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State exceeds walleye quota in Mille Lacs Lake

By Sue Erickson
Staff Writer

Mille Lacs, Minn.—Mille Lacs Commissioner of Natural Resources Curt Kalk criticized the Minnesota Department of Natural Resources' (MDNR) management of the Mille Lacs Lake walleye fishery in a July 19 letter to Ronald Payer, director of MDNR's Division of Fisheries.

Kalk wrote the letter after conferring with other 1837 Treaty tribes in a conference call. Those tribes shared the Mille Lacs Band's concern that state anglers have already exceeded the state's 2002 share of the harvestable surplus of walleye, and that the MDNR may not be planning to make any adjustments to address the overage.

Based on information gleaned from media reports, Kalk noted that MDNR's creel surveys through June 30 indicate the state had already exceeded its 300,000-pound quota for the year by 43,000 pounds at that time. Projecting this overage to the year's end, tribal

biologists determined that the state's final walleye mortality figure could exceed 440,000 pounds, nearly 50% over the state's share of the harvestable surplus.

"This situation is intolerable," Kalk wrote. "We cannot conceive that DNR would acquiesce for a moment in Band management if the Bands kept their fisheries open with no modification of their regulations after exceeding their share of the harvestable surplus."

Kalk reminded the MDNR that both the state and the bands were ordered by the Court to comply with the protocols to which they agreed during the treaty litigation. Protocol 5 states that the parties agreed to manage their respective fisheries to stay within their shares of annual harvestable surpluses.

Referring to an MDNR proposed three-year, walleye harvest plan for Mille Lacs Lake, Kalk pointed to the plan's failure to "address extraordinary in-season events and overages, such as the near-record setting angler pressure on the Lake this year and the early in-season overage."



GLIFWC and MDNR staff creel tribal harvest at a Mille Lacs Lake landing. Tribal harvest figures are tabulated daily to prevent overages.

Kalk acknowledged the difficulties that the MDNR faces in managing the state fishery. Nevertheless, he noted that its primary responsibility is to protect the resource. "Knowingly managing a fishery to harvest substantial numbers of fish in excess of the harvestable surplus cannot be justified," he wrote.

While Kalk has not received a writ-

ten response to his letter as of press time, the issue of state overages was brought to the table during a July 25 meeting of the Minnesota 1837 Ceded Territory Fisheries Committee at the Black Bear Casino, Cloquet, Minnesota. There, MDNR representatives reiterated the MDNR's intent to follow its proposed three-year harvest plan.

Tribes plan for chronic wasting disease surveillance in ceded territories

By Jonathan Gilbert,
GLIFWC Wildlife Biologist

Odanah, Wis.—As the autumn approaches people start thinking about hunting, particularly deer hunting. In

2002, this people may be worried about this important cultural activity. Chronic wasting disease (CWD), a fatal neurologic disease of elk and deer, has been found in Wisconsin. Hunters are asking many questions. "Do deer in my hunting area have this disease?" "How

do I know if they are sick?" "Should I continue to hunt or to eat the deer I harvest?" These are important questions, but they are difficult to answer because most of the answers are unknown. The staff at the Great Lakes Indian Fish & Wildlife Commission (GLIFWC) is formulating plans to begin to answer some of these questions from a tribal perspective.

The Wisconsin Department of Natural Resources (WDNR) plans on testing approximately 500 deer from each county in the state. Some of those deer tested will come from tribal hunters. It is important for the tribes to participate in this activity because many tribal hunters are concerned whether they are harvesting deer from infected deer populations. In addition, some tribes are interested in testing deer from their on-reservation populations, deer which the WDNR would not normally test under their current testing program.

Current plans being developed at GLIFWC call for each tribe to submit 100 deer for testing (an additional 100 deer may come from some reservations). It is important to note that this testing program is designed to detect the presence of CWD in wild deer populations. The testing program is not designed to act as a food safety test. That

is, there is no proof that consuming wild venison poses a health threat, and the testing which is being contemplated is not designed to guarantee that individual wild deer are free from the disease.

How can hunters participate?

In order to test deer for CWD we must obtain tissue samples from two places in the deer head; a sample of the brain at the brain stem (where the spinal cord and brain meet) and a couple of lymph nodes along the neck, below the jaw.

We will be asking hunters to voluntarily submit the heads of their harvested deer when the animal is being registered. We will collect the heads, tag them, complete a data form, and store the head in a freezer for later pick-up. Heads will be collected frequently from registration stations because prolonged freezing can damage tissue samples. Heads will be transported to a processing center, and the required tissue samples will be removed by trained personnel.

We are asking for cooperation from tribal hunters. We would like to get (See Handle deer safely, page 4)



In order to test deer for CWD, GLIFWC will be asking treaty hunters to voluntarily submit the heads of their harvested deer when the animal is being registered. (Photo by Charlie Otto Rasmussen)

Precautions for handling and processing deer

Editor's Note: The following is reprinted from the Wisconsin Department of Agriculture, Trade and Consumer Protection, Food Safety Division.

General precautions

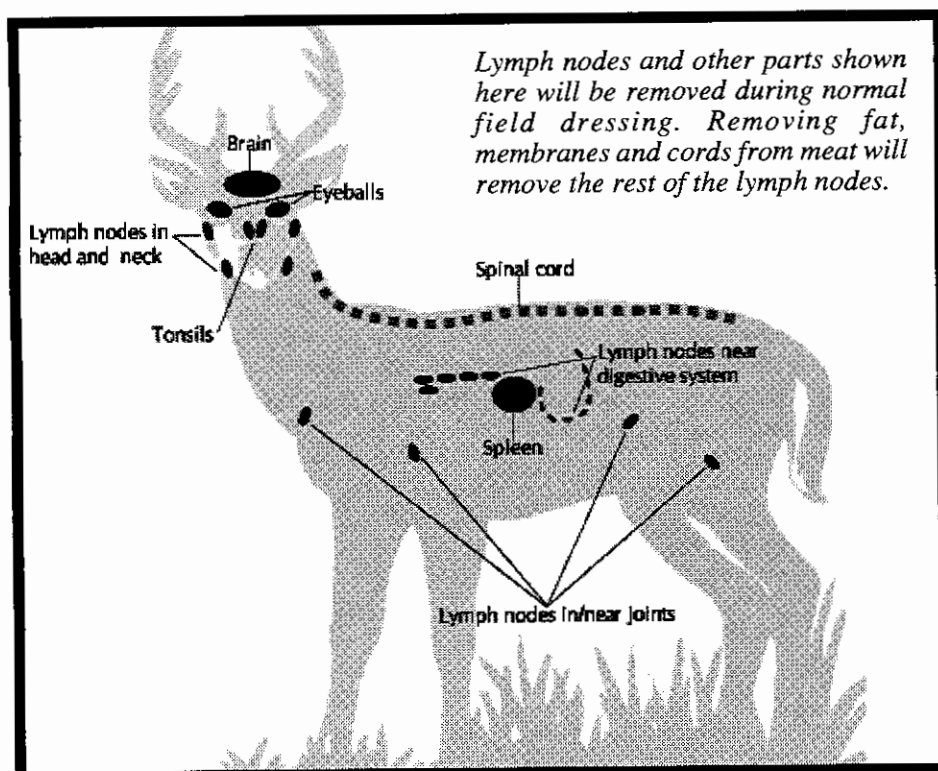
- ✓ Do not eat the eyes, brain, spinal cord, spleen, tonsils or lymph nodes of any deer.
- ✓ Do not eat any part of a deer that appears sick.
- ✓ If your deer is sampled for CWD testing, wait for the test results before eating the meat.

Field dressing

- ✓ Wear rubber or latex gloves.
- ✓ Minimize contact with the brain, spinal cord, spleen and lymph nodes (lumps of tissue next to organs or in fat and membranes) as you work.
- ✓ Do not use household knives or utensils.
- ✓ Remove all internal organs.
- ✓ Clean knives and equipment of residue and disinfect with a 50/50 solution of household chlorine bleach and water. Wipe down counters and let them dry; soak knives for one hour.

Cutting and processing

- ✓ Wear rubber or latex gloves.
- ✓ Minimize handling brain or spinal tissues. If removing antlers, use a saw designated for that purpose only, and dispose of the blade.
- ✓ Do not cut through the spinal column except to remove the head. Use a knife designated only for this purpose.
- ✓ Bone out the meat from the deer and remove all fat and connective tissue (the web-like membranes attached to the meat). This will also remove lymph nodes.
- ✓ Dispose of hide, brain and spinal cord, eyes, spleen, tonsils, bones, and head in a landfill or by other means available in your area.
- ✓ Thoroughly clean and sanitize equipment and work areas with bleach water after processing.
- ✓ If processing deer from the CWD management or eradication zones, keep meat and trimmings from each deer separate.



On the cover

It's ricing time. The traditional harvest of manoomin (wild rice) in northern lakes and riverways continues to be important to contemporary Ojibwe people. The harvest is only the beginning of a process which takes the rice from the water to the dinner table. (Photos by GLIFWC staff.)

What parts can I use?

There are some parts of the deer you should never eat, even if the animal looks healthy. These parts are: brain, eyeballs, spinal cord, spleen and lymph nodes. They are mostly nervous system tissues, where prions concentrate. Prions, which cause CWD, have not been found in muscle tissue (meat).

You can easily find the brain, eyeballs, and spinal cord. The spleen is an internal organ in the animal's midsection. Lymph nodes are lumps or knobs of tissue. Some are next to internal organs. Others are embedded in fat and membranes attached to muscles.

You don't need to know exactly where the spleen and lymph nodes are, because normal field dressing and trimming fat from meat will remove them. We've shown some main locations of lymph nodes in the diagram below to the left.

Is chronic wasting disease killing humans?

Are treaty rights affected by "mad deer" disease?

By Nick Vander Puy, For Mazina'igan

For hunters wanting to bring home healthy meat for their families this season there is contradictory information. A recent front page article in the *Milwaukee Journal Sentinel* and Duluth papers looked at the suspicious deaths of three northwestern Wisconsin hunters who shared western elk and Wisconsin deer feasts at their cabin near Brule. All three ended up dying from a rare brain disease.

Denis Maki, a professor of infectious disease at the UW Madison, says the odds of this happening are so rare it points towards a common source—infected meat. Researchers plan on looking closely at this case and others to see whether it shows chronic wasting disease (CWD) in deer and elk is killing humans.

An investigative journalist, John Stauber, author of "Mad Cow USA" and "Toxic Sludge is Good for You," thinks CWD is killing humans. He's studied the impact of mad cow disease (a related disease to CWD) in Britain. For years the government denied the problem, but in 1996, finally admitted it. About 130 people are now dead or dying there from mad cow disease with the numbers doubling every three years.

So far, according to the World Health Organization (WHO), there is no scientific evidence that CWD can infect humans. But the group also warns against eating any animal infected with CWD. Since animals may not show symptoms (losing weight and acting crazy) for years and a quick test isn't available, this information isn't very helpful.

For cutting up the animal the State of Wisconsin tells us to use plastic gloves, sterilized tools, and to bone out the meat with a knife. The state also warns against handling and eating the brains, eyeballs, spinal column, and lymph nodes. After looking at the diagram, just where the lymph nodes are located on an animal is unclear.

What about brain tanning deer hide?

Sandy Lyon talks about her father Skip Shireman hunting near Spooner. Skip was a rigorous Phy Ed teacher at the local middle school who hunted every year. He'd bring home the deer meat that Sandy's mom, SJ, would help cut up.

Skip would give the hide to Sandy. Sandy would take the hide to her friend Kathy Begay, an LCO tribal member. Kathy Begay would brain tan the hide in the traditional manner. She'd tell Sandy to scoop out the brains to help make the raw hide soft and pliable. Kathy Begay sewed moccasins for Sandy's babies.

Long before there were clothing stores, on Turtle Island, the North American continent, the people clothed themselves in the hide of waawaashkeshi. Later, "the buckskinners" did the same. It keeps the body warm and keeps the biting bugs off. It provides the outfits traditional dancers wear. It is used to make moccasins to walk on to the spirit world.

Food, clothing and shelter are the three things that humans need, physically to live. This deer disease appears to affect at least two of those basic needs.

What impact does this rare brain disease have on treaty hunting rights? Earlier this summer, Tom Maulson from the Voigt Intertribal Task Force, called upon the State of Wisconsin to test more deer. Maulson said, "It's an Indian issue. It's a treaty rights issue. We need to find out where this deer sickness came from; how it got here; what impact it will have."

The State plans to test five hundred deer per county during the state's fall archery and rifle seasons, but the results won't be released for at least six months. The tribal hunt starts in early September. "I think we have to take a look at what we're doing to these animals, chasing them down with helicopters in the Mt. Horeb area, putting them behind fences. To me as an Indian person it's no different than than a hundred and fifty years ago when they put us on reservations."

He adds, "There's big changes going on in the woods. We need to really put our ear to the ground, to listen to Mother Nature, what's happening out there, because if we start to lose these animals, what's next?"

(Nick Vander Puy is senior producer for the Superior Broadcast Network (SBN). SBN stories can be heard on public radio stations WOJB and WXPB.)

Walleye population estimates generated from GLIFWC spring 2002 surveys

Odanah, Wis.—Great Lakes Indian Fish & Wildlife Commission (GLIFWC) inland fisheries staff have been hard at work analyzing data collected from this past spring's surveying of walleye populations within the ceded territory.

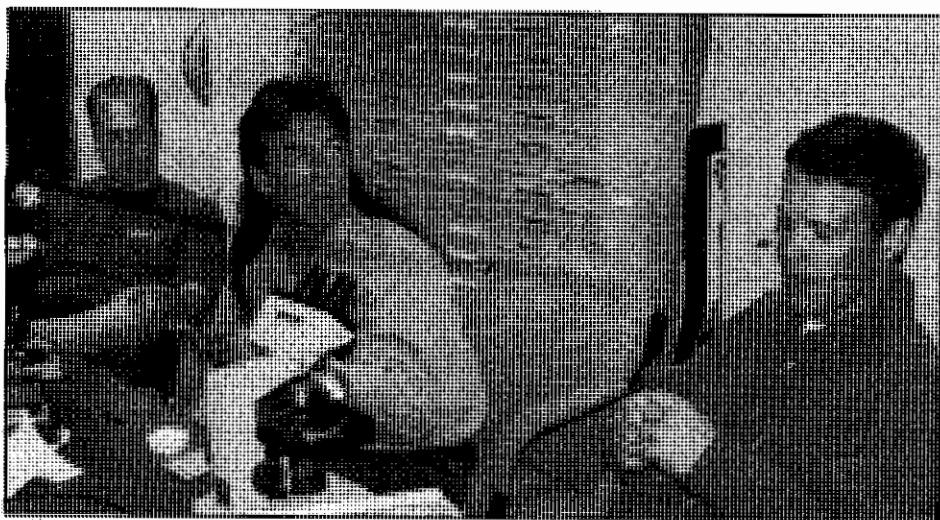
Adult walleye population estimates have been generated for sixteen lakes, including Parent (Baraga County), in Michigan and the following Wisconsin lakes: Siskiwit (Bayfield County), Butternut, Jungle, Lily (Forest County) Bearskin, Tomahawk, Squirrel (Oneida County), Nelson (Sawyer County), Annabelle, Kentuck, North Twin, South Twin, Sherman, Squaw (Vilas County), Bass-Patterson (Washburn County).

Specific information on the Wisconsin survey lakes will be released once the population estimates have been reviewed and discussed by GLIFWC and Wisconsin Department of Natural Resources (WDNR) biologists at the upcoming August 2002 Technical Working Group (TWG) which will be held at the new WDNR office in Ashland, Wisconsin.

Preliminary information indicates that population densities within those lakes studied ranged from 1.6 to 15.5 adult walleye per acre. These lakes included both stocked lakes and those with walleye populations maintained primarily by natural reproduction. Lakes with good natural walleye reproduction typically have higher densities of walleye than stocked lakes do.

As the spring adult walleye population estimates are being processed, GLIFWC inland fisheries staff are also beginning to identify lakes and develop a schedule for fall 2002 walleye recruitment surveys.

Initial GLIFWC and WDNR fall survey plans will be exchanged and discussed at the August meeting. GLIFWC plans to conduct these walleye recruitment surveys on at least 150 ceded territory lakes this fall, including those where adult walleye population estimates were completed this past spring. For GLIFWC survey crews, the fall walleye recruitment survey season normally begins in early September and is completed by the end of October.



All the way from Lake of the Woods, Ontario, guests from the Anishinaabeg Kabapikotawanag Resource Council (AKRC) review procedures for aging fish with GLIFWC's biologists. Above, to the left, Nick Milroy, GLIFWC inland biologist chats with Bill Girard, AKRC fisheries technician and Ryan Haines, AKRC fisheries coordinator. (Photo by Phil Doepke)

Canadian AKRC visits GLIFWC

Odanah, Wis.—Two members of the Anishinaabeg of Kabapikotawanag Resource Council (AKRC) Fisheries Division, Ryan Haines, fisheries coordinator, and Bill Girard, fisheries technician, visited the Odanah office of the Great Lakes Indian Fish & Wildlife Commission (GLIFWC) during the week of July 15th. The main purpose for their visit was to go over procedures for aging fish scales, spines, and otoliths from walleye, perch and sauger.

The AKRC is an organization similar to GLIFWC that deals with the harvesting rights and monitoring of resources for First Nation Communities around Lake of the Woods, Ontario, Canada.

Ryan Haines mentioned that it was good to witness the "big picture" show-

ing how the resource specialists of GLIFWC work together to assist the tribes with utilizing and managing their resources. He mentioned that this will help them in developing a larger role in managing the fishery in Lake of the Woods.

In addition to preparing and aging bony structures from fish, demonstrations of electrofishing and fyke netting were conducted to allow visualization of GLIFWC's survey protocols.

The First Nation communities that comprise the AKRC have been gracious hosts for tribal representatives and GLIFWC personnel during visits into their region. It was a nice opportunity for GLIFWC to be able to share with them some of our techniques and expertise.

Articles by GLIFWC Inland Fisheries Staff

Kentuck Lake summer fish community assessment

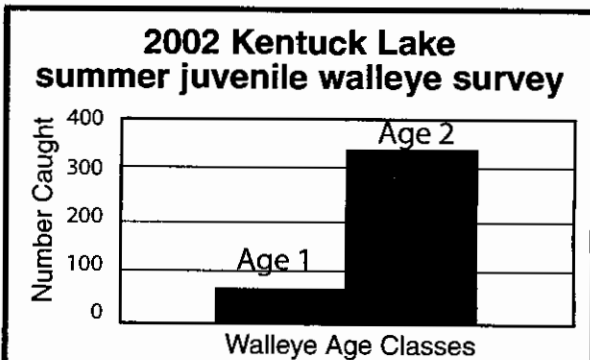
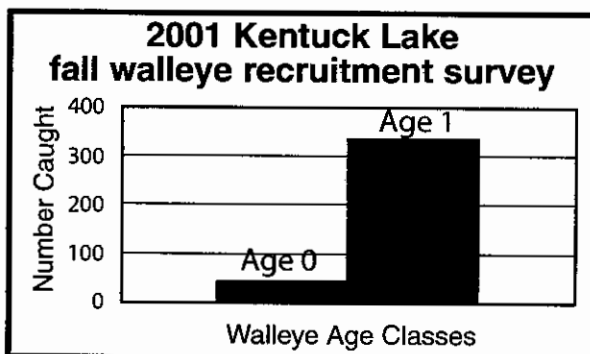
Odanah, Wis.—In the ongoing effort to monitor and rehabilitate the walleye population in Kentuck Lake (Vilas County), two fish surveys were conducted there this past June. A fyke net survey was performed the week of June 25 through 29, and an electrofishing survey was completed on the night of June 26. Fisheries personnel at the Great Lakes Indian Fish & Wildlife Commission (GLIFWC) in cooperation with Michael Preul, fisheries biologist of the Sokaogon/Mole Lake Tribe, completed the summer fyke net survey.

The fyke net survey was conducted to assess the general fish community structure in Kentuck Lake. This year's data revealed a fish community structure similar to that of the last three years. Bluegill comprised over 75% of the fish caught in the fyke nets and black crappie comprised less than 2%. This is quite a bit different from the 1996 fyke net survey when bluegill comprised less than 15%

of the fish caught and black crappie comprised over 35%.

Negative species interactions with black crappie have been identified as one possible factor that may have contributed to the dramatic decline in walleye recruitment and abundance at Kentuck Lake between 1988 and 1998. Other fish species caught during the fyke net survey were pumpkinseed sunfish, smallmouth bass, rockbass, walleye, yellow perch, white suckers and golden shiners.

The summer juvenile walleye electrofishing survey was conducted on June 26. This survey is designed to assess Age 1 and Age 2 walleye abundance. These are the same fish that would have been identified as Age 0 and Age 1 walleye during last fall's walleye recruitment survey.



2002 juvenile walleye survey results indicate young walleye survived the winter in Kentuck Lake. (Graphs by Phil Doepke)

The electrofishing survey found roughly the same numbers of Age 1 and Age 2 fish as last fall's walleye recruitment survey found Age 0 and Age 1 fish. This indicates that the young walleye around last fall survived through the winter to become one year older, and thus one year closer to replenishing the diminished adult walleye population in Kentuck Lake.

Tribal biologists and fish hatchery managers involved with the Kentuck Lake rehabilitation project are hopeful that fingerling stocking in 1999 and 2000 and limited natural reproduction in 2001 will contribute to a healthy walleye population there in future years.

Statewide rivers conference to develop citizen action plan for Wisconsin watersheds

The year 2002 marks the 30th Anniversary of the Clean Water Act, while 2003 has been proclaimed as the "International Year of Freshwater" by the United Nations and proposed as "The Year of Water" in Wisconsin.

Recognizing water as a critical resource for the future, an upcoming conference, Rivers 2002—A Watershed Event, is scheduled for November 8-10 near Stevens Point, Wisconsin. Sponsored by the River Alliance of Wisconsin and a host of other organizations, the conference will bring together more than 125 representatives of Wisconsin organizations and tribes concerned with local watershed protection.

