

Masinaigan

A Chronicle of the Lake Superior Ojibwe

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Beds of manoomin (wild rice) ripen in the late summer, bringing Ojibwe people to the lakes and rivers they traditionally harvest. Manoomin continues to be a valued food for the Ojibwe. The well-being of wild rice beds is one of several tribal concerns related to removal or diversion of Great Lakes water. (staff photo)

GLIFWC Board opposes removal of Great Lakes water

By Sue Erickson
Staff Writer

Watersmeet, Mich.—Nibi (water), considered the life blood of Aki (Mother Earth) by the Ojibwe, needs serious consideration today not only to protect it from pollution but also to stop its diversion or removal from the Great Lakes basin.

The Great Lakes holds one-fifth of the United States' fresh water supply, and people both nationally and internationally have an eye on this invaluable resource. In fact, some propose that the Great Lakes hold a "harvestable surplus" of water, a surplus which could profitably be removed and shipped by bulk to areas where fresh water is lacking.

The Great Lakes Indian Fish and Wildlife Commission's (GLIFWC) Board of Commissioners responded to

the idea through a resolution opposing removal of water from the Great Lakes basin. The resolution, passed unanimously by the Board at a July 29 meeting at Lac Vieux Desert, opposed removal of Great Lakes water "whether by diversion, transfer, bulk shipment, or any other means. ..."

An earlier, 1988 GLIFWC resolution opposed water diversion from the Great Lakes, but may not have been specific enough to address the removal of water by other means, such as bulk transport, according to GLIFWC Policy Analyst Ann McCammon-Soltis.

McCammon-Soltis brought the matter before the Board due to concerns raised by a business proposal to export Lake Superior water in bulk to Asia via an ocean freighter.

The proposal also raised the eyebrows of some federal legislators and a (See GLIFWC opposes, page 24)

Sage, Grandfather medicine

By Karen Danielsen
GLIFWC Forest Ecologist

Bayfield, Wis.—Sacred and highly respected as the "grandfather medicine," sage purifies and heals. During the ceremonial activity known as smudging, the smoke of burning sage touches and cleanses the spirit of people and revered objects, such as pipes and eagle feathers.

Sage may be prepared in a number of ways to cure a variety of illnesses. The leaves, roots, and flowers of sage may all be used; either alone or in combination with other healing plants. The individuals preparing and administering the sage remedies receive the necessary knowledge through dreams and the teachings of elders.

Frank Montano, a Red Cliff tribal member, gathers and stores a supply of

sage at his home. He refers to sage as simply *mashkiki*, or medicine. He and his family frequently use sage to heal and maintain balance. Even his 8-year-old granddaughter, Jasmine, knows for herself when she needs her bedroom smudged.

He also shares his sage with friends and neighbors. Those receiving the sage respectfully provide Frank with an offering of tobacco and sometimes a gift.

Frank usually gathers in September or October, after chilly nights have eliminated most of the bugs that infest sage plants and before frosts have caused sage leaves to wither. He awakes early in the morning on the day that he decides to gather. Family or friends frequently accompany him.

Though sage grows nearby his home, Frank often travels a distance to gather his supply. His elders taught him that the sacrifice and work expended to

gather and prepare wild plants increases their medicinal strength. In the old days, tribal members partaking in a gathering trip used this time to visit family and friends living in distant villages.

Upon arriving at his gathering site, Frank searches for, what he calls, the chief sage plant. He identifies this plant as the one that stands out among the rest. To this plant he says a prayer and,

with an offering of tobacco and previously gathered sage, asks permission to gather once again.

He gathers just the amount of sage he will use, never depleting an entire population and disturbing only what he must. He carefully wraps the sage in a blanket to protect it from damage. When he returns home, he immediately ties (See Sage, page 11)



"Mashkiki" means medicine in Ojibwa. Plants such as sage and sweet grass continue to play a significant medicinal and spiritual role in Ojibwe life today. Above, Celeste Hockings at Waswagoning Village, Lac du Flambeau, holds a sweet grass braid. (photo by Amoose)

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Manoomin conference a huge success!

By Peter David
GLIFWC Wildlife Biologist

Carlton, Minn.—They came from nine states and two Canadian provinces. They represented 24 tribes, nearly 20 college campuses, 14 natural resource agencies and 10 private organizations. They brought interests in culture, ecology, archeology, genetics, and economics. And they all came to share what they knew, and to learn more about a simple, annual aquatic grass: manoomin, or wild rice.

Nearly 240 people came together at the Black Bear Complex in Carlton Minnesota to attend the *Wild Rice Research and Management Conference* held July 7-8.

Sponsored by the Sokaogon Chippewa Tribe (Mole Lake Band), the EPA/Great Lakes National Program Office, the Fond du Lac Community College, and the Great Lakes Indian Fish and Wildlife Commission (GLIFWC), the conference was a highly cooperative effort. Additional support with donations came from the Fond du Lac, Lac du Flambeau, Mille Lacs, St. Croix and Bad River tribes and the Black Bear Casino.

The atmosphere for the conference was set with a pipe ceremony and opening prayer in Ojibwa by George Dick and several songs by the host Little Bear drum. Keynote speakers included Tom Vennum, Jr. of the Smithsonian Institute, author of *Wild Rice and the Ojibwa People*, who discussed the traditional and social context of ricing; Fred Ackley, Sokaogon Chippewa, provided insights on the significance of rice to a long time traditional ricer, and Dr. Peter Lee of Lakehead University provided an eco-

logical overview of rice.

This set the stage for five speaker sessions over two days. These sessions addressed the archeological context of rice, research and ecology, genetics and reproduction, management approaches and tools, and potential conflicts and concerns.

At an evening social, attendees also had the opportunity to meet the authors of various poster presentations and to mingle and exchange thoughts on this unique resource. Nearly thirty presentations or papers were made in all.

The success of the conference was a bit of a challenge for Lisa Dlutkowski, conference planner.

"We were not entirely sure what we were getting into when this started. In the end, I think we really surpassed expectations; in fact we nearly exceeded the capacity of the meeting rooms," she said.

Dlutkowski said that as the conference grew, we found we needed more and more help from the tribes and GLIFWC staff to make this work. But our requests for assistance and donations were always warmly provided, and the hotel staff did an exceptional job accommodating us. Everyone did a terrific job.

"I feel the conference was a tremendous success," noted Neil Kmiecik, GLIFWC biological services director. "Had we attempted this event a decade ago, I don't think we would have had the number or quality of presenters that we have had here, nor the tremendous interest level that has been expressed from outside the Native American community."

Kmiecik said that the tribes have been a very successful catalyst in heightening awareness and concern for this



Tom Vennum (left), author of *Wild Rice and the Ojibwa People*, hands a signed copy of his book to GLIFWC wildlife biologist, Peter David. Vennum gave the keynote address at the *Wild Rice Research & Management Conference* and David was a featured speaker. (photo by CO Rasmussen)

resource, and the conference demonstrated the benefits of that.

"There was a strong synergy between all the different people and organizations that came together here. You could see it in all the discussions that were taking place over lunches and during breaks as people shared ideas and got thoughts on new directions to go in research or management," Kmiecik added.

Ann McCammon Soltis, GLIFWC policy analyst, echoed these thoughts and looked ahead as well. "As we go forward, I hope that we can maintain much of the momentum that we gained over the last few days. I hope that the researchers can continue to exchange ideas. Perhaps we can even make this conference a regular event. This can only mean good things for the future of manoomin and those who depend on it."

Bay Mills wild rice seeding program targets Hiawatha National Forest

By Charlie Otto Rasmussen, Writer/Photographer

Brimley, Mich.—After five years of wild rice seeding on the Bay Mills reservation, tribal biologists plan on expanding their efforts to the Hiawatha National Forest this fall.

Several lakes on the forest were identified by Bay Mills Biological Services (BMBS) as suitable rice-producing waters following surveys conducted in 1997 and 1998.



Wild rice growing at Dollarville Flooding, an impoundment of the Tahquamenon River in eastern Upper Michigan, will provide seed for planting efforts on the Hiawatha National Forest. (photo by CO Rasmussen)

"We don't know of any historic rice sites in the eastern Upper Peninsula," said Tracey Brown, BMBS natural resource specialist. "The goal is to increase cultural opportunities for tribal members and provide improved waterfowl habitat."

Of the sixty-one lakes surveyed in Chippewa and Mackinac counties last year, only five exhibited potential for wild rice generation.

Brown said that the most promising site on the forest is at Camp 10 Pond, a small, shallow lake northeast of Trout Creek.

Chemical analysis on water samples conducted by BMBS staff confirm that pH and alkalinity at the pond are ideal for wild rice propagation.

A rare stand of wild rice growing on nearby Dollarville Flooding, an impoundment of the Tahquamenon River created in 1972, will provide seed rice for Camp 10 Pond.

"The Dollarville rice is probably the result of early planting efforts several decades ago," Brown said. "It appears well adapted to the area. We'll harvest what we can this fall and scatter it at Camp 10."

Since the yield from Dollarville Landing is small, BMBS will supplement their seed stock with rice obtained through GLIFWC's distribution program.

GLIFWC purchases freshly harvested rice from tribal gatherers each autumn and resells it to tribal resource management agencies.

Last year BMBS purchased more than 800 pounds of unfinished rice from GLIFWC for other seeding projects, including the on-reservation waters of Spectacle Lake and Back Bay on the Saint Marys River.

Brown said that Spectacle Lake has not responded very well to seeding, prompting BMBS staff to concentrate their efforts on the more rice-fertile waters of Back Bay again this fall.

Native wild rice lakes extend into the western part of Upper Michigan from Wisconsin, but seem to stop there, Brown said.

The expansion of wild rice on the reservation and neighboring ceded territory will afford ricers a more accessible means to the valued resource.

In the past, Bay Mills tribal members had to travel considerable distances to find quality rice stands. "If you got rice back then it was a treat," said Bay Mills elder Agnes Carrick. "Some people would go over by Wisconsin, but there wasn't any wild rice around here."

Outlook for manoomin only fair for '99

By Peter David
GLIFWC Wildlife Biologist

The crop

Two GLIFWC summer interns, Nicole Farrell and Steven White, Jr., have been busy touring northern Wisconsin rice beds to monitor rice abundance since the plants first began emerging from the floating leaf stage.

At each site, they estimate the acreage of the rice beds and measure their density as part of a long term study on rice abundance trends.

Before the summer is over, they will visit over 40 waters. In addition, an aerial survey of many other rice waters was conducted in August. The air photos are still being developed, and much of the ground work remains to be completed, but the picture of the rice crop is beginning to come into focus.

Preliminary indications are that Wisconsin's 1999 rice crop will be relatively poor, particularly in the northwestern part of the state. This in spite of a relatively dry winter and spring which resulted in fairly low spring water levels, a condition generally favorable to rice.

This year, the low spring water levels may have back-fired on the rice. Early in the year several sites looked promising, but few waters on the aerial surveys could be classified as being particularly good. Some waters that tend to be important to tribal ricers looked poor, such as Totogatic Lake in southern Bayfield County and Spur Lake in Oneida County.

Water levels rose substantially on many lakes over the early summer after a series of heavy rains, rather than declining slightly as they normally would. Rice that sprouted in 2 1/2 or 3 feet of water suddenly found it had an extra 6 or 8 inches water to face, placing it beyond its usual growing range. Many plants were lost.

In addition, tillering tends to be reduced when water depths are above average, and many beds appear to be sparser than usual this year, especially in the northwestern part of the state.

And the bad news may not end there. It will be interesting to see if this has any repercussions for next year. It's well known that rice seeds may remain dormant when growing conditions are



Mark Bisonette, Lac Courte Oreilles, knocks rice into the bottom of his canoe as he's being poled through the rice by his partner at Totogatic Lake. (staff photo)

unfavorable, leading to a poor crop some years; it's an important adaptive mechanism that allows the rice to ride out bad conditions.

But this is a little worse than that; here many of the seeds actually sprouted, but will not produce seed themselves. On well established sites there is generally enough of a seed bank to withstand this kind of an event, but it may be a challenge to some of areas where restoration or introduction efforts are underway.

As in past years, the rice abundance information gathered from these surveys will be summarized and made available to people interested in ricing off-reservation. Although it is impossible to be sure that a rice bed will provide a good harvest before the cedar meets the stalks, this abundance information can help direct ricers to the stands with the best potential, and hopefully prevent long trips to beds that were unproductive this year.

This information can be picked up

when you obtain your off-reservation harvesting permit, or by contacting GLIFWC's Wildlife Section in Odanah (715-682-6619), or by visiting GLIFWC's web site at www.glifwc.org, where air photos of selected rice waters will also be posted.

The role of the rice chiefs

In Wisconsin, many of the better rice lakes are regulated as to which days they are open for harvesting. The authority to open these lakes is shared jointly by the state and tribes.

Each of the regulated lakes is assigned to a tribal rice chief from either the St Croix, Lac Courte Oreilles, Lac du Flambeau or Sokaogon Chippewa Tribes. These assignments are based on traditional harvesting patterns.

In theory, the tribal rice chief works with a WDNR representative, usually a warden, to make a joint decision about the opening of the lakes. In practice, the decision may be made jointly, or one party may agree to differ the decision to the other on particular lakes.

In any circumstance, the lake must be posted at the boat landings, and both parties must be aware of the decision to open a lake at least 24 hours in advance of its actual opening.

At unregulated waters, the harvesters may rice whenever it is ripe. However, all other regulations, such as length of boat, length of ricing sticks, ricing hours, etc, still apply. These regulations are part of state and tribal harvesting codes and cannot be altered by the rice chiefs on off-reservation waters.

Educational and restoration efforts

Last year GLIFWC interns, cooperators from the WDNR and National Forests, and John Denomie, GLIFWC wildlife technician, also posted many the boat landings at various wild rice waters with informational signs.

These signs inform boaters that rice is present on that body of water and asks them to use care when boating near

the beds, especially early in the season, before and during the floating-leaf stage. It's a simple educational effort.

When the plants are below the surface, people may not be aware they are there until they pull them off their prop, especially if they haven't been on the lake at that time of year before.

If you know of locations that would benefit from posting, or of places where the signs have disappeared, you can contact John Denomie at the GLIFWC number provided above.

GLIFWC will also continue its highly cooperative wild rice seeding program in 1999. Partners in this effort have included GLIFWC's member tribes, the Wisconsin and Michigan Departments of Natural Resources, the U.S. Fish and Wildlife Service, the Chequamegon/Nicolet and Ottawa National Forests, local lake associations, and even individual volunteers.

Sharing both staff and funds, these partners have seeded 4-7 tons of wild rice annually in recent years.

This project is showing dividends on both historic and non-historic (such as man-made flowages) sites. There are opportunities on the landscape to recapture some of what has been lost. Harvesters benefit—nearly 10% of the off-reservation harvest came from seeded sites in 1998—and it's an even greater benefit to wildlife.

Most of the seed used in this effort is purchased from tribal hand harvesters. In fact, the willingness of these harvesters to sell their seed to GLIFWC (which actually purchases the seed on behalf of all cooperators) is critical to the success of this management effort.

GLIFWC will be paying \$1.75 per pound for freshly harvested seed. Anyone who is interested in selling seed is encouraged to contact GLIFWC's Wildlife Section in Odanah and ask for Peter David or John Denomie. Please call before harvesting!

Best wishes for a successful ricing season!



A wild rice winnowing basket in the formation. Outside the main conference room of the Wild Rice Conference, Jim Northrup, Fond du Lac ricer and birch bark craftsman, set up temporary shop. (photo by Sue Erickson)



Waterfowl season approaching

Outlook is good!

By Peter David
GLIFWC Wildlife Biologist

Odanah, Wis.—The fall waterfowl hunting season will soon be underway, and the outlook is encouraging; duck numbers are high, and the Mississippi Valley Population of Canada Geese, which accounts for most of the tribal off-reservation harvest, appears to have bounced way back from the low numbers observed last year.

North America's waterfowl populations are measured annually in a comprehensive international survey that

stretches from Wisconsin to Alaska. Trained biologists fly thousands of miles in small planes, surveying ducks from the air. Ground crews then intensively sample a much smaller portion of the same area, to develop "correction factors" for the ducks that are missed from the air.

For a relatively large, conspicuous duck like the mallard, the aerial observers may count nearly 70% of the ducks seen in the intensive ground searches, leading to a relatively small correction factor, while for a small, fairly inconspicuous species like the blue-winged teal they may see only 35%, leading to a relatively large correction factor.

These correction factors are then used to make a population estimate for the entire survey area. While counting ducks, the biologists also record the number, and kinds, of wetlands they see.

These surveys have been conducted annually since 1955, and over that time they have shown great variability. After very low numbers in the late 80's and early 90's, a change has occurred. Breeding population estimates from the traditional survey areas of central North America and Alaska have increased over five of the last years.

The 1999 estimate for total ducks (all species combined) was 43.4 million birds, the highest figure since surveys began. This represents an increase of 11% over last year's estimate and is 32% higher than the average over the 1955-1998 period.

Generally good wetland conditions also led to good production; the fall flight estimate (which includes both breeders and the young of the year) was estimated at 105 million birds.

Duck hunting regulations for both tribal and state harvesters will be relatively liberal this year to allow this bounty to be enjoyed and utilized.

Although overall duck numbers are up, some individual species remain of concern. Scaup (also known as blue-bills) and pintails are still 18% and 30% below the long-term average, respectively. Black duck numbers from a different survey conducted on the wintering grounds also suggests the population is below goal and in a general decline, although numbers increased from 1998.

Goose populations remain a generally bright spot in the waterfowl picture. The Mississippi Valley Population (MVP) of Canada Geese nest in northern Ontario, especially along the lowlands associated with James Bay and Hudson Bay. They migrate primarily through Wisconsin and western Michigan towards southern Illinois.

Spring population estimates for the MVP flock showed a huge increase from 1998, with the breeding popula-

tion estimate more than doubling in size to 949,500 birds. This is above the 900,000 population goal for this population. Production in the MVP is also expected to be good due to a relatively early spring on the breeding grounds. The fall flight of this population is estimated to be in the vicinity of 1.284 million.

The marked rebound in this population seems to agree with the opinion of many biologists that the 1998 estimate was based low.

That survey was run slightly later than the norm, at a time when the nests were much closer to hatch date. Geese at this time are harder to observe because they sit very tight and are reluctant to leave the nest.

The timing of the 1999 survey seemed to be excellent. However, due to the uncertainty associated with these estimates, the harvest quotas which were established for this population were made with some conservatism.

The total harvest quota was set at approximately 314,000 birds, or about 70,000 fewer birds than would bring the population back to goal.

Proposed regulations

Because of their small harvest and corresponding minimal biological impact, tribal off-reservation waterfowl hunting regulations have not varied significantly in recent years. Regulations proposed to the Fish and Wildlife Service are the same as last years: The season for ducks would run from September 15 to December 1.

In Wisconsin and the 1837 Treaty Area in Minnesota, the bag limit for ducks would be 20, including no more than 10 mallards (5 hens), 4 black ducks, 4 redheads, 4 pintails and 2 canvasbacks.

In Michigan, the bag would be 10, including no more than 5 mallards (2 hens), 2 black ducks, 2 redheads, 2 pintails and 1 canvasback.

The proposed goose season would open September 1 and close December 1 with ducks. This earlier opening date is proposed to offer greater opportunity to harvest resident breeding Giant Canada geese, who numbers have expanded rapidly over the last decade. The proposed bag limit for geese (all species combined) is 10 in all areas.

State licensed hunters in Wisconsin, Minnesota and Michigan will have a 60 day duck season with a 6 bird bag limit, with several species restrictions. Goose harvest objectives for MVP states like Wisconsin and Michigan will be markedly expanded from the relatively conservative seasons in 1998. Wisconsin's proposed regulations, for example, are intended to more than double last year's harvest.

So the outlook is bright! Of course, hunters are reminded that excellent fall flight forecasts do not promise birds in the bag. Weather patterns throughout the fall are critical in determining how many of these birds migrate through local areas, and how long they stay when they do.

Tribal harvest estimates have not correlated closely with either fall flight estimates or bag limits, and weather is the likely reason why.

For copies of final, approved regulations for off-reservation hunting, contact GLIFWC at (715) 682-6619 or your local tribal conservation department prior to the season.

Have a safe and successful hunt!



A pair of mallards enjoy Chequamegon Bay. (Photo by CO Rasmussen)

Boise Forte Band first to receive disaster payments for wild rice

Nett Lake, Minn.—South St. Louis Farm Service Agency County Executive Director Sid Jarvis, Outreach Worker Joan Markon, and North St. Louis Program Technician Linda Alger presented Chairwoman Doris Isham Boise Forte Reservation Tribal Council with a Commodity Credit Corporation check of \$31,411 for wild rice losses under the Crop Loss Disaster Program.

The Boise Forte Band of Chippewa is the first tribal entity in the nation to receive a payment for wild rice under the program. Under the Crop Loss Disaster Assistance Program agricultural producers such as the Boise Forte Tribal joint venture are eligible for assistance to cover losses caused by natural disaster.

Jarvis stated that: "In the past wild rice was not covered by disaster programs because it grew naturally in lakes and was generally considered not to be managed. In the past few years the Boise Forte Department of Natural Resources, at the direction of the Tribal Council, has implemented a series of monitoring and management efforts to ensure the long term health and productivity of this resource.

Along with the management efforts, which allowed the Farm Service Agency to qualify the wild rice on a technical basis, there has also been the

development of a working relationship between the Agency and the Boise Forte Band of Chippewa Indians. These two factors have led the Farm Service Agency to better serve the needs of those historic agricultural products."

Isham said: "We appreciate the acceptance of wild rice, a traditional crop, as being an eligible crop under this program. Last year's mediocre crop left a lot of people short of wild rice." Isham said the disaster payment would be used to reseed areas downstream from the lake that have lost production due to flooding.

