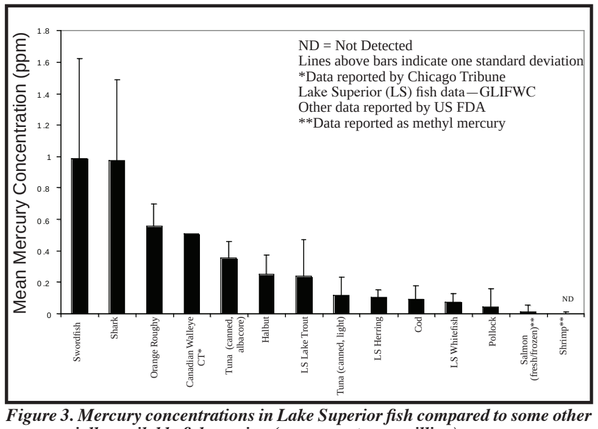


Figure 3. Mercury concentrations in Lake Superior fish compared to some other commercially available fish species. (ppm = parts per million)

Searching for chinamekos (lake trout)

High winds challenge assessment crews

By Bill Mattes, GLIFWC Great Lakes Section Leader

Copper Harbor, Mich.—Every October as Lake Superior begins to cool down in the fall, lake trout (chinamekos) seek out rocky reefs to spawn.

The rock reefs, which ring the shoreline around the Keweenaw Peninsula from Little Girls Point just outside of Ironwood, Michigan to Presque Isle Reef in Marquette Michigan's Upper Harbor, are where GLIFWC conducts an assessment of lake trout spawning stocks. The assessment identifies discrete stocks and determines lake trout distribution, relative abundance and biological characteristics in management units of the 1842 Treaty ceded area within Michigan waters of Lake Superior.

From October 8 to 12 the crew sampled a reef located inside of Copper Harbor on the extreme northwest end of the Keweenaw Peninsula. East gales to 40 knots (46 miles per hour) prevented the crew from venturing to any other reefs for the first two weeks of the assessments. Despite the wind and waves, the crew collected 30 lake trout for the Great Lakes Fish Monitoring programs contaminate analysis on Lake Superior and tagged and released about 75 fish.

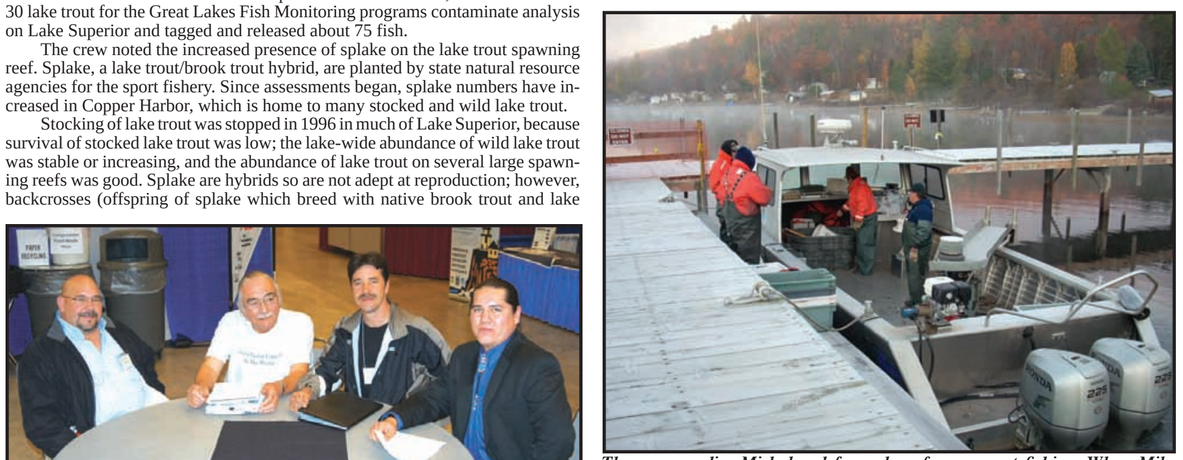
The crew noted the increased presence of splake on the lake trout spawning reef. Splake, a lake trout/brook trout hybrid, are planted by state natural resource agencies for the sport fishery. Since assessments began, splake numbers have increased in Copper Harbor, which is home to many stocked and wild lake trout.

Stocking of lake trout was stopped in 1996 in much of Lake Superior, because survival of stocked lake trout was low; the lake-wide abundance of wild lake trout was stable or increasing, and the abundance of lake trout on several large spawning reefs was good. Splake are hybrids so are not adept at reproduction; however, backcrosses (offspring of splake which breed with native brook trout and lake trout) have been identified in Lake Superior.

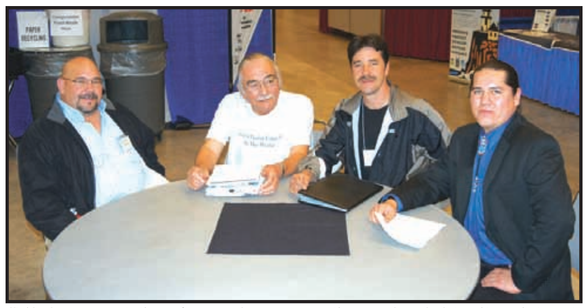
The third week of the assessment found the crew on the opposite (south-east) side of the Keweenaw Peninsula, while north gales ushered in by some seasonably cold Canadian air blew to 45 knots (52 mph). However, a reef at Point Isabelle produced few lake trout, even though it was identified as a reef which had excellent reproduction potential as late as 1976 based upon the presence of spawning fish in state assessments.

Lake trout are sampled by gill nets placed in shallow water (<50 ft) using three gangs (750 ft.) of nets at each site. Each gang consists of three nets 250 ft. long by 6 ft. deep of 4.5, 5.0, 5.5 inch stretch mesh which are randomly arranged.

Fish captured in good physical condition are tagged with consecutively numbered Floy tags, and data for length, fin clips, lamprey marks, sex, stage of maturity, and tag number are recorded. In addition to this data, aging information for all dead fish is obtained by taking otoliths (ear bones) or scales which are analyzed during the winter months.



The crew readies Mizhakwad for a day of assessment fishing. When Mike Plucinski, GLIFWC fisheries technician, began studying lake trout in the early 1980s, he did so out of a twenty-five foot fiberglass boat and lifted the nets by hand. Today GLIFWC has a quality research vessel, Mizhakwad, which is 32' and equipped with a net lifter, radar, and a GPS system, all of which offer the crew a safer and more productive assessment. (photo by Sam Quagon)



Tribal representatives from urban, reservation and ceded territory interests attended the Making a Great Lake Superior Conference in Duluth, Minn. October 29-31. Pictured from left: Wayne DuPuis, Fond du Lac Band environmental program manager, Warner Wirta, Duluth Indian Commission, Bill Fawcett, Red Rock First Nation and Reggie Cadotte, GLIFWC. A resident of the Lake Helen Reserve in Canada, Fawcett also serves as a first nation representative on the Lake Superior Binational Forum. (photo by Charlie Otto Rasmussen)

Gichigami's check-up

(Continued from page 1)

and along tributary streams as priority areas for natural resource managers and policymakers. The belt of shallow waters that parallels Lake Superior's shoreline sustains an incredible volume of species from microscopic organisms to spawning lake trout. This same environment, however, bears an increasing load of human activity from recreation to industry to homebuilding and all its associated negative impacts.

Gichigami is also threatened by atmospheric pollution said environmental researcher, Dr. Deborah Swackhamer from the University of Minnesota. Significant levels of toxins ride air currents for hundreds, sometimes thousands of miles and enter the region through dust particles and precipitation.

One unique example is toxaphene. Introduced as a replacement for the ill-famed insecticide DDT, which drove some wildlife populations toward extermination, toxaphene has burrowed itself into the Lake Superior ecosystem. Swackhamer said that of all the Great Lakes, Lake Superior fish contain the highest toxaphene levels.

Fortunately, the lake has been spared much of the direct industrial contaminant inputs that have caused major problems in other Great Lakes. Levels of other contaminants like PCBs are generally much lower in Lake Superior.

"Lake Superior behaves differently from other Great Lakes in terms of contaminants," Swackhamer said. While many water bodies absorb toxins into lake sediment, Lake Superior recycles more than 90 percent of its contaminant load before it reaches the bottom of the lake, allowing it to reenter the water where it's absorbed by living organisms or released again to the air, she said.

"Lake Superior is not just a place for contaminants to come to, it's also a source of contaminants going back into the air."

In all, more than one hundred presenters detailed the critical issues that must be considered to best manage Lake Superior. Tribal agency staff including Ferdinand Martineau, Fond du Lac Band and GLIFWC's Matt Hudson, Reggie Cadotte and Miles Falck, highlighted the work of native natural resources programs.

Making a Great Lake Superior opened with ceremonies featuring tribal representatives from the region that included drum songs from Cedar Creek and an invocation in Ojibwemowin from John Witherspoon, Bois Forte Band.

Winter typically a dry period for Gichigami

By Bill Mattes, GLIFWC Great Lakes Section Leader

Odanah, Wis.—Large amounts of rain in September and October broke the drought over Northern Wisconsin which had persisted for the past two years. The rain also helped raise the level of Lake Superior's water nearly a foot, after the greatest of the Great Lakes had dipped to an all time low for August-just six weeks earlier.

During this past year, Lake Superior has been within tenths of an inch from breaking the all time record low set in April of 1926 and without continued storms to pull moisture up from the Gulf of Mexico the record will remain at risk. So when the gray skies start to get you down, just remember we still need the rain and snow. Besides we had a lot of sunny days this summer.

The current lake level is low, and with winter fast approaching, the level is expected to drop. Winter is generally a dry time for Lake Superior. During this time cold dry air from Canada sweeps down across the lake, evaporating the water and dumping it in the form of lake effect snow over Northern Wisconsin and Michigan's Upper Peninsula. Only heavy ice cover can protect the lake from evaporation, which means the colder the winter the better for Lake Superior.

Last winter air over the Lake Superior basin was desert like in its moisture content and relatively warm for our locale. This, coupled with a lack of storms, led to the low lake levels we experienced this spring and summer.

As for the fish of Lake Superior. Most fish in Lake Superior are not effected by low lake levels or slightly warmer temperatures simply because the lake is big and is still able to offer the depth and temperatures of water that fish prefer. However, there may be changes in where fish are found, and fish which use small streams to spawn may find their way blocked by a sand beach come spring.