"This event will bring together the diverse members of the state's river community for the first time since 1994," said Todd Ambs, River Alliance executive director. "It will be an opportunity to take stock of the progress we've made, and to set a course for the future of our rivers."

As part of the conference, participants will develop an Action Plan for Wisconsin's Watersheds for the next three years. In addition, the conference will offer hands-on workshops and sessions to workshops to build the watershed protection skills of conference attendees.

The conference is open to representatives of conservation organizations, watershed education organizations, advocacy groups, water recreation interests, tribal members and others interested in local watershed protection.

For more information, please contact Diana Toledo, Local Group Assistance Manager of the River Alliance of Wisconsin at 608-257-2424, or visit www.wisconsinrivers.org.

—Article submitted by the River Alliance of Wisconsin

North American Indigenous Mining Conference held at the Mole Lake Reservation

By **Esteban Chiriboga**
GIS Mining Assistant

Mole Lake, Wis.—The Sokaogon Chippewa Community and the Indigenous Mining Campaign Project co-sponsored the North American Indigenous Mining Conference that was held from June 12th to June 15th at the Mole Lake Reservation.

This conference, intended to build strategies to successfully oppose destructive mining operations that threaten indigenous lands, attracted over 200 native and non-native people from every corner of North America. Joining the Ojibwe hosts were native peoples from the Navajo, Hopi, Gros Ventre, Mowhawk, Menominee, and Quechan nations.

In accordance with the customs of the traditional gathering, the conference began with the lighting of a sacred fire. Fred Ackley of Mole Lake performed the opening prayer accompanied by songs of the Mole Lake drum. Tom Goldtooth, national director of the Indigenous Environmental Network (IEN), opened the conference and set the tone for the discussions that were to follow, and Mole Lake chairwoman Sandra Rachel welcomed all participants.

The first day of the conference focused on an overview of the effects of mining on indigenous communities throughout the world. Conference participants shared the stories of their particular struggles, successes, and set-

backs. This sharing of information provided much needed background for the new strategies that would be developed later on.

The second and third days of the conference focused on the development of effective strategies to fight destructive mining projects. The primary tool used in this process was "power mapping."

Power mapping is a process where the various key decision-makers from government, private, and tribal entities and organizations are plotted based on the power that each entity has in decision-making. This method can illustrate the steps that a local community can take to change the power dynamics of the mine permitting process and affect positive changes that protect tribal lands from mine development.

In addition to the general conference sessions, Great Lakes Indian Fish & Wildlife Commission (GLIFWC) staff participated in technical discussions with environmental experts from Mole Lake, Forest County Potawatomi, and Menominee that focused on the continuing review of the environmental impacts of the proposed Crandon mine.

One of the results of the North American Indigenous Mining Conference was the formation of the Youth, Metals, Uranium, and Coal working groups. Each of these four groups will continue to work together in building effective strategies to protect tribal communities from mining projects.

As Coleen Poler, conference organizer, IEN board member, and Mole Lake tribal member said, "The summit has helped to strengthen the struggles of all our people against destructive mining practices. We want to share the success we have had in preventing the Crandon mine from being approved. We want to assist other communities in building campaigns, and we want to combine our struggles into a powerful force."

The day after the official end of the conference, most of its attendees par-

ticipated in a run/walk from the Mole Lake reservation to the area of the proposed Crandon mine.

This run/walk, sponsored by the Lac Vieux Desert Band, Watersmeet, Michigan, symbolized the journey that native peoples and their allies had undertaken to this small corner of Wisconsin's northwoods. Tobacco was placed, and a ceremony was held in the area of the proposed mine. Finally, the Mole Lake drummers sang several songs to wish all conference participants a safe journey home.



Participants in the North American Indigenous Mining Conference at the Mole Lake/Sokaogon reservation, prepare for a walk/run to the proposed Crandon mine site. (Photo by Ben Liesch)

Handle deer safely; avoid contact with certain tissues

(Continued from page 1)
samples. Also, deer which have been hanging for more than a day are also not usable because of tissue deterioration. When hunters surrender the heads of harvested deer, they will be asked some questions about the location of harvest. We would like to know as precisely as possible where the deer was shot.

As the deer hunting season approaches, please check with your deer registration station or tribal conservation department for more information on the testing program.

What will happen after heads are tested?

All deer heads surrendered will be sent to the laboratory at the Veterinary School at the UW-Madison. We will obtain test results as quickly as possible, but because of the quantity of deer to be tested, some results may take a few months to get back.

When test results do become available, we will provide those results to each hunter who provided a deer head for testing (whether the test is negative or positive). If a positive test comes back, hunters will be interviewed, and more information on the location of harvest will be sought. This will be an important step but hopefully unnecessary.

Tribal hunter informational meetings planned

Since there is much concern about the presence of this disease in Wisconsin, it is important that good, accurate information be provided to tribal hunters. Tribal hunter meetings are currently being scheduled for each reservation. Up-to-date information on CWD will be provided at these meetings as well as more information on proposed testing plans.

Please check with your Voigt Intertribal Task Force Representative or tribal conservation department for more information on these meetings.

Tribal hunter alert

For accurate CWD testing:

- ✓ Bring heads to registration stations very soon after being harvested. Do not allow to hang for more than one day because tissue will deteriorate.
- ✓ Do not shoot deer in the head or neck. They are not usable because of the damage to the required tissue samples.
- ✓ Provide accurate information on location where deer was harvested.

Crandon mine site purchase proposal An interesting possibility

By **Sue Erickson**
Staff Writer

Odanah, Wis.—The news that Nicolet Minerals Company (NMC) may be willing to sell the 5,000 acre tract of land, which was the proposed site for a copper-zinc mine, along with the mineral rights was greeted with cautious elation by many of the mine's opponents. Could the "wicked witch" really be dead?

After spending nearly two decades fighting the development of the mine at the headwaters of the Wolf River and adjacent to the Mole Lake/Sokaogon reservation, people want to be sure the specter of a mine at this site will never rise again.

To guarantee this, a proposal called the "Wolf River Headwaters Protection Purchase" has been advanced. Under this proposal, the public would acquire the land using funds from the Wisconsin Stewardship Fund as well as private dollars. The Stewardship Fund currently has \$300 million set aside specifically for land purchases and is separate from the current state budget.

The proposal also calls for the state to negotiate a realistic price for the land tract. Significant technical issues remain that would make it difficult for the mining operation to comply with state laws.

Once purchased, a board comprised of representatives from state, tribal and local governments as well as private organizations would manage the land to protect and preserve the natural and cultural resources that are part of the site. The joint purchase and management of the land would protect against the state ever leasing the land for mineral exploration.

An alliance of two tribes, local governments and environmental organizations formulated the proposal and are encouraging public support. More information, including a sample resolution supporting the Wolf River Headwaters Protection Purchase, is available at the website mtn@igc.org.

To date, NMC has not publicly announced an asking price for the land, and the state has not indicated it would be willing to sign onto the Protection Purchase.

Considering the uncertainty surrounding the sale and NMC's actual abandonment of its mining plans, GLIFWC will continue its work in monitoring the permit process, according to GLIFWC Policy Analyst Ann McCammon Soltis. "We're not counting any chicks before they're hatched," says Soltis, who works closely with the GLIFWC satellite office in Madison on mine issues which could negatively impact the Mole Lake Sokaogon, a GLIFWC member tribe.



Protect the Earth gatherings renew commitment to aki (earth) & nibi (water)

By Sue Erickson, Staff Writer

Lac Courte Oreilles, Wis.—The steady drumming of rain on the lodge's roof made gentle background music for the Protect the Earth gathering at Lac Courte Oreilles. It was also suited to the occasion on June 21 when a small group of people gathered to consider, once again, the need to protect nibi (water), manoomin (wild rice) and aki (earth) and to recall the visions of the late Walter Bresette, Red Cliff Ojibwe and environmentalist.

Frank and Wanda Dickerson, Red Lake, provided a pipe ceremony and prayers for the water, reminding everyone of the vast power and importance of water and that water itself has a spirit that we must respect. Asemaa (tobacco) was passed, and the gathering began in a good way.

People shared recollections of times with Walter as well as some of his writings and speeches. A founder of Protect the Earth gatherings, Walter campaigned rigorously on behalf of the environment throughout his life.

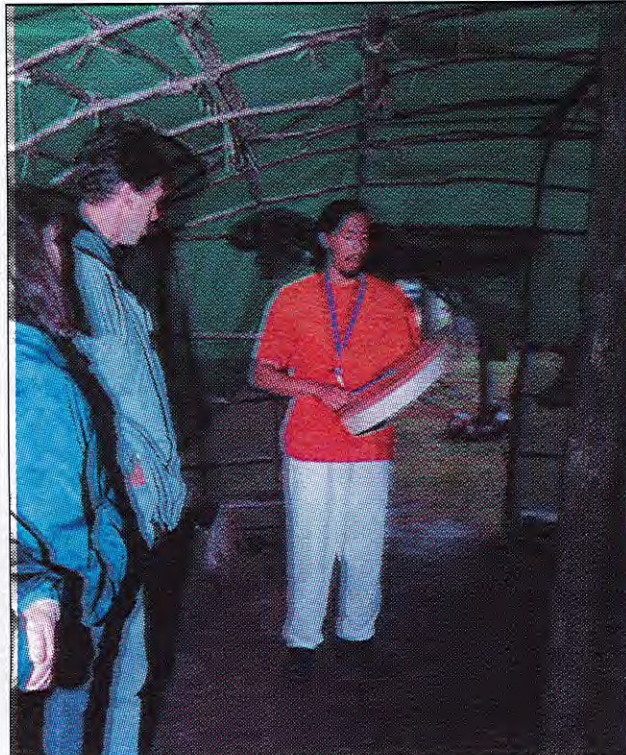
Conversations were brought to an abrupt stop by a sudden, very loud croaking at the lodge's door. A tiny tree frog decided to add its comments. Strange how powerful the voice of such a small creature.

It served as a reminder that you don't have to be big to have an impact, and that is how Walt Bresette operated. One Ojibwe man used powerful oratory and vision.

He envisioned co-management of treaty ceded lands and pushed for the "Seventh Generation Amendment" to the U.S. Constitution. The proposed amendment reads: "The right of citizens of the United States to use and enjoy air, water, wildlife and other renewable resources determined by the Congress to be common property shall not be impaired, nor shall such its use impair their availability for the use of future generations."

"All life is sacred. Water is life. Peace, Power and Righteousness to all nations. We need to understand the cultural foundation of these terms. Peace is not just the absence of war; it is a way of being that promotes deep love and caring. Power is not a military power; it is the strength that comes from social and political unity when people are treating each other fairly. Righteousness is the equity and justice applied to all."

—Maria Maybee, Habitat and Biodiversity Program Coordinator, Great Lakes United



The Protect the Earth Gathering at Lac Courte Oreilles (LCO) was honored to have tribal member John Morrow perform a series of songs with a hand drum. He also provided explanation of the songs and drum. John is the son of Thelma Nayquonabe and George Morrow, both from LCO. (Photo by Sue Erickson)

USDA honors NRCS leader in annual awards ceremony

Washington, D.C.—Patricia Leavenworth, Mt. Horeb, Wisconsin, was honored recently by the U.S. Department of Agriculture at the 56th annual Honor Awards Ceremony in Washington, D.C.

Leavenworth is the State Conservationist for the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) in Wisconsin, and was recognized for her leadership of the agency in the state.

NRCS is the lead federal agency for conservation on private lands, with field offices serving every county in Wisconsin. The award noted that Leavenworth has set a high standard in building partnerships among federal, state and local organizations, and imple-

mented several nationally recognized partnership endeavors.

She also received a national award for Civil Rights in recognition of increasing tribal participation in federal conservation programs by 90 percent in Wisconsin, and organizing the first Tribal Conservation Advisory Council in the nation. These awards are the most prestigious honors bestowed by the Secretary of Agriculture.

"The Honor Award is a tribute to Pat for her commitment and sacrifice in doing the best job possible and serving the citizens and landowners of Wisconsin," Washington NRCS Chief Bruce I. Knight said. "The NRCS workforce is dedicated to conservation and committed to public service."

In regard to resource co-management and sustainable ecology, Walter had a plan for that also. His thoughts are reprinted below:

Saving the land for the next seven generations

For the last few years newspapers have carried stories on controversy over mining, fishing, and treaty rights in Northern Wisconsin. These are but local symptoms of a complex national problem with ecology and economics at its center. The solution lies in provisions of existing treaties between the Ojibwe Indian Nation and the U.S. government.

These treaties are protected under Article VI, Section 2 of the U.S. Constitution and declared as the "supreme law of the land."

Today, by building on the agreements in these treaties we can begin to resolve use for the entire nation. Small business people in Northern Wisconsin, along with state government officials, major companies, outdoors enthusiasts, environmentalists, non-Indian and Indian residents can collaborate on creating the nation's first Regional Resource Co-Management Program.

Why?

The Wisconsin northwoods are among the last natural resource frontiers in the U.S., rich in uranium and copper, zinc and nickel. Large multinational corporations aiming to exploit these resources have leased the mineral rights to more than 500,000 acres

in the northern two-thirds of Wisconsin. Their zeal for minimal cost extraction of ores is often accompanied by a cavalier attitude toward disposal of toxic and radioactive waste by-products.

Who are the losers in this scenario? The owners of small business in the area, for one. Family-owned stores, hotels and resorts cannot compete with national chains like Amoco and Holiday Inn.

The American dream of a family-owned business gives way to the pressures of the multinationals. Ojibwe are threatened with the loss of their thousand year old cultural traditions of hunting, fishing, trapping and gathering. Tourists who visit the area to catch its challenging fish see fewer and fewer areas of refreshing, pristine beauty.

Environmental laws are supposed to prevent this, but have been unenforced, in some cases, rewritten to weaken them. The reckless mining and timbering practices that pollute the water and land go hand in hand with violating treaties between the U. S. government and Indian tribes.

These treaties, still in force, are possibly the only remaining basis for any legal remedy to environmental degradation that now threatens the region. A fundamental tenet of land law is that no one can damage property without the owner's consent and compensation to the owner. Thus, a mine that pollutes a river on treaty-protected land or hinders the travel and forage of game on the land is in violation of the treaty. The law has been broken; legal recourse can be taken. We CAN save the land for the next seven generations of people.

Resource co-management as a step towards a solution

Ojibwe leaders teach us that we must recognize the mineral-rich areas of Northern Wisconsin as complete bio-regions and that their planning and use must take a wide view, involving all parties with a stake in its survival.

Co-management, as this part of the plan is known, is shared jurisdiction over those resources named in treaties, e.g. fish, game, wild rice and timber. It affects the air and water quality where these resources are found, protecting them from the damage of reckless mining and paper milling, etc.

Co-management participants would include non-Indian Wisconsin residents, private companies (large and small), the state of Wisconsin government and the Ojibwe Nation.

Principles of resource management

Resource co-management is based on upholding the U.S. Constitution by enforcing the treaty rights it guarantees. It rests on the principle that environmental safety and peace are realistic and economically viable in the United States. It respects and includes people of all races and economic status. It values the generations yet to be born. It recognizes that the rest of the country awaits a solution to our critical environmental problems.

The gathering concluded with a feast and good feelings. Another such gathering was held at the Mole Lake/Sokaogon reservation on June 29-30. More prayers were offered for nibi, manoomin and aki; more thanks were given for the resources we have; and more determination mustered to act strongly on behalf of the Seventh Generation.

Lessons from old field invasions

By Dr. James Meeker
Associate Professor, Northland College

Ashland, Wis.—Even though old fields comprise a considerable portion of any area's biological diversity, I have not given them much attention in this column up to now. This is understandable since much of an old field's plant community is non-native, either exotic or naturalized, and I have been primarily interested in northern forest restoration and protection of native communities.

But there are lessons to be gained from the study of these interesting communities, and the sheer volume of color they offer us at times of the year make them stunning topics of conversation.

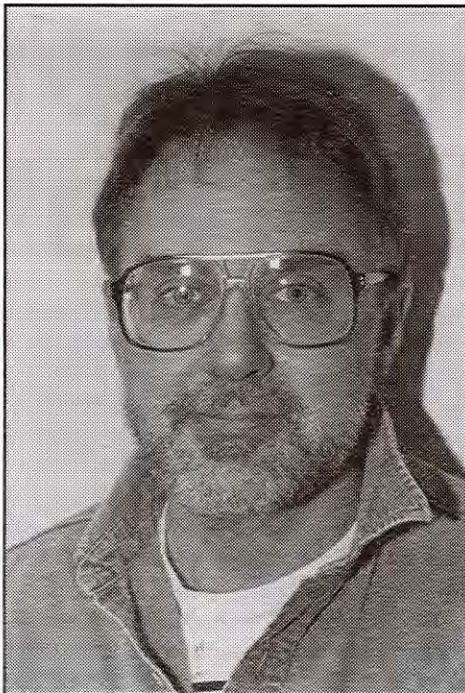
Most of us have been impressed by seas of orange, white or yellow or their admixtures provided by orange hawkweed, daisies or buttercups respectively. (All non-native species that have become part of our flora, often referred to as being naturalized).

In addition, old fields have long been of considerable interest in plant ecology, especially in the study of plant succession over years. We are also aware of the differences in the vegetation among old fields. Depending on the history of land use at the sites (such as the last time the field was plowed and planted), the context (what's growing around them), the soils (sand, loam or clay dominated) these fields can have very different visual appearances.

Old fields also annually demonstrate the phenology of flowering, starting with the early summer strawberries and buttercups, through mid-summer hawkweeds and daisies to the later flowering goldenrods and blue and white asters. The "who's flowering now" game is a weekly activity for my partner and I on the "south forty," a 40 acre tract of land on which we became temporary stewards some 8 years ago. This about a seven acre, rectangular-shaped field is bordered along its south edge (the long axis) by a gravel town road. It borders fairly mature aspen and maple hardwoods on its other edges.

Being a creature of habit, my walks always bring me into the field through woods from the north, far away from the road. Sometimes I go no further. Six years ago, mid July, a newcomer was spotted in the interior of this field, with perhaps several dozen plants occupying an area of perhaps 5 feet square. The rather attractive, delicate looking, pinkish to lavender flowers I recognized as spotted knapweed (*Centaurea maculosa*), a very invasive exotic plant species that is on the Wisconsin Department of Natural Resources bad guy list. (See sidebar).

Behaving as a good land steward, I spent the next 15 minutes pulling these plants out by the roots. Scanning the horizon, I spotted another small group of knapweed plants growing in the interior of the field and repeated the process. The total commitment was now a half hour, with the cost being a hint of a sore back. Suspecting that the plants probably came in from the roadside as part of the annual



Dr. James Meeker

roadside maintenance, I then approached the field's edge near the road only to find a much larger and more intimidating patch. Having already spent a half hour more than I expected on this hike, I left this patch untouched, estimating that it would take a major pulling effort that I was not up for at the moment.

Well, unfortunately, I never returned that year, or the next. Over the following years I have repeated the process, and every year the interior patches comprised no more than a few flowering plants, easily pulled when observed, as the roadside colony grew thicker and more intimidating.

Whereas if I would have spent the day or two necessary to eradicate the roadside patch six years ago, it is now a slowly advancing wall of pink, out of the realm of hand pulling without an army of volunteers. Well . . . what should I do?

How important is it for me to rid this field of knapweed? If northern forest restoration is my goal, I would plant trees, and they would eventually shade out the knapweed. Mission accomplished. Driving around the "block," a seven mile loop that skirts the field, I've noticed that knapweed is fairly common along the roadside. Since I live in hardwood country and this invader does not enter the shady woods, knapweed in most places along this block poses no larger threat.

In addition, this field is somewhat unusual for the hardwood country in that a portion of it is extremely well drained and drought prone. This is due to a localized patch of very sandy soils that were deposited in a narrow band along the shoreline of a pro-glacial lake some 9,000-10,000 years ago. However, the few other old fields that are found along this road have heavier soils and hence thicker vegetation. They are not as easily invaded as this sandy one. It is clear I can't answer my "what to do question" without a bigger picture of the region.

The greater Chequamegon Bay region can generally be divided into three broad land types, including the Penokee hills south and east of Ashland, the clay plain surrounding Ashland, and the sandy soils of the Bayfield Peninsula north and west of Ashland.

Prior to the cutover at the turn of the 19th century, the Penokee hardwood land type was dominated by sugar maple and yellow birch, with lesser amounts of red maple, ash, and basswood. Hemlock probably shared dominance with the dominant hardwoods and on the perched, poorly drained areas considerable white cedar thrived. Very little of the land was naturally "open" or treeless, and fires were very rare.

The second land type, the clay plain, was likely dominated by many more conifers, along with scattered white birch and aspen. Open habitat was also not common, but fires may have been more frequent in drought years. Today, it is interesting to fly over this area, because this is where the vestiges of the region's agriculture continue to the present. (Remember, the goal of many people after the turn of the 19th century fires was to turn the whole region into a pastoral, agricultural landscape.) If one may summarize the changes in this land type from pre-European settlement to today, it has gone from a much more forested or "closed" landscape to more open landscape.

The third land-type is represented in the Chequamegon Bay region on the Bayfield Peninsula. This peninsula is an extension of the northwest sands landscape that stretches from southwest Crex Meadows to the tip of the Bayfield Peninsula. Unlike the two previously mentioned landscapes, these sandy, well drained, drought prone soils supported both closed pine forests and open habitat including the jack pine savannas and the bushy barrens. After the initial cutting, the extreme fires, and the futile attempts at agriculture, CCC labor crews planted red and jack pine in the late 1930's. Unlike the two previously mentioned landscapes, a mix of open and closed habitat was always a part of the pre-settlement picture.

So what does all this discussion of pre-settlement landscape tell us in efforts toward northern forest restoration? In general, open spaces are important to maintain in the northwest sands, but, in the big picture, are not important for either the clay plain or the hardwoods of the Penokees.