Isham continued, "Of the 2,500 enrolled band members about 10 percent harvest, and share, the crop with family members and two-thirds of the band's population."

Wild rice is a traditional food for the Boise Forte Band and is used in ceremonies and other cultural activities. "It is good mixed with anything. Wild rice, unlike paddy raised rice will pop." "Popped wild rice coated is like cereal," said Isham. Each band family passes the culture and the tradition of mahnomen (Boise Forte language spelling of wild rice), to its children. Traditional ways were not always passed on. "During my generation we almost lost our language. Now we have bilingual teaching in our school," said Isham.

Nett Lake, protected from motorized watercraft, is the largest contiguous wild rice lake in the world. It has 7,400 acres of which 3,000 to 4,000 acres produce 1 to 3 million pounds of wild rice in a good year. Last year approximately 70,000 pounds were gathered. Nett Lake rice currently sells for \$5.00 a pound.

Harvest normally takes two to three weeks, but in 1998 it was finished in a week. All wild rice harvesting is done by hand in canoes. One person poles and one person flails the rice into the canoe. The rice which doesn't get into the canoe drops into the water, reseeding the lake bed for future germination.

A pamphlet written by the Minnesota Chippewa Tribe and the Minnesota Department of Natural Resources-Enforcement Division says: "Wild rice is a member of the grass family that begins to grow in Minnesota lakes and stream after ice gives way to spring, and the sunlight penetrates the water to begin normal photosynthesis." The Chippewa are excellent stewards of wild rice. The pamphlet tells harvesters that wild rice plants are fragile. "Don't break stalks by pulling them straight down over the gunwale; don't club the plant; be gentle; be courteous and ethical to other harvesters. Just because an action isn't unlawful doesn't mean it's ethical."

Treaty rights in Deer 2000 and beyond

A Commentary by Jonathan Gilbert
GLIFWC Wildlife Section Leader

Odanah, Wis.—Put together insurance company executives, wildlife enthusiasts, Indian tribes, farmers, avid sportsmen and women, animal rights activists, biologists, yuppies, nerds and rednecks and ask their opinion on white-tailed deer management and then you will know that deer management in Wisconsin is complex and emotional.

I have been involved with deer management in this state for 15 years, and I have never seen a time when there wasn't some controversy or another. The reason for this is that white-tailed deer are capable of inspiring many good feelings among Wisconsin citizens, while at the same time causing a great deal of damage.

Some people wish to see a lot of deer for hunting, feeding or wildlife viewing. Others wish to see fewer deer because of deer-vehicle accidents and the damage they do to crops. Some believe that hunting should be the only management tool used to control deer populations; others believe that no hunting should be permitted at all.

Some believe that feeding deer during harsh winters is humane, while others believe that it just exacerbates an already serious over-population problem. As I said, deer management is complex and opinions are strong.

In 1997 the Wisconsin Natural Resources Board (NRB) decided that it wanted to develop a citizen-based set of recommendations to present to the Wisconsin Department of Natural Resources (WDNR) regarding deer management for the coming years. The Board called on the Conservation Congress to pull together this effort.

The Conservation Congress is a citizen organization which has statutory advisory responsibilities to the WDNR and thus was in a good position to undertake this effort. The NRB instructed the Conservation Congress to reach out to all citizens of the state and especially special interests not normally consulted in deer management decisions. Thus Deer Management for 2000 and Beyond was born.

During 1998 the Deer 2000 Oversight Team planned for soliciting and accepting citizen input. This included an invitation to the Great Lakes Indian Fish & Wildlife Commission (GLIFWC) member tribes to participate in the Deer 2000 process.

Tom Maulson, Lac du Flambeau (LdF) Tribal Chairman and Chairman of GLIFWC Board of Commissioners addressed the Deer 2000 Design team early in the process. He stated that tribes with off-reservation treaty rights in Wisconsin and those people interested in deer management in Wisconsin had much in common, and each could benefit from talking to and listening to the others.

He told them that the tribes could bring much to the table when discussing deer management. Subsequent to this meeting the Voigt Intertribal Task Force stated its preference to stay informed of the progress made by Deer 2000 and to stay involved in the Oversight Team.

As I stated above, the objective of the Deer 2000 process is to develop a set of recommendations to the WDNR. Before recommendations could be presented issues had to first be identified and information on those issues had to be gathered. Early in 1999 there were a series of issue forums around the state where persons interested in deer management could come to voice their opinion on any issue they wished.

All comments were recorded, combined and summarized. No issue was ignored. The top issues, those most frequently mentioned as issues, were identified as:

- ✓ agricultural damage
- ✓ baiting and feeding
- ✓ believability of population estimates
- ✓ forest and ecological damage
- ✓ herd size and capacity
- ✓ private land access
- ✓ sex and age structure of the herd



Blissfully unaware of the Deer 2000 issues concerning the human species, this doe pauses for a cool drink. (Photo by CO Rasmussen)

The next step of the process is to collect as much information about each of these issues as possible. Information will be collected by Issue Study Work Groups. The Work Groups will digest the information and synthesize it into a set of recommendations to be presented to WDNR. Information will be collected from some more traditional sources such as text books, scientific research and outreach documents.

But information will also be sought from Wisconsin citizens, once again. There will be a series of public meetings in late September which will be designed to disseminate information as well as collect it. Recommendations on each issue are due to be presented to the NRB early in the year 2000.

I have been impressed with the way this group has gone about its duties to collect input from Wisconsin citizens. They have made strong efforts to reach out to groups which are sometimes ignored, including GLIFWC member tribes, in deer management decisions. They have identified important issues to address and if they are successful in developing equally as strong recommendations Deer 2000 will have worked very well.

The member tribes of GLIFWC have struggled with their involvement in Deer 2000. They have litigated in federal court with the State over deer management and have reached satisfactory conclusions in that litigation. This court case, known as the *Voigt Decision*, established a relationship between the state and the tribes when it comes to natural resources management, including deer management.

Although the tribes hope that involvement in the Deer 2000 project can be beneficial to both tribal and state hunters because of the multitude of common interests, they do not want the Deer 2000 project and the recommendations coming from this project, to replace or alter in any way the relationship requirements established by the *Voigt Decision* and its stipulations.

For example, the establishment of over-winter deer population goals is an issue which is being addressed by the Herd Size and Capacity Issue Study Work Group. However, the products of this work group should not interfere in any way with the required review of over-winter deer population goals between the tribes and the WDNR. The stipulation process must be followed, regardless of the Deer 2000 recommendations.

Individual tribal members are of course free and encouraged to participate in any Deer 2000 gathering and to present their views. This is where the real common ground may be found—from person to person. It is through this exchange that common interests can be discovered, and solutions to difficult problems can be worked out.

I will work with individual Issue Study Work Groups to present the role of state-tribal stipulations in the issue they are considering. I will also act as a liaison between the Voigt Task Force tribes and the Deer 2000 teams. I will be responsible for making sure that communication is open and frequent, and the information flows both ways.

Like Tom Maulson, I know that there is much that the tribes can contribute to deer management in Wisconsin. There is much common ground here, but there is also much to learn about each other. If Tom's vision of co-management of the Wisconsin deer population comes to pass, it will truly be the nation's best.

For more information contact Jon Gilbert at (715) 682-6619 or e-mail jgilbert@glifwc.org.

NAFWS Great Lakes Regional Conference

The 1999 Native American Fish & Wildlife Society (NAFWS) Great Lakes Regional Conference will be held September 14-16, 1999 at the Fortune Bay Resort & Casino in Bois Forte. Please call 800-555-1714 or 218-753-2611 to make your reservations A.S.A.P. If you have any questions, please contact Faith McGruther at (906) 632-0043 or Ray Villebrun at (218) 757-3261.



1999 Minnesota antlerless deer treaty quotas

Permit area	Antlerless deer declaration
221	25
222	100
223	25
224	25
225	25
227	25
235	20
236	25
249	100
152	40
154	50
156	50
157	100
159	200
183	95
St. Croix State Park Antlerless Deer Hunters	100 160
Crow Wing State Park Antlerless Deer Hunters	0 0

1999-2000 Minnesota furbearer treaty quotas

Species	1999 Declaration
Fisher	25
Marten	30
Otter	20
Bobcat	5

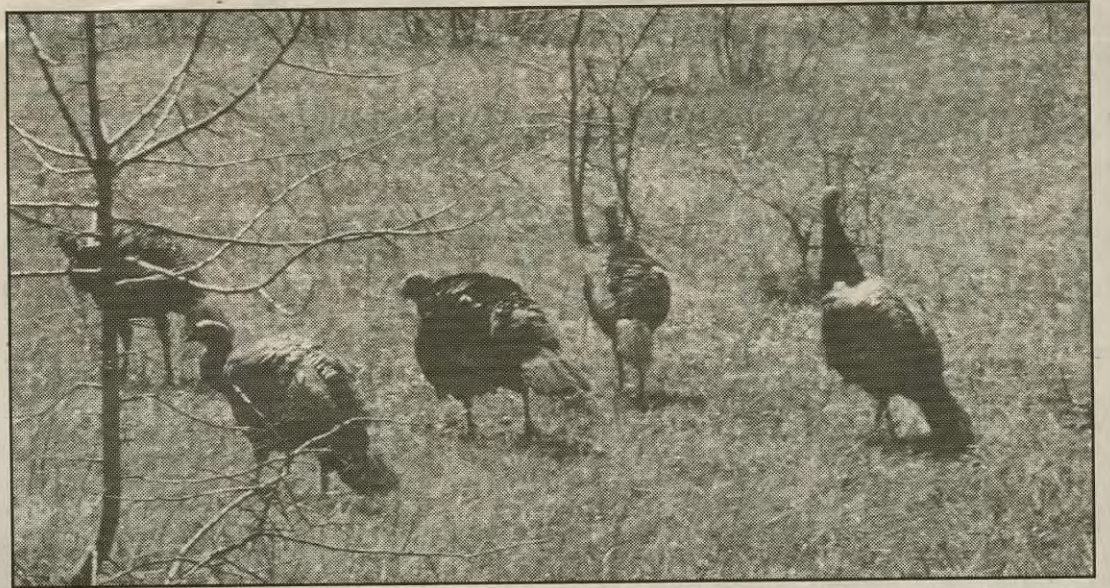
1999-2000 Minnesota small game bag limits for non-quota species—None

1999 Minnesota bear declarations

Black Bear Mgt. Zones	Declaration
45	10 bears
51	25 bears



Graphic by Walter Kuranda



Among the off-reservation hunting opportunities this fall is the treaty season for wild turkey in Wisconsin. (Staff photo)

Turkey declarations for 1999-2000 Wisconsin off-reservation season

Zone	Fall 1999 quota	Spring 1999 quota	Total quota
20	25	25	50
21	25	25	50
22	25	25	50
32	25	25	50
36	25	25	50
37	25	25	50
38	25	25	50
39	25	25	50
40	20	20	40
41	20	20	40

Man sentenced for shooting endangered gray wolf in Michigan's Upper Peninsula

Federal and State wildlife officers cooperated in an investigation which led to the successful prosecution and conviction of a Rhinelander, Wisconsin man.

Scott A. Blamberg was sentenced in 95-B District Court for his November 1998 shooting a female gray wolf in Iron County, Michigan.

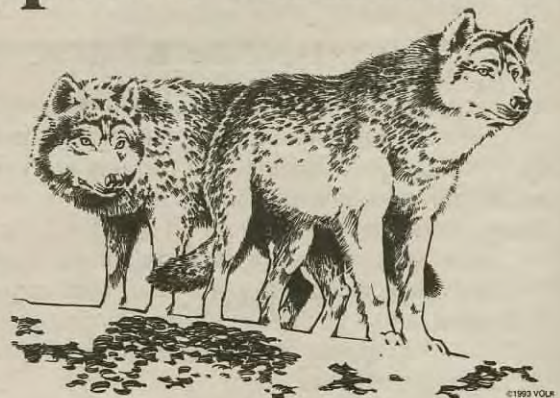
The Law Enforcement Division of the Michigan Department of Natural Resources and Special Agents from the United States Fish and Wildlife Service investigated the case with assistance from officers from the Wisconsin Department of Natural Resources Law Enforcement Division.

The prosecution of this case was managed by Iron County Prosecuting Attorney, Joseph Sartorelli with assistance from Assistant United States Attorney G.G. Gordon of the United States Attorney's Office in Marquette, Michigan.

Scott Blamberg, 34, appeared before Judge Joseph Schwedler, where he was assessed a fine of \$1,000, ordered to pay \$1,500 in restitution to the State of Michigan for the loss of the animal, serve 60 days in jail to commence immediately, plus an additional 60 days of probation after the jail sentence is served.

In addition, Judge Schwedler condemned the firearm that Blamberg used to shoot the wolf and revoked all future Michigan hunting privileges.

Wolf #3605 was a one-and-one-half year old female that had been radio collared as a pup in 1997, then re-collared in 1998 after being accidentally caught in a leg-hold trap.



The wolf was an important link in the effort to monitor the natural recovery of wolves in Michigan, according to Jim Hammill, the Wildlife Biologist in the Michigan Department of Natural Resource's Crystal Falls office.

The wolf was apparently eating from a road-killed deer when Blamberg shot the research animal. The wolf had been seen frequently along USFS Highway 16, in Iron County's Stambaugh Township, near the location where it was shot.

Killing a wolf is a violation of the Michigan Natural Resource and Environmental Protection Act, Endangered Species Protection Part 365.

Results of the 1998-99 winter wolf survey conducted by the DNR confirmed the presence of at least 174 wolves, in about 30 packs, scattered across the Upper Peninsula.

No wolves were confirmed in the Lower Peninsula.

Back to the basics on Ojibwe treaty rights

Editor's note: Sixteen years have passed since the *Voigt* decision made headlines in Wisconsin and the Ojibwe began exercising their rights in Wisconsin ceded territories. Treaty litigation consumed nine years in Minnesota over the 1837 Treaty rights and continues with the 1854 Treaty litigation. During the course of those years much publicity and controversy provided the general public with treaty information that was both accurate and inaccurate.

Unfortunately, conflict over treaty rights left many people confused, and in many instances retaining misinformation about treaty rights. The following questions/answers provide some of basics on treaty rights and address some of the common questions which have been asked since treaty issues first hit the news.

The information below applies to the treaty rights held by the Ojibwe bands who are members of the Great Lakes Indian Fish and Wildlife Commission (GLIFWC) and exercise treaty rights under the Treaties of 1836, 1837, 1842, and 1854. These bands include: Mille Lacs and Fond du Lac bands in Minnesota; Bad River, Lac Courte Oreilles, Lac du Flambeau, Mole Lake/Sokaogon, Red Cliff, and St. Croix bands in Wisconsin; and Lac Vieux Desert, Keweenaw Bay, and Bay Mills bands in Michigan.

What is a treaty right?

A treaty right refers to a right retained in a treaty between tribes and the U.S. government. In those treaties the Ojibwe sold land in exchange for certain sums of money and services, but they kept for themselves the right to hunt, fish and gather on lands they sold or ceded. The retention of those rights was part of the agreement between sovereign nations; the Ojibwe never relinquished those rights.

Who has treaty rights?

Treaty rights belong to the Ojibwe bands which signed the treaties reserving the right to hunt, fish, and gather on ceded lands. Although members of the bands exercise treaty rights, the right does not belong to individual band members, but rather to the bands signatory to the treaties. They are exercised under the codes or regulations adopted by each band's government.

Where can treaty rights be exercised?

Treaty rights can only be exercised on public lands within the ceded territories (tracts of land sold in the various treaties in which the rights to hunt, fish, and gather were reserved). Exceptions are that tribal hunting is closed in some public parks and recreational areas in the interest of public safety. Privately-owned lands are excluded from off-reservation, treaty harvest, except areas such as forest crop lands where public deer hunting is permitted. (See map of ceded territory)

Can band members harvest as much fish and game as they want?

No. Off-reservation, treaty harvests are limited, using quotas, seasons, and/or permits, except for species such as panfish or rough fish. Permits are required for off-reservation hunting and fishing, and in the case of netting or spearing in the spring, daily permits are required specifying the exact quantity of a species that can be taken. Seasonal bag limits and quotas are determined through resource assessments, which provide biological staff with information to make quota and bag limit recommendations. State-tribal working committees share assessment data and recommend safe harvest or harvestable surplus figures.

Can band members hunt and fish anytime of the year under treaty rights?

No. Seasons are established for the various species. For instance, the off-reservation deer season in Wisconsin and the Minnesota 1837 ceded territory begins the day after Labor Day and concludes on December 31st. Similarly, other seasons are set for hunting, trapping, fishing, and gathering.

Are off-reservation and on-reservation hunting and fishing regulations the same?

No. Each band establishes its own seasons and regulations for on-reservation hunting, fishing, and gathering. Seasons for off-reservation harvests are part of court stipulations and do not apply to on-reservation activities.

Are off-reservation regulations enforced?

Yes. All off-reservation seasons are monitored by GLIFWC wardens, who are fully-certified, conservation enforcement officers. GLIFWC satellite enforcement offices are staffed on all member reservations, except Fond du Lac in Minnesota. Fond du Lac maintains its own off-reservation enforcement program. Violations of off-reservation codes are usually cited into tribal court for prosecution. Some GLIFWC wardens are cross-deputized with state conservation officers in Wisconsin.

Does spearing and netting during the spring spawning season deplete the resource?

No. There is no evidence that spearing or netting during the spring spawning season depletes or damages the resources. This is because the seasons are regulated by strict quotas and very closely monitored so that quotas are not exceeded.

Spring spearing and netting occur only on designated landings which are staffed daily by both enforcement and biological staff. All band members must show a permit before going out to spear or set nets. When they return with their catch, the fish are counted, measured and, in Minnesota 1837 ceded lakes, weighed, before they leave the landing.

Close monitoring of the season assures that quotas are not exceeded; size limits and net mesh size restrict the number of female, spawning walleye being taken. In fact, spring spearing statistics show that over 90% of the fish taken are male, due to size limits during the season.

How can band members use all the fish taken during the spring season?

Band members fish largely for home use, but this includes an extended family. Much of the fish taken is shared with other family members and friends. Fish taken in the spring is also cleaned and frozen for later use. Most bands also contribute fish to the elderly who are unable to fish for themselves and to events such as band feasts and ceremonies.

Waste of the natural resources is something which is strongly condemned in Ojibwe traditional teachings. Ojibwe people have been taught to take only what is needed and can be used.

How do bands choose the lakes they are going to spear or net?

Most bands hold meetings with fishermen prior to the opening of the spring spearing/netting season. Input from the band members is encouraged to designate lakes for the spring and for the quantity of fish needed by band members. In this way, each band develops a list of lakes and declares a quota for each lake prior to March 15 when the information must be provided to the state natural resources departments.

Do tribes contribute to enhancing the resource?

Yes. GLIFWC member bands all have departments of natural resources and are actively involved in on-reservation resource management enhancement. Much of their work benefits both band members and non-band members who use on-reservation resources, such as lakes and rivers. Nine of GLIFWC's eleven member bands operate hatcheries engaged in rearing and stocking fish, frequently into lakes speared or netted both on and off reservation.

In addition GLIFWC and individual bands participate in annual resource assessment activities and share biological data with state and federal resource management agencies, thus contributing to the overall effort to understand and effectively manage the resources for all.

In other areas, the bands have taken a lead in re-establishment of rice beds and are actively involved in monitoring activities which may negatively impact the environment and the natural resources both on and off reservation.

Treaty Ceded Areas



Significance of the Mille Lacs decision

Odanah, Wis.—On March 24, 1999, in a close 5-4 decision, the United States Supreme Court affirmed treaty hunting, fishing and gathering rights in the Minnesota 1837 ceded territory.

This decision, entitled *Minnesota v. Mille Lacs Band*, brought full circle over two decades of litigation starting when the *Voigt* case was filed in the 1970s. It effectively ends the debate of whether GLIFWC's tribes retain their treaty rights in the ceded territories.

The Supreme Court rejected Minnesota's claim that President Zachary Taylor's 1850 Removal Order terminated the 1837 Treaty rights. The 1850 Executive Order contained two parts: an order removing the Chippewa to what is now Minnesota and an order terminating hunting, fishing and gathering rights in the 1837 and 1842 ceded territories.

The Supreme Court agreed with the tribes that the President's attempt to remove the Chippewa was unlawful because it was not authorized by Congress or agreed to by the tribes.

It also agreed that the part of the Order terminating the treaty rights was equally invalid because the President would not have terminated the treaty rights unless the tribes were removed. There was no removal. Therefore, the rights were not terminated.

The Supreme Court also rejected Minnesota's claim that the treaty rights were terminated upon Minnesota's statehood. The Court found that Congress did not terminate the rights when it enacted Minnesota's enabling act in 1858.

Finally, the Supreme Court found that the 1855 Treaty, where the Mille Lacs Band secured its reservation, did not terminate the 1837 Treaty rights. The Court agreed with Mille Lacs that, like the 1854 Treaty which secured reservations for the other tribes involved in the case, the 1855 Treaty had no bearing on the tribe's rights to hunt, fish and gather in the 1837 ceded territory.

The tribes' success in the Mille Lacs case before the Supreme Court is important for a number of reasons. Most significant for the tribes and their members, the highest court in the land has spoken: they may now continue a way



Members of the Bad River Band, Wisconsin, exercise their right to fish within Minnesota's 1837 Treaty ceded territory about a month following the Supreme Court's favorable decision in the *Mille Lacs* case. Off-reservation spring netting and spearing are highly regulated and closely monitored by GLIFWC biological and enforcement staff. (Photo by Sue Erickson.)

of life that is critical to individual tribal members and to the tribal communities as a whole as they strive to meet their subsistence, cultural, religious, medicinal, and economic needs.

Although it technically applies only to the Minnesota 1837 ceded territory, the Supreme Court's decision effectively puts an end to all debate whether the tribes' 1837, 1842 and 1854 ceded territory rights exist. The Court's reasoning and rationale apply equally to all three treaties, if not even more persuasively to the 1842 and 1854 Treaties.

