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A Chronicle of the Lake Superior Ojibwe

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State-licensed trappers exceed bobcat quota in 2000

Tribes demand improved harvest monitoring system

By Sue Erickson
Staff Writer

Odanah, Wis.—In Wisconsin the state-licensed bobcat harvest in 2000 was 44% over the state's bobcat quota, says Dr. Jonathan Gilbert, Great Lakes Indian Fish & Wildlife Commission (GLIFWC) wildlife section leader.

In 2000 the state quota for bobcats was 190, but state-licensed trappers took 278 animals. Gilbert says a similar problem occurred when the state over-harvested fisher in 1996 and 1997.

GLIFWC's Voigt Intertribal Task Force expressed its concern regarding the over-harvest of bobcat by Wisconsin's state-licensed trappers in a letter from James Schlender, GLIFWC's executive director to Steven Miller, Wisconsin Department of Natural Resources (WDNR), Division of Lands.

In his letter Schlender says, "tighter controls on state-regulated furbearer harvests are necessary to prevent harm to ceded territory furbearer populations and to protect the Tribes' furbearer harvest rights."

Schlender points out that, although the state now has the authority to close a trapping season (a measure enacted following the over-harvest of fisher in 1996 and 1997), this, alone, is insufficient to protect furbearer populations because the state cannot determine if the quota has been reached in a timely manner.

State-licensed trappers must register their harvested furbearers within five days of the end of the month.

Tribal, off-reservation trappers must register their harvest by 5:00 p.m. of the next working day. This system allows the tribes to accurately calculate harvest on a day-by-day basis, and, if needed, close the season as soon as the quota has been reached.

According to Schlender, if the WDNR would use this system of monitoring harvest, it would allow state managers to use their emergency closure authority in time to prevent over-harvest.

Schlender also points out that another management option, one used by the state to prevent over-harvest of fisher, is to limit the number of permits to the number of bobcat allowed in the quota, instead of determining the number of permits using a success rate.

The state's attempt to use a success rate to achieve a harvest level is proving unreliable as a management tool.

A bobcat looks back warily after being radio-collared as part of GLIFWC's furbearer studies. GLIFWC seeks to prevent state overharvest of bobcat. (Photo by Amoose)

Gilbert says that the tribes pointed out the inadequacy of the state's monitoring system earlier, but to no avail. He does not believe that the bobcat population was harmed by the 2000 over-harvest, but under different conditions, a similar over-harvest could damage the population, so the state must employ a more viable monitoring system.

"We set quotas for both the state and tribal furbearer harvests. The state fully expects the tribes to stay within their quota, and tribes, also, expect the same of the state. It's a responsibility we must all take seriously," Gilbert says.

In 2000, the off-reservation treaty harvest of bobcat was one.

Sandy Lake memorial dedicated

By Sue Erickson
Staff Writer

McGregor, Minn.—A fleet of canoes completed the four-mile voyage from the east side of Big Sandy Lake and glided to rest at the landing of the Big Sandy Lake Recreation Area, run by the U.S. Army Corps of Engineers (ACOE).

The Mole Lake/Sokaogon Drum greeted them with a song as they came ashore on July 29, the day set to dedicate the Mikwendaagoziwag (They are remembered) Memorial Monument, which overlooked the canoes as they slid ashore.

A crowd of about 200 people joined the Drum in welcoming the newcomers, and together they proceeded up a small hill to encircle the monument, many of them placing asemaa (tobacco) on the monument's base.

It was a coming together—a coming together of people, of events, of times past, times present, and times to come.

The memorial's dedication became a point of culmination for contemporary events and those occurring over 150 years ago.

The past was drawn into the present with prayers, songs, ceremonies and dance around the monument recognizing the Sandy Lake Tragedy and assuring the spirits of those buried there that they shall not be forgotten.

In March 1999 a ceremonial fire was first lit on the top of the hill at the Sandy Lake site. Ceremonies were performed and prayer sticks set afloat in the water.

"At that time necessary attention was given to the significance of the tragedy itself and its impact on the course of history," says Leo LaFernier, Red Cliff elder. "The events at Sandy Lake in 1850 were a catalyst for Chief Buffalo's trip to Washington, D.C. and ultimate rescinding of the removal order."

The monument is a memorial to the Ojibwe ancestors who perished at Sandy Lake, Minnesota or en route home. About 150 Ojibwe people died at Sandy Lake. Stricken with disease and lacking adequate food, they waited for promised annuity payments that were late in arriving.

Made to wait from October 25th to early December for their annuities, the Ojibwe people, many who came from their homes via canoes, had to abandon their canoes and set out for home on foot through wintry weather. An estimated 250 people perished on that journey home.

As James Schlender, Great Lakes Indian Fish & Wildlife Commission (GLIFWC) executive administrator, stated during the dedication, the Ojibwe people today are very thankful for the sacrifices made by their ancestors who were part of the Sandy Lake Tragedy.

Their determination to return to their home communities foiled the efforts of Minnesota territorial politicians to remove the Ojibwe to the Minnesota territory.

Had those ancestors not braved the journey home and firmly rejected the notion of removal to Sandy Lake, the

(See Ojibwe ancestors, page 2)

The Mikwendaagoziwag (They are remembered) Memorial Monument was dedicated on July 29. The memorial is in remembrance of the 400 Ojibwe people who perished as part of the 1850 Sandy Lake Tragedy. (Photo by COR)

Ojibwe ancestors remembered in ceremonies

(Continued from page 1)

Ojibwe would not have their home reservations today.

He also noted that the dedication of the monument was set for July 29, the date that representatives from a number of Ojibwe bands signed the 1837 Treaty at St. Peters, reserving the rights to hunt, fish and gather in ceded territories. Once again the ancestor's care and foresight benefited the Ojibwe today.

Until recently, the Sandy Lake Tragedy remained a little known event, even among the Ojibwe people. Lorraine Norgaard, WDSE T.V., Duluth, brought Schlender's attention to the site and the tragedy after she had been filming there for a documentary and felt strangely moved with an unsettling sense that many people had perished there and were unacknowledged. She felt compelled to speak about it.

This triggered numerous subsequent events, including the 1999 ceremonies at the site, led by Tobasonakwut, Ojibways of Onigaming, and planning for The Mikwendaagoziwag Memorial Monument got underway. The memorial monument will remind future generations of the Sandy Lake Tragedy.

Leo LaFernier, Red Cliff elder and Voigt Intertribal Task Force representative, believes that many contemporary Ojibwe were unaware of the tragedy because it was not talked about.

"It was such a bad experience, and there were so many more throughout our history, that people tried to talk about happiness rather than those painful experiences," LaFernier said.

Tobasonakwut led ceremonies dedicating the Mikwendaagoziwag Memorial Monument. First, he gathered all the participants in the Ondakwazhiwe Kekiwed Inakwazhiwe (Paddle/Portage/Paddle) Journey into a circle next to the monument. There was a Drum Song and pipes were smudged, lit and passed to each of the participants in the journey.

Ceremonies continued following a feast of traditional foods – wild rice, venison, fish, corn, fry bread and fruit.

Gathering once more around the monument, the pipes were once again lit. Four Talking Sticks were placed around the monument representing the Four Directions.

The pipes were taken clockwise around the monument. Each pipe carrier touched the Talking Sticks and the monument below the color representing each direction with his pipe. Carrying pipes were Robert van Zile and Fred Ackley, Mole Lake; Tom Maulson, Lac du Flambeau; Jim Schlender, Lac Courte Oreilles; Leo LaFernier and Gerry DePerry, Red Cliff; Neil Kmiecik, Standing Rock Lakota; and Tobasonakwut. The pipes and asemaa were passed. The Drum provided an Honor Song for those who perished at Sandy Lake.

Tobasonakwut asked that four people be selected to represent a stage of life and to stand by one of the four colors.

Yellow—East represented birth and infancy; Red—South represented adolescence; Blue—West represented the childbearing years; and White—North represented old age. Four women were selected. Next four men, all ogichidaa, were selected to stand next to them.

They were given asemaa (tobacco) and following the fourth push-up from the Drum Song, placed the asemaa around the monument's base from the Talking Stick they were standing by to the next Talking Stick. Together they encircled the monument. Then they danced.

Tobasonakwut, Ojibways of Onigaming, Ontario, led the ceremonies for the monument's dedication and provided teachings. (Photo by COR)

"It makes the spirits feel good when you remember them," Tobasonakwut said. "There have been visions over the past 150 years because no one has put things right. We have been guided by pipes and songs. We did a Midewin ceremony and placed prayer sticks, tobacco, cedar and cloth and food in river. We have done ceremonies people back then would have done."

He said we commemorate the ancestors by smoking the pipe, so we will never forget the Sandy Lake Tragedy and the people who sacrificed for us.

"There will be future ceremonies here. This is the place to bring gifts we receive—pipes and drums. The spirits will help us. We should not forget again."

He called tribal leaders as well as Major Tom O'Hara, ACOE, representing Colonel Ball, to come forward in a circle and said that the Sandy Lake story must be taken back to the tribal communities. Each was offered an opportunity to speak.

Ken Van Zile from Mole Lake/Sokaogon talked about camping at the site the night before. "It felt good sleeping on Mother Earth last night where our ancestors slept. Our people came here in good faith."

An eagle and an osprey soared above the gathering, gliding high in great circles. The sun shone warmly on the monument, encircled with the colors of the Four Directions and a colorful ring of flowers at its base.

The Grandfather and Grandmother stones, brought from many reservations and embedded in the base of the monument, added subtle color and texture. As Tobasonakwut explained, these stones are those which are alive and have a spirit.

A gentle wind rippled through the trees, and the Spirits seemed to join in the dedication, to be at one with the prayers, the songs and the dancing—sounds and sights once familiar also to the ancestors buried there.

"I looked up and the leaves on the trees seemed to be fluttering and dancing during the ceremonies," recounts Sharon Nelis, Bad River. "My cousin, Esie, smiled and said she had heard that means the Spirits are happy."

Major Tom O'Hara, U.S. Army Corps of Engineers, praised the cooperative spirit and efforts behind the memorial's construction. (Photo by Charlie Otto Rasmussen)

Representatives from many Ojibwe bands in Minnesota, Wisconsin and Michigan gathered for ceremonies dedicating the Mikwendaagoziwag Memorial Monument. The memorial received inter-tribal support as well as cooperation from the U.S. Army Corps of Engineers. (Photo by Charlie Otto Rasmussen)

On the cover

Students from the Lac Courte Oreilles Ojibwe School get hands-on experience constructing a birch bark canoe. Under the instruction of Marvin Defoe, Red Cliff, and Duck White, LCO, students Mary Ann Hammond and Tasheena Sam work on the third canoe built during a traditional skills class this summer. (See story, page 15) (Photo by Sue Erickson)

To remember and honor Ojibwe ancestors

Ondakwazhiew Kekiwed Inakwazhiwe (Padddle/Portage/Paddle) Journey

By Sue Erickson, Staff Writer

The jiiman (canoe) carried many Ojibwe people from nineteen bands in Wisconsin and Minnesota to the Sandy Lake site in 1850. Jiiman also carried representatives from Ojibwe bands to St. Peters, at the confluence of the St. Peters and Mississippi Rivers, in July 1837 when the 1837 Treaty was negotiated and ultimately signed on July 29.

In July 2001, the Ondakwazhiwe Kekiwed Inakwazhiwe (Paddle/Portage/Paddle) Journey retraced journeys likely undertaken by some Ojibwe en route to Sandy Lake in 1850 or St. Peters in 1837.

Undertaken by James Schlender and Neil Kmiecik, GLIFWC Biological Services Director, the journey was launched following ceremonies dedicating the Mikwendaagoziwag Run Memorial at the Ojibwe Memorial Park, Madeline Island the day before. They carried a Talking Stick in one of the canoes and prayers from Madeline Island to Big Sandy Lake.

The morning of July 21st dawned clear and still. "The day was really a blessing," says Neil. "We were anxious about wind, waves, and fog, but there were none."

Following sunrise ceremonies, the two slipped their jiimanan into Lake Superior and headed out, breaking the glassy stillness of the water with a rippling wake. About a mile down the Madeline Island shore, an eagle circled overhead.

Their destination for the day lay across the bay—Little Sand Bay campground on the mainland.

The first day went well, but once around Oak Island two to three foot waves showed the paddlers a hint of the big lake's capacity and changing moods. In retrospect, Jim admits the waves were probably small, but at the onset of the journey, three-footers looked intimidating.

Each day was begun and concluded with ceremonies, and Jim also recalled excerpts from a description of the 1837 Treaty negotiations, which were ongoing at St. Peters during these days 164 years ago. The journey was a prayer and a way to remember and to be thankful for the sacrifices of the ancestors. They were always kept in mind.

Gigi Cloud places Grandfather stones around the Mikwendaagoziwag Run Memorial on Madeline Island as Jim Zorn spreads a layer of mulch. Looking on is Jim Schlender. The memorial was dedicated on July 20 with ceremonies. A Traveling Song was sung for those about to depart on Paddle/Portage/Paddle Journey the following morning. (Photo by Charlie Otto Rasmussen)

Betty Martin, Lac Vieux Desert, smudges canoes before they depart from Madeline Island to their Big Sandy Lake destination. (Photo by Thea Konstantinidis)

Jim Schlender, GLIFWC executive administrator, puts asemaa (tobacco) into Lake Superior prior to starting out from Madeline Island to Big Sandy Lake. (Photo by Thea Konstantinidis)

Day 2 also dawned fairly calm, and the two canoes once again departed shore, destination Herbster, Wisconsin. The marine forecast for widely dense fog had the wardens in the escort boat concerned, but on they went, the fog receding before them. They paddled slowly for several miles past the scenic sea caves. The voice of the caves sounded like a waterdrum, and Neil wondered if this sound inspired the creation of the first waterdrum.

They came to an area where three points of land jutted out in sequence. They decided to head directly for the furthest point, cutting miles and time, but putting them further out into the lake.

Once away from the shore and the caves, a dark cloud began to grow, and appeared to be heading in their direction. "I could hear thunder, but couldn't tell from where," Neil recalls. Both men realized that to be caught in a thunder squall this far out from land could be disastrous. "I felt panic," Neil says, "and I put all my effort into paddling as fast and hard as I could towards that point of land."

The warden escort boat was far behind the canoes and would not be able to assist if trouble arose. Jim, also keeping a steady hard pace with the paddle for several hours, eventually saw Neil's canoe turn the corner around the point in front of him.

"Then I really felt alone and small," he says. "It was just me out there. I was scared." As it happened, the thunderclouds ahead dissipated, proving no menace to the two paddlers. But clouds from the south greeted them once around the point, posing another threat for a squall. However, those clouds stayed at the shore's edge, never moving out to the lake. The paddlers glided into the Herbster landing thankful and fatigued from hours of steady, strenuous paddling.

"The journey was physically demanding," Neil says, pausing to comment on the physical stamina and mental alertness required of the ancestors who undertook such journeys frequently in earlier times. "Although it was physically demanding, it was emotionally draining."

The journey moved everyone who participated, whether they were actual paddlers or on-land supporters. Many were moved to tears at some point in the ceremonies, says Neil. The emotions welled from somewhere very deep, were very powerful and not totally explicable.

(See Lake Superior challenges, page 4)

The six-mile Savanna Portage was established by indigenous people as a travel route between Lake Superior and the Mississippi River. This historic foot trail was used by many 1850 annuity bands and continues to be maintained at the Savanna Portage State Park, northeast of Sandy Lake. (Photo by Charlie Otto Rasmussen)

Lake Superior challenges endurance of canoeists

Others join to cross Sandy Lake

(continued from page 3)

Gary Kmiecik, Neil's brother, met them at Herbster with his kayak, so the journey became a voyage of three. Neil and Jim decided to use just one canoe to conserve their energy.

So, once again on Day 3 two vessels were prepared to leave the shore at Herbster. Frank Koehn from Herbster joined them during morning ceremonies and gave them an Eagle Feather that had been given to him during the Walk Around Lake Superior. He had been told to pass it on, and that he did.

"This was a day of drama." Jim says, recalling bouts with 4-6 foot waves as they headed from Herbster to the Brule River. The lake demanded total attention from paddlers, challenging them with one huge roller after another. In the stern Neil kept the course and paddled, while in the bow, Jim had to propel the canoe up and out of the troughs. Timing, power and slicing the waves at diagonal kept the water from spilling into the canoe and kayak.

Jim had braced himself in the canoe, wedging his knees between the gunwales to give himself more leverage with the paddle. After several hours of strenuous paddling, his right leg rebelled with a cramp. At that point, they decided to head to shore for a rest, although it meant giving up some of the distance they had so arduously covered.

The wardens were concerned about the conditions, and the travelers discussed the option of being towed—an option rejected by Gary, who took off once again in his kayak. Already getting late in the day, the canoeists decided the best option was to keep going, so resumed the battle with the waves.

Neil Kmiecik and Betty Martin shove off from the east shore of Sandy Lake on the final leg of the Journey. (Photo by COR)

The three arrived tired, but safe at the Brule River following a twelve-hour trek.

The journey on Day 4 started a little later, the paddlers tired from several days of hard work. They planned to go only seven miles, but the water was like glass, so they kept going until they saw Amnicon Point, where ground crew in the form of Jim's wife and daughter were waiting.

They decided to stop rather than continue to Wisconsin Point. Weather predictions called for calm weather the next day, so they felt safe in stopping.

However, Day 5 dawned as a "big wind day." The wardens warned them not to paddle that day. After observing the 21-foot warden boat rise and fall with the waves, it's bow sometimes pointing straight to the sky, they decided to delay departure to see if the wind would die down. Meanwhile they traveled to Wisconsin Point just to scope out their destination. There they noticed a marker stating that this particular channel was very treacherous to travelers in the 1600s.

"It made us think again of how strong, fit and knowledgeable our predecessors were and how difficult it was to live in those times, and how they had to take care of each other," says Neil.

With no apparent break in wind conditions, the paddlers decided to portage from Amnicon to Wisconsin Point. Actually, it turned into a walk/run with the travelers covering the miles on foot, at times tangled in a brambly forest, and other times running smoothly along a sand beach. Miles covered by Jim's wife, Punkin, and daughter, Margaret, helped cover the on-land stretch.

The canoe and kayak were launched on the bay side of Wisconsin Point. It was windy and the travel still hard. It became tricky around the breakwater where the wind whips through a channel. Their course became a zigzag, almost like tacking, in order to ride the waves. They headed down the bay looking at the Blatnik Bridge, trying to hug the shore. Reaching Park Point, they stopped for the day.

Day 6 dawned much calmer. Once they crossed to the Blatnik Bridge and started down the St. Louis River, the Creator seemed to answer Punkin's prayer and set the wind at the paddlers' backs. The wind and waves helped the tired travelers from that point on. They

Leon (Boycee) Valliere, Sadie Belongie and daughter, Minwewe, crossed Sandy Lake in a beautifully crafted birch bark canoe. (Photo by Charlie Otto Rasmussen)

stopped briefly on Spirit Island to rest. Within four hours the vessels landed at Boy Scout Landing, Gary, New Duluth.

Pulling the canoe ashore, Neil commented that the canoe felt like it had thirty pounds of rocks in it. And it did. Jim, aware that the stern of the canoe was riding higher than the bow, decided to add ballast in the stern with rocks picked from the Spirit Island beach. This measure helped keep the canoe from plowing down into the waves, easing the work to some degree.

With a day before the schedule walk/run from Boy Scout Landing to Big Sandy Lake, the travelers used Day 7 to walk/run the miles between Boy Scout Landing and Black Bear in order to shorten the miles on the following day. Joined by Punkin, Margaret and Betty Martin, Lac Vieux Desert (LVD), runners and walkers carried the Talking Sticks through the treacherously narrow roads in Jay Cooke State Park to Black Bear Casino, the point of departure for the following day.

On Day 8 the Four Talking Sticks were taken over land by walkers and runners until they reached the eastern shore of Big Sandy Lake—the point of departure for the next day's paddle across Big Sandy Lake to the site of the Mikwendaagoziwag Memorial Dedication.

Twelve more people aided the journey across land. Among the walkers and runners were four generations of women from LVD and youth from the Lac Courte Oreilles (LCO) Boys and Girls Club. One LCO youth, Marcus Carley, gathered the Grandfather stones from LCO that were placed into the base of the Mikwendaagoziwag Memorial. Canoes and paddlers from the Sandy Lake, Lac du Flambeau, Mole Lake, Standing Rock Lakota, Lac Vieux Desert, Fond du Lac and Lac Courte Oreilles bands composed the fleet that crossed the four-mile stretch on Big Sandy Lake July 29. Leon (Boycee) Valliere, Sadie Belongie and daughter, Minwewe, crossed the lake in a beautifully crafted birch bark canoe.

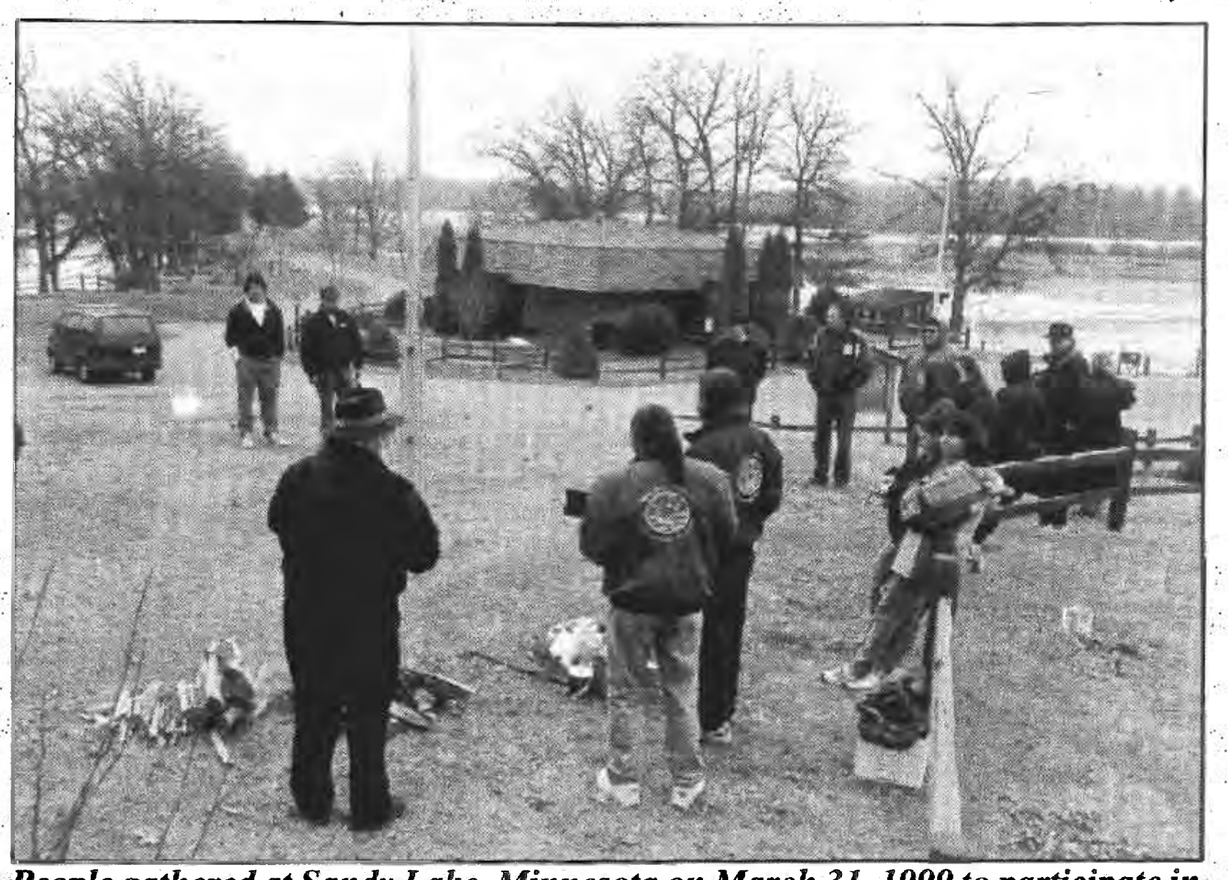
They landed to the warm welcome of the Drum and the ceremonies that awaited.

The Journey had covered close to 100 miles over water and 72 miles over land.

Canoes paddled by Neil Kmiecik, Betty Martin, and Jim and Punkin Schlender are the last to arrive at the Mikwendaagoziwag Memorial site on the northwest shore of Sandy Lake. (Photo by COR)

Appreciation is given to Mike Soulier, Jim Mattson, and Jim Stone, GLIFWC wardens. The wardens escorted the Ondakwazhiwe Kekiwed Inakwazhiwe (Paddle/Portage/Paddle) Journey.

The Mikwendaagoziwag Memorial Momument
A result of commitment, ceremonies & hard work



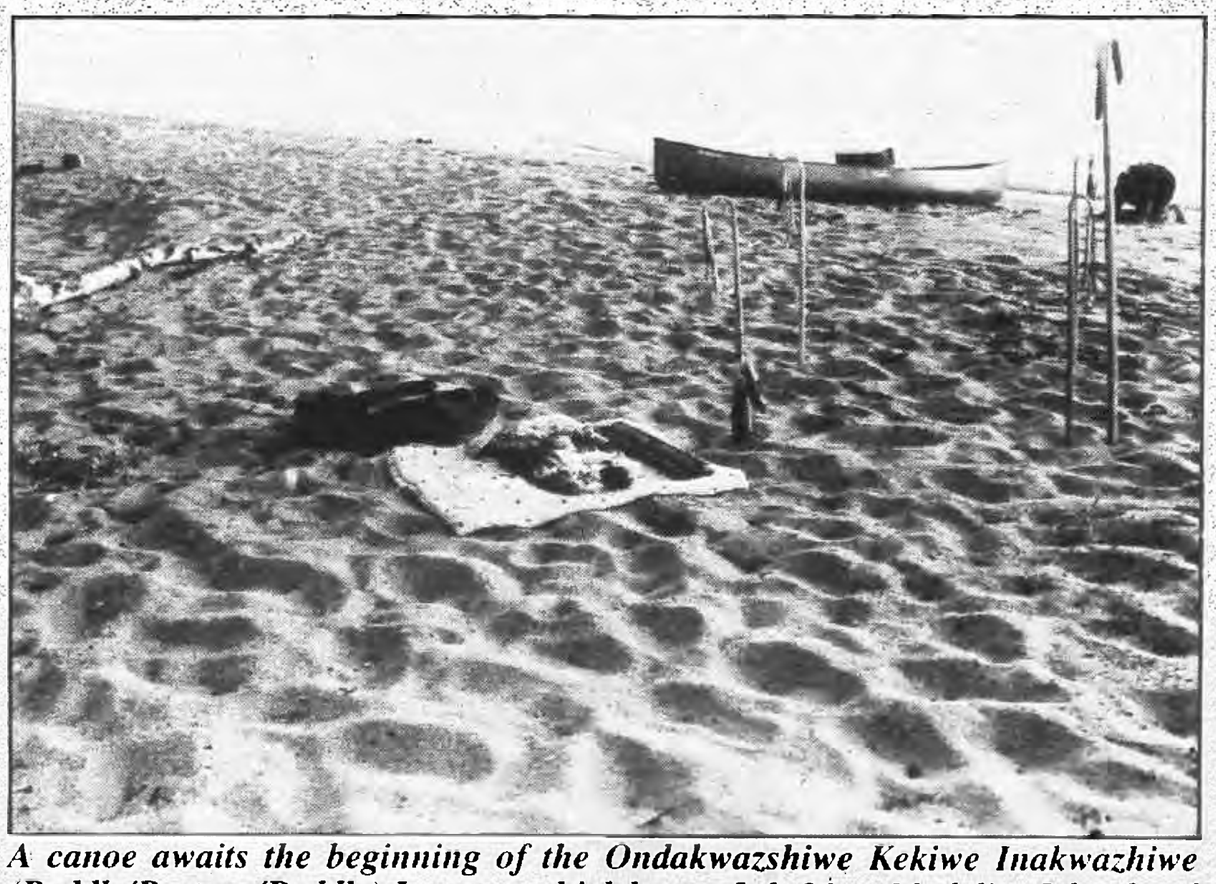
People gathered at Sandy Lake, Minnesota on March 31, 1999 to participate in a ceremony of closure for the Ojibwe who died and suffered in 1850-1851. With cooperation from the Army Corps of Engineers, tribal and GLIFWC planners began to design a memorial to be erected on this glacial mound overlooking Sandy Lake. (Photo by Charlie Otto Rasmussen)

Although unfinished, asemaa is placed at the monument as Fran and Jeannie Van Zile, Mole Lake prepare for the start of the Mikwendaagoziwag Run on December 2, 2000. (Photo by Charlie Otto Rasmussen)

Visions of a monument commemorating the Sandy Lake Tragedy at the U.S. Army Corps of Engineers (ACOE) Big Sandy Lake Recreation Area became an actuality with the support of the Voigt Intertribal Task Force and cooperation from the ACOE. A formal evacuation at the monument's site confirmed that no burial sites would be disturbed. Above, Elise Ani, Mille Lacs Historical Preservation Officer and Brad Johnson, ACOE archeologist, analyze the exposed earth on September 7, 2000. (Photo by Charlie Otto Rasmussen)

Eddie Boyd maneuvers the Mikwendaagoziwag Run stone with his bobcat as Leo LaFernier (right) and Jim Zorn guide him along on May 24, 2001 at Madeline Island. (Photo by Charlie Otto Rasmussen)

The Mikwendaagoziwag Memorial Monument begins to take shape with Grandfather stones brought from 11 Ojibwe reservations embedded in the base. Above, Bruce Goman, Mille Lacs Development, Inc. and Jim Zorn, GLIFWC policy analyst, work with the St. Croix construction crew to place the giant boulder on the monument's base. (Photo by Charlie Otto Rasmussen)



A canoe awaits the beginning of the Ondakwazshiwe Kekiwe Inakwazhiwe (Paddle/Portage/Paddle) Journey, which began July 21 on Madeline Island and concluded at the Mikwendaagoziwag Memorial Monument site at Sandy Lake, Minnesota on July 29. (Photo by Thea Konstantinidis)

Chi miigwech to:

Fred Ackley, Fran Van Zile, Leo LaFernier, Leonard Sam, Jeff Steere and Bruce Goman from the GLIFWC Sandy Lake Planning Committee.

My Journey with the Chippewa Indians

(Editor's note: The following account has been slightly edited for grammar in order to improve readability of the text. Spelling and most punctuation remain as written by Julia Warren Spears.)