Going back to the discussion of the old field and knapweed invasion, it would seem that protecting this already exotic plant dominated field from one more exotic is of little biological importance. But are there further questions to consider? Perhaps the invasibility of the species is to be considered. In the case of our sandy field, orange hawkweed is already there and it, unlike knapweed, appears to invade for perhaps 30-50 yards into the woods. Maybe knapweed will get rid of the hawkweed.

Now, this scenario would be quite different if this old field were sitting on the edge of the Bayfield Peninsula, from which it could periodically "infect" many of the intact native barrens communities that exist in that landscape.

But the real lesson gained from observation of this old field has to do with monitoring native communities for exotics. Had I caught the roadside colony of knapweed plants several years earlier, they could have been easily pulled, much (See Spotted knapweed, page 7)



Spotted knapweed. (Photo by Elizabeth Sutton)

Spotted knapweed (*Centaurea maculosa*)

Reprinted from the WDNR website

Description

Spotted knapweed commonly grows to 3-4 feet in height. The leaf margins on lower leaves are indented or divided about halfway to the midrib and the leaf surface is rough; upper leaves are more linear in shape. The alternate, pale leaves grow from 1-3 inches in length.

Stem height varies from two feet on upland sites to four feet on wetter sites. The majority of stem growth occurs in June. The slender, hairy stems grow in an erect and branched arrangement. Single thistle-like, pinkish-purple flower heads reach 3/4 inch in diameter and occur at the tips of terminal or axillary stems from late June through August.

Distribution & habitat

This plant was probably introduced in the 1890's as a contaminant in alfalfa or hay seed from Europe and Asia. Spotted knapweed has become a serious problem in the rangelands of the northwest United States. In recent years, the species has invaded relatively undisturbed natural areas in Wisconsin as well as heavily disturbed sites. The extent of the invasion and the communities potentially affected are not well known.

Until recently, spotted knapweed was presumed to inhabit only heavily disturbed areas such as road ditches, agricultural field margins, railroad beds, pipelines, and recently installed utility lines; the plant has now been found in dry prairie sites, oak and pine barrens, and on lake dunes and sandy ridges. It seems to be especially problematic in the central sands, northern Wisconsin, and near the Great Lakes.

Life history & effects of invasion

Spotted knapweed reproduces solely by seed. Individual flower heads bloom from late June through August for 2-6 days each. The bracts reopen after about 20 days and scatter seeds. Plants average about 1,000 seeds per plant. Seeds are viable for seven years, and germinate throughout the growing season. Seedlings emerging in fall develop into a rosette of leaves that resume growth in spring.



Aliens attacked!

Hordes of *Galerucella* beetles decimating local populations of purple loosestrife

By Miles Falck
GLIFWC Wildlife Biologist

Odanah, Wis.—Purple loosestrife, an alien species native to Eurasia, is under attack from a horde of tiny *Galerucella* beetles.

Great Lakes Indian Fish & Wildlife Commission (GLIFWC) staff have been rearing the beetles at the UW-Extension's Ashland Agricultural Research Station since 1999 and releasing them at loosestrife-infested wetlands within the Bad River-Chequamegon Bay watershed.

Left untreated, purple loosestrife invades wetlands and displaces many native plant and wildlife species. A major reason for loosestrife's aggressive nature is its lack of natural enemies in North America. This led scientists to search for natural enemies of the plant in its native range.

Several insect species were discovered that appeared to feed exclusively on purple loosestrife. After extensive testing to insure the insects fed only on purple loosestrife, *Galerucella* beetles were approved for release as biological control agents in the United States by the USDA-APHIS in 1992.

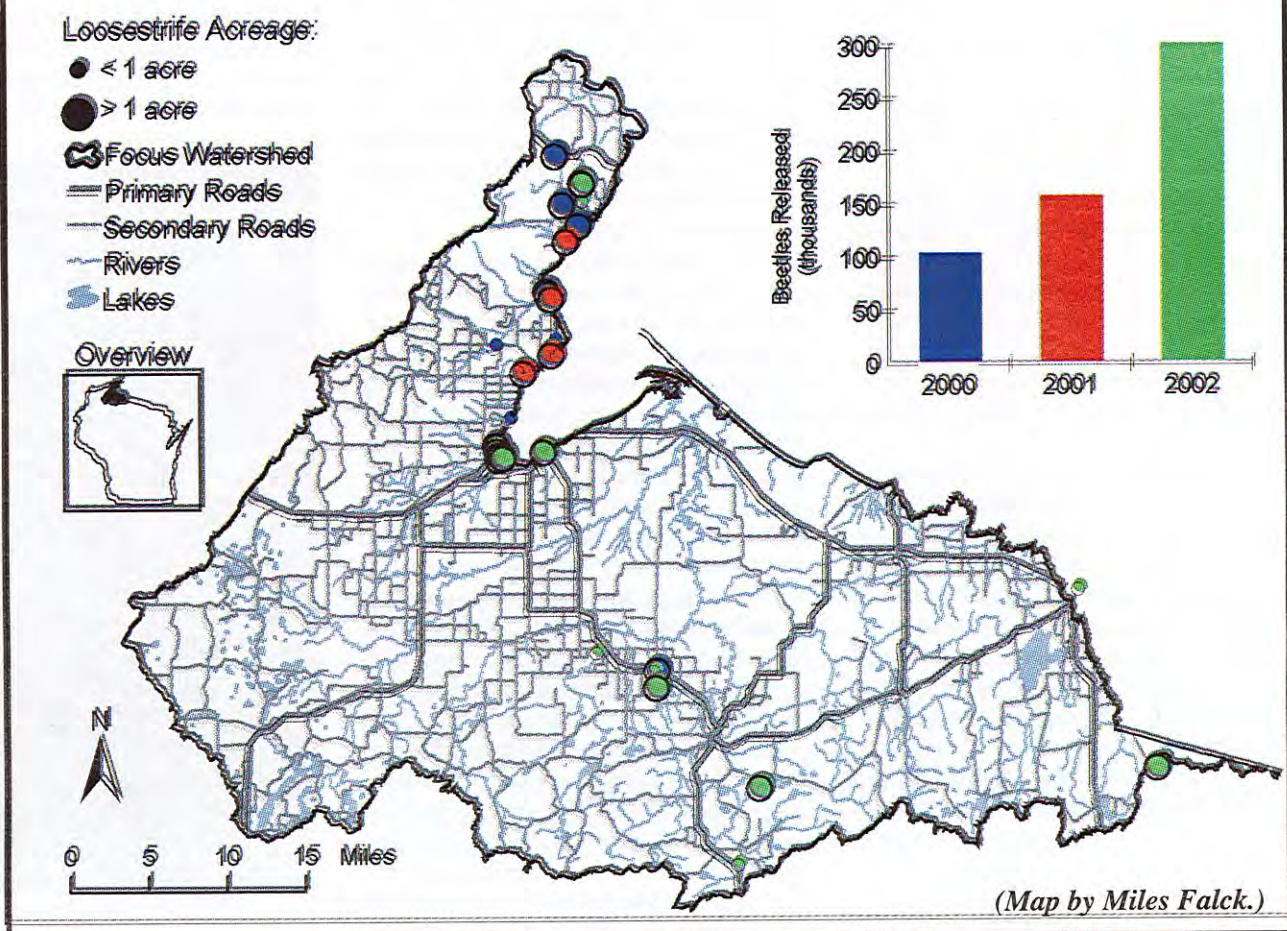
The *Galerucella* beetles are easily reared and reproduce rapidly. GLIFWC staff transplant loosestrife rootstock in early spring and collect adult beetles from previous release sites. Ten beetles are added to each potted loosestrife plant and enclosed in a mesh net bag to protect the beetles and their larvae from predation by birds and other insects.

The adult beetles feed and lay their eggs on the foliage of the purple loosestrife plants. When the eggs hatch, the tiny yellow and black-striped larvae feed heavily on the loosestrife leaves and inflict the greatest stress to the plant. By mid-July, each pot contains approximately 1,000 hungry adult beetles that are ready for release into a loosestrife-infested wetland.

The adult beetles continue to feed on the leaves of purple loosestrife and, unlike the multi-colored Asian lady beetles, spend the winter outdoors burrowed under the soil and leaf litter. The following spring, the adults emerge from the soil and repeat the cycle.

Since 1999, GLIFWC staff have reared and released over 550,000 *Galerucella* beetles at over 40 sites within the Bad River-Chequamegon Bay watershed (see map and graph). In addition, several thousand beetles have been provided to

Galerucella releases in the Bad River-Chequamegon Bay watershed



the Keweenaw Bay Indian Community's Natural Resource Department for treating purple loosestrife within their reservation boundaries.

The use of biological control has expanded the acreage treated annually by GLIFWC's purple loosestrife control program and allowed control crews to place more emphasis on treating small roadside populations with herbicide before they become significant source populations.

As the *Galerucella* population builds, the loosestrife plants are stressed to the point where flowering and seed production are halted. Additional stress from continued feeding eventually drains the plant's energy reserves and kills the plant.

Galerucella beetles are not expected to eradicate purple loosestrife entirely, but are expected to reduce its current acreage by 90%. This reduction will allow native species to re-colonize substantial portions of their former range, and may make traditional loosestrife management methods more feasible in the future.

Sites with relatively few loosestrife plants have shown dramatic results after only one year (see photos). Most of the larger sites (over one acre) will probably require three-four years before beetle populations are dense enough to cause significant damage.

More information on GLIFWC's biological control efforts can be found at <http://www.glifwc-maps.org/Website/purpleloosestrife>. This web site includes interactive maps depicting the distribution of purple loosestrife and biological control efforts as well as site-specific data and comparative photographs for some sites.

Spotted knapweed

(Continued from page 6)
like the few plants that had invaded the interior of the field. We all know the adages, "an ounce of prevention is worth a pound of cure," "a stitch in time saves nine."

Why can't we get agencies to act this way? Given the observation that permanent openings are not necessary or even desirable in much of the hardwood or clay plain landscape, why do we continue to maintain them?

Given the over-population of deer across the landscape and that chronic wasting disease is more contagious with increased deer densities, it makes no sense to be continuing these activities from this perspective. Surely the temporary opening created by timber management in public lands is enough.

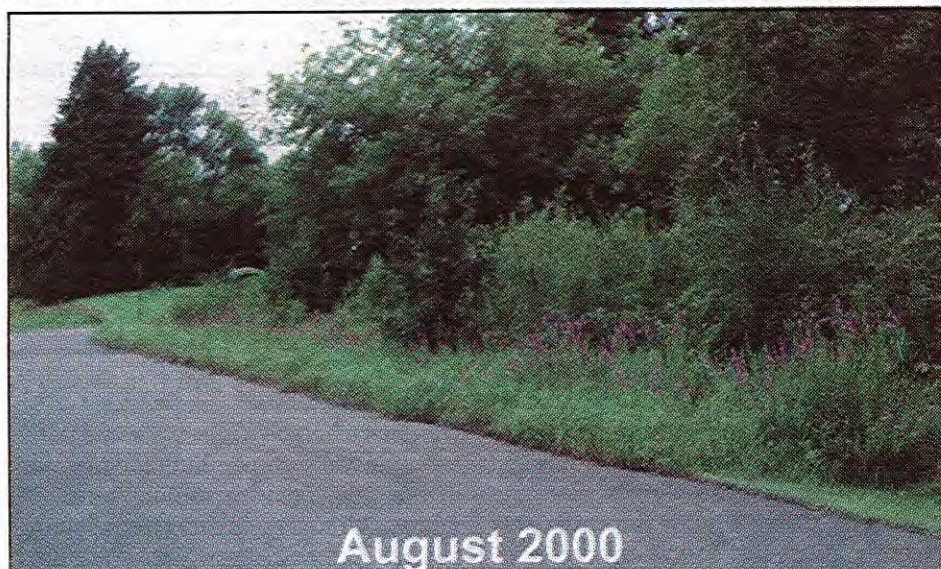
In addition, many of the old fields on private lands provide open habitat. Why not retrain the troops and transfer all openings maintenance dollars to a monitoring program that is designed to catch exotics at their earliest stages of

invasion? For the hardwood district this would mean looking for the first of hardwood invaders, like garlic mustard or buckthorn. For the northwest sands it would mean finding areas without knapweed and keeping it out.

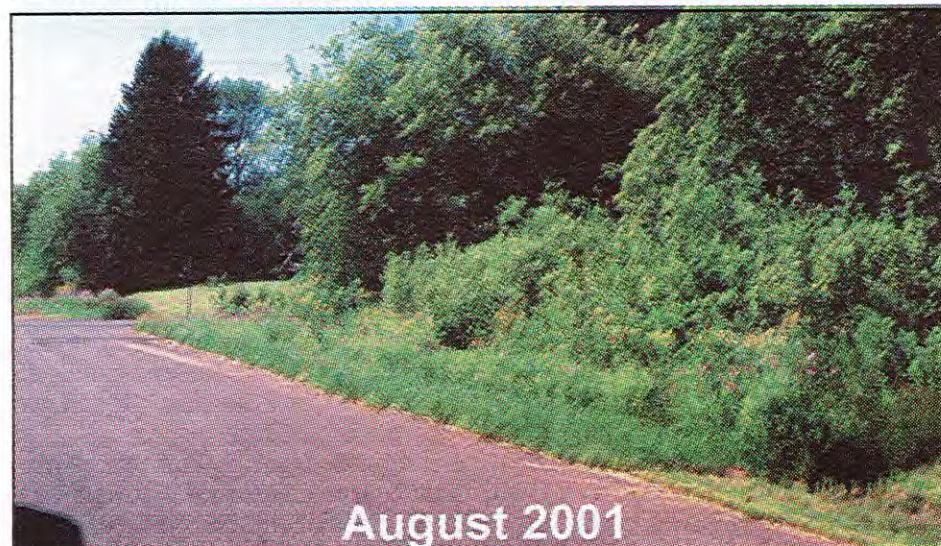
As far as my old field is concerned, it has taught me a lesson. I am always on the look out for the first signs of exotic invasion in the hardwoods, and maybe someday, I'll organize that knapweed pull on the old field just to keep it a little neater.

(Jim Meeker is an Associate Professor of Natural Resources and Biology at Northland College, Ashland, Wisconsin, and is active in regional conservation issues.)

Editor's note: GLIFWC has published a brochure entitled *Plants Out Of Place*, which covers the introduction, impacts, and spread of exotic, noxious weeds in the Upper Midwest. The brochure folds out into a full color 9x18 poster. For a free copy of the brochure call (715) 682-6619.



Washburn, Wisconsin site following July 2000 release of 3,000 *Galerucella* beetles. (Photo by Miles Falck)



Washburn, Wisconsin site one year after *Galerucella* release. (Photo by Miles Falck)

Seminar focuses on enforcement issues in overlapping jurisdictions

By Sue Erickson
Staff Writer

Odanah, Wis.—Law enforcement in treaty ceded territories can become complex as issues arise with overlapping jurisdictions—tribal, federal, state, and local jurisdictions.

To address some of these issues, the Great Lakes Indian Fish & Wildlife Commission's (GLIFWC) Enforcement Division hosted a day-long seminar focusing on stop, search and seizure procedures on June 25.

The primary purpose of the seminar was to be sure that ceded territory enforcement activities comply with applicable laws and so that the prosecution of offenders by the governing authority is not jeopardized and constitutional safeguards are honored.

By day's end, questions were still coming based on a variety of law enforcement scenarios from participants who represented seven tribes, two states, three federal agencies, two county agencies and GLIFWC.

"We asked a lot of questions; got a lot of questions answered, and raised a lot more," said Gerald White, GLIFWC's chief of enforcement. "This was the first time representatives from many overlapping enforcement jurisdictions have gotten together like this

and is something we need to do more frequently."

While GLIFWC's conservation officer's primary responsibility is to enforce the tribes' off-reservation conservation codes, they also assist other law enforcement agencies as they encounter cases that fall under other tribal laws, state laws or federal laws within the ceded territories in Michigan, Wisconsin and Minnesota.

The issues become complex due to a differences in law from state to state and also due to a varying working relationships. For instance, the Minnesota Supreme Court ruled that officers may not enter ice houses without a warrant, while warrants are not required in Michigan and Wisconsin.

Presenters included James Zorn, GLIFWC policy analyst, who provided an overview on off-reservation conservation codes and other tribal laws and also discussed constitutional violations. Wisconsin Department of Natural Resources (WDNR) conservation officers Mike Barts, Rhineland and Chris McGeshick, Antigo, discussed enforcement of Wisconsin conservation laws and how the WDNR and GLIFWC wardens work together; and Jim Ekdahl, tribal liaison, Michigan Department of Natural Resources, presented on Michigan's conservation enforcement. Finally, a federal perspective was given

by Richard Glodowski, special agent in charge, USDA Forest Service Eastern Region.

Following the seminar, officers devoted a day to field training with firearms. GLIFWC officers along with some from other agencies participated.

The training focused on an encounter with armed and hostile subjects in a wooded environment.

The seminar was made possible by a grant from the US Department of Justice's Community Oriented Policing Services (COPS) program.



John Mulroy, (far right) GLIFWC conservation officer and firearms instructor, briefs GLIFWC officers Tim Tilson (center) and Ryan Schaefer, both stationed at Keweenaw Bay, before they start the practical firearms training.

GLIFWC wardens teach students importance of boating & ATV safety

By Ben Liesch
HONOR intern

Lac Courte Oreilles, Wis.—There are hundreds of kids books and magazines in the Lac Courte Oreilles (LCO) elementary school library, but one of the most popular books being read this summer is the boating safety guide.

In the little library with tiny chairs and tables five young teens and two Great Lakes Indian Fish & Wildlife Commission (GLIFWC) conservation wardens gathered on July 8-11. And even though it is summer vacation, these

kids were still learning. This week's lesson—boating safety.

The boating safety class, instructed by GLIFWC wardens Ken Rusk and Chris Kessenich, has been helping youth become safer navigators for fifteen years now. "It's a basic class. We teach boating laws, the rules of the road," Rusk said.

The course covers "Wisconsin Boating Basics: A Guide to Responsible Boating," a book which provides an abundance of information. The nine-hour course spans four days and covers the entire guide.

It also requires the students to take a fifty-question multiple choice test at

the end of the course. Students must get a 70 percent or higher to pass. Once they pass, the kids get a temporary card until Madison sends their permanent boating safety certification card.

The course covers basic information about boats, such as choosing the right boat, hull design and motors. Also emphasized are legal requirements and navigation rules. These include registration, equipment requirements, basic navigation safety, and US aids to navigation. The students also learn about preparation, trailering and how to deal with accidents.

The wardens cover boating under the influence, communications procedures, visual distress signals, fire on board and first aid with the students. Weather and water conditions are also highlighted. Another important aspect is the safe enjoyment of water sports such as skiing, jet skiing and sailing.

That is a lot of material for students to cover over a few days, and Rusk admits the boating safety course is the hardest of all the safety courses.

This summer's class of five students is an average class size. Rusk said the smaller classes are easier to keep under control and also help to provide individual work with each kid.

And according to Rusk, the students need to have a positive attitude towards learning. "This is a real good class; they're really paying attention. They really want to be here," Rusk said. "They won't even take their break; they want to get back to learning."

And the young kids aren't the only ones learning from the experience. They take their knowledge home and out to the lakes and share it with others. "Kids

remind their parents of things they may have forgotten or not known," Kessenich said.

Rusk has been instructing the safety course for fifteen years, and he believes the class has definitely had a positive impact. He noted a decline in deaths and injuries on the lakes in recent years. Kessenich, in his second year instructing the class, agreed that it is important and helpful to the community.

But boating safety is only one of four classes offered by the GLIFWC satellite office at LCO and on other GLIFWC member reservations. The wardens teach boating safety and ATV safety in the summer, hunter education in the fall and snowmobile safety in winter. All courses are targeted at young teens, but are open to anyone. The hunter education class actually draws several adults. It is the only free class offered and draws the largest number of participants.

For the young teen students, the courses are an opportunity to learn important information about safely enjoying great recreational activities. And not only are the students learning about boating safety, they are also learning important life lessons about maturity.

Both Rusk and Kessenich agree that, although the young teens are no longer kids, they are not quite adults. The kids realize the fun and games of boating, but as Rusk said, "It can get real serious real fast."

"At the age the kids are at, the transition to adulthood, it's important to imprint in their minds responsibility with boating and safety, as well as safety and responsibility in all aspects," Kessenich said.



GLIFWC Wardens Ken Rusk and Chris Kessenich instructed an ATV safety class July 22-25 at the LCO Elementary School. This summer, 11 students graduated from the course, which included classroom exercises, a written test, and time on the ATVs on a closed course. Pictured above are, clockwise, GLIFWC Warden Chris Kessenich; Kayleigh Edley, Rochelle Warwick, Cassy Nelson, Trevor Jensen, Derek Jensen, John Hanlon II, Shane Kreyer, Jacob Scheffel, Ryan Turner, Anthony Lopit and Daniel Nelson. (Photo by Ben Liesch)



Giizhik (northern white cedar) in the ceded territories

Odanah, Wis.—During the past two years, staff from Great Lakes Indian Fish & Wildlife Commission (GLIFWC) implemented a project, funded by the Administration for Native Americans, designed to integrate Anishinaabe traditional ecological knowledge and western scientific knowledge focusing on the

non-medicinal uses of and threats to wild plants within the ceded territories (*Mazina'igan*, Spring 2001).

As part of this project, GLIFWC staff examined the cultural importance, ecology, and status of giizhik (northern white cedar, *Thuja occidentalis*)—a tree considered by the Anishinaabe to be sacred. This article provides a summary of the resulting document.

Through interviews with tribal elders, GLIFWC staff documented 40 non-

medicinal uses of giizhik. Specifically, elders described fourteen uses for giizhik waatigwaan (boughs), two uses for giizhik nagek (bark), and twenty-four uses for giizhik misan (wood).

Uses range from snowshoes to ceremonial smudge. The importance of this tree in the daily lives of the Anishinaabe led tribal leaders to raise concerns regarding its current and future status within the ceded territories.