From a broader perspective, treaty rights cases, like the *Mille Lacs* case and its predecessor the *Voigt* case, serve as a reminder that tribes and tribal governments have a legal status and role under the U.S. Constitution.

Treaty cases provide the modern day mechanism by which tribes exercise self-government and perpetuate their cultures. This means that other governments, particularly states, cannot maintain exclusive control of natural resource use and management.

Important to Indian tribes throughout the country, the Supreme Court found that the tribes' treaty rights can coexist with state management of natural resources. It affirmed fundamental legal principles governing the interpretation of Indian treaties and federal legislation. This holding departs from the Court's recent decisions in which the canons of treaty construction have rarely been applied, and state interests generally have prevailed.

In the 1990's, the Supreme Court ruled in favor of Indian interests in only four of the twenty-four Indian law cases it considered.

There are many reasons why the tribes succeeded before the Supreme Court. First and foremost, the tribes turned inward, approached the case in an Anishinaabeg way, and imparted the legal proceedings with the fundamental premise that treaty rights are an integral part of the Anishinaabeg cultural, spiritual, and physical well-being.

Also, the diligent work of the tribes' attorneys, tribal staff, and of GLIFWC staff paid off. The tribes established a detailed historical record built upon expert testimony and original documents. The Supreme Court relied heavily on this record in making its decision.

Drawing on thirteen years of experience in the Wisconsin ceded territories, the tribes also effectively addressed all natural resource management and harvest issues raised by the state, by showing the court that the exercise of treaty rights would pose no threat to conservation or to public health or safety.

Using the expertise of GLIFWC biologists, conservation wardens, attorneys and litigation support specialists, the tribes established a comprehensive tribal self-regulatory system of joint tribal natural resource harvest goals, joint tribal natural resource plans, and model harvest regulations.

The *Mille Lacs* case serves as a shining example of how tribes can work together to achieve success. By approaching the case in a proper Anishinaabeg way, the tribes were able to carefully coordinate their litigation positions, strategies, and tactics, and to resolve intertribal differences.

The tribes also were able to provide the proper direction to their lawyers, historians, anthropologists, biologists, law enforcement officers and other experts so that each in turn was able to fill their respective role in a way that ultimately convinced the federal courts not only that the treaty rights continue to exist but that tribal members may exercise those rights without state interference. □

Information on treaty rights and treaty harvests available through GLIFWC

Harvest reports

Annual reports on various off-reservation, treaty seasons are available through the GLIFWC Biological Services Division. Reports on seasons such as off-reservation deer harvest, spring spearing and netting, waterfowl, wild rice, bear, fisher, otter and bobcat are compiled annually. Annual reports on tribal treaty commercial fishing harvest in Lake Superior are also available.

Treaty rights information

The Public Information Office (PIO) produces a number of publications regarding Ojibwe treaty rights, treaty harvests, and off-reservation resource management.

A Guide to Understanding Ojibwe Treaty Rights contains pertinent treaties and provides an explanation of treaty rights and their implementation. *Chippewa Treaties: Understanding & Impact* is a similar publication, but geared to 4th-8th grade students.

Seasons of the Chippewa is updated annually and contains a detailed account of GLIFWC's role in managing the off-reservation seasons as well as natural resource management activities.

Masinaigan, GLIFWC's quarterly newspaper, provides coverage of current issues impacting Ojibwe treaty rights, off-reservation seasons, and off-reservation resource management activities.

BIHIBAYASH: Circle of Flight is a booklet pertaining to tribal and inter-tribal wetland and waterfowl enhancement initiatives.

Casting Light Upon the Waters, published in 1991, contains results of a joint fishery assessment in northern Wisconsin's ceded territories as well as recommendations for future management. Federal, state, and tribal representatives worked collaboratively on the fishery assessment and formulation of the report.

Also, available are a variety of videos discussing off-reservation, treaty rights and resource management, tribal sovereignty, wild rice, the Lake Superior treaty fishery, mercury contamination and inter-tribal wetlands and waterfowl enhancement.

For more information

For a list of GLIFWC publications and price list or further information: Call (715) 682-6619; or write PIO P.O. Box 9, Odanah, Wis. 54961; or e-mail pio@glifwc.org. Many GLIFWC publications can be found on our website at www.glifwc.org.



U.S. Supreme Court upholds shellfish right

By Tony Meyer
NWIFC News

Olympia, Wash.—Treaty Indian tribes in western Washington celebrated the U.S. Supreme Court's recent announcement that it will not review the landmark lower court decision that restored their shellfish harvesting rights.

"The Supreme Court did the right thing in deciding not to hear this case," said Billy Frank Jr., chairman of the Northwest Indian Fisheries Commission.

"Once again, the Supreme Court has made it clear that the tribes' treaty-reserved rights to natural resources in western Washington are as valid today as the day the treaties were signed. This is a great victory."

The Supreme Court's decision not to review the case means that U.S. District Court Judge Edward Rafeedie's December 1994 ruling and a subsequent Ninth Circuit Court of Appeals review will be allowed to stand. Both rulings upheld the tribes' reserved rights to harvest naturally occurring shellfish, including inter-tidal, deep water and free-swimming species, throughout their usual and accustomed harvest areas in western Washington.

The decision comes on the heels of a March 24 ruling by the U.S. Supreme

Court which upheld the treaty rights of the Mille Lacs Band of Chippewa Indians to hunt and fish on state lands in Minnesota.

The tribes and state have been implementing Rafeedie's 1994 decision while the case worked its way through the federal court system. Tribal shellfish managers have developed harvest management and supplementation plans, and harvest data is collected and shared with other tribes and the state co-managers. No shellfish harvesting is allowed on beaches that have not been certified as safe by the tribes and state Department of Health.

It is also important to note that there have been few, if any, problems with tribes harvesting shellfish on private tidelands, Frank said. In fact, some private tideland owners have developed management agreements with tribes that include provisions for population surveys, harvest planning, and enhancement projects.

"We would hope that this will put an end to the pointless attacks on tribal sovereignty and our treaty rights," said Frank.

"It has been proven time after time that the tribes are willing and able to work cooperatively with our state co-managers in carrying out orderly, biologically sound harvests of both fish and shellfish," Frank concluded.

Washington Supreme Court recognizes hunting right

By Tony Meyer
NWIFC News

Olympia, Wash.—Tribal officials welcomed the positive aspects of a recent ruling by the state Supreme Court in the Buchanan hunting case, but cautioned against state court attempts to limit treaty hunting rights.

"Our treaty hunting rights were reserved in treaties with the United States and it will be the federal courts that will have the last say on the scope of those rights," said Todd Wilbur, a Swinornish tribal member who chairs the Inter-tribal Wildlife Committee of the Northwest Indian Fisheries Commission (NWIFC).

Wilbur said tribes are considering bringing a treaty hunting rights case to the federal courts for a declaration of the scope of that right if necessary. Those courts have consistently upheld the treaty-reserved rights of the tribes. Most recently, the U.S. Supreme Court upheld the tribes' treaty right to half of the harvestable shellfish in Washington waters.

The state Supreme Court's ruling means Nooksack tribal member Donald Buchanan will go back to district court

in Yakima for another trial on charges for harvesting two elk in the Oak Creek, Area in 1995.

Among the issues to be determined is whether the area in which he was hunting was a traditional area for his tribe. Two lower courts ruled that Buchanan was simply exercising his reserved right under the Treaty of Point Elliott to hunt on "open and unclaimed" land when he harvested the two bull elk.

The state Supreme Court Thursday upheld that treaty tribes may hunt within original tribal lands and traditional areas and also said that the state-owned Oak Creek Wildlife Area was "open and unclaimed" land within the meaning of the treaties.

The court threw out the state's argument that treaty rights were eliminated when Washington became a state, saying that only the federal government can abrogate a treaty right.

"The tribes believe in good management of the resource, and have been working hard with the state through the Department of Fish and Wildlife to coordinate management activities said Billy Frank NWIFC chairman. "We want those efforts to continue. Cooperation is key to the success of natural resource management."

Articles reprinted from Northwest Indian Fisheries Commission News, Vol. XIV No. 1.



Head dancers Becky St. Germaine and Rick St. Germaine lead the grand entry at the Honor the Earth Pow Wow at Lac Courte Oreilles in July. (photo by CO Rasmussen)

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 1999 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 Treaty ceded territory

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

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

Plants Used by the Great Lakes Ojibwa

The book, "Plants Used By The Great Lakes Ojibwa," is available in abridged form through the Biological Services Division of the Great Lakes Indian Fish Wildlife Commission (GLIFWC).

The book includes a brief description of the plant and its use, a reproduced line drawing, and a map showing approximately where each plant is distributed within the ceded territories. This book also includes tables which are sorted by the Ojibwe, scientific, and common names so that looking up a particular plant is made easier.

The book sells for \$20.00 (discounts apply to orders of five books or more books). To order, contact John Heim, GLIFWC Biological Services Division, P.O. Box 9, Odanah, WI 54861 or call (715) 682-6619.

Knee deep in the Northwoods

The aspen wars

By Dr. James Meeker
Associate Professor, Northland College

For almost six years I have written under the title of "Ethnobotanical Thoughts," yet for the last three to four years the topics have centered around northern forest conservation issues, hence the switch in title, a bit more truth in advertising. On the other hand, recently the work of the ethnobotanist and the conservation biologist have gone hand in hand, both sharing the goals of maintaining native species and cultural diversity. I hope to make this point more often in the upcoming columns. I would like to begin this column with a discussion of environmental terms.

On the first day of class each fall, I ask Northland College freshmen to quickly associate words with a number of terms that I assume they all hear commonly. I ask, "What two or three words come to mind when you hear each of the following terms: environmental studies, pollution biology, natural resource study, wildlife management, and conservation biology?" We generally focus on how these terms are similar or different from each other.

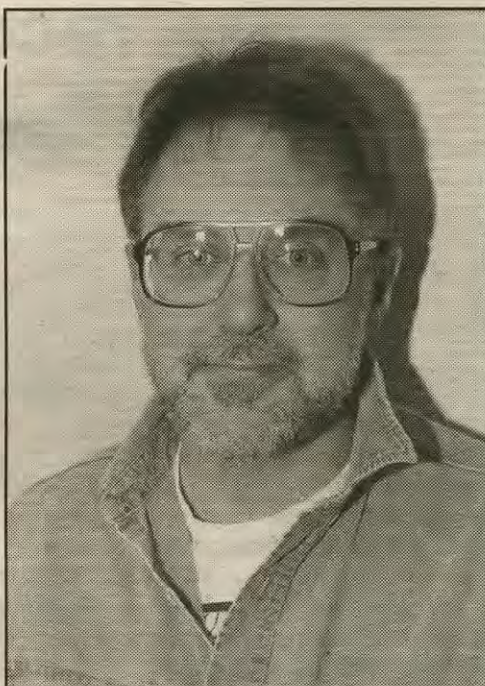
Most students see environmental studies as a broad discipline, from studies of ecosystems and climates to environmental law and policy. Pollution biology is thought to be one important part of environmental studies, most often related to how contaminants affect fish, bird and human populations, resulting in policy-like fish advisories.

In a similar manner, natural resource studies is seen as a large discipline, with subdisciplines like wildlife management and forestry.

Conservation biology is often less well defined by the students; the terms most often thought of when conservation biology is mentioned include endangered plants and animals (most often wolves and whales) and biologic diversity. I then ask them how conservation biology might be similar to or different from the other terms. We finally end up with a discussion of the Endangered Species Act and how this legislation is unique (when compared to clean and clean water legislation) in its focus on organisms other than humans.

Conservation Biology then shares with environmental studies the goal of a clean ecosystem, yet perhaps for a different reason—whereas ecosystem studies is supported and justified as the basis of protecting people, the goal of conservation biology is primarily concerned with the welfare of natural communities and the processes that promote native plants and animals. This slightly different emphasis often sets conservation biology apart from other environmental studies and is harder for some people to embrace. As a result advocates for these different disciplines often talk past each other.

To emphasize these different perceptions, I'd like to relate a story. Last year, as part of a lecture series taking place at the college, David Foreman was invited to speak on the subject of "restoration," Northland College's theme for the last



Dr. James Meeker

year. Foreman, many of you may recall, is one of the founders of Earth First!, a radical environmental protection group probably best known for its actions against the logging in the west (actions like occupying sites, chaining themselves to trees etc.). Foreman is now distancing himself from these radical activities and is a proponent of conservation biology and what is known as the Wildlands Project.

Foreman delivered a "pat" talk with an emphasis on the importance of top carnivores like (wolves and grizzlies), mentioning all the principles of conservation biology including the need for reserve natural areas, buffer zones and well designed buffers and corridors. In addition, Foreman praised the work of John Muir and Aldo Leopold, as the fathers of conservation biology.

After the talk, Walt Bresette, in his own unique manner, took exception to the talk and apparently he and Foreman had a heated discussion about Foreman's topic. What Walt took exception to, I think, was that Foreman did not do his regional homework; he merely rolled into town with a well-oiled speech talking of old white men, without acknowledging the important work of native peoples here in the Great Lakes Indian country.

For some of us this "divide" was unfortunate; many of the students who viewed this interaction between Walt Bresette and Dave Foreman were perplexed with the debate between two people that they admired. I bring up this story to highlight how two individuals coming from essentially different disciplines can talk right past each other.

Whereas Foreman was a supporter of wilderness and conservation biology, Walt was coming from base of environmental activism. He was a staunch defender of the environment and addressed issues such as solution mining and environmental justice. I regret not getting the chance to talk to Walt about this debate, and think he and Foreman probably had more in common than either of them discovered that night.

I have introduced this story to help bridge the gaps among all those who work on a variety of environmental issues. For example, while I have chosen to work with conservation biology issues of this region, I support the work of other regional environmental issues. All of us benefit from that total environmental work being done; we just have different forums in which we feel comfortable acting in.

By far the largest regional issue on the minds of conservation biologists is the land management debate. At the moment, both the state (with the Brule and the Northern Highlands) and the national forests in Wisconsin (with the Chequamegon and the Nicolet) are developing management plans for the next decade. These developments don't often get the same attention as the hot local issues like the coal tar problem in Ashland, but they have enormous influence on how land is managed well into the next century.

To highlight one main concern, for years wildlife managers had goals compatible with one main goal in forestry, that is to manage for early successional species like aspen, birch and jackpine by periodic clear cutting. This has resulted in a highly fragmented landscape that favored common species like deer, grouse, rabbits, brambles and elderberry; while reducing populations of many deep woods species like orchids and other wild flowers, as well as evergreens such as hemlock, yew and cedar.

In simplistic terms, then, more aspen equals less cedar, yew and hemlock and these three conifer species plus some understory wildflowers have become the indicators of this change.

Why is this the case? One reason is simply that aspen acreage have replaced much of the area where upland cedar, hemlock and scattered white pine once grew. The optimal habitat for upland cedar and hemlock are in the "half wet" transition areas, above the conifer and black ash swamps and below the best drained areas where sugar maple and basswood grow.

After these transition areas were originally cut, and especially after they were clear cut for the second cut, aspen continues to dominate. One estimate for the Chequamegon is that aspen has grown from 1 to 2 percent of the land base at pre-settlement to 25 or 30 percent today.

Much of this acreage has replaced hemlock and cedar. Another reason for the loss of cedar and hemlock is that while managing for aspen, deer numbers have greatly increased (more edge between recently cut and uncut areas favored white-tailed deer that browse on plants of concern in winter). There are only a few areas remaining with low deer populations. To highlight that increase over the last 20 years, locals that I have talked to tell me that merely seeing deer tracks in the 1970's was a big deal!

The conservation community is united on the need to reduce aspen in the national forests to promote long-term ecosystem health. We are calling for more continuous canopy forest with select cutting replacing clear cutting and wildlife openings on at least several large blocks of the forest. Over time, these areas will not be as favorable for deer, and the regeneration of conifers will hopefully rebound. We may even get the incidental benefit of moose in some places, a more logical choice for a large ungulate than the highly touted elk.

Nay sayers to these plans suggest that the conservation biologist want to shut down aspen silviculture. They have even begun to call aspen "globally threatened," in recognition that the Great Lakes forest area is the best place in the nation to grow aspen.

This may, indeed, be the best place for aspen, but must we sacrifice viable populations of other species to continue growing aspen at the level we are now? From my standpoint this endangered aspen argument is like saying that because (See The aspen wars, page 11)



As a result of modern forest management, aspen have replaced historic conifer stands where trees like cedar, hemlock, and these mature white and red pine once grew. (photo by CO Rasmussen)

Survival of plants gathered by Ojibwe subject of long-term study

By Karen Danielsen
GLIFWC Forest Ecologist

Odanah, Wis.—John Heim and Sheila Madahbee knew that the day would bring sweltering hot temperatures, swarms of hungry bugs, and ominous rain clouds. However, they persisted on with their assignment, knowing they needed only a few more days of laborious field work.

Besides, they had already spent most of the summer battling these field conditions, so a few additional days certainly would not hurt. And, they both agreed (possibly, as a motivational strategy) that the beauty and serenity of the deep-green forest would easily surpass the minor inconvenience of being hot, bug-bitten, and wet.

John and Sheila's assignment was to continue collecting data for a study on the effects of logging practices on understory plants; a study that GLIFWC staff, in cooperation with the Chequamegon-Nicolet National Forest, initiated over five years ago. John, a GLIFWC plant and wildlife technician, has been involved with this study since its inception. Sheila, a GLIFWC intern, was recruited this year.

Logging obviously causes a number of changes to the forest environment. In the short-term, the loss of trees and the associated disturbance of logging causes significant impacts to the understory plants, soil, and hydrology. In the long-term, as the logged area

recovers, the impacts may not seem as noticeable.

However, the long-term impacts have never been accurately measured and, in actuality, may be quite significant. For example, these impacts may include the elimination of one or more native plant species or the invasion of weedy non-native plant species. For tribal members that depend upon the gathering of wild plants, these impacts could be very serious.

Data collection

Data collection occurs at six northern hardwood stands in the Chequamegon-Nicolet National Forest. Trees growing in these stands include maple, ash, basswood, birch, and ironwood. Common understory plants include trillium, wild leek, spring beauty, trout lily, bloodroot, blue cohosh, hepatica, and various ferns and mosses.

Within each stand, two plots have been established, each measuring 0.5 hectares. One of these plots, within each stand, will eventually be logged through selective tree cutting (treatment plot). The other plot will not be logged (control plot).

For all plots, GLIFWC staff record the plant species present (relative frequency) and the area each plant species covers on the ground (percent cover).

Data collection occurs twice each year, spring and summer, to ensure that all plant species, no matter their seasonal growth rates and blooming dates,



John Heim and Sheila Madahbee take a quick pause to smile for the camera while identifying plants for the understory plant study. (photo by Leona White Hat)

can be incorporated into the data set.

Essentially, no logging has yet occurred within the treatment plots. Thus, impacts from logging have not yet been recorded. Nevertheless, data collected since 1995 have been invaluable for identifying the variability in the relative frequency and percent cover of understory plants caused by natural environmental factors.

Weather patterns in the last five years have varied dramatically. Winters have been either extremely severe with much snow accumulation or relatively mild with little snow accumulation. Spring and summer temperatures and rain totals have also varied wildly between years.

Recognizing and documenting the natural variability in understory plants will enable GLIFWC staff to discern the variability caused by logging im-

acts. Failing to identify natural variability has been a common criticism of past studies focusing on logging impacts. Fortunately, this study will transcend this critique.

Of course, results from this long-term study will not be realized for a number of years. However, this does not minimize their importance. On the contrary, results from long-term studies often provide the only means by which to ascertain the full range of ecological responses. This pertains especially to slow-growing and long-lived forest communities such as the northern hardwoods.

Eventually, the study results will provide important information from which to develop logging guidelines that will best protect, even enhance, the understory plants that tribal members currently gather and will continue to gather in future generations.

Grandfather medicine

(Continued from page 1)

and hangs the delicate sage in a location that remains relatively dry throughout the year.

Though scientists can identify the chemical compounds found within wild plants that explain certain medicinal properties, the strength of these medicinal properties depends upon the manner by which the wild plants are gathered and prepared, and upon the faith of the individual to which the medicines

are being administered. Thus, not surprisingly, companies that market medicinal wild plants usually fail to acquire the full healing strength of these plants.

Sometimes, Frank will buy medicines at his local store when he gets a cold or the flu. However, ultimately, he finds that tea prepared with grandfather medicine, sage, best relieves the symptoms of his illness and, more importantly, provides the true cure: balance.



Frank Montano standing with granddaughters, Jasmine (right), and Shaleena, (left). Shaleena is currently holding the title "Little Miss Red Cliff." (photo by Leona White Hat)

The aspen wars

(Continued from page 10)

this is the best place for fresh water, we ought to divert water from Lake Superior to feed the middle east or the southwest. We all need to live within our limits. The bottom line for aspen ought to be a viability test for these other species in concern.

What levels of aspen reduction are necessary to maintain the species in decline? One way to estimate the necessary reduction is to design the landscape, first by delineating big blocks where aspen silviculture is eliminated. These areas would be large enough to promote continuous canopy forests and would include small reserves surrounded by sizable areas of select cut forests.

Using data gathered from the natural disturbance regimes, it is estimated that we need areas approaching 40,000 acres in size. The number of these large blocks necessary is being investigated. Generally we are calling for a 15 to 20% reduction in the number of aspen acres.

Does this reduction sound like a call to shut down aspen in the Northwoods?

Remember that we are only talking about the national forests that provide only about 8% of Wisconsin's wood fiber. Watch the headlines, you

would think we proposed to turn it all into one big park!

Where are we with the Forest Service at promoting these conservation ideas? Despite the recommendations from a Forest Service supported conservation think tank convened in 1992 and repeated calls for aspen reduction at every meeting that has taken place concerning the revision of the forest plan (we have attended them all), the latest alternatives or options put forth by the Forest Service show no variability in the number of acres in Goal 1a, essentially aspen, allocation.