A reminiscence, written by Mrs. Julia Warren Spears, age eighty-nine years

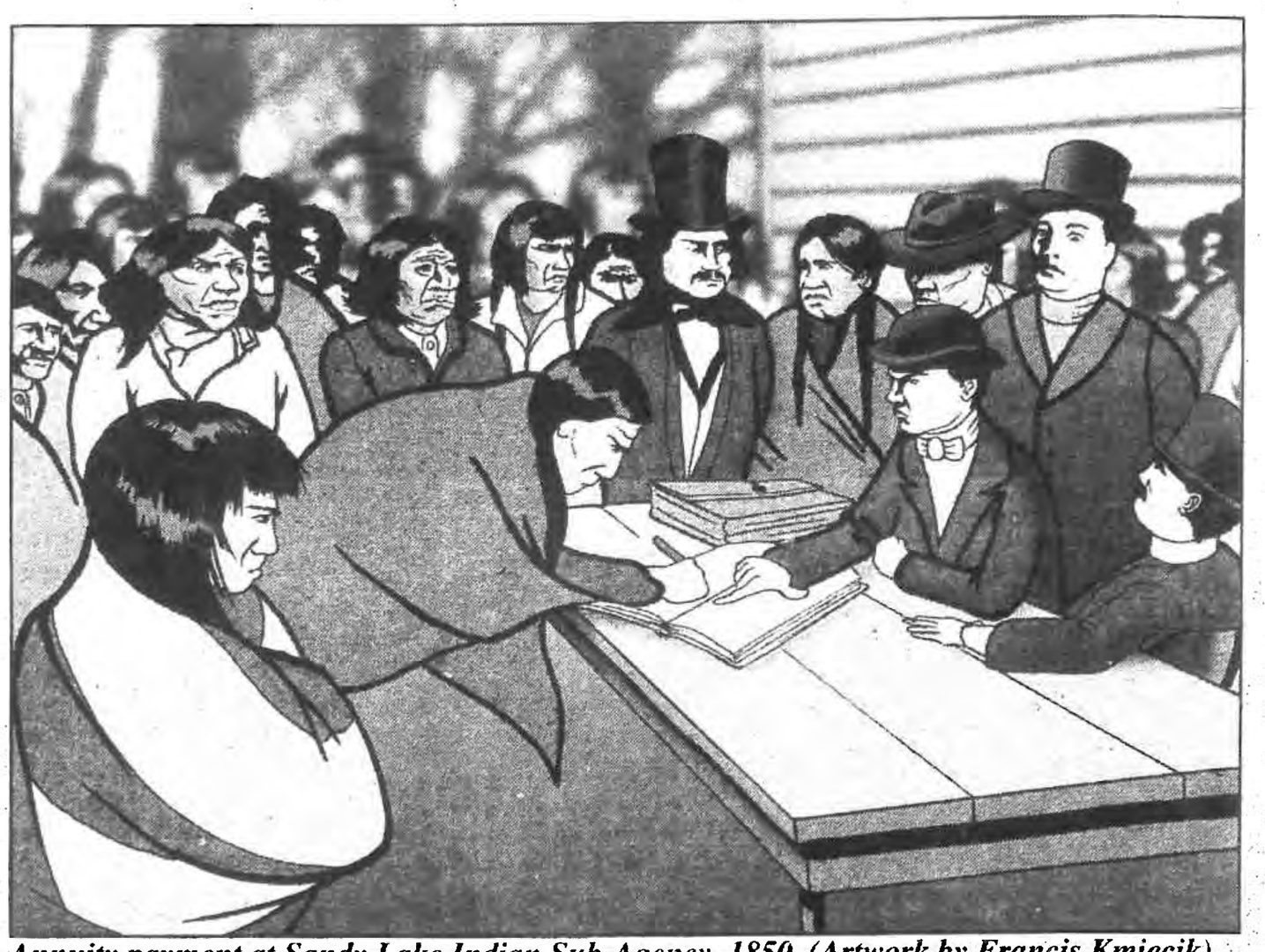
Detroit—September 1921

In the year eighteen fifty, my home was with my aunt and Uncle James Ermintinger a fur trader at Chippewa falls. When my brother William W. Warren arrived, the first of September from Crow-Wing, Major John Watrous, the agent at that time for all the Chippewa Indian, sent him to get all the male Wisconsin Indians, to go to Sandy lake for their annuities.

He wanted them to see that part of the country. If they liked it, the government would remove them all the next year. The Agency had been removed from Madeline Island, to Sandy Lake. They were all willing to go there for Payment.

There was a great many Chippewas at that time, at Chippewa River. He had to send for all of them, and council with them for a few days and when ready, to start, issue out, pork flour and tobacco, to take with them on their Journey.

My brother was in very poor heath. He was taken ill in St Paul after leaving his home) but was feeling much better. My aunt tried to persuade him not to start, until he was stronger she said she would feel better, if you would take your sister with you. She will take care of you, if you get sick on the way. He said he would be glad to take me with him but I fear the trip will be too hard. We will have to walk so much, she will get tired out. I then told him if you can stand the walking, I certainly can. I am strong and healthy, I feel I ought to go with you.



Annuity payment at Sandy Lake Indian Sub-Agency, 1850. (Artwork by Francis Kmiecik)

We were soon ready to start. My brother had bought a canoe and hired two stout men to paddle, and pack it through the woods. Two Indians to pack our tent bedding and, food. We Journeyed up the Chippewa River to Lake Fotreilleou old Trench Trading Post with several mixed blood families dwelling there.

The lake de Flambeau Chippewas were all waiting for my brother. We were there one day, pork, flour and tobacco had been brought in canoes from the falls, to be issued to the Indians that were going. The next day we started on our Journey through the woods, the Indians packing their canoes.

They all had packs of some kind on their backs we had to walk nearly all the way. We came to a lake and camped for the night. Our tent was put up, with branches of spruce and cedar spread on the ground in the inside, which made it quite comfortable, and in front outside of the tent a small fire, where I cooked our evening meal.

The Indians built several big camp fires, fixed places to hang their kettles over the fire, to cook their evening meal, which was large kettles of wild rice, and flour soup, water thicken with flour seasoned with pork, that was always their evening meal, as it took a short time to cook. On each side of the fire, they stuck small poles to hang up long rush mats for a covering where they slept.

A number of them were hunting through the woods as we traveled along, they killed all kinds of game such as, deer, geese, ducks, and other game. Some of them would cook by the fire, nearly all night, game they had killed, and cooking legalet bread, made by mixing flour with salt water, kneaded quite hard in round flat loaves fastened on sticks to cook by the fire, for the next day's lunch.

When we rested for a short time at noon, when walking all day, we traveled only a few miles. We Journeyed along occasionally crossing lakes and rivers and in a few days reached St. Croix River after Journeying through the wild county and dense forests, of the then Wisconsin territory.

We were there two or three days, waiting for the St. Croix and Pokegema Chippewas to come. We then started for Lake Superior, and after a few days reached Iron River, which empties into Lake Superior.

The river was dangerous with canoes. There was so many small rapids and rocks. Some of the Indians had traveled it so often, they knew exactly where to go. When we came to a bad place one canoe would go ahead, and the rest would follow, we soon reached the lake.

We camped on a sand point opposite where the city of Duluth now is, with seven hundred Wisconsin male Chippewas. My brother was taken sick with hemorrhage from the lungs the night we camped there. His friends the old Chiefs were much worried about him. They done what they could for him, they were all very kind, they though so much of him. My brother was quite ill, after keeping quiet, and resting, for four days he felt able to travel. The Indians had a good rest, with their nets caught all the fish they could eat such as trout, whitefish, and other game. We were ready to start on our journey up the St. Louis River to Fondulac.

As they were getting in their canoes, my brother told them to wait, he wanted to say a few words. Pointing towards where the city of Duluth now is he said over there will be a very great city. The lake near it will be full of all kinds of vessels. Pointing, towards where Superior is, will be another city but not so great as the city, over here. I will not live to see those cities. Some of you young men will live to see them. I want you to remember what I am now telling you.

Some of the old men and Chiefs that were standing near him shook their heads as if they thought he was losing his mind. It was hard for me to believe my brother's words. That a city would be built on such a desolate rough spot, where the city of Duluth now is.

We started for Fondulac, which was a small village and trading post. We stopped there one day, then went from there to Sandy Lake. On our way we had to cross a three days portage, we traveled very slowly, on my brother's account, it took us nearly five days, to cross the portage when we at last, reached Sandy Lake. After having pleasant weather all the time for three weeks my journey with the Chippewa Indians ended.

I have often thought during the years that have passed away of that hard Journey, and wondered how I ever went through it. I remember of being very very tired, when we camped at night, after walking nearly all day, but never once regretted coming, with my sick brother, the trip was much harder for him. We had to go in canoes across the lake quite a distance to the Agency.

All the Mississippi Bands of Chippewas and Leach Lake Indians were all there, with their families waiting for the payment, when we came in sight of the Agency, there was great excitement amongst them. A great many jumped into their canoes and came to meet us. There was a great many Chippewas at that time; I don't remember the exact number. They waited about three weeks before the money came.

They suffered with cold and hunger, pork and flour was issued out to them but not sufficient for so many. The measles and other sickness broke out, a great many children died and a number of Indians, it was a very distressing time.

On arriving at the Agency we met a number of our friends. My brother met his family there waiting for him, to come. They were staying in a tent, near Major Watrous house. I was glad to meet Mrs. Watrous, I became acquainted with her before leaving Madeline Island, and she kindly invited me to stay with them.

My brother waited a week for the Payment. The weather was getting so cold, he decided to go home with his family. Before they were ready to start, my youngest sister Sophia was taken sick, with the measles, Mrs. Watrous had her taken into the house, she was very sick, my brother had to leave us he said he would send for us when the river and lakes froze up.

After two weeks Major Watrous came with the money he paid the Indians as soon as possible. Their goods had already been tied up in bundles to give out to them. Major Watrous held a council with the Wisconsin Chippewas, he urged them to be removed the next year, to join the Mississippi Chippewas. The Government had selected that part of the country to have all the Chippewas removed there, and Sandy Lake would be the Agency, he told them.

Kichi-mah-in-gun—big wolf—who was head chief of the lake de Flambeau, and Chippeway River, Chippewas stood up and said, we are all of one mind, we will not remove, we cannot leave our part of the country, where we have always lived, where our forefathers lived and died. We do not like Sandy Lake, nor this part of the country, we will never come to Sandy Lake for our annuities. The removal was a failure.

My brother, Truman A. Warren came for us in December with two-one horse trains, one driven by himself and the other by an Indian. We parted from our kind friends at Sandy Lake. I remember we camped one very cold night, as we traveled down the Mississippi to Gull Lake where I stopped for a few days at my brother's home. Then went to fort Riply to visit my sister, Mrs. Price whose husband was employed in the fort. I remained with them until spring, when Mr. Price moved down to St. Paul, I went with them.

I lived in St. Paul nearly two years in eighteen fifty-one and two. In the morning of the 1st of June 1853 my brother William W. Warren died very suddenly at my sister's home in St. Paul. He was returning from New York, where he had been to have his book published "History of the Chippewa Nation."

"We are all of one mind, we will not remove, we cannot leave our part of the country, where we have always lived, where our forefathers lived and died."

—Kichi-mah-in-gun, head chief of the lake de Flambeau, and Chippeway River, Chippewas

Lake Superior sturgeon population gets boost from Red Cliff hatchery

By Charlie Otto Rasmussen, Writer/Photographer

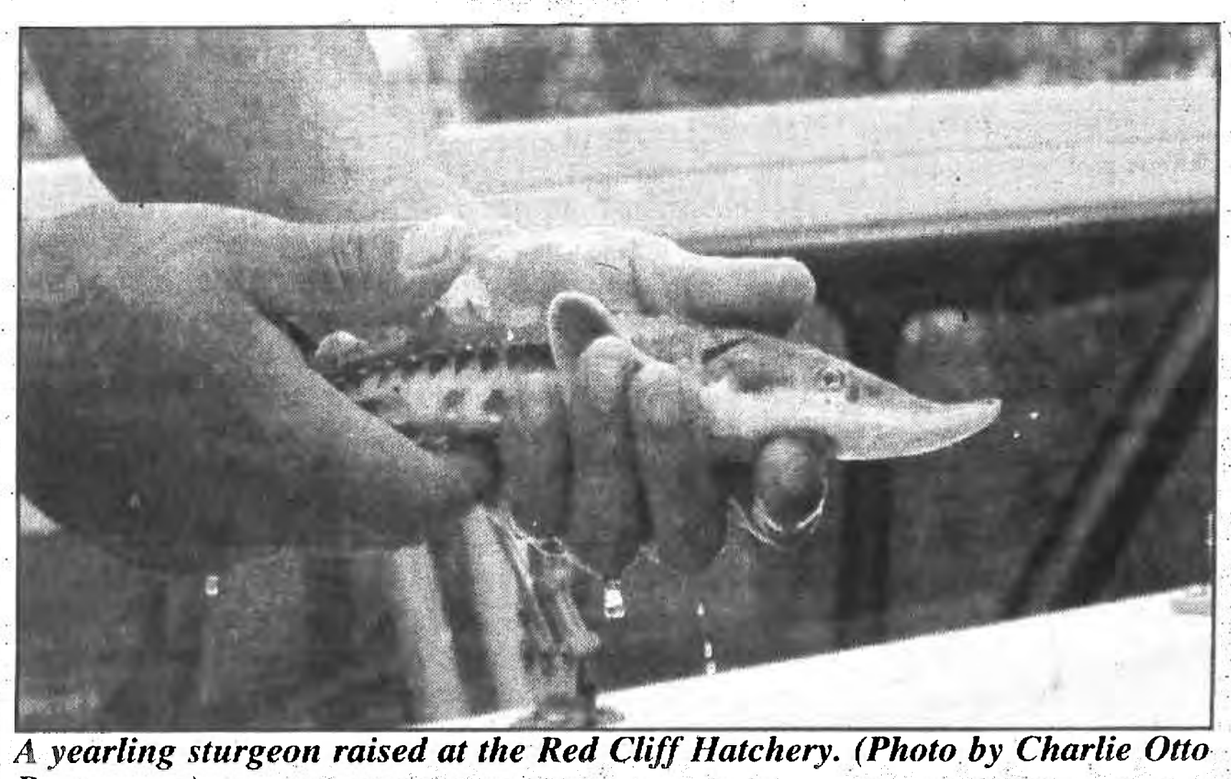
Red Cliff, Wis.—Red Cliff Hatchery Manager Greg Fischer knew that lake sturgeon were tough. After all, the 100-million-year-old species has outlived the dinosaurs. But after a broken pipe sent a spout of fingerlings onto the cement hatchery floor, he understood the true grit of the ancient fish.

"They just swam around on the floor until we were able to pick them up. We didn't loose a single fish," Fischer said. "Now if that had happened to walleye or trout, we probably would have lost them all."

Despite their apparent hardiness, sturgeon populations in Ojibwe Country—as well as around the globe—have suffered from habitat alterations, pollution, and overharvest. Like many wildlife species, North American lake sturgeon (*name* in Ojibwemowin) became a commercial commodity after European settlement and experienced intense fishing pressure. Eggs were coveted for making caviar, and the meat was popular table fair, fresh or smoked.

Over the last decade, fisheries managers in the Lake Superior region have recognized the need to actively support sturgeon populations. While habitat preservation is key to long-term sturgeon survival, experts agree that additional research and experimental propagation are vital to rehabilitate the region's largest fish species.

Along with the Bad River Band, Red Cliff teamed up with the U.S. Fish & Wildlife Service (USFWS) on a three-year lake sturgeon research project beginning in 1999. Tribal and federal biologists collected and spawned eggs from the Bad River, around 20 miles upstream from Lake Superior. Last year, the two tribal hatcheries stocked 23,000 sturgeon fry in the Bad River, followed by several thousand six to eight-inch fingerlings which were microtagged behind the dorsal fin. The tag is detectable with a hand-held reader enabling survey crews to monitor the fish in coming years. The Great Lakes Indian Fish & Wildlife Commission, USFWS, and other agencies that conduct fisheries surveys on Lake Superior are expected to utilize the microtag reader to detect marked fish, Fischer said.



A yearling sturgeon raised at the Red Cliff Hatchery. (Photo by Charlie Otto Rasmussen)

Red Cliff kept 120 fish at the hatchery from the 2000 year class to test the viability of rearing sturgeon in a recirculation system. Unlike conventional water systems which require a steady flow of fresh groundwater, recirculation systems filter and reuse the same water in hatchery tanks, saving both water and energy.

"It's the future of sturgeon raising," Fischer said. The fish did very well in the experimental system and in June 2001, the yearling sturgeon were released into the Bad River.

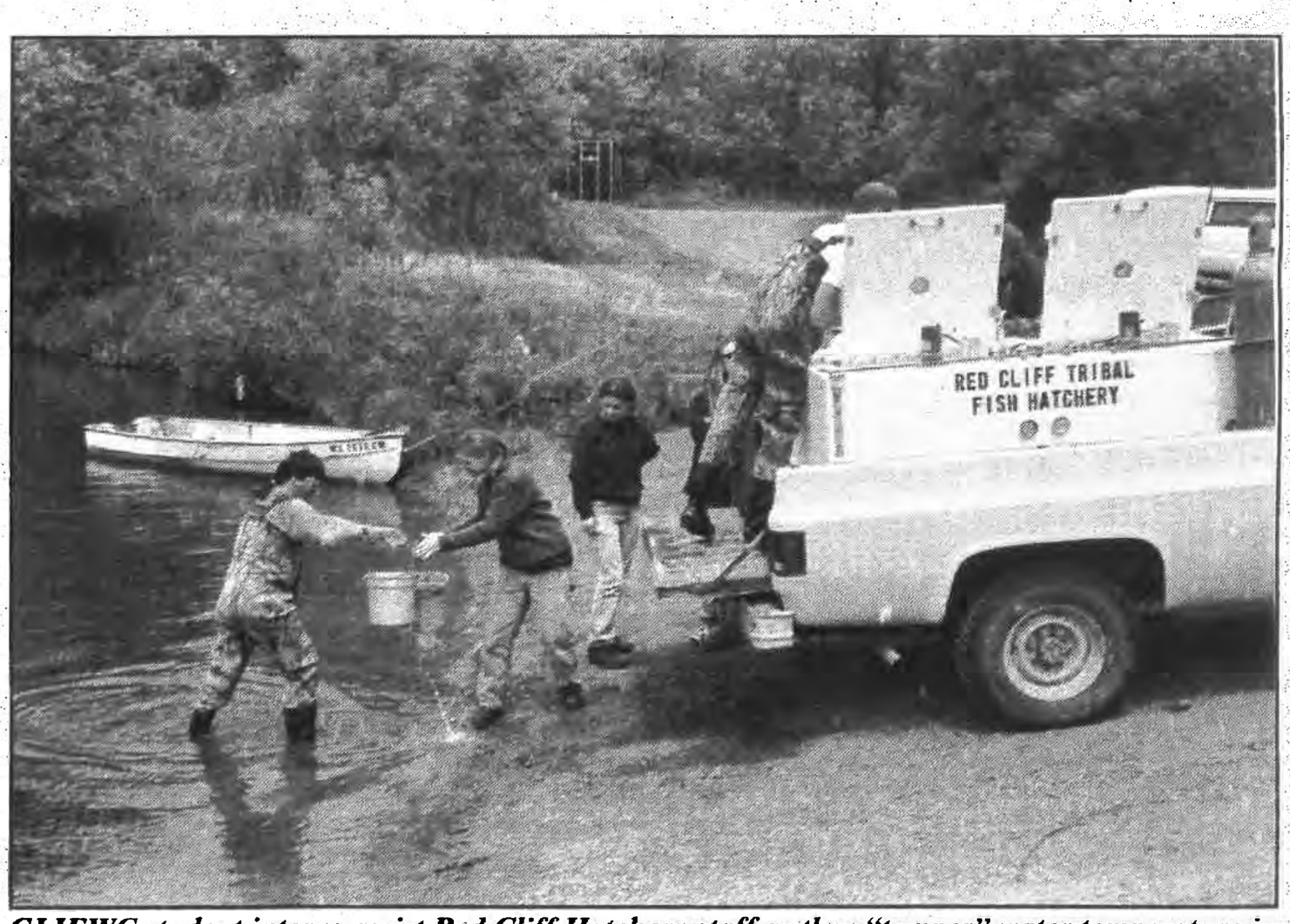
Now that the inter-agency research project is winding down, the future of sturgeon culture at Red Cliff is tenuous. Fischer said raising sturgeon is a difficult and time-consuming venture. Budget restraints make it cost-prohibitive to incorporate sturgeon into the regular line-up of walleye, and coaster brook trout. The energy required to heat frigid well water from 45 up to 65 degrees—let alone pump it—racks up a hefty power bill. And unique feeding requirements add to the expense. Try serving sturgeon your ordinary fish chow pellets, and you'll have a hunger strike in the making.

"Plankton is the natural food for newly hatched sturgeon," Fischer explained. "For twenty or thirty thousand fish, we can't produce enough natural plankton. Sturgeon do accept brine shrimp from Utah's Great Salt Lake, but it's become very expensive."

To insure the success of their investment, Fischer and his staff pulled 24-hour shifts to monitor the brine shrimp hatch in a Red Cliff incubator and to feed hungry sturgeon. At seven to ten days old, tiny lake sturgeon have consumed their yoke sac and feed voraciously for the next several weeks.

While they are a demanding fish to raise, Fischer looks forward to working with sturgeon again in the future.

"Now that we have some expertise in raising lake sturgeon, we plan on contracting with other agencies to produce fish," Fischer said. "We specialize in working with native species that have cultural and traditional values to Ojibwe people. Quality is much more crucial than quantity."



GLIFWC student interns assist Red Cliff Hatchery staff as they "temper" water temperature in holding tanks containing yearling sturgeon. After the fish acclimated to the water, hatchery staff released them into the Bad River near Odanah. (Photo by Charlie Otto Rasmussen)

Keweenaw Bay to host HACCP Seafood Safety training

Baraga, Mich—The Keweenaw Bay Indian Community, Michigan State University Sea Grant, and Great Lakes Indian Fish and Wildlife Commission (GLIFWC) are working together to sponsor a Seafood Safety training workshop, from August 28-30, 2001 at the Ojibway Resort and Motel in Baraga, Michigan.

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

- ✖ complete a HACCP training program
- ✖ develop and adopt a HACCP plan to fit the specific needs of a processor
- ✖ reassess and modify the plan annually as the result of verification activities
- ✖ maintain and review adequate HACCP records.

The new HACCP regulations will impact tribal fish processing operations, tribal fishermen processing and selling their harvest through their own filet markets, or tribal fishermen smoking and selling fish.

It is important to realize that the use of HACCP to improve fish safety and quality is also market driven.

As time goes on, more and more fish buyers are likely to ask fishermen if they are "HACCP Certified." Completing HACCP training and obtaining a certificate is one way to both protect and improve fish markets in the future.

Often wives, sons, and daughters process fish, maintain coolers, smoke fish, run sales routes, and keep business records. Their attendance at the Keweenaw Bay HACCP seafood safety training session is welcome and should be helpful as tribal members build their family businesses.

The HACCP Seafood Safety training session will consist of a basic three-day course covering seafood safety, basic HACCP principles, developing HACCP plans, and record keeping requirements.

Anyone wishing to attend the Keweenaw Bay HACCP training session must register with Ron Kinnunen, Michigan Sea Grant, at (906-228-4830) by August 20, 2001. This registration is needed so books can be ordered and information packets prepared.

Please provide Ron with your name, address, phone number, and tribal affiliation. Cost for the three-day Hazard Analysis Critical Control Point class is $100.

Mapping of Lake Superior fish spawning and nursery areas

By Esteban Chiriboga, GLIFWC GIS Mining Assistant

Madison, Wis.—The Great Lakes Indian Fish and Wildlife Commission (GLIFWC) is committed to the preservation of Lake Superior fish habitat. These habitats sustain the fisheries that are such an important part of tribal culture and economy.

In recent years, fisheries have been adversely affected by over-fishing, pollution, invasion of exotic species, and destruction of habitat. These problems have contributed to a decline in fish harvests throughout the lake.

In order to prevent a continuing decline of fish harvests and habitat loss, GLIFWC is using a Geographic Information System (GIS) to identify known spawning and nursery areas of Lake Superior fish.

The GIS data can then be used to create maps of Lake Superior spawning sites. These maps will be valuable tools to identify important and endangered habitat areas and to develop strategies to preserve these locations.

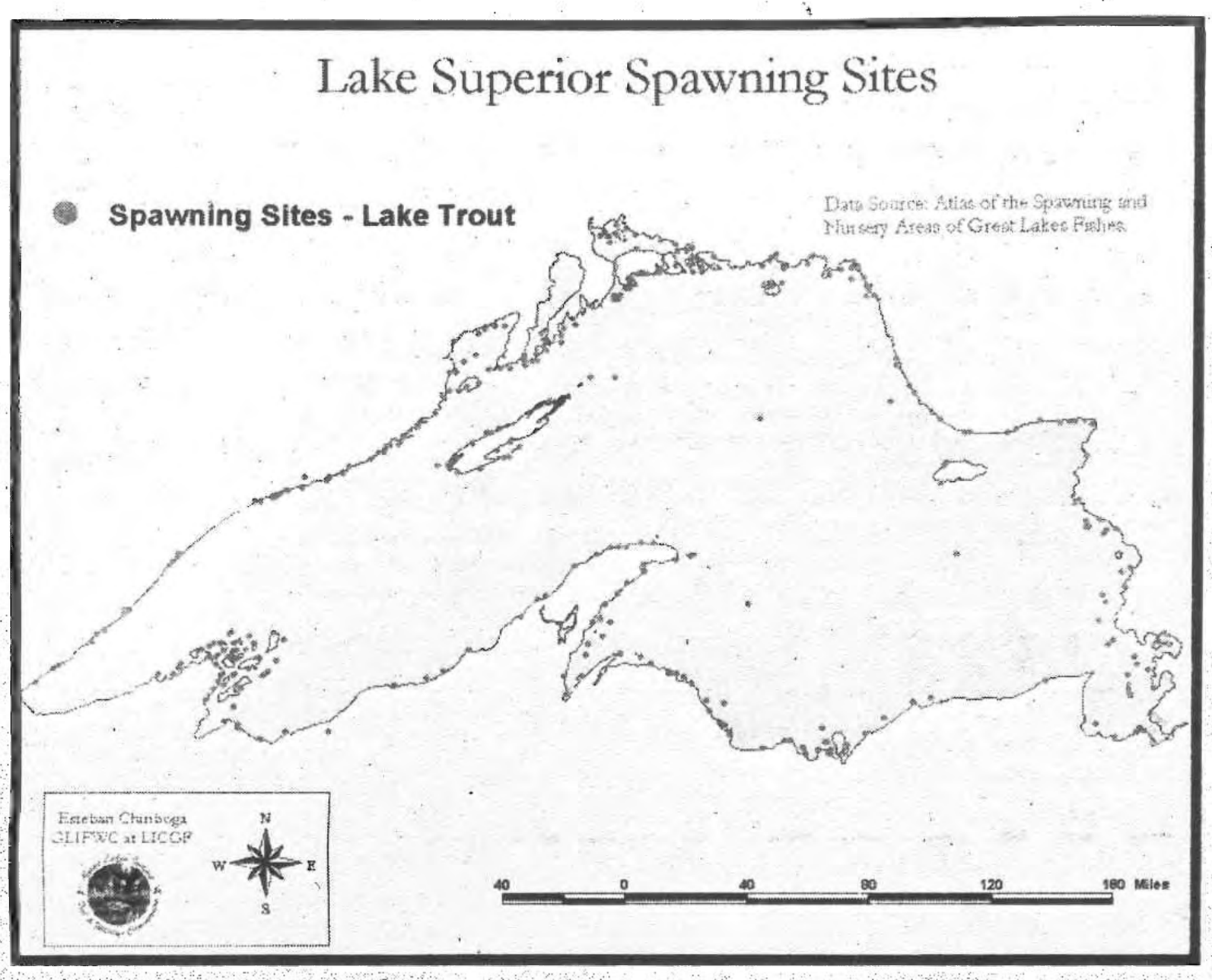
GLIFWC staff, working at the Land Information and Computer Graphics Facility (LICGF) in Madison-Wisconsin, have mapped 1566 spawning sites in Lake Superior. Each of these sites is used by at least one of 46 fish species, which include lake whitefish, lake trout, lake sturgeon, and the exotic sea lamprey.

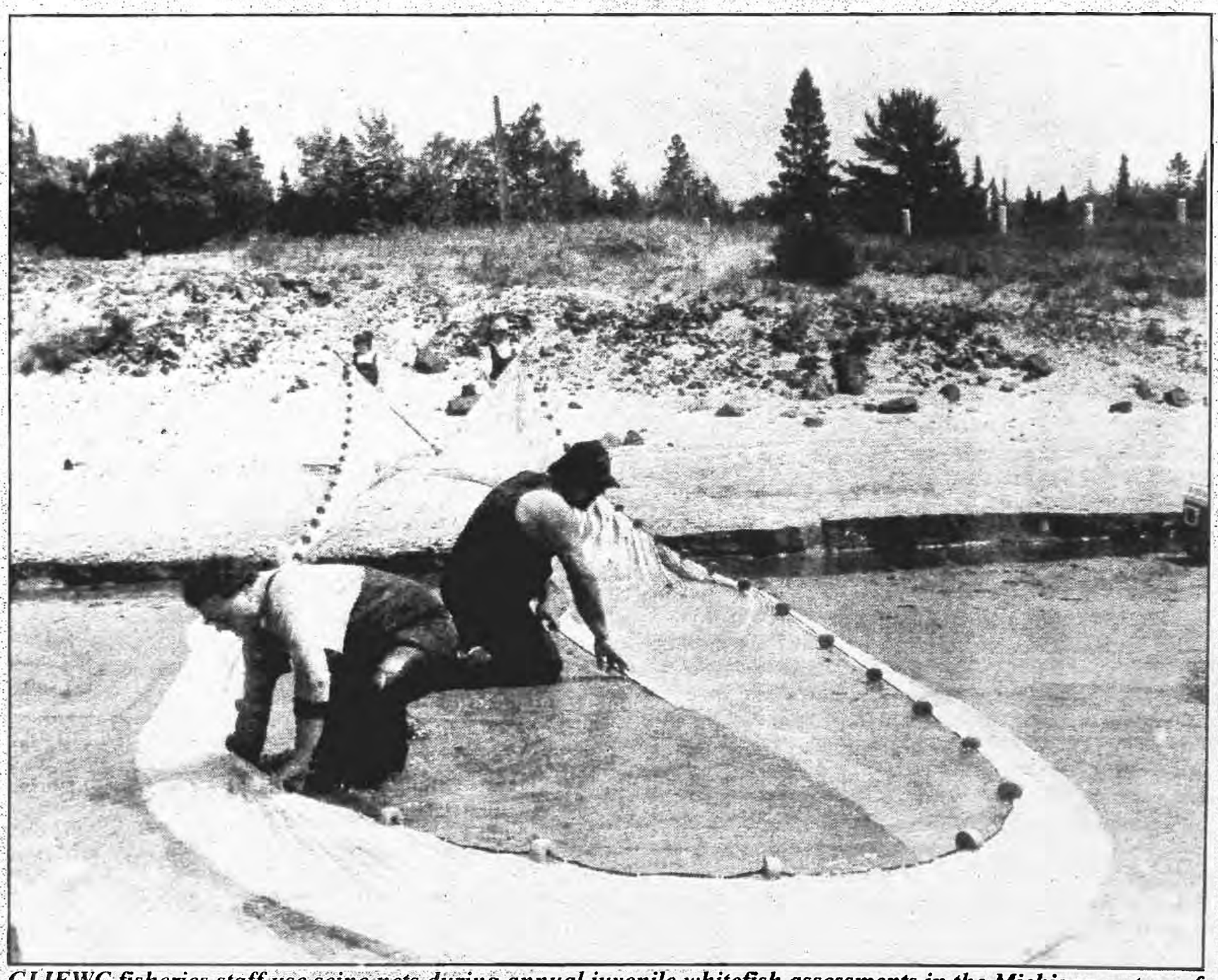
The spawning and nursery areas are documented in the *Atlas of the Spawning and Nursery Areas of Great Lakes Fishes*, Volume II, Lake Superior (Goodyear et al. 1982). Additional information compiled for this project includes navigation routes, lake bathymetry, and the lakes and rivers of the Lake Superior watershed.

Maps depicting the data generated during this project will be produced at two scales. First, a series of lake-wide maps will be used to show the distribution of important habitat across the entire lake. Second, 41 detailed scale maps will give more precise information on the location of the spawning sites. These maps can then be used to identify individual sites where further research may be needed.

The Lake Superior spawning and nursery locations will be made available to tribal, federal, and state natural resources agencies, as well as the general public, through GLIFWC's internet map server. This will allow all concerned parties to view information for any of the 46 fish species in combination with all other gathered information (ie. Bathymetry, rivers, etc.)

This project, funded by the Environmental Protection Agency – Great Lakes National Program Office, will provide important information that will help define future tasks that are needed to ensure the continuing health of the Lake Superior fishery.





GLIFWC fisheries staff use seine nets during annual juvenile whitefish assessments in the Michigan waters of Lake Superior. Above, Bill Mattes, Great Lakes Fisheries section leader, and Mike Plucinski, Great Lakes Fisheries technician, guide a net to prevent the small fish from escaping as summer interns, Abby LaBarre and Brandy Cheatham, slowly pull it into shore. (Photo by Thea Konstantinidis)

Omega-3s can calm an irregular heartbeat

Eating more fish may help regulate an irregular heartbeat, doctors at the 17th World Congress of the International Society for Heart Research were told in mid-July.

Dr. Alexander Leaf, a professor emeritus at Boston's Harvard University, said foods rich in omega-3 fatty acids can stop arrythmia before it triggers sudden death from heart attacks.