Generally, Lake Superior is less productive then the lower Great Lakes because of its cooler temperature. Slightly warmer water may lead to a more productive Lake Superior. Lake Superior's cool temperature also makes it undesirable for some of the more disruptive exotic species (i.e. alewife). So a warmer Lake Superior will mean a different lake with new challenges—only time will tell if the trend toward a lower, warmer lake will hold.

Tribes at forefront of natural resource management

Great Lakes NAFWS hits twenty

Lac du Flambeau, Wis.—Featuring a diverse, wide-ranging agenda, a regional chapter of the Native American Fish & Wildlife Society (NAFWS) conducted its annual conference September 9-13 at Lac du Flambeau (LdF).

With approximately 130 federal, state and tribal resource managers from three states in attendance, NAFWS's Great Lakes Region celebrated the 20th consecutive gathering to share data, hone enforcement skills and develop professional relationships.

"We've really made some leaps and bounds over the years," said Larry Wawronowicz, a conference organizer and LdF natural resources director. Wawronowicz held up a decade-old agenda from the last regional conference at Flambeau. Contrasted with 2007's wealth of sessions on cutting edge research, the evolution of tribal management expertise was made clear. No longer an aberration on the natural resource and law enforcement scene, the tribes have come into their own.

Leaders recall beginnings, look to the future

Although natural resource management responsibilities are distributed among multiple jurisdictions today, it took time and determination for tribes to achieve parity. In many situations around the Great Lakes region, state officials wanted nothing to do with tribal co-management designs in the 1970s and 80s. Tribes nevertheless pushed ahead, building on existing conservation assets.

"Everybody at LCO was a warden. There were no fisheries, wildlife or environmental programs. If you did anything with natural resources, it was being a warden," said Mic Isham about the Lac Courte Oreilles reservation in the early 1980s.

Board Chairman for Great Lakes Indian Fish & Wildlife Commission (GLIFWC), Isham was one of a dozen tribal representatives to take the podium following opening ceremonies on September 11. Past NAFWS directors, tribal government officers and natural resources administrators spoke during a series of panel discussions, reflecting on past accomplishments and future challenges.

From a foundation in law enforcement, Isham said tribal conservation programs soon developed, focusing on data collection, field surveys and fish culture. "The collective voice of the tribes helped get the attention of federal agencies and helped start environmental programs. The Society, GLIFWC and other tribal organizations argued that the federal government had a trust responsibility to help fund these programs."

LdF Vice-Chairwoman Dee Mayo said her tribe traces its modern conservation roots to the reservation fish hatchery, established in 1936 to produce native species including muskellunge and walleye. Looking to the future, Mayo underscored the pressing need to recruit young tribal members into leadership and management positions to maintain and expand conservation efforts—an idea echoed by several representatives including Bois Forte Councilor Ray Villebrun.

Mic Isham addresses NAFWS conference participants during a panel discussion that included (from left) Ray Villebrun, Bois Forte Councilor and Lac du Flambeau Vice-Chairwoman Dee Mayo. Isham heads GLIFWC's Board Commissioners.

"How do we get young people involved in natural resources? This is something all communities must face. At Bois Forte, we talk to young kids in school, even in grade school. We need to get them involved early," said Villebrun, a past NAFWS Great Lakes Region official.

Another element of recruitment, said Larry Wawronowicz, is maintaining the capital to offer good fringe benefits to candidates for natural resource positions. Ever-constricting budgets create challenges for administrators faced with soaring health care and energy costs. Potential leaders in tribal conservation may be drawn into alternate career fields that tender better salaries and benefits.

"Kids are vital to protect natural resources in the future," Wawronowicz said.
(See NAFWS conferencet, page 13)

Moose numbers slide, research continues in 1854 territory

Although no smoking gun has emerged following a five-year interagency research effort, the moose population in northeast Minnesota may be in the grip of a slow, chronic decline. Climate warming appears to be ushering in a range of negative impacts to moose including increased heat stress and parasitic infections.

An interagency team of biologists captured, radio-collared and released this cow moose in northeast Minnesota near Windy Lake. Resource managers plan to attach collars on 30 Arrowhead moose this winter to track their movement, habitat preferences, survival rates and calf production. (1854 Treaty Authority photo)

Andrew Edwards, 1854 Treaty Authority Biological Services Director, said moose numbers fell off by 23 percent from an estimated 8,382 moose in 2006 to 6,587 in 2007. Longer term calculations based on statistical modeling suggests that the northeast Minnesota herd may now be declining approximately seven percent annually.

Edwards, however, isn't convinced that the 1854 ceded territory moose population is destined to vanish from the landscape like another Minnesota herd in the state's northwest. That moose herd has plummeted to around 80 animals, down from a high of approximately 4,000 in the mid-1980s.

"I'm optimistic that moose numbers can stabilize in the northeast region. Without a clear reason for the recent decline, it's difficult to predict what the future will bring," Edwards said. Bilogists from 1854 Treaty Authority, Fond du Lac Band, Minnesota Department of Natural Resources and United States Geological Survey worked collaboratively to document natural mortality rates and estimate the population of the Northeast herd. Edwards noted that 2007 was the only year that a marked decline in moose numbers emerged from estimates based on January aerial surveys.

Edwards said another encouraging aspect of the Arrowhead herd is that the bull-to-cow ratio is approximately one-to-one, representing a well-balanced population with ample genetic variability.

In some other North American management jurisdictions like Alaska the ratio is closer to one bull for every 10 cows, yet they are able to maintain reproduction, he added.

Round two

With support from a US Fish & Wildlife Service grant secured by the Fond du Lac Band, research on the Arrowhead herd is entering a second phase this winter that includes fitting 30 moose with radio collars to track their habitat preferences, survival rates, calf production and other data related to animal health.

Through a radio signal, the collars reveal how moose move across the landscape for approximately four to five years.

Researchers primarily use fixed-wing aircraft equipped with a radio receiver to track collared animals. The USFWS Tribal Wildlife Grant covers nearly two-thirds of the $330,000 program cost.

"The follow up study will allow us to continue the monitoring work and establish whether the population is experiencing a steady downturn or normal fluctuations over time," Edwards said. Brain worm is among several documented maladies
(See Moose research, page 15)

Shoot straight and play it safe

Tribal officers train, GLIFWC teaches advanced methods

Conservation Officer Jim Stone's assessment of an advanced law enforcement training program had the flavor of hype: as close to real life as you can get, he said. But as observers and participants soon realized, the field scenarios evoked genuine tension; the pistols really fired, and for anyone who got shot—it hurt.

Following two days of standard target shooting at the Native American Fish & Wildlife's Great Lakes Regional Conference, Stone conducted advanced training exercises for tribal law enforcement officers from across the area. Using the patented training system called Simunitions, certified instructors can create virtually any situation wardens are likely to encounter.

"Officers use a gun identical to their service weapon that fire reduced-energy rounds made with a plastic jacket and a colored soap 'bullet.' "This level of realism helps officers learn to better handle situations safely and properly," said Stone, who attended Simunition instructor training at Chippewa Valley Technical College.

During the September 12 training scenario at Lac du Flambeau's shooting range, a lone officer arrives at a remote location where two hunters stand next to a pick-up truck, preparing to field dress a recently killed deer. The hunters quickly become annoyed by the presence of the officer who inquires whether the animal is properly tagged and how it was harvested. Irritated hunters turn belligerent and dangerous as one individual removes an object from the truck and takes cover behind the vehicle.

Clad in an orange instructor vest, Stone stands slightly back, evaluating how the training officer manages the deteriorating situation. In an instant, handgun rounds whiz from a hidden perpetrator, the warden barks commands, more shots, a gun jams and people are diving, rolling and otherwise maneuvering for shelter.

Stone calls a cease-fire, gathers the participants and critiques the trainee, highlighting what went right, what went wrong and tips for future consideration. While the players—all tribal wardens—wear protective helmets and body armor, broken skin and welts appear on arms and legs covered with only clothing fabric. The sting from the plastic rounds serves to reinforce lessons learned during the training scenario.

"Typically these skills aren't used a lot, but it's something you want to brush up on periodically so that you are ready," said Stone, who also conducted night shooting exercises. Wardens frequently work in the evening during spring fishing and fall hunting seasons.

Tribal law enforcement officers from GLIFWC, Lac du Flambeau, Menominee, Bois Forte and Grand Portage participated in the Simunitions training.

"We made some good contacts and other jurisdictions have expressed interest in receiving this type of training," Stone said. "I expect we'll be traveling to other tribal communities to train their officers."

Officer Jim Stone (in orange) conducted Simunitions training scenarios during the NAFWS conference. Wardens from GLIFWC and other tribal jurisdictions were confronted with a pair of highly agitated hunters at the site of a recent deer kill. Inset: During Simunitions training, officers wore helmets, body armor and used special .40 caliber handguns that fired plastic rounds. The handguns are nearly identical to service weapons used by various agencies.

NAFWS conference

(Continued from page 12)

A wide net

In addition to a deep schedule of traditional subjects including fisheries, wildlife, environmental and law enforcement sessions, conference organizers added slots for tribal historic preservation. Most native communities in the region retain a tribal historic preservation officer (THPO) to help conduct historic property surveys and maintain permanent inventories of historic properties. Among a handful of THPO presenters, Ho Chunk's William Quackenbush detailed how the southern Wisconsin tribe uses ground penetrating radar to identify Indian burial and cultural sites, especially those threatened by development.

Adam DeWeese, GLIFWC Environmental Biologist explains how mercury-in-walleye advisory maps created by the Commission help tribal members assess the risks of harvesting fish from ceded territory lakes.

Environmental Biologist Adam DeWeese explained the design and evolution of GLIFWC's mercury advisory maps for walleye fishermen. Walleye, or ogaa, accumulate mercury in their flesh, which can cause health problems for human consumers—especially children and pregnant women. With input from tribal members, GLIFWC designed a series of ceded territory lake maps featuring color codes to help fishermen best choose where to spear or net walleye.

Additional presentations on black bear research, trends in waterfowl habitat, maintaining fish health at tribal hatcheries, and managing wolf numbers offered an intriguing look into the work of highly developed Indian resource programs. For more information on tribal natural resource management in the upper Great Lakes region see: *www.glifwc.org*; *www.nafws.org*; *www.1854treatyauthority.org*;

GLIFWC officers take aim at a shooting tree during competitive exercises at the Lac du Flambeau shooting range.