Goal 1a proposed allocations, across every one the Forest Service's alternatives for this type of aspen production varies from 144,000 to 147,000 acres, hardly any difference.

It is apparent that the Forest Service is listening to those who maintain that aspen is "globally threatened," an argument that has no biological merit.

If you agree with goals of promoting hemlock and cedar on Forest Service lands, at a cost of 15 to 20 percent reduction in aspen, make your goals known. The aspen wars are not over yet.

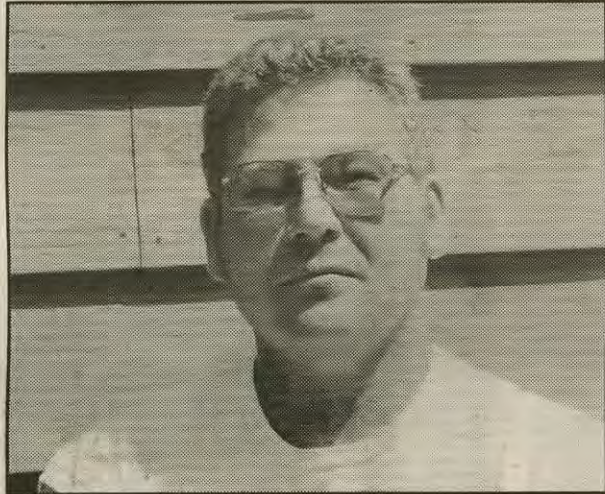
(Jim Meeker is an Associate Professor of Natural Resources and Biology at Northland College, Ashland, Wisconsin, and is active in regional conservation issues.)



Rez Talk



What do you think should happen to existing tribal commercial fishing opportunities after the Conccent Agreement with the state of Michigan expires in 2000?



Tim Kinney
Bay Mills Commercial Fisherman

We would like to see more waters open back up to commercial fishing. We'd like more access sites, launching sites. There's plenty of fish out there for everybody.

The price of fish really hasn't changed in the last 15 years while everything else has. I'd like to see better prices.

The government should do a better job checking the ore carriers. All these exotic species like zebra mussels weren't brought in by Native American fishermen.

We should be fishing our traditional waters. Bay Mills never agreed to the 1985 Agreement. We were court ordered.

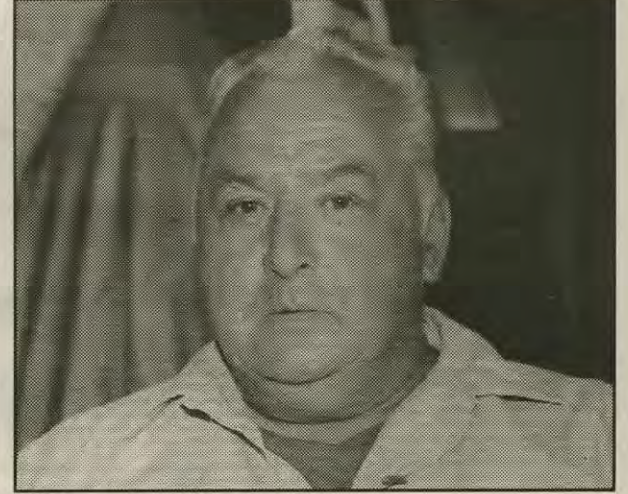


Shawn Hascall
Bay Mills Commercial Fisherman

If we get more waters opened up, we'll take pressure off some of these areas. People are all crammed into certain spots.

Commercial fishermen need to make a living. We'd like to see a better price of the fish, especially winter prices.

We don't need any additional regulations there are enough. Bay Mills has biologists and regulators in place.



Clifford "Skip" Parrish
Bay Mills Commercial Fisherman

I thought the agreement was to "calm the waters." My impression was that after 15 years we would go back to how it was.

I'd like to get back fishing Grand Traverse Bay. There's piles and piles of whitefish there.

You have to be able to catch enough fish to make a living. It's not all gravy, a lot of effort and expense goes into it.

I'd also like to be able to hire on a white guy, not someone that already has a fishing outfit, but somebody that really wants to work.

There are so many hurdles now that the young people can't get into fishing. I've done this since I was a boy, nine-years-old, I helped my dad as best as I could. A game warden came and took our catch one time, all except one big trout. My dad wouldn't let him have it.

History comes into focus at Bay Mills

Three-year project yields new book, tribal archives

By Charlie Otto Rasmussen
Writer/Photographer

Brimley, Mich.—Three years and three thousand documents from ground zero, the Bay Mills Indian Community has launched one of the most comprehensive tribal research projects in the United States.

"There's very few tribes around the country that have undertaken a tribal history project like this one," said Charles Cleland, Professor of Anthropology and Curator of Great Lakes Archeology and Ethnology at Michigan State University.

A recognized authority in Ojibwe history, Cleland is heading up the project and has drafted the text for a forthcoming

book tentatively titled, *Gnoozhekaaning: Place of Pike*.

Bay Mills tribal members Paula Parker and Wanda Perron staff the tribal history department and facilitated key elements of the research, like arranging interviews with elders to tap into the oral tradition of storytelling.

"Most of what we knew about our history was from what was written in books," Perron said. "I didn't know who we were, why we came here, or why we stopped."

Like other native people across America, Bay Mills people suffered from federal Indian policies that worked to erase traditional life.

"Our grandmother lost her culture in boarding school," Parker said. "We didn't even know she spoke Ojibwa until near the time of her death."

Parker and Perron, who are sisters, said they've received a great deal of positive feedback since beginning the history project in 1996.

Both audio and video recordings of Bay Mills elders were recorded, making their oral histories available to present and future generations of tribal members.

Using a government map from 1935 as a foundation, tribal elders recreated the layout of the reservation as it appeared in the first part of the twentieth century, pinpointing the locations of houses, stores, and forgotten roads.

In addition, approximately 1,000 photographs were collected, and the genealogy of numerous Bay Mills families was pieced together.

As this great medley of information accumulated, it became apparent to Cleland and his Bay Mills associates that putting together a book was in order.

"It got to the point where we thought this information should be put into print," Cleland said. "The book is really a summary of all these activities."

Cleland said the narrative begins from the time just before the arrival of the French and moves up to the modern day, highlighting people and events that played an important role in Bay Mills' history.

"It's a rather remarkable story," he said, "about perseverance, persistence, and the struggle to overcome the injustices dealt to the people of Bay Mills through no fault of their own. It's a success story."

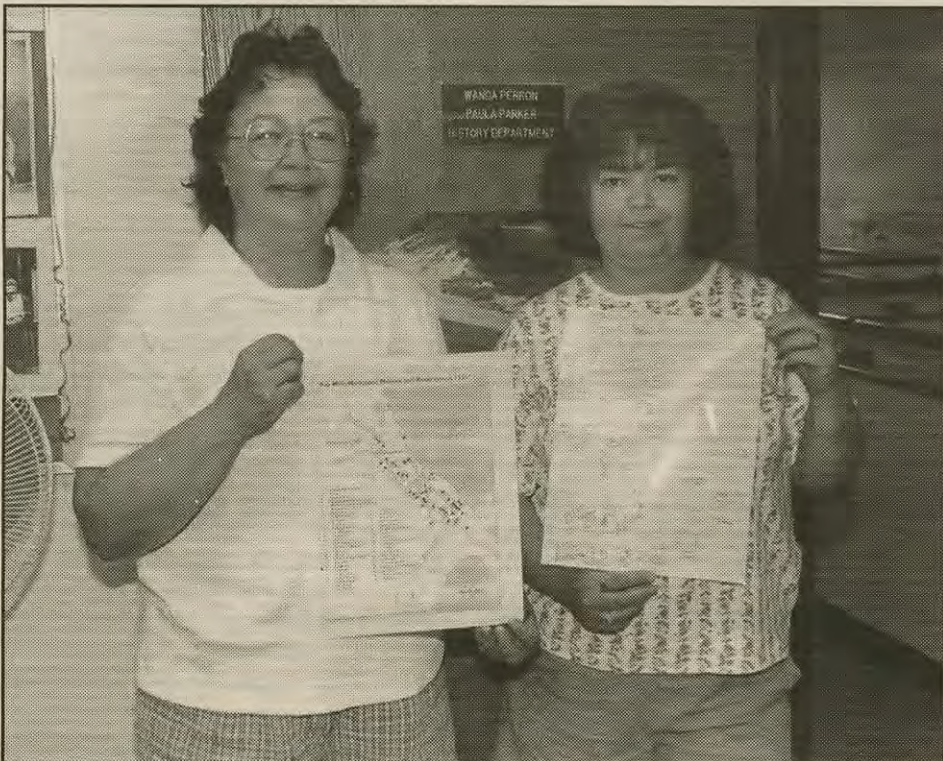
While Cleland's 125-page text is complete, he and tribal editors are wrapping up photograph selections for the entire package goes to the printer.

A major university press in Michigan will likely publish the book in 2000, Cleland said.

Bay Mills is funding printing costs and will oversee distribution and sales of the finished book.

In the meantime, Perron and Parker are accepting historic photographs and artifacts like beadwork and rugs for a future Bay Mills Ojibwe museum.

"This is just getting off the ground, and I think it will become more important to the tribe as time goes on," Cleland said.



Paula Parker (left) and Wanda Perron, Bay Mills History Department, display maps of the reservation from 1935. The map on the left is a composite based on a historic government map with additional information provided by elders showing family homes and unmarked roads. (photo by CO Rasmussen)



Tribal hatcheries stock many on and off-reservation waters to benefit tribal and sport fishing opportunities

Odanah, Wis.—Nine of eleven Great Lakes Indian Fish and Wildlife Commission member tribes operate tribal fish hatcheries, annually stocking millions of fry and fingerlings into reservation and off-reservation waters fished by over 95% non-Indian anglers.

Stocking includes species such as lake trout, coaster brook trout, walleye, and brown trout.

The significant tribal effort toward enhancing various fisheries stems from a traditional concern for the well-being of the resource and for needs of future generations.

The inland lakes and Lake Superior fisheries have always been critical to the subsistence of the Ojibwe people. This has not changed. Fish (giigoonh) remains an important food in the traditional diet as well as in culturally significant feasts and ceremonies.

The tribes recognize their role as both users and co-managers in an inter-jurisdictional fishery, a fishery under increasing pressure to support the needs of many user groups, including subsistence, commercial, and sport fishers.

Consequently, Ojibwe bands continue to develop and improve their tribal hatcheries in an effort to enhance and preserve the fishery where needed. Many tribal hatcheries and fisheries staff work cooperatively with local lake associations and federal and state fishery managers in assessment, collecting spawn, incubating and rearing, because a coordinated effort can effectively achieve a common goal—a healthy fishery.

The following is a brief look at the tribal hatcheries operated by GLIFWC member tribes, all of which are devoted to maintaining and enhancing the fishery within the treaty ceded territories.



Greg Fisher, Red Cliff Hatchery manager, gently lifts coaster brook trout from a hatchery raceway. Red Cliff has the only coaster brook trout broodstock of the Dorian strain in the United States. Tribal hatcheries stock millions of walleye fry and fingerling into ceded territory lakes and Lake Superior each year. They also stock species such as muskellunge, whitefish, lake trout, coaster brook trout, bass, and brown, brook, and rainbow trout. (photo by Sue Erickson)



Lac Vieux Desert hatchery operator Marilyn Whitens checks water temperature in a walleye fry rearing tank. (photo by CO Rasmussen)

By: Sue Erickson, Staff Writer

Tribal fish hatcheries stocked more than 47 million fish into both on and off-reservation waters in 1998

Tribal Hatchery/Rearing Component	Walleye Fry	Fgl.	Yrl.	Muskellunge Fry	Fgl.	Lake Sturgeon	Largemouth Bass	Whitefish	Brook Brown Rainbow Trout**	Lake Herring	Lake Trout	White Sucker	Total	
Bad River	8,000,000												8,000,000	
Fond du Lac						25,000							25,000	
Grand Portage									52,343				52,343	
Keweenaw Bay									10,000		110,000		120,000	
Lac Courte Oreilles	7,000,000	5,130		25,000									7,030,130	
Lac du Flambeau	9,000,000	442,673		1,000,000	693				34,036			4,000,000	14,477,402	
Lac Vieux Desert		15,000											15,000	
Leech Lake	8,303,125	48,429			2,213			765,774		36,663		3,000,000	12,156,204	
Menominee		49,105*				7,300*							56,405	
Mole Lake	1,200,000												1,200,000	
Red Cliff	840,840	29,203							125,370				995,413	
Red Lake							6,000*		6,600*				12,600	
Sault Ste. Marie	1,800,000	767,958											2,567,958	
St. Croix	123,360	227,514											350,874	
White Earth		214,503											214,503	
TOTALS	36,267,325	1,799,515		1,025,000	2,906	32,300		6,000	765,774	228,349	36,663	110,000	7,000,000	47,273,832

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

** Total number of one or combination of trout species



Tribal hatcheries work cooperatively with state and federal programs for fishery enhancement



Greg Geroux, Keweenaw Bay natural resources technician, holds a net full of lake trout broodstock as he and Mike Donofrio, Keweenaw Bay Tribal Fish Hatchery manager, prepare the fish for transportation to a federal fish hatchery. The broodstock lake trout were reared in the hatchery's disease-free facility for the US Fish & Wildlife Service (USFWS) as part of a second two-year agreement. (photo by Leona White Hat)

Lac Vieux Desert Tribal Hatchery Watersmeet, Michigan

Established in 1996

Target species: Walleye

Target waters: Lac Vieux Desert, lakes used by tribal spearers

Hatchery manager: Marilyn Whitens

Lac Vieux Desert's hatchery stocked 50,000 walleye fry into Lac Vieux Desert this summer and is currently rearing fry into fingerling size for fall stocking.

The hatchery crew collects eggs from wild stock in the spring through fyke netting and uses Bell jars to incubate the fertilized eggs, a process which requires daily monitoring.

Once hatched, the fry are either stocked or transported to a pond on the reservation's golf course for rearing to fingerling size. They are seined from the pond in the fall and transported to Lac Vieux Desert (LVD).

Managing the hatchery operation is Marilyn Whitens, LVD environmental officer. She is assisted by Jim Williams and Don Klingman, who have worked in developing the band's hatchery operation for the past several years.

Hatchery staff are also involved in activities related to the fishery, such as watershed projects, fishery assessments and addressing environmental issues.

While no facility expansion is expected in the near future, the hatchery plans on increasing its production and stocking other lakes used for tribal spearfishing.

Keweenaw Bay Tribal Fish Hatchery Pequaming, Michigan

Established in 1989

Targeted species: Lake trout, brook trout

Target waters: Michigan waters of Lake Superior, Baraga County streams

Hatchery manager: Mike Donofrio

The Keweenaw Bay Tribal Fish Hatchery (KBTFH), located on a 14 acre site in Pequaming, Michigan, moved into a new facility in 1993. In 1997 two buildings, one for storage and one for raising brook trout, expanded the hatchery's capacity.

The tribe's priority has always been to maintain and enhance the lake trout population in the Michigan waters of Lake Superior, particularly in Keweenaw Bay. Through the second two-year agreement with the U.S. Fish and Wildlife Service (USFWS), the USFWS stocked 100,000 yearling lake trout on behalf of the hatchery while the hatchery reared lake trout brood stock in isolation for the USFWS. The Keweenaw Bay hatchery also stocked 30,000 yearling lake trout in the Keweenaw Bay.

As mentioned above, the hatchery has operated as an isolation facility for rearing lake trout under two two-year agreements with the USFWS. USFWS determines strains, size and quantity of fish. Generally, the goal is to add new strains to hatchery brood stock and increase genetic variability in old strains. (See fish transfer story, page 26)

A more recent initiative to rear brook trout resulted from tribal members' interest in improving the brook trout fishery in Baraga County streams. The hatchery produces and stocks about 40,000 brook trout annually. A goal is to increase brook trout production and extend stocking efforts in the western Upper Peninsula of Michigan.

Eighty vertical incubation trays with the potential of 10,000 eggs per tray are used for incubating lake trout and brook trout eggs. The hatchery can sustainably pump 900 gals/minute through the buildings at a water temperature of 47 degrees.

Six 1600 gallon raceways capable of holding 1000 lbs. of fish and five 1200 gallon raceways with a 750 lbs. of fish capacity accommodate rearing fingerlings and maintaining brood stock.

Hatchery manager Mike Donofrio is assisted by two hatchery technicians and one summer intern. Hatchery staff is also involved in annual lake trout population assessments in Lake Superior and brook trout population assessments in Baraga County streams.

The hatchery is funded through the Keweenaw Bay Indian Community for operation and maintenance.



One of the 6,000 lake trout being transferred from the Keweenaw Bay Tribal Fish Hatchery to the USFWS hatchery. (photo by Leona White Hat)



Walleye fingerlings travel from a thirty acre rearing pond (background), through an earthen dike, and into a seine box. Joel Cameron, Intertribal Fisheries Enhancement, scoops up young walleye from a seine box. (photo by CO Rasmussen)

Nunns Creek Fisheries Enhancement Facility Hessel, Michigan

Established in 1987

Target species: Walleye

Target waters: Sites in the 1836 Treaty areas of Lake Superior, Lake Michigan and Lake Huron

Hatchery manager: Greg Wright

The Nunns Creek Fishery Enhancement Facility represents an inter-tribal interest in fishery enhancement. Three Michigan bands, including the Bay Mills Indian Community, the Sault Ste. Marie Band of Chippewa, and the Grand Traverse Band of Ottawa and Chippewa Indians, share in the management of this facility located near Hessel, Michigan.

Although walleye is the primary species produced, northern pike and suckers have been hatched for experimental purposes.

The hatchery uses Bell jars for incubation of eggs obtained either from the St. Marys River or Bay de Noc. About two to three million eggs are hatched each year.

The facility leases several rearing ponds, including one large 100 acre pond, for producing fingerlings and extended growth fingerlings. In 1998 244,000 two inch spring fingerlings and 28,000 seven to eight inch fall fingerlings were stocked into the Great Lakes. The facility's goal is to increase the number of larger fish stocked, thus improving the over-winter survival rate.

The hatchery is currently considering the use of several elevated rearing ponds for minnows. Those would be drained into larger ponds below for extended growth fingerlings.

Long term goals are to stock 100,000 walleye fingerlings in Brimley Bay near Bay Mills; 50,000 extended growth fingerlings in Lake Huron; and 160,000 fingerlings at different sites in Lake Michigan.

Hatchery staff also monitor a chinook salmon fishery in Nunns Creek, recording biological data on the salmon as they return up river.

Tribes stock millions of walleye fingerling and fry annually

The Bad River Tribal Fish Hatchery

Established in the 1970s

Target species: Walleye

Target waters: On reservation waters, the Bad and Kakagon Rivers

Hatchery manager: Richard Connors

Enhancing the walleye fishery on-reservation has been the primary focus of the Bad River Tribal Fish Hatchery (BRTFH) since it began in the early nineteen seventies. However, lake sturgeon reproduction and intensive culture for yellow perch are goals the hatchery intends to pursue, according to Rick Huber, Bad River Department of Natural Resources (BRNRD) biologist.

Bad River's hatchery uses Bell jar batteries for the incubation of walleye eggs. This year 140 quarts, or 16,000,000 eggs, were collected from the wild brood stock in the Kakagon and Bad Rivers using fyke nets.

While ten million fry were returned to the river systems, 300,000 fingerlings were transported to one of the hatchery's two rearing ponds for further growth. The hatchery maintains one 1.7 acre pond and one 1.3 acre pond for rearing.

This enabled the hatchery to stock 49,000 two inch walleye fingerlings into the Bad River and another 141,000, two inch fingerlings into the Kakagon River this year.

In addition to rearing and stocking, the BRNRD performs walleye spawning population estimates every two years as a basis for the tribe's total allowable catch (TAC) calculations.

BRNRD staff also worked in conjunction with the US Fish and Wildlife Service, the Great Lakes Indian Fish and Wildlife Commission, and the Red Cliff band on lake sturgeon population estimates and rehabilitation this summer. (Related story on page, 26)



With help from the local youth group, Bad River hatchery technicians install a liner on a walleye rearing pond.

The Sokaogon Chippewa Fish Hatchery

Established in 1990

Target species: Walleye

Target waters: Lakes used for spring spearing

Program manager: Don Erickson

Enhancement of the walleye fishery in lakes used by tribal members for spring spearing is the primary goal of the Sokaogon tribal hatchery.

Hatchery crews collected eggs and milt from wild walleye stock in speared lakes and incubated the fertilized eggs in Bell jars at their facility. The hatchery also has one pond available for rearing.

In 1999 the hatchery stocked one million walleye fry into four off-reservation lakes used for spearing and into Mole Lake on reservation.

The Sokaogon hatchery also cooperated in the Kentuck Lake (Vilas County) rehabilitation project, incubating eggs collected from Kentuck Lake and fertilized with Butternut Lake walleye milt.

The Sokaogon worked on the project jointly with the US Fish and Wildlife Service, the Great Lakes Indian Fish and Wildlife Commission, and the Lac du Flambeau and Red Cliff hatcheries.

Because maintaining and enhancing the fishery is important to the Sokaogon/Mole Lake people, the band is pursuing grants for potential expansion of its hatchery operation.

**Photos by: Charlie Otto Rasmussen,
Writer/Photographer**



Frank Olds (foreground) and Don Erickson oversee hatchery operations at Mole Lake.

St. Croix Tribal Hatchery Hertel, Wisconsin

Established in 1990

Target species: Walleye

Target waters: On and off reservation inland lakes

Incubation manager: Beth Greiff

Field supervisor: Don Taylor

The purchase of two portable Big Redd incubators in 1990 launched the St. Croix Tribal Hatchery operation, providing the band with the potential of hatching up to two million walleye fry for stocking purposes. Today, the hatchery's capacity has increased to five million plus eggs, using incubators custom built by the hatchery. Through 1998 the band has stocked 1,176,000 million walleye fingerlings, not considering millions of fry, into 29 lakes in five counties.