The geographical range of giizhik extends from southeastern Canada to northeastern United States and west through the Great Lake states, with additional isolated stands occurring in the Appalachian Mountains. Though often growing in cool swamps, giizhik may also be found on drier limestone uplands and old fields (Johnson 1990).

During the intensive timber harvest period of the late 1800's, loggers tended to avoid the swamps supporting giizhik (Bourdo Jr. 1983). Nevertheless, today, only 5% of the original swamps in the Great Lakes region remain intact (Frehlich 1995).

Recent populations trends may be assessed through a program sponsored and implemented by the USDA Forest Service called Forest Inventory and Analysis (FIA). This program entails repeated inventories of the nation's forests through the monitoring of permanent plots.

Review of the FIA data gathered within the ceded territories over the last two decades revealed that northern Michigan, followed by northern Wisconsin, supports more giizhikag (cedar trees), while northern Minnesota supports considerably fewer giizhikag. This conclusion was anticipated, given that Michigan provides the more favorable climatic and soil conditions for giizhik.

Overall giizhik abundance, since the late 1970's, has decreased in northern Michigan and increased in northern Minnesota and Wisconsin. In Michigan, the overall population decrease appears to be the result of fewer small and medium sized trees, with a slight increase in large sized trees.

In Minnesota and Wisconsin, a sharp rise in the number of small trees appears to account for an overall population increase. In both states, the number of large trees increased only slightly. The number of medium sized trees stayed relatively constant in Minnesota and decreased in Wisconsin.

The increases in giizhik abundance in Minnesota and Wisconsin offer hope for improving population trends. However, the decreases in Michigan counter this optimism, particularly since this state supports the greatest number of giizhikag within the ceded territories.

Tribal elders identified a number of potential threats to giizhik abundance. Clearcutting and exploitative timber harvest ranked as the most commonly voiced threat. Tribal elders noted their concerns that azaadi (aspens) appears to be replacing giizhik after clearcutting.

Elders also mentioned the lack of respectful gathering and use as a threat. They explained that a "gift" will disappear if not appreciated and utilized. Thus, tribal elders support the non-exploitative harvest of giizhik.

Other threats identified by tribal elders include urban development, disease, pollution (air and water), modified waterways (e.g., dams and (See Northern white cedar, page 18)

USES OF GIIZHIK MISAN	TRIBAL ELDER	MEMBER TRIBE
Canoes or boats	Harold Crowe Joe M. Rose Helen Smith	Bad River Bad River Lac Vieux Desert
Canoe or boat paddles	Clarence Crowe Melvin L. Defoe Helen Smith Charles McGeshick Myra J. Pitts Joseph Duffy	Bad River Fond du Lac Lac Vieux Desert Sokaogon Sokaogon Red Cliff
Ricing knockers (sticks)	Joe M. Rose Harold Crowe Daryorld Blanketter Marylyn Carpenter William Houle Mary E. Davis John Dupruis Sr. Dorothy Yadon Ferdinand Martineau Jim Northrup George W. Brown Joseph J. Chosa May Jameson Raymond Smith Jr. Charles McGeshick Robert VanZile Myra J. Pitts Ruth Holmes	Bad River Bad River Fond du Lac Fond du Lac Fond du Lac Fond du Lac Fond du Lac Fond du Lac Fond du Lac Lac du Flambeau Lac du Flambeau Lac Vieux Desert Lac Vieux Desert Sokaogon Sokaogon Sokaogon St. Croix
Ricing push poles	Dorothy Yadon John Dupruis Sr. Daryorld Blanketter	Fond du Lac Fond du Lac Fond du Lac
Spigots for maple tapping	Les Northrup Lucy Dewing Carl Abromowski Geraldine L. Defoe David White Charles Ackley Dee M. Bainbridge Joseph Duffy Elder	Fond du Lac Fond du Lac Fond du Lac Fond du Lac Fond du Lac Sokaogon Red Cliff Red Cliff St. Croix
Paddles for stirring maple sap	Harold Crowe Ferdinand Martineau Phyllis Stott	Bad River Fond du Lac Fond du Lac
Cradle boards	Alvina Tiessen May Jameson Myra J. Pitts	Fond du Lac Lac Vieux Desert Sokaogon
Drums	Elder	Lac du Flambeau
Toboggans & sleds	Elder	Mille Lacs
Snowshoe frames	John Dupruis Sr.	Fond du Lac
Snow boards	Elder	Sokaogon
Baskets	George W. Brown Jr. Dorothy Polar	Lac du Flambeau Sokaogon
Fish decoys & other carvings	Joe M. Rose Helen Smith Ruth J. Antone	Bad River Lac Vieux Desert Lac Vieux Desert
Poles to set fish nets under ice	Joseph Duffy	Red Cliff
Tanning hides	Sylvia Cloud	Bad River
Smoking hides	William Houle Ruth J. Antone Madeline Shreyer	Fond du Lac Lac Vieux Desert Red Cliff
Eating utensils	George W. Brown	Lac du Flambeau
Arrows	Elder	Sokaogon
Flutes	Frank Montano	Red Cliff
Furniture	Myrtle Soukkala	Fond du Lac
Tip-ups	Helen Smith Charles McGeshick	Lac Vieux Deert Sokaogon
Yokes	Harold Crowe Clarence Crowe	Bad River Bad River
Kindling	Ruth J. Antone Charles McGeshick	Lac Vieux Desert Sokaogon
Fence posts	Elder	Bad River

USES OF GIIZHIK WAATIGWAAN	TRIBAL ELDER	MEMBER TRIBE
Tea	Rebecca Munz Sylvia Cloud Joe M. Rose Ruth Wise Baker Deanne Baker James White Frank Montano	Bay Mills Bad River Bad River Fond du Lac Fond du Lac Mille Lacs Red Cliff
Bedding & floor covering	Ruth J. Antone Helen Smith	Lac Vieux Desert Lac Vieux Desert
Hair rinse	Margaret Ojibway	Fond du Lac
Ceremonial Smudge	Robert Powless Sr. Myrtle Soukkala Marylyn Carpenter Corrine E. Wick Geraldine Defoe Carl Ambromowski Frank Montano Myra J. Pitts	Bad River Fond du Lac Fond du Lac Fond du Lac Fond du Lac Fond du Lac Red Cliff Bad River
Incense	Joe M. Rose Dorothy Polar Frank Montano	Bad River Sokaogon Red Cliff
Medicine lodge covering	Helen Smith Ruth J. Antone	Lac Vieux Desert Lac Vieux Desert
Talisman	Elmer J. LeBlanc Frank Montano	Bay Mills Red Cliff
Insect repellent	Corrine E. Wick Ruth J. Antone Charles Ackley	Fond du Lac Lac Vieux Desert Fond du Lac
Washing body & household objects	Linda Houle Betty M. Torgerud	Fond du Lac St. Croix
Air freshener	John Wood Frank Montano	Fond du Lac St. Croix
Prevent maple sap boil over	Ferdinand Martineau Linda Houle	Fond du Lac Fond du Lac
Courting	Elder	Sokaogon
Wreaths & other decorations	Marylyn Carpenter Norma Graves Leroy Defoe Elder Dorothy Polar	Fond du Lac Fond du Lac Fond du Lac Sokaogon Sokaogon
Cash crop	Elder Linda Houle Betty Kegg	Bad River Fond du Lac Fond du Lac

USES OF GIIZHIK NAGEK	TRIBAL ELDER	MEMBER TRIBE
Lodge covering	Joe M. Rose Robert VanZile	Bad River Sokaogon
Insect repellent Bedding	Harold Crowe	Bad River

THREATS TO GIIZHIK	TRIBAL ELDER	MEMBER TRIBE
Clearcutting	Margaret Ojibway Elmer J. LeBlanc Jim Northrup Constance T. Lang Loretta H. Dietzler Leonard Sam Joseph M. Rose	Fond du Lac Bay Mills Fond du Lac Sokaogon Sokaogon Mille Lacs Bad River
Logging	Corrine E. Wick Myra J. Pitts John L. Thomas	Fond du Lac Sokaogon St. Croix
Lack of respect & knowledge	Corrine E. Wick Olaf Johnson Art Tainter Roger McGeshick	Fond du Lac St. Croix LCO* Sokaogon
Urban development	Elmer J. LeBlanc	Bay Mills
Fungus	Leonard Sam	Mille Lacs
Pollution	Hildreth Thomas	St. Croix
Modified waterways	Ruth M. Holmes	St. Croix
Lack of regeneration	Joseph Duffy	Red Cliff

*Lac Courte Oreilles



Bizhibayaash

Celebrating the Circle of Flight

By Peter David
GLIFWC Wildlife Biologist

Odanah, Wis.—Ducks, geese and swans have long provided a critical source of protein to Native American subsistence harvesters.

From spring egg gathering on the coast of Hudson Bay, to winter hunting in the coastal marshes of the Gulf of Mexico, waterfowl from the area that biologists now call the Mississippi Flyway have historically given themselves to their human brothers.

And here in the ceded territory, ducks and humans also both shared a great dependency on another gift of the Creator: manoomin, or wild rice.

Rich and productive places, the wetlands that support wild rice and waterfowl hold a trove of other gifts as well. Muskrats, beaver, arrowleaf, water lilies, various fish and a myriad of other species yielded food, clothing, and medicines throughout the year. It is little wonder that the Ojibwe never viewed wetlands as wastelands, the way many later European settlers did.

It is a well-worn ecological verse that the years have not been kind to wetlands. Since European settlement,

great portions of the North American landscape have seen their wetlands drained, dammed or degraded. Figures like 40%, 50% and even 90% are used to describe wetland loss in midwestern states. Gone with these habitats are the coots, rails, herons, and frogs—just to scratch the surface—that depended upon them.

More than a decade ago, a group of tribal biologists, spearheaded by Bob Jackson of the Minneapolis Area Office of the Bureau of Indian Affairs (BIA), came together to see if something couldn't be done about these losses. Although the need for wetland conservation had finally become well understood by the public, and large efforts were underway to reverse the trends in wetland abundance, funding dollars tended to dry up like a tiled wetland near the boundaries of the reservations.

Jackson pulled tribal representatives together to assess their needs and opportunities, and assembled them into a document that became titled *Bizhibayaash—the Circle of Flight (COF)*, reflecting both the migrations of these species and the circular concepts of life inherent in the Ojibwe life view. Then the work began to build the

political support necessary to take this model and make it a reality.

Undeterred by two years' effort without success, Jackson and the tribes persisted. Then, in 1991, the *Circle of Flight* changed from a concept to a program with an initial dedication of federal funding. Now it was time to go to work.

And over the last decade, tribes in the Minneapolis Region of the BIA have done just that, both on the reservations and at significant off-reservation sites in the ceded territory. Since that initial year, the Circle of Flight program has distributed 6.7 million dollars to 31 reservations and three inter-tribal organizations for wetland and waterfowl related work.

These dollars have been leveraged with other federal, state, private and tribal funding at a ratio of nearly 3:1, to restore or enhance 60,000 acres of wetlands, establish or enhance over 6,000 acres of grassland and prairie nesting cover, install thousands of nesting structures, and seed 150,000 pounds of wild rice.

And in the course of restoring wetlands, it has restored relationships as well. New and renewed relationships with state and federal agencies and private groups like Ducks Unlimited, The

Nature Conservancy and Minnesota Waterfowl Association have developed as partners came together to tackle problems with a shared concern.

For the Great Lakes Indian Fish & Wildlife Commission (GLIFWC) these partnerships have helped GLIFWC contribute to a wide range of ceded territory endeavors, including development of the Bill Cross Rapids and Bluegill Creek Impoundments; restoration of the Hiles Millpond and Wilson Flowages; and renovations on the Coyote, Wildcat Creek, Spring Creek and Chippanazia flowages. It also drives the highly cooperative, interagency effort to restore wild rice in the ceded territory.

Although the list of successes has become a long one, much work still remains to be done. And in the face of declining budgets and economic downturns, the future of the Circle of Flight is tenuous.

Although small by federal program standards, funding for the COF is in danger of being eliminated. Tribal resource managers are having to divert their attention from restoring wetlands to restoring funding, a struggle which may become as much of a yearly event as manoomin's struggle to produce its annual crop.

Tribal hatcheries release over 85 million fish into both on and off-reservation waters in 2001

Tribe Hatchery/Rearing Component	Walleye		Muskellunge		Lake Sturgeon	Largemouth Bass	Whitefish/Tullibee	Brook Brown Rainbow Trout**	Lake Trout	White Sucker	Total
	Fry	Fgl.	Fry	Fgl.							
Bad River	8,000,000	40,000									8,040,000
Grand Portage								54,153			54,153
Keweenaw Bay								103,000	101,000		204,000
Lac Courte Oreilles	4,700,000	1,300		2,500							4,703,800
Lac du Flambeau	14,572,000	364,461	513,000	1,000				13,100		15,000,000	30,463,561
Lac Vieux Desert											0
Little Traverse									10,000		10,000
Leech Lake	7,213,150	64,772					187,813			297,500	7,763,235
Menominee	370,000	139,000			22,108						531,108
Mole Lake	400,000										400,000
Red Cliff	350,000	2,132			120			232,981			585,233
Red Lake	31,500,000 ***	5,000				10,000*		3,500*			31,518,500
Sault Ste. Marie		313,696									313,696
St. Croix	428,567	152,960									581,527
White Earth	109,425				18,600						128,025
TOTALS	67,643,142	1,083,321	513,000	3,500	40,828	10,000	187,813	406,734	111,000	15,297,500	85,296,838

*Fish produced or obtained by the U.S. Fish & Wildlife Service

**Total number of one or combination of trout species

***Cooperative stocking with Minnesota Department of Natural Resources



Like a duck out of water

Fall waterfowl season outlook

By Peter David
GLIFWC Wildlife Biologist

Ducks

The data coming in off the continent's annual waterfowl breeding surveys has got some biologists scratching their heads. Continuing drought across large parts of western Canada pushed counts of wetlands, which have been conducted each May since 1961, to a record low.

In Canada, the decline in May ponds was a whopping 48% just from last year, with surveyed ponds in the U.S. only doing a little better with a 32% decline.

Counts of the breeding ducks themselves remained surprisingly high however, a remnant of last year's good counts, and a somewhat lighter than anticipated harvest last fall that was probably a result of unusual weather patterns.

Overall, duck abundance on the survey area was down 14% from last year, but it was only 6% below the long term average (1955-2001).

Good breeding numbers, however, doesn't necessarily equate with good

breeding. Survey's indicate that many birds overflowed what are usually the optimal breeding areas on the prairie, going north to the less productive but still watered boreal forest further north. Ducks found themselves crowded onto the wetlands that did remain.

Then as a final challenge, spring time was very late in coming. This delayed nesting and tends to result in clutches with fewer eggs being laid. The net result is that this year's fall flight will be weaker than last year, and next year could be very poor unless a lot of areas receive significant rainfall in the interim.

Mallards and blue-winged teal, two of the most important ducks in the tribal harvest, were essentially at their long-term average in terms of breeding numbers, but several other species were doing much more poorly.

Biologists are concerned about several species, including pintails and scaup (or bluebills), both of which have shown a long term, gradual decline over the past 30 years. The causes for these declines are not understood, and biologists suspect that it may be the result of several different factors.

For example, one recent study suggests that birds arriving at northern breeding sites may be in poorer condition than they were historically, possibly due to a decline in the quality of the migration habitat. This could result in delayed nesting and smaller clutch sizes, reducing productivity.

Geese

The situation is similar for the various populations of Canada geese that migrate through the ceded territory.

The Mississippi Valley Population (MVP), which is the most significant migrant population in Wisconsin and the Upper Peninsula of Michigan, estimates of the total population increased from last year, but the percentage of the birds that actually nested declined, and nesting dates were the latest on record, so late that goose banders in some areas are concerned that they may not be able to put bands out because the young-of-the-year geese are so delayed in their development.

The net result of all these factors suggests the fall flight of MVP geese will be smaller than last year.

Whooping Cranes

Among non-hunted species, one of the most exciting things unfolding is the effort to establish a wild, migratory flock of Whooping cranes in Wisconsin.

Last year the first small group of birds was released at Necedah National Wildlife Refuge, where they were trained to follow a small ultralight airplane. The plane was then used to lead the birds to a wintering area in Florida last fall. Five of the birds that made the journey were still alive this spring, and they returned to Wisconsin on their own.

A second batch of 17 young birds are currently in training at Necedah. The only other flock of migratory whoopers in the world, which nest at Wood Buffalo National Park in northern Canada, appears to have had very poor production this year with the late spring. Detailed information on this project is available at the web page www.bringbackthecranes.org.

Manoomin

At the time of this writing, GLIFWC staff are still compiling information on this year's manoomin crop. Limited initial information has us more encouraged than we were earlier, when high water levels seemed likely to plague many rice beds—something that anecdotal information suggests is turning out to be the case in parts of Minnesota. At least some of our beds are looking pretty good at this time. We will post information on abundance on our website: www.glifwc.org as it becomes available. We hope you have a great ricing season!

Harvest opportunities ahead

Upcoming off-reservation, treaty seasons

For specific information and dates regarding any off-reservation treaty seasons, tribal members should contact their reservation conservation department or the on-reservation Great Lakes Indian Fish and Wildlife Commission satellite enforcement office or registration station.

Seasons may vary some from state to state, or from tribe to tribe. However, some of the opportunities for off-reservation hunting, fishing, and gathering in August through November 2002 are as follows:

Wisconsin 1837, 1842 Treaty ceded territory

- Waterfowl hunting
- Wild plant gathering
- Wild ricing
- Deer/bear hunting
- Trapping
- Small game hunting, seasons vary by species
- Firewood and balsam bough gathering in national forests
- Netting
- Hook and line fishing

Minnesota 1837 Treaty ceded territory

- Waterfowl hunting
- Wild plant gathering
- Wild ricing
- Deer/bear hunting
- Trapping
- Small game hunting, seasons vary by species
- Netting
- Hook and line fishing

Michigan 1836, 1842 Treaty ceded territory

- Waterfowl hunting
- Wild plant gathering
- Wild ricing
- Deer/bear hunting
- Trapping
- Small game hunting, seasons vary by species
- Firewood and balsam bough gathering in national forests
- Netting
- Hook and line fishing

Treaty commercial fishing in Lake Superior, Michigan and Wisconsin waters
(Consult with tribal codes for specific quotas, units and dates.)



Aaron VanZile, Mole Lake/Sokaogon, harvests manoomin (wild rice) from Rice Lake. (Photo by Sue Erickson)

We need your rice seed!

Each fall the Great Lakes Indian Fish & Wildlife Commission (GLIFWC) coordinates an intertribal, interagency effort to restore manoomin to its historic abundance.

You can help by selling your freshly harvested seed to us for use in reseeded programs both on and off area reservations. Help to keep the tribes leaders in manoomin management. Contact Dan North or Peter David at (715) 682-6619 before harvesting to make arrangements. **Miigwech!**



Wa-Swa-Goning Village

A journey into the past

Lac du Flambeau, Wis.—A little Ojibwe village, nestled along the shores of Moving Cloud Lake near Lac du Flambeau, Wisconsin, offers a truly unique opportunity to take a journey back in time—back to the life of Ojibwe people prior to European settlement and a time when hunting, fishing and gathering meant survival.

The village's name, Wa-Swa-Goning, means the place where they spear fish by torchlight in Ojibwemowin (Ojibwe language). The name Lac du Flambeau (French for lake of the torches) also reflects upon the early practice of spearing fish at night using torchlight.

A guided tour through the several seasonal Ojibwe camps that comprise Wa-Swa-Goning Village develops a great deal of appreciation for the ingenuity, skill and stamina of the Ojibwe people and sparkles with interesting details about life back then.

Bone knives, arrows, bows, stone axes, fish traps, snares and deadfall traps as well as canoes, ricing sticks and makak (birch bark containers) are among the items found within the traditional campsites. There is ample opportunity to touch and look at the items and even go inside the wiigiwaaman (wigwams) to get a feel of a traditional Ojibwe home environment.

Cook fires and drying racks are also part of the setting, as are underground food storage caches and items for play, such as lacrosse sticks and double-ball bags made of two leather pouches filled with sand and tied together.

Hosting many of the tours this summer, Bob Hudack, Lac du Flambeau tribal member, starts off the journey through the village at the summer camp where he delivers a traditional greeting to everybody in Ojibwemowin and explains the various parts of the traditional greeting, which includes name, tribe and clan.

His exposition is filled with Ojibwe humor, many interesting facts about early Ojibwe life, and insights into traditional belief and ceremonial practices.

You learn that campsites were determined by availability of specific, needed resources—birch bark, cedar, water, and wild rice—although the Ojibwe also had separate rice camps adjacent to important bodies of wild rice. When it was time to leave camp in late summer, the bark was taken off the frame of the wiigiwaam and protectively stored underground until the people returned the following summer. They would revisit a campsite four to five years in succession and then establish a new summer campsite to allow the surrounding resources to replenish themselves.

Visitors are given a chance to try their hand at using a lacrosse stick and wooden ball or attempt the women's game of double ball. Lacrosse, traditionally a man's game, Hudack says, was sometimes used to settle disputes in lieu of fighting and violence.

The next stop is the canoe arbor where a birch bark canoe rests under the shade of a wooden arbor, necessary to prevent deterioration of the birch bark from the elements. At this stop you see a birch bark torch, such as was used when spearing fish, and also learn about the traditional gathering and care of wild rice. Once winter sets in, the canoes were stored under water, weighted down with rock and preserved by the ice through the winter months.

Then, on you go down a short wooded path to the arrow-maker's lodge. Bone knives, arrowheads fashioned of obsidian (a rock from lava) and flint, a spear, bow and arrows and club arrows are among the tools employed for hunting. Breaking



This summer campsite at the Wa-Swa-Goning Village is the first stop on a guided tour.

down some John Wayne myths, Hudack notes that hunters were loath to throw spears at large game and potentially lose them. They were more likely to wound them with arrows and then finish the kill with a spear. The tools required too much work to be used recklessly. Also, if a sharp stone arrowhead was not necessary to kill a small animal, the hunter would be likely to use an arrow with a club head rather than waste the precious stone arrowhead.