Articles & Photos by
Charlie Otto Rasmussen, Staff Writer

Sokaogon officials shut down '07 bear season

Soaring harvest suggests illegal tagging

By Charlie Otto Rasmussen, Staff Writer

Mole Lake, Wis.—Midway through the 2007 treaty black bear season, Sokaogon registration clerks had already tallied 19 bears—a harvest number three times higher than an average *full-season* over the past decade. Tribal elders and resource officials took notice.

Vice-chairwoman Velma Landru said that with a substantial tribal quota remaining, the Sokaogon Chippewa Tribal Council formally closed the off-reservation bear season for its members October 2, citing a cultural necessity to prevent any further harvest of the revered clan animal known as makwa.

"As the bear registration numbers came in, there was a growing concern that the harvest may not be occurring in a good way," Landru said. "We have a responsibility to consider both scientific data and cultural teachings in managing our natural resources."

The limited availability and high demand for bear harvest tags sets the stage for collusion between non-Indian shooters and tribal members willing to register kills as their own. The illegal practice commonly known as tag-sharing generates severe penalties for both treaty and state hunters.

Last year a tribal judge revoked a Bad River woman's treaty privileges for two years, plus issued a $750 fine for attempting to register an Iron County bear killed by a non-member.

Fred Ackley, a Sokaogon judge and past Voigt Intertribal Task Force representative, expressed his concern to the nine-member task force about reports of excessive bear harvests and tag-sharing between Sokaogon members and non-Indian hunters.

Ackley said that while all creatures hold a unique place in traditional Ojibwe culture, clan animals like the wolf, marten and bear should be held in the highest esteem. "The bear told Gichi Manitou he'd give his flesh for us. The reason why we have this reverence for makwa is he gave his life for us, the Anishinaabe people. We have to always remember this," Ackley told VITF representatives at their October 4 meeting in Mole Lake.

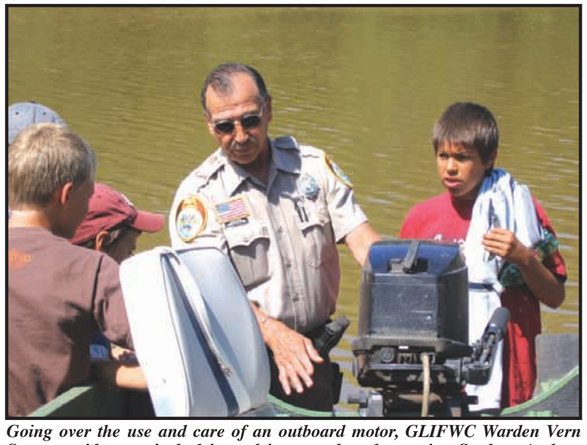
The Sokaogon Chippewa Community is located in the heart of bear management zone B where only 7.5% of state-licensed hunters who wanted a bear kill tag in 2007 got one.

The Department of Natural Resources employs a preference point system for state bear hunters. One point is earned for each year the hunter submits a $3 preference point application. This past season, only hunters with nine points or more were licensed to hunt bears in zone B.

Since 1996, tribal hunters have brought in between one and 11 treaty bears to the Sokaogon registration station annually, with an average harvest right around a half-dozen. The average state black bear harvest for the same time period in zone B is 437.

Sokaogon officials are currently considering regulatory changes for the 2008 black bear season to make potential tag-sharing much more difficult.

Learning about on-water safety were participants in the Boating Safety class offered on the Bad River reservation this summer and instructed by GLIFWC Wardens Vern Stone, Mike Wiggins and Jim Stone. The class teaches boating regulations as well as boat operation and actually gives students some firsthand, on-the-water experience. Participants include, front row: Dan Jackson, Matt Mackey, Andrew Mackey, and Scott Bender. Back row: Instructor Vern Stone, Cody Lynk, Instructor Mike Wiggins, James Sturgal, and Instructor Jim Stone. (staff photo)



Going over the use and care of an outboard motor, GLIFWC Warden Vern Stone provides practical advise and tips on outboard operation. Students Andrew Mackey, far left, and Daniel Jackson listen intently before getting some practical experience on the water. (staff photo)

Officer Vern Stone (center) conducted a trapping refresher in Odanah last October for GLIFWC conservation wardens. Above, Stone details the proper use of leaning pole set commonly used to target fishers. While patrolling public lands across the ceded territory, GLIFWC officers encounter a variety of furbearer traps set both on land and in the water. (photo by Charlie Otto Rasmussen)

Participants in the Hunter Safety class offered by GLIFWC wardens this fall on the Bad River reservation were, front row: Austin Danula, Kevin Pflanzer, Kieran Bender, Kristen Thannum, and Samantha Gierezic. Back row: Jacob Berlin, Cody Lynk, Instructor Mike Wiggins, Dakota Rongstad, Lee Cloud, Krystal Hagstrom, Robert Hagstrom, Instructor Vern Stone, and Dave D'Aquisto, instructor trainee. For more information on upcoming safety classes contact GLIFWC's enforcement division at (715) 682-6619 or visit our website at www.glifwc.org. (photo by Jim Thannum)

Tribes & Forest Service propose collaboration on youth outdoor living skills camp

By Sue Erickson, Staff Writer

Odanah, Wis.—Getting away from business-as-usual at the annual tribal/US Forest Service Memorandum of Understanding meeting this fall, GLIFWC Chief Warden Fred Maulson spelled out a proposal that would use a Forest Service camp on the Ottawa National Forest to offer outdoor living skills education to tribal and non-tribal youth.

The proposal centers around the Lake Nesbit Environmental Center near Sidnaw, Michigan. Built in the 1930s by the Civilian Conservation Corps, the camp features twelve modern, dormitory-style cabins, three of them equipped with a generous commons area that could accommodate group education presentations. The large outdoor campus, including a 30-acre lake, is perfect for studying environmental sciences as well as learning outdoor skills.

In addition, the Center offers an archery range, a rope-and-obstacle training facility that could encourage team building as well as fitness, and a game field.

Forest Service Tribal Liaison Mary Rasmussen first perked Maulson's interest in the Center's potential use. Further discussion between the Ottawa's Interpretive Working Group and GLIFWC ensued and resulted in a proposal to provide a three to five day camp experience for twelve to fifteen tribal and non-Indian youth, ages eight to eighteen, offering opportunities to learn about "the natural and cultural aspects of the Great Lakes area, environmental sciences and natural resource career opportunities."

The camp would be jointly sponsored by the Ottawa National Forest and GLIFWC, with GLIFWC contributing outdoor skills equipment, such as nets, maple sugar gathering equipment, hunting and fishing gear as well as some personnel qualified to provide instruction in these areas.

Maulson also contacted the Lakeland Union High School Intercultural Leadership Initiative (ILI) Program for possible involvement and support. ILI works with Minocqua-area elementary and high school students in an effort to prepare students from four "feeder" elementary schools to succeed and feel comfortable in a multi-cultural high school setting.

While the proposal has received a positive response, Maulson says funding remains an issue. The Center could be secured for the three-day use for a one-time payment of $150, and there is a $17.00/per day charge for each student to cover camp maintenance expenses. Other costs related to the proposal need to be estimated and funding sought.

"For GLIFWC, a program such as this could go along way in helping to teach traditional hunting, fishing and gathering skills, and promoting natural resource related careers to tribal youth," Maulson says. "It is also an excellent opportunity for encouraging cross-cultural education and respect. It sounds like a 'win-win' endeavor. We'll see."

GLIFWC officer Matt Martin received enforcement credentials from the state of Wisconsin in September following a two-year program that included a pair of recertification training sessions. The endorsement enables Martin to enforce state hunting and fishing laws on non-tribal members. Martin lives near the St. Croix reservation and is GLIFWC Enforcement Division's Western District Supervisor. (photo by Charlie Otto Rasmussen)

GLIFWC and Forest Service representatives met October 3 at Mole Lake for the annual review of the Memorandum of Understanding that details tribal gathering and other activities on National Forests within the ceded territories. Agency officials delivered MOU meeting highlights to the Voigt Intertribal Task Force the following day. Pictured from left: Karen Danielsen (GLIFWC), Mary Rasmussen (Forest Service), Ann McCammon Soltis (GLIFWC) and Fred Maulson (GLIFWC). (photo by Charlie Otto Rasmussen)

Moose research continues in 1854 ceded territory

(continued from page 12)

for moose in the area. White-tailed deer carry the parasite with little or no ill effects, yet when transmitted to moose it can be deadly. Edwards said approximately three out of four deer in moose range are carriers of brain worm.

The 1854 Treaty Authority assists the Bois Forte and Grand Portage Ojibwe bands protect, manage and enhance natural resources in the ceded territory of northeast Minnesota.

Enforcement addition stationed in NW Wisconsin

Mellen, Wisconsin resident Mike Popovich pinned on a GLIFWC conservation officer badge October 1 and began service as a ceded territory warden. A former ranger at nearby Copper Falls State Park, Popovich has experience enforcing state conservation laws within the park boundary. His new assignment includes a considerably expanded work area that includes much of northwest Wisconsin.

Popovich said that even though he'll have less time to hunt and fish, the opportunity to work in the out-of-doors monitoring treaty hunting, fishing and gathering was too good to pass up. A Mellen native, Popovich lives in his hometown with his wife Carol and two daughters, Linsey and Casey, who are Bad River members. (photo by Charlie Otto Rasmussen)

Biboon—It is Winter

Daga aajimishin! Noogishkaan! Noogishkadaa.
Gidaa-pizindaamin gaagiigidowaad ingiw aadizookewininiwag. Aatebidoon mazinaatesijigan!
Nanaa'inan i'iw giigidowin! Nimaawanji'aanaanig ongow abinoojiyag. Aadizooken, dibaajimon!
Daga na giwii-aajimag i'iw amik, ojiig, wazhashk, mooz, waabooz, zii'amoo dash maang?
Bimaaji'i Anishinaabeg, bimaaji'i aki. Wiidosemishin. Chi-miigwech miinawaa.

(Please tell a story to me. Stop! Let's all stop.
We should listen when they speak, those sacred storytellers. Turn off the television!
Put away the telephone! We should meet/gather them, these children. Tell traditional stories, tell stories!
Please will you tell about them that beaver, fisher, muskrat, moose, rabbit, woodduck and loon?
Save the Anishinaabe people, save the world. Walk with me. Great-thank you again.)

Bezhig—1

OJIBWEMOWIN
(Ojibwe Language)

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

—Short Vowels: A, I, O
Gaye—as in about
Amik—as in tin
Ojiig—as in only

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

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

Expressions

Today we won't worry about grammar, just expressions you can use in speech you create.