Using fyke nets, St. Croix collects eggs and milt from wild walleye stock. Once hatched, the fry are either released directly back into lakes or transported to rearing ponds where they are raised to fingerling size.

St. Croix leases two ponds, one 15 acre and one 7 acre, for rearing. Once the walleye reach the desired size, hatchery crews collect them with seine nets. A new state-of-the-art 250 gallon transport tank is used to carry the infant walleye to specified lakes for stocking. St. Croix stocks lakes which are stocking dependent and speared by tribal members.

By August 1999, St. Croix stocked 35,728 walleye fingerlings. This spring the hatchery also stocked 500,000 fry into Round Lake, Polk County, where eggs were collected.

In addition to hatchery activities, the St. Croix band participates in the annual spring and fall walleye electrofishing assessments of lakes in Wisconsin's ceded territories. St. Croix's electrofishing boat and crew work in conjunction with crews from the US Fish and Wildlife Service, the Great Lakes Indian Fish and Wildlife Commission, and the Wisconsin Department of Natural Resources (WDNR).

A future goal is to purchase rearing ponds for the hatchery which are drainable or constructed for efficient seining. To date the St. Croix band has invested over \$166,000 in hatchery equipment and facilities.



Beth Greiff, St. Croix fisheries biologist, monitors the progress of walleye eggs at the tribal hatchery in Hertel.



Tribal hatcheries continue to expand and improve programs:

Lac du Flambeau features state-of-the-art hatchery facility

**Lac du Flambeau Tribal Hatchery
Lac du Flambeau, Wisconsin**

Established in 1936

Target species: *Walleye, muskellunge, brown trout*
Target waters: *On reservation or border inland lakes, rivers, streams*

Hatchery manager: *Henry "Butch" St. Germaine*

The "granddaddy" of tribal hatcheries, the Lac du Flambeau (LdF) Tribal Hatchery has long demonstrated a successful, tribal fish culture program which utilizes both intensive and extensive fish culture techniques to raise fry and fingerlings.

The hatchery's contribution to fishery enhancement in lakes used by both tribal and state-licensed fishermen has been substantial over the years. The hatchery has stocked hundreds of millions of walleye fry and fingerling since its inception.

With 158 lakes on reservation and 34 miles of creeks, rivers and streams, the hatchery focuses primarily on enhancing reservation waters or waters which border the reservation.

While walleye production remains a priority, LdF's production has been diverse. This year walleye, muskellunge, brown trout and rainbow trout were raised for stocking.

In 1999 LdF's hatchery stocked 31,616,600 walleye fry into 27 lakes and 216,456 walleye fingerlings, ranging from 1.5" to 3.25" into twelve lakes. Fence Lake received 9,950 brown trout fingerlings (4.5 inch), and 11,988 brook trout fingerlings (3 inch) were stocked into Mishonogon Creek.

Hatchery crews collect eggs and milt from wild stock in the spring. Eggs are incubated in the hatchery's battery of 300 McDonald jars.

In 1998 the Lac du Flambeau hatchery moved into its new state-of-the-art hatchery building. The hatchery is equipped with three walleye and muskellunge fry tanks, a start tank facility including six Heath incubators, six aluminum fry troughs, six start tanks, ten 200 foot outdoor concrete raceways, and 20 one-quarter acre to three-quarter acre rearing ponds.

In addition to hatchery activities, Lac du Flambeau works cooperatively with state, federal and tribal fishery enhancement projects off-reservation, such as the walleye rehabilitation program for Kentuck Lake.

**Photos by: Charlie Otto Rasmussen,
Writer/Photographer**

**The Lac Courte Oreilles Tribal Hatchery
Lac Courte Oreilles reservation, Wisconsin**

Established in 1992

Target species: *Walleye and muskellunge*
Target waters: *Inland lakes speared by LCO fishermen*

Senior Hatchery Operator: *Tony Butler*

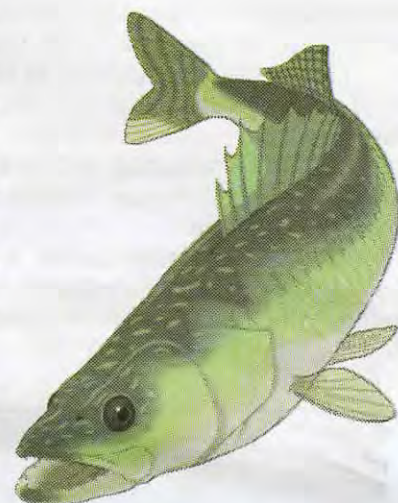
With a primary emphasis on walleye rearing the Lac Courte Oreilles (LCO) Tribal Hatchery also produces muskellunge, hatching and stocking 25,000 muskellunge fry in both 1998 and 1999.

LCO's commitment to stocking walleye and muskellunge preceded the actual opening of the tribal hatchery building in 1992. The LCO Natural Resources Department leased incubators and used natural ponds for rearing several years before their facility was complete.

Today, the hatchery collects eggs from wild walleye and muskellunge stock and uses a Bell jar system for incubation. In 1999 the hatchery produced six million walleye fry, stocking 4.6 million as fry.

The remaining fry are being raised to extended growth fingerlings in the hatchery's four rearing ponds and will be stocked mid-October. The hatchery's goal this year is to stock five inch walleye fingerlings rather than standard three inch fingerlings because the survival rate improves with larger fish.

Stocking is based on tribal spearfishing. All lakes speared by LCO are stocked with the LCO hatchery's fish, both on and off reservation. Numbers of fish stocked is proportionate to the number of fish harvested from each lake.



**Red Cliff Tribal Fish Hatchery
Red Cliff, Wisconsin**

Established in 1994

Target species: *Lake Superior coaster brook trout, and walleye*

Target waters: *Lake Superior*

Hatchery manager: *Greg Fisher*

In recent years, the Red Cliff Tribal Hatchery has charted a slightly different course by focusing on reproduction and stocking of Lake Superior coaster brook trout in addition to walleye.

The hatchery has developed its own coaster brook trout broodstock (Lake Nipigon strain) with the assistance of the Dorian Fish Culture Station, Ontario. Egg production began in 1997. The broodstock, now four years old, has been successfully reproducing since. The Red Cliff Hatchery currently has the only broodstock for the Lake Nipigon strain coaster brook trout in the U.S. This season, the hatchery stocked 200,000 coaster brook trout.

Designated as a Class A disease-free facility, the hatchery's main building houses an intensive coldwater production area. This includes an incubation area, fry tanks, laboratory, and twenty large raceways for fingerlings and broodstock fish.

The hatchery also produces walleye throughout the summer. Eggs and milt are obtained from fish speared during the spring spearing season. The fertilized eggs are transferred to the hatchery for incubation in either Bell jars or Big Redds. The hatchery has the capacity of incubating over eight million walleye eggs. It also has two rectangle fry tanks and six circular rearing tanks for intensive culture.

Once hatched, walleye fry are transported to drainable rearing ponds or to ponds belonging to other cooperators in fish rearing projects. Walleye fry are reared to approximately six to seven inch extended growth fingerlings before being stocked.

A new aquaculture recirculation program is in the testing stages for the hatchery, with plans to have fish in the tanks by spring 2000.

The Red Cliff Hatchery works cooperatively with a number of fish rearing/stocking projects in Wisconsin.

The hatchery cooperates with the Kentuck Lake rehabilitation program; the Lake Superior lake sturgeon rehabilitation project; a USFWS Lake Superior brook trout marking project; and a walleye stocking program with the WDNR and the Eau Claire Conservation Club.



Bell jars filled with walleye eggs line the upgraded hatchery facility at Lac du Flambeau.



The Lac Courte Oreilles hatchery (background) has four rearing ponds where extended walleye fingerlings are raised until mid-October.

GLIFWC summer interns take to the fields, forests, and lakes

Assist with seasonal surveys and assessments

Odanah, Wis.—The staff population increased during the summer months at the Great Lakes Indian Fish & Wildlife Commission (GLIFWC) with the arrival of eight college interns from various institutions across the US.

In addition to providing hands-on field experience, GLIFWC gave the interns experience in Ojibwe culture and treaty rights. Interns worked in the Biological Services, Public Information Office, and the Intergovernmental Affairs Divisions.

Intergovernmental Affairs

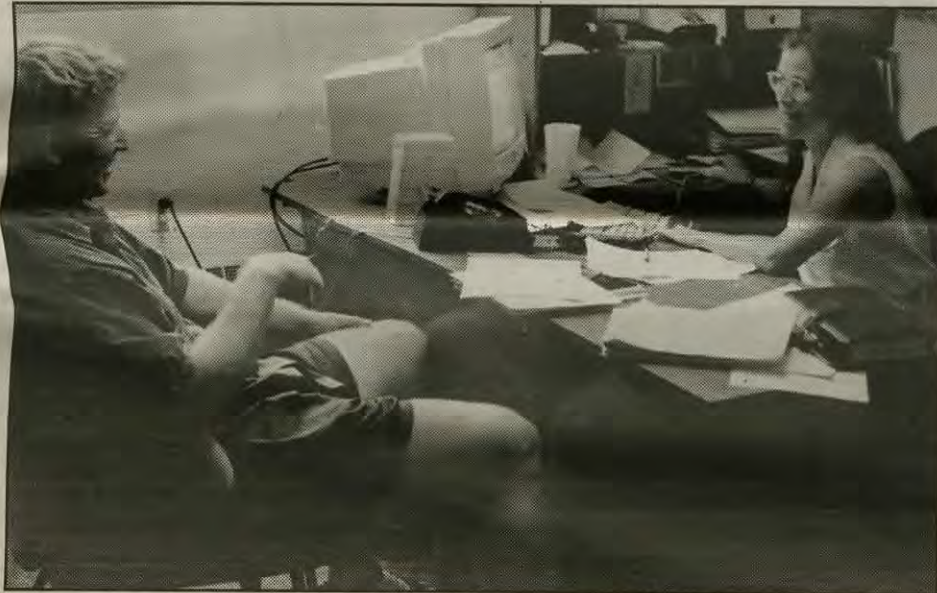
The Intergovernmental Affairs Division hired three second year law students for the summer. Their projects varied from issue spotting to reviewing bills. Nevertheless, a majority of their time was spent researching.

Biological Services

The Biological Services Division hired four interns. Two of the interns conducted the summer season wild rice studies, while another worked on the understory plant study. The fourth aided with Great Lakes section siscowet assessments. A majority of their time was spent working long hours conducting field studies.

Public Information

A lone intern entered the hub-bub of the Public Information Office, was handed a camera, shown the darkroom, given a note pad, instructed in travel forms and quickly sent on the road—relegated to the covering all the interns' activities for the summer as well as biological field assessment activities and helping with informational booths.



Division of Intergovernmental Affairs Intern, Derek Sheer visits with Ann McCammon Soltis, GLIFWC policy analyst.

Wild plant intern spends summer in the woods

Sheila Madahbee (Odawa) is from the Wikwemikong Unceded Indian Reserve, Ontario, Canada. Sheila is currently a senior at Michigan Technological University, Houghton, Michigan. Her plans are to graduate in February 2000 with a degree in forestry.

Sheila worked with John Heim, GLIFWC wild plant technician, in the Wildlife Section of Biological Services. They participated in the understory plant survey to document the long term effects of logging on the plant community. The study consists of recording the percent cover and frequency of understory plants.

The experience here has helped Sheila reinforce and expand her knowledge of plants.

The chance to work with plants on another reservation interested Sheila in the internship. She chose the GLIFWC internship over an opportunity with the U.S. Fish and Wildlife Service.

To sum up her experience, Sheila enjoyed working with the GLIFWC staff and being out in the field, but more importantly she enjoyed the camaraderie of the conference/lunch room.



Sheila Madahbee

**Article and photos by:
Leona White Hat, HONOR Intern**

Three interns boost IGA efforts on mine, prestige and Forest Service issues

The Division of Intergovernmental Affairs (IGA) had three interns over the summer period.

Derek Sheer, worked on two projects while working in IGA. Issue spotting on the Crandon mine, and reviewing two bills which are currently in discussion in Congress kept Derek busy. Both bills, the Resources 2000 and the Conservation and Reinvestment Act, relate to off-shore oil concerns.

Derek, originally from Cincinnati, Ohio, first heard about GLIFWC through a friend who had also worked here a couple of years ago. Derek majored in zoology at the University of Wisconsin, Madison, before entering graduate school at the University of Oregon in Eugene, where he is currently studying environmental law.

Although Derek is studying environmental law, he has developed an interest in Tribal Law while working at GLIFWC.

His internship ran from May 17 until July 30, throughout the internship, his most memorable moment was the spearing feast.

Working with Derek on the Crandon Mine issue was intern Kelly McKnight. Kelly also worked on a program to get people certified to apply pesticides to purple loosestrife in Michigan. The program gives the state of Wisconsin reciprocity to apply pesticides with certification in the state of Michigan.

Kelly first heard about the internship through the Indian Law Center at the University of Wisconsin Law School. Every summer, the school places a law student on every reservation in Wisconsin and one with GLIFWC. The internship started June 1 and ended August 13. Kelly, formerly from Fetton, Illinois, currently resides in Madison, Wisconsin, and will graduate in the spring of 2000.

To sum up his whole experience, Kelly says that the job has a lot more to it than just coming to work. He enjoyed the easy going atmosphere at GLIFWC and has enjoyed attending various activities and ceremonies.

Lindy Grell, final of the three interns, is working under Jim Zorn researching the Forest Service Memorandum of Understanding (MOU). She is currently studying the policies and procedures of the MOU.

While Lindy's internship runs from June 24 through August 18, she is fulfilling a requirement from the Kansas University Law School in Lawrence. In order to fulfill the tribal law degree requirement, after her second year she must do an internship at a tribal law office or at an organization which deals with tribal law.

Lindy, a member of the Abanaki tribe of Canada will be entering her third year of law school and will graduate in May 2000.

The experience she's gained from GLIFWC has helped her to succeed in finding different perspectives and approaches to tribal law. While at GLIFWC, Lindy especially enjoyed the Wild Rice Conference at the Black Bear Casino Hotel.



Intergovernmental Affairs interns Lindy Grell (left) and Kelly McKnight (right).

Interns gain practical career experience

Northland graduate gains Great Lakes experience

Her interest in fisheries found Kristen Anderson in the Great Lakes section of GLIFWC. Originally from Vermont, Kristen graduated this spring from Northland College with a degree in biology.

Kristen was placed under the supervision of Bill Mattes, Great Lakes section leader, Mike Plucinski, Great Lakes fishery technician, and Dan North, Great Lakes fishery technician. Kristen has been busy doing siscowet assessments for most of her internship. The assessments required working for five weeks on Lake Superior.

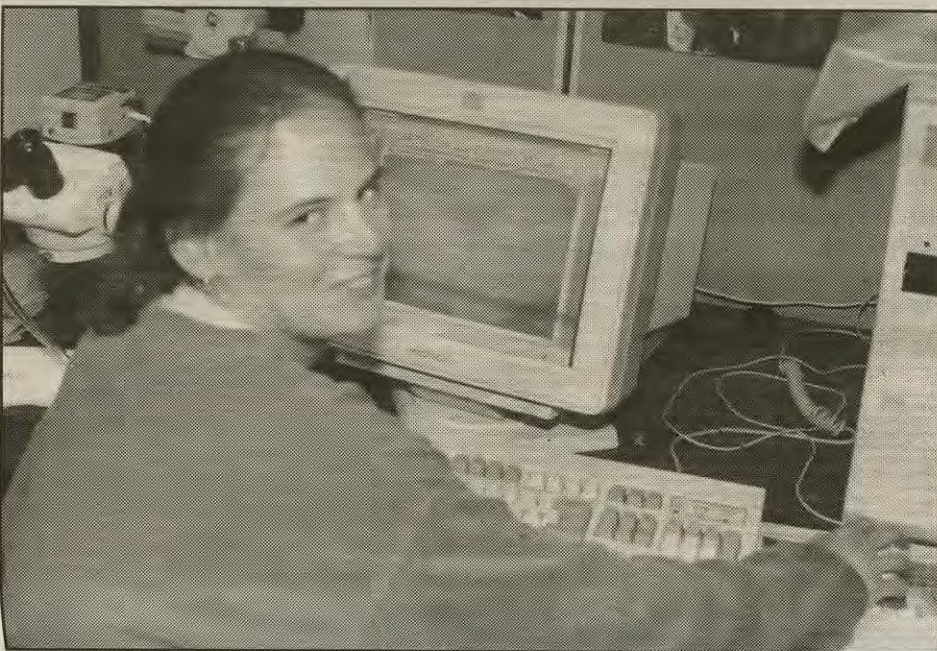
When she wasn't on Lake Superior, Kristen was busy setting sturgeon nets, sewing nets, working on sea lamprey control, and entering data.

Kristen also spent one week out of the internship working with the US Fish and Wildlife Service conducting habitat assessments on the Whittlesey Creek.

She chose the GLIFWC internship because it gave her more hands-on with fish and data collecting. Kristen especially enjoyed going out on the boats for assessments. Her internship started June 3 and she'll be finished at the end of August.



Wild rice interns Nikki Farrell (left) and Steve White used hand held telemetry to locate a radio tagged sharp tail grouse. Above, Steve holds the remains of a sharp tail grouse egg shell. (photo by John "Dates" Denomie)



Intern Kristen Anderson counts the rings on the otoliths (ear bones) as part of the siscowet lake trout assessment. (photo by Leona White Hat)

Wild rice interns survey 40 lakes

Getting to see something new everyday, something you wouldn't normally get a chance to see, is what Steve White liked best about his internship. Steve and Nikki Farrell were wild rice interns from June 14 through September 3.

They've studied under Peter David, GLIFWC wildlife biologist, and John "Dates" Denomie, GLIFWC wildlife technician, on the wild rice study. The internships included surveying more than 40 different lakes in Wisconsin, Michigan, and Minnesota to work on three different studies.

Their first task was water turbidity testing at Lac Vieux Desert which took place in the spring. The purpose of the study was to test the cloudiness of the water using a water turbidity sensor. The test was conducted in the spring while most boats were out on the lake. The wake from motor boats tends to make the water turbid which can be harmful to the wild rice growing beneath.

During the summer months an abundance study was conducted. The study consists of using a half-square

meter to estimate the acreage and density of wild rice in lakes that have been measured in previous years. Sediment testing was also done in the lakes.

Along with wild rice studies, they've done some birding and have studied other aquatic plants.

Steve took delight in the opportunity to learn about new aquatic plants during the internship. Steve, originally from Massachusetts, graduated this spring from Northland College with a degree in biology. His desire for field experience and studies with wild rice attracted Steve to the GLIFWC internship. The only thing Steve would like to change about the internship would be the motor for their canoe.

While Nikki shares Steve's opinion about the motor, she learned more about Ojibwe culture and enjoyed the wild rice conference. Nikki, originally from Duluth, Minnesota, will be a senior at Northland College majoring in natural resource management.

Though they've shared their frustrations with the motor, Steve and Nikki have enjoyed everything from the beautiful scenery to the actual work.

No breaks around here

Odanah, Wis.—Warden interns under a Administration for Native Americans (ANA) grant received no breaks this year. "R 'n R" wasn't on the agenda as they moved directly from college studies into the GLIFWC enforcement offices during both winter and spring breaks.

ANA provided funding to hire three college interns in GLIFWC's Enforcement Division beginning June 1998 and concluding in August 1999. The interns were required to complete the same training as GLIFWC wardens. They also recently received their boat safety and ATV certification during training with Sgt. Ken Rusk, GLIFWC enforcement officer.

Finishing the internship program were Jim Stone, Bad River; Reggie Cadotte, Lac Courte Oreilles; and Vince Mullen Sr., Fond du Lac.

For Jim Stone, having uncles in conservation enforcement first piqued his interest in the GLIFWC enforcement internship. Jim's duties consisted mainly of field work, such as checking off-reservation fishing and ATV licenses, and completing required training.

Jim will graduate May 2000 from Chippewa Valley Technical College, Eau Claire, Wisconsin, from the two year police science program. While plans after college are still unknown, Jim hopes to get a job with the Wisconsin Department of Natural Resources.

Reggie Cadotte worked on the Lac Courte Oreilles reservation where he inspected fishing and ATV licenses. Reggie chose the internship because he enjoys the outdoors and being close to nature. When his internship ends, Reggie will return to UW-Madison, where he'll enter into his third year of college.

Vince Mullen Sr. worked on the Fond du Lac reservation during his internship. An interest in conservation drew Vince to the internship. His job consisted of going into the field with wardens to survey ricing lakes and check people for licenses. He also underwent cold water rescue training during his winter break.

This summer Vince trained and became certified in gun and defensive tactics. The training was a requirement for his AAS degree in law enforcement, which he'll receive in December 1999 from the Fond du Lac Tribal and Community College.

As for plans after graduation, Vince hopes to find a job on a reservation in Minnesota or the surrounding area.

During his internship Vince appreciated the opportunity to travel to new places and meet new people. To sum up his experience, he says he has enjoyed his time with GLIFWC.



Warden interns were required to complete the same training as GLIFWC wardens. Above, GLIFWC conservation warden Mike Soulier fires a shot at an on-shore target along the White River as Suzanne Jondreau speeds the boat downstream. During summer training in the Ashland area, GLIFWC wardens practiced firearms and self-defense skills in work related environments. (photo by CO Rasmussen)

Articles by: Leona White Hat, HONOR Intern

Elder mentors play important role in ANA youth internships

Odanah, Wis.—Cultural knowledge through elder mentoring and hands-on experience in natural resource management programs gave eleven high school students orientation in tribal resource management careers this summer.