He also notes that some of the stones, such as the obsidian and hard flint, are not found locally, so are indicative of active trade routes to other areas for important supplies.

And how would the Ojibwe take down large trees with only a blunt stone axe? Well, they would burn the bottom of the tree's trunk, wetting the trunk just above the area to be burned with wet moss or a wet hide. This would prevent burning more of the wood than necessary. Once the fire had charred the wood, they could use the stone axe to chop away the charred base of the tree, until the tree could literally be pushed over. This is just one of many interesting details learned along the way through Wa-Swa-Goning Village.

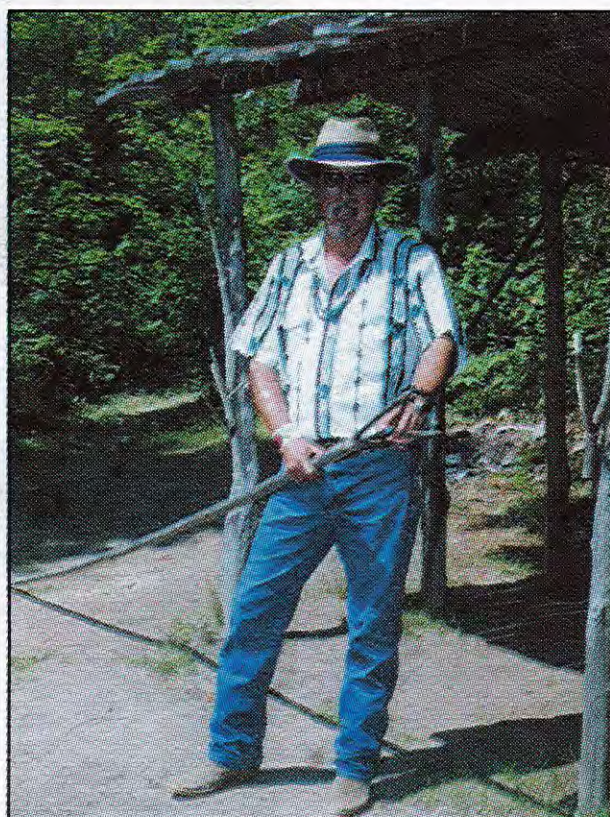
Next stop on the tour is winter camp, where lodges show the use of buried stones for heating. Arranged so the stones all touch, heat from a central fire is transferred stone to stone, hence heating the whole floor area. A duct allowing oxygen to reach the indoor fire is constructed through a buried "pipe" made out of rolled birch bark, allowing a flow of air to reach the central fire.

(See Wa-Swa-Goning, page 13)



Harvesting maple sap was an important springtime activity of the Ojibwe. They used birch bark containers to catch the sap. It was boiled down, usually into maple sugar. A wooden sugar mold rests against the wiigiwaam frame. Sugar was preferred because it was easier to store and transport.

**Article & photos by
Sue Erickson, Staff Writer**



The Ojibwe also used spears fashioned from antlers and bone to harvest fish.



Setting snares and traps was a common method of catching both large and small game. Above, Bob Hudack demonstrates a rabbit snare.



Wa-Swa-Goning

A learning opportunity

(Continued from page 12)

A little further down the trail we stop at several traps and see how the people set snares from tree branches or set up the big dead fall traps for larger animals such as bears. The latter would hit the animal with a large log from above and impale it on spikes from below—a sudden, double whammy device.

The final stop on this particular tour took the group to the vision quest area, with an explanation of the traditional rites of passage for young men and women of the tribe. For both it requires periods of isolation from the band and considerable teaching and instruction from the elders as they begin to understand their role in the society.

The tour is a “no rush” walk through the village with lots of time available for questions, answers and just looking about. While the tour took about an hour and a half, the distances between the various stops were not great and logs were arranged for seating areas.

Wa-Swa-Goning Village is managed by Linda Albers, Lakota, but owned by Nick Hockings, Lac du Flambeau tribal

member, and his wife, Charlotte. Volunteers, frequently college students taking related classes, spend several weeks at the village and help with the tours.

The idea to create the village, now in its ninth season, began germinating in Nick’s mind prior to the treaty controversy in Wisconsin. Running a print shop on the reservation at the time, visitors would stop and ask about attractions on the reservation. All there was at the time was a Thursday night powwow at the Flambeau Bowl, and he began to think that something more was needed to express the culture.

When social strife and controversy came into full swing over the treaty, spring spearing season and hostility in the communities was rampant, the need for public outreach became even more apparent to Nick and Char.

Nick could not find the right land for his village, so he leased some land from the tribe and began classes and building wiigiwaaman while he continued his search. Later, film producer Peter Matulivich approached him to build an Ojibwe village for a film set. Land was leased on lower Sugar Bush Lake, and

“People of the Forest” was filmed. “After that, we had everything,” Nick says, “all we needed was the land.” That he eventually found on the present 20 acres on Moving Cloud Lake.

In May of 1993, with the snow still on the ground, the village began to go up. He built a teaching lodge and put out a call for volunteers. The second week of June, Wa-Swa-Goning Village opened, with some details left to be completed.

Currently, the Village opens during the second week in May to accommodate school tours in the spring. The

Village also hosts extended stays in a rustic camping area or can be available for group experience programs during the day or evening.

The Village is listed in the book, *Sacred Sites*; has earned a Wisconsin Historic Preservation Award; and was recognized as a prime cultural site in the 2002 *Wisconsin Trails Magazine*.

Nick is also available to give presentations to groups or schools. More information about Wa-Swa-Goning Village is available at (715) 588-2615; e-mail: nick@waswagoning.com; website: www.waswagoning.com.



Prior to European settlement the Ojibwe used both nets and traps to catch fish. Above, Bob Hudack, Wa-Swa-Goning tour guide, explains how a fish trap works.



Central heating in a winter wiigiwaam was the center fire. By laying stones so they touched each other throughout the floor of the wiigiwaam, the entire floor area would be heated. A birch bark “pipe” was buried beneath the floor also, allowing air to reach the central fire.



A birch bark canoe rests under a canoe arbor. The canoes were protected from direct sunlight and during the winter stored underwater. The canoes would be weighted down with stones and sunk in a lake to be stored in the ice until spring arrived.

GLIFWC's 2002 annual poster commemorates 1850 Sandy Lake Tragedy

The Great Lakes Indian Fish & Wildlife Commission's (GLIFWC's) 2002 poster will be available in August. Entitled *Mikwendaagoziwag: They are remembered*, the poster honors Ojibwe ancestors who suffered and died during the 1850 Sandy Lake Tragedy.

As part of a scheme to remove Michigan and Wisconsin Ojibwe to the Minnesota territory, government officials scheduled the annual annuity payments in the late fall at Sandy Lake, Minnesota rather than at LaPointe, Wisconsin.

The Ojibwe arrived at Sandy Lake in late October to find that all the annuities had not yet come. They were forced to wait for over a six-week period near the Indian sub-agency in deplorable conditions with inadequate shelter and food. More than 150 Ojibwe people died from disease and exposure at Sandy Lake.

On December 2, a partial annuity payment was finally completed, and the Ojibwe set out on snow and ice covered trails towards their homes. Another 250 died on their way home.

However, the Ojibwe resolve to return to their homelands and never to go back to Sandy Lake foiled the plan for removal and eventually led to the establishment of permanent reservations for many of the Ojibwe bands in Michigan, Wisconsin and Minnesota.

Their resolve to return to their homelands was also pivotal in securing their treaty-reserved rights to hunt, fish and gather in ceded territories.

A copy of GLIFWC's Sandy Lake brochure will accompany the poster. The first copy of the poster is free. There is \$2.00 charge for each additional poster. Posters are available at GLIFWC's Public Information Office. Call (715) 682-6619; e-mail pio@glifwc.org; or write PIO, GLIFWC, P.O. Box 9, Odanah, Wisconsin 54861



Waasa Inaabidaa: We Look in All Directions

Video series and book make great resource material

commitment to self-determination and how tribes continue to exercise their sovereignty today.

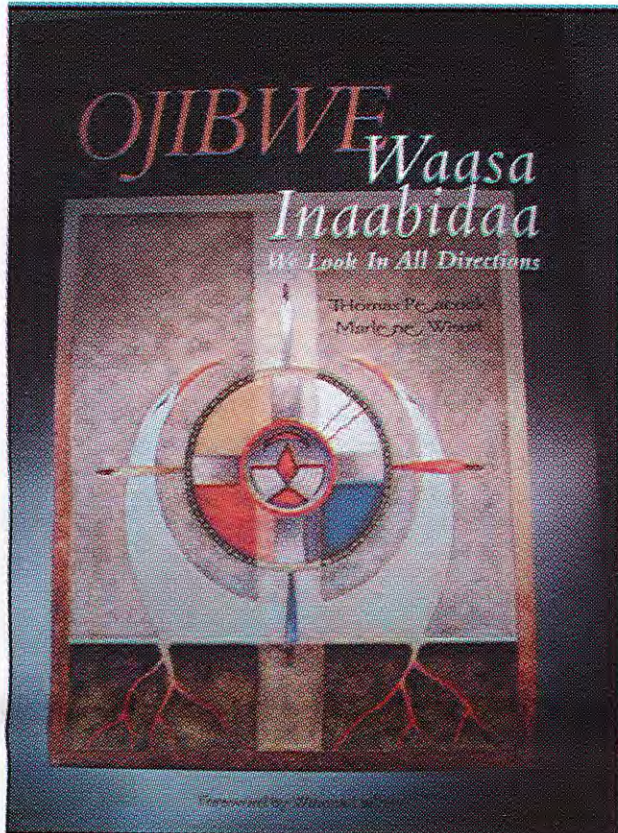
By Sue Erickson, Staff Writer

Waasa Inaabidaa presents a comprehensive overview of the Great Lakes Ojibwe, reaching back to their earliest migrations and continuing to modern day Ojibwe life. Through a series of six videos produced by Lorraine Norgaard and a companion book, also entitled *Waasa Inaabidaa: We Look in All Directions* by Thomas Peacock and Marlene Wisuri, the viewer/reader gains a deep respect for

the fortitude of the Ojibwe people and the strength of the culture.

The voices in the videos and in the book are Ojibwe voices. Incorporating comments from numerous Ojibwe people and narrated by Winona LaDuke, White Earth Ojibwe, the videos present an Ojibwe story told by Ojibwe people.

The videos all begin with a prayer and a story told in the Ojibwe language with sub-heads. Much of the imagery is circular, reflecting an Ojibwe pattern of thought and life, and also a return to the beginning, a renaissance among Ojibwe people committed to retaining their language, teachings, values, and lifeways after enduring years of destruction.



Reaching back to the past, each video starts at the beginning, illustrating life and Ojibwe culture as it was prior to European contact. They proceed to reveal major influences—policies, laws and events—that lead to the near dismantling of the entire culture.

Finally, they look at contemporary Ojibwe life and communities and the healing process that is now taking place as Ojibwe people regain and strengthen their Ojibwe identity.

Both the video series and the book are rich with historical information and are beautifully illustrated, making them pleasing and valuable resources.

The video series includes:

Gikinoo'amaadiwin...We Gain Knowledge: Education and Family Systems

The video begins with a depiction of family-oriented, traditional Ojibwe education prior to European settlement and takes the viewer full circle over the years of change to a family and tradition-oriented education in a contemporary setting on Ojibwe reservations.

The video illustrates the devastating impacts of European settlement and subsequent government policies, including the deliberate breakdown of traditional Ojibwe lifeways and language through mission schools and placing children in boarding schools.

The video follows Indian education through several eras and includes observations from many interviews with Ojibwe educators and people who suffered the impact of negative policies. It concludes with a look at tribal schools—headstarts, elementary and high schools and colleges—which have become a part of many Ojibwe reservations today.

Gwayakochigewin...Making Decisions the Right Way: Leadership and Governance

A teaching in Ojibwemowin about the boy and the otter, which reveals seven basic principles as guides to a good life, is a prelude to this segment on leadership and government.

The segment discusses Ojibwe self-governance and the organization of Ojibwe society prior to European influence, pointing to effectiveness of the clan system and decision making by consensus. It proceeds to take the viewer down the historical timeline, emphasizing the many events and policies which impacted tribal governance, including substantial discussion of tribal sovereignty, the treaty-making period and the treaty right struggles of the 1900s.

The segment incorporates many interviews with tribal leaders, including chairpersons, judges and attorneys, who both relate history and discuss the Ojibwe

Gakina-Awiiya...We are all Related: Relationship to the Environment

This video features the cultural and spiritual connection of the Anishinaabe people to the land and relates how the Ojibwe people lost most of their land as a result of European settlement and U.S. policy.

The viewer is taken through the treaty era when huge segments of land were relinquished for promised annuities, many which were never fully paid. It details the attempt to remove Wisconsin and Michigan Ojibwe to Minnesota, part of a scheme to bring the money and goods promised the Indians to the territory of Minnesota, and also the resulting Sandy Lake Tragedy.

The narration takes you through the allotment period when reservation land became privatized and resulted in further loss of Indian land to non-Indians and into the treaty right battles in the 1970s–1990s, ending with the favorable Supreme Court decision in the Mille Lacs 1837 Treaty Case.

Narrative by Ojibwe people provides firsthand accounts of experiences during the treaty struggles and relates their commitment to retain their rights and to recover their language, culture and spiritual connections to Mother Earth.

Ojibwemowin... Ojibwe Oral Tradition/Language

The video on language begins with the creation story in Ojibwemowin and discusses the importance of language in terms of expressing a peoples' history, culture, relationships, and spirituality.

The concepts related in Ojibwemowin and are far different than those in the English language and western thought. As one speaker on the tape says, "Without the language, we become nothing more than brown-skinned western people." The urgent need to recover the language is a theme common in many of the interviews incorporated in the video.

The video reviews the treaty and assimilation periods of history, demonstrating how the language was deliberately taken from the Ojibwe, who were forbidden to speak the language or practice their ceremonies.

Today, Ojibwe communities and schools are working hard to recover the language through a variety of programs and inclusion of elders who have retained the language as teachers. A number of success stories are related as well as successful teaching techniques.

Bimaadiziwin...A Healthy Way of Life/Health

Bimaadiziwin addresses physical, spiritual and emotional health. Prior to the coming of the first French fur traders, the Ojibwe lead a life dependent on seasonal harvesting of food and living supplies. However, European contact not only broke the pattern of living by introducing trade, but also brought foreign diseases which were devastating to the Ojibwe population.

Traders also introduced alcohol and encouraged indebtedness as methods of controlling the Ojibwe. Later, laws were passed prohibiting ceremonies and the exercise of their religion, and the people became dependent on processed, unhealthy foods. Life for the Ojibwe became out of balance. They were faced with poverty, sickness and despair.

A turn-around began with the 1975 Indian Self-Determination Act that gave tribes some control over Indian Health Services. Indian Health Services on reservations have continued to grow, some of them benefiting from gaming revenue. Some even offer access to traditional medicine and traditional healing. The video provides a look at modern day health services and includes comments from numerous Ojibwe people involved in providing health services on reservations.

Gaa-Miinigooyang...That Which is Given to Us/Economic Survival

Early Ojibwe depended on Earth and her creatures for sustenance. They were taught to respect all other life forms and to be thankful, to offer asemaa before another life be taken for sustenance. They lived in balance with their environment, taking only what was needed.

Interrupted by the arrival of white traders and subsequent settlement, the subsistence living became one dependent on the fur trade. When that collapsed, many Ojibwe were totally impoverished. Lands were lost in cession treaties, the landscape denuded of trees by timber barons, and the people were constantly faced with efforts to assimilate them and take what lands remained.

This is the story of a long struggle with poverty, which began to end in the late (See *We Look in All Directions*, Page 15)



Cultures clash at Lac du Flambeau in *The Walleye War*

Nesper authors in-depth look at spearfishing in the late 1980s

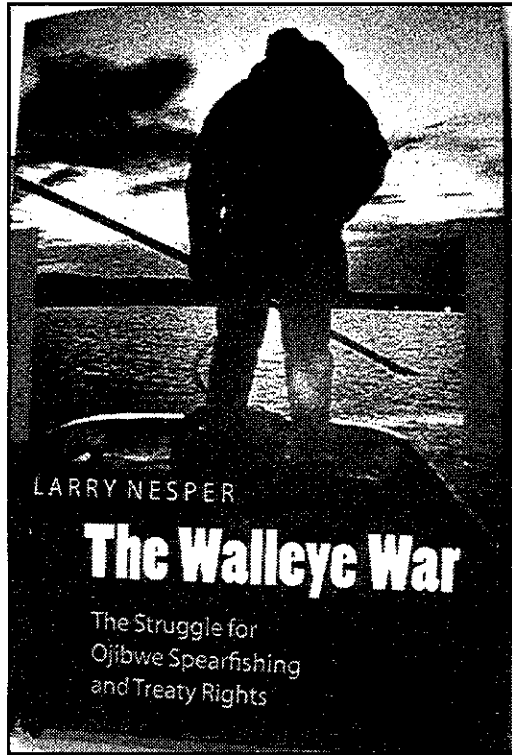
By Charlie Otto Rasmussen
Staff Writer

Little more than fifteen years ago a fault line cracked northern Wisconsin communities wide open and sent shock waves across the state. The fissure divided many non-Indian residents from Ojibwe people who had recently begun exercising court-protected rights to hunt and fish off-reservation. Unhappy, confused, and misinformed, some white residents angrily protested Ojibwe spearfishing while others came to the support of the tribal members.

If there was an epicenter to this phenomenon—where communities were torn from within and without, and in-your-face racism flowed unabashedly—it was probably the Lac du Flambeau region. Beginning in the late 1980s, Larry Nesper began documenting the struggle of the Lac du Flambeau Ojibwe to exercise harvest rights their ancestors reserved in 19th century treaties with the United States. Nesper's ethnographic study became the foundation for his new book, *The Walleye War: The Struggle for Ojibwe Spearfishing and Treaty Rights*.

Drawing from the work of anthropologists, contemporary sources and his own observations, Nesper aptly tells a story of how tribal members responded to the assaults of anti-Indian protestors. Pressured by local white citizens and the state government, Lac du Flambeau's membership was split between negotiation and standing by their reserved rights.

Nesper traces the reemergence of the *ogichidaa*, or warrior, class that advocated traditional Ojibwe practices and refused to bow before opponents of off-reservation spearfishing. Tom Maulson, Chairman of GLIFWC's Board of Commissioners and



Voigt Intertribal Task Force, factors prominently in the narrative as the "modern war chief" of the Lac du Flambeau Ojibwe during the late 1980s and early nineties.

Nesper's finest writing appears in Chapter 1, "Cultural Topography and Spearfishing," where he guides readers on a tour of Lac du Flambeau as he knew it a decade ago. Readers familiar with the area will recognize local landmarks and perhaps some of the tribal members Nesper weaves through the narrative.

Through a mix of descriptive language and dialogue he shares an intimate look at a few Lac du Flambeau spearfishers, expertly converting human subtleties like physical gestures and speech into text.

Fall release scheduled for new GLIFWC publication

A new book published by the Great Lakes Indian Fish & Wildlife Commission Press is scheduled for release this fall. *Ojibwe Journeys: Treaties, Sandy Lake, and the Waabanong Run* by Charlie Otto Rasmussen explores key events in the history of Ojibwe people in the greater Lake Superior region.

Soon after Ojibwe leaders negotiated treaties with the United States in the mid-1800s, tribal members embarked on a journey to maintain their reserved rights to natural resources.

Through traditions that include distance running, spiritual living, and a developing legal prowess, Ojibwe people have struggled against formidable governments and anti-Indian groups.

Ojibwe Journeys includes rare historical photos, color images and maps, an explanation of treaty rights fundamentals, and an intimate look into the lives of some Ojibwe people today.

New CD available from GLIFWC

Non-medicinal Plants Used by the Great Lakes Ojibwe

A CD produced by GLIFWC about non-medicinal plants in the Great Lakes region will be available for sale to the general public in September 2002.

The result of meetings with elders from the 11 member GLIFWC tribes, the CD identifies non-medicinal uses of plants gathered by the Great Lakes Ojibwe, such as wild bergamot used as a hair rinse and conditioner, elderberry juice used as lipstick when mixed with tallow, or cattail used as a food.

The CD includes the complete database of 585 pages and includes breakdown summaries that identify specific uses of plants. It also includes transcriptions of meetings with the elders, a seasonal harvest calendar, and a plant listing that includes links to photographs of most plants. There are also five video clips of elders talking about specific uses of different plants.

Set up as an auto run, the CD opens up automatically to the Table of Contents when placed in your computer. With the established links and bookmarks throughout the information in the CD, it is user friendly. Utilizing Adobe Acrobat Reader to access, it will even self-install the necessary software if isn't all ready on your system.

The CD is \$12.00, which includes postage. To order, contact GLIFWC's Public Information Office at P.O. Box 9, Odanah, Wisconsin 54861; email: pio@glifwc.org or phone (715) 682-6619, ext. 108.

"Wisconsin Indians" revised & expanded

Wisconsin Indians, the classic, best-selling short history of federal Indian policy and its effects on American Indians living in Wisconsin, was recently published by the Wisconsin Historical Society Press in a revised and expanded edition. Nancy Oestreich Lurie, Milwaukee Public Museum curator emerita of anthropology and prolific author, thoroughly updated her seminal work, which introduces the history of Indian affairs from the founding of the United States to the beginning of the 21st century.

Francis Paul Prucha, Marquette University professor emeritus of history and author of many books, notes in the foreword, "Today's Americans who aren't Indians need to gain more than a passing acquaintance with the Indians in their midst. They must learn to know the tribal people who share American citizenship but who, as well, struggle to preserve their original cultural values and special legal rights."

Lurie notes in the preface "Wisconsin continues to offer an unusual opportunity to understand the national Indian picture. Over the years the state has served as a kind of national laboratory for most of the government's policies and programs, while at the same time Wisconsin Indian tribes and organizations have exemplified and sometimes led in new developments to improve the lives of Indian people."

