

Mazina'igan

A Chronicle of the Lake Superior Ojibwe

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Water quality a worry as Polymet releases DEIS

By John Coleman, GLIFWC Environmental Modeler

Madison, Wis.—On October 28, 2009, the Minnesota Department of Natural Resources released its Draft Environmental Impact Statement (DEIS) for the Polymet sulfide mineral strip mine. The mine labeled the NorthMet Project is being proposed by Polymet Inc. within the Hundred Mile Swamp just south of Babbitt, Minnesota.

The project has been undergoing environmental review for an Environmental Impact Statement (EIS) being compiled by both the Army Corps of Engineers and the Minnesota DNR (MNDNR).

Should the project be permitted as currently proposed, it would remove or fill approximately 1000 acres of wetlands. This would be the largest permitted destruction of wetlands since the Saint Paul District of the Corps began permitting wetland fill. It would also create a 270 acre pit lake that is predicted to remain contaminated for the foreseeable future.

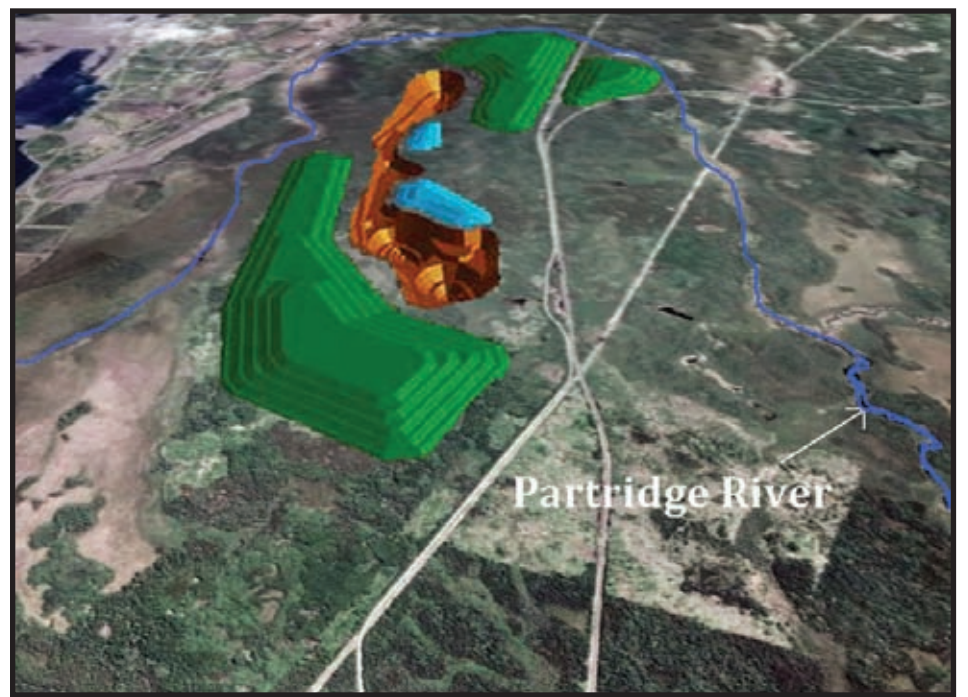
The official date of release by the MNDNR of the DEIS was November 2nd but the agencies decided to post the electronic form of the document on

the DNR web site early. The release of the DEIS comes over the objections of tribes that worked with the lead agencies on the draft document. Three tribes in Minnesota are “cooperating agencies” in the drafting of the EIS, working with the lead agencies to evaluate environmental impacts.

The document that was released on October 28th, to a large degree footnoted GLIFWC and tribal staff concerns about inadequate baseline data for the project and inadequate analysis and characterization of potential environmental impacts. However, some GLIFWC and tribal staff concerns were deleted from the document.

Technical documents underlying the DEIS predict that the project will discharge contaminated process water through the tailings basin into the Embarrass or Partridge Rivers (depending on the discharge option chosen) where water quality standards would be violated. Groundwater standards would also be exceeded at both the mine pit area and at the tailings basins.

Discharge of contaminants by the project to aquifers north of the tailings basin area, where private wells have been shown to already exceed drinking water standards, is an additional concern



GLIFWC/tribes worry about the potential impact of Polymet mining on wetlands and several waterbodies, including the Partridge and Embarrass Rivers, both tributaries of Lake Superior and the St. Louis River. If permitted, the mine will be the first sulfide ore mine in Minnesota. Graphic from the Minnesota Department of Natural Resources website.

of staff (see graphic on page 2). In the DEIS, tribal cooperators highlight predicted elevation of sulfate in surrounding surface waters and the potential for

impacts to wild rice and worsening of the already elevated levels of mercury in fish downstream. (See Polymet, page 2)

Balsam generates seasonal income, holiday cheer



Lac du Flambeau balsam harvesters Clyde Mann (left) and Ken Jack. (COR)

By Charlie Otto Rasmussen
Staff Writer

Lac du Flambeau, Wis.—Balsam on a stick. Deep-fried it may set off a profitable State Fair sensation. Or maybe not. But for tribal members looking for extra money, fresh air and exercise, commercial bough gathering for holiday decorations is just the ticket.

“People think it’s too much work or it won’t pay out. But I’ll tell you it does,” said Lac du Flambeau member Clyde Mann who organizes small gathering crews each autumn.

By late October, Mann and gathering partner Ken Jack had redeemed four tons of balsam at twenty-five cents a pound—not a bad deal considering your workplace is the Chequamegon-Nicolet National Forest and you set your own schedule.

While the 16-to-20-inch boughs Mann and company snaps off trees are unlikely to be dunked into a fryer, the pickers do skewer the green foliage on long “sticks”—actually narrow diameter balsam trunks—as they ply the rolling forests of northern Wisconsin.

“We’re basically grabbing one or two lower branches from a tree and moving onto the next one,” Mann said. “Then you can return to a stand [of

trees] in a few years and it’ll be ready to pick again.”

Like many balsam gatherers, Mann traditionally stacked boughs into a rough square shape and bound the mass with binder twine. Then in the mid-1990s—while driving to Lac Courte Oreilles Ojibwe College where he attended classes—Mann spotted local tribal members on the roadside with their balsam harvest centered on four-foot-long poles that featured a sharpened endpoint and a horizontal “t” stick that held boughs just off the ground.

Mann has used a variation of the two-inch diameter balsam sticks ever since. For the t-piece, he replaced the wire fastener with the Ojibwe wonder gadget: duct tape. Longer, five and six-foot lengths allow him to squeeze on extra boughs. A capacity load weighs around ninety pounds, he said.

“The buyer seems to like them put up this way,” Mann said. “We have the boughs arranged all in the same direction and people assembling wreaths just pull them off the top, one after another.”

What buyers do not like, Mann said, are boughs that are too long or contain dead needles, which exhibit blond and rust colors within the fresh green branches. While Mann previously dealt with a handful of northern Wisconsin buyers, (See Balsam buyers, page 2)



Balsam buyers scrutinize quality, size

(Continued from page 1) Wholesale harvests in recent years have all gone to the same family operation near Park Falls.

"Sometimes you'll get a special order for long boughs—maybe three footers—to make garland, but usually that 18-inch range is the best," Mann said.

Needing two more tons to complete this season's order, Mann and Jack plan on collecting balsam into the early part of November. Four pickers putting in a full day will harvest around a ton of balsam, Mann said.