Coordinated by James St. Arnold, Great Lakes Indian Fish & Wildlife Commission (GLIFWC) Administration for Native Americans (ANA) program coordinator. The seventeen month youth program, funded through ANA, concluded its second year this summer.

Designed to motivate tribal youth to pursue careers in natural resource management, the grant provided funds to hire a high school intern to work in each of the GLIFWC member tribes' natural resource departments. In 1999 the program ran June 14 through August 20.

The interns' tasks involved working in fish hatcheries, performing water tests, conducting counts on frogs and other species, assisting with sea lamprey control, and working with wild rice programs. Their jobs varied according to the priorities of each tribal natural resource department.

The program also acknowledged traditional Ojibwe culture by including an elder mentoring program. The mentoring program placed each student with an elder from their reservation who taught them traditional Ojibwe culture, anticipating that they'll incorporate the culture into their careers.

The students also visited various universities and colleges to encourage them to pursue higher education. On the tours the students visited the natural resource and biology departments, got an idea of what campus life would be like, inquired on available funding, and looked into the support provided by the Native American Studies departments.

To enter an internship, students applied through their tribes after positions were posted on reservations and in schools. This year the program had four returning students.

The Minnesota member tribes had students Steven Defoe, Fond du Lac, and Elijah Retka, Mille Lacs, working in their natural resource and environmental departments.

Steven Defoe, Fond du Lac, is returning as a second year intern in the band's environmental office and forestry department. Steven has enjoyed the job because it offered a variety of learning experiences. As for future plans, he plans on attending college, but hasn't decided on a course of study. Steven will be a junior at Cloquet High School.

Elijah Retka, Mille Lacs, was placed in the Mille Lacs Natural Resource Department. He enjoyed his first year in the internship program, working largely with grounds maintenance, because it gave him the opportunity to be outdoors all day. Elijah will be a senior at Little Falls Community High School. After high school Elijah plans to attend Northwest Technical College in Wadena, Minnesota.

Interns working with Michigan member tribes included Paul Smith, Keweenaw Bay; Heather Malloy, Bay Mills; and Marisa VanZile, Lac Vieux Desert.

Paul Smith, Keweenaw Bay, attends L'Anse Senior High School, where he'll be a junior. Paul worked his first year in the internship program in the Keweenaw Bay Indian Fish Hatchery (KBIFH), assisting with fish assessments and maintenance. Paul enjoyed the KBIFH staff and the opportunities to work on the hatchery's boat. After high school Paul plans to be a conservation officer.

Heather Malloy, Bay Mills, will be a junior at Brimley High School in the fall. Heather worked in the Fisheries and Wildlife Department where she sewed nets and took care of fish brought in from the lake. She also enjoyed going out with her grandmother who taught her how to identify different trees and plants.

This is Heather's first year in the internship program. After high school,

Heather will study medicine at Michigan State University or the University of Minnesota.

Marisa VanZile was unavailable for interview.

Working with Wisconsin member tribes were Adam Fear, Lac Courte Oreilles; Dan Wiggins, Bad River; Robert Smith Jr., Lac Du Flambeau; Aaron VanZile, Mole Lake; Charles Charette, Red Cliff; and Nicole Matrious, St. Croix.

Adam Fear, Lac Courte Oreilles (LCO), attends Lac Courte Oreilles High School where he'll be a senior. Adam was placed in the LCO Conservation Department for a second year, where his duties included water quality work and profiling lakes, streams, and beaver dams. Checking out the lakes and streams is the most interesting part of the job, according to Adam. As for future plans, he's deciding on whether he will join the military or continue working at the conservation department.

Dan Wiggins, Bad River, will be a junior at Ashland High School. Dan worked in the fish hatchery where he cleaned ponds. He enjoys the job because it gives him an opportunity to be out on the water. This is his first year as an intern, but he says he would like to do it again. While science interests him, he is uncertain about a course of study in college.

Robert Smith Jr., Lac Du Flambeau, attends Lakeland Union High School where he will be a junior. Robert was placed in the Natural Resource Department where he worked last summer. His work included water sampling and seining ponds. The most interesting part of the job is the opportunity to apply knowledge gained last year to this year's activities. Robert intends to pursue the field of science in college.

Aaron VanZile, Mole Lake, attends Crandon High School where he will be a junior. Aaron worked with the tribal environmental program sampling water. He also accompanied different biologists in the field to check wells and conduct wild rice studies. Learning something new about wild rice interested Aaron the most. This is Aaron's first year in the internship program. He plans to study geography at Michigan Northern University after high school.

Charles Charette, Red Cliff, attends Washburn High School where he will be a junior. This is Charles' first year with the ANA internship program. He worked with the Red Cliff Tribal Fish Hatchery (RCTFH) where he cleaned tanks, mowed the lawn, and cleaned ponds. Charles says the best part of his job is that there are more workers his age, and there's always something new to do. Currently, he is undecided about plans after high school.

Nicole Matrious, St. Croix, will be a senior at Shell Lake High School. Nicole's love of the outdoors has placed her with the St. Croix Department of Natural Resources (SCDNR) where she does assessments and aides in stocking lakes. When she's not working with the SCDNR, Nicole works for the tribe's summer youth program. As for future plans, Nicole sees college in her future but she wants to work a while before deciding on her higher education.

The interns have all enjoyed their summer. Most said they would do it again next year if they had the opportunity.

While the internship program is in its last year of ANA funding, other sources of funding might be available for the program. □



Larry Martin (center), Director of Native American Studies at UW-Eau Claire, led GLIFWC interns on a tour of the university. From left to right, Nicole Matrious (St. Croix), Eli Retka (Mille Lacs), and Zeb Retka (Mille Lacs), look over a biology classroom. (photo by Jim St. Arnold)



Heather Malloy, Bay Mills intern, gathers blueberries in the Hiawatha National Forest. (photo by CO Rasmussen)

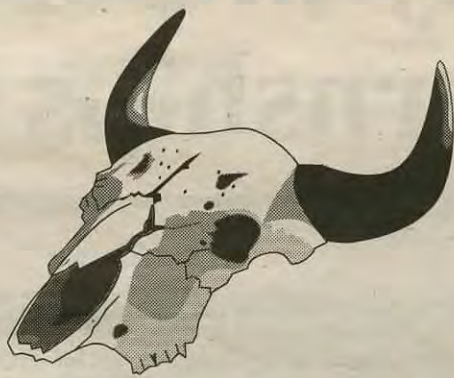
HONOR intern shares her Lakota culture

By Leona White Hat
HONOR Intern

The Lakota have seven sacred rites or ceremonies. The Inipi (sweat lodge), Hanblecyapi (vision quest), the Tatanka Lowapi (buffalo ceremony), Tap Wanka Yap (the throwing of the ball) ceremony, the Hunkapi (making of a relative), the Keeping of the Soul ceremony, and the Wiwanyag Wacipi (sun dance). The Sundance is very similar to the Midewin Lodge ceremony in that all pledges and vows must be followed through, and all of creation is considered in the ceremony.

Lakota thought and philosophy is based on the idea that wakan tanka (all creation) is a circle. The entire circle is based upon the idea of mitakuye oyasin (we are all related). All creation is considered in the Sundance circle. There are certain prayer songs sung for every event that occurs within the circle.

The Sundance is run by a medicine man or a crew of medicine men and their helpers or, more commonly today, a Sundance chief who runs the Sundance by working with various medicine men throughout the ceremony. The Sundance is performed in a circle with a Sundance



tree in the middle of the arbor. The tree selected for the Sundance is a cottonwood tree with a crutch or split in the middle which extends into two main branches. The two main branches exhibit the good and evil sides of life.

The Sundance is a fasting ceremony that lasts for four days. Within the four days the dancers are not allowed to have water.

The purpose of the Sundance is to give yourself or to suffer for something that might've happened throughout the year. When a person makes a pledge to Sundance, they have to fulfill that pledge or the purpose they've pledged for will come back on them double.

The Sundance focuses on the sacred canupa (pipe).

The pipe was first brought to the Lakota by the White Buffalo Calf Woman. Within the Lakota culture we have what we call nations (oyate). There is a nation of the four-legged's, the two-legged's, the plants, and so on.

Within this system the human nation is equal and sometimes below the other nations. The nation of humans is commonly known as the ikce wicasa oyate. Everyone is ikce wicasa (common man) until they become a pipe carrier. When an ikce wicasa decides to become a pipe carrier they become Lakota. Being Lakota involves following the seven sacred rites and living in harmony with all creation.

The Sundance ceremony, along with all other Native American ceremonies, was outlawed by Congress. Most of the people abided by the law, but there were others who kept the ceremony alive by going underground. The U.S. government finally granted the Freedom of Indian Religion Act in 1978, due to public pressure.

Therefore, today the Sundance can be practiced freely without interference by governmental authority. The Lakota today praise those who fought hard in

the seventies to keep the traditions and the Lakota way of life for the future generations to pass on.

This is a broad overview of the Sundance ceremony, there are many things which I cannot write about, and I give respect to that matter.

Mitakuye Oyasin (All My Relatives)



A Lakota in Chippewa Country: Reflections on a summer internship

By Leona White Hat, HONOR intern

Odanah, Wis.—I remember my dad telling me once about a visit he had with an Ojibwe man. While they were exchanging information about their languages, they realized that neither one of them could find a word to address the other as an enemy.

When I found out that I'd be placed in the Public Information Office (PIO) at the Great Lakes Indian Fish and Wildlife Commission (GLIFWC) on the Bad River Reservation, Wisconsin, I was hoping the Ojibwe would know this story as well as I could remember it!

The GLIFWC staff couldn't of been more helpful with my adjustment from rolling plains to woodlands and lakes.

We, as Indian people, struggle everyday to find who we are and how we're supposed to be living in two different worlds. All Indian people, regardless of tribe, have been through similar struggles while trying to keep their cultures and traditions alive.



Leona White Hat, Lakota, assisted the Public Information Division this summer through an internship with HONOR. She spent many hours on the road, taking pictures and covering GLIFWC's summer assessments, and more hours in the darkroom, as pictured above. PIO appreciated her happy heart, talent, cooperation and her willingness to share her Lakota culture. We wish her well as she returns to the Black Hills State University, Spearfish, South Dakota, to pursue her career. Miigwetch Leona! (photo by CO Rasmussen)

Through struggles we've faced, we've always had laughter to keep us going. Native Americans are known for their laughter and teasing because, as common sense would tell you, it's the best medicine. When I first came to GLIFWC, the first thing I heard was laughter. It made me feel better knowing that I'd been placed in an environment full of laughter.

During this internship I've learned more about the history and the recent struggles of the Ojibwe tribe. I have learned more about the Ojibwe culture and have found many similarities with my own Lakota culture.

Being placed in the PIO section, I've gotten the chance to travel throughout the Great Lakes region to places I'd never imagined I would ever see. I've gotten the chance to go out on boats, learn my way around a dark room, and have participated in some of the Ojibwe cultural events.

GLIFWC does a lot of good things for its member tribes. I am very fortunate that I had the opportunity to see some of the studies and tasks they perform for the sake of the environment. It was a good opportunity for me to see how everyone can work together for the land and environment.

I've seen many beautiful sights which I won't forget. I'm glad I had the experience of coming on to a new reservation to see how, when they're struggling, everyone pulls together. It brings more hope to me that we can carry our cultures and traditions into the year 2000.

I would like to end by saying miigwetch to the HONOR program and GLIFWC for giving me the wonderful experiences I've had this summer. I know I will never forget my first boat ride out on Lake Superior. It was the most perfect day to be out on the lake and, more importantly, I didn't get sea sick. I'd like to send a special thank you to Sue, Lynn, and Charlie at the PIO office for all of their patience with me and for the opportunities they've given me.

I would also like to thank Wendy Helgemo for introducing me to the HONOR internship program.

When I first found out I was accepted for the internship program, I couldn't decide whether I would come to Bad River, work on my own reservation, or hit the pow-wow trail with my dad. I got some strong words of encouragement from my friend, Sarah Cuny, who helped me make my decision and come to Bad River.

I would like to thank Sarah for encouraging me to do the internship. If she hadn't urged me to come I wouldn't of gotten the chance to do most of the things I've done this summer. The entire experience has been a pleasure.

Mitakuye Oyasin (All My Relatives)

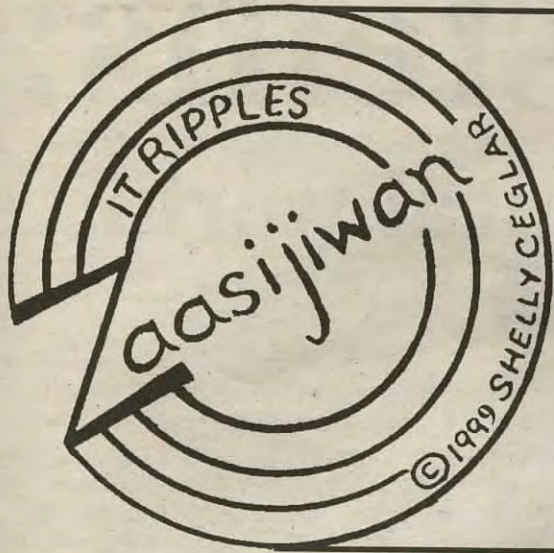


For more information on GLIFWC,
treaty rights, and
resource management issues
visit our website at
www.glifwc.org

Dagwaagin — It is Fall

Dagwaaging, ninjiibaakwe. Ninjiibaakwaan, manoomin.
 Manoominikaa na? Amanj iidog. Gimanoominike na?
 Eya, niwii-manoominike dagwaaging.
 Apane, Anishinaabeg manoominikewag. Gwaashkweziwag.

(When it is fall, I cook. I cook it, wild rice. There is a lot of rice (is there)?
 I am not certain. You are harvesting rice (are you)?
 Yes, I want to harvest rice when it is fall.
 Always, Ojibwe people they harvest wild rice. They are ambitious.)



Bezhiig—1

OJIBWEMOWIN (Ojibwe Language)

Double vowel system of writing Ojibwemowin.
 —Long vowels: AA, E, II, OO
 Dagwaagin — as in father
 Gibakade — as in jay
 Gaawijn — as in seen
 Zoogipon — as in moon
 —Short vowels: A, I, O
 Eya — as in about
 Ina — as in tin
 Iidog — 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.

Asking Yes/No Questions

Asking a Yes or No question is relatively easy. A **question marker** is spoken as the **second word** in the simple sentence. Voice “na” or “ina” as the second word to make a questioning statement. After a consonant ending word use “ina,” vowel ending word, use “na.”
 Dagwaagin ina? It is fall, is it?
 Gibakade na? You're hungry, are you?
 or Are you hungry?
 Jean ina gimaamaa?
 Jean, is she? your mother?

Niizh—2

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

A. Maamakaaj! Ninmaamakaadiz. Dagwaagin.
 B. Gidayaana ina gaapizigan? Eya, nimiijin.
 C. Miskobagaa na? Gaawin mashi, wayiiba.
 D. Dakaanimad ina? Eya, nindakaj.
 E. Zoogipon ina? Gaawin zoogiponzinoon.
 F. Biindigen! Makade-mashkiki-waaboo na?
 G. Eya, niwii-minikwe, miigwech.

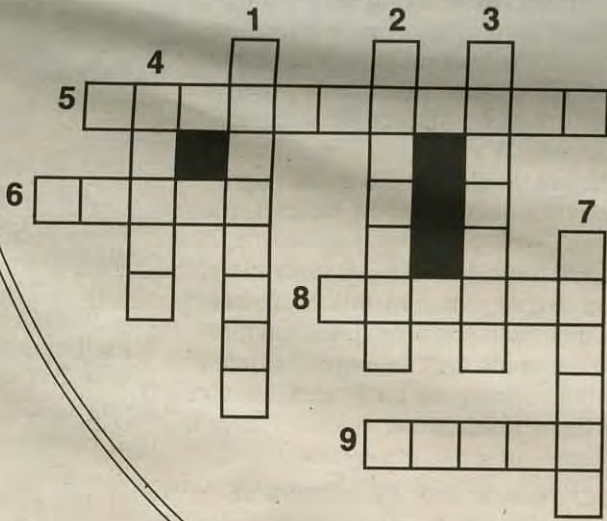
S I N A
 T G O L A W
 N O I C N B E
 I P G D X Q Y Y
 M A A M A K A A J
 I D A W A Y I I B A
 I A W E R M A K Z J V
 J N I N D A K A J F I
 I B I S F C T E N C D U
 N G N M A S H K I K I H
 N I W I I M I N I K W E

Niswi—3

IKIDOWIN ODAMINOWIN (word play)

- Down:
- It is snowing.
 - It is raining.
 - Canoe.
 - Always.
 - One.

- Across:
- S/he harvests wild rice.
 - Loon.
 - Black.
 - Three.



Niiwin—4

Yes/No Questions

All verb types use the same question pattern.
VII's (it is verbs)—Biboon ina? It is winter (is it)? Gaawin biboonzinoon, dagwaagin.
VAI's (S/he verbs)—Amikwag ina anokiiwag? Beavers (?) they are working? Eya, anokiiwag.
VTI's (to it verbs)—Gidayaana ina jiimaan? You have it? canoe? Eya, nindayaan jiimaan.
VTA's (to him/her verbs)—Giwaabamaa na a'aw makwa? You see him? that bear? Eya, niwaabamaa a'awmakwa.

Goojitoon—Try it.
 Translation below.

Goojitoon! Try it! Translation below.

- Agwajiing _____ gimiwan?
- Nibaa _____ a'aw abinoojiiyens?
- Ginoondaan _____ i'iw noondaagochigan?
- Ginoondawaa _____ a'aw maang?
- Giminwendam _____ Ojibwemoyan? Eya apane.

Use:

“na”
 or
 “ina”
 as second
 word

Translations:

Niizh—2 A. Amazing! I am amazed. It is fall. B. You have it, do you? popped wild rice? Yes, I eat it. C. There are red leaves on the trees, are there? Not yet, soon. D. It is a cold wind, (is it)? Yes, I get a chill. E. It is snowing, (is it)? No, it is not snowing. F. Come in! Black-medicine-liquid (coffee)? G. Yes, I want to drink. Thank you.

Niswi—3 Down: 1. Zoogipon 2. Gimiwan 3. Jiimaan 4. Apane 7. Bezhiig Across: 5. Manoominike 6. Maang 8. Makade 9. Niswi.

Niiwin—4 1. (ina) Outside? it is raining? 2. (na) S/he is sleeping (is s/he?) that baby? 3. (ina) You hear it (do you?) that harmonica? 4. (na) You hear him/her (do you?) that loon? 5. (ina) You are happy (are you?) when you speak Ojibwe? Yes, always.

There are various Ojibwe dialects, check for correct usage in your area. Note that the English translation will lose it's natural flow as in any foreign language translation.

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Ojibwe clan systems:

A cultural connection to the natural world

Editor's note: *Masinaigan* is grateful to Mille Lacs Elder Jim Clark and Barbara Benjamin-Robertson, Mille Lacs Urban Administrator, who were willing to share information on the clan system they had prepared for *The Mille Lacs Band News*. Miigwetch!

By Sue Erickson
Staff Writer

Introduction

Ojibwe stories commonly acknowledge animals as teachers and guides to Original Man, or Anishinaabe. They taught him many valuable lessons as he became acquainted with his environment. They showed him various plants for use as food, medicine, in ceremonies and for utilitarian purposes. They showed him how to hunt and fish and most important of all, they provided themselves to Anishinaabe for food, clothing, and shelter.

Not surprisingly, the Ojibwe are taught to regard other beings, both plant and animal, with great respect. When they need to take a life, it is with humility and thankfulness, that an animal or plant should be taken and used. Frequently, asemaa (tobacco) is put down prior to hunting, fishing or gathering as a symbol of respect and thankfulness to the spirits of those beings who are needed.

This close connection to the natural world weaves itself into Ojibwe culture and lives in many ways. One of those is the dodem (clan) system using various animals as symbols for the clans. The animals' characteristics provide an identity and define roles and responsibilities for members of each dodem. Dodem becomes another form of family for Ojibwe people.

The following explanation of dodem was prepared by the staff of *The Mille Lacs Band News* in consultation with numerous elders of the band. It pertains to teachings of the Mille Lacs Band. Other Ojibwe bands may adhere to a similar dodem structure with some variations, according to the teachings that have been passed down to them.



Waabizheshi (marten). Members of the Waabizheshi dodem serve as pipe bearers and message carriers for chiefs.

Clan history of the Ojibwe Nation and the Mille Lacs Band

According to Anishinabeg tradition, the way people organize themselves into grand families, called dodem or clans, is extremely important. Tradition states that the clan system was given to the Ojibwe long ago by the Creator.

Six beings rise from the sea

In *The History of the Ojibwe Nation*, William Warren explains the beginning of the Ojibwe clan system. According to Ojibwe tradition, there were originally six human beings that came out of the sea to live among Anishinabeg. These six beings, which were Wawaazisii (Bullhead), Ajejauk (Crane), Makwa (Bear), Moosance (Little Moose), Waabizheshi (Marten), and Bineshii (Thunderbird), created the original clans.

One of the original beings, the Thunderbird, always covered his eyes, because when he looked at the Anishinabeg, they died. The other five beings urged Thunderbird to return to the sea because his powers were so strong. That is why the Anishinabeg do not have a Thunderbird clan today.

Clans today

Today, there are at least 20 offshoots of the original clans Warren first recorded. Currently at Mille Lacs, eight clans have been identified: Bizhiw (Lynx), Makwa (Bear), Waabizheshi (Marten) Wawaazisii (Bullhead), Maiingan (Wolf), Migizi (Bald Eagle), Name (Sturgeon), and Moosance (Little Moose).

Clan symbols are still used today. For example, when members are buried, their clan symbols appear on their graves to mark their lineage. Also, clan symbols appear on birch bark scrolls and treaty documents.