Bekaa!—Slow down, wait!
Haaw miinwaaa!—Try again!
Mii dash…—And then...
Bizaan!—Be quiet!
Ambe wewiib!—Come, hurry!
Amanj iidog.—I don't know.
Aaniiin ezhichigeyan?—What you doing?
Daga bizindawishin.—Please listen to me.
Gisinaa agwajiing.—It's cold outside.
Inashke! zoogipon.—Look! it is snowing.
Mii sa go geget!—That's for DARN sure!

Niizh—2

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

A. Waabooz idash goon, wabishkiziwag biboong.

B. Inashke! Waabishkawedoon Nimishoomis.

C. Naawakweg ishpemiing gii-waabishkaanakwad.

D. Makadewindibe, nookomis. Gaye makedewaa, owiiwakwaan.

E. Odaabaan idash makwa makadewiziwag.

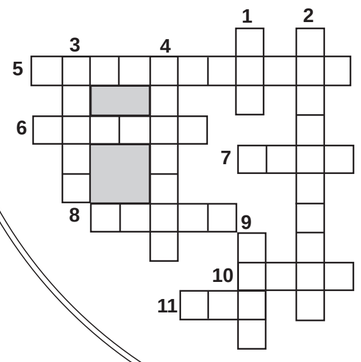
F. Miskwanakwad imaa ningaabii'anong. Miskozi i'iw bineshii.

G. Inaande dash inaandewan. Inaanzo dash inaanzowag.

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

Niswi—3

IKIDOWIN ODAMINOWIN (word play)



Down:
1. earth
2. Turn it off!
3. fisher
4. Look! Behold!
9. beaver

Across:
5. Stop!
6. Be quiet.
7. Come!
8. Slow down, wait!
10. moose
11. short for big, great

Niiwin—4

Ojibwe Expressions

Gashkadino-Giizis—Freezing up moon (Nov.)
Manidoo-Giizisoon—Little spirit moon (Dec.)
Gichi-Manidoo-Giizis—Great Spirit Moon (Jan.)
Aaniin ezhiwebak agwajiing?
—What's happening outside?
Mino-nibaa-anami'e giizhigad.
—Happy sleeping-praying-day, Christmas greetings.
Gaa-miskojaaned adikoons.
—Red-nosed reindeer
Biindigen!—Come in!
Weweni go!—Be careful!

Goojitoon! Try it!
Translation below.

Biindigen!

Bizaan!

Bekaa!

Amanj iidog

Mii dash

1. _____ Gagwejim nimaamaa. Gikendaaso.
2. _____. Daga namadabin. Makade -mashkiki-waaboo na?
3. Abinoojiiyag _____! Noongom, giwii-nibaam. Daga gawishomog.
4. _____ waaban giwii-odaminom agwajiing.
5. Gigizhiikaa. Gigizhiibide. Gizhiibiz. _____.

Translations:
Niizh—2 **A.** Rabbit and snow, they are white in the winter. **B.** Look! He has white whiskers, my Grandfather. **C.** At noon in the sky there were white clouds. **D.** She has black hair, my Grandmother. Also it is black, her hat. **E.** The car/sliegh and bear they are black. **F.** There are red clouds there to the west. She is red that bird. **G.** It is colored so and they are colored so (non-living things). S/he is colored so and they are colored so (living things).
Niswi—3 **Down: 1.** Aki **2.** Aatebidoon **3.** Ojiig **4.** Inashke **9.** Amik **Across: 5.** Noogishkaan **6.** Bizaan **7.** Ambe **8.** Bekaa **10.** Mooz **11.** Chi
Niiwin-4 **1.** I don't know (Amanj iidog) Ask my mom. She's smart. **2.** Come in! (Biindigen!) Please sit. Black-medicine-liquid/coffee? **3.** Children be quiet! (Bizaan!) Now, you all will sleep. Please lie down. **4.** And then (Mii dash) tomorrow you all will play outside. **5.** You go fast. You run fast. You drive fast. Slow down! (Bekaa!)

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 translations from The Concise Dictionary of Minnesota Ojibwe by John D. Nichols and Earl Nyholm. All inquiries can be made to **MAZINA'IGAN**, P.O. Box 9, Odanah, WI 54861 pio@glifwc.org.

What if you were a chi ayabe (big buck) and your antlers fell off?

By Sue Erickson, Staff Writer

If you are a big, proud ayabe (buck), your beautiful antlers WILL fall off!!! Male deer, ayaabeg or bucks, grow antlers, and they drop them in mid to late winter every year. This is called shedding the antlers. But once they shed the antlers, they grow them back again. So in the early spring, you will probably not see waawaashkesiwag (deer) with antlers.

Ayabeg (bucks) have boney bumps on their foreheads called pedicles. When their antlers start to grow again, they grow from the pedicle, which is always there.

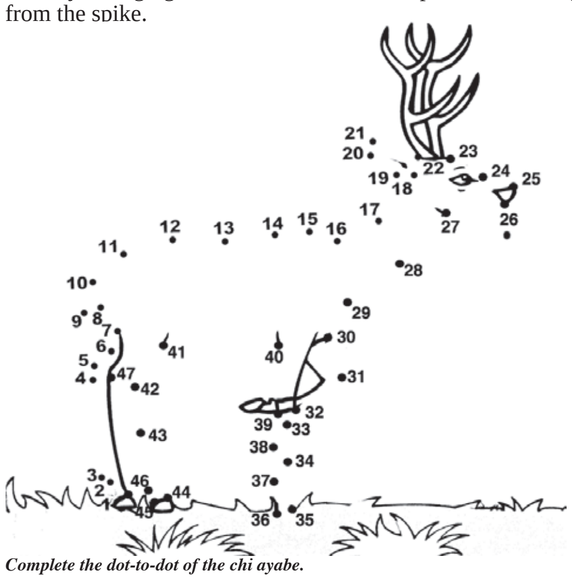
Growing antlers are covered with a soft skin called the velvet. The velvet is full of tiny blood vessels that feed vitamins and minerals to the growing bone in the antlers. When you see an ayabe in the summer, his antlers will look very soft and fuzzy. That is because he is "in velvet."

The antlers grow all summer long. Growing antlers are one of the fastest growing tissues known, sometimes growing as much as a half-inch every day. During the growing period, the antlers are very delicate, and it is when antlers can be most easily damaged or broken.

In the fall a ring forms at the bottom of the antler and shuts off the blood supply. This makes the velvet dry up and fall off. The buck also rubs his antlers on trees, rubbing the velvet skin off his antlers.

Ayaabehs (small buck).

Antlers generally get bigger each year. A new branch or point usually grows each season. That is why older ayabeg have larger antlers, sometimes called racks, with more points. In the first year of life, a male fawn grows the pedicle and in the second season, when he is a yearling, he grows two spikes, one straight antler with no branches. Some yearlings grow antlers with several points branching from the spike.



Complete the dot-to-dot of the chi ayabe.

An adult buck (ayabe) with an eight point rack. (photo by COR)

You may see a buck rubbing his antlers on a tree in early fall to get rid of the soft velvet. As they rub off the velvet, the antlers will become ivory-colored at the tips. By fall the antlers are free from velvet and fully grown, so the buck is ready for mating season, when he is trying to attract a female deer, or doe, called oniijaaniw in Ojiwe.

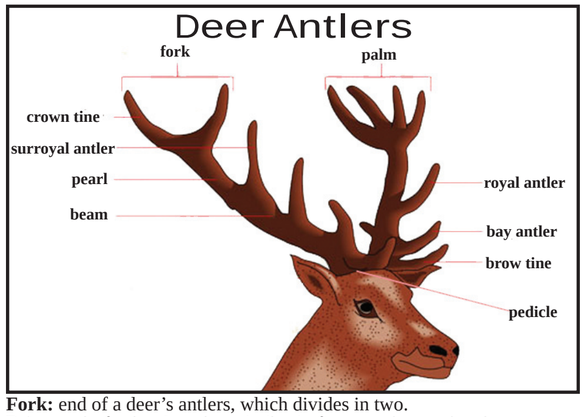
Bucks mostly need their antlers to fight with other bucks during the mating season. They will crash antlers to claim their territory. They don't usually get hurt during fights. A buck's antlers reach full growth in the fall.

Antlers are different than horns like you may see on cattle, sheep or goats. Horns are hollow, or empty, but antlers are solid bone. Horns are not shed, but stay with the animal for life.

If you are walking in the woods, you may be lucky and find a set of shed antlers. Some proud ayabe lost his beautiful antlers, but he will grow a new, bigger set for the next season.

Antlers can make very beautiful decorations and are used in a number of different ways for decoration.

(Information used from pabucks.com and kingsoutdoor-world.com websites.)



Fork: end of a deer's antlers, which divides in two.
Palm: end of a deer's antlers similar in form to a human hand.
Royal antler: third division of a deer's antlers from its head.
Bay antler: division of a deer's antlers above the brow tine.
Brow tine: first division of a deer's antlers from its head.
Pedicle: part of a deer's head that supports the antlers.
Beam: central stalk of the antlers of a deer.
Surroyal antler: fourth division of the antlers of a deer.
Crown tine: growing tine at the top of a deer's antlers.
(Reprinted from infovisual.info/02/074_en.html)

Woodland gifts motivate tribal artist

By Karen Danielsen, GLIFWC Forest Ecologist

Altoona, Wis.—Dick Mindykowski, a Lac Courte Oreilles member, creates walking sticks, dancing staffs, tomahawks, turtle rattles, shields, dreamcatchers and other types of art using materials proffered from the woods. He traps furbearers, harvests tree branches and gathers stones polished by wind and water.

All of earth's four orders find representation in his artwork. The stones, tree branches and furs represent the first three orders—physical, plant and animal worlds. Dick's essence represents the last order, the human world. Upon each piece, he bestows a sense of his own meaning and passion.

For items such as walking sticks, or staffs, his artistry begins with the tree branches. He tends to use wiigwaasi-mitig (paper birch), azaadii (aspen), and his favorite, wadoop (speckled alder). Wadoop, he says, "decorates itself with its own sap." Once he used giizhik (cedar), a special gift from his brother.

After seasoning for one or two years, he scrapes off areas of bark and outer wood, using uneven strokes to produce varied textures and colors. Thus, each resulting stick maintains its unique character, depending upon the amount of bark retained and inner wood exposed.

He cuts each stick to the necessary size, longer for walking sticks and shorter for dancing staffs and tomahawk handles. Next, he burns designs into the sticks using a belt grinder. To protect the wood, he adds a layer of varnish.