Additional boughs are destined for the Mann residence, where family members join in assembling holiday balsam arrangements sold to local businesses. Using circular wire frames ranging from 12-to-96 inches, the Mann's weave bal-

sam into Christmas wreaths, garnished with large, open pinecones.

Other boughs are speared into Styrofoam globes, producing "wreath balls." The most-celebrated creation, however, never leaves the yard: a seven-

foot balsam snowman encircled with colored lights.

"The kids get excited once it's out in front of house," Mann said "They look forward to it every year."



"We're basically grabbing one or two lower branches from a tree and moving onto the next one. Then you can return to a stand [of trees] in a few years and it'll be ready to pick again."

—Clyde Mann



Ken Jack (top) eyes the perfect balsam bough: clean, green needles and measuring around 18-inches. Gripping a duct-taped t-stick, Clyde Mann (right) heads for his truck with a load of balsam. (Photos by Charlie Otto Rasmussen.)

MOU

All GLIFWC member tribes except Fond du Lac established National Forest gathering guidelines through a 1998 Memorandum of Understanding (MOU) with the U.S. Forest Service.

Tribal members gathering for personal use are required to obtain an off-reservation harvest permit. An additional commercial plant harvesting permit is required to sell balsam boughs. Both permits are available at community registration stations and allow for harvesting on the Chequamegon-Nicolet, Ottawa, Hiawatha and Huron-Manistee National Forests.

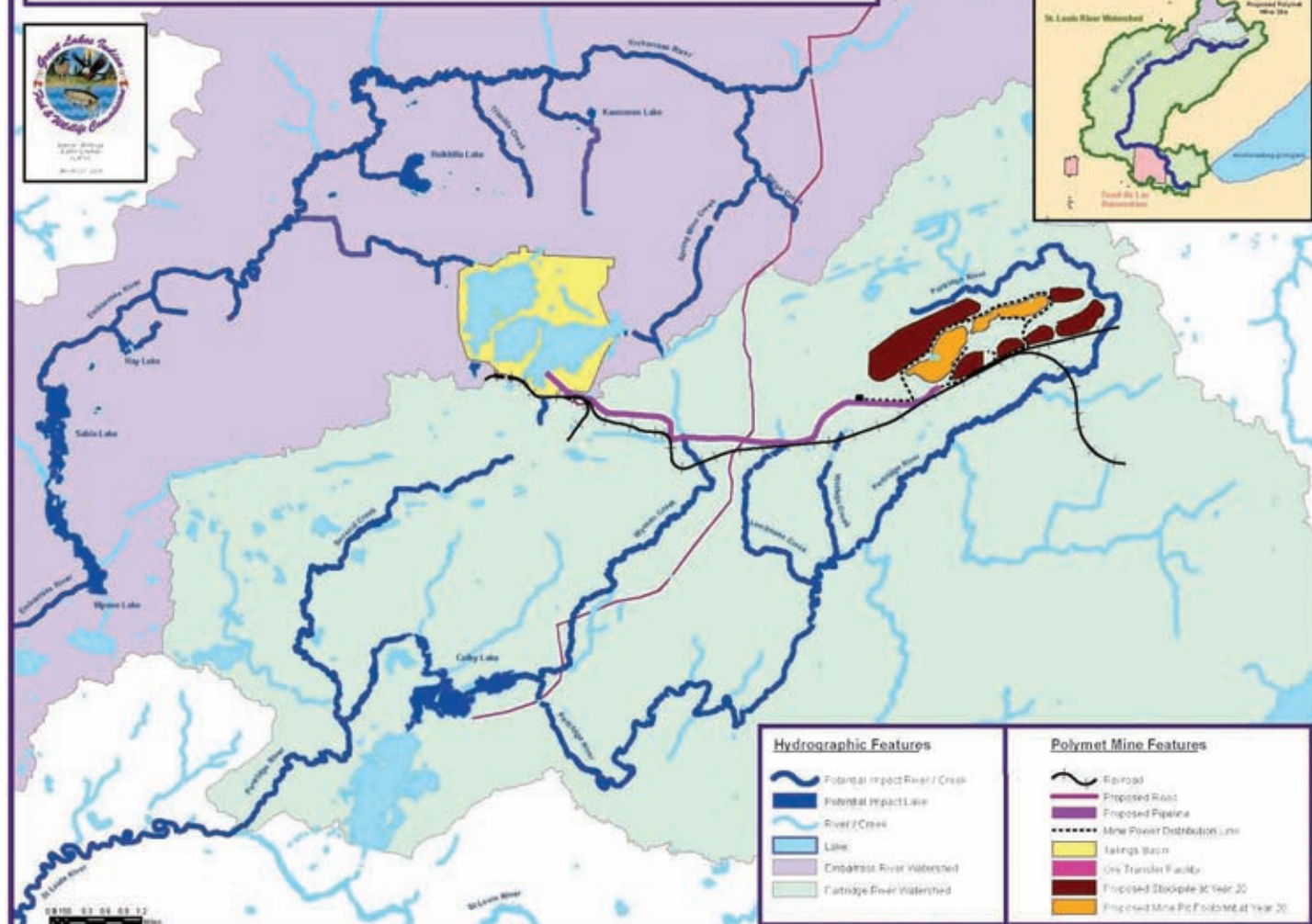
General Rules

Conifer harvesters may not:

- ⇒ cut down a tree for the purpose of gathering conifer boughs
- ⇒ remove boughs from the upper half of a tree
- ⇒ sell northern white cedar or hemlock boughs, or provide them to someone else who intends to sell them.

For more information on gathering balsam and other forest products contact your local registration station, local GLIFWC conservation officer or call the GLIFWC central office at (715) 682.6619.

Potential surface water quality impacts of the proposed Polymet Mine



Map by Esteban Chiriboga and John Coleman.

Polymet releases Draft EIS

(Continued from page 1)

A public comment period began November 2nd. The electronic version of the document is available at: www.dnr.state.mn.us/input/environmentalreview/polymet/. GLIFWC and tribal staff will review the DEIS, submit comments to the lead agencies, and continue to work with the lead agencies to more adequately characterize the potential impacts of the project.

Attention Mazina'igan Readers!

There will be no spring issue of *Mazina'igan*. Next year we will only be running three, rather than four issues of *Mazina'igan*. The first issue will come out in May. Fresh news, however, will be available on GLIFWC's website, so check us out there regularly. Go to www.glifwc.org for the latest in GLIFWC news.



Hit by hindsight— The manoomin season in review

By Peter David
GLIFWC Wildlife Biologist

Was I wrong, or what?

Manoomin frequently humbles me. I have had the pleasure of working with this special plant now for a couple of decades, yet each year I tend to find myself humbled both by its generosity and by the gentle reminders it throws my way to remind me how much I have yet to learn.

Back in August, before the first stalk of 2009 was coaxed over the side of a canoe with a cedar flail, I predicted

a decidedly average year. Neither air nor ground surveys were very encouraging. Some parts of rice range were experiencing their third consecutive year of drought; the summer had also been unusually cool, and plant height and stand density appeared below average on many waters. Finally some mainstay waters, like Clam Lake in Burnett County, had complete failures. It looked like it was going to be a season where the harvesters were going to have to log some extra hours to fill their canoes.

And then it hit: The Perfect Non-Storm. The 2009 ricing season unfolded in a window of the most ideal harvest-

ing weather I have ever witnessed. Day after day after day passed with warm dry sunshine and gentle breezes. The high winds or rain storms that typically claim a good part of annual crop must have visited some other part of the world, because the only thing raining here was rice. Word got out, folks got out, and the manoomin came in.