Regarding the benefits of gaming on Indian life, Lurie notes, "Gaming provides new employment opportunities and supports programs that can begin addressing old problems of substandard living conditions regarding health, housing, welfare, and education on the reservations. It is of particular interest that almost as soon as gaming began, tribes also earmarked funds for cultural activities, language programs, tribal archives and museums, and land acquisition."

The new edition reflects current scholarship as it traces federal policy from the treaty-making era to the rise of tribal activism in the 1960s to the profound changes brought about by Indian gaming. Other updates include new photos and the foreword by noted historian Francis Paul Prucha.

Waasaa Inaabidaa: We Look in All Directions

(continued from page 14)

1900s with the advent of Indian gaming. Gaming provided economic self-sufficiency previously unknown to many Ojibwe tribes.

Although success of tribal gaming ventures varies from tribe to tribe, it provides a significant economic boon to tribal and surrounding communities. Despite success in the business world, Ojibwe continue to relate to a traditional way of life and continue to hunt, fish, and gather rice.

Waasa Inaabidaa: We Look in All Directions By Thomas Peacock and Marlene Wisuri

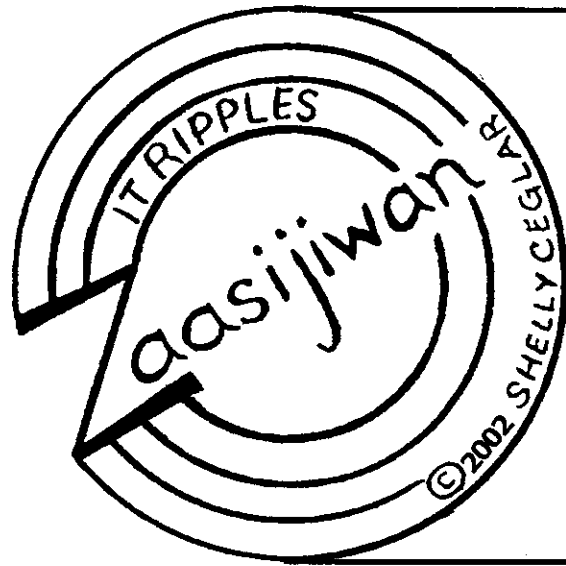
Produced as a companion volume to the video series and written by Thomas Peacock, Fond du Lac tribal member and associate professor of education at the University of Minnesota-Duluth, the book follows the same themes as the video series.

Peacock relates the story of Ojibwe lifeways, struggle, survival and renaissance in a very personal manner. While producing a comprehensive historical overview of Ojibwe history spanning 500 years, he weaves much of his own history, experiences and humor into the text, beginning and ending each section with a personal story. This makes the text enjoyable, intimate and very readable.

As Peacock states in the book, "My representation of the history of Ojibwe education will always contain some of my own story because I am Ojibwe. I am part of the story. Moreover, I am forever reminded of our indebtedness to our ancestors, grandparents, great grandparents and the people before them, who endured and survived a horrifying period of history so we could be here today, still proud of who we are, still strong in our ways."

Marlene Wisuri succeeded in enhancing the text with diverse images, including beautiful artwork, historical and contemporary photos, and illustrations.

Waasa Inaabidaa: We Look in All Directions is a truly enjoyable read and a great resource.



Dagwaaging—It is Fall

Ani-dagwaaging, megwaayaak bimose, nindede. Jekaakwa'am. Oganawaabandaan. Oganawaabamaan iniw mitigoon. Oganawaabamaan iniw bineshiyan. Gaye, nidaanikeshkawaa. Ninjekaakwa'am. Ninganawaabandaan. Ninganawaabamaag ingiw mitigoog. Ninganawaabamaag ingiw bineshiyag. Nimbizindaamin.

(Coming up to when it is fall, in the woods he walks, my father. He goes into the woods. He watches for things. He watches those trees. He watches those birds. Also I follow him in his steps. I go into the woods. I watch for things. I watch those trees. I watch those birds. We listen.)

Bezhiig—1

OJIBWEMOWIN (Ojibwe Language)

Double vowel system of writing Ojibwemowin.
—Long vowels: AA, E, II, OO
Aaniin—as in father
Awedi—as in jay
Wiigwaas—as in seen
Mitigoog—as in moon
—Short vowels: A, I, O
Idash—as in about
Imaa—as in tin
Ozaawizi—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.

Four Verb Types COOL root verbs

VAI—S/he verbs.
Dakise—She/He is cool.
Nindakise—I am cool.

VII—"It is" verbs.
Dakisemagad—It is cool.

VTI—"To it" verbs.
Dakisidoon—Set it to cool!
Nindakisidoon—I set "it," something inanimate to cool.

VTA—"To him/her" verbs.
Dakishim!—Set him/her to cool!
Nindakishmaa.—I set someone animate to cool. (bakwezhiigan—bread is animate.)

Niizh—2

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

A. Megwaayaak, dakise dash bishagiishkaa.

B. Agawaateshin i'iw mayagi-bine awedi.

C. Diindiisiwag noondaagoziwag giwedonong.

D. Gijigijigaaneshii i'iw. Namadabi imaa azaadiing.

E. Ininaatigoog miskoziwag. Wiigwaasi-mitigoog ozaawiziwag.

F. Niwaabamaa mitigominzh agidaaki.

G. Mitigoog idash bineshiyag maamawi.

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

Niswi—3

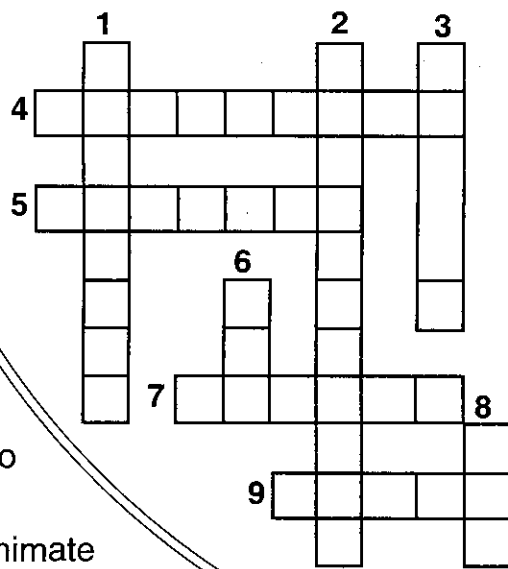
IKIDOWIN ODAMINOWIN (word play)

Down:

- Trees.
- Birds.
- S/he walks.
- Verb, Transitive, Animate translates to "To him/her" verbs.
- Verb, Intransitive, Animate translates to "He/She..." verbs.

Across:

- Bluejay.
- My father.
- S/he is cool.
- S/he sees.



Niiwin—4

Verb Types

Waabi.—S/he sees.
Niwaab.—I see.
Waabandan!—See it!
Niwaabandaan.—I see it.
Waabam!—See him/her!
Niwaabamaa.—I see him/her.
Nitaawigi.—S/he grows up.
Nitaawigin.—It is growing up.
Nitaawigitoon.—Make it grow!
Nitaawigi'.—Make someone grow!

Goojitoon! Try it!
Translation below.

- _____ waabam _____ i'iw wiigobaatig imaa.
- Waabang wii-waabi dash _____ wii-waab.
- _____ nitaawigi' _____ apakwanagemag.
- Lindsay nitaawigi dash _____ nitaawigi.
- _____ waaband _____, Gichi-ziibi waabanong.

Ni
Ni...aan
Ni...aa

Translations:

Niizh—2 A. In the woods it is cool and darkened. B. She is in the shadow that strange partridge (a pheasant over there). C. Bluejays make a characteristic call to the north. D. That is a chickadee. S/he sits there in the poplar (aspen) tree. E. Sugar maple trees are red. Birch trees are yellow. F. I see him/her an oak tree on top of a hill. G. Trees and birds together.

Niswi—3 Down: 1. Mitigoog. 2. Bineshiyag. 3. Bimose. 6. VTA. 8. VIA. Across: 4. Diindiisi. 5. Nindede. 7. Dakise. 9. Waabi.

Niiwin—4 1. I see him/her that basswood tree there. 2. In the morning, at dawn, she will see and I will see. 3. I make him/her grow (plant him/her) norway pine. 4. Lindsay grows up and I grow up. 5. I see it, the Great River to the east.

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 foreign language translation.

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Ready to dance!

During the summer and fall, there are many powwows on Ojibwe reservations. The powwow is a very special time; it is a community celebration of life, an event that brings people of all ages together to sing, dance, and be with family and friends.

Many different kinds of dancers enter the dance circle wearing beautiful dance outfits. They dance in a large circle, to the music and songs of the drum. The circle is important because it has no beginning and no end, so it brings people closer together.

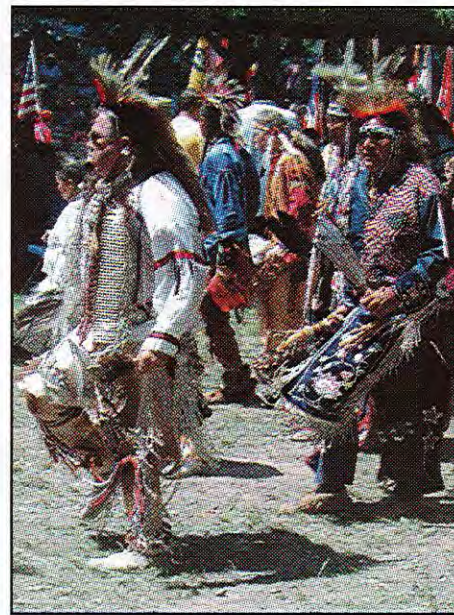
The drum is said to be like the heartbeat of Mother Earth, its sound helping people stay in touch with Aki, Mother Earth. The drum must be respected because it is made from two, once-living beings—the tree and the animal (deer, elk, moose, etc.). The tree gave the wood, and the animal gave the hide that is stretched over the frame. Those beings gave up their lives to contribute to our happiness and life.

Powwows usually begin with a prayer offered by a “pipe-carrier” or a “spiritual advisor.” Then, all dancers enter the dance circle led by flag carriers carrying veterans’ banners, the U.S. flag and Eagle staffs. The lead dancers, honored guests, and the rest of the dancers follow. Onlookers are asked to stand in honor of the flags, Eagle staffs and veterans.

There are many different types of dancers and dance outfits; each is very special. Some of them are as follows:

Men’s Traditional Dance

The manner of dance has many stories of origin. The men dance first to make sure the way is safe for the women and children who follow. Many of these men dancers are veterans and have earned the right to wear Eagle feathers. The dancers’ movements tell a story, sometimes about a hunt.



Men’s Grass Dance

It has been said that these dancers have the flowing appearance of the grass; other stories tell of grass dancers as those who enter the circle first, because they respectfully laid the grass down so other dancers could come out and dance within the circle. The movements of the dance are leaned at a young age. The movements made to the left, must also be made to the right.



Men’s Fancy Dance

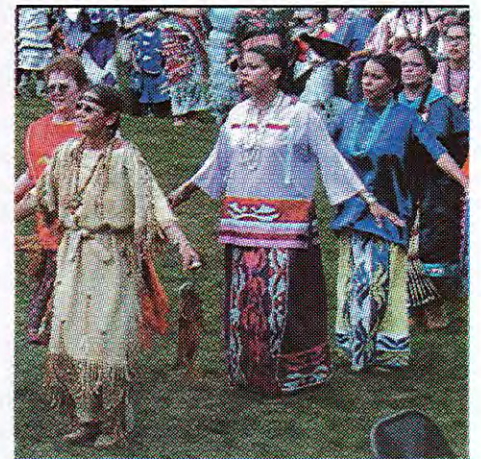
This fast and exciting style of dancing originated in the south. The southern people prized the double bustle, made of many colorful feathers and worn on the back. The songs are fast, and dancers must know them very well because they were written to “trick” the dancers.



Photo by Amoose.

Women’s Traditional Dance

This dance is slow-moving and graceful. The women have very elegant motions as they sway from side to side, often in place. Their dresses are usually made out of buckskin or cloth.



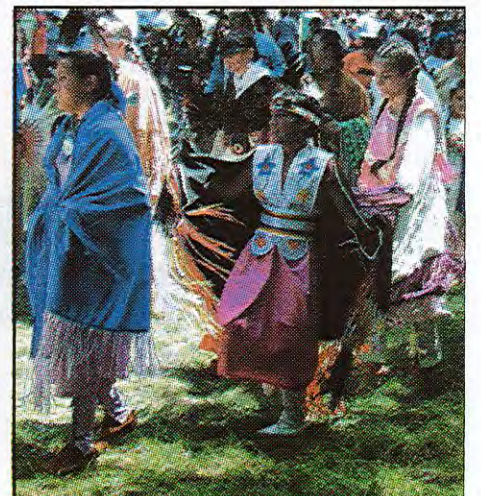
Women’s Jingle Dress Dance

The dress worn in this dance was the traditional dress of Anishinaabe women, and the origin of this form of dress was that it was a “healing dress.” Originally, the jingles were fashioned out of the tins from snuff containers, but now can be purchased ready-made. This style of dance has become popular across Indian Country, and the beautiful sound of the jingles can be calming. In the early days, the dancers did not lift their feet off the ground, and usually stayed in one place.



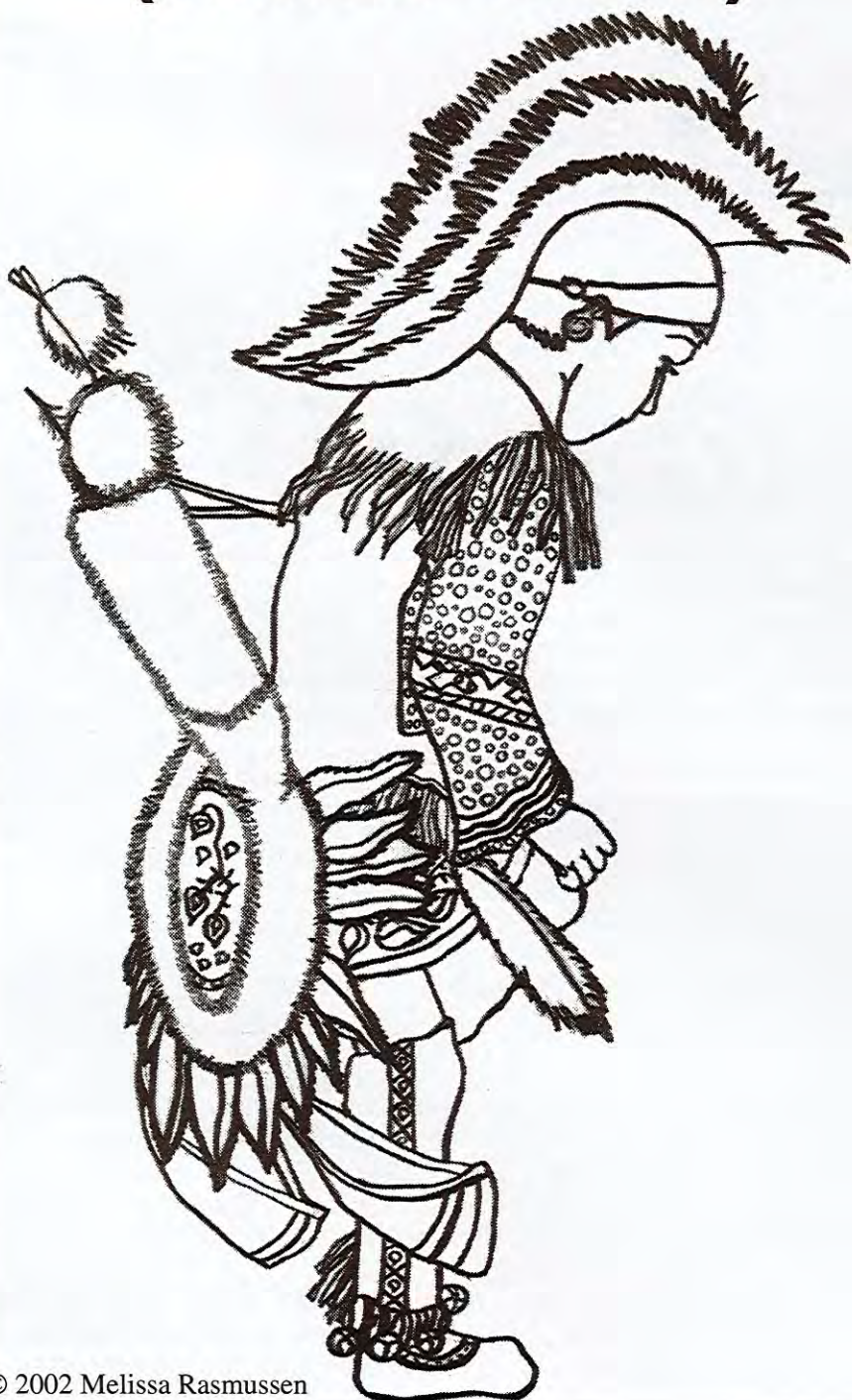
Women’s Fancy Shawl Dance

This is sometimes known as the ‘butterfly dance,’ and the women who dance this style are light as a butterfly as they travel around the circle. The women must be very light on their feet, and like the grass dancers, each move performed in one direction must be done in the other direction as well.



Article reprinted from *Native American Casino*, June 2002.
Photos by Charlie Otto Rasmussen & Lynn Plucinski,
Mazina'igan staff

color me— bwaanzhiiwi'on (dance outfit)



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Rainbow Family stages gathering on Ottawa National Forest

Environmental rehabilitation underway

By Charlie Otto Rasmussen, Staff Writer

Watersmeet, Mich.—The recent Rainbow Family gathering on the Ottawa National Forest (ONF) in Upper Michigan unfolded like an appointment to the dentist. After a period of uneasy anticipation, the moment arrives. It isn't as bad as you expected, but you're still left with a nagging sore spot that takes longer than you'd like to heal.

That spot is north of Watersmeet, Michigan along Sucker Creek where more than 7,000 Rainbow Family members converged from late June to early July. Despite efforts by Forest Service officials to encourage gathering sites that would lessen negative impacts on natural resources, the Rainbow Family bypassed the permit process and claimed a secluded hillside and adjacent floodplain for the two-week event.

"They picked a poor area for many reasons," said Bob Evans, a Forest Service wildlife biologist who monitored environmental impacts during the gathering. "There was a lot of rain at the beginning of the gathering, and the clay soil turned to grease, causing a lot of rutting. When they were digging slit trenches [outdoor toilets], they hit the water table at less than a foot, so we had health concerns for the people drinking water from the creek as well."

Evans said that the Rainbows left behind a rehabilitation crew who are attempting to mend the damage through a plan developed by ONF resource specialists. The crew is charged with aerating the highly compacted soil, seeding down worn trails, and spreading straw and mulch. The Forest Service plan also calls for straw bales to be anchored along stream banks to slow down erosion. Some areas, however, like a denuded one-thousand-foot stretch of shoreline on Sucker Creek where people bathed, swam, and had a large fire are just about impossible to rehabilitate, he said.

Past Rainbow gatherings across the United States have attracted up to 25,000 participants which caused concern among local tribal and federal resource managers. The Great Lakes Indian Fish & Wildlife Commission's Voigt Intertribal Task

Force (VITF) passed a resolution last May opposing a Rainbow gathering on National Forest land within the 1837 and 1842 ceded territories following consultation with Forest Service representatives.

Lac Vieux Desert Vice Chairman and VITF Representative Jim Williams said that the damage to the soils was troubling, but didn't expect the impacts would hinder treaty harvesting in the area. "We just hope they care for that area now that it's over," he said.

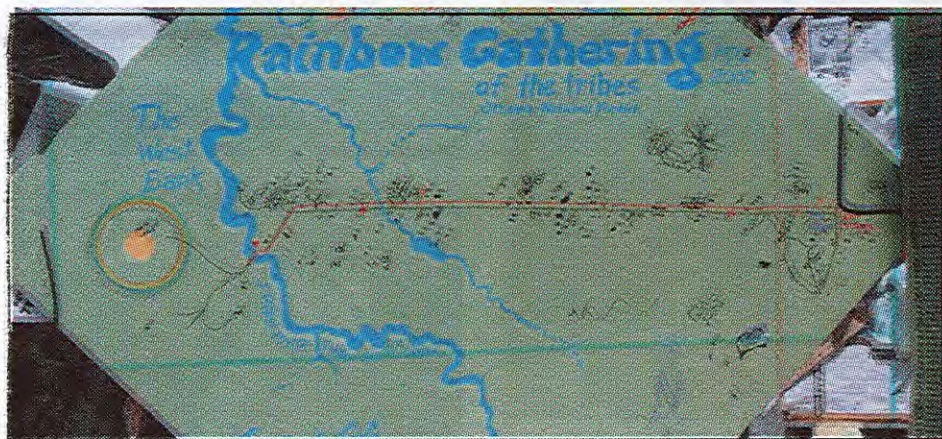
Since 1972 the Rainbow Family of Living Light has traditionally held annual gatherings on public lands around Independence Day, drawing members from diverse religious and economic backgrounds. Labeled as neopeoples, they profess to have no leaders and generally advocate 1960's counterculture principles like non-violence and environmental protection.