Then, he affixes the final materials. He uses stones for tomahawk "blades" and the noisemakers in turtle rattles. He decorates with leather, deer horns, feathers, and beads; items he receives as gifts, or sometimes trades or buys.

Because he has trapped and tanned skins since the age of twelve, he adorns each item with fur, adding subtle texture and beauty. The fur comes primarily from nigig (otter), ojiig (fisher), zhingos (weasel), zhaangweshi (mink), wazhashk (muskrat) and amik (beaver). He uses the fur of amik mostly for making shields.

He started making staffs and walking sticks as gifts for family and friends. He made himself a shield—his circle of life—tying onto it objects with personal significance. He also made his daughter a shield, for her circle of life.

Eventually, with his brother's encouragement, he began selling his artwork. However, two years ago, his brother walked on, leaving Dick with immense grief and doubts about his own future.

Yet he overcame doubt, and with his thoughts always on his brother, he continues selling his artwork. Last spring, he quit his job as a computer components inspector (twelve-hour days) to devote more time to his art and to his family. He harbors no regrets.

His artwork may be found in over a dozen stores throughout Michigan, Minnesota and Wisconsin. At the request of one store owner, he began selling dreamcatchers. He likes this because he puts to use, instead of wastes, the smaller side branches that he cuts off the larger branches.

He sells his artwork at powwows, particularly the Bear River Powwow at Lac du Flambeau. Also at Lac du Flambeau, he submitted his artwork for competition in the 2007 Midwest Native American Art Market and won first place.

Spending time outdoors is the fundamental motivation behind his artwork. He finds solace among the trees, listening to and watching the forest activities. He feels extremely grateful for these experiences and uses his artwork to "give something back to the journey of life."

Anyone interested in Dick's artwork can contact him at Native Design (715) 834-7354; (715) 579-3049 or email *jo_dick@sbcglobal.net*.

Dick Mindykowski displays some of his hand-made Native American art. Dick says that all of earth's four orders find representation in his artwork. The stones, tree branches and furs represent the first three orders—physical, plant and animal worlds. Dick's essence represents the last order, the human world. Upon each piece, he bestows a sense of his own meaning and passion. (photos by Karen Danielsen)

Firewood Alert!

Transporting firewood long distances can endanger our forest trees because firewood potentially harbors non-native, tree-damaging insects and diseases. Emerald ash borer, gypsy moth and Asian long-horned beetle top the list of particularly troublesome non-natives.

As with all non-native organisms, the best strategy for minimizing their impact is to prevent their movement and thwart new infestations. Please don't transport firewood long distances.

Miigwech!

2007 Wisconsin treaty deer harvest through October

Registration Station	Antlerless	Antlered	Total
Bad River	47	30	77
Lac Courte Oreilles	202	80	282
Lac du Flambeau	120	72	192
Mole Lake	43	29	72
Red Cliff	48	21	69
St. Croix	145	78	223
Mille Lacs	5	7	12
Fond du Lac	0	0	0
Totals	**610**	**317**	**927**

GLIFWC Executive Administrator Jim Zorn (right) presents biologist Joe Dan Rose with a certificate of appreciation on behalf of the US Fish & Wildlife Service for participating on the interagency wolf recovery team. GLIFWC Biological Services Director Neil Kmeicik was also recognized for his work on the wolf recovery team. The federal government removed wolves from the endangered species list in January 2007. (photo by Charlie Otto Rasmussen)

Insuring access to culturally important manoomin

One highlight of new two-year ANA grant

By Sue Erickson
Staff Writer

Odanah, Wis.—The dietary benefits of manoomin (wild rice), a culturally and spiritually important food of the Ojibwe people, will be highlighted through a two-year grant recently awarded to GLIFWC from the Administration of Native Americans (ANA).

With a start-up date of September 29, the grant is still in its infancy, but ANA Project Director Jim St. Arnold is anxious to get the ball rolling on the ambitious grant, which he views as pursuing four major goals.

These include education and outreach regarding the nutritional value and preparation of wild rice as part of a balanced, traditional diet; outreach to youth regarding harvesting and processing skills; updating a wild rice inventory in relation to insuring a sustainable supply; and finally, expansion of processing capacity in order to increase availability of manoomin to a larger public and upcoming generations.

The first year of the grant will focus on production of wild rice brochures, poster and a display—all promoting the nutritional merits of manoomin as a healthy, gluten-free food.

Once relied on as a staple in Ojibwe people's diets, manoomin is especially nutritious and works well in diets seeking to prevent diabetes, a disease that is especially prevalent in Indian people. "Essentially, we will be trying to get more manoomin back onto tribal members' plates," St. Arnold says.

In order to do that, the grant provides for a series of workshops with tribal youth that will both educate about the benefits of this food, and also teach young people how to traditionally harvest and process wild rice.

Tribal rice chiefs and elders will participate as the teachers in these workshops so that their significant information and knowledge can be passed to the upcoming ricers, St. Arnold says.

The cross-generational workshops will be held on GLIFWC member tribe reservations over the two-year grant period, with the northwest Wisconsin and Minnesota tribes being targeted in the first year and the northeastern and Michigan member tribes in the second grant year.

"We hope to encourage more tribal youth to be out in the rice beds come fall helping provide their families with this important food," St. Arnold comments. "Ricing has long been a way of life for Ojibwe people, and we don't want to see that diminish—depriving our people of experiencing this traditional season and an important element of their diet. So we have to make sure our youth have the know-how."

It is also important to maintain a supply of manoomin, which historically has been threatened with lake development for cabins, homes and businesses as well as the manipulation of water levels seriously impinging or destroying traditional manoomin beds throughout the ceded territories.

The grant will seek to update existing wild rice bed inventories using Geographic Information System (GIS) technology so that tribes know where wild rice is thriving and can enhance the existing crop.

This will help tribes watch over and hopefully improve the health of manoomin beds in order to insure continuing availability of this important food.

"Efforts to protect this delicate crop are necessary, especially today with a growing number of lake and river stakeholders and users, whose interests sometimes conflict with those of manoomin," St. Arnold remarks.

Finally, the grant also will work with current manoomin processors to improve product production and marketing efforts. This will address product labeling, packaging and processing capacities.

During the course of the grant, two technical positions will be filled to help accomplish grant objectives.

Mazina'igan apologizes for the misspelling of Latisha McRoy's last name in an article that featured GLIFWC interns in the 2007 fall edition.

Ontonagon River's namé population builds

Surveys indicate stocking efforts result in population growth

By Sue Erickson, Staff Writer

Ontonagon, Mich.—Michigan's Ontonagon River, once teeming with namè (lake sturgeon, pronounced nah-may in Ojibwe), appeared to have lost its prehistoric inhabitants altogether when surveyed in the mid-90s. At that time biologists surveying for lake sturgeon were hard put to find one in the Ontonagon.

Victims of habitat change that altered their spawning grounds and voracious over harvest in late 1800s and early 1900s, especially for their caviar, healthy lake sturgeon populations in Lake Superior declined dangerously, and the huge old "monsters" of the lake may have been entirely extirpated in some tributary rivers.

However in 2007, Keweenaw Bay Indian Community (KBIC) biologists were able to record 70 lake sturgeon in the Ontonagon River during their fall survey work, according to KBIC biologist Gene Mensch, an indicator that stocking efforts may be paying off and returning the age-old species to its status as a long-term inhabitant of the Ontonagon River region and Lake Superior. Results from the assessments in the two previous years were approximately 30 lake sturgeon total, so numbers being captured are up significantly in 2007.

KBIC has been working in cooperation with the Michigan Department of Natural Resources (MIDNR), the US Fish and Wildlife Service's Fishery Resources Office and the Great Lakes Indian Fish and Wildlife Commission, in surveying tributary rivers that were stocked by the MIDNR.

According to Mensch, the MIDNR began its effort to restore the Ontonagon's lake sturgeon population through stocking in 1998, and, with the exception of 2003, 2005-2006, has annually stocked anywhere from 2,000 to 6,500 lake sturgeon into the Ontonagon system.

Stocked lake sturgeon came from eggs collected from the Sturgeon River population, and stocked fish were all marked with a coded wire tag (CWT). Those CWTs showed up widely in surveyed fish this fall, Mensch says, with 62 out of the 70 captured lake sturgeon sporting CWTs, indicating a likelihood of hatchery origin.

Lake sturgeon capture ID. (photo submitted)

Information from captured sturgeon show that the fish move quickly downstream after stocking and that most seem to move out of the river during the first year of stocking. A few of the captured sturgeon have been two-three years old.

The 2007 assessments marks the third year of the multi-agency lake sturgeon assessments in the Ontonagon River region. This fall KBIC crew set gillnets within one mile of the river mouth, implementing three of four prescribed sets. GLIFWC was on deck to assist with an October 22 survey set, but high winds and inclement fall weather prevented that set.

KBIC Natural Resources Technician Shawn Seppanen displays a captured lake sturgeon off of the mouth of the Ontonagon River. (photo submitted)

Each sturgeon captured during assessment was measured, weighed, checked for lamprey or other wounds, and tagged with Floy tags and Passive Integrated Transponder (PIT) tags before being returned to the system. The Floy tags, also known as noodle tags because they resemble a small noodle, are attached near the back dorsal fin and give each fish a visible ID number; whereas the PIT tags are under the skin, or in the case of the lake sturgeon, under the scutes, and are not visible. Mensch says these tags should last the life of the fish and are read with a special reader similar to those used at the check-out counters of Wal Mart or at grocery stores. Again, they contain a unique number that identifies each individual fish. Mensch is also happy to report no lake sturgeon fatalities during the assessment work this season.

Information taken from this assessment work will be incorporated into a database begun in 2005. The expanding information base will be helpful in understanding and consequently helping name' restore its rightful place as one of the oldest of Lake Superior's citizenry.

The story behind "NIBI WABO," a women's water song

Editor's note: *In the fall edition,* ***Mazina'igan*** *ran the words and music to the Women's Water Song, which was sung at Sandy Lake last summer; however two of the words were misplaced in the text of the song. In preparing to make this correction more information about the Water Song, its origin and intent, were provided. The following text is a copy of that information, intended for women worldwide.*

It is important to be aware that, while the originators of the Water Song want it to be shared, but ask that it not be shared through the internet. ***Mazina'igan*** *hopes this request will be respected.*

At the end of February 2002 in the time of the Bear Moon, a ceremony was held in the backwoods of Kitigan-zibi reserve.Thirteen grandmothers participated in this ceremony, among them Algonquin and mixed blood women. Between the thirteen, the four races of women were represented. This ceremony had not been done in one hundred and fifty years. This was the time before the hand drum had come to the woman, the time when we still played the sticks. The grandmother who brought this vision to completion underwent a spiritual process that lasted four years from the time the vision was presented to her until the time of the actual ceremony. She has chosen to remain anonymous, and the other twelve women present are the guardians of the ceremony that we have been asked to pass on to the women of the world.