Ricers have told me this was among the best seasons they could remember, thanks to the weather. Harvest surveys are just getting started, but if the anecdotal stories I have heard show up in the data, we should see a significant jump in harvest estimates from past years. In fact, 2009 could well go down as being one of the top two harvest years of the last two decades.

It's conjecture on my part, but it is possible that some of the increase in harvest might actually be attributable to those shorter, less dense stands. People in the paddy wild rice industry have learned that seed production can decline when

stands get too dense and competition between plants becomes too great; they sometimes thin their beds to maximize seed production. Of course we don't manage stand density in natural waters, but it may have been that the thinner density we observed this year just happened to be near what is optimal for rice. Similarly, plants that do not devote a lot of resources to growth may have more nutrients available to put into seeds, so production may have been enhanced.

And those conjectures point to the one way this rice season was, in fact, like every other. While we (hopefully at least) learn a little something with each season we are privileged to observe, we are also left with a deeper understanding of how little we really know about this incredible medicine. Fortunately, full understanding is not necessary for appreciation, so we can go forward thankful for the gift of another bountiful manoomin season, even while we marvel at the mysteries that surround it.



Manoomin, packaged and being boxed for distribution to tribal programs, was collected as part of the Administration for Native American's wild rice grant. GLIFWC received manoomin from tribal harvesters in exchange for ricing equipment. Above Mike Defoe assisted with the packaging and boxing of wild rice. (Photo by Reggie Cadotte)

Missing LCO spearfisherman recovered

By Charlie Otto Rasmussen, Staff Writer

Reserve, Wis.—Following a six-month recovery effort, the body of Lac Courte Oreilles (LCO) member and spearfisherman Paul E. Dust is finally at rest. Family and friends conducted ceremonies for Dust at Pineview Funeral Services on October 31, four days after LCO Tribal authorities and Sawyer County Sheriff's deputies reclaimed the 43-year-old from Lake Lac Courte Oreilles.

Caretakers tending a property on the northeast shore of the lake reported the body to officials around 5:00 pm, October 27. The previous spring, heavy seas swamped a boat carrying Dust, son Paul Jr. and Howard Bressette during an evening spearfishing trip on the large, 5,038-acre lake. The teenage boys reported being in the 39-degree water for up to an hour before reaching the shore. But Dust never made it out.

LCO police and wardens carried out regular search efforts ever since the April 18 incident. Great Lakes Indian Fish & Wildlife Commission officers, sheriff's deputies, state wardens, and regional aquatic recovery specialists joined tribal authorities in the early stages of the operation. Water depths that extend to 80-feet hindered recovery efforts, officials reported.

Dust is survived by wife Betty, and three children. His passing is the first known spearfishing death in the modern era.

—Joe Morey contributed to this report.

New tribal mentored hunting regulations

By Kekek Jason Stark, GLIFWC Policy Analyst

Odanah, Wis.—The tribes have recently developed culturally appropriate regulations to allow for mentored tribal hunting. Previously in the tribal codes, a tribal youth was prohibited from hunting until the age of twelve. This change provides tribal members over the age of ten the ability to hunt with a mentor and develop and enhance their personal relationships with a parent, guardian or other adult member as they develop respect and appreciation for their relationship with nooping (the woods).

In addition, this change extends to all tribal members regardless of age (over the age of ten), the ability to hunt with a mentor if the tribal member has not satisfied the hunter education requirement. However, each tribal council must enact these changes into tribal law. So if interested in mentored hunting, please contact your tribal conservation department to see if your tribe has adopted this change to the tribal code.

Specific Mentored Hunting Requirements:

Rules that apply to the hunter:

- ✿ Must be a tribal member ten years of age or older;
- ✿ Must have the appropriate valid hunting license, permits and tags;
- ✿ May only hunt while within arms reach of a "mentor;"
- ✿ Must follow all other tribal hunting laws, seasons and bag limits;
- ✿ 10 and 11 year old tribal member may only hunt under these mentorship rules, even if they already completed hunter education.

Rules that apply to the mentor:

- ✿ Must be an adult;
- ✿ If born after 1-1-77, must be a hunter education graduate, or have completed basic training with the U.S. Armed Forces;
- ✿ Must be hunter's parent or guardian, or be a tribal member and have the permission of the hunter's parent or guardian;
- ✿ Must have the appropriate valid hunting license; (If the mentor will be attempting to harvest game, they must have the appropriate valid hunting permits and tags for species they are hunting);
- ✿ Only allowed to serve as a mentor for one hunter at a time.

Rules that apply to both the hunter and the mentor:

- ✿ Only one firearm, bow, or crossbow can be possessed jointly between the hunter and the mentor.

This change in tribal law was established as the States of Michigan, Minnesota and Wisconsin all implemented provisions allowing for mentored hunting. Michigan implemented its change into law in 2006, with Minnesota and Wisconsin implementing similar changes this year. Similar mentored hunting provisions have been enacted in at least 24 states since 2004.

For more information on mentored hunting, please contact either GLIFWC staff or your tribal conservation department.

On the Cover—One of several collared female waabizheshi was (American marten) in the Chequamegon-Nicolet National Forest balances on a tree limb. Waabizheshiwag have been the subject of collaborative research involving Purdue University, Lac Courte Oreilles Ojibwe Community College and the Great Lakes Indian Fish and Wildlife Commission over the past several years. (See story on page 11) (Photo by John Wright, USFS, Rhinelander (2001).)



The (not so) great unknown

Biologists track exotics, changing environment

By Charlie Otto Rasmussen, Staff Writer

Odanah, Wis.—Despite a ramped-up educational campaign across the ceded territory, exotic invasive species continued to colonize new areas in 2009. While the discovery of some plants and animals required a bit of detective work by invasive specialists, others infestations were obvious. What is unmistakable, nevertheless, is that a whole new set of environmental players is showing up, and no one's sure how ecosystems will handle the change.

The Minnesota Department of Natural Resources (MDNR) confirmed the presence of spiny waterfleas in Lake Mille Lacs following angler reports of the tiny crustacean collecting on fishing lines last September. Mille Lacs joins several other large inland lakes, including Wisconsin's Gile Flowage and Upper Michigan's Lake Gogebic, with outbreaks in recent years.

"It's not clear how much impact these unwanted introductions are going to have on individual fisheries," said Joe Dan Rose, GLIFWC inland fisheries biologist. "Mille Lacs now has spiny waterfleas and zebra mussels, both of which could have a negative impact on the food chain. How fish populations respond is something we'll be monitoring through our annual surveys, harvest monitoring, and discussions with MDNR biologists."

In direct competition with small fish like perch, spiny waterfleas eat *Daphnia* zooplankton found in regional lakes. A long, barbed tail spine—which comprises most of the waterflea's 3/8" inch frame—prevents small fish from eating the European invader.

Zebra mussels filter feed on the smaller phytoplankton and can process about one quart of lake water each day. Mussel-infested inland waters can become fundamentally altered with *too* much clarity, as tiny nutrients are removed and increased sunlight penetration yields dramatic plant growth.

On the terrestrial side of the landscape, GLIFWC Invasive Plant Specialist Steve Garske uncovered a new invasive grass along with an uncommon herb on a gas line corridor in the Chequamegon-Nicolet National Forest.