That makes fish such as salmon as potentially potent as any high-tech heart drug and considerably cheaper to stock up on, Leaf told a symposium of some of the 1,700 scientists and doctors from 70 countries.

Omega-3 acids are already touted for their benefits in lowering cholesterol levels.

Clinical trials to test out substitutes for fish oils are about to start in Winnipeg.

Dr. Grant Pierce at the St. Boniface General Hospital Research Centre's Cardiovascular Institute said his team is about to launch a study of 90 people over three months to test the heart effects of canola oil and flaxseed oil.

"Let's compare them," Dr. Pierce said, adding it could be that people don't eat the fish they need because they don't like the taste.

Australian scientist Dr. Peter McLennan with the University of Wollongong said the discovery that omega-3 oils can improve irregular heartbeats was first made in Canada.

*(Reprinted from **The Canadian Press**.)*

Great Lakes fishery crew head to the big lake for siscowet assessments

Find increased lamprey wounding rate

By Sue Erickson
Staff Writer

Odanah, Wis.—A deep-water relative of the popular Lake Superior lake trout is the siscowet, or fat trout, also native to the big lake and a species harvested by treaty commercial fishermen.

Annual siscowet assessments bring the Great Lakes Indian Fish and Wildlife Commission (GLIFWC) fishery crew out of the rivers from lamprey population assessments back into Lake Superior during July.

Starting at dawn, crew members often work twelve-hour days by the time nets have been lifted, reset, and samples taken and stored for assessment purposes.

An abundant species in Lake Superior, the siscowet is a big player in the Lake Superior fish community. Biologists believe it is important to understand the species, and are gathering relevant biological data.

The goal is to create a viable population estimate on the species.

The Lake Superior Technical Committee of the Great Lakes Fish Commission established a protocol for siscowet assessments.

The protocol calls for siscowet assessments in each Lake Superior fishery management unit every five years, says Bill Mattes, GLIFWC Great Lakes fishery section leader.

Management unit MI-3, which lies on the north side of the Keweenaw Peninsula, has been assessed every year since 1999 because of the exceptionally dense siscowet population in that unit.

2001 saw the third consecutive assessment of MI-3. The nets were set and lifted the next day, for a total of four nights in the unit.

The crew set a 2700-foot net, targeting all age groups of siscowet and the prey upon which they feed. The nets are set from shore out to an 800-foot depth, said Mattes. However, this summer they set nets at 829 feet, a record depth for GLIFWC siscowet assessments.

Assessment crews use 2-inch to 6-inch graded mesh assessment nets. The mesh size increases at 1/2-inch increments. The incremental increase in net mesh size allows the crew to catch siscowet of varying size and age groups.

Biologists take stomach samples for diet analysis; otoliths for aging; eggs to estimate reproductive rate, and measure relative abundance.

They also take note of both old and fresh lamprey wounds on the fish. This summer the wounding rate was nine wounds per one hundred fish for siscowet compared to about five per one hundred for the lake trout sampled this spring.

Levels of chlordane in siscowet, especially those 22 1/2 inches or over, have been a concern. However, Mattes believes those levels should be dropping, since the use of chlordane is now prohibited.

GLIFWC Great Lakes Fishery Section assessment crew includes Bill Mattes, section leader; Mike Plucinski, fishery technician; Brandy Cheatham, and Abby LaBarre, GLIFWC summer interns.

GLIFWC fisheries crew record biological data on the catch of Joe Newago, a Bad River commercial fisherman. Pictured above are Brandy Cheatham and Abbey LaBarre, both summer interns; Bill Mattes, GLIFWC Great Lakes fisheries section leader, and Joe Newago. (Photo by Thea Konstantinidis)

Gillnet selectivity

By Sue Erickson
Staff Writer

Odanah, Wis.—While the gillnet is frequently decried as an indiscriminate killer, fishermen can actually be quite selective of their catch using specific mesh sizes and sets.

The gillnet is a fishing device dating back before the time that Christ fished with his disciples and one traditionally used by the Ojibwe in the Lake Superior region. Nets were then constructed from strips of the inner bark basswood and cedar and nettle fibers.

Today's nets are made of monofilament line. Gillnets are considered passive fishing gear. They entangle fish by holding them within the mesh and are not actively moved by the fisherman, such as a fishing lure is.

They are called "gill" nets because the net's line slips back of the gill cover when the fish struggles to free itself and prevents escape.

Nets are designed to catch fish of a certain size. Consequently, fishermen select nets with mesh sizes that target the sought-after size and species. Since fishermen in Lake Superior largely target whitefish and lake trout, they commonly use a 4 1/2" mesh size.

Larger meshes allow smaller fish to swim through the net, and larger fish do not get entrapped by the mesh at all, unless by their teeth, says Bill Mattes, Great Lakes Indian Fish & Wildlife Commission, Great Lakes fishery section leader.

Generally, the girth of a fish caught in a mesh is 1 1/4 times the mesh perimeter. Fish more than 20 percent longer or shorter than the optimum length are seldom caught, Mattes says.

Other factors that improve gillnet selectivity include the location of the net, how the net is "hung," and how long the net remains in the water (the duration of the set).

In regard to location, a fisherman targeting lake trout in spring will set the net closer to the shore, for example, than if whitefish are targeted. Specific fish species have preferred aquatic habitats that vary by the season. Knowledge of fish habits helps fishermen set gillnets in locations that target specific species.

Nets can also be hung in the water in a manner that selects certain fish species. A net "hung on the half," for instance, shapes the mesh into a diamond rather than a square or a rectangle. A "hung on the half" set targets a torpedo-shaped fish, such as whitefish, Mattes explains.

The duration of the set also influences selectivity. The longer the net is left in the water, the chance of catching unwanted species increases.

Used properly, the gillnet is both an efficient and a selective form of fishing gear. However, if nets are cut loose from their buoys and allowed to float freely in the water, they can become a lethal and indiscriminate killer. Selectivity provided by the location, the type of set, mesh size and the duration of the set are removed. This is not to mention the waste of fish that rot in unretreived nets.

Mattes notes that treaty gillnet fishermen fish under codes and quotas. Quotas for tribal and state harvest of lake trout are established through state-tribal technical working committees.

The gillnet fishery is monitored by tribal conservation officers and biologists and also by state conservation wardens.

A siscowet trout was pulled up before it could finish dinner. Bill Mattes, Great Lakes fisheries section leader, and his crew completed several weeks of siscowet population assessments in the Michigan waters of Lake Superior this summer. (Photo by Thea Konstantinidis)

GLIFWC crews find lamprey numbers up in tributary rivers

By Sue Erickson
Staff Writer

Odanah, Wis.—After donning waterproof gear two members of the Great Lakes Indian Fish & Wildlife Commission's (GLIFWC) lamprey control crew disappear one by one behind the foamy wall of a Middle River waterfall. Tucked in a narrow gap between rock wall and falling water are lamprey traps set by the crew the previous day.

In a short time, they emerge from the watery crevice, carefully toting a large, rectangular lamprey trap along the slippery path. Opening the trap, they find and remove only five, squirming sea lampreys.

The exotic fish reveals few redeeming qualities. The slimy, gray, eel-like creature sports a round mouth, packed with tiny, spike-like teeth—the perfect suction device for this parasite's hold on native fish species like Lake Superior's lake trout.

The crew once again disappears behind the waterfall to replace the trap and retrieve another. Four traps were ritually checked and replaced. A total of 23 lampreys were retrieved, indicating the height of the run up the Middle River was nearly done.

During the height of the season, the traps were chock full of writhing lampreys, as many as 350 in one day, and the monitoring operation could consume many hours recording biological data.

Each lamprey caught is measured, sexed and checked for tags. It's the retrieval rate of previously tagged lampreys that is the basis for population estimates. Tagged lampreys are released, and untagged lampreys are killed after data has been taken.

GLIFWC has been working with the U.S. Fish and Wildlife Service's Sea Lamprey Control Program since 1986. Crews generally work lamprey traps set on six rivers during the months of May and June.

According to Bill Mattes, GLIFWC's Great Lakes fisheries section leader, lamprey numbers have been on the rise for the past couple of years. In fact, in 2000 the number of spawning lampreys was over 200 percent higher than what was seen in the previous decade.

While not an encouraging bit of news, Mattes also says that sea lamprey populations appear to cycle every three to four years, and this year's trap catch is about 40 percent lower than last year's, indicating that lamprey numbers may be on the decline once again.

It was in the 1970s that Lake Superior's lake trout population was nearly decimated by the imported species, brought into the Great Lakes in ships' ballast water.

Like other exotic species that arrive in the region, sea lampreys have no natural predators, so they quickly became abundant.

Lampreys swim up river to spawn. Hatched lampreys, or larval lampreys remain in the river for about three years before reaching adulthood and returning to the lake. In their natural cycle, lampreys die after spawning.

The adult lampreys remain in the lake, feeding off native fish species for one to two years before returning up river to spawn. Using their suction cup mouth, they attach to the side of the fish and feed off the body fluids. One adult lamprey will kill 10 to 20 pounds of fish in their lifetime. The current lake trout wounding rate by lampreys is six, or six marks per 100 fish observed. This compares to a wounding rate of five in the years 1986-2000.

Few lampreys fall victim to predators during the larval stage in the rivers, Mattes says, because the larval lampreys are beneath the river's bed, so remain unseen.

Lamprey populations have been checked over the past three decades by use of lamprey barrier dams in tributary rivers that prevent the lampreys from reaching spawning beds. Also, use of lampricides, or chemical treatments in heavily populated rivers, has been effective, but costly. The chemical used is designed to affect lampreys; however, the general public is suspect of chemical treatments, so lampricide use remains controversial.

In 2001 GLIFWC crews trapped lampreys in the Firesteel, Misery and Silver Rivers in Michigan and the Bad, Middle and Amnicon Rivers in Wisconsin. All are tributaries to Lake Superior and used by spawning sea lampreys.

GLIFWC's crews compose only one segment of a larger scale lamprey control effort. The USFWS crews and the Wisconsin Department of Natural Resources (WDNR) also set lamprey traps.

In 2001 the WDNR set traps on the Brule River in Wisconsin and the USFWS trapped the Tahquamenon, Betsy, Miners, Rock, Chocolay, and Big Garlic Rivers and Furnace Bay Creek, all Lake Superior tributaries.

Abbey LaBarre, GLIFWC summer intern, and Mike Plucinski, GLIFWC Great Lakes fisheries technician prepare to reset a lamprey trap in the Bad River. (Photo by Thea Konstantinidis)

Abbey LaBarre, summer intern with the Great Lakes Fisheries Section keeps a firm grip on a slippery, writhing lamprey. Biological data is recorded on trapped lampreys in order to obtain population estimates in tributary rivers of Lake Superior. (Photo by Thea Konstantinidis)

Mussels migrating northward

European invader found in Crandon-area lake

By Peter Rebhahn, Press-Gazette

Green Bay, Wis.—The zebra mussel, a tiny European invader slowly moving inland from a beachhead in Lake Michigan, has turned up in Lake Metonga near Crandon.

"This is the first sighting that far north," said Ron Martin, exotic species coordinator for the state Department of Natural Resources (DNR).

The previous northernmost penetration of zebra mussels known in Wisconsin's inland waters was the Mississippi River in St. Croix County. DNR biologists monitoring zebra mussels had identified 25 inland lakes and streams with established populations through June.

Zebra mussels colonize new waterways by hitching rides on boat hulls, live wells, and engine compartments—anyplace water collects. Because they reproduce in prodigious numbers, the mussels out-compete native species and threaten to upset the ecological balance of waters they invade.

"Yes, we're concerned, being a bait shop owner," said Angie Blasius, co-owner of Northern Sports Shop in Crandon. "That lake gets a lot of traffic. "

Martin said the effects of zebra mussels on inland lakes like Lake Metonga are still largely unknown. But he said DNR managers predicted in the mid-1990s the inevitable spread of zebra mussels inland as fishermen and recreational boaters inadvertently carried them to new waters.

"So it wasn't totally unexpected," he said.

The bay of Green Bay has the state's highest concentration of zebra mussels.

"I know a number of our members are from the Green Bay area, and I'm sure if they fish in that area there's a potential for them to bring it onto our lake here," said Les Schramm, president of the Lake Metonga Association, a group of homeowners on and near the lake.

But the source of the invasion will never be known, Schramm said. The Forest County park with more than 50 campsites and a boat launch at the southern end of the 2,157-acre lake attracts lots of visitors.

"The folks who come there to camp and bring their boats could pretty much come from anywhere," Schramm said.

Only a few specimens of zebra mussels have turned up on the lake so far. But given the mussel's track record, that will probably change soon, Martin said, adding that, once established, they're here to stay.

"There's nothing you can do," he said.

(Reprinted from Green Bay Press-Gazette.)

GLIFWC builds data base on Mille Lacs Lake juvenile walleye

By Joe Dan Rose, GLIFWC Inland Fisheries Biologist

Juvenile walleye surveys at Mille Lacs Lake

Odanah, Wis.—In late May and early June, Great Lakes Indian Fish & Wildlife Commission (GLIFWC) fisheries assessment crews conducted post-spawning electrofishing surveys for 1, 2, and 3 year old (juvenile) walleye at Mille Lacs Lake in Minnesota.

These surveys are part of an ongoing GLIFWC effort to develop a better understanding of the Mille Lacs Lake walleye population and fishery. While it will take a number of years to fully develop this data series, these GLIFWC surveys may eventually identify a correlation between electrofishing catch rates and walleye year class strength.

Since juvenile walleye represent the future, data collected from these surveys might improve the collective ability of state and tribal fishery biologists to predict and analyze adult population trends.

Approximately 98% of the entire 78 mile shoreline of Mille Lacs Lake was surveyed, and a total of 2,250 juvenile walleye were sampled. All fish were measured, and scale or spine samples were collected from a portion of them for aging purposes.

After being "worked-up," all fish were live-released back into Mille Lacs Lake. Similar surveys conducted by GLIFWC in 2000 yielded a sample of 992 juvenile walleye. While a comparison of these initial survey results appears to suggest a positive trend, it is important to remember that these surveys will need to be conducted for several more years before the strength and significance of this new data series can be fully realized.

In 1999 and 2000, GLIFWC also conducted fall walleye recruitment surveys at Mille Lacs Lake. These fall electrofishing surveys will be conducted again in September 2001.

Unlike the post-spawning juvenile surveys, the fall surveys occur late enough in the year to effectively sample young-of-the-year walleye (i.e those that were hatched during the spring of that year), which are important indicators of natural reproduction.

By conducting fall recruitment surveys annually, a data series can be developed that is useful for detecting trends in reproductive success over time. As with the post-spawning juvenile walleye surveys, all fish are live-released back into the lake after being worked-up by GLIFWC assessment crews.

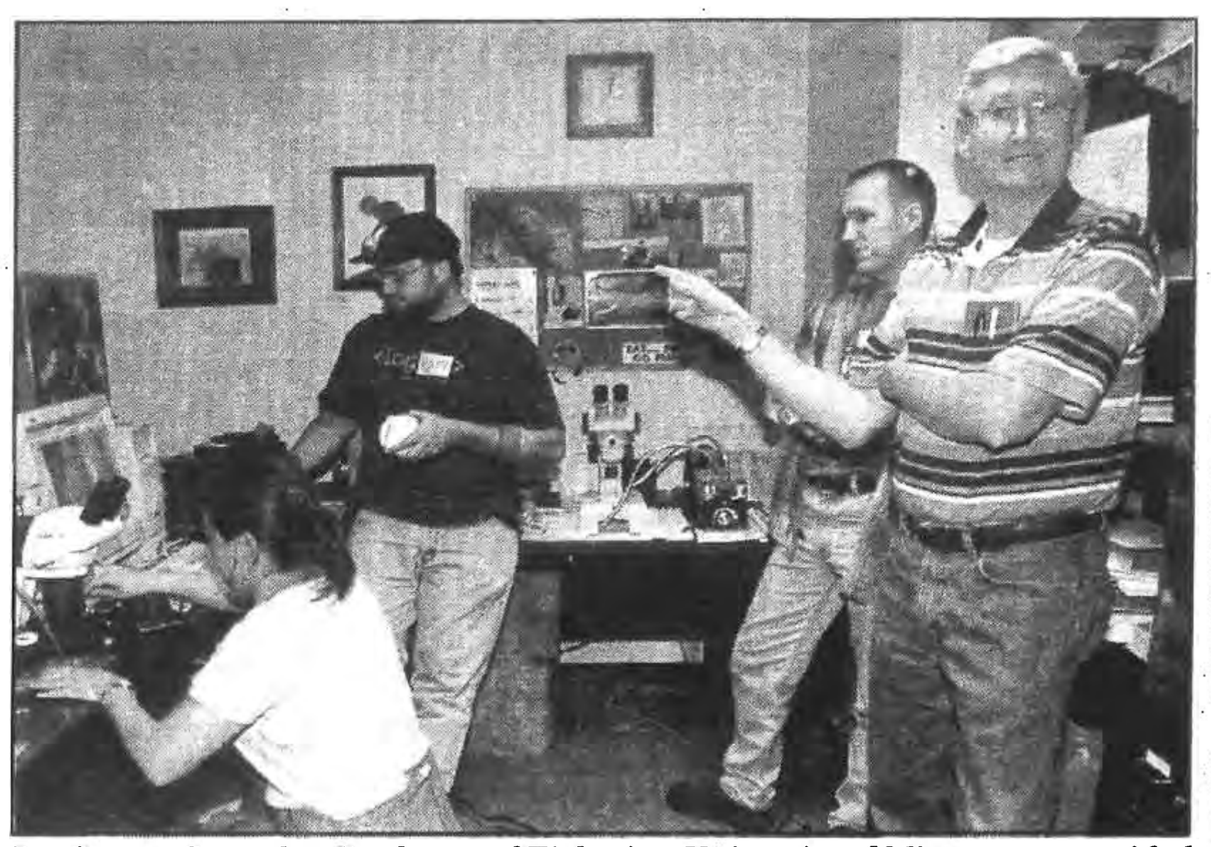
Aging walleyes harvested from Mille Lacs Lake

The interim Treaty Fisheries Management Plan (FMP) for the 1837 Minnesota Ceded Territory for the years 1998-2002 provides, among other things, basic guidelines for the collection of walleye aging structures (i.e. scales and spines) in conjunction with treaty harvest monitoring activity.

The data collected through treaty harvest monitoring activity are used to keep a running total of the exact number and pounds of fish harvested by the Bands, including those species that are regulated by harvest quotas or caps.

Sex, age, and size data are also collected from a large portion of these harvested fish. This data is subsequently used as a basis for describing the sex, age, and size composition of the entire harvest.

These types of data are especially important at Mille Lacs Lake, where they are incorporated into the various statistical models used by state and tribal biologists to guide the development of annual walleye harvestable surplus levels.



Dr. George Spangler, Professor of Fisheries, University of Minnesota, provided an otolith aging workshop for GLIFWC fisheries staff this summer. An otolith viewed under the microscope is also displayed and enlarged on a computer screen so biologists can determine age through the number and types of seasonal markings on the otolith. (Photo by Sue Erickson)

In an effort to refine and improve the efficiency of their aging techniques, GLIFWC biologists have begun to explore the feasibility of using otoliths (i.e. bone-like structures found in the head of fishes) along with scales and spines for determining the age of certain sizes of fish.

Although the FMP does not require the collection of walleye otoliths from treaty harvested fish, GLIFWC biologists have been working with select tribal fishermen to coordinate the collection of otolith samples from walleye that were harvested from Mille Lacs Lake.

While walleye scale and spine samples are relatively easy to take, the collection of walleye otoliths is a much more intrusive and time consuming procedure since they are located inside the skull of the fish.

Because of this, GLIFWC biologists devised a system to collect walleye otoliths from cooperating tribal fishermen after they had finished cleaning their fish rather than beforehand or during harvest monitoring.

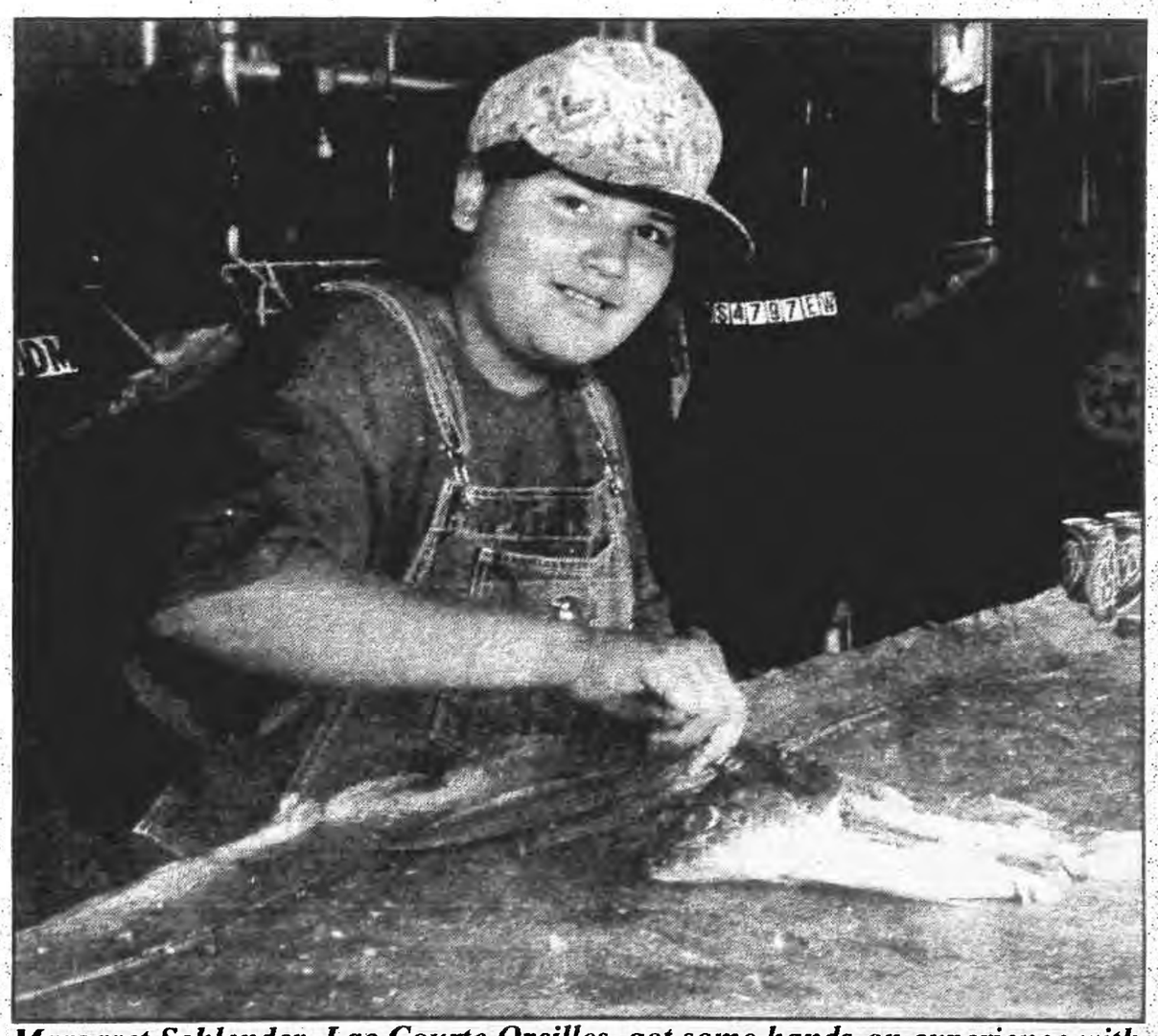
This system worked well and provided GLIFWC biologists with approximately 200 otoliths from a representative cross-section of walleye that were harvested from Mille Lacs Lake during spring 2001. Spine samples were also collected from these fish, thereby enabling GLIFWC biologists to directly compare the results obtained from both aging structures.

In addition to collecting aging structures for this study, GLIFWC harvest monitoring teams also continued to collect aging structures in accordance with basic FMP requirements.

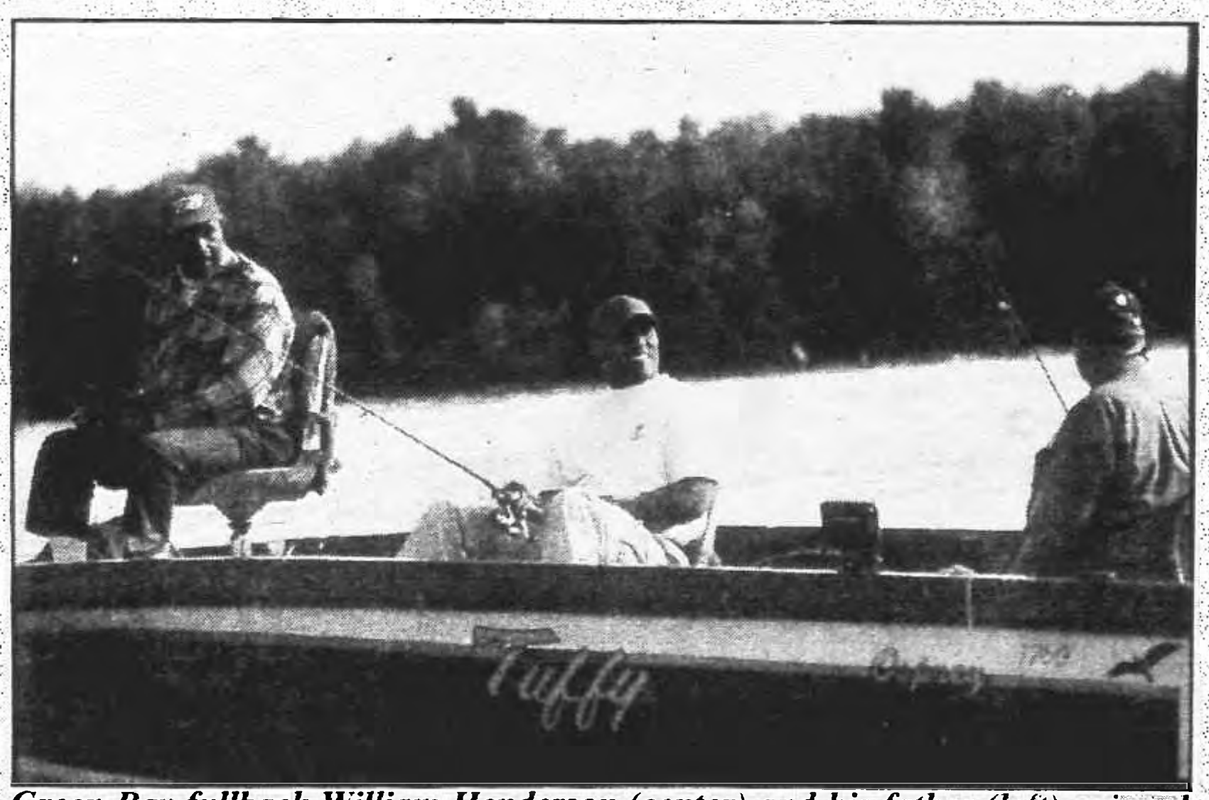
GLIFWC plans to complete its examination and interpretation of aging structures by fall 2001. As mentioned earlier, these results will be used as a basis for describing the composition of the spring harvest.

The resulting data will also be analyzed in an effort to determine whether spines or otoliths are better suited for aging particular sizes of fish. This may eventually lead to improvements with the overall precision and efficiency of age data collection.

Data and information such as this are routinely exchanged between state and tribal fisheries biologists through the Minnesota 1837 Ceded Territory Fisheries Technical Committee as part of an ongoing effort to better understand and manage shared ceded-territory fisheries resources.



Margaret Schlender, Lac Courte Oreilles, got some hands-on experience with inland fisheries this summer. She assisted GLIFWC biological staff extract otoliths (structure of a fish's inner ear) from Mille Lacs walleye in conjunction with the spring assessment work. (Photo by Sue Erickson)



Green Bay fullback William Henderson (center) and his father (left) enjoyed guided fishing at the annual "Partners in Fishing" event May 30-31. This years' gathering of tribal, state and federal fisheries biologists was held at the Chippewa Flowage near Hayward, Wis. (Photo by Charlie Otto Rasmussen)

Plenty of safe fish to eat in Wisconsin lakes

Select by lake or size of fish

By Sue Erickson, Staff Writer

Odanah, Wis.—"We're finding plenty of fish safe for consumption. This includes women in their child-bearing years," says Kory Groetsch, Great Lake Indian Fish & Wildlife Commission (GLIFWC) environmental biologist. Groetsch coordinates GLIFWC's mercury testing program.

Groetsch stresses that consumers, especially those in sensitive brackets such as young children and women in childbearing years, can find plenty of fish if fish are selected by lake or by size of fish within a lake.

GLIFWC began intensively testing for mercury in walleye in 1996, although some testing has occurred since 1989, Groetsch says. Information from the testing is tabulated and presented as Geographic Information Systems (GIS) maps, which show lakes commonly used by tribal members and indicate by color code which sizes of walleye as well as lakes that are low in mercury.

GLIFWC attempts to test lakes on a five-year rotation and selects them on the basis of tribal use. This spring GLIFWC collected 298 samples of walleye, 49 of muskellunge and 12 of northern pike from 30 lakes, all to be tested for mercury contamination levels.

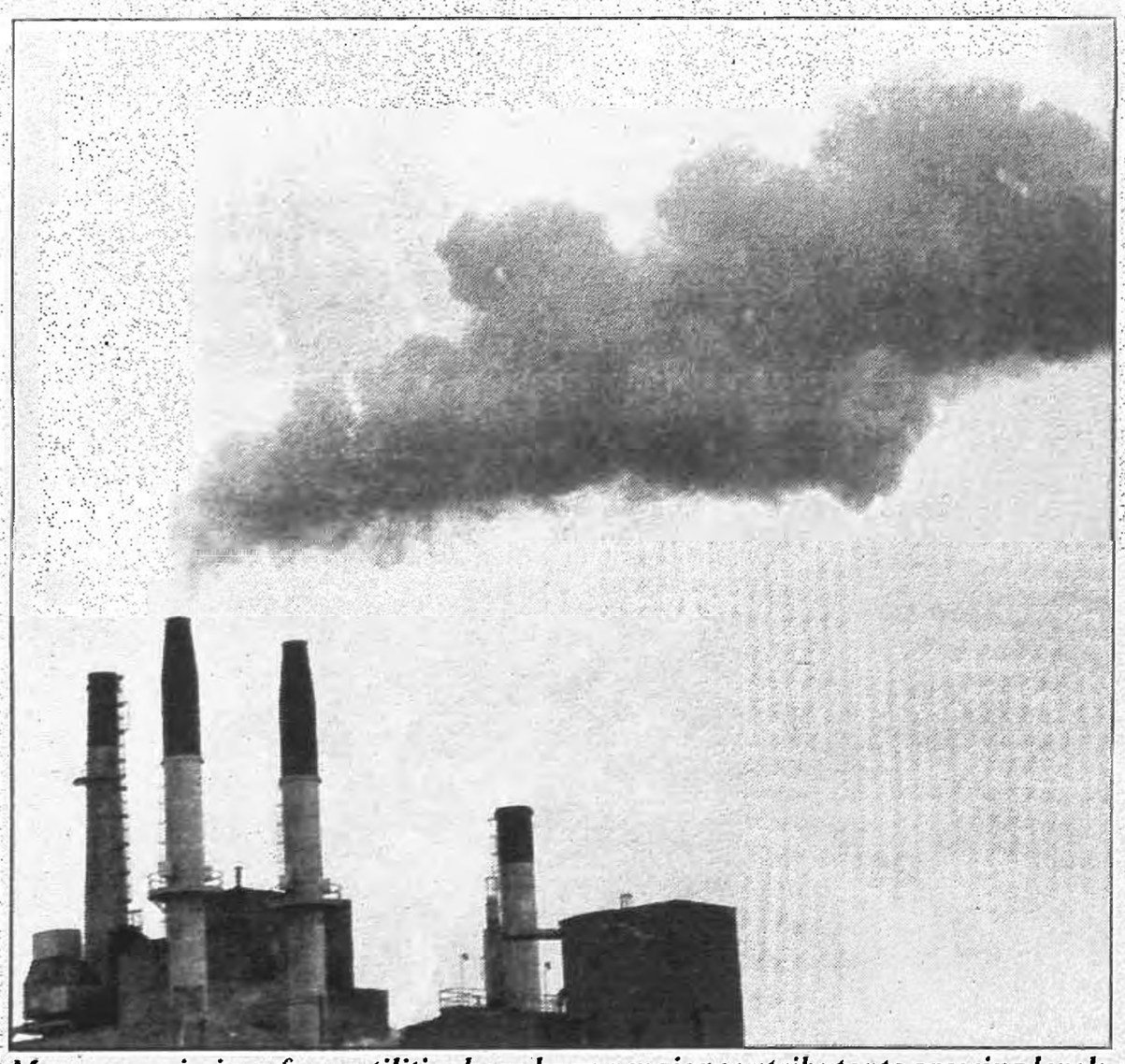
GLIFWC provides skin-off filets to the Lake Superior Research Institute's (LSRI) Environmental Health Laboratory for analysis. In the case of muskellunge, plugs (chunks) of a filet are sent rather than the whole filet.