The ceremony includes a song, a ceremonial staff and led to a series of related teachings that we have received since then. These are not yet ready to be shared. It is time for the women to assume their responsibilities. We are the keepers of the water because we are more in tune with the natural cycles. Traditionally, in most cultures, the women are considered the keepers of the water. We have the connection and the ways and the ceremonies to bless and purify our waters as well as the waters that make up 70% of our physical bodies. We are living in the days of the great purification of the Earth. We have the choice to sit by helplessly watching the events take place or to be active participants in easing her passage. It can be as simple as singing a song at a river bank, putting our hands over a bowl of water for our children's consumption, giving thanks and blessing the water that goes into our morning coffee, or picking up the garbage at the beach.

We would like to share this song with the women of the world. Teach it to your daughters, granddaughters, sisters, aunties, mothers, and grandmothers. Teach it to all the women you know. Go and sing at lakes and rivers, wells and oceans and at the kitchen sink.

Mother Earth is bleeding. It is our turn now to help Her, who has given us so much through this crisis. Let's not wait to be asked. Let's not wait to be forced. Let's do it now, together.

The ceremony is a simple one. Women in a circle playing birch bark clapper sticks, is what was shown. The sticks are about eight inches long and about two inches wide. That is all. In areas that have no birch trees, seek out the branches of the trees that are traditionally connected to women or the water and use these. Of course, it is needed much and at any time of the year, but the grandmothers have asked that the water ceremony be done particularly at the thirteenth moon which is the moon at the end of February/March. They have also taught us that all women's ceremonies are best done at the new moon. It was also asked that the notes are not changed. Period. It has been asked also that only women can sing this song because of the connection between our menstrual blood and the blood of the Earth, which is the water.

It is to be sung one time for each of the seven directions—east, south, west, north, above, below, and within. It can be played on a hand drum, but in its original form it was played on the white birch sticks. I have included here the notes of the song according to the scale.

In February 2003 the ceremony was held again for the second time, and this time there were two or three thousand women (that we know of) around the world who were singing over the water ways of Mother Earth at the same hour.

A sacred fire was held in Maniwaki (Kitigan-zibi) Quèbec for these women. The countries included the United States, Canada, Guatemala, Brazil, Columbia, Germany, Holland, Japan, Italy, Senegal, New Zealand, Jamaica, and Mexico to name only a few. It is the music that purifies the water. The words were given in Algonquin/Ojibwa to the women in this community to pass on.

It is always best to preserve sacred things in their original form. According to the original vision, the thirteen grandmothers stood on the ice in order to absorb the teachings from the water under their feet. It was asked to bring the ceremony in for four straight years in the land where it was received so as to set it in time once again. On March 10, 2005 the fourth ceremony was held. All was done as shown. Thirteen women sang on the ice and an Algonquin elder sat in the center of the circle holding the Grandmother Staff and a Bald Eagle that was donated for the ceremony. That night women on every continent of the Earth sang in unison. We were about nine thousand or more. The feathers of the Eagle were distributed to spiritual elders and healers around the world.

The next Nibi Wabo ceremony [should have been held] on the thirteenth new moon counting from the tenth of March 2005. It always falls between the middle of February and the middle of March. This is the moon that opens up the door when the ancient Grandmothers are most easily accessed. (This door can also be accessed by all women when they are on their moontime.) And at this time (the thirteenth moon), it has been asked to have the full ceremonials, whereever possible. This includes a sacred fire lit right before sunset which burns for thirteen hours during the night. We include the men as the firekeepers, but if no men are available, women firekeepers are chosen. The women go out after dark onto the ice to bless the water and return for a traditional feast that ends with a giveaway ceremony. It is an opportunity for the women to spend the night together so they can share knowledge and teachings with each other.

This thirteenth door is actually open for the four days from the time of the last sliver of moon until the first sliver of rising appears. Hopefully one day we will be able to spend this full four days together with the women.

Remember that this is a water ceremony, a woman's ceremony. It is fluid. There is no need for rigid 'protocol.' There are no set 'rules' as to how it should be done apart from the Grandmothers' requests. Every woman will add her own touch, her own wave or ripple. The water song can be done at each new moon or even every day to bless our water. It can also be done on each other, over our food and our animals—anywhere water is present.

The old thirteen moon calendars are also returning. Many women (and men) are having visions. Other water ceremonies are coming back, and new technologies coming through as we realize that in a very short time there may be no more drinking water for the next generations unless we act NOW.

The elders tell us that if we don't act now we may not have any clean water left within ten years. They tell us that it may already be too late unless women everywhere make the water their first priority. Pass it on.

In the Algonquin way, the spring, when the first water starts to run, is the time that the women offer tobacco ties to the water in thanks. In the summer, it is the time for the Rain Dances and the ceremonies of renewal. In the late fall in the time when the Aurora Borealis (northern lights) come out in the north, water ceremonies are also done. And in the cold of winter, the Nibi Wabo ceremony to honor the Grandmothers is held. It is good. It is necessary now more than ever. The elders tell us that if things continue the way they are, we may not have any clean water left within 10 years. They tell us that it may already be too late. Unless women everywhere make the water their first priority. Now. Pass it on.

Meegwetch!

NIBI WABO

SoSo SoMi SoSoMi
NIBI WABO ENDAYAN

THE WATER THAT I CARRY
IS THE BLOOD OF MOTHER EARTH

MiMi MiDO MiMi MiDo
AKI MISKWI NIBI WABO

HAYAH HAYAH HAYAH HEY
HAYAH HAYAH HAYAH HO

An icy pile-up on Lake Superior's south shore. The health of the big lake, Gichigami, is a focus of concern for many tribal and non-tribal individuals as well as governmental bodies today and, at the tribal level, are addressed both scientifically and spiritually. (GLIFWC photo)

GLRC annual meeting cont.

(Continued from page 8)

Committee (BEC) meeting in Toronto. The meeting between representatives of the United States and Canada included discussion to approve the Agreement Review Committee's report to the BEC concerning the Great Lakes Water Quality Agreement (GLWQA) Review and comments received on the draft.

The BEC approved the GLWQA Review report through consensus and directed the report to the two governments respectively.

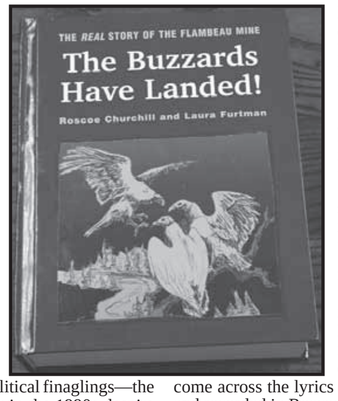
The basis of the review is to consider whether updates or revisions are necessary to the GLWQA. The report and additional information is available on the internet at *www.binational.net* in either the English or French language.

If you have any questions or concerns related to the Great Lakes Regional Collaboration, the Great Lakes Water Quality Agreement, the Great Lakes Compact, or other Great Lakes issues, contact your federal, state, or local legislative, governmental, or resource agency leaders. Information concerning the Great Lakes Compact can be found at *www.cglg.org*.

Mi'iw!

The Buzzards Have Landed!

The *Real* Story of the Flambeau Mine



The Buzzards Have Landed!—The *Real* Story of the Flambeau Mine is Roscoe Churchill's personal account of how a British mining company muscled its way into a small rural community in northern Wisconsin to build a gold, copper and silver mine on the banks of the Flambeau River.

Roscoe and his wife Evelyn, who are known in environmental circles as the "Grandparents of Wisconsin's Anti-Mining Movement," were in the middle of the battle from the beginning to the end. And in his trademark style, Roscoe combines factual information with color to tell the real story of what happened.

The Buzzards Have Landed! is filled with human drama but also touches on numerous areas of academic endeavor such as environmental studies, sociology, Native American studies, economics, environmental law and political science. It is a comprehensive case study of how a multinational corporation paved the way for its invasive project by undercutting local democracy and exerting undue influence on state regulations governing environmental protection and taxation.

The book is replete with examples of dirty tricks and political finaglings—the kinds of things that enabled the Flambeau Mine to be built in the 1990s despite significant local and tribal opposition. As Churchill states in the introduction to the book, "Not only is mining dirty, but so too the politics that are employed." And Roscoe would know. He served eight terms on his local county board during the controversial mining years and was a member of the committee that evaluated the Flambeau Mine proposal.

Roscoe was also appointed by Wisconsin's governor to serve on a statewide task force on mining in the late 1980s and witnessed the crafting of Wisconsin's mining laws. As a result, Roscoe's story is more than just opinion. Everything he says in the book is backed by factual information—town and county board resolutions, legal briefs, mining company reports, financial spreadsheets, newspaper articles and correspondence between mining company attorneys, state legislators, local officials, regulators within the Wisconsin Department of Natural Resources and representatives of the Great Lakes Indian Fish & Wildlife Commission. All of these documents are available for the reader to view on a CD-ROM that accompanies the book.

Besides being of general interest, this is certain to be an invaluable resource for instructors preparing lectures and presentations, students doing research papers and citizens preparing testimony for public hearings.

The Buzzards Have Landed! is full of facts, photographs, emotion and intrigue as the reader travels with Roscoe and Evelyn from their farm located close to the Flambeau Mine to heated town board meetings, county board meetings and even the State Capitol for a private meeting with Governor Tommy Thompson.

One minute you find Roscoe at a public hearing, referring to the members of the state's Natural Resources Board as a "bunch of neutered cats" and the next you are reading Evelyn's thoughtful analysis of the shortcomings of Wisconsin's mining laws. A few chapters later you come across the lyrics to "The Ballad of Roscoe Churchill," a folk song written and recorded in Roscoe's honor, and next you are faced with a shocking series of graphs and charts that document present-day pollution problems at the Flambeau Mine site.

The Buzzards Have Landed! combines human interest with hard facts about the Flambeau Mine and also serves as a primer on Wisconsin's weak mining laws. But perhaps most important, the narrative is filled with information that can be used by other communities faced with the prospect of hard rock mining or other corporate assaults. As Roscoe writes:

If and when the buzzards land in your town, I want you to have a "one-up" on the kinds of dirty tricks they play and the obstacles you will need to overcome. Most of all I want to encourage you to fight for your land and clean water, so they aren't snatched away from you and future generations. I trust there will always be a core group of people who will put the environment above corporate greed. This book is for you.