"Power and gas line corridors are frequent transmission sites for non-native plants," said Garske, who has conducted annual invasive plant surveys for seven of the last eight years. "Vehicles and equipment used to maintain these openings over large geographic areas are likely spreading soil and various invasive species."

Previously unknown in Wisconsin, a small population of perennial quaking grass (*Briza media*) showed up in southwest Ashland County during Garske's 2009 survey. This showy European ornamental grass is sometimes cultivated in scattered areas around the United States and is known to escape into fields and other disturbed soils like agricultural fields, Garske said.



Mike Defoe, Red Cliff tribal member, and Sam Quagon, Lac Courte Oreilles, spent the summer performing aquatic invasive species surveys for GLIFWC on 30 ceded territory lakes. Above, Mike Defoe is condensing and collecting plankton samples for spiny waterflea analysis at Winslow Lake, Iron County, Michigan in August. The samples will be tested this winter for positive identification of spiny waterflea presence. Samples that may contain other invasive species, such as zebra mussel veligers, are sent to the Wisconsin Department of Natural Resources' laboratory at Plymouth, Wisconsin for analysis. (Photo by Sam Quagon.)

Growing nearby, he also spotted European eyebright (*Euprasia officinalis*), an annual already well established in the eastern U.S. but still uncommon in the ceded territory. Records show eyebright was documented in Wisconsin 15 years ago in the City of Superior.

"While these two plant species alone may not have a significant impact on the landscape, their discovery illustrates that introduced species continue to move into the region," Garske said. "Native plants are being displaced, and the long term environmental effects are unknown."

A hard lesson at Pomeroy Lake

Since the proliferation of invasive plants in recent decades, natural resource managers have had some success at knocking back or outright eliminating localized populations of exotics. Terrestrial plants like purple loosestrife and garlic mustard can respond well to spot treatments. Aquatic invasive plants, however, are oftentimes a tougher proposition to manage.

Despite technological and financial backing, Ottawa National Forest (ONF) officials learned first-hand just how difficult it is control one particular aquatic exotic: Eurasian watermilfoil (EWM). Found growing near the public boat launch on the Forest's Pomeroy Lake in 2004, Ottawa specialists drew up plans to tackle the invasive watermilfoil, notorious for developing thick near-surface mats that degrades habitat for just about every native species of plant, fish and animal. The following year contractors targeted the boat launch EWM site with a granular herbicide and also treated another outbreak on the lake's south bay, said Ian Shackelford, ONF Botanist.

By 2006, it appeared the treatments were working and contractors returned to Pomeroy's south bay to finish off lingering EWM. Tapping earmarked funds for invasive species control, the Forest Service spent more than \$8,300 on a total of four applications. But in the months following the spring 2007 ice-out, ONF staff came to a grim realization.

"Our control efforts failed to keep pace with rapid spread in the lake," Shackelford said. "Eurasian milfoil was found in many of areas of lake, more than we could afford to treat."

Preventing invasive species from entering new environments is key. It is vital. A four-inch segment of EWM is all it takes to permanently degrade a lake. Once exotics get a foothold, it may be impossible to eliminate them.

Clean boats and clean waters go hand-and-hand. Take on a personal responsibility to make sure you do not spread invasives and take time to inform others. For more information go to: www.glifwc.org/invasives.



News from Indian Country Managing Editor Paul DeMain (right) chats with Chuck Quirnbach, Wisconsin Public Radio (WPR) reporter, at the Society of Environmental Journalists' annual conference in Madison. DeMain and WPR Assistant News Director Brian Bull organized the panel presentation, "Fishing for Clean Fish and Hunting for Safe Treaty Resources," on October 10. The discussion centered on the growing push for environmental protection by tribal communities, which rely on natural resources for physical and spiritual sustenance. (Photo by Charlie Otto Rasmussen.)

Indian Country census

Every ten years, there is a complete count of everyone living in the US. Will you be represented? Personal information is protected by strict laws. But the overall information guides billions in federal funding. Support of everything from conservation programs to roads and schools is based on the population count. Make sure the community is counted. Visit www.census.gov for more information.



Cattail problems

Hybrid cattail crowds out manoomin

By Sue Erickson
Staff Writer

Odanah, Wis.—In 2007 low water levels posed serious problems for the manoomin (wild rice) in Bad River's Kakagon Sloughs, turning the sloughs into a vast mud flat. Little rice was available, and the Sloughs were closed to ricing effort that year.

In 2008 the water level rose and the rice returned, but Bad River's ricing community is confronted with another source of concern—huge clumps of cattails developing in the rice beds, squeezing out the rice.

While common, wideleaf cattails have always been a part of the Slough's ecology, the common cattail does not create the huge, very dense clones that intrude into the wild rice beds, according to Bad River's Wetlands Technician Ed Wiggins. He says the difference is that the dense growth of cattails being observed now are not the common broadleaf cattail but rather a hybrid, a cross between

the native, common cattail plant and the narrowleaf cattail.

According to Dr. Jim Meeker, Northland College professor of natural resources, the common cattail is scattered, not densely clustered, and grows more in the peatlands away from the rice. This is not true of the "new kid on the block," he says. The narrowleaf and the hybrid intrude into the rice beds.

"This plant will grow anywhere, in all different water levels," Wiggins comments. It's not surprising, then, that a big "caution" appears front-and-center on the narrowleaf cattail's page of the US Department of Agriculture's Natural Resources Conservation Service Plants Data base: "This species can be very invasive in disturbed wetlands." The Kakagon Sloughs appear to be a witness to this attribute. Areas by the mouth of the Kakagon have giant cattail clones that keep expanding and creeping further into the manoomin, Wiggins says.

Actually, the intrusion of the narrowleaf cattail and the resulting hybrid has been observed for some time,

according to Meeker. He began delineating and mapping the hybrid clones and the common cattail in 1997, taking stem counts in specific plots. Returning eight years later, he found that the density of the common broadleaf cattail remained the same at one to two stems per meter square; whereas the hybrid proved to be much more aggressive, increasing density from one to two stems to 10 to 12 stems per meter square.

Meeker also measured the size of the clones using GPS readings and eight years later he found a size increase of 35%.

With this type of intrusion occurring, the Bad River tribe began to take action. Wiggins began mapping the distribution of the hybrid cattail in the Sloughs in 2008 to study its progression and also to begin control measures. In 2009 continued mapping indicated 43 different areas in the Sloughs contained the aggressive narrowleaf hybrid, spots of it appearing up and down the river system.

Looking at potential control alternatives, Wiggins created two test plots. At one site the cattails were hand-pulled and uprooted. A process, he says, that is very labor intensive. The deeply rooted and clumped rhizomes made extraction

extremely difficult. On the other plot the cattails were cut beneath the water line. While this does not kill the plant, it stresses the plant and discourages rapid growth, he says. In each of the test sites, one-half of the area treated came back with manoomin. So it appears that both control methods were equally effective.

Because cutting is much less labor intensive than pulling, the tribe decided to continue the cutting program. Aided by four workers from the Wisconsin Consortium Program and one summer youth worker, about 5.5 acres of cattail were cut this summer and the areas reseeded with native rice seed. The re-seeding, Wiggins says, helps boost the manoomin's natural propagation.

The narrowleaf cattail now grows throughout North America; but likely is new to the Sloughs, probably transmitted through birds and boats.

The aggressive hybrid that can turn wetlands into a monoculture now poses a threat to the Kakagon manoomin beds, but the tribe is intent on beating it back and committed to protecting the long-cherished, irreplaceable Bad River manoomin.