Groetsch says that studies indicate tests of filet chunks are around 90 percent similar to tests of a whole filet, making the testing results on the muskellunge plugs reliable.

GLIFWC targets lakes used most commonly by tribal fishermen in the spring and collects samples from them during the spring spearfishing season. Actually, GLIFWC is in the unique position of having access to muskellunge for testing purposes. The state, reluctant to kill muskellunge for testing, has not been very successful in providing filets or plugs to test.

In 2000 five whole muskellunge filets were tested for mercury. Results indicate that muskellunge contain mercury at about the same level as other top predatory fish, such as northern pike, walleye and largemouth bass, Groetsch says.

Generally, the mercury level ranges from 0.2 to 1 milligrams of mercury per kilogram (ppm) of fish. The safety level for women in childbearing years and young children is considered 0.5 ppm and below in fish tissue. The Environmental Protection Agency (EPA) advisories limit women of childbearing years to one meal per week of fish containing 0.2 and advise against consuming fish with 1 ppm or over.



Mercury emissions from utilities have been a major contributor to growing levels of mercury in the environment. The Wisconsin Department of Natural Resources is proposing a new rule aimed at reducing mercury emissions from stationary sources. (Photo by Sue Erickson)

Using GLIFWC's mercury-in-walleye maps, tribal members can select lakes with low mercury levels for spring spearing harvest. This should take the worry out of fish consumption, especially when fish are consumed frequently over a short time span.

GLIFWC updates the mercury-in-walleye maps every two years. The newest maps reflect all GLIFWC's mercury data as well as data provided by the state of Wisconsin through 2000.

The maps are available to tribal members at GLIFWC registration stations on member reservations and plans are to also place them in on-reservation health care facilities.

GLIFWC participated in two input sessions at Mole Lake this spring, looking for suggestions from tribal members on how to more effectively present the mercury-in-walleye information. Groetsch says the meetings were very productive, and the suggestions were used to make the mercury-in-walleye maps more "user friendly."

Cadmium level study

A new project involving testing for levels of cadmium, a heavy metal, was launched in Big Lac Courte Oreilles (LCO) Lake this year. The project involves GLIFWC, the LCO Conservation Department and the Wisconsin Department of Natural Resources (WDNR).

High levels of cadmium found in the sediment of Big LCO Lake prompted LCO's concern about cadmium levels in the lake's fish. This spring samples were taken from walleye, muskellunge and northern pike.

The WDNR collected the samples for the study; GLIFWC processed the samples; and Lac Courte Oreilles is funding the testing at the LSRI Environmental Laboratory.

Groetsch says samples included both filets and organs, because, unlike mercury, cadmium ends up in the organs, such as the liver and kidney, rather than the muscle tissue.

Groetsch expects the testing to be completed this summer, but the results will not be available until December.

New WDNR rules would limit air emissions of mercury

Odanah, Wis.—At its June 2001 meeting the Wisconsin Natural Resources Board authorized the Wisconsin Department of Natural Resources to hold public hearings on a new rule package.

The rules would limit mercury emissions into the air from major electric utilities and set emissions ceilings for other large stationary sources. The rules would also require offsets for new and modified construction of major stationary sources.

The rules would require that baseline mercury emissions be calculated for any stationary mercury source emitting more than 10 pounds of mercury per year. This baseline would then be used as a maximum emission level for that source.

Within five years after the new rules go into effect mercury emissions would have to be reduced by 30%, within 10 years by 50%, and within 15 years by 90%.

Great Lakes Indian Fish & Wildlife Commission's (GLIFWC) Voigt Intertribal Task Force has authorized staff to accept a Department of Natural Resources invitation to participate on an advisory committee that will evaluate the rule proposal.

"This consultation will help facilitate, but will not replace, the government to government consultation between the tribes and the state on this important issue," noted Ann McCammon Soltis, GLIFWC Policy Analyst.

In 1992 GLIFWC's Board of Commissioners passed a resolution opposing new or increased discharges of mercury into the environment and supporting mercury reductions.

"The rule should be as stringent as possible in order to restore and protect the natural resources that can be and have been harmed by past and present mercury deposition," said Neil Kmiecik, GLIFWC Biological Services Director.

GLIFWC staff are in the process of analyzing the proposed rule in order to develop substantive comments.

Canadian and United States Healing Journeys link at border

Participants seek personal, social, environmental healing

By Sue Erickson
Staff Writer

Red Cliff, Wis.—Slightly past noon on June 26 the Wisconsin segment of the Healing Journey concluded on the Red Cliff reservation. A cooling breeze from Lake Superior fanned runners and walkers as they congregated for a closing ceremony, but it took the flicking of small branches and tails to keep the flies from chomping a chunk of flesh from people and horses.

On Day 6 of the journey, the core team runners and walkers were joined on the final miles into Red Cliff by three horses and riders and by Diane Defoe and her mother, Genny Goslin, Red Cliff. The Wisconsin segment began and concluded with a tribal elder in the lead.

The Wisconsin segment of the journey covered about 350 miles. It mirrored two other such journeys, the 1989 and 1990 Peace and Solidarity Runs, which linked Ojibwe reservations in Wisconsin and Michigan and focused on healing in the aftermath of hate-filled treaty, spring spearing seasons.

While the protests have quieted, many of the healing prayers carried throughout the 2001 Healing Journey addressed similar issues—racism, the need for unified and healthy communities, concern for Mother Earth, and the need for personal healing.

On June 27 the Wisconsin runners/walkers joined with Nelson Johnson, originally from Alkoli Lake—Esketemc First Nation, British Columbia and Marilyn Nelson, Roseaux River, Ontario, of the Canadian Healing Journey, which traversed 1600 miles from Alkoli Lake to the US/Canada border in Minnesota. Together Canadian and U.S. participants covered the 100 miles to the Red Lake reservation, arriving on June 28.

The Wisconsin journey began at the St. Croix reservation, close to the devastation of the recent tornado that swept through Siren, Wisconsin. While the journey's start was planned well before the natural disaster struck, it was an appropriate beginning for a journey focused on healing.

"The St. Croix tribe was very involved in helping their Siren neighbors— providing meals and assisting with rescue and clean-up," states core team walker Jim Schlender. "It was a time and a place where healing was actively taking place within the communities."

On the first morning of the journey, June 21, the core team—Betty Martin, Lac Vieux Desert, Neil Kmiecik, Standing Rock Lakota, and Jim Schlender, Lac Courte Oreilles—faced the first leg, from St. Croix to Lac Courte Oreilles, with only three people. They were delighted to be joined by Ben Rogers, St. Croix elder, who walked the first two miles following morning ceremonies. Later, two unexpected walkers joined to help cover about 45 miles.

The path of the journey connected seven Ojibwe reservations, including St. Croix, Lac Courte Oreilles, Lac du Flambeau, Mole Lake/Sokaogon, Bad River and Red Cliff in Wisconsin and Lac Vieux Desert in Michigan.

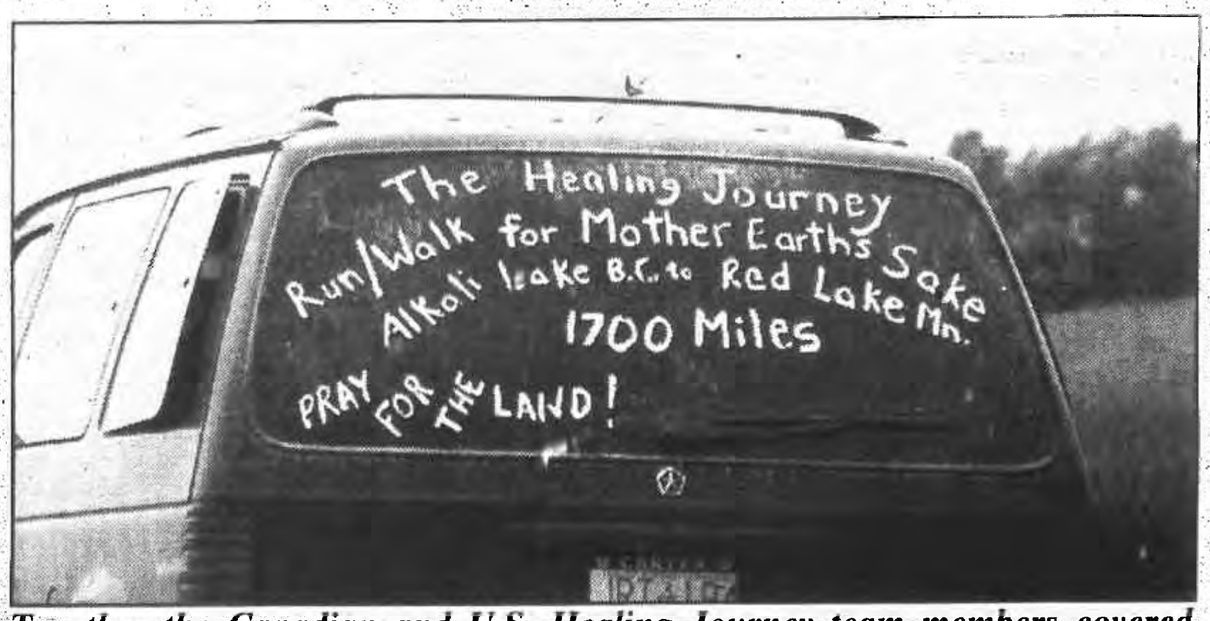
Runners and walkers carried a staff taken on the 1998 Waabanong Run to Washington, D.C. and the four Talking Sticks carried on the Mikwendaagooziwag Run from Sandy Lake to Madeline Island in December 2000.

Opening and closing ceremonies provided direction and a time to share thoughts and prayers each day. The journey carried many prayers.

During the initial ceremony at St. Croix, Neil related a teaching about healing that he heard during the 1990 Bigfoot Ride (Si Tanka Wokiksuye) in South Dakota to remember the tragic events at Wounded Knee 100 years earlier when Black Elk said the "Hoop of the Nation" had been broken.

"We were told one morning before starting out that day's journey, that for healing to occur, it had to start with the individual. Once healed, that person could help heal his/her family and extended family. Once a family was healed, then it could help heal a com-

(See **Healing, page 14**)



Together the Canadian and U.S. Healing Journey team members covered another 100 miles to the Red Lake reservation in Minnesota. (Photo by Jim Schlender)

Representatives from Bad River launch the last Wisconsin stretch of the Healing Journey from the Bad River Tribal Administration building to the Red Cliff reservation. Heading out to Highway 2 are Jackie Rose, tribal council member; Dave Parisien; Bad River Tribal Chairman Eugene Bigboy, and Delores Martin, GLIFWC secretary/receptionist. (Photo by Thea Konstantinidis)

On June 27, the Wisconsin Healing Journey met with their Canadian counterparts who had traveled from Alkoli Lake, British Columbia, to the Minnnesota-Canada border. Above is Nelson Johnson, Alkoli Lake—Esketemc First Nation. (Photo by Jim Schlender)

Crossing paths

An interlude on the Healing Journey

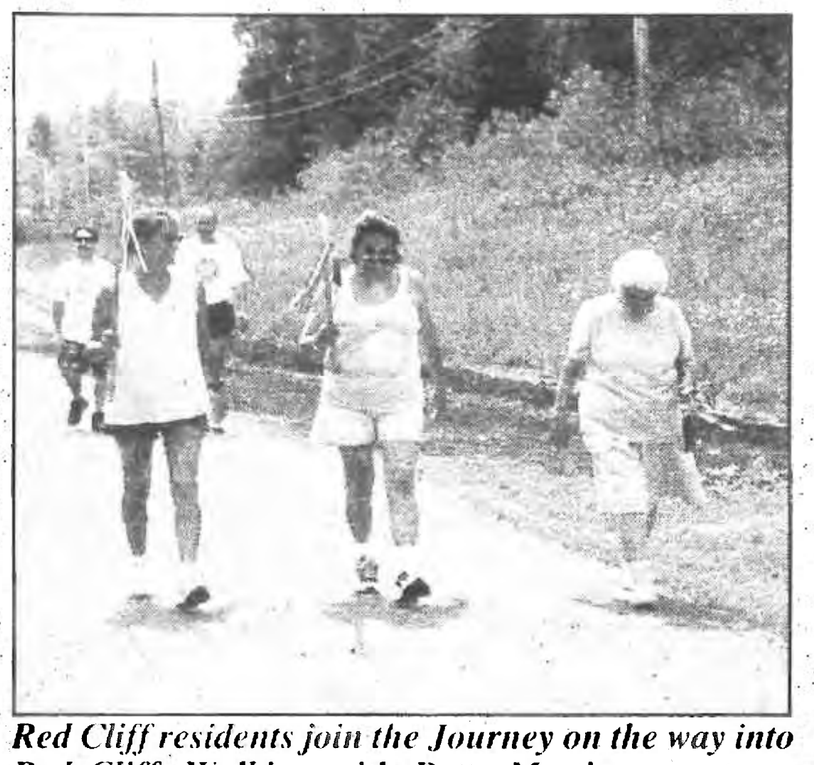
As the Healing Journey traveled over the roads connecting the Mole Lake/Sokaogon and the Lac Vieux Desert reservation, runner Robert Van Zile, Mole Lake, found a wallet lying on the road. Later, Jim Schlender contacted the owner, and the wallet was returned. The thankful owner responded with the following thoughts:

" I just could not believe it when I opened the package and read your note because just hours before my wallet was found on the highway, I was having a conversation with a very close friend regarding the very subject of having respect for our fellow man, in particular we were discussing how cruel the white man was, and still is I suppose, to the Indians. You ask that I think well of "my Indian neighbors" and I can assure you that I do, I have much respect.

The Healing Journey sounds very interesting. I've been on my own as of late. Funny how we cross paths as we go through each journey in life. I believe in what your group is trying to accomplish and tend to live my life in accordance with positive thinking and caring. Just a few weeks ago, I drove through the area where you live, on my way to and from a solo canoe trip to the Boundary Waters in Minnesota. For me, and for many of my friends, including the ones I was with over the weekend, the Boundary Waters is a place we go to stay in touch with Mother Earth and to find our own energy renewal and healing."

Healing begins with the individual

(Continued from page 13)
munity. A healed community could help heal the nation," Kmiecik related. As this was being said, an eagle perched in a nearby tree flew up and out over Big Sand Lake.



Red Cliff residents join the Journey on the way into Red Cliff. Walking with Betty Martin, core team runner from Lac Vieux Desert are Diane Defoe and her mother, Genny Goslin. Following the three women are Miles Falck, Oneida, and Neil Kmiecik, Standing Rock Lakota core team runner. (Photo by Sue Erickson)

During the eight-day journey the small core team wondered each morning how they would make the leg of the run before them, but on each day help arrived. Jim Schlender's wife, Agnes, and daughter, Margaret, were able to participate in much of the journey.

Individuals, or even groups of young people, from different reservations, arrived to help on several days. All told, 72 people and three horses covered miles in the Wisconsin segment of the Healing Journey. (See side story for participants)

Nevertheless, the core team spent some rugged days meeting their destinations, carrying the staff over all the miles.

On the first day of the run, Neil and Betty were handing off the staff to each other every other mile. Neil was running through Stone Lake, looking ahead for his van, which indicated the end of his one-mile stint. He began to think this mile was being stretched because the van wasn't appearing. He went around a couple turns, but still no van. Then Jim drove past him to let him know that Betty had stopped to go shopping! She had located a treasure—Snickerdoodle coffee—and left Neil to fend for himself. He concluded that extremely long mile under a sultry June sun by smiling and stating simply—"Healing is hard!"

There were many humorous moments where the mysteriously healing power of laughter was realized. These moments were interwoven with the recognition of the many grave issues—social, environmental, personal issues—that have deep roots, are difficult to solve, and in need of prayer and faith.

Three horses and riders accompanied runners and walkers on the final leg from Bayfield, Wisconsin into Red Cliff. Running are Jim Zorn, Betty Martin, and Neil Kmiecik. Riding are Tyra Vernon on Micky; Stevie Lindenberg on Dakota; and Sue Lemler on Niigani. (Photo by Sue Erickson)

Miigwech run participants!

Day 1, June 21—Ben Rogers and Jennifer Young.

Day 2, June 22—gaiashkibos, Camille LaCapa, Jason Schlender, Agnes Schlender, Ernie St. Germaine, Tom Maulso and four grandchildren.

Day 3, June 23—Joe Chosa, Tom Maulson and five grandchildren, Mike Allen, Tom Vought, Paul Reynolds, Robert Van Zile, Myra Van Zile, Keith Van Zile, Nathan Van Zile, and Ernie St. Germain.

Day 4, June 24—Frannie Van Zile, Lelyn Van Zile, Kevin Wegneitz; Robert Van Zile, Myra Van Zile; and Josh Van Zile.

Day 5, June 25—Richard McGeshick, Liz McGeshick, Ancella McGeshick, Raymond Smith, Robin Pete, Angie Scott, William McGeshick, Jeremiah Antone, Robert Garrison, David Trzenski, Anna McGeshick, Dave Lillie, Emma Lillie, Tom Vought, Louis Salas, Fred Pero and Nathan Big Boy.

Day 6, June 26—Chairman Eugene Bigboy, Dave Parisien, Jackie Rose and Joe Rose, Sr., Diane Defoe, Genny Goslin, Vern and Dan Defoe, Paul Christenson, Leo LaFernier, Tyra Vernon, Sue Lemler, Stevie Lindenberg, and Margaret Schlender. *Several GLIFWC staff members also participated in the run. We apologize if anyone's name has been omitted.*

Carrying an Eagle Feather and asemaa (tobacco) en route from Bad River to Red Cliff, the Journey carried many prayers. (Photo by Thea Konstantinidis)

Migration Journey retraces Ojibwe western movement

Garners support for cleaner water, environment

By Charlie Otto Rasmussen
Writer/Photographer

Quebec City, Quebec—Anishinaabe and non-Indian people from throughout the Great Lakes region are retracing the ancient Ojibwe migration route from the Atlantic Ocean to western Lake Superior.

A core group of around a dozen people led by Bad River Ojibwe Butch Stone plan on following the path revealed by the sacred megis shell which—according to one migration story—appeared to the Ojibwe seven times as they traveled along the St. Lawrence Seaway and up through the Great Lakes over a period of five centuries.

"We're spreading the word of unity and addressing environmental concerns that affect the people and the water," Stone said. "This is also a spiritual journey. Spiritual unity is something a lot of people talk about, but the different lodges who should be working together aren't."

The journey was set to begin in mid-July at Gaspe, New Brunswick where the mouth of St. Lawrence Seaway opens into the Atlantic Ocean. An urgent request by the Mic Mac people who are struggling with the Canadian government over fishing rights and water quality issues, however, detoured the migration walkers south along the Atlantic shore for several days. Stone and his group talked with Mic Mac leaders and participated in ceremonies to find spiritual guidance in dealing with issues that threaten the lifeways of the Burnt Church indigenous community.

"We formed an alliance to work with each other and support each other. It was done in the old way where we sat down and smoked the pipe," Stone said.

Upon returning to the St. Lawerence River area, the group located the first of seven stopping places on July 28—a turtle-shaped island near Quebec City. Their projected route will take them to an additional six sacred sites roughly situated along the American-Canadian border.

As communities have put out the call for support with their varied social, environmental, and spiritual struggles, the migration walkers have modified their travel arrangements and itinerary.

Originally envisioned as a walk/run/paddle, the group is incorporating bicycle and motor vehicle travel to visit and conduct ceremonies with people living beyond the migration route. Stone expects to reach the end of the journey—Madeline Island—sometime in October.

Many member tribes of the Great Lakes Indian Fish & Wildlife Commission (GLIFWC) provided financial support to the project.

"It's an honor and a privilege to contribute funds toward the completion of this project," said Eugene Bigboy, Bad River Tribal Chair and GLIFWC Commissioner.

For more information or to contribute to the journey log on at http://MigrationJourney.cjb.net.

Passing on the knowledge

Youth learn birch bark canoe construction at LCO

Lac Courte Oreilles, Wis.—"A canoe builder is like a doctor," explains Marvin Defoe, Red Cliff, "because you have to have a lot of patience (patients) to make it work."

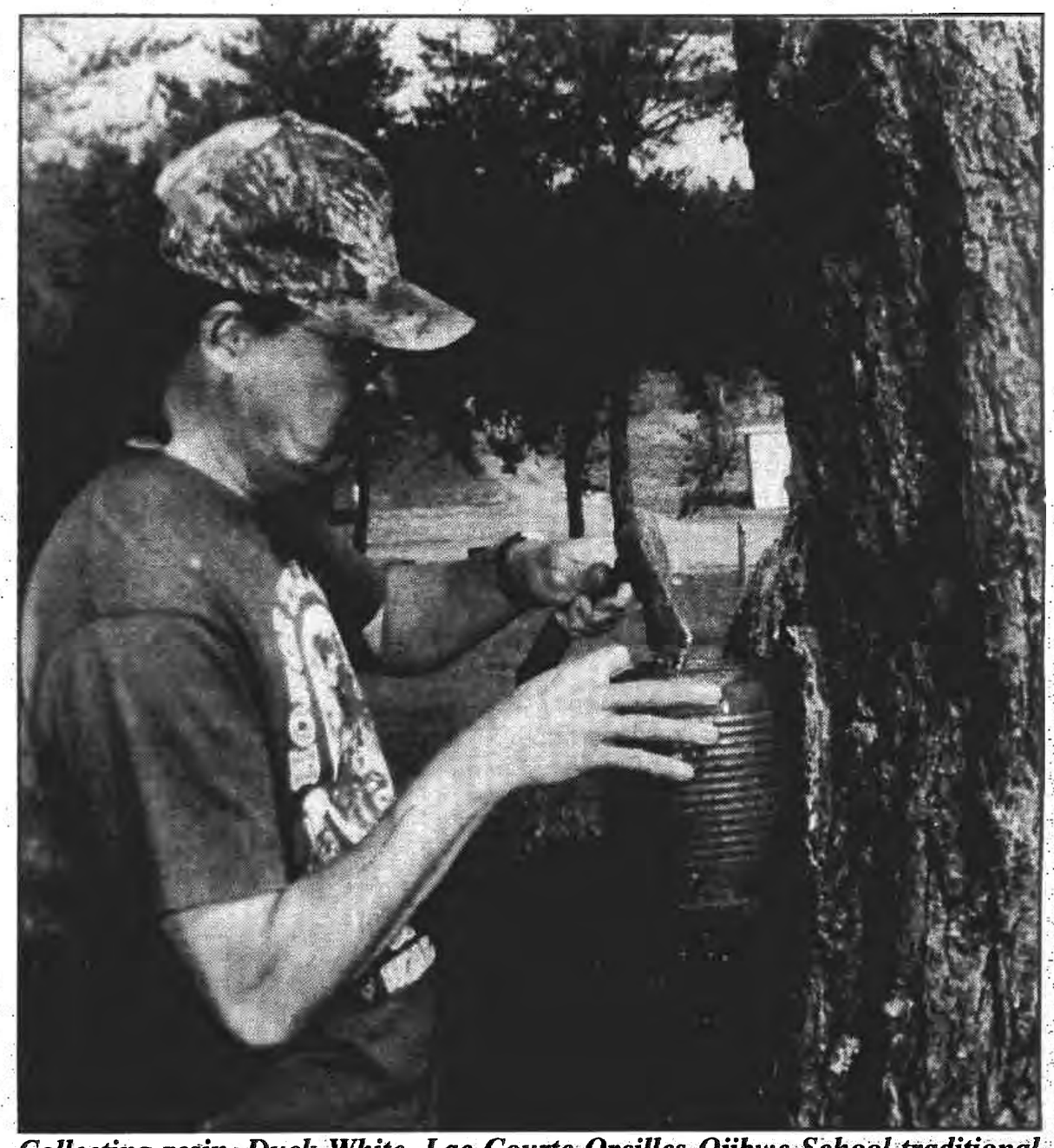
Defoe's conversation was riddled with such quips as he, fellow instructors, and students pursued the job of building their third wiigwaasi-jiimaan (birch bark canoe) this summer.

A beautiful, partially finished wiigwaasi-jiiman rested in the shade of an open-ended shelter while students finished binding the frame of the canoe with wadabiig (spruce root) strips kept soaking in a pail of water.

Meanwhile, Defoe begins to steam the giizhik (cedar) strips they will use for the 17' canoe's ribs. Steam from a large teapot poured into the steam box containing the cedar boards.

About eight Lac Courte Oreilles (LCO) youth chose to participate in the LCO's Ojibwe School's summer class on traditional Ojibwe skills.

Duck White, who runs a year-around curriculum on traditional Ojibwe skills at the school, set-up and instructs the summer program as well. Also teaching the class are Rusty Barber and Jim Miller with the assistance of Alfred "Beebeeash" Mustache, all from LCO.



Collecting resin. Duck White, Lac Courte Oreilles Ojibwe School traditional skills instructor, carefully chips resin from the trunk of a pine. The resin is used to make pitch, which seals the seams of the canoe.

Cedar strips are steamed in a steam box so they can be easily bent to form the ribs of the canoe.

Article & photos by Sue Erickson, Staff Writer

Like the spruce roots, the birch bark and the cedar are kept wet so the materials remain pliable during construction. It is also important to keep the canoe damp until the ribs are set in place, Defoe explains.

It took the class four days to build the canoe to this point, but as Defoe notes, actual construction is the fast part of the process.

Gathering the materials took several weeks. In fact, he says, this canoe probably began about 150 years ago when the birch tree that provided the bark was just a sapling. "My grandfather got tired of waiting for it to be ready, so he passed it on to me," he states, keeping a straight face.

The class gathered all the birch bark, cedar and spruce roots needed for the canoe's body and frame. They had yet to gather the resin to make pitch, which will be applied to seal the seams.

Gathering and preparing materials is a time-consuming process.

The resin is carefully chipped off the outside of pine or spruce trunks with attention given not to damage the tree.

The pine resin must be heated and mixed with hardwood ash and deer tallow to make pitch. The deer tallow makes the pitch pliable, while the ash makes it dry hard and turns the pitch black, White explains as he knocks some resin from a tree trunk into a coffee can.

Pitch, he says, is preferable to tar, because it dries hard and does not remain sticky.

The spruce roots, too, need to be peeled, boiled for several hours and cut in half before use.

Several of the canoes constructed by the class are going to be used later this summer, giving the class an opportunity to get out on the water.

The first two canoes were given to the LCO Casino and Herman's Landing, a tribal business. The last two will be given to the LCO Ojibwe Community College and the LCO Ojibwe School, but not before being used, Defoe says.

He believes it is important for the youth to see the practical value of their finished products and not just regard them as museum pieces.

The instructors are all pleased that the youth have participated regularly and on a voluntary basis. The wealth of traditional knowledge being provided is enormous, including identification of needed plant species, where to find them, when and how to harvest them, and their Ojibwe names.

Preparation and proper care of the materials to be used is another important aspect of traditional craftsmanship, as is respect for the plants that provide these needed items.

As the canoe-making proceeds, visitors stop in to chat, observe, or help. Buck Barber, a LCO elder, stops in for a while, and Rusty Barber brings in a long, bulrush mat made by Mary Frogg Sutton and her late husband, Bill.

It was the type of mat used on the lower walls of summer wiigiwaams to allow ventilation. The instructors eagerly examine the beautiful stretch of mat looking for techniques used to bind the mat. Bulrush mat making is one of the next items on the summer class agenda and will be a learning process for all!

The class also looks forward to basket making and an opportunity to net fish and camp on Lake Superior shores later this summer. And, of course, they will be anxious to test drive those carefully crafted canoes in the water!

Most of the materials used in the construction of a birch bark canoe need to stay wet and pliable as the canoe is being built. Above, Marvin Defoe, Red Cliff, moistens cedar strips to be used for the ribs of the third canoe built at Lac Courte Oreilles during a summer traditional skills class for youth.

Valuing the many uses of wiigob (basswood)

By Karen Danielsen
GLIFWC Forest Ecologist

Lac Courte Oreilles, Wis.—On one hot and cloudy July day, Red Cliff members Marvin Defoe and Crystal Hurley sat beneath a tarp shelter sewing strands of a tawny-colored, flattened roping material onto a nearly completed birch bark canoe (wiigwasi-jiimaan). The roping material they used originated from the inner bark of basswood (wiigob) that Marvin had gathered and processed earlier in the spring.

Marvin used a running stitch to sew together two birch bark (wiigwaas) panels. Crystal used a lash stitch on the rim of the jiimaan to fasten the wiigwaas to the cedar ribs (waaginaag). On another section of the jiimaan, cross stitching bound together additional wiigwaas panels. Marvin explained that the direction of the grain of the wiigwaas determines the type of stitching required.

To make the wiigob more pliable for sewing, he soaked it in buckets of water until ready for use. After being sewn onto the jiimaan, the wiigob tightened as it dried—ensuring a sturdy, secure tether. Like generations of Anishinaabe canoe builders before him, Marvin spoke of his earnest respect for the uncompromising durability provided by wiigob.

The use of wiigob was also the focus during an elder/youth workshop at the Sokaogon Community (Mole Lake) this summer.

In the field, elders pointed out basswood trees growing among sugar maple (aninaatig), hemlock (gaagaagimizh), and yellow birch (wiinizik). They commented that wiigob can be identified by its large, heart-shaped leaves and relatively smooth grey bark.

The elders selected a few small, very straight trees to harvest. After harvesting, they stripped the bark from the trunks and then separated the inner bark from the outer bark. The outer bark would be used for kindling at a later date, while the long strips of inner bark continued to be processed.

Sokaogon member Maureen Zardar demonstrated how the inner bark strips could be smoothed into thin ribbons by scraping both sides repeatedly with a knife to remove any bumps and inconsistencies. She worked with the adeptness and mastery that can be acquired only after many years of experience.

Meanwhile, back in the tarp shelter, Marvin described how wiigob, like any strong binding, can be used to make many different items ranging from birch bark baskets (makakoon) to fish nets. Contrary to the opinions of some misinformed sport anglers, fish nets have always been used by the Anishinaabe.

Marvin explained that wiigob for fish nets looks rounded, more like string, rather than having the flattened ribbon shape. Wiigob is processed differently for use in nets. Bark is harvested from larger basswood trees, and the separated inner bark is rolled on the knee until firmly twisted together.

As Marvin and Crystal continued sewing, friends came in and out to visit and view the progress. Children stopped by to observe the activity. One small boy plopped down right next to Marvin and volunteered to help. Marvin placed a strand of wiigob in the boy's small hand. He guided the boy's hand through several stitches and then let the boy continue on his own.

The boy's interest gratified Marvin. However, he expressed concern that tribal youth sometimes refer to the traditional ways as possessions of only the elders. He believes that the traditional ways will survive only if the youth claim ownership. Furthermore, the youths' intrinsic identity will survive only if they begin saying "we use wiigob for many purposes" instead of "the elders used wiigob for many purposes."