THE BUZZARDS HAVE LANDED! The *Real* Story of the Flambeau Mine
Written by Roscoe Churchill and Laura Furtman

- Hard cover, 1,285 pages, includes numerous photos, newspaper clippings and references to Wisconsin's mining laws.
- Detailed index
- CD-ROM, includes mining company reports, documents drafted by the Wisconsin DNR, legal briefs, financial spreadsheets, reports written by Evelyn Churchill and correspondence between mining company attorneys, state legislators, local officials, regulators within the WDNR, representatives of GLIFWC and private citizens.

The book is published by Deer Tail Press, Webster, WI
(www.deertailpress.com)

Prestigious Native author and poet Sherman Alexie recently visited the 1842 ceded territories, making an appearance at the UW-Superior campus in early October. The event is part of a year-long series entitled "Building Communities of Respect,"which is funded through a UW innovation grant, UW Cooperative Extension, Sawyer County Extension and Lac Courte Oreilles Ojibwa Community College.

Mille Lacs' Little Otter Drum opened the program which featured Alexie's presentation "Without Reservations: An Urban Indian's Comic, Poetic and Highly Irreverent Look at the World."

Pictured with Alexie are UW-Superior students; front row from the left: middle school student Mariah Cooper, UWS students LaTisha McRoy, Sara Thomsen, Lyndsie Marsh, Terra Pitre, Jessie Cooper, Mallorie Herrera, and Erika Runstrom. The boy in front is David Bacchus. Back Row from the left: UWS students David Bacchus, Author Sherman Alexie, Sam Maday, UWS staff member Marsha Francis, and student Jaime Runstrom. (photo submitted)

1836 Consent Decree

(Continued from page 9)

What Activities Can Take Place on State Forests?

State forests are available for the following harvesting activities:

* Collection of maple sugar and establishment of sugar bush
* Collection of firewood
* Collection of conifer boughs
* Collection of black ash, basswood and ironwood
* Collection of white birch bark
* Collection of wild berries, mushrooms, pine cones, nuts and fruits and medicines

What Other Uses of State Land Are Covered by the Consent Decree?

Camping
Tribal members may camp without payment of camping fees on *State forests*, if camping is done outside established campgrounds. Camping fees must be paid for use of established camp sites in a State Park or State Forest.

Boat Launches
Entry fees are waived for use of boat launches/ access sites on State land—when a tribal member is engaged in hunting, fishing, trapping, or gathering.

Entry Fees
Michigan State Park entry fees are waived for tribal members who are engaged in hunting, fishing, trapping or gathering. Camping fees are not waived.

Temporary Structures
Structures may be erected on State forest lands, subject to restrictions on materials and advance authorization.

Does the Consent Decree apply to gathering on National Forest lands?

No. Gathering on National Forest land continues to be governed by the Tribe's Off-Reservation Gathering Ordinance, which was developed in 1997 upon the signing of a Memorandum of Understanding with the U.S. Forest Service.

What If the Resource Changes Over Time?

The Consent Decree recognizes that natural resources are subject to change in quantity and quality due to many factors, and includes provisions on how regulations may also change in order to protect the resource base. In addition, the parties recognize that the Consent Decree may have to be modified due to a change in circumstances, and have created a process for doing so. Finally, the State and the Tribes recognize that they may disagree about how best to regulate the resource in the future, and will create a process for resolving their disputes.

Rep from 13 Indigenous Grandmothers Council shares concerns for the world's water at Northland College

By Sue Erickson, Staff Writer

Agnes Baker, chairwoman of the International Council of 13 Indigenous Grandmothers (Grandma Aggie), shared her belief in the power of women, water and prayer during a reception at the Sigurd Olson Environmental Institute. Pictured with her is Grandma Jenny Goslin, former Red Cliff tribal council member and elder. (SE)

Ashland, Wis.—Chairwoman of the International Council of 13 Indigenous Grandmothers, Taowhywee, Agnes Baker Pilgrim (also known as Grandma Aggie), recently visited Northland College and the Sigurd Olson Environmental Center, sharing her concern for the world's water, her vision of hope, and her warm smile. Traveling with her was Dennis Martinez, founder and chair of the Indigenous Peoples' Restoration Network.

As Grandma Aggie put it, together the two represent both the spiritual and the scientific perspective on the world's ecological problems and the impact on indigenous people worldwide.

Grandma Aggie, a Takelma Indian Elder, Confederated Tribes of Siletz, Oregon, shared her belief in the power of women, water and prayer during a reception at the Sigurd Olson Environmental Institute on September 26. "More and more women are standing up and making a big voice," she commented while explaining the Council's goal of encouraging connections between women worldwide. "Women have a lot of power when they come together, and they need to be lifted up in whatever walk of life they are in."

She emphasized her concern for the world's water, expressing a belief that water is a living being and needs to be talked to and prayed for everyday. "Water has life and gives life; it purifies our bodies, our joints. Without it we will die." Noting the warming trends of water everywhere, including concerns locally over Lake Superior's warm temperatures and low-levels, she said, "Water can hear. Tell it you care."

Formed in 2004 the 13 Indigenous Grandmothers Council has representatives from all over the world—the Arctic Circle, North, South and Central America, Africa and Asia. The Council formed during a convening in Tibet as a global alliance to work together on common goals and specific local issues.

During their stay in Ashland, Grandma Aggie and Martinez met with several classes at Northland College, sharing their knowledge and concerns and listening to those of students.

Below is a statement from the 13 Grandmothers relating their ideals and mission. More information is available at their website: *www.grandmotherscouncil.com*.

"WE ARE THIRTEEN INDIGENOUS GRANDMOTHERS who came together for the first time from October 11 through October 17, 2004, in Phoenicia, New York.

We gathered from the four directions in the land of the people of the Iroquois Confederacy. We come here from the Amazon rainforest, the Arctic circle of North America, the great forest of the American northwest, the vast plains of North America, the highlands of central America, the Black Hills of South Dakota, the mountains of Oaxaca, the desert of the American southwest, the mountains of Tibet and from the rainforest of Central America.

Affirming our relations with traditional medicine peoples and communities throughout the world, we have been brought together by a common vision to form a new global alliance.

We are the International Council of Thirteen Indigenous Grandmothers. We have united as one. Ours is an alliance of prayer, education and healing for our Mother Earth, all Her inhabitants, all the children and for the next seven generations to come.

We are deeply concerned with the unprecedented destruction of our Mother Earth, the contamination of our air, waters and soil, the atrocities of war, the global scourge of poverty, the threat of nuclear weapons and waste, the prevailing culture of materialism, the epidemics which threaten the health of the Earth's peoples, the exploitation of indigenous medicines, and with the destruction of indigenous ways of life.

We, the International Council of Thirteen Indigenous Grandmothers, believe that our ancestral ways of prayer, peacemaking and healing are vitally needed today. We come together to nurture, educate and train our children. We come together to uphold the practice of our ceremonies and affirm the right to use our plant medicines free of legal restriction. We come together to protect the lands where our peoples live and upon which our cultures depend, to safeguard the collective heritage of traditional medicines, and to defend the earth Herself. We believe that the teachings of our ancestors will light our way through an uncertain future.

We join with all those who honor the Creator, and to all who work and pray for our children, for world peace, and for the healing of our Mother Earth.

For all our relations."

The cost of invasive species

(Continued from page 7)

at (See Cornell University), arrived at an annual cost of nearly $120 billion for all invasive species in the United States. The authors of the Cornell study point out that if monetary values could be assigned to losses in biodiversity, ecosystem services, and aesthetics, the costs of invasive species would undoubtedly be several times higher.

What can be done?

Once invasive species have escaped and become widely established, controlling them is often impossible. And even controlling and eradicating small populations can be difficult and expensive. The best strategy by far is to prevent the introduction of invasive plants, animals, and other organisms in the first place. The shipping industry can adopt new technologies that greatly lower the chances of aquatic animals being inadvertently transported from overseas. Boaters can help by cleaning off boats, trailers, and other equipment before going to a new lake or river. Gardeners and the horticultural industry can switch to native and noninvasive introduced plants, many of which are just as attractive and easy to grow as some aggressive introduced species.

Soil is a major carrier of seeds, earthworms, and other small invasives that can cause a lot of damage. Cleaning off vehicles and heavy equipment and avoiding shipping soil with potted plants, etc. can greatly help in preventing the spread of destructive plants, invertebrates and diseases. Even simple things like knocking the mud off boots before heading for the woods can avoid planting the seeds of a big problem. By doing their part, everyone can help stop the spread of invasive species!

GLIFWC aquatic invasives survey crew on an all-out boat-cleaning effort at a car wash. You can do just as well by removing vegetation from your boat, trailer, and equipment, and rinsing everything with a garden hose. (GLIFWC photo)

For more information

Much of the information on the economic impacts non-native, invasive species is from:

Pimentel, D., R. Zuniga, and D. Monison. 2005. Update on the environmental and economic costs associated with alien-invasive species in the United States. Ecological Economics 52 (3): 273-288.

To read about the Wisconsin chestnut stand and efforts to save it, see the August 2002 Wisconsin Natural Resources Magazine article, "Chestnut's Last Stand," at *www.wnrmag.com/stories/2002/aug02/chest.htm#tiny*. The Vermont-based American Chestnut Foundation has an extensive, long-term breeding program aimed at producing blight-resistant chestnuts that can be reintroduced to the wild visit *www.acf.org/*. The Canadian Chestnut Council also has a great website *www.uoguelph.ca/%7Echestnut/*.

And don't miss the interesting historical narrative on the impact of the chestnut blight on wildlife and humans, at *http://chestnut.cas.psu.edu/Meetings/NPS/proceedings/11-Don%20Davis%20manuscript.pdf*.

To see the extent of the emerald ash borer's spread as of the end of 2006, see the Cooperative Emerald Ash Borer Project's map, at *www.emeraldashborer.info/files/MultiState_EABpos.pdf* has additional up-to-date information on this insect.