For more information on the narrowleaf cattail see: www.rook.org/earl/bwca/nature/aquatics/typhaan.html.

New rule seeks improved control of invasives

By Miles Falck, GLIFWC Wildlife Biologist

Wisconsin's new invasive species rule (NR 40) aims to reduce the spread of invasive species. NR 40 covers all manner of invasive species including plants, animals, invertebrates and disease-causing organisms. The new rule establishes a classification system that regulates the possession, sale, transportation, and introduction of invasive species.

"Species Assessment Groups" (SAG) were convened in the fall of 2007 by the Wisconsin Department of Natural Resources to determine the appropriate classification of invasive species. GLIFWC staff participated on the SAGs along with university experts, land managers, and other stakeholders.



Common buckthorn (*Rhamnus cathartica*) is now classified as a "restricted invasive species" in Wisconsin. (Photo by Steve Garske.)

Asian longhorned beetle (*Anoplophora glabripennis*). Landowners may be required to control prohibited invasive species where control is "feasible and reasonable."

Restricted species include invasives that are already present and causing ecological harm, but are too widespread or abundant for eradication to be feasible. Examples include common buckthorn (*Rhamnus cathartica*), rusty crayfish (*Orconectes rusticus*) and gypsy moth (*Lymantria dispar*).

NR 40 also requires that preventive measures be followed to prevent the spread of aquatic invasive species. These measures include removing aquatic plants and animals, and draining water from boats, trailers, and equipment prior to leaving the boat landing. The rule also prohibits the transport and launch of boats and equipment with aquatic plants and animals attached.

More information on NR 40 can be found at: <http://dnr.wi.gov/invasives/classification/>.

Invasive species were classified based upon their current distribution and abundance, a scientific review of the species' life history requirements, and their potential to cause environmental or economic harm. Species were assigned to two primary categories, "Prohibited Invasive Species" and "Restricted Invasive Species."

"Prohibited invasive species" are species that are not present, or occur in very small isolated populations, where eradication is still feasible. Examples of prohibited invasive species include kudzu (*Pueraria lobata*), bighead carp (*Hypophthalmichthys nobilis*) and the



Above, hybrid narrowleaf cattails invade the Kakagon Sloughs, crowding into wild rice beds. In an effort to stem the invasion, the Bad River Natural Resource Department began cutting the cattails below the water line, an effort which has curtailed the growth of this very aggressive, wetland plant (see photo below).



Industrial haul road through remote Upper Michigan wildlands closer to reality

Marquette County Road Commission approves public portion of road

By Steve Garske, Invasive Plant Specialist

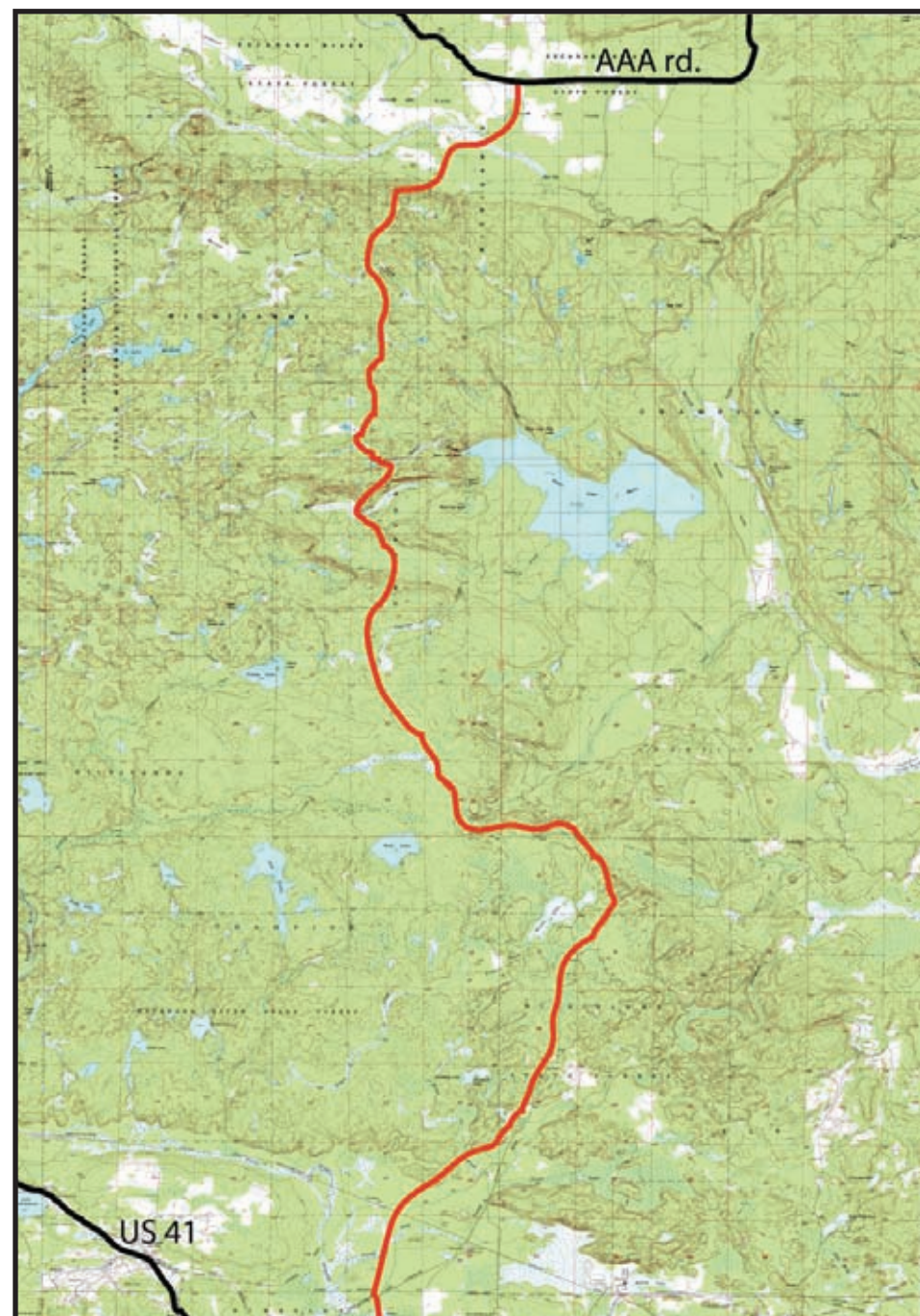
Odanah, Wis.—On Monday, September 28th, and again on Monday, October 19th, 2009, the Marquette County Road Commission (MCRC) held public meetings on the publicly-owned portion of a new, mostly private haul road through the heart of Marquette County in central Upper Michigan. Stating that the applicant had met MCRC engineering standards for the public portion of the road, and that MCRC has no jurisdiction over privately-built roads on private land, the County Board unanimously approved the approximately 3.5 mile public portion of the road on October 19th.

Woodland Road LLC and the “Woodland Road”

The Woodland Road (dubbed the “Kennecott Expressway” by opponents) would start at the proposed Kennecott “Eagle Project” mine on the Yellow Dog Plains, just east of where Triple A Road crosses the Salmon-Trout River in north central Marquette County. From there it would zigzag some 22.3 miles south to the old Humboldt mine on US 41 where ore would be processed. For the most part the route would follow an existing, single-lane dirt road.