Characteristics of common clans

Characteristics have become associated with various clans through stories passed down from generation to generation. Following are some common clans and their distinct characteristics.

The largest clan was the **Bear (Makwa) clan**. Bear clan members were war chiefs and warriors and were

known for their thick black hair that never whitened even in old age.

Fish (Giigo) clans—Bullhead (Wawaazisii), Sturgeon (Namewug), Catfish (Maanamegwug), Northern Pike (Ginoozheg), Whitefish (Adikamegwug), Merman/Mermaid (Memegwesiwug), and Sucker (Namebinug)—were known for long life and baldness in old age. Fish clan members claim that their ancestor was the first to appear out of the sea.

Crane (Ajejauk) clan members were known for their loud and clear voices, and recognized as famous speakers.

The **Wolf (Maiingan) clan** produced scouts. Wolf clan members lived mostly around Mille Lacs and St. Croix. Nayquonabe was one of their leaders.

Members of the **Marten (Waabizheshi) clan** served as pipe bearers and message carriers for the chiefs. Shingoob and Nugaunub were two of the leaders of the Marten clan.

Waubojeeg or White Fisher was a leader of the **Caribou (Adik) clan**.

In the age-old tradition, clan members of the same clan respectfully acknowledged each other with the greeting "Aaniin Dodem."

Clan as family

Traditionally, Ojibwe People have had very close extended family relationships. Grandparents, uncles, aunts and cousins were all part of a family unit.

Besides having many relatives, a person was also a member of a dodem, or clan. Clan identity is passed through the father. Members of the same clan, no matter how many miles apart, were one's brothers and sisters and were expected to extend hospitality, food and lodging to each other. That tradition is carried on today.

Ojibwe people belong to a tribe (band) and to the Ojibwe Nation. Clan relationships help unite the various Ojibwe tribes as one nation.

Even though there has been a lot of assimilation and intermarriage, the clan system has survived and is still very strong in some Anishinabe communities. However, just like language dialects, community clan systems may vary slightly.

According to oral history, there were five original clans: marten, bear, loon, crane and sturgeon. Today, there are many offshoots of these clans. We, Anishinabe, hold our clans in high regard, respect and pride.

Sources for other information on clans: *The Mishomis Book* by Edward Benton-Benai and *Ojibwe Heritage* by Basil Johnston.



Maiingan (wolf), an Ojibwe dodem (clan) symbol. Maiingan dodem produced scouts.

GLIFWC 1999 annual poster available

The 1999 poster, Doodem (Clan), features the artwork of Mille Lacs artist Steve Premo, and illustrates Ojibwe clans. One copy of the 18 x 24 poster is available free of charge. Additional copies are \$2.00 each. The poster is accompanied by an explanation of clan.

To obtain a poster: E-mail: pio@glifwc.org; call: (715) 682-6619 or write: GLIFWC PIO, Box 9, Odanah, Wisconsin 54861

Workshop prepares tribal commercial fishermen for new regulations

By Kory Groetsch, GLIFWC Environmental Biologist

Brimley, Mich.—Tribal fishermen, government leaders, and judiciary officials collaborated to host a Seafood Safety Training workshop at the Bay Mills Cultural Center from July 20 through 23.

Participants included the U.S. Food and Drug Administration (FDA), Michigan Sea Grant (MSG), and the Great Lakes Indian Fish and Wildlife Commission (GLIFWC).

The workshop was open to tribal and non-tribal members from anywhere in the U.S. Previous workshops brought individuals from Texas and California as well as other states. This workshop attracted a diverse group including tribal

judges, law enforcement officials, tribal fishermen, fish processors, and biologists.

"I learned a lot. The way it was presented made it real interesting. I have only good things to say," said Bay Mills tribal fisherman Roger Parrish.

This seemed to be a common feeling among attendees, who asked many questions of those presenting the workshop.

"I enjoyed the course and found it very helpful. I learned a lot about temperature and other requirements for smoking fish safely," said Eddie Lothrop. Furthermore, Eddie says he is using the books regularly and putting together charts to document his smoking process.

The students in the class learned how to identify chemical, biological



Great Lakes commercial fishing has been a mainstay for generations of Ojibwe families. The seafood safety training workshop conducted at the Bay Mills reservation in July will help ensure the future of tribal commercial fishing. (photo by CO Rasmussen)

Clostridium botulinum

Clostridium botulinum (CB) Type E is bacteria that is found commonly in fish and fishery products and produces a toxin that causes botulism, a potentially deadly disease.

CB can grow at temperatures as low as 38½F and has a stage in its life cycle (spores) that can survive high temperatures. However, CB can only grow when no oxygen is present. CB does NOT cause any noticeable signs of spoilage (e.g. rotting odor, discoloration, or "bad" taste).

CB can only produce the deadly toxin if it is growing and not in the spore stage. CB is controlled by always storing products at or below 38½F. Furthermore, heating (at or above 145 F), heavy salting, or low pH (below 4.6) will kill the non-spore form of the bacteria and prevent CB growth and toxin production.

Completion of HACCP training courses by tribal fish processors will help to ensure an ongoing supply of safe seafood products.

and physical hazards that could be associated with their products (e.g. smoked fish and raw filets). Then they learned some of the best techniques for controlling those hazards.

For example, *Clostridium botulinum* (CB) is a bacteria that produces a toxin that causes the very serious disease botulism and is found throughout the environment, including fish. However, CB can easily be prevented by controlling smoking and storage temperatures, packaging and handling.

Finally, attendees learned how to develop a plan to address potential hazards in their products and document their activities. Although the documentation itself does not kill bacteria or remove toxic chemicals, it demonstrates that acceptable precautions were implemented.

This is a great benefit to the tribal fish producer because it helps their businesses standardize the quality of their products and minimizes liabilities if ever they are accused of having an unsafe product (i.e., law suit).

If done properly, the HACCP documentation demonstrates compliance with accepted FDA practices for food safety and thus provides a solid position from which to answer questions.

A certificate of HACCP Course Completion from the Association of Food and Drug Officials will be provided to those who completed the course including:

Jim and Amelia Emery, Michael Gallinet, Kory Groetsch, Dick Hartmann, Shawn Hascal, Skip and Debbie Hipsher, Phyllis Kinney, Timothy Kinney, Eddie Lothrop, Skip Parrish, Roger Parrish, Judy Tudgerson, and Sam Gardner.

Regulator training was also provided to tribal staff to support efforts by

tribes to develop and implement self-regulatory systems that will ensure compliance with the FDA's federal HACCP requirements. In this workshop, tribal staff learned fish inspection techniques and were required to take a written test on HACCP inspection methods.

Individuals completing the regulator training included: Michael Gallinet (Red Cliff Fisheries Department); Kory Groetsch (GLIFWC Environmental Biologist); Dick Hartmann (St. Croix Planning Department); Shawn Hascal (Bay Mills Conservation Committee); Skip Hipsher (Red Cliff Tribal Judge); and Ben Carrick (Bay Mills Law Enforcement).

FDA approved and taught HACCP courses are rare in the United States. Many individuals in the fishing industry travel long distances and pay high fees (\$400 to \$500 dollars) to attend such courses.

Funding from the Administration for Native Americans program, support from MSG, and the U.S. FDA's willingness to work with fishermen in the Lake Superior region have provided numerous courses and kept costs at \$90 per person.

These efforts are being undertaken to ensure that Lake Superior's commercial Indian fishery continues to provide a source of jobs and income for tribal members and their communities.

GLIFWC would also like to recognize all of the hard work and assistance provided by Ken Gebhardt, Bay Mills Fisheries Office, in organizing and supporting the Bay Mills HACCP course.

Another HACCP workshop is being scheduled for Red Cliff in late October or early November of this year. Look for upcoming announcements by GLIFWC.

What is HACCP?

How will it impact tribal fishermen and fish processors?

On December 18, 1997, the Seafood Hazard Analysis and Critical Control Point (HACCP) regulation became mandatory by the FDA. Under this federal law, all fish processors are required to:

- Complete a HACCP training program.
- Develop a HACCP plan.
- Maintain records verifying HACCP plan.
- Reassess HACCP plan annually.

This new regulation will not impact tribal fishermen who harvest and sell fish to the processors at the dockside within a 24 hour period. However, these regulations will impact tribal fish processing operations, tribal fishermen processing (e.g. gutting, filet, smoking, etc.) and selling their fish products.

It is important to realize that HACCP is used to improve fish safety and is market driven. Large commercial distributors will need to ensure their fish products comply with HACCP regulations, thus it is very likely they will only buy fish from "HACCP Certified" processors. In order for tribal processors and fishermen to remain viable in the industry, they will need this certification.

Everything you always wanted to know about Michigan Indian fishing

A guide to the 1836 treaty fishery is now available through the Chippewa Ottawa Treaty Fishery Management Authority (COTFMA). The 40-page, color booklet provides readers with an overview of the Great Lakes 1836 Treaty Indian fishery, covering its history from North American prehistory to today.

Michigan's Treaty Fishery Guide explains how the fishery works by describing treaty fishery regulation, enforcement, management and enhancement, and commercial and subsistence fishing. Also discussed is fish contaminant monitoring and aquatic exotic species in the Great Lakes. Issues surrounding Indian fishing are covered in a section that answers the most commonly asked questions about the treaty fishery; for instance, "Who enforces Indian fishing regulations?" and "Why should treaties be recognized in today's world?"

Photos, graphics, maps and graphs help the reader to better understand this complex subject.

The guide is free. For multiple copies of the guide, a shipping fee may be charged. Contact Jennifer Dale, COTFMA Public Information Officer, 906-248-3241, ext. 1170.

Lake Superior siscowet lake trout subject of contaminant study

By Leona White Hat
HONOR intern

Odanah, Wis.—Comprehensive testing of siscowet lake trout for contaminant levels kept Great Lakes Indian Fish & Wildlife Commission's (GLIFWC) Great Lakes section staff busy on Lake Superior this summer setting nets and taking samples.

Previously, GLIFWC conducted siscowet sampling over a one to two week period in Lake Superior, according to Mike Plucinski, GLIFWC Great Lakes technician.

However, extended sampling through a five week period on Lake Superior was made possible through the Lake Superior Contaminant and Tribal Self-Regulatory HACCP Program funded by the Native American Financial Assistance Program.

The study consists of setting nets at depths ranging from 280 feet to 800 feet in Lake Superior, Plucinski says. The nets are set in the evening and pulled the next morning.

The fish are measured, weighed, and their otoliths (ear bones) are removed. By counting the annuli (rings) on the otoliths, the siscowet can be accurately aged.

Biologists have been working on tribal commercial fishing tugs to obtain fish data and samples and have appreciated the cooperation and support from many tribal fishermen, such as Joe and Allen Newago, Neil Malmgren, and Gillmore Peterson.

The trout are sent to the University of Wisconsin-Superior's Lake Superior Research Institute's analytical chemistry lab where they are ground



GLIFWC's Great Lakes section staff participated in a Lake Superior siscowet contamination study by collecting samples for analysis. Aboard Joe Newago's fishing tug, Mike Plucinski, Great Lakes fishery technician, and Kristen Anderson, summer intern, record data and take a stomach sample from a siscowet. (photo by Leona White Hat)

into a powder and examined for mercury.

Ground samples will be sent to EN CHEM Inc. to be analyzed for toxaphene, polychlorinated biphenyl (PCB), DDT, and chlordane, according to Kory Groetsch, GLIFWC environmental biologist.

These toxins may be dangerous to young children and developing fetuses so are of particular concern. Most toxins are organic and are accumulated by "fattier," predacious fish, like the siscowet lake trout.

The study concentrates on contaminant levels for commercial sale fillets. The levels will be compared with Food and Drug Administration (FDA)

recommended levels for commercial sale fillets, according to Mattes.

Also, a portion of the data will be presented at the Society of Environmental Toxicology and Chemistry Conference in Philadelphia in November.

On an optimistic note, Groetsch says that initial PCB results for whole lean lake trout fillets appear to be well below FDA regulatory levels.

GLIFWC opposes removal of Great Lakes water

(Continued from page 1)

bill is currently in the House of Representatives proposing a moratorium on removal of water from the Great Lakes until studies and recommendations are available and appropriate restrictions in place.

Since the Great Lakes comprise a boundary between Canada and the United States, the issue is of international concern. Consequently, the International Joint Commission (IJC), a U.S.-Canada agency charged with advising the governments about boundary waters issue, including the Great Lakes, is currently studying the impact of water removal. The IJC is to report back to the respective governments with interim recommendations for the Great Lakes in early August 1999. A final report is due within six months of the interim report.

Among issues to be considered by the IJC is the cumulative impact of current and potential water diversions or removals, such as bulk for export. They are also asked to report on existing laws and policies that may impact the sustainability of water resources in shared Great Lakes basins.

Since GLIFWC's member bands retain treaty rights in ceded territories which include portions of Lake Superior and the Lake Superior basin, GLIFWC is concerned about the potential impact of water removal on the fishery, coastal wetlands, waterfowl populations, and wild rice beds in Lake Superior and in the Great Lakes basin. Fluctuations in water level, for instance, could seriously damage wild rice beds, McCammon-Soltis said, or change the delicate spawning habitats of lake trout.

While water is an invaluable resource itself, it is not the only resource impacted by proposals to divert or remove water from the Great Lakes basin, so recommendations should consider the far-reaching impacts of water removal, she says.

GLIFWC's recent resolution also supported proposals to change laws which could be interpreted as permitting removal or diversion of groundwater from the Great Lakes watershed when a similar surface water removal or diversion would otherwise be prohibited.

Board discussion indicated that considerations could potentially be made in response to humanitarian need, such as in the case of a natural disaster; however, removal as a commodity item poses too many risks to the Great Lakes basin and all of its inhabitants. □



The need for water, both nationally and abroad, is turning interested eyes towards Lake Superior and the Great Lakes. Discussions of Lake Superior having a "harvestable surplus" of water—water that could be diverted, bottled or even removed and transported in bulk—keep recurring. GLIFWC's Board of Commissioners expressed their resolve to protect the Great Lakes and its valuable habitat by passing a resolution opposing both diversion and removal of water from the Great Lakes at their July Board meeting at the Lac Vieux Desert reservation in Michigan. (photo by Sue Erickson)

Lake sturgeon rehabilitation targeted for the Bad River and Lake Superior

By Sue Erickson
Staff Writer

Odanah, Wis.—“Lake sturgeon fill a valuable niche in the Lake Superior fishery system, and Bad River is committed to doing everything it can to restore lake sturgeon basinwide,” according to Bad River Natural Resources Department (BRNRD) Director Ervin Soulier.

The Bad River band is one of several cooperators involved in a lake sturgeon restoration effort involving a stocking program for the Bad River and Lake Superior, using eggs from the Bad River system.

A lake sturgeon rehabilitation plan developed through committees of the Great Lakes Fish Commission (GLFC), an international agency charged with the management of the Great Lakes fishery, recommended use of eggs from Bad River sturgeon as part of a Bad River/Lake Superior stocking program.

The feasibility of using the Bad River as a lake sturgeon egg source is being studied.

The U.S. Fish & Wildlife Service (USFWS), GLIFWC, Red Cliff and Bad River biological staff collected lake sturgeon eggs from the Bad River

last spring. The eggs were transported to the Bad River and Red Cliff tribal hatcheries for incubation and rearing.

The BRNRD will oversee the stocking of the reared sturgeon back into the Bad River system as fry, fingerlings and advanced fingerlings. The fingerlings and advanced fingerlings will be tagged and/or fin clipped for future population assessments.

Assessments of the Bad River's sturgeon population are ongoing. This spring the USFWS, BRNRD, and GLIFWC worked jointly on adult population assessments. During the summer the USFWS, BRNRD and GLIFWC did juvenile population assessments and tracked movement and location of juvenile sturgeon through radio telemetry. Sonar tagging and tracking is also being used.

The Bad River, which winds through the Bad River reservation in northern Wisconsin, is one of two U.S. Lake Superior tributaries still supporting a self-sustaining lake sturgeon population. The Sturgeon River in Michigan is the other.

Known as “name” to the Ojibwe, the great fish is also a clan symbol within the Ojibwe culture and important both culturally and as a traditional food source.



Mike Plucinski, Great Lakes fishery technician, GLIFWC, holds a juvenile sturgeon captured during assessments as part of a cooperative sturgeon rehabilitation program. (photo by Sarah Sattler)

Assessments on-going in Minnesota lakes

By Leona White Hat
HONOR intern

Odanah, Wis.—The Inland Fisheries Section of the Great Lakes Indian Fish & Wildlife Commission (GLIFWC) returned to several Minnesota ceded territory lakes during the summer to conduct standardized gill and fyke net assessments. The surveys are part of a series of fisheries assessments GLIFWC conducts on select lakes each year.

The series begins in the spring with adult walleye population estimates, followed by summer gill and fyke net assessments, and concludes with fall walleye recruitment surveys.

According to Joe Dan Rose, Inland Fisheries section leader, the three surveys collectively help GLIFWC monitor the health and abundance of walleye populations and provide data

for the calculation of harvestable surplus levels.

GLIFWC has completed spring adult walleye population estimates and standardized gill and fyke net assessments on the Green and Goose Lakes in Chisago County, Minnesota. Gill and fyke net assessments will also be conducted on East and West Rush Lakes later in the summer season. The Fond du Lac Chippewa tribe assisted with the Green Lake standardized gill and fyke net survey.

Spring adult walleye population estimates use electrofishing gear or fyke nets to capture spawning adult walleye. The captured fish are marked or tagged. After a few days of “marking,” a ratio is calculated by capturing unmarked and marked fish during a recapture survey. This provides biologists with an abundance estimate.

Summer surveys involve the use of standardized gill and fyke nets, set at

specific dates, amounts of time, and locations on a lake. This standardization (uniformity) allows survey crews to collect data to be easily compared to the results of previous surveys.

The Minnesota Department of Natural Resources (MnDNR) has conducted the standardized surveys for decades and has developed a long, uninterrupted data series. For comparison purposes, GLIFWC uses the same sampling protocol as the MnDNR for its summer gill and fyke net assessments.

The fall recruitment surveys are conducted with electrofishing gear to capture walleye fingerlings (young-of-the-year) and yearlings (age 1). The captured fish are measured and counted by age to evaluate the trends in walleye reproduction from previous surveys.

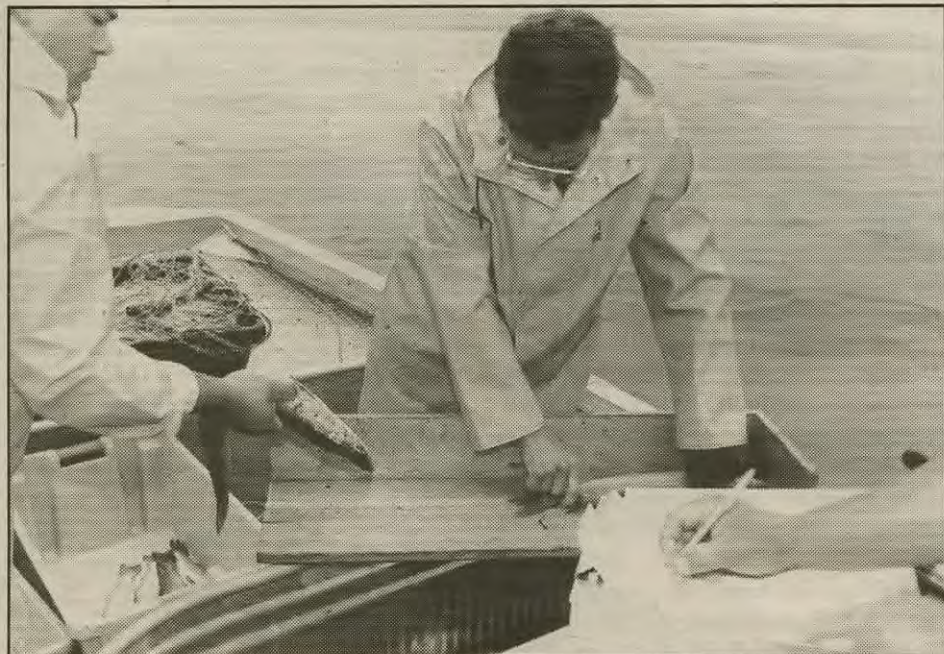
The Minnesota Ceded Territory Fisheries Technical Committee, made

up of GLIFWC and MnDNR staff, meets several times a year to share and discuss the data collected and to coordinate survey plans for the upcoming seasons.

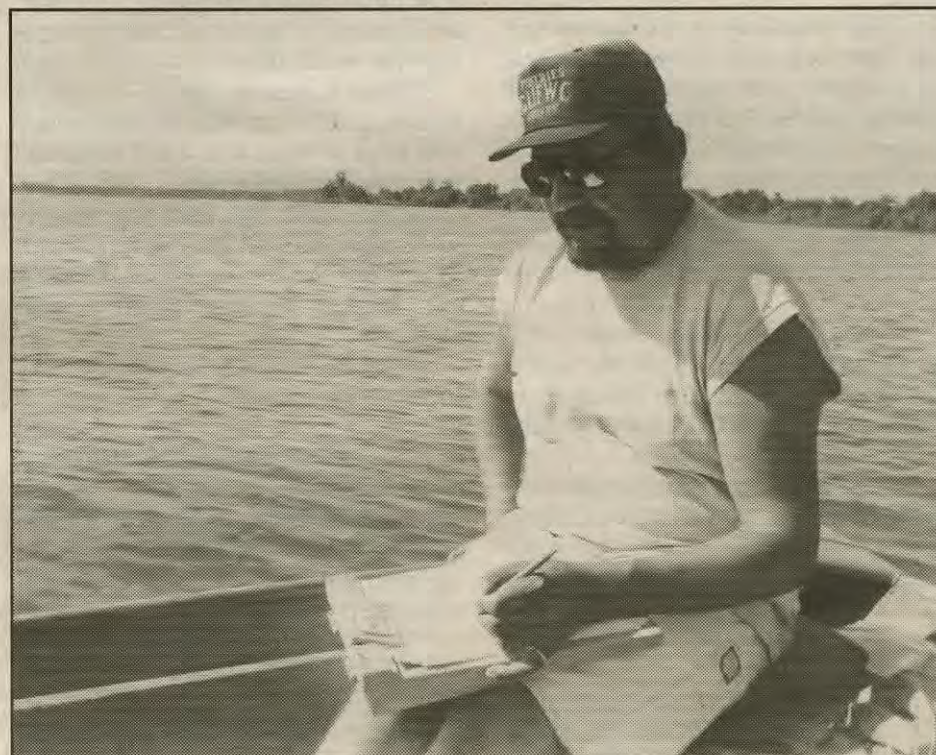
While the assessments usually run smoothly, Rose says problems are occasionally encountered. For instance, during the Green Lake survey in July, a propeller was stolen from the GLIFWC survey boat in the parking lot of the motel where the crew stayed.