Large, heart-shaped leaves are characteristic of basswood (wiigob). (Photo by Steve White)

The use of basswood was the focus of an elder/youth workshop at Mole Lake this summer. Above, Maureen Zarda (left), Sokaogon Chippewa, demonstrates how to separate the inner bark of a basswood tree from the outer bark. Also pictured is Shayna, Lucille, Tara and Cassandra (standing) Olds. (Photo by Jim St. Arnold)

Fee-exempt camping in national forest campgrounds

Tribal members exercising their treaty rights may camp free of charge at most national forest campgrounds. This is a provision implemented through the *Memorandum of Understanding Regarding Tribal—USDA-Forest Service Relations on National Forest Lands Within the Territories Ceded in Treaties 1836, 1837, and 1842.*

Reminder

To use a fee-exempt campground tribal members must:

1. Get a tribal camping permit and the list of fee-exempt national forest campgrounds from your tribal conservation department or other person designated by your band.
2. Follow the camping registration procedures at the campground. Generally, this involves providing information requested on a registration form or envelope.
3. Indicate the number of days that you plan on camping on both the tribal camping permit and on the campground registration form.
4. Instead of paying a fee, give the camping permit to the campground registration personnel or place the permit in the envelope.
5. Camp only at the campsite for which you have registered.

Each band has adopted regulations, enforced in tribal court, to protect the natural resources found in campgrounds and to ensure public health and safety. These regulations are listed in a booklet entitled *Regulations Summary; National Forest Treaty Gathering and Camping*. This booklet is available from your tribal conservation department or GLIFWC offices. The regulations may also be viewed on the GLIFWC web site (www.glifwc.org).

More campgrounds become fee-exempt for tribal members

- *Chequamegon-Nicolet National Forest:* Perch Lake, Two Lakes, Wanoka
- *Hiawatha National Forest:* Soldier Lake, Three Lakes
- *Huron-Manistee National Forest:* Bear Track, Dorner Lake, Driftwood Valley, Hemlock, Kneff Lake, Peterson Bridge, Pine Lake, Seaton Creek, Udell Rollways

Tribal members are encouraged to report any difficulties experienced at national forest campgrounds to GLIFWC or their tribal conservation department.

Manoomin harvest approaching

By Peter David
GLIFWC Wildlife Biologist

Odanah, Wis.—Thanks to the multi-millions of crunching caterpillars that dined on the northwoods this year, 2001 felt like the year with the longest spring. Long after the forest floor should have been shaded in the shadows of summer leaf out, the sunlight continued to fall through naked branches. Coupled with frequently cool temperatures, it seemed like summer was late to arrive this year. Thus, despite what the calendar says, it seems strangely early to be thinking about where my ricing sticks are and to be wondering if the 'ol push pole still has another year in it.

At the time this is being written (mid-July), it is still a significant crapshoot to predict what the fall season will hold. After a bumper crop in 1997, Wisconsin ricers (who generally have to put up with more variability in their harvest than their Minnesota brethern) have seen three seasons come and go that, on a broad scale, could at best be described as fair.

Many ricers are feeling that a good crop is about due. On the other hand, the poor crops in the last two years were related to heavy mid-season rains that flooded out sprouted plants, leaving others to worry that the seed bank on some waters might be rather depleted.

My bet at this time—based on early observations by GLIFWC's summer rice interns Lauren Hildebrandt and Lisa Marks, and my own—is that although it doesn't appear that 2001 will yield a bumper crop, it does have promise of exceeding last year's, despite some discouraging conditions early on. Water levels on many lakes were quite high this spring, but at least they tended to stay stable or recede through the floating-leaf stage. Early weather was also cool, and in many areas rice seemed to parallel it's cousin corn, by being slow to develop. However, the plants seem to be catching up in their growth during the hot spell that is occurring as I write.

The manoomin on some lakes also faced special challenges this year. NASA published satellite photos on its web page showing that the tornado that hammered Siren, Wisconsin also swept directly across the big rice beds on the south end of Clam Lake, just a few miles to the east. Fortunately, the plants had not yet emerged from the water, and it appears that many or most of them made it through the storm.

Now, as long as it isn't too calm or too wet during the pollination period, and if it doesn't rain too hard, or get too windy, or have a hail storm at the wrong time, and as long as the rice worms don't join their land cousins in reaching biblical proportions, and as long as I don't get to the beds too early or late, and assuming the muskrats and geese and swans didn't eat all the stems as they were coming up, and if the blackbirds find somewhere else to go than the rice beds, and if my body, my partner and if my pushpole hold up ok, and if I can find a day or two to get away, and nobody else has found my secret ricing spot, I'm thinking it might be a pretty good year for a little harvesting. It's hard to say.

But I do know that I'll say migwech for every hour I get to spend in rice beds this fall. Whether the rice is dropping or not, they are just among my favorite places to be.

Happy ricing!

Reminder: The rice abundance information gathered from GLIFWC surveys will be summarized for people interested in off-reservation ricing. Although it is impossible to be sure that a bed will provide good ricing 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 are poor.

This information can be picked up when you obtain your off-reservation harvesting permit, or by visiting GLIFWC's web site at www.glifwc.org, and following the links. We will also be posting air photos of selected rice waters and information on opening dates for regulated lakes.

Dana Jackson and Steve Moore, Bad River, harvest manoomin from the bountiful Kakagon Sloughs on the Bad River Reservation. (Photo by Amoose)

We need your rice seed!

Each fall the Great Lakes Indian Fish & Wildlife Commission (GLIFWC) coordinates an intertribal, interagency effort to restore manoomin to its historic abundance. **You** can help by selling your freshly harvested seed to us for use in reseeding programs both on and off area reservations.

Help to keep the tribes leaders in manoomin management. Contact Dan North or Peter David at (715) 682-6619 before harvesting to make arrangements. ***Miigwech!***

Beetles included in GLIFWC's purple loosestrife control "tool kit"

By Miles Falck
GLIFWC Wildlife Biologist

Odanah, Wis.—Purple loosestrife is a perennial plant native to Europe. It arrived in eastern North America in the early 1800's via plants brought by settlers and seeds carried within livestock and the ballast holds of ships.

In North America, purple loosestrife quickly spread westward displacing native wetland plant communities. It's current distribution covers much of the U.S. and Canada.

Purple loosestrife threatens native wetland habitats by out-competing native vegetation. The herbivores and pathogens that control loosestrife populations in European wetlands are absent in North America. This lack of natural enemies combined with prolific seed production gives purple loosestrife a substantial advantage over native vegetation. Diverse wetland plant communities can quickly be displaced by monotypic stands of purple loosestrife. Reductions in plant diversity also threaten fish and wildlife species that depend on native wetland plant communities for food and cover.

Galerucella beetle. (Photo by Miles Falck)

The Great Lakes Indian Fish & Wildlife Commission (GLIFWC) uses an "integrated pest management" approach for controlling purple loosestrife. This approach employs educational efforts to deter additional introductions, chemical control for small isolated infestations, and biological control for large infestations or where chemical control is inappropriate. The addition of biological control to GLIFWC's tool kit has substantially expanded the acreage of purple loosestrife treated in recent years.

Biological control reunites a plant with its natural enemies. Two species of Galerucella beetles native to Europe have been approved by USDA-APHIS for release in the United States for the control of purple loosestrife. The beetles have been carefully tested to insure they will not feed on native plants or agricultural crops.

Galerucella beetles emerge from the soil in late May to feed on the foliage of purple loosestrife and lay their eggs. The beetles are very prolific, females lay 300–400 eggs each. Small yellow larvae hatch from the eggs in mid June and inflict the greatest damage to the plant. After 2-3 weeks of feeding, the larvae burrow back into the soil to pupate into new adults.

The new adults continue to feed for 2-3 weeks before burrowing back into the soil to spend the winter. Because the insects spend so much time in the soil, it is important to select release sites that are relatively dry to insure adequate reproduction and overwinter survival.

This is the second year GLIFWC has reared and released Galerucella beetles for loosestrife control. Over 100,000 beetles were released at seven sites in the Bad River-Chequamegon Bay watershed and approximately 6,000 were provided to the Keweenaw Bay Natural Resources Department for release at two sites on the Keweenaw Bay Indian Reservation. Field visits to last year's release sites revealed good overwinter survival and growing populations.

It is expected to take 3–5 years for the Galerucella populations to grow large enough to make substantial reductions in loosestrife abundance. Although the beetles will not completely eradicate purple loosestrife from an area, they can keep it from dominating an area to the exclusion of native plants.

Additional information about purple loosestrife, including interactive maps of local distribution and control efforts, can be found on GLIFWC's web site (http://www.glifwc.org/epicenter/)

Anishinaabe-Bimaadiziwin (The Indian Way of Life)

(Editor's note: The following is a transcription of a message from Neganosh (Archie McGeshick), a Lac Vieux Desert elder who walked on October 15, 1999. Archie, who served the Great Lakes Indian Fish & Wildlife Commission for many years both on the Board of Commissioners and on the Voigt Intertribal Task Force, spoke to us in Ojibwemowinon on video tape shortly before he left us. The text was transcribed and translated by Keller Paap and Rose Tainter in order to share his thoughts.)

(1) Anishinaabemowin indizhichige. Nashke noongom omaa namadabiyaan gii-miinigooyaan wa'aw asemaa gegwejimigoyaan omaa da-gaganoonag wa'aw gimanidoominaan naa Chi-aadizooke. Naa wenizhishing dash gaganoonag wa'aw gimanidoominaan.

(2) Naa kina omaa gaa-namadabijig noongom gigizhebaawagak gii-kaganoonagwaa weweni gii-pizindawiwaad. Miish eta go iw maamoo-nitaawichigeyaan gii-kaagiigidoyaan. Mii gegwejimag a'aw gimanidoominaan gigizhebaawagak, weweni omaa da-bi-inaabid, weweni da-waabamaad kina omaa gaa-namadabijin, anishinaaben a'aw (miinawaa) wayaabishkiiwed.

(3) Ge dash gegwejimag weweni omaa da-namadabid da-bi-biindiged anishinaaben da-wiindamawaad gagaanzomaad iwidi keyaa izhaan naa go gwayakochigen apaneyiban. Naa gwayakochigeyan naa gagwejimigoyan weweni gagwejimigoyan.

(4) Mii eni-izhichiged a'aw anishinaabe, naa ge gaa-pi-izhichiged a'aw anishinaabe. Mii wa'aw asemaa noongom endakonag wa'aw, mii o'ow meshkawaamagak i'iw mashkiki debendang a'aw anishinaabe. Mii i'iw apane anishinaabe wenji-ayaawaad iniw asemaan. Maamoo-meshkawaamagak i'iw mashkiki. Mii dash gagwejiminaan da-odaapinamawiyan. Mii go pane keyaa ezhichigeyaan. Mii omaa go keyaa omaa indis omaa atemagak, mii omaa gagwejiminaan omaa wenjibaamagak ekidoyaan, weweni ge gaagiigidoyaan.

(5) Shke wiikaa gaawiin gegoo giga-gagwejimisinoon ge-maanaadak gegwejiminaan apaneyiban. Weweni da-gwanaajiwang ge-ni-izhichiged a'aw anishinaabe, naa gaa-pi-izhichiged naa ezhichiged noongom nashke ani-izhichiged ge waabang, chi-awaswaabang naa chi-dibikak naa apaneyiban. Mii gegwejiminaan noongom, mii apane gagwejiminaan da-gaagiigidoyaan.

(6) Ningikendaan apane, ningikendaan giin kina i'iw waabandaman noondaman kina i'iw ezhiwebak kina izhichiged a'aw anishinaabe. Mii i'iw apane wenji-gaganooninaan, weweni gikinoo'amaw a'aw anishinaabe iwidi keyaa da-gwayakochiged apaneyiban.

(7) Nashke weweni gegwejiminaan gegoo ingikendaan maamoo-mashkawiziiyan kina gegoo ezhichiged a'aw anishinaabe gagiikiminaan. Nashke gidizhichigewin akina gegoo, akina gegoo omaa atemagak gagiikiminaan anishinaabwaki. Kina go gegoo inaa kina bemaadizijig, aakozijig naa maazhi-ayaajig. Mii i'iw apane gagwejiminaan weweni da-ganawenimad a'aw anishinaabe.

(8) Nashke ge omaa gii-namadabiyaan ge ani-gigizhebaawagak, bizindamaan ge niin da-izhichiged a'aw anishinaabe. Apane gagwejimigoyaan ge niin da-gaganooninaan. Mii i'iw apane ge niin gaganooninaan dash, weweni izhichigeyaan naa anishinaabe weweni da-izhichiged.

(9) Naa gikinoo'amawishinaam, mii i'iw wenji-gagwejiminaan asemaa apagidinamoonaan, giin eta go maamoo-mashkawiziiyan maamoo-nitaawichigeyan i'iw ezhichigeyan. Nashke kina bimaadiziwin omaa etemagak gagiikiminaan, nashke giin gidizhichigewin giin maamoo-mashkawiziiyan naa kina ge maamoo-gikendaasoyan.

(10) Shke ingikendaan kina oshkaabewisag ayaawaad ge wiinawaa, mii ge wiinawaa naadamaagewaad ge wiinawaa. Naa ge niin bi-gaganooninaan mii ge niin naadamawag a'aw anishinaabe. Naa enokiitawangig (enokiitawagwaa?) omaa gaa-namabadijig noongom gigizhebaawagak.

(11) Nashke aniibiish gii-tazhindamowaad wii-adaawewaad i'iw aniibiish. Gaawiin aniibiish niin indadaawesiin. Shke ikwe ge wiin omaa ayaad maamoo-mashkawizii ge wiin a'aw anishinaabekwe, mii a'aw genawendang i'iw nibi. Naa maamoo-mashkawaamagak i'iw, mashkawizii ge wiin a'aw ikwe. Naa kina anishinaabe mashkawizii weweni izhichiged. Naa dash ezhichiged, mii apane awiiya babaa-naadamawaad igo apaneyiban.

(12) Nashke, mii ge niin bangii omaa naadamaageyaan apane ge niin gaganooninaan, mii ge niin ningichi-apiitendaagoz ge niin gaganooninaan naa gakina gagnoonagwaa anishinaabeg naa kina omaa nemadabijig, apane maawanji'idiwaad igo anishinaabeg.

(13) Apane miinigoyaan ge niin a'aw asemaa omaa dekonag, kina ingoji imbimiwinaa wa'aw asemaa gaa-miinigoyaan kina omaa, apane omaa bimiwinag. Giishpin gegoo izhiwebiziyaan mii ge niin mekwenimag wa'aw asemaa, mii bagidinag naa ge niin gaganoonag wa'aw gichi-manidoominaan a'aw Chi-aadizooke. Mii i'iw maamoo-mashkawaamagak i'iw apane ininaan wa'aw asemaa a'aw asemaa ge niin apane bimiwinag.

(14) Shke gegwejimag ge gaganoonag a'aw gimanidoominaan o'o gigizhebaawagak da-naadamawaad igiw inaa gakina iniw, naa gaye wiin migizi ge wiin gii-kaganoonag. Mii ge niin gè gaganoonag a'aw migizi, apane gabe-giizhig, apane omaa baamaashid weweni ge wiin da-ganawaabamaawaad aniw odabinoojiiman. Mii dash aniw odabinoojiiman agiw akina anishinaabe omaa bemaadizid omaa gagiikiminaan.

(15) Naa weweni kina omaa nemadabijig gaa-namadabijig noongom gii-maawanji'idiwaad. Weweni gaye bizindawiwaad, niminwendaan apane gagwejimigoyaan da-gaganooninaan. Naa megwaa gaganooninaan dash, mii ge niin weweni gaye niin nawaj ani-inaadiziyaan. Apane ge niin gagwejimag da-naadamawid, naa kina go a'aw anishinaabe omaa gagiikiminaan bemaadizid.

(16) Weweni gagwejiminaan apane weweni weweni ganawenim a'aw gidabinoojiimag, gidabinoojiimag akina agiw anishinaabeg omaa bemaadizijig, gagiikiminaan gimaamaanaan.

(17) Nashke agiw omaa gaa-namadabijig gaye wiinawaa gichi-gikendaasowaad. Mii kina omaa wenji-namadabiwaad ge wiinawaa, mii apane naadamaagewaad ni-naadamawaad iniw anishinaaben, ge-ni-izhichiged naa gagwejimaad iniw ge-ni-inaakonigaazod a'aw anishinaabe. Apane a'aw anishinaabe gegoo wiin da-makamind, bangii anishinaabe i'iw odayaan gegoo. Mii dash a'aw wayaabishkiiwed apane ge wiin mii i'iw apane endoojiged wii-pabaa-gimoodid omaa i'iw. Mii eta go weweni ge wiin, wiin da-izhichiged dash wiin da-maazhi-ayaad wa'aw anishinaaben bemaadizijin omaa noongom.

(18) Naa ge gaganooninaan noongom gigizhebaawagak, ingii-mikwendaan mikwenimagwaa agiw anishinaabeg ezhi-wiinindwaa. Shke niin noongom ezhi-wiinigoyaan Niigaanaashid ge niin indizhi-wiinigo. Mii dash wa'aw giigoonh indoodem, waabizisii (wawaazisii) ezhi-wiinind, mii a'aw indoodem. Mii a'aw apane mikwenimag, miish wa'aw giigoonh anishinaabe apane gii-pi-bimaadizid ge wiin. Weweni gii-nitaawichiged gii-nisaad iniw giigoonyan. Naa giigoonyan ge wiin wenizhishid da-amwind, onizhishi a'aw giigoonh.

(19) Miish apane wiin dash, apane miigaajigaazod a'aw anishinaabe ezhichiged. Naa eta go, weweni ge wiin anishinaabe weweni ge wiin izhichiged, weweni wiin da-bimaadizid, weweni gaye wiin da-anokiitawaad ge wiin. Naa anishinaabeg naa waabishkiiwejig weweni da-anokiiwaad weweni da-ni-bimaadiziwaad. Miish eta go wenji-namadabiyaan omaa gaa-namadabijig noongom gigizhebaawagak ezhichigewaad. Weweni da-ni-bimaadiziyang, mii eta go apane wenji-ayaayaan. Mii eta minik noongom gaagiigidoyaan.

(20) Nashke dash noongom gagwejiminaan dash miinawaa weweni ganawenimishinaam noongom giizhigak, dibikak, waabang chi-awaswaabang naa apaneyiban. Naa zhawenimishinaam, zhawenimishinaam, zhawenimishinaam. Ahaw miigwech, miigwech, miigwech, naa miigwech. Mii i'iw minik waa-kaagiigidoyaan.

(See The Indian Way of Life, page 19)

(©Ken Edwards, Colville Tribe)

The Indian way of life

A message from Archie McGeshick

English translation

(Continued from page 18)

(1) I'm doing this in the Indian (Anishinaabe) language. So as I sit here today, having been given this tobacco, I was asked to talk to this spirit of ours, that great one. This is very nice for me to talk to this spirit of ours.

(2) Now, all of these (people) that sat here today this morning, which I talked to, listened to me carefully. This is only what I am best at, at giving talks. And so I ask that spirit of ours in the morning to come and look here in the right way, to carefully see all of the Anishinaabes and Whites that sat here.

(3) Then whenever I ask (the spirit) to sit here, to come, to tell the Anishinaabe, to be urged to live in a good way and to do things correctly. Always do it correctly, as you do things, as you are asked, when you are asked properly.

(4) This is what the Anishinaabe is doing and has been doing. This tobacco that I hold here today, this is strong medicine that the Anishinaabe owns. And so this is always why the Anishinaabe has tobacco. This is the strongest medicine of all. So then I ask you so to accept this tobacco from me. This is the way that I always do things. Right here it is in my navel (probably a chord-pouch around his neck). This is where I ask you, this is where it comes from, when I give a proper talk.

(5) So then, never will I ask something of you to be bad. For things to be beautiful when Anishinaabe does them, this is what he did, what he does now, and what he will do tomorrow, the next day, the days after that, late at night and always. This is what I ask you, what I always ask you, so that I may give a talk.

(6) I always know that you see and hear those things that happen, and that which Anishinaabe does. This is why I always talk to you; teach Anishinaabe correctly, the correct way of doing things always.

(7) So when I ask you something I know that you are the strongest of all, everything that Anishinaabe does I pray to you. Look at all things that you do; everything that is here in Anishinaabe country, I pray to you. Everything, every living thing, and those who are sick and bad-off. So then I always ask you to take care of Anishinaabe.

(8) So when I sat as morning approached, I too listen to everything that Anishinaabe does. I am always asked to speak to you; I'm always talking to you; I'm doing it right so Anishinaabe will do it properly.

(9) So teach us; this is why I ask you in offering this tobacco to you. Only you are the strongest, the most skilled at doing the things that you do. Look at all life that is here as I pray to you, look at the things you do, you are the strongest and the most knowledgeable in all things.

(10) So then I know that all of the helpers/messengers, they too, they help people also. Look, I also, in talking to you, I also help the Anishinaabe; look as I work for those that sat here this morning.

(11) Then, the leaves/tea that they talked about that they wanted to buy. I don't buy leaves/tea. The Anishinaabe woman is the strongest; she takes care of the water. This is the strongest, and the woman is strong too. When Anishinaabe does everything properly they are strong. Look when they do things, they are always around helping.

(12) So I too always help out a little when I talk to you. I too am valued as I talk to you, to all of Anishinaabeg that sit here and whenever they get together at a gathering.

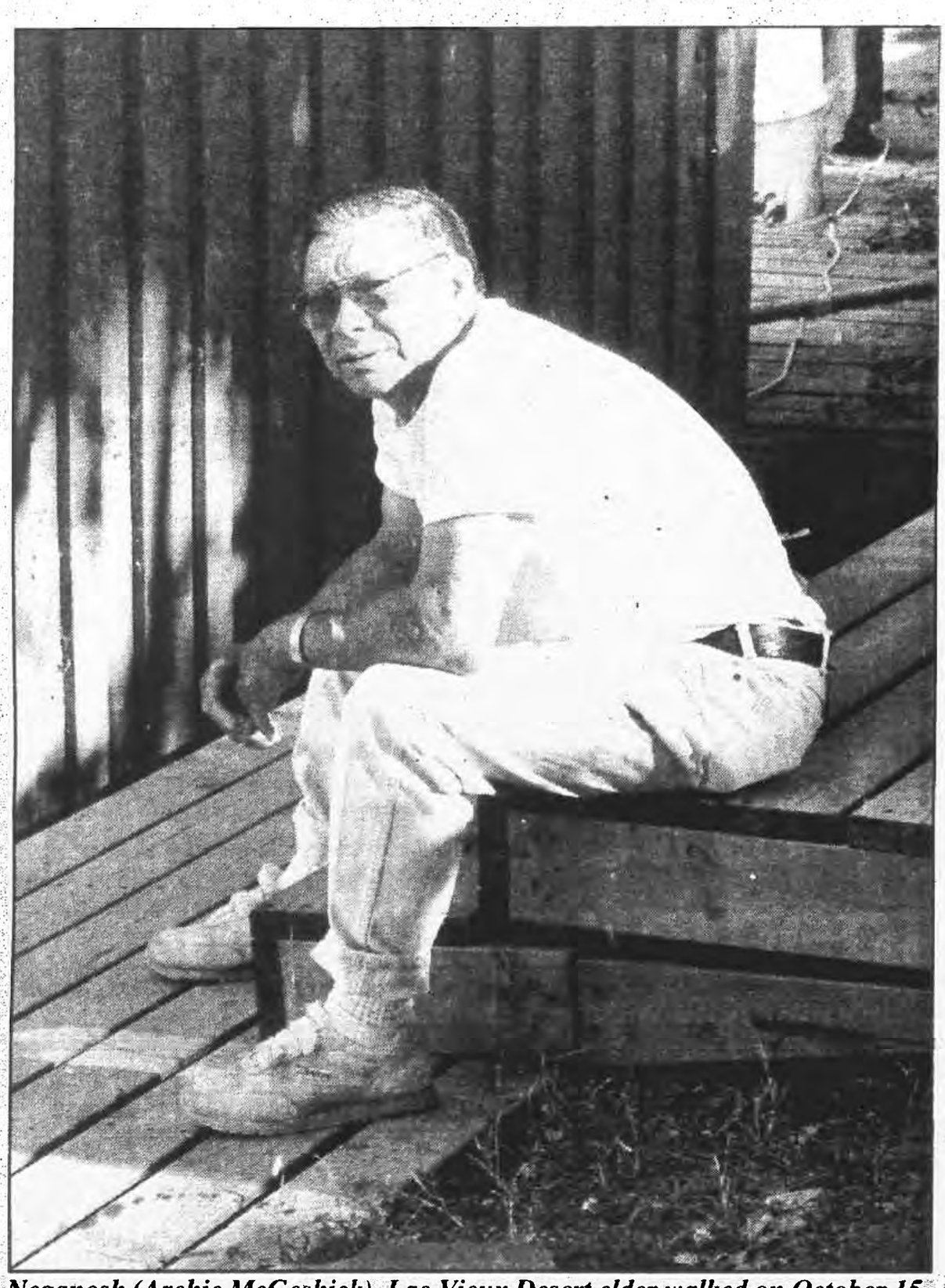
(13) I am always given tobacco, this that I hold here. I carry it everywhere that I go, this tobacco, everywhere, all the time. If there is something going on with me (maybe as in a sickness) I too remember this tobacco; this is what I offer when I talk to our Great Spirit, that great being. I always say to you that this tobacco is the strongest, that tobacco that I always carry along.

(14) So I ask and talk to our great spirit in the morning to help those, all of them and I talk to the bald eagle too. I also talk to the bald eagle all the time, all day as he rides the wind to watch his children, I pray to you for all Anishinaabe's children.

(15) All of those that sit here, that sat today and met together. I am always happy when they listen to me carefully, when I am asked to talk to you. So while I talk to you then I too, I am also going to have a proper life. I too always ask him to help me, and all things in the life of the Anishinaabe.

(16) I always ask you, take good care of (your) children. Your children, all those Anishinaabeg living here, I pray to you, our grandmother.

(17) So those that sat here too, those knowledgeable ones. This is why they all sit here too, they always help out; they help the Anishinaabe in what he is going to do, when he is asked in how the Anishinaabe is to be given a judgment (what he is to do in life). There is always something being taken from the Anishinaabe. The Anishinaabe has a little bit. This is what the White person wants to do; he wants to steal this. He is only trying to do right but, this causes the Anishinaabe to be bad-off in life today.



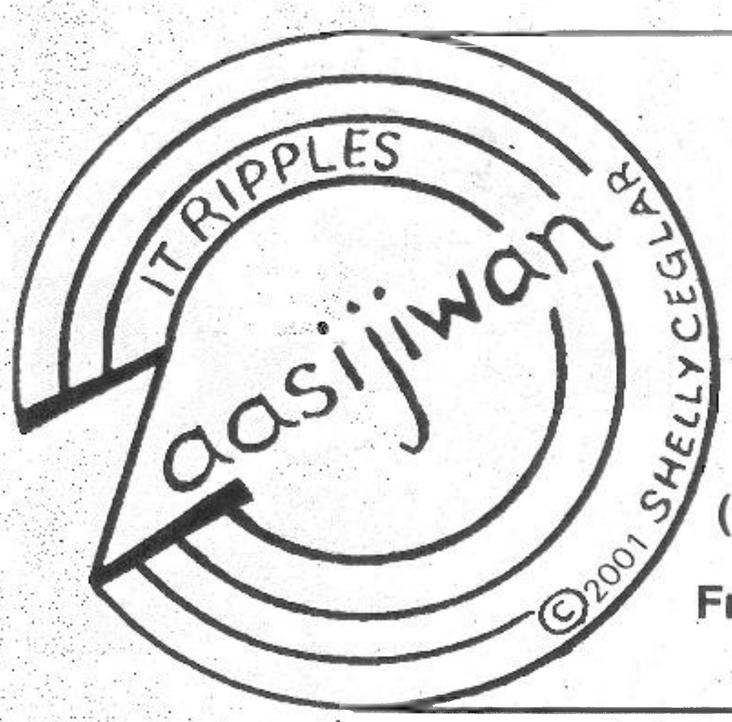
Neganosh (Archie McGeshick), Lac Vieux Desert elder walked on October 15, 1999. (Photo by Sue Erickson)

(18) As I talk to you this morning I remembered, remember those Anishinaabeg as they are called. I am named Niigaanaashid, and my clan is the fish, it is the bullhead. I always remember this fish, when the Anishinaabe came to live. He always knows what to do, to kill the fish. It is nice for the fish to be eaten, that fish is nice.

(19) The Anishinaabe is always being fought with because he does these things. The Anishinaabe wants a good life and wants to work with the White man so they can work and live good lives. I'm only sitting here because of those that sat here this morning, and the things that they did. For us to live properly, this is the reason always that we exist. This is all that I want to say.

(20) So today, as I ask you then, look over us today, in the night, tomorrow, the days beyond the day after tomorrow and always. Have pity on us, bless us, have pity on us. All right, thank you, thank you, thank you. That is all that I want to say.

(N ote: Keller Paap is from Red Cliff Tribe in Wisconsin and is the Director of the Lac Courte Oreilles Ojibwe Language Revitalization Program and is an instructor at the Lac Courte Oreilles Ojibwa Community College. Rose Tainter is from Ponemah on the Red Lake Reservation in Minnesota and lives at Lac Courte Oreilles. She is an Ojibwe language and culture teacher and Ojibwe language curriculum developer.)



Dagwaagin—It Is Fall

**Giizis. Giizisoog. Manoominike-giizis izhinikaazo wa'aw giizis.
Binaakwe-giizis izhinikaazo wa'aw giizis.
Gashkadino-giizis izhinikaazo wa'aw giizis.
Ningii-ondaadiz iskigamizige-giizis niizhtana ashi niizho gonagizid.
Aaniin apii gaa-ondaadiziyan?**

(Moon (or Month or Sun). Moons. Wild-rice moon, September, s/he is called this moon. Raking-moon, October, s/he is called this moon. Freezing over-moon, November, s/he is called so this moon. I was born when the Maple Sugaring-Moon was 20 and 2 days old. When were you born?)

Bezhig—1

OJIBWEMOWIN
(Ojibwe Language)

Double vowel system of writing Ojibwemowin.
—Long vowels: AA, E, II, OO
Aaniin–as in father
Anami'e–as in jay
Niiyo–as in seen
Noongom–as in moon
—Short vowels: A, I, O
Nitam–as in about
Manidoo–as in tin
Niizho–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.

Verbs, Animate, Intransitive (VAI)

VAI's: He/She
...action/feeling/mood
Months or Moons are considered alive, animate. Use animate verbs.

Izhinikaazo—S/he is named so.
Dasogonagizi— S/he is so many days old.
Binaakwe-giizis midaaso gonagizi. October, s/he is 10 days old.
Ningii-tagoshin Manoomini-giizis niizhtana dasogonigizid. I did arrive when September was 20 days old (20th).
Ikwe wii-manoominike Manoominike-giizis naano gonagazid.—The woman wants to go ricing when the Ricing Moon is 5 days old (on the 5th).

Niizh—2

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

A. Ningii-izhaa oodenaang Miini-giizis niiyo gonagizid.

B. Aaniin apii waa-izhaawaad oodenaang?

C. Aaniin apii gaa-ondaadizid a'aw abinoojiiyens?

D. Gii-ondaadizi Gichi-manidoo-giizis ashi-niizhwaaso gonagizid.

E. Binaakwe-giizis izhinikaazo wa'aw giizis.

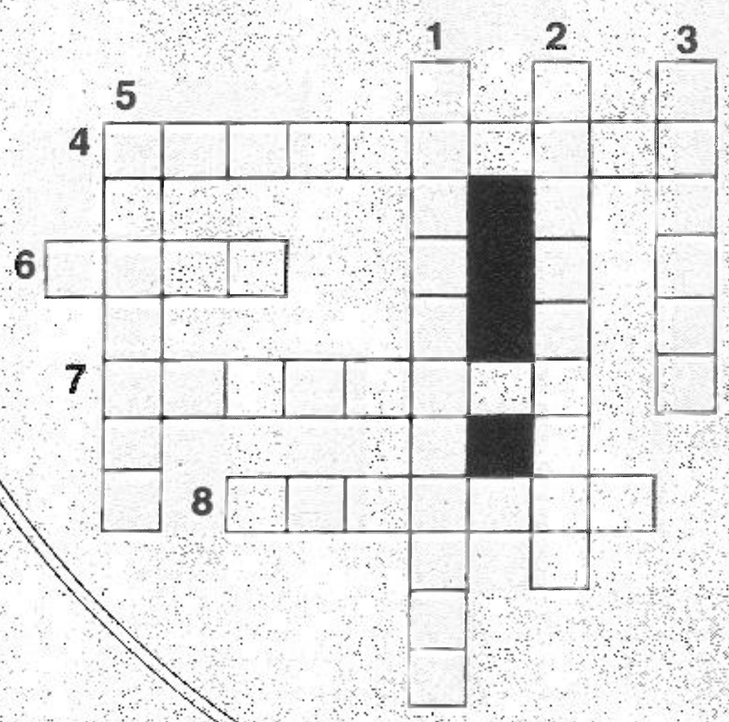
F. Namebini giizis. Gisinaa dash noodin.