The private portion would be built and maintained by Woodland Road LLC, a consortium consisting of Kennecott Eagle Minerals Company (a subsidiary of Rio Tinto of London), the Michigan Forest Products Council, road construction company A. Lindberg and Sons, and businessman John Jilbert. The road would be used to haul sulfide ore, timber and “aggregate” (gravel, sand, etc.). At least one consortium member has expressed interest in easier access to Silver Lake for future residential development.

Woodland Road LLC estimates the cost of building this heavy-duty, paved road at \$50 million. The road would be financed almost entirely by Kennecott. At the September 28th meeting, MCRC Manager Jim Iwanicki stated that he would recommend that no MCRC funds be used for the road, but that Woodland Road LLC could still apply for public grants (including federal stimulus money).



Proposed route of the “Woodland Road.” This 22.3-mile, mostly private road would cut through some of the wildest country in Upper Michigan, facilitating the extraction and transport of mine tailings, logs and “aggregate” from the region. (Map courtesy of Adrian Bakker of Save the Wild UP, Marquette, Michigan)

Woodland Road LLC estimates that mine tailings trucks would make a minimum of 50 round-trips per day, with logging and gravel trucks making another 20 per day. (This works out to nearly six industrial truck passes per hour, or one every 10 minutes, 24 hours per day.) Support industries and the general public would add another 150 round-trips per day. The consortium would maintain and manage the private portions of the road, including setting speed limits and other rules at its discretion.

The consortium has promoted the road by saying that it will be open to the public, providing easier public access to commercial forest land along the route. At the September meeting, however, Iwanicki agreed with several commenters that Woodland Road LLC could legally restrict or ban the public from the private portions of the road at any time.

Kennecott keeps public guessing

Over the years Kennecott has publicly suggested several possible haul road routes. Until the Woodland Road was formally proposed last summer, the latest and most consistent had been the Triple A Road east to County Roads 510 and 550 from Big Bay to Marquette, and then west to Humboldt. Concerns about noise, dust, congestion and safety led many residents to strongly oppose that route. Kennecott was seriously considering the Woodland Road route by 2004, however, and quietly finished surveying the route in 2009.

Meanwhile Gabe Caplett and Scott Bouma at Save the Wild Upper Peninsula (SWUP) obtained stream crossing permit application records from the Michigan Department of Environmental Quality (MDEQ) through the State’s Freedom of Information Act, and by “connecting the dots” found the approximate route. Days after Caplett published the map in a story in SWUP’s print publication “The Splash” in August 2009, Kennecott issued a press release announcing its plans.

From its August announcement until the October 19th meeting, Kennecott had insisted the road would be built regardless of whether or not the mine is approved. But when questioned by MCRC Chair Darryll Sundberg, Kennecott lobbyist and community relations manager Matt Johnson replied that if the mine were not approved, Kennecott would have to consult with other Woodland Road partners to decide whether or not the road would be built.

Environment a major concern

To build the Woodland Road, Woodland Road LLC plans to file applications to fill wetlands and to cross eight streams or rivers. One of these waterways is the Yellow Dog River, portions of which is federally-designated a Wild and Scenic River. The MDEQ is accelerating the permit process, allowing Woodland Road LLC to consolidate bore-hole sites for all 8 crossings under a single permit.

According to a Lake Superior Mining News story (see link below), MDEQ staff members have been told not to comment on the road project due to its controversial nature. Meanwhile Kennecott is organizing a group called “Citizens to Protect Michigan Jobs” to lobby against a nascent ballot initiative aimed at more strictly regulating sulfide mining in Michigan. Deborah Muchmore, Kennecott’s Eagle Project spokesperson, is also the spokesperson for this new group.

Metallic sulfide mining (sulfide mining for short) refers to the process of extracting metals (typically nickel, copper, gold, silver, lead and zinc) from sulfide ore. When sulfide ore is excavated, sulfide ions formerly bound to the metals chemically react with oxygen and water, forming hydrogen sulfide (“battery acid”). Rain and snow wash the acid into surface and groundwater, carrying arsenic, lead, mercury, and other heavy metals with it. This acid mine drainage is highly toxic to fish and other aquatic life, as well as plants, animals and humans. Sulfide mines dating back 2000 years to the Roman Empire still leach acid into surrounding waterways.

The first MCRC meeting in September drew about 25 people, nearly all of whom were either undecided or strongly opposed to the project. Due in part to organizing by Kennecott, about 75 people attended the October meeting. Most of the attendees at this second meeting spoke in favor of the road, almost uniformly citing jobs as the reason it should be approved.

Opponents expressed a variety of reasons for opposing the road. Several voiced concerns about the loss of the character and way of life of the region, and responsibility to future generations. Others were concerned about the degradation of remote, high-quality forests, wetlands, streams and rivers of the Michigan Highlands, the introduction of invasive species, and the displacement of wildlife.

Many of the same concerns have been voiced by members of the Keweenaw Bay Indian Community (KBIC). According to KBIC Natural Resources Director Todd Warner, the road will lead to habitat fragmentation and damage streams, rivers and wetlands. The road will also negatively impact wildlife, including moose. The Michigan Department of Natural Resources has put significant time and effort into restoring moose populations in the area, and those so-far successful efforts may be hindered by this road. The region is home to a number of endangered plant species, at least two of which occur along the proposed road corridor. (See Keweenaw Bay Indian Community, page 7)

Keweenaw Bay Indian Community raises eyebrows over road proposal

Cite habitat fragmentation & moose impact as concerns



The current sand and gravel road just south of the Dead River crossing. North of here the road progressively narrows and eventually becomes impassable to motorized vehicles. (Photo by Steve Garske.)



The Woodland Road would bisect one of the wildest and most remote areas of the UP. In the distance is Silver Lake, part of Upper Peninsula Power Company's Dead River hydroelectric project. An attempt to develop the shoreline was thwarted by township zoning regulations in 2002, followed by a blown dam plug in 2003, which flooded portions of Marquette. UPPCO has since built a new dam. (Photo by Steve Garske.)

(Continued from page 6)

Another concern is the impact of contaminants on the area's surface and groundwater. All the tributaries in this area flow to Lake Superior. With upwards of 50 round trips by ore trucks per day for years, significant amounts of ore dust and fragments laden with sulfides and heavy metals may be deposited along the route. Add to that diesel exhaust, the inevitable oil, fuel and chemical spills (including spills resulting from accidents), crushed tailings spills and road salt, and the still-pristine waters of this region are likely to be degraded.