The Wisconsin DNR has two online fact sheets on feral pigs: "Feral Pig" at *http://dnr.wi.gov/org/land/wildlife/publ/wlnotebook/pig.htm*, and "Feral Pig Hunting Information" at *http://dnr.wi.gov/org/land/wildlife/HUNT/Pig/Pig_Hunting.htm.*

New from GLIFWC

Gidakiiminaan (Our Earth) atlas

The Gidakiiminaan atlas is an 80-page atlas that identifies the Anishinaabe (Ojibwe) names of lakes, rivers, islands, bays, and other locations in northern Wisconsin, the Upper Peninsula of Michigan, and east central Minnesota. Some of these are the pre-European names.

Included in the atlas is a translation of the original name and a table that identifies the modern location name with the Anishinaabe name—$12.00.

Gidakiiminaan (Our Earth) CD

The Gidakiiminaan CD is an interactive CD that identifies the Anishinaabe (Ojibwe) name of lakes, river, islands, bays, and other locations within northern Wisconsin, the Upper Peninsula of Michigan, and east central Minnesota, some of these are the pre-European names.

The CD incorporates voice links to the names so the user will be able to hear how they are pronounced and provides a translation of the Anishinaabe names—$12.00.

Indinawemaaganidog (All My Relations) CD

This interactive Anishinaabe language CD identifies the names of animals, birds, fish, reptiles, insects, and plants. The CD utilizes voice links to allow the user to hear the name while viewing photographs of the species.

In addition, traditional knowledge is passed along through stories in the Anishinaabe language with partial translation.

This is a resource that both beginning and advanced language students can use to increase their knowledge of Anishinaabemowin—$12.00.

Special purchase: Gidakiiminaan atlas & CD $18.00

No shipping or handling charges will be applied to orders shipped within the United States. Clip and mail the order form below.

Name:_____

Company/Organization:_____

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email:_____ fax #: (_____)_____

Item	Unit Price	Quantity	Total
Gidakiiminaan (Our Earth) atlas	$12.00	_____	_____
Gidakiiminaan CD	$12.00	_____	_____
Gidakiiminaan atlas & CD **combination**	$18.00	_____	_____
Indinawemaaganidog (All My Relations) *Anishinaabe language CD*	$12.00	_____	_____
The Sandy Lake Tragedy DVD	$12.00	_____	_____
Ojibwe Journeys: Treaties, Sandy Lake & the Waabanong Run DVD/Book **combination**	$16.00	_____	_____
	$25.00	_____	_____
		Merchandise Total	$_____

Make checks payable to:
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P.O. Box 9, Odanah, WI 54861 email *pio@glifwc.org;* phone (715) 685-2150
or visit our website *www.glifwc.org*

GLIFWC accepts purchase orders, personal checks, cashiers checks and money orders. We do not charge shipping or handling fees for orders shipped within the US. Materials and shipping charges are to be paid in advance for orders shipped out of the US. All orders must be paid in US currency.

The Sandy Lake Tragedy DVD

A critical event in Ojibwe Indian history, the Sandy Lake Tragedy solidified the resolve of Lake Superior bands to live forever in their homelands and helped pave the way for establishing tribal reservations.

The 28-minute video by GLIFWC and award winning filmmaker Lorraine Norrgard traces the illegal government scheme to trap some 5,000 Ojibwe men, women and children at Sandy Lake, Minnesota over the winter of 1850-51. Approximately 400 Ojibwe died of disease, starvation and exposure at Sandy Lake and on the frozen, bitter trails homeward.

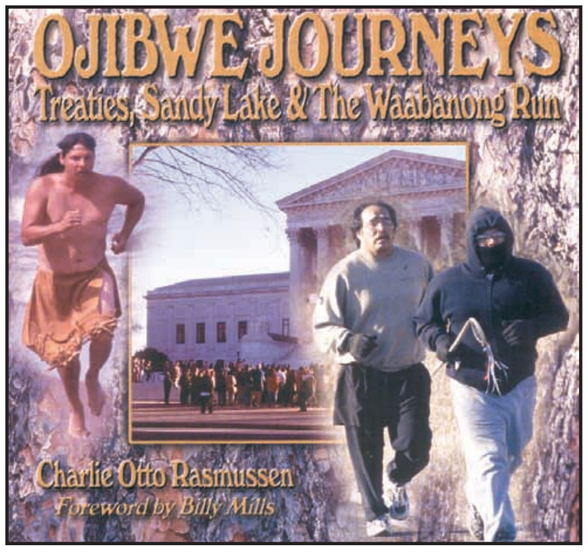
Supported by white residents, businessmen and state officials across Wisconsin, the Ojibwe fought removal to lands west of Mississippi River through the early 1850s. Chief Buffalo's heroic journey from Madeline Island to Washington DC in 1852 plays a pivotal role in the narrative. Beginning with early Ojibwe history, the story also highlights the recent establishment of the Mikwendaagoziwag (They Are Remembered) Memorial at Sandy Lake, honoring those tribal ancestors who suffered, died and ultimately secured the reservations many Ojibwe still call home—$12.00.

DVD Companion Book
Ojibwe Journeys: Treaties, Sandy Lake & the Waabanong Run

Ojibwe Journeys (2003) provides the foundation of the Sandy Lake Tragedy DVD and further explores the impact of traditional customs on Ojibwe history from the early nineteenth century to the present day. Long distance running, spiritual living and a growing legal prowess helped the Ojibwe counter the hostile designs of formidable governments and anti-Indian groups.

The book includes rare historical photos, color images and maps, and an intimate look into the lives of some Ojibwe people today—$16.00.

Purchase Sandy Lake DVD & book together for only $25.00



Alert: New purchasing policy to become effective

As of January 1, 2008 GLIFWC will be requiring prepayment or a purchase order prior to mailing out requested materials.

Out-of-country orders: Shipping costs will also be included in all out-of-country orders as of January 1 and only US currency is accepted.

Involving the youth

(Continued from page 2)

Programs like the WLCO Science News camp (see article on page 4) that Patty Loew coordinated at the LCO Community College this past summer also will help get our youth educated and involved both in the sciences and the media.

I had the opportunity to speak to many LCO youth about what GLIFWC does and about some of the critical issues the LCO Tribe has faced, how we dealt with them and what we will have to deal with in the future. Our next conservation director could come from this student group!

We have come along way, and there is still a long way to go! We will continue our emphasis on youth education, and we WILL ensure our resources are here to sustain our 7th generation. That is our goal, and we will accomplish it.

Miigwech!

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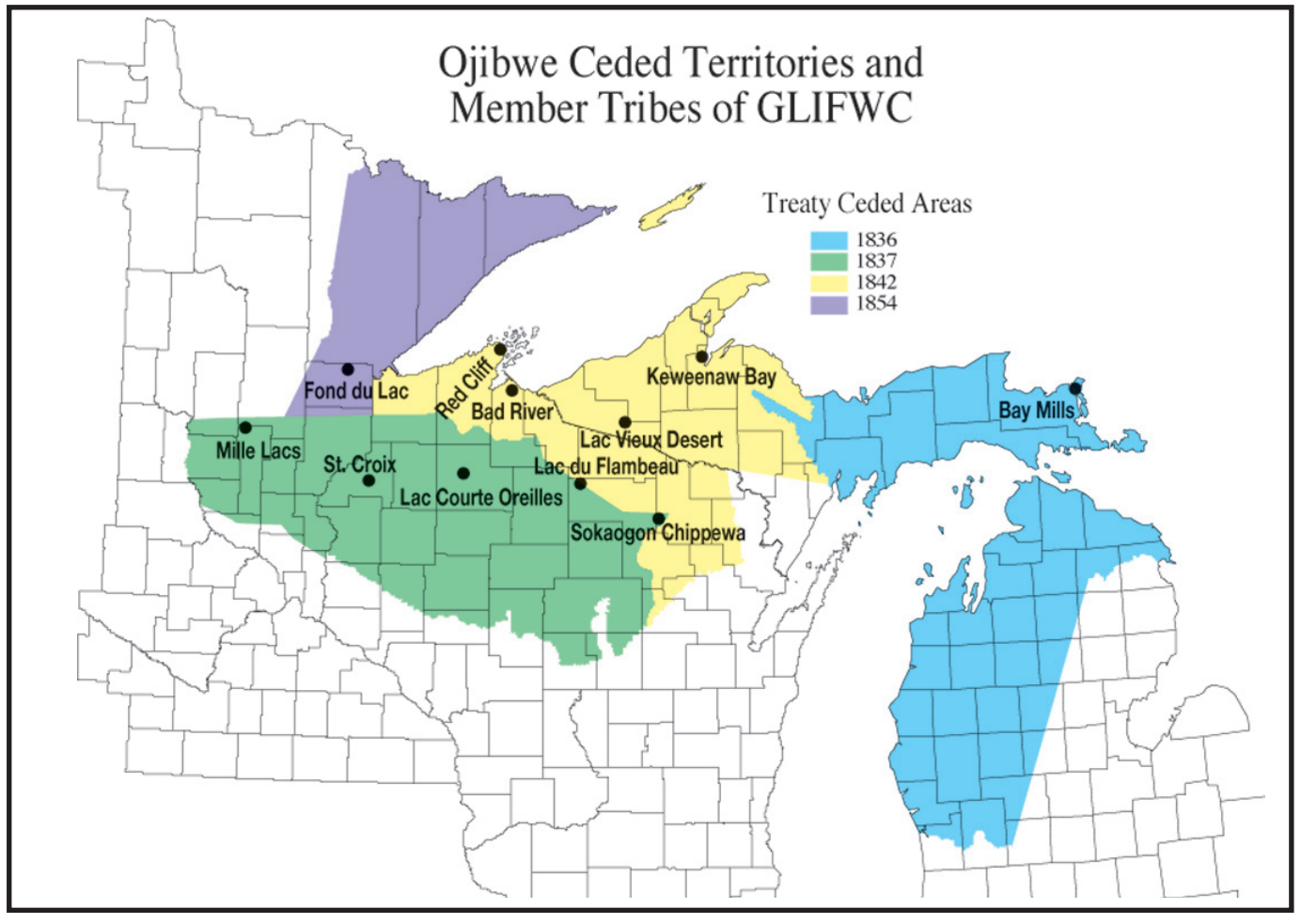
MAZINA'IGAN reserves the right to edit any letters or materials contributed for publication as well as the right to refuse to print submissions at the discretion of the editor.

Letters to the editor and guest editorials are welcomed by **MAZINA'IGAN**. We like to hear from our readership. The right to edit or refuse to print, however, is maintained. All letters to the editor should be within a 300 word limit.

Letters to the editor or submitted editorials do not necessarily reflect the opinion of GLIFWC.

For more information see our website at:www.glifwc.



Mazina'igan

A Chronicle of the Lake Superior Ojibwe