G. Wabigwanii giizis. Gimiwan idash dakibiisaa.

T	I	M	L								
N	Z	B	A	O	K						
I	H	J	G	N	N	O					
I	I	Z	I	D	I	O	S				
Y	N	J	M	A	D	D	H	W			
O	I	Y	I	A	M	E	O	U	K		
D	K	A	W	D	B	N	Q	O	C	L	
M	A	'	A	I	A	A	N	I	I	N	
R	A	S	N	Z	N	A	'	A	W	D	G
H	Z	I	H	I	O	N	E	P	F	S	J
N	O	O	D	I	N	G	I	I	Z	I	S

Niswi—3

**IKIDOWIN
ODAMINOWIN
(word play)**



Down:

1. He/She wild rices.
2. Moons, Months.
3. It is windy.
5. It is cold.

Across:

4. It freezes over.
6. And (in counting).
7. My grandmother.
8. Now, Today.

Niiwin—4

VII's—IT IS Verbs—Days of the week.
Anami'e giizhigad.—It is Praying day (Sunday).
Nitam anokii giizhigad.—It is 1st work day (Monday).
Niizho giizhigad.—It is 2nd work day (Tuesday).
Aabitose(g).—It is Halfway (Wed.). (B-form)
Niiyo giizhigad.—It is the 4th day (Thurs.).
Naano giizhigad.—It is the 5th day (Friday).
Giziibiigiisaginage giizhigad.—It is floor washing day (Saturday).
B-form: when, if, while it is...
Niizho giizhigak—when it is Tuesday

***Goojitoon! Try it!
Translation below.***

1. ____ giizhigak,nindizhaa zaaga'iganing.
2. ____giizhigak, ninagam anami'ewigamigong.
3. ____giizhigad noongom.
4. ____giizhigak, manoominike, nookomis.
5. Aaniin ezhichigeyan ____giizhigak?

**Anami'e
Niiyo
Niizho
Naano
Giziibiigii-
saginige**

Translations:
Niizh—2 ***A.*** *I did go to town when blueberry moon (July) was 5 days old.* ***B.*** *When will they go to town?* ***C.*** *When in time was she born that baby?* ***D.*** *She was born when the Great Spirit Moon was 17 days old (January 17th).* ***E.*** *Raking Moon (October) she is called this moon.* ***F.*** *Sucker Moon (February). It is cold and it is windy.* ***G.*** *Flower moon. It is raining and it is a cold rain.*
Niswi—3 ***Down:*** ***1.*** *Manoominike.* ***2.*** *Giizisoog.* ***3.*** *Noodin.* ***5.*** *Gisinaa.* ***Across:*** ***4.*** *Gashkadino.* ***6.*** *Ashi.* ***7.*** *Nookomis.* ***8.*** *Noongom.*
Niiwin—4 ***1.*** *When it is 2nd day, I go to the lake.* ***2.*** *When it is Praying day, I sing at the praying building (church).* ***3.*** *It is Floor washing day today.* ***4.*** *When it is the 4th day, she rices, my grandmother.* ***5.*** *What are you doing when it is the 5th (work) day?*

Recent developments in the Crandon Mine review process

By Ann McCammon Soltis, GLIFWC Policy Analyst

Odanah, Wis.—Several issues have arisen recently in the ongoing state and federal evaluation of the Crandon mine permit application. These issues will have to be thoroughly reviewed before state and federal Environmental Impact Statements can be completed.

Perpetual pumping may be necessary to treat contaminated mine water

Water flowing through the underground mine after it is closed will be contaminated by chemical constituents that leach out of the leftover ore and the waste material used to backfill the mine.

Nicolet Minerals Company (NMC) predicts that this contaminated water will move beyond the "compliance boundary," a boundary around the mine where Wisconsin's groundwater quality standards must be met. NMC proposes to deal with these violations by installing pumping wells near the orebody that would pump contaminated water to the surface for treatment and disposal.

These pumping wells and the treatment plant would have to operate indefinitely—for thousands of years until all of the contaminants have leached out of the leftover ore and backfill.

Contaminants flowing from the tailings management area may violate Wisconsin's groundwater quality standards

One of the factors that affects whether the tailings management area (TMA) will violate Wisconsin's groundwater quality standards is the quantity of water that will seep out of TMA.

Because water from the TMA has high concentrations of certain chemicals, more water from the TMA would result in increased contamination of the surrounding aquifer. NMC's predictive model underestimates water flow out of the TMA in two ways:

✔GLIFWC staff demonstrated that the model fails to incorporate a fundamental law of physics—called "Darcy's Law"—that governs the movement of water through porous material. A U.S. Army Corps of Engineers (CORPS) consultant recently reaffirmed that NMC's calculations were "numerically incorrect" and did not adequately model the leakage of water from the TMA during mining.

✔The Corps' consultant recommended against NMC's assumption that the TMA liner would have "excellent" placement and recommended that the modeling use "good" placement instead. This change would result in the model predicting more water leaking from the TMA.

New access workings planned— will alter estimates of mine inflow

NMC recently submitted plans to develop new mine workings on the south side of the orebody (in what is called the "footwall"). According to the company, these workings will be needed in order to access the copper-rich portion of the ore. Mine workings on the north side of the orebody (in the "hanging wall") have been part of the mining plan since the early 1990s.

In order to accurately predict the amount of water that will flow into the mine, the Wisconsin Department of Natural Resources (DNR) incorporated the hanging wall workings into its groundwater flow model. As a result, predictions of mine inflow increased.

The DNR has indicated that it will now incorporate the new footwall workings into its model. Although the effect of incorporating the footwall workings into the model is not entirely clear, it is likely that predicted mine inflow will increase. The current DNR upper end estimate of mine inflow (without the footwall workings) is approximately 1,580 gallons per minute.

Buffalo-Reyes named State Environmental Leader

Red Cliff, Wis.—Jean Buffalo Reyes, former Tribal Chair of the Red Cliff Band of Lake Superior Chippewas, has been selected as the first recipient of the Wisconsin Environmental Leader Award, presented by the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS).

As tribal chair for the past two years, Buffalo Reyes initiated a number of significant efforts that will have long term benefits to the environment at Red Cliff and the surrounding areas.

The award was presented by Pat Leavenworth, State Conservationist for Wisconsin, with a commendation from Pearlie Reed, Chief of the Natural Resources Conservation Service in Washington, D.C.

Buffalo Reyes opened the door to tribal participation in several federal programs, bringing in over $200,000 in environmental project money. The Red Cliff Band is now involved in:

- the Environmental Quality Incentives Program, in a project to restore Coaster Brook Trout habitat, build a wetland to treat fish hatchery waste, and also to plant trees, control erosion and restore fish habitat on the Raspberry River;
- Wildlife Habitat Incentives Program—stream restoration for Coaster Brook Trout;
- A grant for Tribal Community gardens through the Resource Conservation and Development (RC&D) Program to teach sustainable production of healthy fruits and vegetables suited to the northern climate.

In addition to these projects and funds, Buffalo Reyes spearheaded the creation of the nation's first Tribal Conservation Advisory Council. This Council will, for the first time, allow a coordinated voice for Wisconsin Tribes to talk to USDA about tribal resource needs.

The Wisconsin Environmental Leader award for 2000 was presented to Buffalo Reyes at the May Council meeting hosted by the Oneida Nation in Green Bay, Wisconsin.

Jean Buffalo-Reyes (center) was selectd as the first recipient of the Wisconsin Environmental Leader Award presented by the US Department of Agriculture Natural Resources Conservation Service (NRCS). Shown with Buffalo-Reyes are (left), Tom Cogger, NRCS tribal liaison and Pat Leavenworth, NRCS state conservationst. (photo submitted)

GLIFWC tests for heavy metals in wild rice

By Kory Groetsch, GLIFWC Environmental Biologist

Odanah, Wis.—Heavy metals such as cadmium, copper, zinc, mercury, lead, and chromium have been typical pollutants released from mining activities. When these chemicals reach unnaturally high concentrations, they can have negative effects.

All too frequently mining operations in the United States have increased the concentrations of heavy metals in the ecosystem. These increases often result in damage to the ecosystem. Governments are typically left to determine the type and degree of "clean-up" that needs to occur.

At this point, many questions are asked about the status of the environment prior to the mining operation. Such questions, which should have relatively straightforward answers, become very difficult, if not impossible to answer, due to the lack of information characterizing the environment prior to the mine's existence.

These types of questions are best answered with baseline data. Baseline data is information that is collected about the status of an ecosystem prior to a significant disturbance. When baseline data exists, determining when a damaged ecosystem has been returned to its pre-damaged state becomes an objective process based on science versus a subjective process.

During the fall of 2000, the Great Lakes Indian Fish & Wildlife Commission's Environmental Section collected wild rice roots and seeds from eight lakes located near ore-bodies within the ceded territories for the purpose of chemical analyses. This study focused on the current concentrations of arsenic, lead, mercury, cadmium, copper, zinc, selenium, magnesium, and chromium in the seeds and roots of wild rice.

These analyses were conducted under a US Environmental Protection Agency approved quality assurance plan and have been presented at the 2001 annual meeting of the midwest chapter of the Society for Environmental Chemistry and Toxicology. The Environmental Section plans to conduct further studies this fall to confirm previous findings.

Generally, finding show that the metals' concentrations were relatively low but detectable and that concentrations did differ between waterbodies.

If you have an interest in the detailed results of this study please feel free to contact the GLIFWC office in Odanah at (715) 682-6619 or write to P.O. Box 9, Odanah,WI 54861.

Tribal hatcheries stock on and off reservation lakes

Sport and treaty fishermen benefit

By Thea Konstantinidis, HONOR intern

Beginning at Lac du Flambeau in the 1930s, Ojibwe reservations have been home to fish hatcheries for 65 years. Member tribes of the Great Lakes Indian Fish & Wildlife Commission (GLIFWC) currently operate nine hatcheries in Wisconsin and Upper Michigan, rearing a variety of popular fish species.

Walleye, arguably the most culturally significant fish to Ojibwe people, are raised in all but one hatchery. Some facilities target a broad range of species that include exotic trout while others specialize in working with native fish.

While treaty harvesters will ultimately take only a fraction of these fish, tribal hatcheries contribute millions of fry, fingerlings, and extended growth fish into lakes and rivers throughout the ceded territory. Along with state and federal agencies, the tribes co-manage the resource to meet the needs of all user groups today and generations to come. —*COR*

Bad River Tribal Fish Hatchery
Bad River Reservation, Wisconsin
Established in the 1970's

Target species: walleye, lake sturgeon
Target waters: on reservation waters
Hatchery manager: Rick Huber

Two of the Bad River Reservation's major rivers, the Kakagon River and the Bad River, became the final destination for 40,000 walleye fingerlings produced at the Bad River Tribal Fish Hatchery in 2001.

Last spring, 22 million walleye eggs were collected by the hatchery crew, and 12 million fry hatched after a few weeks at a temperature of 46-47°F. Bad River's hatchery is a cool water facility. Walleye eggs require temperatures under 50°F to hatch. Higher temperatures can cause high mortality rates.

While most of the fry are released immediately back into reservation waters, the remainder is stocked into rearing ponds for further growth. The hatchery maintains a 1.7 acre, and a 1.3 acre rearing pond, each with a capacity for producing 250,000-300,000 fingerlings.

Once in the pond, the fry feed on plankton, which is brought to bloom with fertilizer about ten days prior to stocking of fry. Plankton bloom is maintained throughout the growing season by adding additional fertilizer.

In addition to the walleye traditionally reared by the hatchery, Bad River has been involved in the Lake Sturgeon Restoration Project. For three years, the Bad River and Red Cliff hatcheries and the United States Fish and Wildlife Service (USFWS) have successfully reared lake sturgeon in a cooperative effort.

Hillary (Junie) Butler, Bad River Hatchery, maintains the hatchery's Bell jars as millions of fragile walleye eggs incubate in the hatchery. The Bad River hatchery also incubated sturgeon eggs this year. (Staff photo)

The Bad River hatchery crew captures sturgeon at the Bad River Falls during the sturgeon spawning season, strips them of eggs and milt, and later releases them back into the river. In a controlled, indoor environment, the Bad River Tribal Hatchery rears its sturgeon up to six inches before they are stocked.

Apart from its own sturgeon production, Bad River collects sturgeon eggs for the Red Cliff hatchery.

Bad River hatchery's dual water system is well-laid out for its current projects. Operating with both a well water and a river water system. The hatchery rears its precious sturgeon in well water because temperature can be controlled more easily.

Despite the success of the sturgeon restoration program, a combination of circumstances called for a temporary halt this year. An unusually high water level made it very difficult to collect eggs from the sturgeon's usual spawning grounds. In addition, genetic concerns played a major role in suspending the stocking of sturgeon this year.

Introducing many specimens of the same genetic make-up can cause genetic problems in existing populations and reverse the intended benefit for the targeted population.

With the sturgeon program on hold, the Bad River Natural Resources Department, GLIFWC and the USFWS cooperatively surveyed sturgeon spawning movement and collected extensive data using radio telemetry. In the course of a two-year study the hatchery crew assesses mercury levels in walleye and other fish species in the White River.

The hatchery is also in the process of assessing levels of mercury contamination in a variety of fish species. A two-year study will test walleye, northern pike, yellow perch, white sucker, longnose sucker, silver redhorse, and river redhorse.

The hatchery is also involved in restoration of coaster brook trout in Graveyard Creek, where staff will restore water channels to create more favorable habitat.

This year a $256,000 Administration for Native Americans grant opened the way for major modernization of the hatchery. New incubators and a catch basin, which makes harvesting the rearing ponds easier, have already been installed.

Other major improvements are underway, such as the installation of new monitoring devices for water level and temperature in the tanks, new walkways and valves for rearing ponds and floating decks. Very soon, Bad River will be the first tribal hatchery to be running on alternative energy; a combined wind and solar power complex will be able to generate enough electricity for all of the hatchery's operations.

Keewenaw Bay Tribal Fish Hatchery
Keewenaw Bay Reservation, Michigan
Established in 1989

Target species: lake trout, brook trout
Target waters: Michigan waters of Lake Superior, Baraga and Houghton County streams
Hatchery manager: Mike Donofrio

Situated on the scenic shores of Lake Superior, the Keewenaw Bay (KB) Tribal Fish Hatchery (KB) plays an integral role in improving trout populations in the Lake Superior region. The facility has capacities to produce up to 100,000 lake trout and 80,000 brook trout for stocking each year.

Since 1996, the hatchery raises the Jumbo River strain of brook trout with a focus on larger fish. Four deep-water wells pump the water up from a depth of 260 feet into the hatchery's 80 Heath incubator trays, each with a capacity of 15,000 eggs. The hatchery also maintains 12 fry tanks and eleven indoor raceways for fingerling and yearling production. A 1000-gallon tank and a 300-gallon trailer are used to transport fish to stocking sites.

While many hatcheries shut down for the winter, the Keewenaw Bay hatchery's cycle of operation spans all four seasons. Brook trout and the hatchery's brook trout brood stock remains in the facility over the winter. Some of 50,000 fingerlings currently in the raceways will be stocked in fall as extended growth fingerlings, but the majority will be released as nine-inch yearlings next spring.

In recent years, the hatchery has entered into three, two-year co-management agreements regarding lake trout with the U.S. Fish and Wildlife Service (USFWS); the fourth agreement has already been negotiated. Under the agreement, KB rears about 2,500 yearlings from two to four different strains of brook trout in isolation for the USFWS. This year the hatchery transferred 250 18-month yearlings (nine inch) to the USFWS hatchery in Iron River.

In return, the USWFS stocks lakes and streams with lake trout yearlings and brook trout fingerlings for KB's Hatchery, while the tribal council reserves the right to determine the time and location of stocking and also the size and type of the fish released. Brook trout are stocked as fingerlings, fry or eggs. The Lake Superior Technical Committee's protocol for stocking lake trout into Lake Superior calls for at least seven-inch fingerlings to improve survival rates.

In cooperation with other agencies, the KB Tribal Hatchery conducts gill netting and electroshocking surveys and monitors streams to ensure the success of its stocking program.

(See Enhancing the walleye fishery, page 23)

Enhancing the walleye fishery

Tribal hatcheries target walleye for stocking effort

(Continued from page 22)

Hatchery articles by Thea Konstantinidis, HONOR intern

Lac Courte Oreilles Tribal Hatchery, Lac Courte Oreilles Reservation, Wis.

Established in 1992

Target species: *walleye and muskellunge*
Target waters: *inland lakes speared by tribal members*
Sr. hatchery manager: *Tony Butler*

The Lac Courte Oreilles (LCO) Tribal Hatchery's primary goal is to replenish and enhance lakes speared by tribal members. The LCO community's commitment to stocking fish precedes the actual establishment of the tribal hatchery in 1992. Before the new hatchery went into production, LCO used leased incubators and natural ponds to launch its walleye and muskellunge production. With its 40 Bell jars and three drainable, one-acre ponds, the hatchery today has a capacity to incubate seven million eggs.

While the hatchery now incubates an average of five million eggs annually, LCO's level of production was not always that high. In the years after its inception, the hatchery lost substantial amounts of its production due to the chemical content of the well water system used in the facility. The high iron content in the ground water that circulated in the hatchery's tanks and incubators proved to be detrimental for the newly hatched fish.

In order to overcome this problem, the hatchery experimented with different incubation systems and additives before a change from a well water pump system to a lake water system finally brought about the solution.

Today, the facility operates with two pumps that draw up to 80 gallons per minute from Mud Lake. The hatchery uses no chemicals in fungi control; all fungi control in its production is done manually.

Walleye production is the hatchery's primary focus. Using hoop nets, fishery staff capture wild stock from the Chippewa Flowage and Whitefish Lake spawning grounds to obtain milt and eggs. In addition to walleye, the hatchery rears muskellunge.

This year, 4.6 million walleye fry and 50,000 muskellunge fry have been released into six lakes and two streams on and off-reservation. A total of 200,000 walleye and 50,000 muskellunge are currently awaiting their release as extended growth fingerling in October. These extended growth fingerlings are less likely to become prey of predatory fish than fry or smaller fingerlings.

The LCO Tribal Hatchery is currently seeking funding for an expansion of its facility. Future goals include the construction of a second hatchery building and separating production and administration, which are currently housed in one building. Future plans also include the purchase of more incubators and additional ponds in order to increase production and continue LCO's successful restocking program.

Lac du Flambeau Tribal Hatchery, Lac du Flambeau Reservation, Wis.

Established in 1936

Target species: *walleye, muskellunge, brook trout, brown trout, rainbow trout*
Target waters: *on reservation or border inland lakes, rivers, and streams*
Hatchery manager: *Carl White*

The Lac du Flambeau (LDF) Tribal Hatchery, the oldest and largest of the tribal hatcheries, looks back at almost seven decades of experience in fish culture.

After its construction in 1936, the old hatchery building served for more than 60 years as a rearing facility for walleye and other species before it was replaced by the current building in 1998.

The hatchery significantly expanded its capacity with the construction of the new facility. It now features over 300 McDonald hatching jars, 14 rearing ponds, and 200 feet of outdoor raceways. In addition, the LDF Hatchery is equipped with a start tank facility, including six heath incubators, six aluminum fry troughs and six start tanks. It's capacity for incubating 41 million eggs presently exceeds the hatchery's capacity for rearing the incubated fish.

The tribe purposefully built the new hatchery to allow for future expansion and to be able to accommodate the changing rearing technology.

With walleye production the hatchery's primary focus, 20 million walleye fry and 205,000 fingerlings have been released into reservation waters in 2001. Another 175,000 muskellunge fry were also stocked. Since the natural reproduction rate for LDF waters is high, only a small number of muskellunge fingerlings are stocked (300-1500 per year). Stocking priorities are based on the result of fall electroshocking surveys, which provide fish population estimates.

Both muskellunge and walleye are caught with fyke nets by hatchery staff and milked on site. Fertilized eggs are brought back to the hatchery for incubation. After hatching, walleye and muskellunge go first into the six fry tanks and later into the fish culture ponds to be raised to fingerling size.

While primarily committed to enhancing walleye, the facility also raises trout, at times as many as three different trout species. This year, the hatchery obtained 150,000 rainbow trout and 50,000 brown trout eggs. Trout fingerlings are raised in the hatchery's outside raceways. When they reach five to six inches, they are either stocked into the Lac du Flambeau trout pond or into the heavily-fished reservation waters. LDF also raises millions of suckers and fathead minnows; both are forage species to feed their production fish.

The extensive raceways at the Lac du Flambeau Tribal Hatchery allow the facility both to maintain brood stock and rear extensive numbers of fry to fingerling size. (Photo by Amoose)

Lac Vieux Desert Tribal Hatchery Lac Vieux Desert Reservation, Mich.

Established in 1996

Target species: *walleye*
Target waters: *Lac Vieux Desert (LVD), lakes used by tribal spearers and sport fishermen*
Hatchery manager: *Marilyn Whitens*

Concerns about enhancing and maintaining walleye in Lac Vieux Desert (LVD) led to the establishment of the LVD Tribal Hatchery in 1996, making it the most recent facility among the tribal hatcheries to go into operation.

The LVD hatchery has a total capacity of 100,000 eggs, but its fingerling capacity is limited by the size of its rearing pond, which holds up to 50,000 fingerlings. The hatchery usually stocks 50,000 fingerlings in its rearing pond, while the remaining fry are released into the lakes soon after hatching.

In spring, walleye eggs are usually harvested from Lac Vieux Desert by the fishery crew using fyke nets and are fertilized on site.

Because of the absence of male walleye in Lac Vieux Desert this spring, the hatchery crew was not able to meet their capacity of 100,000 eggs from LVD alone. To obtain a sufficient amount of milt for this years' production, the fishery crew turned to Lake Gogebic.

Still, this spring LVD incubated a lower-than-average figure of eggs in its twelve Bell jar incubators, and only 25,000 walleye eggs hatched into the rearing tanks. No fry were stocked into the lakes and all 25,000 are currently in the pond to be released as extended growth fingerlings in September.

For the past several years, Marilyn Whitens, LVD environmental officer, and her team have contracted with the U.S. Fish and Wildlife Service (USFWS) for technical advice.

The hatchery's efforts to improve production does not stop at utilizing know-how provided by the USFWS. Additional funding in the last two years has allowed LVD to invest in better equipment. The hatchery purchased a new boat and larger fyke nets to make harvesting the rearing pond easier and more efficient.

The most important improvement occurred in the facility's water system. A brand new dual water pump system is now pumping lake water from Lac Vieux Desert into incubators and rearing tanks. The new pump system eliminates dangers such as the risk of loosing fish during cleaning, a problem with a single pump system.

Whitens and her team plan to expand the size of the hatchery rather than its program. LVD wants to stay with its target species, walleye, but looks forward to more ponds and additional staff in the future.

(See Tribal hatcheries, page 24)

Tribal hatcheries participate in broad range of programs

(Continued from page 23)

Sokaogon Chippewa Fish Hatchery Mole Lake/Sokaogon Reservation, Wis.

Established in 1990

Target species: walleye
Target waters: lakes used for spring spearing and sport fishing
Hatchery manager: Mike Preul

Over a decade ago, the Mole Lake/Sokaogon band's fish hatchery project started off with just one incubation unit obtained from GLIFWC. Thanks to the ongoing efforts of the Sokaogon band to expand the facility and improve the production, the hatchery, which only covers one-half an acre, now boasts a capacity of eight million eggs.

In the absence of ponds, the Sokaogon hatchery focuses on fry that are usually released six days after hatching. The destination lakes vary from year to year, but all are frequented by either tribal or non-tribal fishermen and rely on restocking to maintain or supplement walleye population.

In the past, the hatchery staff went out to the lakes during spearing season and collected eggs from walleye speared by tribal members. However, this year the hatchery crew extracted spawn from live fish during survey work and was able to collect a record amount of five million walleye eggs from Kentuck Lake. The new method proved so successful that the hatchery staff will continue to obtain spawn from live fish in the future.

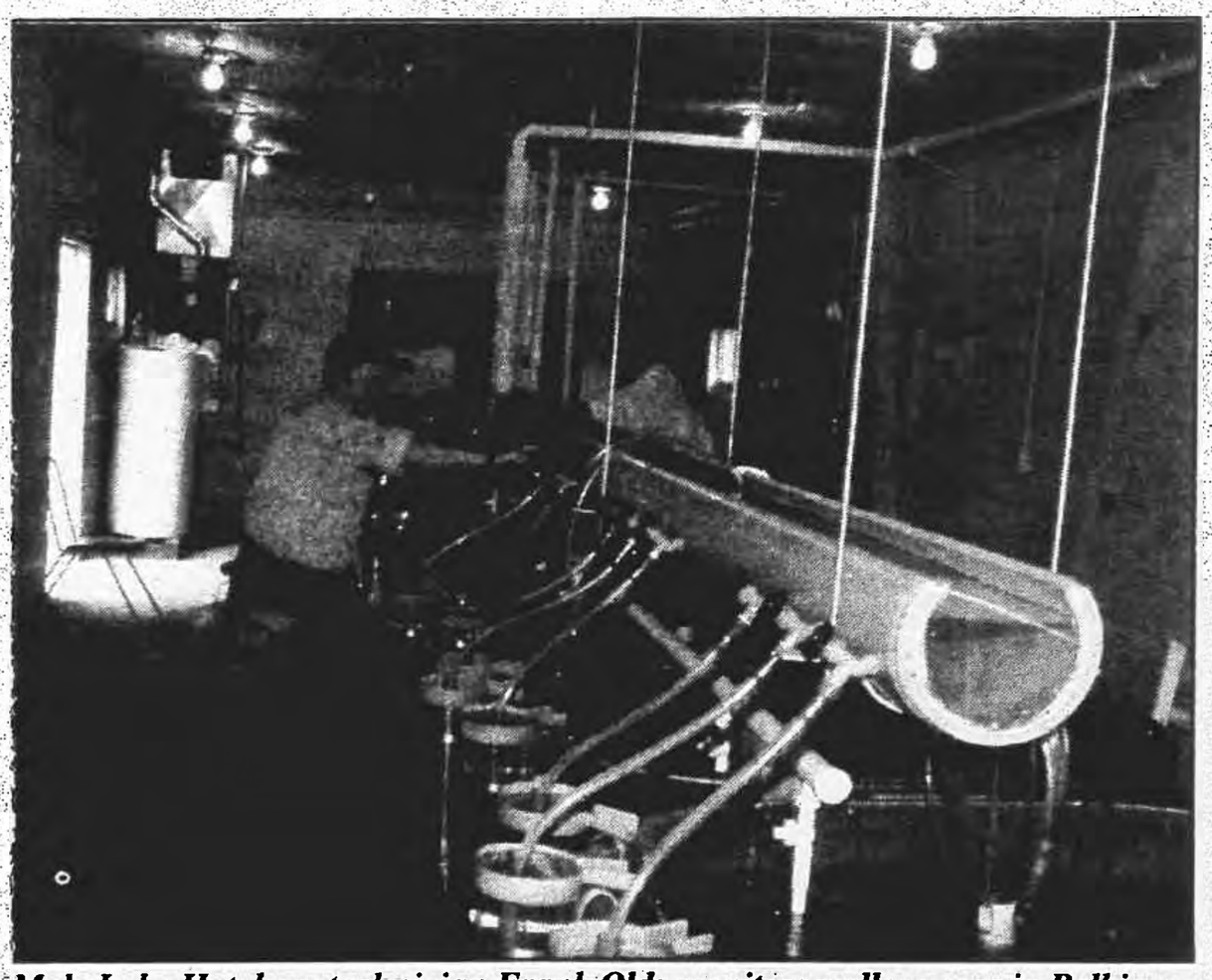
However, the hatchery suffered an unexpected setback when it was not able to meet its annual production average, despite its record harvest. The usual amount of eggs incubated in the Sokaogon's McDonald hatching jars ranges from 2-3 million eggs with a survival rate from 50-60 percent. Well water is pumped through the McDonald hatching jars and is kept at a constant flow to prevent infection of the eggs from sediments and fungi.

Due to the poor quality of the eggs obtained, the survival rate was extraordinarily low; consequently, only 500,000 fry were stocked into the lakes. The hatchery crew looks forward to the next season when the planned improvement, a computerized monitoring system, will be fully implemented. Also on the agenda for next year are plans to rear fingerlings in order to fully utilize the hatchery's capacity.

Regarding natural resource management, the Sokaogon Tribal Fish Hatchery is involved in a wide range of activities. Sokaogon's involvement not only includes extensive monitoring of the aquatic communities on-reservation, but also involves walleye surveys off-reservation.

This spring, staff from the Sokaogon Tribal Fish Hatchery assisted GLIFWC with spring walleye population estimates as one of the electrofishing crews.

Currently, the Sokaogon band is also establishing base-line conditions for on and off-reservation waters to assess the potential impact of agriculture and a proposed mine at the headwaters of the Wolf River.



Mole Lake Hatchery technician Frank Olds monitors walleye eggs in Bell jars. (Photo by Charlie Otto Rasmussen)

Hatchery articles by
Thea Konstantinidis, HONOR intern

Nunn's 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

Nunn's Creek represents a unique institution among the tribal hatcheries. Not only does it primarily cater to the needs of tribal commercial fishermen in the Great Lakes, but it also symbolizes a very successful intertribal effort to supplement and enhance targeted fish populations.

Three different tribes co-manage the facility close to Hessel, Michigan under the Chippewa Ottawa Resource Authority (CORA)—the Bay Mills Indian Community, the Sault Ste. Marie Band of Chippewa, and the Grand Traverse Band of Ottawa and Chippewa Indians. Through the tribes' concerted efforts, the hatchery evolved from humble beginnings in a garage, with no ponds of its own, into a state-of-the-art-facility.