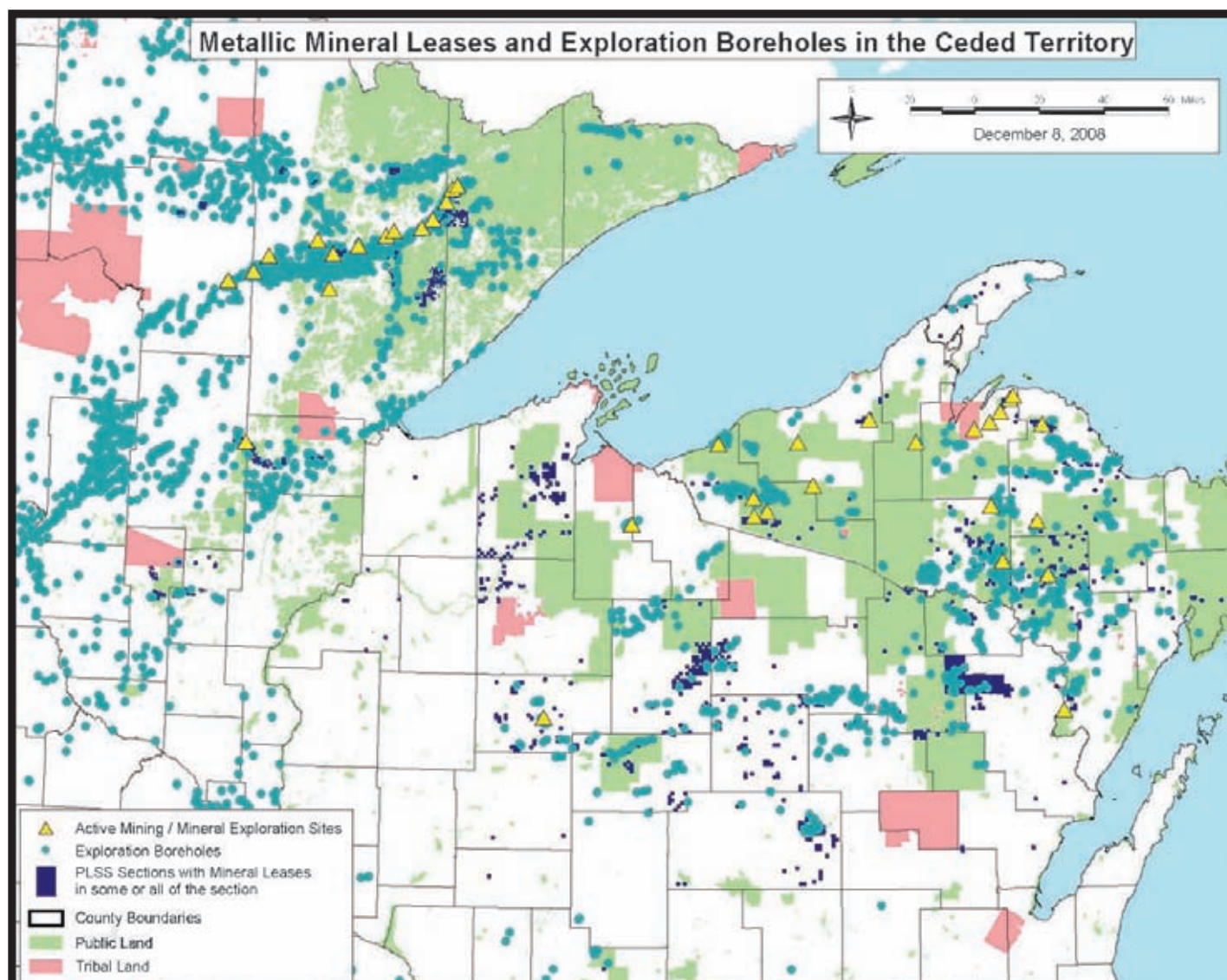
Pollution from runoff will be especially severe during the spring snowmelt. Based on impacts of similar sulfide haul roads elsewhere, Warner predicts that contaminated spring runoff would severely degrade river and stream sections downstream from the road crossings. Road salt, industrial chemicals and contaminated sediment will be carried downstream, and the contaminated sediment will leach heavy metals into the water year-round. Tailings dust contains copper, which is well-known to be highly toxic to many forms of aquatic life. Terrestrial vegetation along the route will likely be killed by heavy metals as well.

Warner points out that the soil along a similar sulfide mine haul road in Alaska (the Red Dog Mine) is contaminated with heavy metals along its entire 52-mile route. Approximately thirty truck accidents have occurred on that road so far, spilling

ore containing heavy metals. Because 20 miles of the road run through the Cape Krusenstern National Monument, the National Park Service (NPS) conducted a study (with the esoteric title of "Heavy metals in mosses and soils on six transects along the Red Dog Mine haul road,") revealing significant contamination by toxic heavy metals including cadmium, lead, and zinc.

Prior to the NPS study, a monitoring program was conducted at the Red Dog port site in the mid-1990s by a consultant for the mining company, at the request of the state. That study found lead levels in soils as high as 36,000 parts per million (ppm) and zinc levels as high as 180,000 ppm, far in excess of state cleanup standards of 1,000 ppm and 8,100 ppm for lead and zinc, respectively. The information was suppressed until a public records act request was filed by an environmental law firm, after the NPS report was released in 2001.

Is the Woodland Road a done deal? Not yet. Woodland Road LLC will still need to obtain permits to fill wetlands, move rock and soil, remove state-listed rare plants, and conduct various other activities, as required by Michigan law.



Metallic mineral lease and exploratory borehole activity in and around the ceded territory, as of December 2008. (Map by Esteban Chiriboga.)

The future of mining in the ceded territory

The Eagle mine, associated haul road and mill may be just the beginning of what mining companies hope will become a major new sulfide mining district. A number of other sites are being explored for minerals (including uranium) across the ceded territory. (See accompanying map.) Wisconsin has largely been spared, partly because of its mining law, which states that any sulfide mine proposal must include an example of a sulfide-ore mine that has operated and been closed without significant pollution of surface or groundwater.

Acknowledgments

Information for this article was gathered from a number of sources, including articles by Gabriel Caplett, publisher of the Lake Superior Mining News (see <http://lakesuperiorminingnews.net/>).

The Save the Wild Upper Peninsula website (<http://savethewildup.org>) has a wealth of information on the "Eagle Project" and sulfide mining.

The MDEQ's main mining page is at http://michigan.gov/deq/0,1607,7-135-3311_4111_18442---,00.html.

Thanks also to Todd Warner of KBIC, Kristi Mills of Save the Wild Upper Peninsula, and river walker Chauncey Moran for contributing to this story.



Fall lake trout assessments look positive

GLIFWC checks spawning numbers in MI2

By Bill Mattes, GLIFWC Great Lakes Biologist

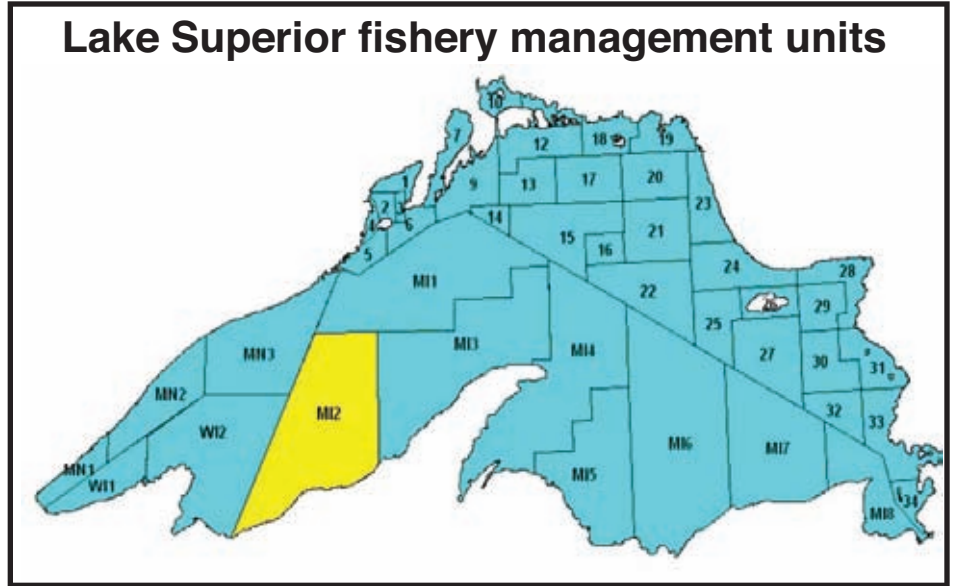
Silver City, Mich.—For the fifteenth year the spawning lake trout population at Union Bay reef near Silver City, Michigan was assessed by GLIFWC staff with assistance from the Bad River Natural Resources Department. The weather was snowy, but that didn't hinder the lake trout from congregating near shore to spawn. The wind was also mild enough that the crew was able to get the nets in and out for three consecutive days and tag and release over 300 lake trout from just over a mile of net.