Forest Service regulations require a free non-commercial group use permit for any event with 75 or more people attending. On July 3 nearly two weeks after the Rainbows had established their encampment along Sucker Creek, two members applied for special use permits. The Forest Service had previously indicated the site

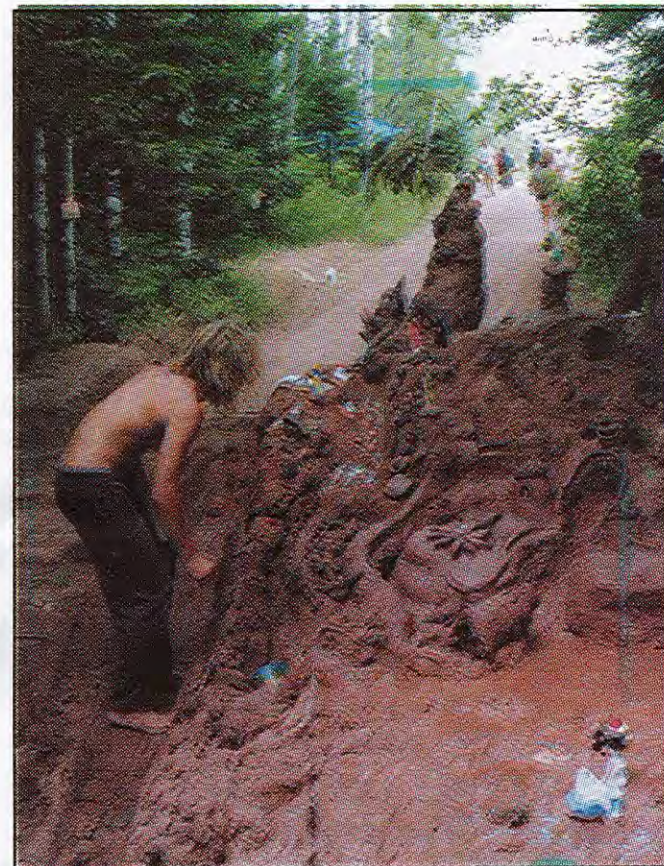
was unacceptable and both applications were denied due to health concerns and the presence of sensitive resources which included the archeological remains of the historic sawmill town, Choate.

Officials again recommended that the Family hold its gathering at a nearby alternate site established as a whitetail deer management area that included forest openings, a good water source, and well drained soil.

By the end of the gathering, law enforcement officers had issued more than 300 citations for a range of infractions, including damages to natural resources, occupancy use violations, disorderly conduct and traffic violations.



This map posted near a Rainbow Family information tent represents a nearly two mile stretch of Ottawa National Forest north of Watersmeet where approximately 7,000 people camped in late June and early July. (Photo by COR)



A Rainbow Family member bends over a washed out section of road that had been converted into a mud sculpture. (Photo by Charlie Otto Rasmussen)

Northern white cedar

(Continued from page 9)

draining of wetlands), and a lack of giizhik seedlings and saplings.

Western scientists have identified similar threats to giizhik abundance. Scientific studies have shown that timber harvest activities that modify the ground structure (including both soil and vegetative characteristics) seem to inhibit the growth and survival of giizhik seedlings (Chimner and Hart 1996, Simard et al. 1998, and Cornett et al. 2000).

During the 1960's, land managers attempted to improve giizhik regrowth by using a harvest technique that entailed clearcutting narrow strips of land, allowing adjacent uncut giizhikag to

provide a seed source. However, by the 1980's, it became evident that this technique failed to meet expectations (Heitzmann et al. 1999).

A number of scientists have suggested that herbivory by waawaashkeshi (white-tailed deer) severely limits giizhik growth and survival. Estimates of the population density of waawaashkeshi indicate a tenfold increase since the early 1900's. This increased browsing pressure has apparently caused tremendous impacts on giizhik (Alverson et al. 1988, Anderson and Katz 1993, Van Deelen 1996, Heitzman et al. 1999, Cornett et al. 2000).

Interestingly, tribal elders did not mention waawaashkeshi as a threat to

giizhik. Though they agreed that waawaashkeshi browses upon giizhik, no one showed concern. This lack of concern might stem from tribal hunting regulations that tend to lower the abundance of waawaashkeshi on tribal reservations.

Areas for future research include the documentation of impacts on giizhik by urban development, pollution, disease, and modified waterways. In addition, a more complete analysis of FIA data, possibly dating back to the 1940's, might reveal a more accurate picture of giizhik population changes. Finally, studies on giizhik seedling growth and survival should continue.

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The article above is a summary of the Administrative Report 02-06, entitled "The Cultural Importance, Ecology, and Status of Giizhik (Northern White Cedar) in the Ceded Territories" by Karen Danielsen, GLIFWC Forest Ecologist. Those interested in receiving a copy of the full document may contact Karen at GLIFWC, (715) 682-6619, ext. 125.

Winter harvest opportunities

Introduction

Over the last two years, GLIFWC has been interviewing tribal elders regarding the non-medicinal uses of plants. Elders discussed hundreds of plants and uses. With approval from the elders, we will be sharing this information as a regular feature in *Mazina'igan* in the form of a seasonal harvest guide.

In this issue, the harvest guide is devoted to those plants that may be gathered during the winter months of manidoo-giizisoon, little spirit moon (December); gichi-manidoo-giizis, Great Spirit Moon (January); and namebini-giizis, sucker moon (February). All of these plants may be gathered during any season unless otherwise specified.

Fruits

jams & jellies

aniibiimin—highbush cranberries [fall and winter]

Tea

oginiig—rosehips [fall and winter]
 apaakwaanaatig miinesan—sumac fruits [fall and winter]
 wiinisiibag aniibiishan—wintergreen leaves
 mashkigobag aniibiishan—swamp tea leaves
 kaakaagiwanzh aniibiishan—hemlock leaves
 zhingob aniibiishan—balsam fir leaves
 giizhik aniibiishan—white cedar leaves
 okwemin nagek—black cherry bark
 gagigebag—princess pine

Ceremonial

miskwaabiimizh aniibishan—red willow bark (tobacco)
 wiigob ojiibikan—basswood roots (tobacco)
 white cedar leaves (smudge)

Utility Items

jack pine roots (lacing)
 black spruce roots (lacing)
 balsam fir boughs (bedding)
 white cedar boughs (bedding)
 goldenrod stems (pipes)
 angelica stems (whistles)
 apakweshkway waabigwaniin—cattail flowers (torches)
 moss (insulation, diaper lining)
 white birch fungus (air freshener, fire starter)

Crafts

wreaths & baskets

zhingob waatigwaan—balsam fir boughs
 giizhik waatigwaan—white cedar boughs
 wakikaandag gomizhomin—pine cones
 ozhiiisigobimizh wadiikwaan—willow branches

Miigwech to those speakers in Mille Lacs, Minnesota and Lac du Flambeau, Wisconsin for their help in providing us with the Anishinaabe names for these plants.

We have been unable to find the Anishinaabe name for some of the plants listed.



Giizhik



Hair conditioners

giizhik aniibiishan—white cedar leaves
 bagwaji zhoomin biimaakwadoon—wild grape vines

Wood products

firewood and kindling for heat and for smoking food and hides, sleds, cradleboards, skis, snowshoe frames, drum frames, basket frames, lodge poles, push poles, flutes, whistles, fish decoys, bows, lacrosse sticks, rice sticks, dancing sticks, taps for sap gathering, paddles for stirring sap, furniture, crafts

manananoos misan—ironwood wood
 moozo gawinzh misan—moosewood wood
 mitigomizh misan—oak wood
 apakwanagemag misan—red pine wood
 zhingwaak misan—white pine wood
 zhiishiigimiiwanzh misan—red maple wood
 ininaatig misan—sugar maple wood
 aagimaak misan—black ash wood
 baapaagimaak misan—white ash wood
 oziisigobimizh misan—willow wood
 azaadi misan—aspens wood
 azaadi misan—cottonwood wood
 apaakwaanaatig misan—sumac wood
 mashkiigwaatig misan—tamarack wood
 giizhik misan—white cedar wood
 wiigob misan—basswood wood
 zhingob misan—balsam fir wood
 wadoop misan—alder wood

Pitch

chewing gum, sealant

okikaandag bigiw—jack pine pitch
 zhingob bigiw—balsam fir pitch
 kaakaagiwanzh bigiw—hemlock pitch
 apakwanagemag bigiw—red pine pitch
 zhingwaak bigiw—white pine pitch

Disclaimer

While the list identifies those plants that can be harvested during the winter months, we strongly recommend that before you pick them, you meet with elders in your community to talk about proper ways of harvesting, times of harvesting, and proper preparation of the plants before eating them.

This is important because some plants need to be harvested in certain ways to ensure that they will continue to grow, while other plants need to be properly washed and prepared prior to eating or using them. In addition, those elders can also help you in different uses of these plants.

GLIFWC summer interns

Wild rice interns take to lakes

There were two new faces around the wildlife section this summer, but it was rare that you saw see them. That's because Dan O'Brien and Nathanael Secor spent the majority of their time out in the field, surveying wild rice on 40 different lakes throughout the ceded territory. Putting in 40 hours over four days out on the lakes meant they weren't frequently in the office.

And that was just fine with both of them. They agreed seeing the land and surroundings was the best part of their internship. "Being on the lakes near the shore, we got to see all the birds and wildlife," O'Brien said. "We spend a lot of time driving through the northwoods of Wisconsin."

For O'Brien and Secor, wildlife interns at the Great Lakes Indian Fish and Wildlife Commission (GLIFWC), a summer surveying wild rice has proved to be both fun and educational.

Secor, from Grayslake, Illinois, will be entering his junior year at Northland College (NC) where he is majoring in environmental studies with an emphasis on restoration ecology as well as a majoring in fine arts. He is also running cross-country. He said he found the internship through a websearch and NC e-mail.

"I decided, because it was near Ashland and because it was in the field of my major, that it was a good opportunity," Secor said. "I was excited it was with wild rice because I hadn't had much experience with it."

For O'Brien, who is from Wildwood, Illinois, fliers around the NC campus caught his attention. The senior biology major and soccer player thought the job with GLIFWC would be a good opportunity. "I definitely want to do something like this, a field job," O'Brien said. So his experience with GLIFWC is preparing him for a possible future career.

The wild rice survey, the focus of their internship, is an ongoing 20-year study. Interns map each lake so variations in wild rice from year to year may be noted. They are also hoping to note changes in rice density. Using a quadrant, the interns take random square-density counts. They take 20 samples from each lake. For each sample, they throw the quadrant out into the water, paddle their canoe to it and go to work. They count the plants and stalks as well as tillers, the actual stalks in the wild rice plant. Secor said they hadn't found many with large numbers of tillers, but in shallow waters there may be up to 50 or 60 tillers on each plant.

They also measure and record the depth of the water and the wild rice's height above water. For smaller lakes, the two can survey four lakes in a day. In smaller lakes, they paddle their canoe to all sample sites. But on larger lakes, they have a motor to help them cover ground. Still, they said the big lakes could take an entire day to cover.

They said they noticed differences between lakes. "Oftentimes we're the only people on the lake or stream, and you can tell we're the only ones that have been there for awhile," O'Brien said. But sometimes there are quite a few people out on a given lake. "There are a lot of people looking at you weirdly because you don't have a fishing pole," O'Brien said.

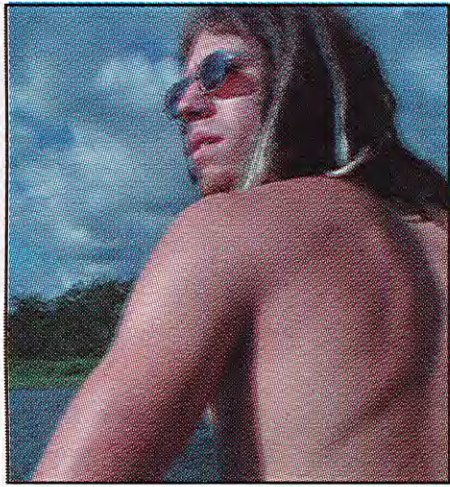
The number of people on the lake, fishing and using motors, can have an impact on how the wild rice grows. "We make assumptions all the time on the lake," Secor said. "We look at the rice in the lakes and analyze it; why this rice is brown or this rice is torn up."

Both O'Brien and Secor agree it has been a fun job. They enjoyed camping near the lakes they were surveying. They said they usually found an old logging road or somewhere to set up camp, and it was usually a different location everyday.

Both Secor and O'Brien have enjoyed their time at GLIFWC. They said they felt comfortable with it and the work was something that could very well help them with their future careers. "It's cool because not only are we preparing ourselves for careers, but we're also getting in touch with a culture that shares the area," Secor said.



Dan O'Brien



Nathanael Secor

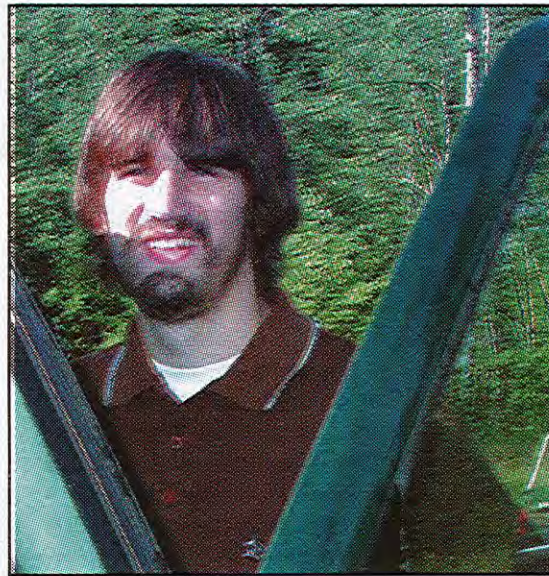
Reflections on a GLIFWC summer

There I was, lying in an unfamiliar bed, staring at the mattress of the empty bunk bed above me. Maybe it was the nine-hour drive I had put in earlier in the day, or the unpacking of my belongings, into the boxy little dorm room I would come to call home. Or maybe it was the two hours of sleep I had the night before. Regardless, something was telling me I shouldn't still be awake. And yet I couldn't fall asleep. The nervousness and excitement of being in a new place, far from home, and the idea of starting an internship with GLIFWC kept surging through my head. The anticipation of a new experience which was going to become my summer was looming a few short hours away.

It was my first day into the office, I was nervous, like a little kid talking to his relatives that he didn't know or couldn't quite remember. I walked through the halls of GLIFWC's headquarters on the Bad River Reservation with Rose Soulier, from HONOR, who had set the internship up for me. "So this is where I'll be working," I thought to myself. She showed me around, and we eventually made our way back to the corner of the building, the corner where the Public Information Office was located.

We stepped in. Here I was introduced to Sue, Lynn and Charlie, my associates, the people I would be working for. It seemed like a nice cozy department, snuggled away in the corner, but not forgotten. There were piles of newspapers, slides, photos, and brochures scattered here and there. Posters on the walls. I could tell it was a bustling, busy place.

My first few days were spent familiarizing myself with the office, my co-workers, and the equipment I would be using. I did a lot of reading in my spare time in my dorm. I explored the shores and beaches of Lake Superior. I read brochures, info packets, books about GLIFWC, Chippewa treaty issues, mining, and wild rice, amongst other things. It was a lot of information. I took my time, studied it,



Ben Liesch

appreciated all that GLIFWC published and accomplished. I was excited to be a part of it, something so significant and meaningful.

With an understanding and appreciation of my workplace, I was as excited as ever to begin working. And I didn't have to wait long. I had been in the office three days before I was handed a video camera, digital camera and directions to Mole Lake for my first big experience. I was scared. I knew I was heading out, but I didn't really know what it would be like. I was videotaping a mining summit and staying at the Mole Lake Motel. That was about all I knew. Nervousness was about all I

could feel as I loaded up the work van I would be hitting the road in.

I was driving through the great northwoods. It was great. I absolutely love being on the road, especially these winding highways, past magnificent lakes with crystal clear waters and muddy rivers and great pine forests. I was at home. I have been coming to northern Wisconsin and the Upper Peninsula of Michigan every summer since I was born basically. It was unbelievable that I was here, on my own, working and enjoying the place I had grown to love.

I reached Mole Lake and found my contact person. She made me feel comfortable, joking with me from the minute I got there. This first day at Mole Lake on my own was possibly the most prolific and defining event of the summer. I helped out with things for the summit—the most memorable of which was, helping put up a tipi. It was hard work, lifting the poles, getting the canvas over it, even with the crew of fifteen or twenty young men. We got it set up, some people said that others would probably laugh at it. They were right. It was all in good fun.

In my down time I met people from all over the continent—New Mexico, Arizona, California, Wisconsin and all parts of Canada. All of these people were networking establishing connections, learning from each other, and overall, enjoying themselves. I left a piece of myself at Mole Lake. I was missing it as I was on the long road home.

I spent a lot of time with the Great Lakes fisheries staff. It was fun. I was mostly taking pictures and getting to know them, since I would be writing an article on each intern. I spent some days out on Lake Superior, others chasing electroshocking boats down the Bad River.

Perhaps one of the best days at the office came a few weeks into the internship. I was sitting at the long table in the office, going through brochures or something when I was invited to play softball on the GLIFWC team. I said sure; it had been awhile since I had played, but I'd love to join them.

I found myself at the ballpark that night, and before we even took the field I was feeling like a part of the team. It was great. The team was most interested in having fun. If we won great, but we were out there for fun, and I could tell this was a team that had a lot of fun. They joked around with each other, talked a lot and welcomed me to the team. I really felt like a part of the team and also the staff. We had a great fan base of co-workers and family and friends cheering us on. It made me feel comfortable, to hang out with my co-workers outside of work. We played (See Reflections, page 21)

Intern articles & photos
by Ben Liesch, HONOR intern

Fisheries interns weather Lake Superior and help with number crunching



Great Lakes Fisheries Interns Jodi Berg (left) and Carrie Cannon measure and weigh whitefish on a treaty commercial fisherman's boat in Houghton, Michigan. They also took scale samples for ageing.

Great Lakes fisheries interns experience variety of fieldwork

Whether they were out on the Bad River or riding the waves of Lake Superior, the Great Lakes fisheries interns were having fun and learning a lot. This summer, the Great Lakes fisheries section welcomed two interns, Carrie Cannon and Jodi Berg, to their staff. The two spent a lot of time in the field working and gaining experience in a subject that is relevant to their future careers.

For Cannon and Berg, the chance to do a variety of fieldwork and get hands-on experience in several areas has proved to be both fun and educational. Among their job duties was sea lamprey control. This consisted of trapping lamprey, primarily along the Bad River as well as the Amnicon and Middle Rivers in May and June and recording data.

The interns also helped in sturgeon tagging and measurements. They set juvenile sturgeon nets and collected data from the fish gathered. Another duty was the monitoring of commercial fisheries. This included weighing and measuring fish from treaty, commercial fishermen as well as collecting sample scales and otoliths. The scales and otoliths are used to age the fish and provide additional data.

Cannon said she enjoyed the job's versatility. "We get to do a variety of things. We get to go on the Bad River, Lake Superior; we get exposed to a lot," Cannon said. This exposure has definitely been helpful for someone who aspires to make a career out of wildlife or fisheries biology.

Cannon said she plans to go to graduate school, but the internship with GLIFWC offers a preview to what is ahead. "I hope to work for a tribal government one day," Cannon said. GLIFWC's work with tribal matters and representation of tribes is a unique aspect that interested her and is directly related to what she would ideally like to do for a career.

A Kiowa tribal member, Cannon is originally from Eugene, Oregon. Although she is far from home, the NC sophomore has been enjoying the new experience.

At NC, Cannon majors in natural resources and has a minor in Native American studies. Cannon heard about the internship through an NC campus e-mail. Some friends and professors encouraged her to apply for it and shortly thereafter she had the job. "I thought it would be awesome to do outdoor stuff with fish and wildlife," Cannon said.

A recommendation from a friend who had previously interned for GLIFWC and enjoyed the experience introduced Berg to the idea. But what sold her, perhaps, was a GLIFWC booth at NC's career day. She said the booth, as well as a talk with Great Lakes Fisheries Technician Mike Plucinski helped in her decision.

Berg, whose hometown is Milford, Michigan, will be entering her senior year at NC, where she is majoring in biology and natural resources. She said her emphasis is on fish and wildlife biology, and she is considering a chemistry minor. So her work with GLIFWC is something she sees as beneficial and helpful to her future career.

"It's a really good experience because I would like to continue working out in the field," Berg said. "I want to go into wildlife, and this gives me a sense of how it all works and what it is all about." Her favorite part of the internship has indeed been all the fieldwork. "My favorite part is the fact that it is field work," Berg said. "And playing with the juvenile sturgeon; they're really cute."

While her love for camping and outdoor sports such as whitewater kayaking and canoeing may have brought Berg to the northwoods, her time at GLIFWC has taught her even more about the outdoors and also provided a good work experience.

Berg said she has enjoyed the experience as a whole. Not only is the fieldwork fun and educational, but the environment at the office, when she is there, has been positive. "Everyone around the office is really fun, nice and easy to work with," Berg said.

So for these two interns, it's been a summer well spent. Not only did they have a lot of fun doing fieldwork and getting to know their fellow employees, they also got a variety of valuable field experience, which is sure to help them in their future endeavors.

Number cruncher finds internship to be more than numbers

To many people at GLIFWC, being cooped up in an office may not sound as appealing as being out in the field, but for inland fisheries intern, Kris Shannon, the office is the best part of the job. "The air-conditioning in the office is the best perk," Shannon joked. While some were out in the blistering heat of summer collecting data, Shannon was at her computer in the air-conditioned office, entering the data from the field.

As an inland fisheries intern, Shannon's primary job duty is entering data from the Mille Lacs Walleye tagging study, conducted from April 23-May 7. She also enters data from the juvenile walleye study on the same lake. It was conducted June 3-4, and that was one trip Shannon got to partake in.

"It was fun. I really enjoyed that," Shannon said. "It was like getting paid to go fishing, only we don't get to keep the fish."

Shannon went on the electroshocking boat and manned a dip net. She also joined the Minnesota Department for Natural Resources for a trip on the lake.

While the outdoor experience offered a refreshing break from data entry, the computer is where Shannon is at home. Shannon, whose hometown is Flint, Michigan, is a Computer Information Systems major at NC, currently in the third of five years there. She heard about the GLIFWC internship through NC Professor Joe Rose, whose son, Joe Dan Rose works at GLIFWC.



Kris Shannon

Not only is Shannon getting college credit for the internship,

she is also making new acquaintances and enjoying an overall great experience. "Everybody around the office is great," Shannon said. "And we get to hangout after work together. I've only had that at one other job." She enjoys the casual atmosphere around the office and the humor in the break room.

"She just jumped right into the work," said Nick Milroy, Shannon's supervisor. "She wasn't afraid to ask questions and that is a good way to learn in an internship."