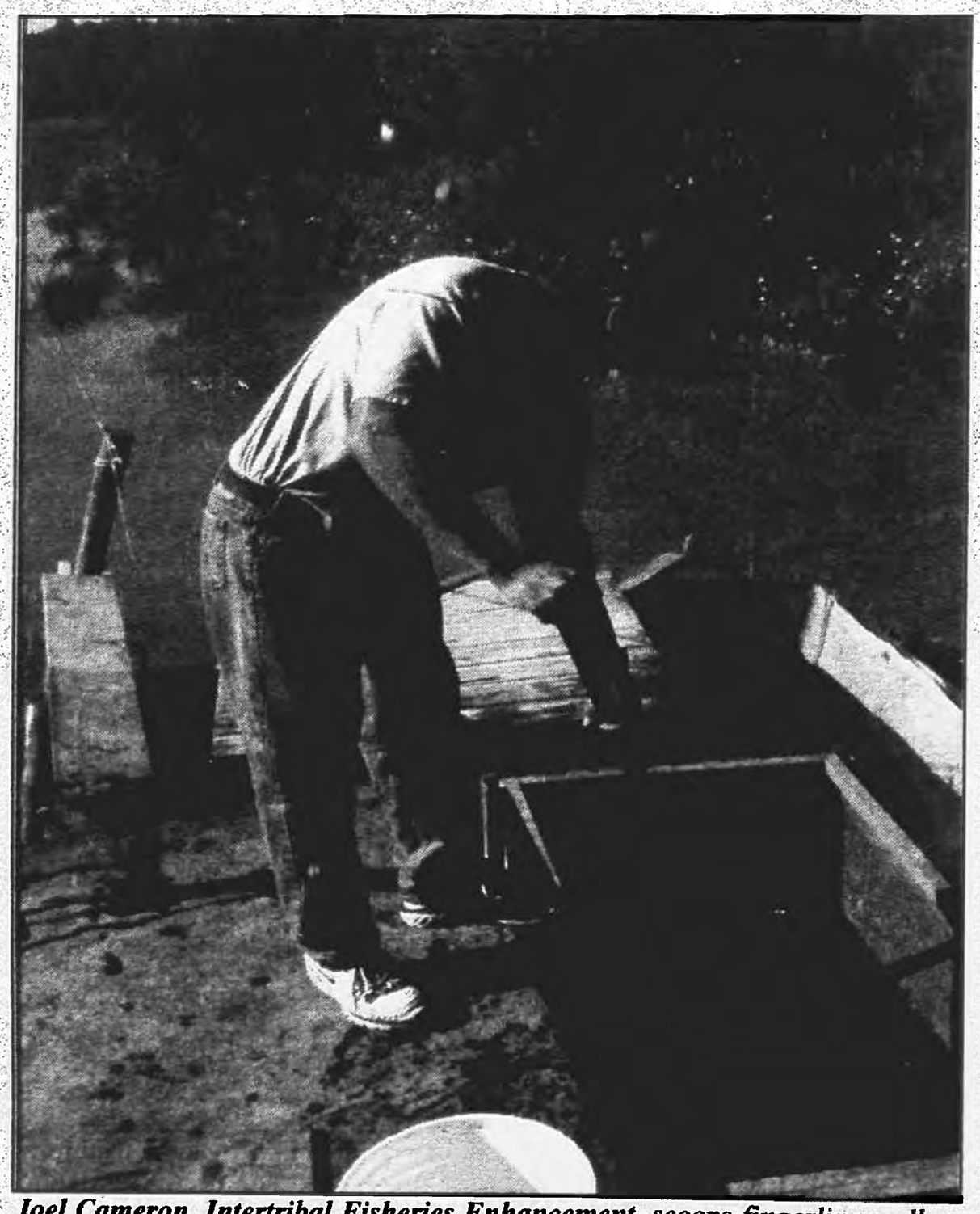
Today, over 13 million eggs can be incubated in the hatchery's 26 Bell jar incubators. Nunn's Creek uses five rearing ponds totaling 230 acres. Nunn's Creek annual production ranges from 2–10 million eggs, 400,000–1 million summer fingerlings and 20,000–100,000 large fall fingerlings.

Spawn is usually collected from wild stock in the St. Marie River. This spring, the river's low water level, which affected the survival rates of the eggs collected, made it necessary to obtain an additional one million eggs from the Michigan Department of Natural Resources.

Taking into account the low survival rates of fry in the Great Lakes, the hatchery focuses on fingerling walleye. A new 40-acre pond, acquired with a $500,000 grant from the Sault Ste. Marie tribe, has become the backbone in the fingerling production. Of the 1.3 million fingerlings that were put into the ponds after hatching, 405,317 two-inch fingerlings were released in late July. Nunn's Creek also rears extended growth fingerlings for release in October.

The hatchery's commitment to ensure a healthy fish population has led to involvement in many programs aimed to improve fish habitat in Lake Superior. Hatchery staff are active in sea lamprey control and in research on the early mortality syndrome in lake trout. For years now, the hatchery's staff have recorded research data on Chinook salmon during the fish's annual up-stream migration to its spawning grounds.

(See Cooperative efforts, page 25)



Joel Cameron, Intertribal Fisheries Enhancement, scoops fingerling walleye from a seine box below a rearing pond. (Photo by Charlie Otto Rasmussen)

Cooperative efforts boost hatchery production capabilities

(Continued from page 24)

Red Cliff Tribal Fish Hatchery
Red Cliff Reservation, Wisconsin
Established in 1994

Target species: *walleye, coaster brook trout and lake sturgeon*
Target waters: *Lake Superior and reservation waters*
Hatchery manager: *Greg Fisher*

The Red Cliff Tribal Hatchery emphasizes quality more than quantity in its production of walleye, brook trout and lake sturgeon.

Because the eggs of each species have differing needs during their incubation period, the hatchery works with two different types of incubators. Brook trout eggs go into the Heath incubators with 64 trays facilitating one million eggs. Sturgeon and walleye eggs need to be constantly rolled over and are incubated in the hatchery's 20 Bell jar incubators.

The hatchery collects and fertilizes 800,000-1,000,000 brook trout eggs annually. Between 25 to 50 percent of the hatchery's brook trout are shipped out to federal, state, tribal, and private agencies for restocking and restoration programs.

Brook trout are stocked in all life stages, but the hatchery's main emphasis is on larger fingerling and yearling production. Currently, 20,000 brook trout remain in the facility to be stocked in mid-October.

In addition, walleye are raised for release into Lake Superior. Since the survival rate of fry in Lake Superior is low, fry are only stocked in years with an excess of incubated eggs. The hatchery's focus is on four-inch to eight-inch yearlings. Its pond capacities allow the rearing of up to 300,000 fingerlings and 70,000 yearlings.

Red Cliff also participates in the Lake Sturgeon Restoration Project and has very successfully raised and released lake sturgeon of all age groups, ranging from tiny fry to 16 inch yearlings. With the program suspended for this year due to difficulties in obtaining eggs, only 120 sturgeon yearlings (10-16 inches) remaining in the facility from last year were released in 2001.

The Red Cliff Tribal Hatchery uses a passive effluent wetland system to purify its wastewater. Water with fish and feed waste products is directed into the wetland area adjacent to the hatchery. The wetland not only provides a natural habitat for waterfowl, but it also purifies the water. Natural processes will lead to the break down of the waste substances. When the wastewater eventually returns into the water cycle its water quality surpasses the quality of the creek water it flows into.

The Red Cliff hatchery views its primary in mission as supplementing fish populations and restoration of lakes and streams. The hatchery also participates in monitoring activities with other agencies.

In collaboration with UW-Superior, Red Cliff hatchery will soon house an aquaculture complex. The aquaculture complex will serve as a learning and demonstration center to the general public interested in fish rearing techniques and to prospective aquaculturalists alike. At present, a lab for monitoring water quality and toxin levels in the Red Cliff area and an environmental education center are under construction.

Community outreach in order to educate the public about tribal resource management is another focus of the Red Cliff Tribal Hatchery. Each year, a steady flow of tourists and school classes take an interest in the operation of a fish hatchery and tour the facility.

In the past, the hatchery staff has taken on this additional task. Last year, Red Cliff staff conducted more than 400 tours. The hatchery is currently waiting for funding to establish an environmental education position over summer months to assist with conducting tours.

Barry Bassett, St. Croix Tribal Hatchery fish and wildlife technician, releases two inch fingerling walleye from the fish transportation tank into Beaver Dam Lake. (Photo by Thea Konstantinidis)

Scooping coaster brook trout from one of the Red Cliff Tribal Hatchery's indoor raceways is Greg Fisher, Red Cliff Tribal Hatchery manager. The hatchery has developed its own brood stock stemming from the Lake Nipigon strain of coaster brook trout. (Photo by Sue Erickson)

St. Croix Tribal Hatchery
St. Croix Reservation, Wisconsin
Established in 1990

Target species: *walleye*
Target waters: *on and off-reservation lakes*
Incubation manager: *Beth Greif*
Field Supervisor: *Don Taylor*

Since 1987, the St. Croix Tribal Hatchery has stocked a total of 33 lakes in five counties with over five million walleye.

Every year, an average of five to ten lakes that are used by tribal members for spearfishing and that rely on stocking to maintain their walleye population are supplemented with fingerlings and fry.

Walleye eggs, which are collected with trap nets from Round Lake in mid-April, are fertilized on site and then transported to St. Croix's custom-built incubator. St. Croix's small but very efficient facility has a 46-quart capacity, with 120,00 eggs per quart. This adds up to a capacity for 5.5 million eggs.

Because of 2001's cold spring, the spawning season peaked later and was shorter than in former years. Still, St. Croix collected a total of 2.8 million eggs, with an incubation success rate of 68 percent.

In 2001, St. Croix released 172,789 fry back into Big Round Lake, but the hatchery's main emphasis is on rearing fingerlings. As of July 31, with the harvest ongoing, over 320,000 fingerlings were harvested from the two natural farm ponds maintained by St. Croix as rearing ponds.

The hatchery uses its three-quarter and one ton trucks with insulated, fiberglass fish transport tanks to bring the fingerlings to their ultimate destination. Salt is added to slow down the metabolism in order to decrease stress and soothe the fish during transport. In addition, the salt increases the protective layer of slime on the outside of the fish.

The hatchery benefits from a cooperative agreement involving the exchange of excess fry and eggs with the Wisconsin Department of Natural Resources (WDNR). While St. Croix has supplemented its walleye production with WDNR incubated eggs in the past, the WDNR receives excess fry from St. Croix. The tribal hatchery also works closely with the state-run Spooner hatchery.

Walleye rearing takes precedence over the hatchery's operation; however, the hatchery is also involved in a multitude of tribal programs. Initiatives range from restoration of wild rice beds to a reforestation project with the tribal youth, to participation in the Great Lakes Indian Fish and Wildlife Commission's spring and fall walleye surveys.

To date, the tribe invested over $225,000 in hatchery equipment and facilities. Additional funding for the hatchery's operation and natural resource management activities come from the Bureau of Indian Affairs' *Circle of Flight* program and the Natural Resources Conservation Services.

Despite the St. Croix hatchery's success, its expansion is inhibited by the inability to locate additional natural ponds that meet soil make-up and water quality standards required for rearing fish.

An all-girl crew of summer interns benefit from work and cultural experiences

Odanah, Wis.—Every summer the annual flock of college interns arrives at the Great Lakes Indian Fish & Wildlife Commission (GLIFWC) and staff temporarily experiences an increase in numbers and a decrease in age average. Eager for new experiences and keen to learn, this year's group of interns was an all-girl crew.

Six young women from colleges in Indiana, Wisconsin, Minnesota, and Germany found their way into the Department of Intergovernmental Affairs, the Department of Biological Services, and the Public Information Office (PIO). All of the interns had an academic background in either biology and related majors or Native American studies.

GLIFWC provides interns with more then just hands-on work experiences related to their field of study. An internship at GLIFWC exposes them to Ojibwe culture, presents insights into treaty rights, and offers an understanding of natural resources management. Above all, it shows how these three factors are inseparably intertwined in the Commission's work throughout the ceded territories.

Into the world of tribal sovereignty

Bad River member explores the workings of tribal governments

Philomena "Phoebe" McCullough, Bad River band member, was the only intern with GLIFWC's Division of Intergovernmental Affairs (DIA) this summer.

Philomena "Phoebe" McCullough gained insights into tribal sovereignty issues with the Department of Intergovernmental Affairs.

Currently living in Delta, Wisconsin, McCullough graduated this year from the University of Minnesota-Minneapolis with a major in American Indian studies and a minor in political science. She studied tribal governments in theory, but is interested in understanding how tribes exercise sovereignty in real life.

In her research on the 1837 and 1842 Treaties, she came across GLIFWC publications and decided to apply for an internship

McCullough, who is considering a law degree, describes her motivation for the internship as both personal and professional. "I would like to work for my tribe, or at least understand how tribes operate, for whatever I do in the future."

In her senior thesis she examined how Wisconsin denied off-reservation treaty rights to the Ojibwe people in the 1980's. Finding out about contemporary practices and policies seemed a logical continuation of her research interest.

Her time with GLIFWC greatly increased her knowledge about how tribes operate in the ceded territories today.

Gleaning through a multitude of documents, attending a Voigt Intertribal Task Force (VITF) meeting and conversations with the GLIFWC Policy Analyst Jim Zorn provided McCullough with the insights she sought. She became acquainted with the workings of tribal governments and the exercise of treaty rights from a hands-on perspective.

"This might seem boring to others, but for me it is really interesting to see how off-reservation management developed out of nothing 16 years ago," she comments.

In the course of her internship McCullough has especially been intrigued by the complexity of communication necessary to successfully manage tribal natural resources.

"It's a complex process," she says, "how tribal members decide the number of fish they need, how they communicate this to the tribal government, and how tribal representatives interact with GLIFWC during VTIF meetings to express the wishes of tribal members."

McCullough, who will use her findings in a research paper, is aware how prevalent ignorance about the tribes' achievements still is: "Not much has been published about how tribal governments operate. It is important to know how well this amazing interaction is working. Their enforcement mechanisms are better than the state's mechanisms. It is important for people here to know that, especially with the spearfishing history in mind."

McCullough truly appreciates the helpfulness of the DIA staff and is grateful for their support. In her remaining time, she plans to interview tribal wardens who are confronted with the implementation of the Voigt decision on a daily basis.

Intern articles & photos by Thea Konstantinidis, HONOR intern

The manoomin (wild rice) mission

GLIFWC interns see it all

Driving a truck over muddy back country roads, lifting a canoe up and down several times a day, paddling along the shorelines of innumerable lakes, counting wild rice plants in floating or standing stages, bearing biting flies, mosquitoes, summer heat - all this constituted daily life for Lauren Hildebrand and Lisa Marks, GLIFWC wild rice interns on their two-and-a-half month long manoomin mission.

While they compiled data on the effect of turbidity on water plants at the beginning of their internship, their true task was fast approaching. Every year interns with GLIFWC's Wildlife Section survey manoomin (wild rice) abundance in the ceded territories of northern Wisconsin, Michigan and Minnesota.

With wild rice on the retreat due to lakeshore development, water quality degradation, and changing water levels, collecting data on this sensitive plant is very important.

Based on the survey's findings, decisions on reseeding are made to ensure a sustainable manoomin harvest for the tribes.

With over 40 lakes to survey, the interns stayed on the road and in the field for four consecutive days each week, covering an average of eight lakes per week.

Their survey tools included maps of the respective lakes, a half-square meter used to determine the density of the wild rice plants, a canoe, two paddles, and the power of their arms. Quickly, their hands grew equally adept to handling a canoe paddle as to handling a pen to mark wild rice on their maps.

Following an interview with Peter David, GLIFWC wildlife biologist, Hildebrandt, a biology major at Northland College, Ashland, chose the wild rice internship over an internship with the Wisconsin Department of Natural Resources. During the internship she learned a lot about aquatic communities. She also gained insights into issues arising from natural resource management on land and waterways lined with privately-owned property.

The internship required a lot of independence, responsibility and problem-solving skills from the interns, as in the event of an unexpected truck breakdown or an unreliable canoe motor.

"Apart form the actual hands-on experience, there is a lot more you gain from this internship; it teaches you observation skills, communication skills and improvisation skills," adds Lisa Marks, who is a natural resource management major at Northland College.

Marks, originally from New Ulm, Minnesota, was drawn to this internship by her interest in the outdoors and her desire to learn about nature and wildlife. She was eager for hands-on experience in her field since she is undecided which aspect of natural resource management she wants to pursue.

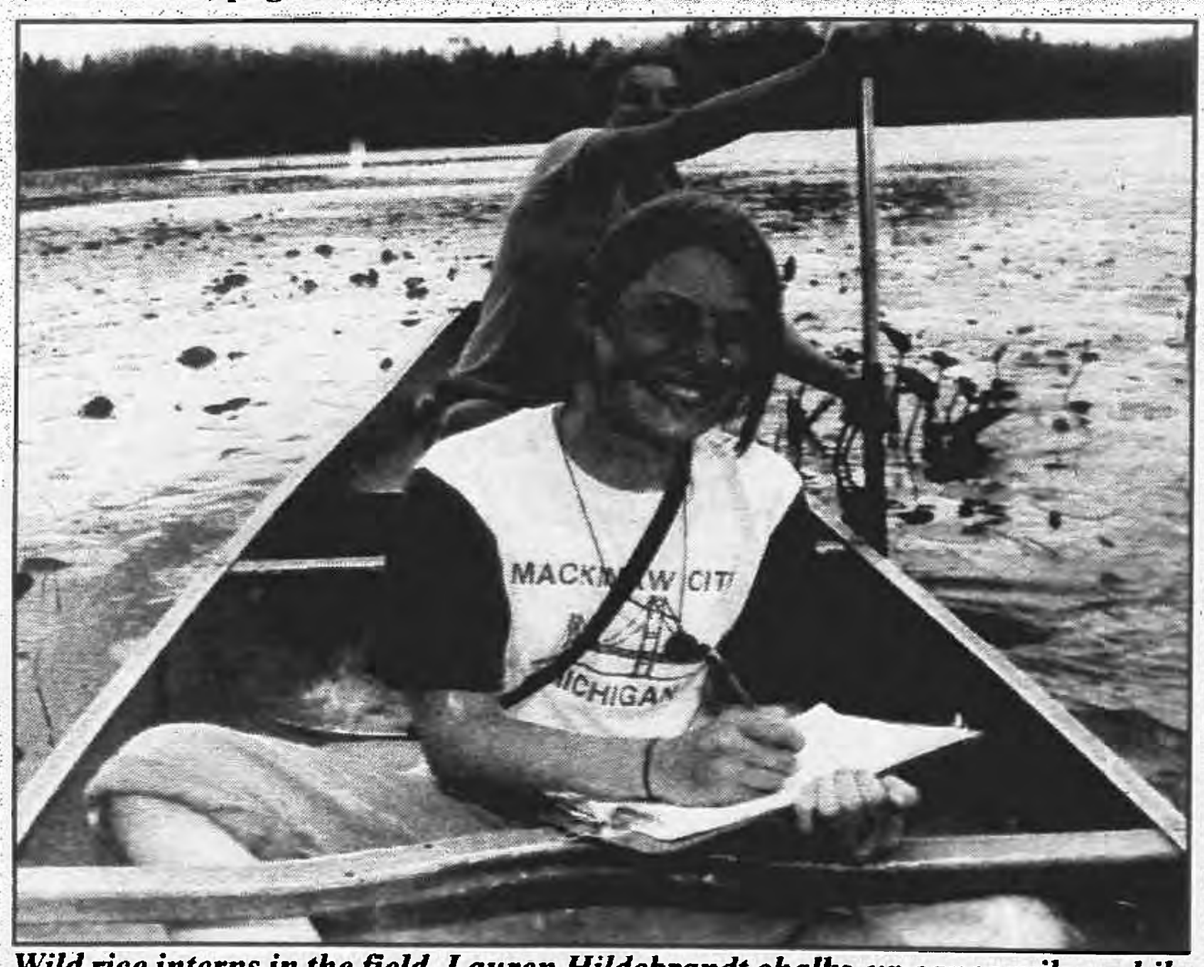
The GLIFWC internship offered exposure to treaty rights in addition to hands-on experience in natural resource management. With the exception of the relentless attacks of flies and scorching summer heat, she has enjoyed every aspect of her summer work.

The wild rice internship offered Lauren Hildebrandt and Lisa Marks sights and insights alike. Both agree that it would have been hard to find a place for their first internship with a better working climate, co-workers and work experience.

It has been their pleasure to work with Peter David, wildlife biologist, and Dan North, wildlife technician, in the Wildlife Section. They also appreciated the helpfulness and friendliness of everyone they encountered during their internship with GLIFWC.

The two interns took delight in the beautiful scenery and wildlife they saw while in the field. They appreciated the cooperation between GLIFWC departments, which gave them the opportunity to help with other projects, such as sea lamprey control and a radio-telemetry survey of pine martens. Hildebrandt and Marks offer one piece of advice to next year's wild rice interns: if you are surveying wild rice abundance, don't forget a cooler. And if you take the cooler, don't forget the ice!

(See Interns, page 27)



Wild rice interns in the field. Lauren Hildebrandt chalks-up canoe miles, while Lisa Marks is marking wild rice abundance.

Interns gain experience on Lake Superior

(Continued from page 26)

The art of sewing—Brandy Cheatham (left) and Abbey LaBarre prepare nets for Great Lakes fisheries assessments.

The Great Lakes, fish and fun

(Minwendaagozid giigoohyag gaye gichi gamiwan)

Water and fish go together. This is a commonplace truth, especially in the ceded territories with their countless streams, rivers, lakes and wetlands. However, in a world with continuing environmental degradation and loss of habitat, this is not always a simple equation.

Countering adverse trends and relieving pressure on endangered populations are among the goals of GLIFWC's natural resource management programs. In its work GLIFWC unites natural resource management goals with treaty rights and cultural objectives of the Ojibwe in Wisconsin, Michigan and Minnesota.

This summer, Brandy Cheatham and Abbey LaBarre explored the complex relationship between fish populations, their habitat and tribal resource management in depth.

The two interns were hired by the Great Lakes Fisheries Section of the Biological Services Division and worked with Bill Mattes, Great Lakes fisheries biologist, and Mike Plucinski, Great Lakes fisheries technician, from mid-May to mid-August.

At the beginning of their internship, Cheatham and LaBarre were busy with sea lamprey control in the Bad River and the White River. Lampreys cause immense damage to the lake trout population in the Great Lakes. The parasitic fish attaches itself to the outside of other fish, feeding on their tissue and blood.

During surveys, lampreys were captured in traps, scanned and fin clipped. With the collected data, lamprey migration, distribution and population numbers are determined.

A large part of their internship was spent in Michigan. They assisted biological staff in monitoring tribal commercial harvest, aided with seining assessments of juvenile whitefish and annual siscowet assessments. The two interns learned how to sew nets and how to age fish by taking otoliths (ear bones).

The week-long siscowet assessment in Lake Superior involved setting gill nets in depths up to 800 feet. The fish were weighed and measured, and stomach samples and eggs were taken for later analysis.

Cheatham is a natural resource management major at Northland College, Ashland, with a Native American studies minor. She previously interned with the Wisconsin Department of Natural Resources in physical stream assessment, and wanted to compare federal and tribal natural resource management agencies.

A guest lecture by Jim Zorn, GLIFWC policy analyst, during an Indian law class at Northland sparked her interest in a GLIFWC internship. "One of the best things was the beauty of the area we saw and knowing that we were helping to preserve that. It's been a great and genuine experience on many levels," Brandy sums up her internship.

LaBarre, who is originally from southern Wisconsin, studies writing and Native American studies at Northland College, where she learned about GLIFWC at a career fair. She was motivated to apply for an internship by her desire to gain insights into co-management of the Great Lakes as the largest fresh water source in the United States and the role of the tribes as co-managers.

"This internship has taught me great skills, skills that are marketable for a lot of jobs that have to do with fisheries, but that's not all," says LaBarre. Taking part in the Healing Journey ceremony was also a very special experience for her. She values highly what she learned about treaty rights and Ojibwe culture during her GLIFWC internship.

GLIFWC would like to say Miigwech to the summer interns for their hard work and dedication!

Have camera, will travel

Intern from Germany does the summer beat for PIO

By Sue Erickson, Staff Writer

Hailing from Frankfurt, Germany, Thea Konstantinidis arrived at GLIFWC's main office in Odanah, Wisconsin after completing a year at UW-Madison. Sponsored by HONOR's intern program, she was placed for a two-and-a half-month stint with GLIFWC's Public Information Office (PIO).

A student of cultural anthropology and political science at the Johann Wolfgang Goethe Univeristat in Frankfurt, Thea will return there to continue her studies this fall.

At the recommendation of Ada Deer, UW-Madison professor, she applied for and was granted an internship through HONOR in order to gain some firsthand experience in tribal communities.

Given tools of PIO's trade—notebook, pen, camera, film, map and transportation—Thea hit the road on assignments for the ***Masinaigan***, traveling to Keweenaw Bay, Lac du Flambeau, Lac Courte Oreilles, St. Croix and Red Cliff reservations during her stay.

Thea Konstantinidis completed writing assignments for Masinaigan as well as manned informational booths for the Public Information Office. (Photo by Charlie Otto Rasmussen)

Several assignments brought her out on Lake Superior photographing fishery assessment crews in action, snapping pictures on a crowded boat rolling with the swells. Others had her up at sunrise for ceremonies or dashing down unfamiliar roads to photograph a fish transfer.

She also hit the road with PIO's informational booth, which she set up at Lakes Fest and at an elder's conference, both at Lac du Flambeau. The travel, she says, provided a good overview of tribal community events.

"I have learned a lot," she says, "but know I also have a lot more to learn." She especially gained good insights into inter-tribal natural resource management and the achievement tribes have made. "Being here and involved on a daily basis, I have learned a lot about how GLIFWC operates and how the bands organize themselves." She has appreciated the laughter and teasing that are incorporated into the work environment at GLIFWC, and also the inter-departmental cooperation and communication.

Some of the highlights of the summer include participation in the Healing Journey, the Madeline Island ceremonies dedicating the Mikwendaagoziwag Run Memorial, and being present for the sunrise departure of the canoes as they began Paddle-Portage-Paddle Journey from a Madeline Island beach on July 21.

"I have been able to talk with Indian people, not just read about them," Thea states. She hopes to use some of the experience in selecting a thesis topic, which will relate to the environmental struggles of American Indian people.

PIO has appreciated her willing spirit, sense of humor, and ability to just go ahead and do what needs to get done. We are thankful she chose to spend a summer with us and for her time and energy. Miigwech Thea!

And only the lake could come between them. Great Lakes fisheries intern Abbey LaBarre knows how to handle fish during GLIFWC's summer siscowet assessment on Lake Superior. (Photo by Thea Konstantinidis)

Voigt Task Force sets WI turkey declarations for fall 2001 and spring 2002 seasons

By Peter David
GLIFWC Wildlife Biologist

The Voigt Intertribal Task Force recently established the tribal turkey quotas for the fall 2001 and spring 2002 seasons, setting quotas at 37 birds per zone per season.

In areas outside of established management zones, no quota is established; birds can be hunted under a daily bag limit of 1 per day. All birds harvested must be registered.

But the biggest news in Wisconsin turkeys at this time is how their population has continued to expand. At the time of the Voigt litigation, only one turkey management zone existed in the ceded territory.

At that time, not much more than a decade ago, biologists were very uncertain just how far north the state's reintroduced population would go. Transplant efforts by the Wisconsin Department of Natural Resources were trailing off, as it appeared that most of the suitable turkey range was being repopulated as a result of this highly successful effort.

However, with a little help from some late transplants, and natural expansion of the birds already established further south, the birds have continued to push north.

As populations in the ceded territory grew, more zones were established. With two new zones (Numbers 42 and 43; see turkey zone map) coming on board for the spring of 2002, the total number of zones in the ceded territory will reach 12. And more zones are possible in the future, with the area near the four corners of Barron, Rusk, Washburn and Sawyer counties being the most likely place for further expansion.

As the turkey population grew, so did the opportunity to harvest them. State-licensed hunters, who are regulated by a permit system rather than a quota, have a record number of permits to apply for this year. And nearly all of the increase in permit levels is attributable to zones that are all or partially within the ceded territory.

This is because the birds have been present in the more southern zones for a longer time, and their populations have roughly stabilized, while the younger populations in the north are still in their growth phase.

Despite this expansion of birds into the ceded territory, tribal harvest has remained low (not more than a few birds per zone per season), for a variety of reasons. The expansion of birds is still a fairly new phenomenon, and a tradition of turkey hunting has yet to become established. The highest densities of birds are still along the southern edges of the ceded territory, which leaves them fairly distant from most tribal hunters.

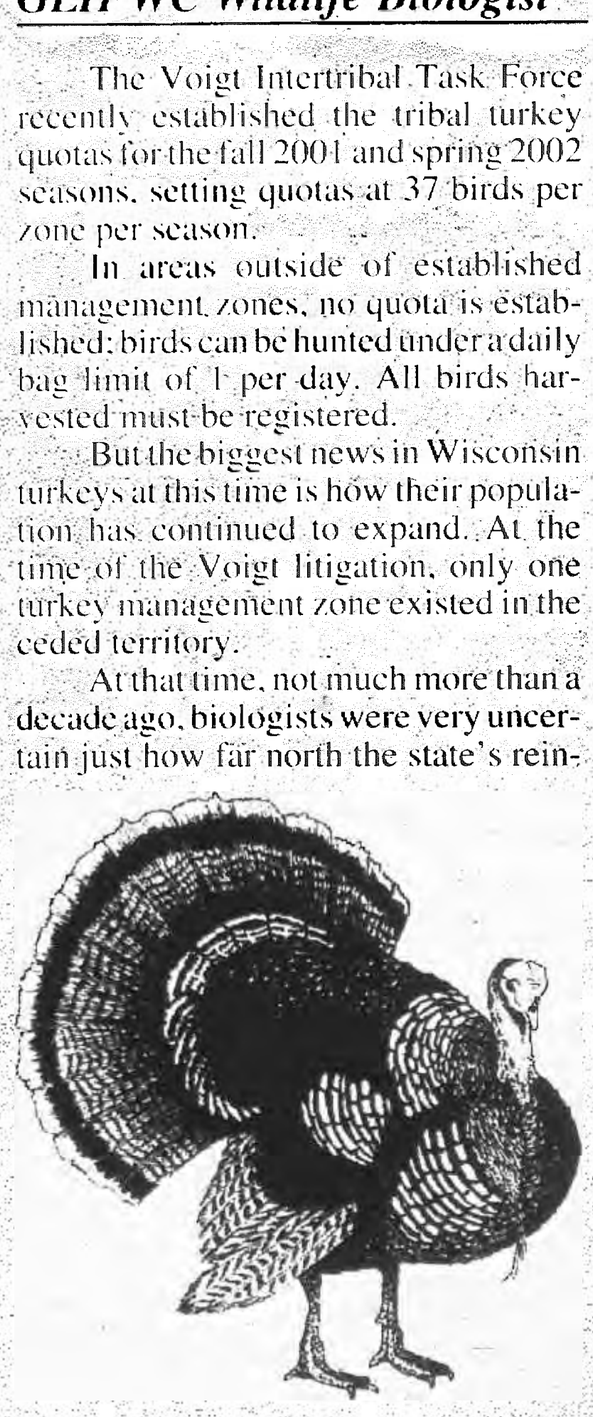
They are also frequently found in association with the agriculture that takes place on private lands, making them less accessible to the treaty right exerciser who is limited to hunting public lands and forest crop lands.

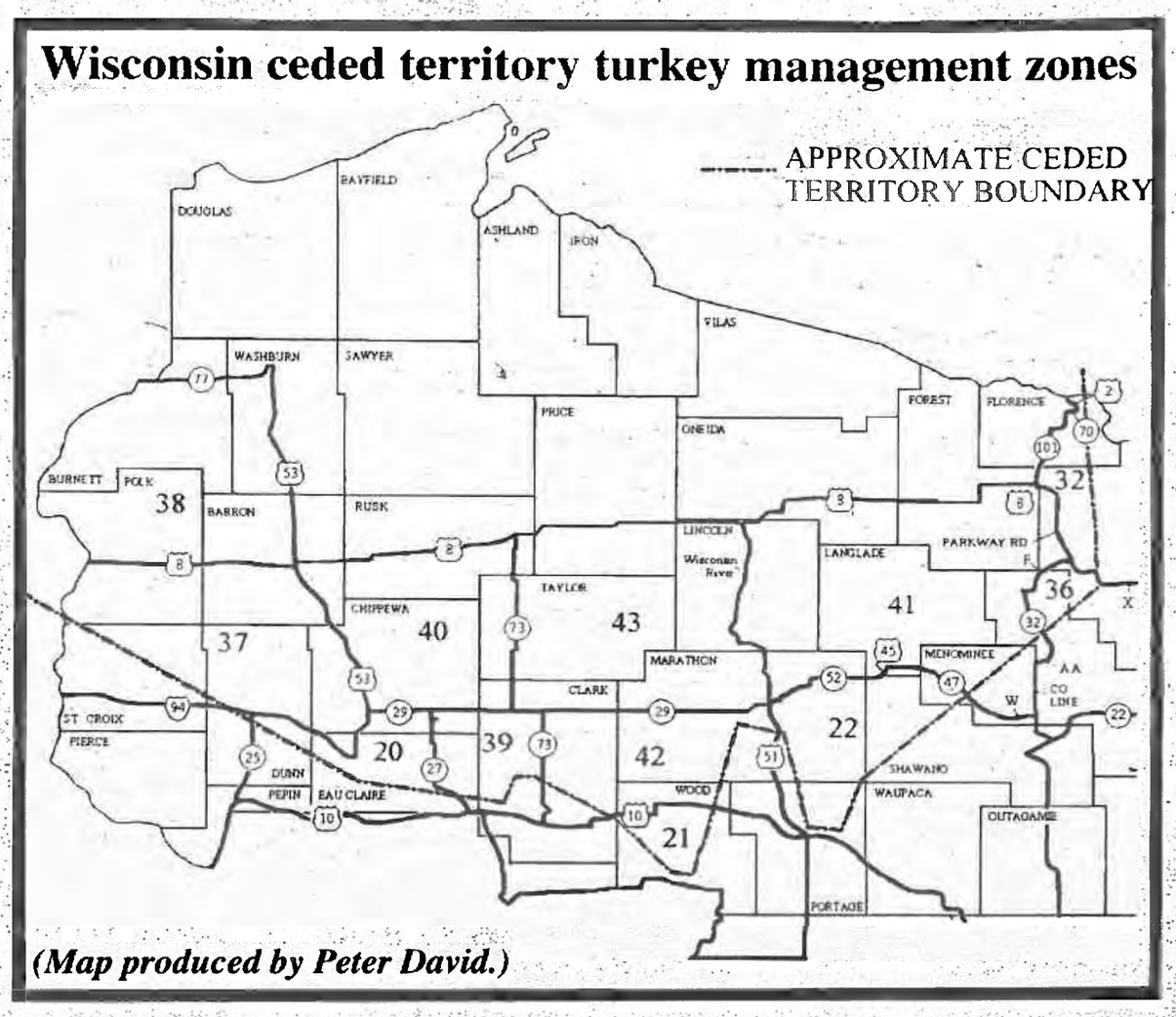
Turkeys are also relatively difficult to harvest, making it unlikely that they will ever contribute significantly to the subsistence hunter's bag.