To avoid problems GLIFWC sends out press releases to newspapers in the local area and contacts local lake association representatives. “We invite them to come out and observe or ask questions to avoid any potential misunderstandings,” said Rose.

Walleye recruitment surveys for Minnesota ceded territory lakes, including Mille Lacs Lake, will be completed in the fall.



The Fond du Lac tribe assisted with assessments on Forest Lake, Minnesota. Brian Birkholder takes measurements to be recorded as part of an ongoing database. (photo by Leona White Hat)



Mitch Soulier records data at Forest Lake during summer gill and fyke net assessments. (photo by Leona White Hat)

Kentuck lake receives 50,000 walleye fingerlings

By Sue Erickson
Staff Writer

Odanah, Wis.—There wasn't a big splash when 50,000 walleye fingerlings were gently siphoned from a transport truck into the waters of Kentuck Lake, Vilas County, this summer, but it was a big step for U.S. Fish and Wildlife Service (USFWS) and Great Lakes Indian Fish and Wildlife Commission (GLIFWC) staff in their effort to re-establish a walleye fishery in Kentuck Lake.

GLIFWC and USFWS biological crew collected eggs from Kentuck Lake females and milt from Butternut Lake (Forest County) males.

Fertilized eggs were hatchery incubated, reared to two inch fingerlings, and trucked from the federal fishery hatchery in Genoa, Wisconsin to Kentuck Lake.

An additional 10,000 to 15,000 extended growth fingerlings, five to eight inches, are scheduled to be stocked mid-September, according to GLIFWC Inland Fishery Biologist Glenn Miller.

The stocking program resulted from the efforts of the Kentuck Lake Walleye Rehabilitation Subcommittee of the Fishery Technical Working Group.

The subcommittee formed after a significant decline in the lake's walleye population, particularly males, began to be noticed in the mid-1990s, Miller says.

Project participants include representatives from GLIFWC, USFWS, the Wisconsin Department of Natural Resources (WDNR), and the Lac du Flambeau, Mole Lake, and Red Cliff bands.

The Genoa hatchery marked the fingerlings with oxytetracycline prior to stocking, so assessment crews will be looking for marked fish this fall during electrofishing surveys to assess the survival rate.

Other efforts to assist recovery of

Kentuck Lake's walleye fishery include implementation of a one fish per day, 28" minimum for the angler bag in 2000 and a self-imposed tribal harvest closure in 1998 and 1999.

The Mole Lake/Sokaogon Chippewa, a GLIFWC member band, initially urged GLIFWC to pursue a remedial action on Kentuck Lake. The formation of the Kentuck Lake Rehabilitation Subcommittee and the stocking initiative resulted.



Ed White takes measurements during the Kentuck Lake summer fyke net assessments. (photo by Leona White Hat)

Fish transfer ceremony held in honor of completed two year agreement

By Leona White Hat
HONOR Intern

Pequaming, Mich.—A "Fish Transfer Ceremony" on June 22 recognized the Keweenaw Bay Indian Fish Hatchery's (KBIFH) successful rearing of 6,000 disease-free lake trout, then ready to transfer to federal hatcheries.

The ceremony at the Keweenaw Bay hatchery culminated a two-year cooperative agreement between the KBIFH and the US Fish and Wildlife Service (USFWS).

The agreement established a two-year cooperative program in 1995 which was renewed in 1997, said Dale Bast, hatchery manager, Iron River National Hatchery.

According to the agreement, 6,000 lake trout would be transferred to the Iron River National Fish Hatchery in Wisconsin, and Pendills Creek National Fish Hatchery in Michigan.

"The project was once again completed by the community with excellent results," said Bast. "This agreement fosters the continued integration of fish health and fish genetics into the Service's captive brood stock program."

In the agreement the Keweenaw Bay Indian Community provided fish isolation facilities for wild lake trout eggs from Klondike Reef, Michigan,

the Apostle Islands, Wisconsin, and Traverse Island, Michigan.

"After the renewal in 1997, we set the nets. Fish were caught. The eggs were fertilized right there on the boat, and the fish have been raised at three hatcheries since," said Mike Donofrio, KBIFH manager.

"During the past two years the community has successfully reared lake trout through the required disease clearance period which included three separate fish health inspections," said Bast.

John Leonard, Native American liaison, USFWS, said the federal agency will want to work with the Keweenaw Bay fish hatchery again.

"Although the fish hatchery is small, it plays a vital role," said Leonard. "The KBIFH has proven they're an 'A plus' student. We can definitely count on them."

Wayne Swartz, Keweenaw Bay tribal chairman, said, "Our agreements with the Service have further enabled us to cooperate in native fisheries restoration in the Great Lakes. The Community is pleased with the results of these agreements and looks forward to working with the USFWS on other natural resource projects."

According to Leonard, the national fish hatchery broodstock is currently being evaluated for strains. Plans for further agreements with the Keweenaw Bay Indian Fish Hatchery are being discussed.



Stocking 50,000 walleye fingerlings into Kentuck Lake, Vilas County, U.S. Fish and Wildlife Service and Great Lakes Indian Fish & Wildlife Commission biological staff go another step in rehabilitating the walleye fishery in the lake. The fingerlings, hatched from Kentuck Lake walleye eggs, were transported from the federal fish hatchery in Genoa, Wisconsin. (photo by Glenn Miller)

Mining impacts on the Flambeau?

It's like looking for nymph skins in a haystack

By Charlie Otto Rasmussen
Writer/Photographer

Ladysmith, Wis.—Nobody said looking for nymph skins in dense riverbank foliage was easy.

The grayish, tan skin that nymphs shed before emerging as dragonflies is small, about one inch long and can resemble local vegetation.

Biologists call this molted membrane *exuviae*, and it is a key indicator of the health of river systems.

"We are concerned about negative environmental impacts from the abandoned Flambeau Mine," said Glenn Miller, Great Lakes Indian Fish & Wildlife Commission (GLIFWC) Inland Fisheries biologist. "Dragonflies are a good indicator species of how healthy the river is. We've been monitoring their population trends since 1994."

The mine located in northwest Wisconsin operated from 1991 to 1997 and was situated only 140 feet from the Flambeau River.

Miller said that deformities in dragonfly nymphs have cropped up near similar mines in Upper Michigan and Minnesota.

When the annual dragonfly hatch on the Flambeau River occurs in mid-June, staff from GLIFWC Inland Fisheries scour the shoreline in search of *exuviae*.



Five sites along the river, measuring approximately thirty meters each have been surveyed since 1994.

Each site is examined twice over a 48-hour period.

Staffers conduct the assessment from a boat or by standing in the water and slowly combing through grass, sedge, and small trees.

"We generally find *exuviae* hanging from vegetation 8 to 12 inches off the ground," said Miller. "But wind and rain will knock them down. Weather factors influence what we find from year to year."

Wisconsin is host to 21 species of dragonflies, three of which are listed by the state as threatened or endangered.

"This project is still in its infancy," Miller said. "We're looking at 10 to 15 years before we have some good data to really access the situation."

Trust lands threatened under proposed state tax law

By Megan Taylor, HONOR Advocacy Office

Washington, D.C.—On May 13, Rep. Pete Visclosky (D-IN), along with Rep. Ernest Istook (R-OK) and twenty other co-sponsors, introduced a bill in the House of Representatives that would instruct the Department of Interior to take tribal lands out of trust status if a retail establishment on that land is not paying “qualified state taxes.”

Consistently in the last few sessions of Congress, several measures have been introduced in regard to state taxation and tribal governments. This latest is alarming in that land could potentially be removed from trust status. Not since the Allotment Era of 1877 has Congress passed legislation designed to take tribal land out of trust status.

After taking more than 90 million acres of tribal land during that era, of which less than eight percent has been recovered, it would be a drastic negative shift for Congress to create new legislation designed to remove more tribal lands. According to this bill, HR 1814, the effect of the loss of trust status would be to “eliminate tribal authority regarding taxation and make the property subject to all applicable state and local sales tax.”

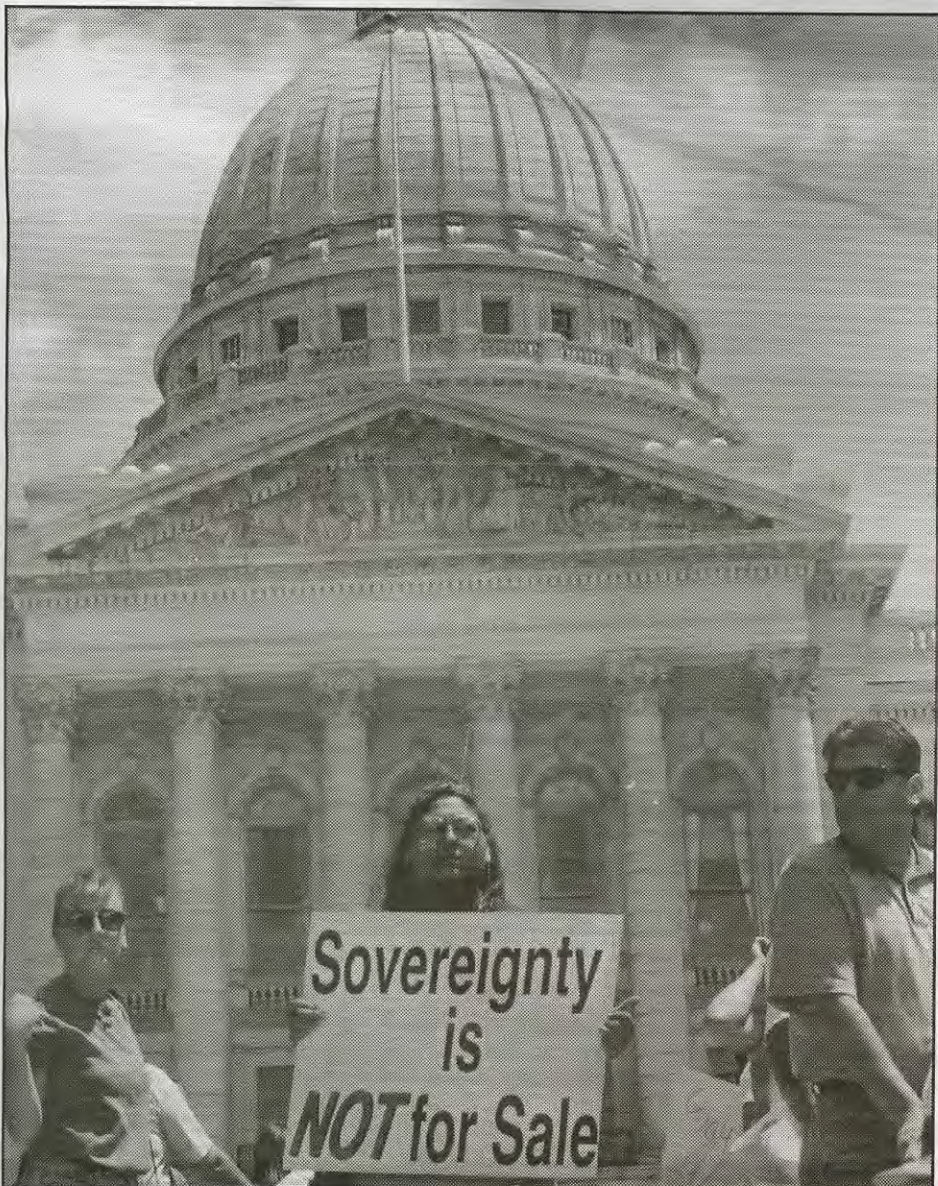
Tribal governments have been opposed to tax legislation of this nature each time it has been proposed for various reasons. Foremost, tribes are sovereign entities with the authority to establish their own tax laws—laws that should be recognized by states.

In accordance with recent Supreme Court decisions, states do have the authority to collect tax on sales to non-Indians made on reservation lands, but states are not required to do so. Recognizing 1) that tribes have a limited tax base to support governmental services; and 2) the overall inequities of taxing tribal businesses, several states have compacts and revenue-sharing agreements with tribes. If a taxation bill of this type passes, all of the 200 compacts that are now working well could be placed at risk if the state has an incentive to break its compact and push for more taxes from tribes.

This bill has no companion legislation as of yet in the Senate. The next step is for the House Resources Committee to hold a hearing on the House bill, which has not been scheduled.

Department of Energy undertakes study of Indian energy as one positive initiative

As part of a series of tribal initiatives, Department of Energy (DOE) Secretary Bill Richardson plans to study and report on various aspects of energy use in Indian Country. The study will span five to six months and has a variety of goals. It will review current electricity use and needs of Indian households and tribes, compare electricity rates Indian households pay, and examine the potential for renewable resources development on reservations.



Vigilance is required to monitor proposed state and federal legislation that could undermine tribal sovereignty. (staff photo)

Other initiatives include the DOE:

- hosting two “Town Hall” meetings in Indian Country. Topics will likely include the effects of electricity deregulations, the development of tribal energy resources and solutions to the lack of electricity on reservations;
- undergoing background training on Indian issues. A recognized tribal leader will be invited to present a course on sovereignty, culture, history, and basic legal principles to DOE staff;
- establishing a personnel exchange program between the DOE, tribes, and tribal organizations to increase professional interaction, transfer knowledge and enhance understanding of the other’s programs;
- encouraging private companies to pay for modification of tribal buildings to make them more energy efficient. The companies would then be paid out of the new energy savings.

Funding for Indian programs

Congress is again struggling through appropriations time when representatives decide how much to fund governmental programs. Indian programs are funded through the Department of Interior, an appropriation still under debate and always fraught with obstacles at each step.

The House of Representatives passed its version of the funding bill on July 15. Indian programs survived the first funding threat—budget caps. The House leadership decided to increase overall Interior funding to avert some potential battles, so Indian programs also benefited; the final House bill includes small increases in funding for Indian Health Service (IHS) and Tribal Priority Allocations (TPA).

Indian programs then overcame three threats of proposed policy changes. The first would have changed the contract support costs (CSC) for IHS. CSC’s are monies supplied by the government to assist tribes in the financial overhead of operating governmental services—such as health services. CSC’s are woefully underfunded and rather than budgeting for more as needed, Congress repeatedly attempts to just limit future requests. This policy would have limited any new or expanded CSC’s to existing levels. Another related change would have distributed CSC’s on a pro-rata basis. Both these and a third policy change, an anti-gaming proposal, were ultimately defeated and not included as part of the bill. One negative piece that survived, however, was a complete cut in funding for the Institute of American Indian Art.

On the Senate side, Interior Appropriations is still under debate as of August 2. The Senate side has overall lower funding for BIA and IHS than current levels. It also includes three negative policy initiatives.

The first, Section 125, would allow the Secretary of Interior to redistribute inadequate TPA funds. This “means testing” type of bill was attempted last year as well and defeated after tribes agreed to work with the government to study apparent inequities in TPA funding. Now that report has been completed (showing that TPA funding overall would have to triple to even reach comparable national standards), but the measure to redistribute, rather than fund at necessary levels, is still being proposed. The second policy initiative, Section 324, is similar to the House policy change to limit contract support costs. The third is the same anti-Indian gaming rider that was defeated in the House. Tribal governments are obviously opposed to all of these proposed policy changes.

Once the Senate passes its version of the bill, both sides of Congress will meet in Conference Committee to work out the differences and send the bill to the President for final approval of the budget for the Interior Department.

Working group formed in response to land into trust regulation changes

As reported in the last Legislative Update, the Department of Interior (DOI) has drafted proposed revisions in the regulations for taking land into trust. Since the last report, in response to serious concerns expressed by tribal leadership that the changes will greatly hinder the restoration of tribal lands, the National Congress of American Indians has formed a Tribal Leader Task Force. This group will meet to develop a national consensus on the major policy issues in the draft regulations and to communicate that position to the DOE by the commentary deadline of September 12.

Some of the concerns are:

- the DOI did not consult with tribes in drafting the changes;
- the regulations distinguish between on-reservation and off-reservation land acquisitions, giving states more voice in opposing off-reservation acquisitions;
- the regulations create additional avenues for legal challenges to trust land acquisitions that will create an expensive and time-consuming burden on trust lands transactions for both tribes and the federal government;
- the regulations wrongly require tribes to publicly divulge information about religious and cultural sites;
- the regulations fail to provide any recognition or preference for acquisition of aboriginal lands, ceded lands, former trust lands, and lands that are of unique cultural or environmental significance to the tribes;
- the regulations fail to continue the historical and congressionally-approved practice of giving on-reservation status to contiguous lands and lands treated as such under the Indian Lands Consolidation Act.

For more information

For more information on any of these or other national issues, please contact; HONOR Advocacy, 224 2nd St. SE, Washington, DC 20003. Phone: 202-546-8340; FAX: 202-546-1684; e-mail: honor@dgsys.com.

Mentor program passes on traditional Ojibwe knowledge

Blueberries cornerstone of summer gathering

By Charlie Otto Rasmussen
Writer/Photographer

Brimley, Mich.—From beaver sloppy joes to choke cherry pies, Bay Mills elder Agnes Carrick has whipped up just about every imaginable recipe using traditional Ojibwe foods. Some of her creations are more popular than others in her family that includes 56 grandchildren and 38 great grandchildren. But her expert knowledge of upper Great Lakes edibles invariably makes for enjoyable and memorable meals.

Carrick is sharing some of that wisdom with one of her granddaughters, Heather Malloy, 16, through a mentoring program sponsored by Great Lakes Indian Fish & Wildlife Commission (GLIFWC).

Developed to teach values and respect for the natural world, the mentoring program is part of a summer internship designed to help young people gain experience in natural resource careers.

As a GLIFWC intern, Malloy works a 32-hour week, assisting staff at Bay Mills Biological Services with duties from cleaning fisheries' survey nets to wild rice habitat surveys. A few hours of that time is spent with Carrick, her grandmother and mentor, learning about traditional uses of forest products.

Funding for the internship comes from the Administration for Native Americans (ANA), a federal initiative supporting educational projects across Indian Country.

On their weekly excursions into the woods near the Bay Mills reservation, Carrick points out different trees, shrubs, wildflowers, and plants. Every so often she'll give a pop quiz, asking her granddaughter how to tell the difference between trees, like a red pine and a white pine.

Malloy is creating a leaf book, using plant samples including leaves and evergreen stems. Whenever they come across something new in the forest, it goes into the book.

"I've always been interested in the outdoors and wildlife," Malloy said. "So when this internship came up, it seemed like a good opportunity."

In addition to Bay Mills, GLIFWC supports mentor programs at Bad River, Fond du Lac, Keeweenaw Bay, Lac Courte Oreilles, Lac Vieux Desert, Mille Lacs, St. Croix, and Red Cliff, where young people learn about seasonal harvesting practices, traditional values, and the Ojibwa language.

Maamigiwin (gathering): yesterday and today

With each season, a fresh crop of natural resources utilized by Ojibwe people becomes ripe for harvest.

When mid-summer rolls around, one of the oldest and most important gathering activities is picking blueberries.

Carrick led her granddaughter to a sandy stretch of woodland in the Hiawatha National Forest known as "the Plains" where Ojibwe people have harvested berries for generations.

"This never changes," said Carrick, a mother of 14 children. "I've been picking berries since I was eight or nine."

Growing up in the lean years of the 1930s, blueberries were a source of revenue for tribal members.

"We used to set up tents and have a camp," Carrick explained. "My dad would have around five or six crates

strapped to his back, and he had a baby on top of that. He'd go across the river like that, pick berries, and come back."

Bay Mills berrypickers also set up a camp to sell their harvest, Carrick said. Her uncle ran a store and bought most of the blueberries.

Although fewer tribal members rely on blueberries today, the search for the sweet fruit is timeless for the most seasoned woodland gatherers—black bears.

"I was in here a few weeks ago, but the bear got here before me," Carrick said. "He pulls the plants out by the roots and eats them right off the stem. There's been a bear back in here as long as I've been picking."

While forest life is anchored by traditions like the blueberry harvest for humans and animals, the inflow of illegal dumping on off-reservation lands festers like a wound on the landscape.

"The saddest part of going out in the forest is seeing all the junk people dump," Carrick said. "I think it may be getting a little better, but it's been just terrible."

Carrick has put a modern spin on forest gathering, traveling backwoods roads in search of discarded aluminum cans and glass bottles.

The containers fetch 10 cents apiece since a state law was enacted in December 1978 requiring a dime deposit on each one sold.

"On a good year, I can take care of everyone for Christmas from what I get in the woods," she said.

That's a lot of cans. Her income also includes sales from blueberries and white pine bows used for wreaths and decorations during the holiday season.

In 1997, a good year, Carrick sold 175 quarts of blueberries to a following of regular customers that buy from her every summer. She picked even more berries and distributed them to family members.

"When Heather gets old, she'll bring her children and grandchildren out here," Carrick said.



Bay Mills elder Agnes Carrick is sharing Ojibwe gathering traditions through a GLIFWC-sponsored mentor program. (Photo by C.O. Rasmussen)

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Treaty Ceded Areas