Describing her job at GLIFWC, Shannon said, "They hand me data and I enter it." But she has learned more than simply how to enter data for the tagging studies. The data entry has helped Shannon learn more about other computer programs and companies. "You always, always like the first program you learn and it's hard to switch over," she said. But her work with GLIFWC has broadened her horizons. And she said the skills she has developed over the course of the internship will definitely help her with possible future jobs.

Reflections continued

(Continued from page 20)

a lot of softball throughout the course of the summer, once or twice a week. We won some, lost some, but most importantly had fun doing it. We might not take the first place trophy home, but I will take home and always remember those evening games on the dusty field.

The next time I got out on the road was to work an information booth at a Fond du Lac Health Fair. I carried all sorts of brochures, pamphlets, books, posters and newspapers with me. I managed to get there just on time, despite getting lost on my first trip over the Minnesota border. I set up a table with all the GLIFWC information and an info board and got ready for the long haul. The fair lasted the majority of the day. As I would later find out, some 900 people would walk past that booth I had set up. I got a lot of information out to people and had quite a few people sign up for the newspaper. I talked to a lot of people, managed to answer questions, although I myself was still learning about the Commission.

I got home later in the evening and got ready to head out again the next day. This time it was to Lakes Fest at Lac du Flambeau—another long day, but successful. Talked to even more people than the day before. I found I was actually able to carry on some legitimate conversations with people asking questions. I was happy with the day—my conversations, the way the info booth looked, the fact that black skies had threatened to soak the entire event, but everyone stayed dry.

After driving two and a half, three hours each way to a destination, I wasn't staring at the empty bunk bed as long as I had on previous nights.

There would be a few other long trips in my summer. One took me to a powwow at Red Cliff—an unrealistically hot day spent in the sun, but worth it, for the dancing, ceremonies and, of course, fry bread. A couple of trips took me to Lac Courte Oreilles to cover boating and ATV safety classes instructed by GLIFWC wardens. Another day was spent on Long Lake with the wild rice interns—an entire day in a canoe surveying wild rice beds, followed by a three-hour drive home. A trip to Houghton, Michigan had me covering the siscowet assessment and following the interns in their fieldwork—an incredible trip that took me out on Lake Superior to set nets, monitor a commercial fishing boat and through the winding roads of the beautiful copper country. But eventually it was back to the office. We had a deadline coming up....

Fish barrier in Iron River will protect native lake trout

By Bill Mattes, GLIFWC
Great Lakes Biologist

Brule, Wis.—The Orienta dam on the Iron River, Bayfield County, was removed in the fall of 2001 and replaced with a lamprey and fish barrier (see photo).

This project was carried out by the US Fish and Wildlife Service in cooperation with the Wisconsin Department of Natural Resources (WDNR). The fish barrier will prevent upstream migration of all exotic fish species, including sea lamprey.

Both native brook trout and the US Fish and Wildlife Service–National Fish Hatchery will be protected from risks associated with upstream migration of chinook salmon because the barrier will not allow those fish to pass.

Chinook salmon are known to carry bacterial kidney disease which is transmittable to brook trout and to lake trout.

Also, chinook may compete with native trout prior to smolting (moving from the stream into the Lake Superior). Other fish species thought to compete

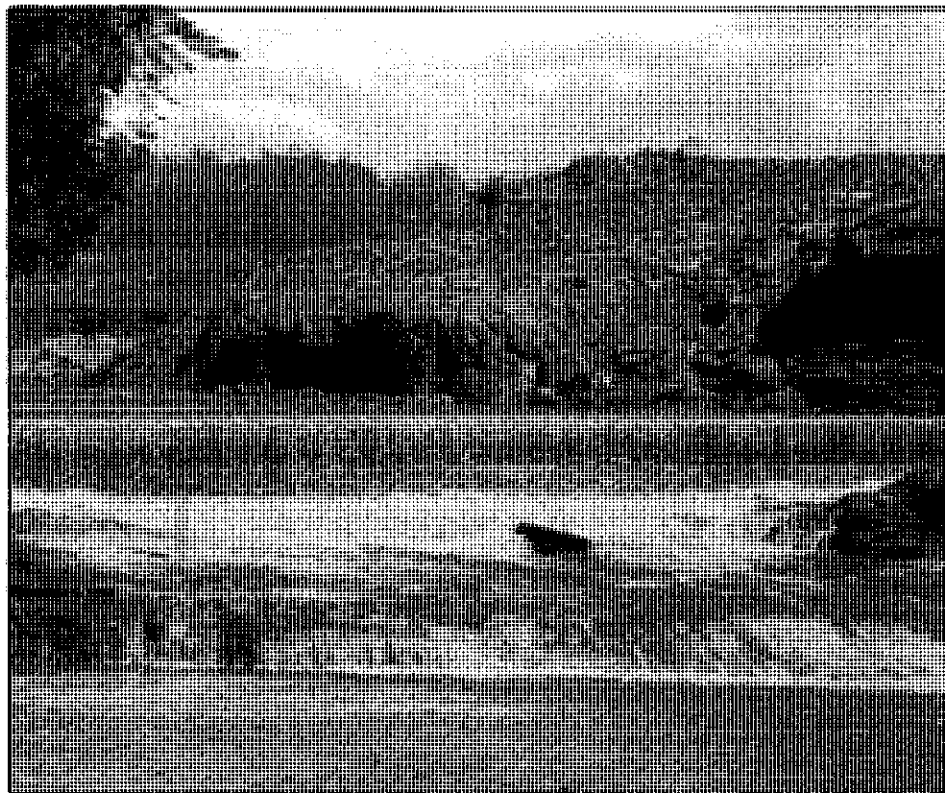
with native trout, such as the coho salmon and rainbow trout, will also remain blocked from upstream migration.

Great Lakes Indian Fish & Wildlife Commission (GLIFWC) staff began monitoring the development of a plan to remove the dam in 1994, after the owner (then Northern States Power) had filed a permit to abandon the dam with the WDNR.

Initially, WDNR fisheries staff circulated a document which outlined opening the Iron River to anadromous fish such as the chinook, coho, and rainbow trout.

GLIFWC's Lake Committee passed a motion opposing the opening of the upstream portion of the Iron River to anadromous fish in September 1994, after being informed of the issues surrounding the removal of the Orienta dam.

After that time, GLIFWC staff attended meetings and public hearings to provide written and verbal comments per the Lake Committee motion and followed the development of the barrier design.



The Orienta dam on the Iron River, Bayfield County, Wisconsin was replaced with a fish barrier last fall. This barrier will prevent upstream migration of all exotic fish species, including sea lamprey. (Photo by Ben Liesch)

GLIFWC crews find plenty of lamprey in tributary rivers

By Bill Mattes, GLIFWC
Great Lakes Biologist

Odanah, Wis.—Since 1986 GLIFWC has been cooperating with the U.S. Fish & Wildlife Service Sea Lamprey Control (SLC) Program in Marquette, Michigan to gather information on adult sea lamprey ascending various tributary streams of Lake Superior during their May-June spawning run.

Together with information collected by SLC and other agencies, these data are part of an integrated and multifaceted approach, headed by the Great Lakes Fishery Commission, to control and reduce the lamprey population.

In early May, Mike Plucinski, GLIFWC Great Lakes fisheries technician, and seasonal staff began building a trail to the trapping site on the Bad River.

A late season snow storm, followed by a quick melt, floated bridges built along the trail out of position, so an additional few days were required to

push, pull, and drag them back into position and shore them up.

In the Bad River, 952 adult spawning lamprey were captured. This is the second largest catch since trapping began in 1986.

Other rivers monitored in Wisconsin were the Amnicon and Middle Rivers. As in the past three years, the Middle River continues to have a large run of lamprey. This year 2,045 were captured. Whereas the Amnicon River run was 23 this year, which is a decrease from the previous three years.

This fall biologists will crunch the numbers from around Lake Superior to determine if there is an increase in the overall abundance of sea lamprey within the basin.

In Michigan, Mark Pero and Nate Bigboy were among the crew setting a net in the Silver River. A net was also set in the Firesteel River and traps in the Misery River. Catches through the end of June were 71 in the Firesteel and 159 in the Misery. No lamprey were caught in the Silver River. The Michigan streams were monitored through mid-July.



GLIFWC's Great Lakes section traps lamprey on the Silver River in Michigan.



Chicopee (Lake Superior). (Photo by Amoson)

Group meets on Bad River rez to oppose Great Lakes dredging

By Charlie Otto Rasmussen
Staff Writer

Odanah, Wis.—A study by the U.S. Army Corps of Engineers (USACE) to widen and deepen Great Lakes shipping routes from Duluth, Minn. to the Atlantic Ocean is causing concern among some tribal members and environmental groups.

Shoreline damage, fish and wildlife habitat disruption, new introductions of exotic species, and poor water quality are among the potential impacts, said Jarrod Stone Dahl, a member of a group formed on the Bad River reservation to increase public awareness about the study.

"The Army Corps study has little to say about problems associated with this project. Everything focuses on positive, economic results," said Dahl. "There isn't a lot of awareness in the community about this, and we hope to have people come together to stop the project from going forward."

People are encouraged to attend an informational meeting on August 26 at Bad River's Council Lodge near

Waverly Beach. A representative from the coalition organization, Great Lakes United, is scheduled to make a presentation and answer questions.

Beginning in January 2001, the USACE began a study on the feasibility of making capital improvements to the Great Lakes navigation system. Improvements like deepening locks and shipping channels would make it possible for huge ocean-going carriers called Panamax ships to penetrate the Great Lakes basin.

"People are programmed to believe what they are told," said tribal member Tom Mattinas from Constance Lake, Ontario. "This project is supposed to have all these benefits; that's what we're supposed to think, but you can't believe it."

Dahl said the group is made up of tribal members and Ashland-area residents, some of whom were involved in recent events like "A Walk to Remember" and the "Migration Journey" which drew attention to Lake Superior issues.

They have been meeting in a long house near Bad River's Waverly Beach since early July. For more information call (715) 492-3229 or (715) 682-8825.

Great Lakes fisheries heads to the UP for siscowet assessment

By Ben Liesch
HONOR Intern

Eagle Harbor, Mich.—For Great Lakes Fisheries Interns Carrie Cannon and Jodi Berg and ANA Fisheries Technician Nate Bigboy part of the summer was an assessment of siscowet lake trout in Lake Superior.

This assessment was conducted off the shores of Eagle Harbor in Michigan's Upper Peninsula between July 15 and August 2. This was the fifth year the Great Lakes Indian Fish & Wildlife Commission (GLIFWC) has done the assessment in the waters off of the Keweenaw Peninsula.

The goal of the assessment is to compare the diet, age structure, and relative abundance of fish at different depths. The assessment also looks at fecundity, which is a measure of how many eggs at a given size are in a female fish.

The study covers seven depth categories, the deepest being an 800-foot depth set. Nets are then set at 100-foot intervals. The 2700 feet of net used to catch fish is divided into 300-foot panels, each with a different mesh size, which ranges between two and six inches.

Cannon, Berg and Bigboy participated in the setting and lifting of nets in Lake Superior. The first set was 800

feet deep, and GLIFWC is believed to be the only organization to assess in waters that deep in Lake Superior. The nets are left overnight and are lifted the following day.

While the nets are lifted, the fish are separated by mesh size. Later fish are measured, weighed and gutted. The stomachs are then frozen and later the data will be interpreted.

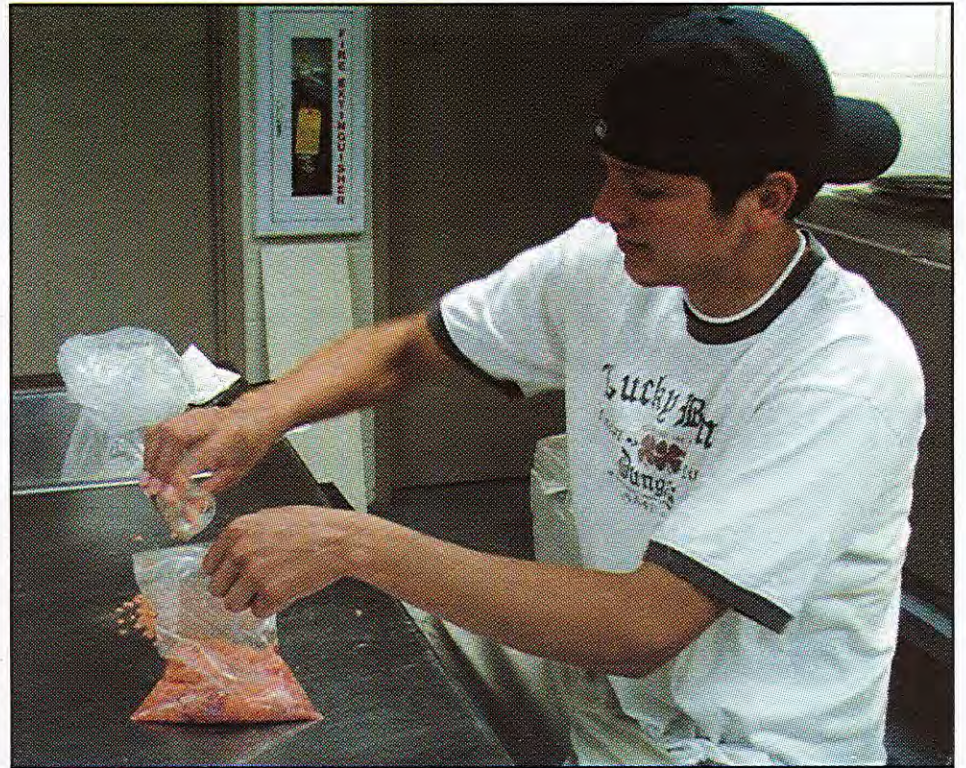
But as the interns learned, the weather is not always willing to cooperate. Strong wind gusts and rough waters prevented them from lifting the nets the first two days of the assessment. Calm waters are necessary to successfully lift the nets without breaking the lifting rig on the boat or the net itself.

As the nets were lifted on board, some 1000 pounds of fish were picked out of the nets and measured, weighed and gutted.

By looking at the stomachs, the interns can interpret what the fish have been eating and compare diets between siscowet lake trout and the lean lake trout. Lean lake trout are more sought after because siscowet tend to be high in fat and greasy.

In addition to the diet comparisons, the assessment also keeps track of trend data such as the catch per-unit-of-effort.

When the winds kept them off the lake or the crew had down time, Cannon, Berg and Bigboy kept busy moni-



ANA Fisheries Technician Nate Bigboy counts fish eggs from the Great Lakes Fisheries' siscowet assessment which was conducted in Lake Superior from July 15-25. (Photo by Ben Liesch)

toring treaty commercial fishermen. They went out on commercial boats and measured, weighed and took sample scales and otoliths from the fish caught by the commercial fishermen. The data was recorded and samples analyzed back in the office.

Also while in the Upper Peninsula, the three participated in beach seining. The seining was done to create an index of juvenile whitefish in different areas. Great Lakes fisheries currently seine in three different areas off the Keweenaw Peninsula.

Newago's Fish Market—Bayfield

A family affair

By Sue Erickson
Staff Writer

Bayfield, Wis.—The doors of Newago's Fish Market in Bayfield opened just in time for Bayfield's bustling summer season. A result of a joint venture, the little fish shop, located next to Oly's Barber Shop, greets visitors on the hill as they first enter Bayfield with a sign—"Fresh Fish." Entering the shop, the tantalizing aroma of smoked fish makes you hungry, even if you're not.

The business of commercial fishing and fish marketing is not new for

Kathy Newago, shop manager, and her husband Alan, Bad River tribal fisherman. They have been involved with commercial fishing in Lake Superior for over twenty years.

The new shop in Bayfield, however, brought them back to their home in Red Cliff after spending four and a half years in Chassell, Michigan helping their son Joe and his wife, Tami, operate a Michigan-based Newago's Fish Market.

David Newago, Alan's brother, owns the shop, but Alan owns the fishing tug, the Thomas C. Mullen. With the help of crewmembers Pete Andrews, Shayne Sandman and Dennis Day, the brothers keep the shop supplied with fresh fish.

The shop features a variety of Lake Superior fish, fresh and smoked. Lake

trout, whitefish, salmon, and herring top the list. Smoked fish connoisseurs can select from a variety of smoked flavors, such as tempting brown-sugared salmon and trout fillets. Bins of smoked fillets lay side by side with bins of smoked trout and whitefish chunks in the cooler.

The shop also offers Kathy's specialty fish spreads, great for sandwiches or on snack crackers. The variety of fish spreads will satisfy most any taste. One spread features lake trout, whitefish and jalapeno peppers for those who like it hot; another combines fish with tomato and parmesan cheese.

The shop also carries various cheeses, cheese spreads, Jim's sausage and other specialty items in addition to the featured fish.

Open from 10:00 a.m. to 5:30 p.m. seven days a week, Kathy is helped in the shop by her granddaughter, Mary Thomas and Elise Plucinski. The two young ladies are proficient shopkeepers, graciously waiting on customers, keeping the shop tidy and manning the till.

One annual visitor to the area, Julie Lee, owner of the Pine Ridge Restaurant in Merrill, Wisconsin, commented that she and her husband come north to Bayfield every summer, and the little fish market on the hill is a sure stop.

Indeed, the fish market's door gets a workout through the summer—opening and closing as people, some regular customers and some new to the area, stop to pick up a taste of Lake Superior, fresh, smoked—however you like it!



Helping out at the fish market are Mary Thomas and Elise Plucinski. The two welcome and wait on customers and help keep the shop tidy. (Photo by Sue Erickson)



Mary Thomas weighs out a portion of brown-sugared, smoked fish for Julie Lee, Merrill, Wis., who makes the fish shop an annual stop. (Photo by Sue Erickson)



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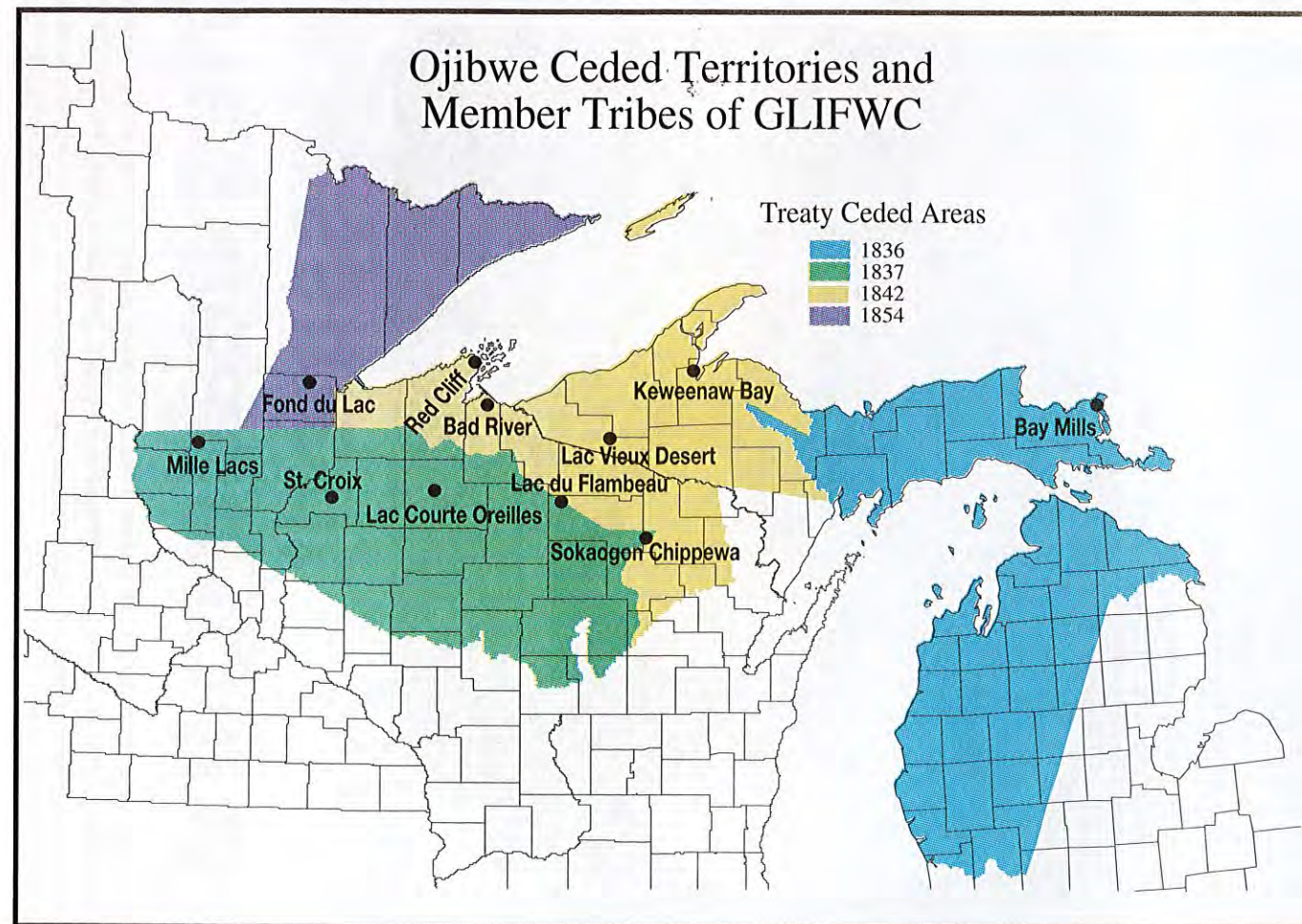
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A Chronicle of the Lake Superior Ojibwe

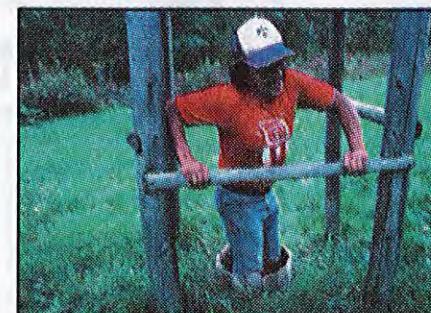
Dagwaagin 2002



Drying



Parching



Dancing



Winnowing

Harvesting manoomin(wild rice)