Lastly, but perhaps most importantly, participation in the spring hunt, which is so important to state-licensed hunters, is limited for tribal members who are active in other traditional activities such as spring fishing or maple syruping.

Still, interest in turkey hunting is increasing among tribal hunters. In addition, many have welcomed the turkey back because they appreciate the restoration of a native species, or simply be-cause they thrill to hear an early morning gobble echoing off an oak ridge.

And if turkeys keep surprising us they way they have, that's a sound which might sometime be heard in nearly every county in the Wisconsin ceded territory.





(Map produced by Peter David.)

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 2001 are as follows:

Wisconsin 1837, 1842 Treaty ceded territory

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

Minnesota 1837 Treaty ceded territory

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

Michigan 1836, 1842 Treaty ceded territory

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

Treaty commercial fishing in Lake Superior, Michigan and Wisconsin waters

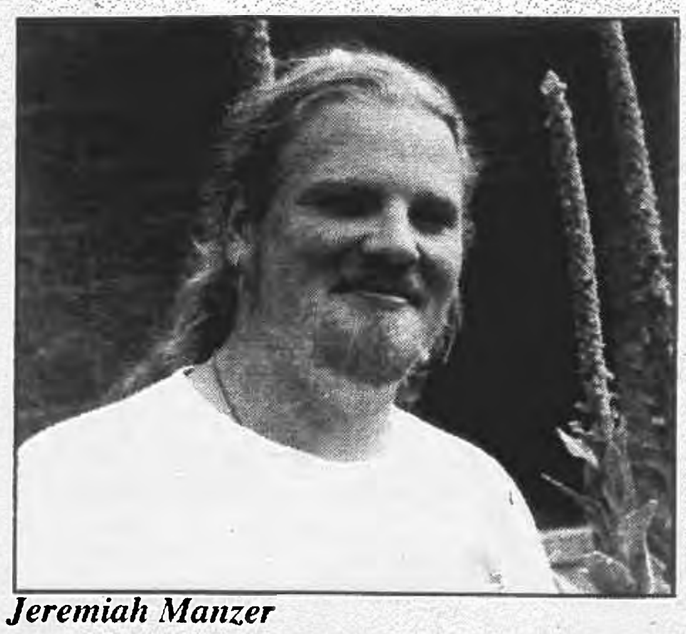
(Consult with tribal codes for specific quotas, units, and dates.)

GLIFWC welcomes new wild plant/wildlife technician

By Sue Erickson
Staff Writer

Odanah, Wis.—Jeremiah Manzer, recently hired wild plant/wildlife technician, put in his first day with the Great Lakes Indian Fish & Wildlife Commission (GLIFWC) on June 4.

Manzer is entering data collected since 1995 from research on logging's impact on understory plants. He is also organizing GLIFWC's herbarium and managing GLIFWC's native wild plant garden.


Jeremiah Manzer

Originally from upstate New York, Manzer moved to the area to attend Northland College, Ashland, Wisconsin. He received a Bachelor of Science degree from Northland with a major in biology and a minor in Native American studies.

Previous work experience includes two summers at Cornell University, Ithaca, New York, doing plant research and two summers at Northland College as dormitory director for the Upward Bound program.

Manzer was attracted to the position with GLIFWC because it provided a rare opportunity to use both his major and minor areas of study, and he had heard good words about GLIFWC's biological program from Northland staff.

Currently, Manzer lives in Washburn, Wisconsin. He is single and enjoys outdoor activities, such as fishing, backpacking and hiking, for recreation.

The importance of natural history

You can't protect what you don't know

By Dr. James Meeker
Associate Professor, Northland College

It's been hot and humid in the early days of July, with several days of southerly prevailing winds. Time to take a dip in Lake Superior? Think again.

Most of us living on the lake have observed this scene: a family of tourists from the cities, garbed only in their swim suits, get out of their car, and establish a spot at the beach only to be immediately driven back to their car by hordes of relentless biting flies.

Referred to by locals as stable flies, fish flies, ankle flies (take your pick), locals have learned to wear long pants and double pairs of socks to deal with these lake denizens.

But that's not all. When a finger to the wind tells us that the breezes have shifted and have come out of the north for several days, we now know it's the time to go the beach. Not only has the prevailing north wind pushed warmer surface water onto the beaches, but it beats back the flies as well.

The intention here is not to pass on tips to the tourists but to illustrate the importance of natural history knowledge in coping with the environment. I don't want to trivialize this point, however, because systematic loss of natural history knowledge bodes ill for the conservation community as well.

Dr. James Meeker

Indigenous people have long recognized the importance of natural history, and respected those who knew the most—the elders. Knowledge in this case was survival, not merely used to choose a day to enjoy the beach.

Mark Plotkin, in his book about ethnobotany of the tropics, **Tales of a Shaman's Apprentice**, describes a situation that illustrates my point. Entering a new village, he asked a group of men, "Who knows the most about plant medicine?" Without any hesitation all the men pointed to the eldest. All of these individuals had lived their whole lives in the area, and they all were aware that they knew less than their parents and grandparents. Inherent in their decision was that fact that they all knew that information was being lost, and it was logical to believe the oldest among them knew the most.

Modern Ojibwe communities have acted in a similar fashion. Elders, especially those few remaining speakers of the language, have been sought out and interviewed about the traditional uses of native flora and fauna. WOJB, a tribal alternative radio station at the Lac Courte Oreilles reservation, broadcasts the "Ojibwa phrase of the week," supporting efforts to restore the native language base among their members. All these efforts recognize and respect traditional knowledge, which in this case, is synonymous with knowledge of the natural world. What does this have to do with conservation? It is difficult to protect what you don't know.

Five or six years ago the Sigurd Olson Environmental Institute and Northland College invited a representative of the U.S. Fish and Wildlife Service (USFWS) to get his view of the crisis in biodiversity loss. (The USFWS is the federal agency charged with enforcing the Endangered Species Act). This person was a noted regional birder with a good sense of natural history.

After detailing the loss of species, he quizzed the audience. "What do you think is the largest threat to the preservation of biological diversity?" he asked. Most of us thought of over-collecting, invasion of exotic species, or habitat loss, but in his estimation a pre-requisite to protecting against all forms of these threats is a good working knowledge of the biological entity that you seek to protect. His concern was that this working knowledge was being lost. Again, you can't protect what you don't know.

As a conservation biologist and citizen of Wisconsin, I have long had a sense of pride in our state's conservation heritage, and more recently had been a real fan of the Wisconsin Department of Natural Resource's (WDNR) Bureau of Endangered Resources (BER).

This is the agency most associated with the protection of the state's natural heritage. Working with academics, conservation organizations like the Nature Conservancy and more recently with tribes, the BER had become one of the best sources of knowledge of the state's endangered species and natural areas. One of the BER's strengths was its employees' knowledge of natural history.

Well, recently this once stellar organization took a turn in the wrong direction, shocking the biological community with its decision in regard to the heritage botanist position. Instead of selecting a great addition to their staff, a person of legendary expertise and well-known and well-respected by his professional colleagues, they hired a relative unknown, someone who has never even worked in Wisconsin, in what appears to be the latest example of "dumbing down" the DNR.

For over two decades, Emmet J. worked throughout the state cataloging and writing reports on the occurrences of rare plants and intact native communities, working for the federal agencies (Apostle Islands National Lakeshore, national forests), the state, The Nature Conservancy, the counties, and the tribes. He worked half-time for the WDNR, mapping occurrences of rare plants, and generally, but informally, assumed some of the state botanist's job, as the person who held the position was ill. Emmet was everyone's choice for this state botanist position, as he was overwhelmingly the most qualified candidate, and the first choice by a group of peer employees within the WDNR itself.

Well, Emmet was not hired, even though anyone associated with him can attest to his knowledge and productivity. In his place, the section leader hired a younger, less experienced person, who is touted as a "team player." Of the list of 10 competencies justifying the hiring of this less experienced person (taken from a BER welcome-the-new-guy memo), the new person's taxonomic skills were mentioned last, whereas enthusiasm and team player qualities were listed 1 and 2.

So much for someone being hired for expertise in his field. When reading the BER's assessment of the new botanist, it seems pretty clear to me that the BER heads' priorities were not to hire an excellent field botanist (as the position description suggested), but to hire someone who would be comfortable working within the framework of the agency. The position seemed to be implicitly redefined. This is not a good sign for natural communities in Wisconsin. It's truly as if Emmet's performance (forget about credentials for a moment), didn't even enter into the decision.

The decision has been made, and this column is not intended to undo this decision, but I do not want my concerns to go unnoticed. I harbor no rancor toward the individual hired. I do not know him, which helps to make my point. After working with Wisconsin plant communities for several decades myself, I had never even heard of him. This is a crippling blow to the BER's Natural Heritage Inventory and one of its core science positions.

In addition to the injustice done to one individual, I am totally dismayed at the direction that the BER is heading, and perhaps has headed, from other recent hires. It seems as if the BER would rather have a person who is most comfortable at meetings, working with the public (partnering, is the buzz word), and less concerned with what he knows relative to the stated expertise. This direction is in total disregard for field skills, intimate knowledge of the state's flora, and knowledge of the local experts on whom to call if he had regional questions.

Overall, I believe that the WDNR would rather have a malleable, less-experienced person who poses fewer hard questions and who is perhaps better at public relations at the expense of hard-gotten field experience and decades of training. It used to be that the DNR, BER especially, was the place to go to ask questions about the biology and distribution of a species, and this hiring decision takes us in the opposite direction.

One of the comments that I received from the conservation community suggested that this is "the wakeup call that we need to demonstrate to the general scientific community how badly the Wisconsin DNR has been co-opted by politics ... and perhaps it is time that we as a scientific community begin offering a counterpoint to the 'official' views."

Now, I am a friend of Emmet's, but I feel the need to talk about this not for one individual's sake, but to bring to light this damaging trend in natural resource management. Reed Noss, a nationally known conservation biologist, wrote several years ago that the naturalists are dying off. These are the people who really "know" about the status of native plants and animals and their communities, and because of this knowledge, are aware of the threats to native communities. These people are retiring and not being replaced. Here, the BER has sped up this process and disregarded hard-earned knowledge, apparently for nature sound bites. If the state botanist really were the one to call about the state's flora, Emmet would be the one. With the new hire, it is more appropriate to call the position the "Commissar of Plant/Human Relationships," or the like.

Unlike the tribal endeavors that respect and recognize the importance of traditional knowledge (natural history), the BER heads have done the equivalent of trading Michael Jordan in his prime for a player to be named later. I can only wonder why.

(Editor's note: Jim Meeker is an Associate Professor of Natural Resources and Biology at Northland College, and is active in regional conservation issues. ***The opinions offered in this column do not necessarily reflect the views of the Great Lakes Indian Fish & Wildlife Commission.)***

Two ancient plants, moonwort grape-fern (left) and Braun's holly fern, still occur in northern Wisconsin forest habitats; however, the moonwort is now listed as endangered and the holly fern is considred threatened. These are but a few species requiring protection to survive. (Photos are from the DNR website.)

End of a language—end of a culture

If a language is to survive, says the Worldwatch Institute, there must be at least 100,000 speakers.

With the adoption of a dominant language (English), and a ban on others, native languages have suffered. No one is more aware of this trauma to Indian Country than Mr. Gerald Hill, Chairman of the Indigenous Languages Institute.

During a recent conference, Mr. Hill pointed out that approximately only 100 native languages are being currently spoken in the United States and that of those surviving 100, 40 are threatened and 60 are endangered.

Mr. Hill actively encourages native tribes to use their own languages at every available opportunity, saying that when a tribe loses its language, it leads to a loss of culture, identity and eventually, sovereignty.

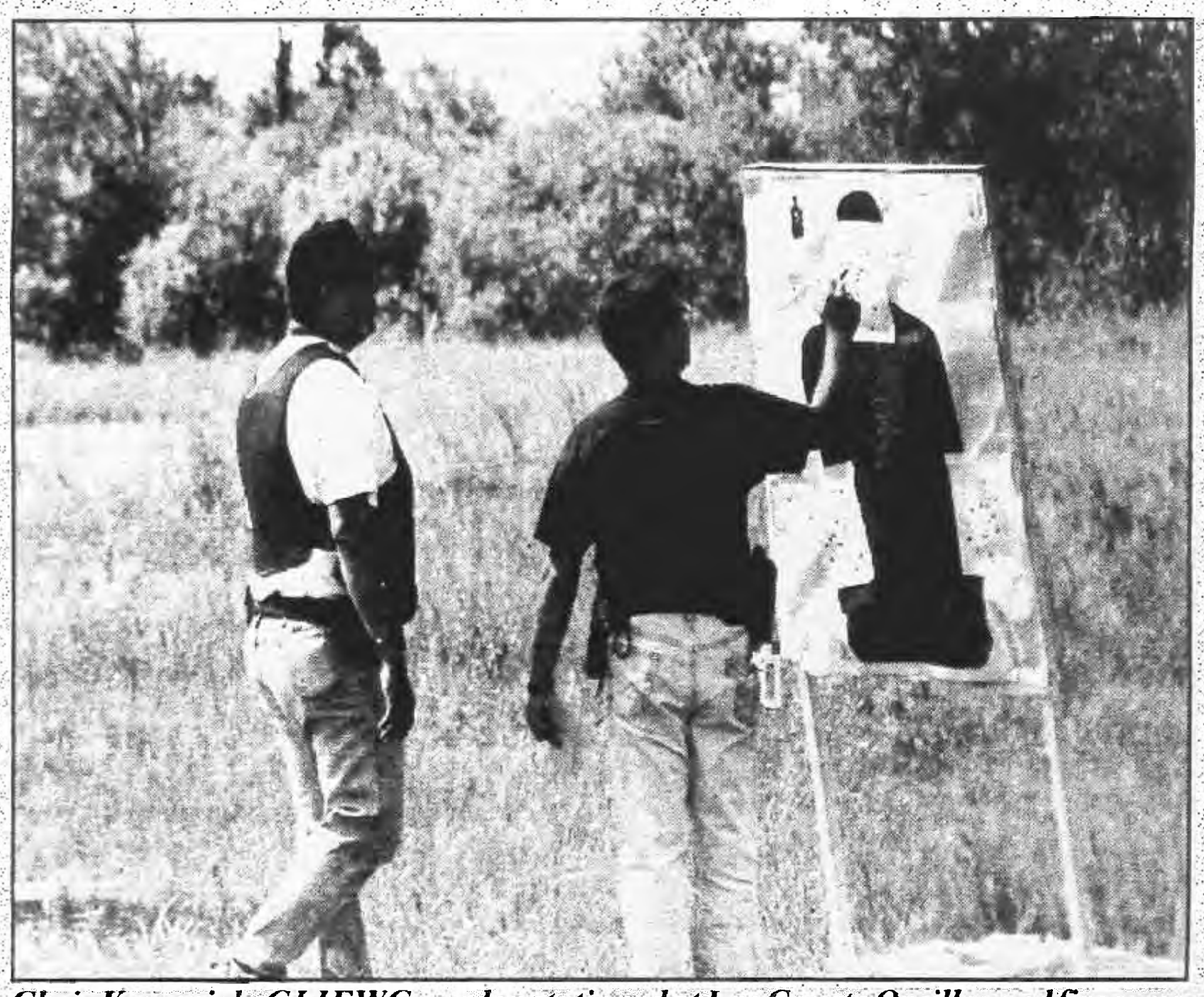
Steve Emery, Director of the Policy Development Institute at Sinte Gleska University in Rosebud, South Dakota, said, "The United States Government did everything it could to wipe out our languages. My grandfather was horsewhipped for speaking Lakota when he was a youngster at a BIA boarding school. The punishment and humiliation heaped on our grandfathers and grandmothers when they were young simply for talking to each other in their own languages silenced many of our people. That is the background of the problem that we face today."

But the irony is, the Navajo language helped win World War II. Dr. Sam Billson, President of the Navajo Code Talkers Association, said, "The United States called on us to use our language as a code. We could send a coded Navajo message and on the receiving end, the Navajo marine could decode it in two or three minutes."

The Japanese were never able to break the code. The Navajo language is credited for saving countless lives. Now the push is on to save the Navajo language.

Milo Yellowhair, Oglala Lakota, in a prayer to the Creator, summed up the conference simply and eloquently. "This is from the heart," he said. "Our language and culture is who we are. It is too precious to put a price on. We must save our languages."

*(Reprinted from **HONOR Digest**, May/June 2001 edition.)*



Chris Kessenich, GLIFWC warden stationed at Lac Courte Oreilles and firearms instructor, inspects the results of Warden Mark Bresette's last firing round. GLIFWC wardens qualify with firearms four times annually, shooting under a variety of conditions. (Photo by Thea Konstantinidis)

The St. Croix Tribe's Fire Department, handyman crews, tribal construction company, and tribal employees all pitched in to assist their neighbors after a June tornado destroyed so much—most of the damage—just a half mile from the Tribal Center in Hertel. Besides large monetary donations ($25,000 to the Salvation Army the morning after the storm), the Tribe has donated equipment and man power for cleanup. Tribal employees also volunteered their time to serve free meals to victims. (Photo by Sandy King)

Ceded territory news briefs

Water withdrawal agreement signed

The Great Lakes Charter Annex 2001 was signed by the Great Lakes governors and the Canadian premiers on June 18, 2001. The Annex contains six directives related to the development of binding agreements to govern the withdrawal of water from the Great Lakes basin.

The Annex contains a number of principles that will guide the establishment of a substantive standard for regulating proposals to withdraw Great Lakes water. That standard, as well as binding agreements, will work to ensure that tribal comments are incorporated into the new decision-making standard as it is developed.

Wisconsin deer hunters to be out during Zone T seasons this fall

Tribal, off-reservation hunters should be aware of increased state-licensed gun hunting activity in Wisconsin during the early and late Zone T seasons. The seasons will run concurrently with the off-reservation, treaty deer season. The early Zone T season is set for October 25-28, and the late season will run from December 6-9. The regular state gun season opens on Novemer 17 and concludes on November 26.

New tribal leaders assume position as tribal chairman

Summer elections brought a change in leadership to three GLIFWC member tribes. The new chairman at Lac Courte Oreilles is Al Trepania. At Red Cliff, Raymond DePerry was sworn in as tribal chairman in July, and at St. Croix, Elmer (Jay) Emery was elected tribal chairman, also in July.

GLIFWC welcomes the new chairman and looks forward to working with them.

Curt Kalk to represent Mille Lacs on GLIFWC Board

Curt Kalk, a Mille Lacs band member, was sworn in as the Mille Lacs Commissioner of Natural Resources on June 29. He will be serving a four year term and will represent Mille Lacs on GLIFWC's Board of Commissioners.

As the Mille Lacs Commissioner of Natural Resources, Kalk will oversee the band's natural resource and environmental programs; forestry, fish and wildlife improvement activities on tribal lands; and other natural resource management duties.

Kalk graduated from the band's Nay Ah Shing School as an honor graduate in 1981. Don Wedll, the outgoing Commissioner of Natural Resources, was principal of the school at that time, and their friendship has continued over the years. Kalk credits much of his success in life to the mentorship and positive influence of Wedll.

GLIFWC wardens complete training, recertify with firearms

GLIFWC's warden staff met for two days on the Bad River Reservation in July, bringing wardens from ten of GLIFWC's eleven member bands. Following a one-day general staff meeting, the wardens spent another day recertifying with firearms under both day and night time conditions.

GLIFWC wardens must qualify with firearms on a quarterly basis. Day and night shoots, as well as shooting on water, make participants qualify under a variety of conditions.

In addition, three GLIFWC wardens attended and graduated from the ten-week basic recruit training at Chippewa Valley Technical College this summer. Graduates were Jason Forcia, stationed at Keweenaw Bay; Roger McGeshick, stationed at Mole Lake; and Cory Fossum, stationed at St. Croix.

Ruffed grouse drumming results show population decline

Ruffed grouse drumming activity in 2001 was down statewide by about 23 percent over 2000 levels, according to preliminary surveys conducted by Wisconsin Department of Natural Resources (DNR) wildlife biologists.

There were 0.93 drums per stop in 2001 vs. 1.2 in 2000. The largest decrease was seen in the central part of the state where drumming counts were down 28 percent from 2000 levels. The next largest decrease was seen in the northern part of the state where counts were down 23 percent.

"These numbers are not surprising. Ruffed grouse have a 10-year cycle. They reached their peak in 1999 and are now on the downward trend of the cycle," says Nancy Frost, Assistant Upland Wildlife Ecologist for the DNR.

The off-reservation treaty season for ruffed grouse and sharp-tailed grouse in Wisconsin ceded territories begins the day after Labor Day and ends March 31st.

The off-reservation treaty season for ruffed grouse in Minnesota ceded territories begins the day after Labor Day and ends March 1st. The treaty season for sharp-tailed grouse in Minnesota begins the day after Labor Day and ends January 31st.

Congress grapples with funding issues
Readies for recess

By Brighid Maher for Masinaigan

Washington, D.C.—Congress is preparing for recess as this Legislative Update is being prepared, so there are not many new Congressional initiatives being presented. However, Congress has been taking action on some budgetary matters that impact Indian Country.

Recently, Congress has made some important decisions about funding for tribal programs and other areas that will impact Indian Country. The Senate approved a bill that would increase funding for the Indian Reservation Roads (IRR) program. The total amount allotted for this program is $275 million.

The House has suggested a lower level of funding and would like to see the program cut by about $25 million. A special committee will meet to work out the difference in the amounts suggested by the House and the Senate. Tribal leaders are urged to contact their Congressional members in order to keep the higher Senate level.

This year the House has decided to fund the Indian Country Law Enforcement Initiative, which is a change from previous years when they failed to include the program. This initiative will include money to fund attorneys, jail construction, tribal courts, alcohol and substance abuse programs, juvenile justice programs, and law enforcement personnel.

The Senate has ironed out its funding proposals for Agriculture Programs, many of which are of particular interest to Indian Country. The Senate Bill for Rural Community Advancement Program was approved for $24 million.

This will include rural business opportunity grants, community facilities grants for tribal college improvements, and drinking water and waste disposal systems for tribes. This bill will also include $3 million for the purchase of bison for the Food Distribution Program on Indian reservations (FDPIR) from Indian producers and cooperatives.

Although things on Capitol Hill have been pretty quiet, the Tohono O'odham tribe has been busy trying to educate Congress about pending legislation for their tribe. HR 2348, introduced by Reps. Pastor (AZ), Pallone (NJ), and Jackson Lee (TX) would grant Tohono O'odham members U.S. citizenship and recognize Tohono O'odham tribal identification documents as proof of citizenship.

As U.S. citizens, Tohono O'odham members could freely pass the U.S.-Mexican border to access needed services and visit with friends and family. The bill was referred to the subcommittee on Immigration and Claims of the House Judiciary Committee.

The Tohono O'odham Nation's traditional lands stretch across the deserts from Phoenix, AZ, south into Sonora, Mexico and west to the Gulf of California. The U.S. Gadsden land purchase from Mexico in 1853 divided O'odham lands between Mexico and the U.S.

However, Tohono O'odham members continued to live as they always had—working, visiting family, attending ceremonies, and recognizing tribal members—on both sides of the border. The U.S. formally recognized the Tohono O'odham Nation in 1937.

In the mid-1990s, Congress passed new immigration laws leading to a significant increase in U.S. Border Patrol activity along the U.S.-Mexican border, including the border area which crosses through Tohono O'odham lands.

Since that time, members of the Tohono O'odham Nation have been arrested, deported, barred from re-entry, and had their vehicles seized because they did not have documents proving citizenship or permitting travel within the U.S.

In addition, U.S.-born members have lost their Social Security, veteran benefits, widows' pension, and other benefits because they are unable to prove their citizenship under the new immigration laws.

(Brighid Maher works for the HONOR Advocacy office in Washington, D.C.)

Cedar Island hosts meeting of U.S./Canadian Ojibwe
Water diversion a major concern

By Sue Erickson, Staff Writer

Cedar Island, Ont.—Representatives of six Ojibwe First Nations in Ontario and five Ojibwe bands from the Great Lakes Indian Fish & Wildlife Commission (GLIFWC) met at Cedar Island, Ontario to reaffirm the "Anishinaabe Akii Protocol" and discuss issues of mutual concern on July 12-13.

Both the GLIFWC Board of Commissioners and the Voigt Intertribal Task Force also held their regular meetings at Cedar Island on July 12.

The Protocol originally stemmed from a 1997 meeting on Cedar Island between representatives from GLIFWC member tribes and the Anishinaabeg of Kabapikotawangag Resources Council (AKRC), a consortium of Ojibwe nations with fishing rights on the Lake of the Woods.

Representatives from the AKRC and GLIFWC signed the Protocol in the fall of 1998 on Madeline Island. The Protocol affirms a common heritage between the Ojibwe in Canada and the United States and pledges to work jointly in many areas of common interest today, with an emphasis on natural resource protection and management and protection of treaty rights and sovereignty.

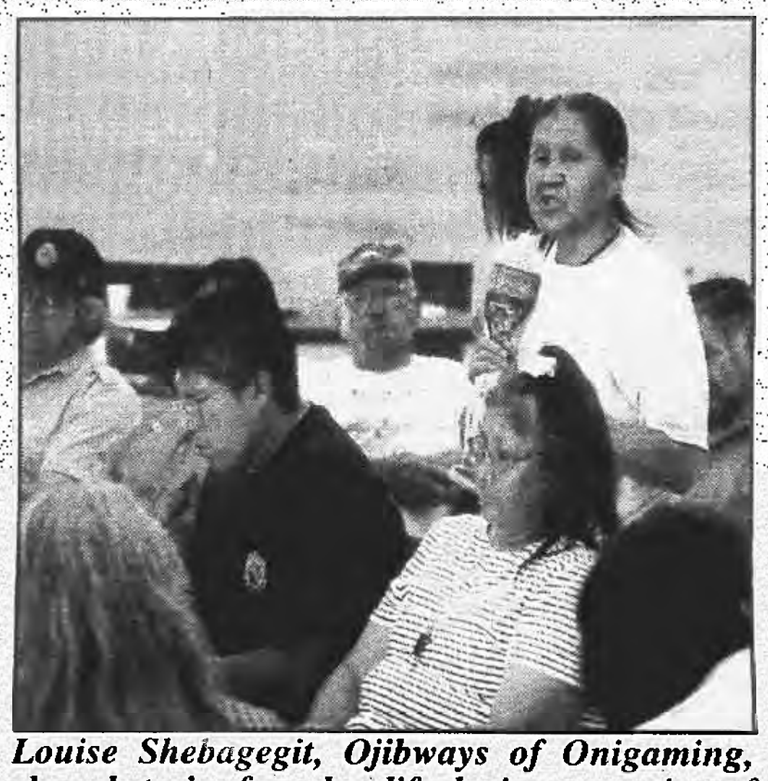
Ojibwe leaders from both sides of the border expressed concerns about water diversion from Lake Superior. Staff from the AKRC and GLIFWC will be drafting a resolution indicating that both organizations are committed to stopping the sale of water, according to James Schlender, GLIFWC executive administrator. The intent of the proposed resolution is to galvanize tribes in opposition to water diversion from the Great Lakes, he says.

Three drums were present at the meeting. The Protocol was feasted and asemaa (tobacco) presented to the drums.

Representatives from six First Nations in Canada and five Ojibwe bands in the United States met at Cedar Island, Ontario, in July to discuss issues of mutual concern. (Photo by Dale Thomas)

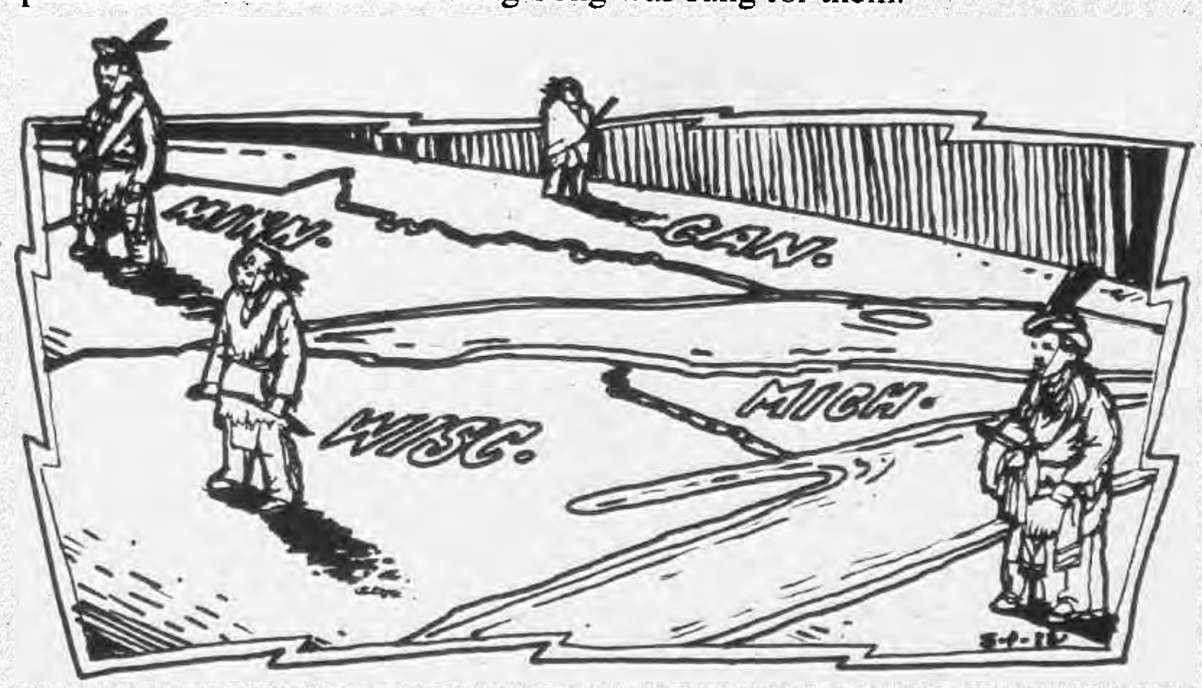
GLIFWC representatives especially appreciated the powerful life story of Louise Shebagegit, an elder from Ojibways of Onigaming, Ontario, who spoke at the meeting in Ojibwemowin and translated her thoughts into English.

She held a "life feather" given to her by her grandmother and asemaa as she spoke. She said it was her duty to wake up the Ogitchidaaekwe (warrior women) whose responsibility it is instruct male leaders. She also said that today Ojibwe leaders are bent over from big burden, whereas in the past Ojibwe leaders walked straight because they knew what to throw away.



Louise Shebagegit, Ojibways of Onigaming, shared stories from her life during a meeting of Ojibwe representatives from Canada and the U.S. (Photo by Dale Thomas)

GLIFWC representatives, thankful for the hospitality at Cedar Island and the opportunity to, once again, learn from brothers and sisters in Canada, returned to homes and work in good spirits after a traditional Traveling Song was sung for them.



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