It was good to see the numbers of lake trout spawning as lake trout numbers as a whole for unit MI2 (see map) have been on the decline as indicated by both the spring and summer assessments. The relative abundance of lake trout on the reef appears to be stable (see graph). As long as there are spawning lake trout in the unit, they will congregate on the spawning reef in the fall. The spawning reefs are the last place the lake trout would abandon, which is why fishing on and around spawning reefs is prohibited by the tribes and by most state agencies.

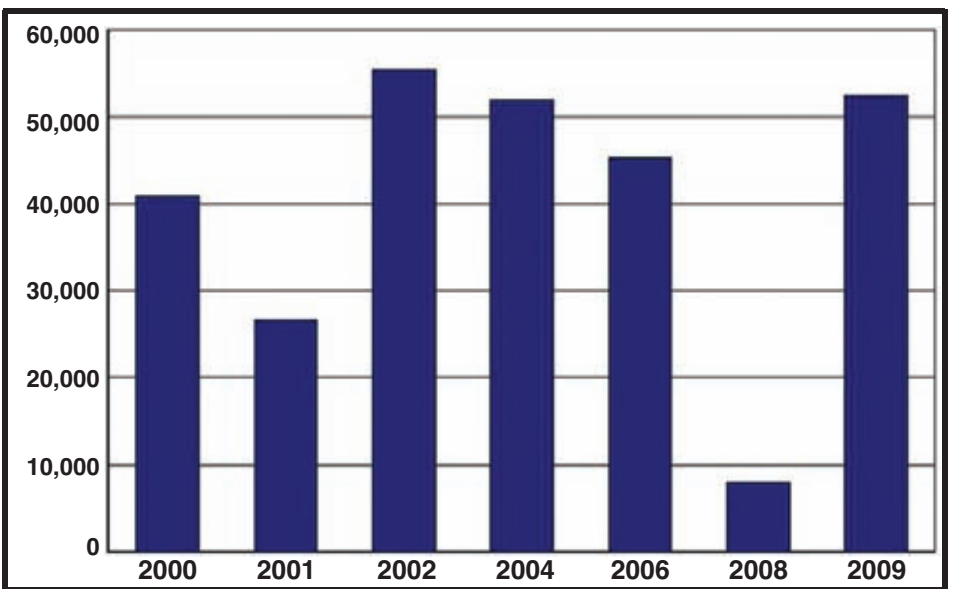
Another good sign observed during lake trout assessments was that there were no fresh sea lamprey wounds; however, nearly a quarter of the fish had healed sea lamprey marks. They are the survivors of several large sea lamprey year classes that have now passed on. The Great Lakes Fishery Commission (GLFC) through the U.S. Fish and Wildlife Service Sea Lamprey Control Program ramped up lampricide treatments after it was discovered sea lamprey numbers were on the rise, and now sea lamprey numbers have again started to decline. However, the need to continue aggressive control remains.

Starting this spring a new control method will be brought into play. Studies by the University of Minnesota and Michigan State University (MSU) with funding from the GLFC have revealed that pheromones are given off by larval and adult spawning sea lamprey. These pheromones, which MSU researchers are now able to reproduce, attract adult lamprey into tributaries.

This spring the pheromones will be applied to several Lake Superior streams, all with sea lamprey barriers which allow for the most effective trapping and removal of adult lamprey as they try to migrate upstream to spawn. Ultimately, the lamprey catch rates in these tributary streams will be monitored to determine the effectiveness of the pheromone in drawing adult lampreys into the streams.



GLIFWC annually performs lake trout assessments in MI2 in the Michigan waters of Lake Superior with assistance from the Bad River Department of Natural Resources. The 2009 assessment at Union Bay reef near Silver City, Michigan, indicated that the relative abundance of lake trout on the reef is stable.



Relative catch of lake trout on Union Bay Reef for years sampled. (Graph by Bill Mattes.)



The Butler family from the St. Croix Tribe spent several days at Lake Mille Lacs last fall, fishing primarily for tulibee. On a snowy October 31 morning lift at North Garrison landing, the Butlers netted 180 pounds of tulibee and 48 pounds of walleye. Tulibee—a relative of whitefish—are often smoked by tribal fishermen. As of early November, only two additional treaty tribes pursued off-reservation fall netting at Mille Lacs: the Fond du Lac and Mille Lacs Ojibwe bands. The walleye harvest has edged up slightly from spring 2009, totaling 101,122 pounds as freeze-up approaches. The 2009 tribal walleye quota is 126,500 pounds. (Photo by Robin Arunugiri.)



Mike Plucinski, Great Lakes fisheries technician holds a lake trout captured during spawning assessment work at Bete Grise on the Keweenaw Peninsula's east side. (Photo by Sam Quagon.)

New gill net study implemented in Gichigami to look at variations in lake trout catch rate

By **Bill Mattes, GLIFWC Great Lakes Biologist**

Gakiwe-onigamiing (Keweenaw Peninsula)—A new gill net study was launched this fall to examine the effects of modified gill nets on the incidental catch rate of namaycush (lake trout) in Gichigami (Lake Superior).

With assistance from the Bad River Natural Resources Department and the Red Cliff Fisheries Department, GLIFWC will set over a mile of gill net both this fall and in the upcoming spring and summer as part of a two-year study. The study is funded through a grant under the Great Lakes Fish and Wildlife Restoration Act administered through the US Fish and Wildlife Service.

The goal of the study is to see how modifications to a typical gill net might change the numbers of namaycush (lake trout) and adikameg (lake whitefish) caught.

Basically, the study is addressing commercial fishing issues that relate to the incidental take of lake trout when fishing for lake whitefish. Fishing opportunity for whitefish can be impaired

due to lake trout quotas, which, if met, stop the netting for whitefish as well.

Large-mesh gill nets are used by GLIFWC member tribes that commercial fish in Lake Superior. Many of these fisheries have limits on the harvest of lake trout or length of gill nets that can be fished, or both. These limits are placed by individual tribal conservation codes or tribal-state agreements. Both the harvest and effort limits constrain the lake whitefish fishery.

Hopefully, modifications to large-mesh gill nets that reduce the incidental catch of lake trout while the catch of lake whitefish remains stable will benefit both the fishery and the lake trout rehabilitation process throughout the Great Lakes.

To implement the study this fall, GLIFWC staff will set both the standard gill nets used by tribal fishers and the modified gill nets and then evaluate how successful these modifications are.

The modified net will look much like a standard net except that there will be four feet of open space between the bottom of the lake and the bottom of the net. Standard gill nets have mesh webbing which rests on the bottom of the lake attached between a lead line and a



Sam Wiggins, LCOOCC intern, sews a standard gill net where the mesh webbing is attached to the float line and the lead line which rests directly on the bottom of the lake. (Photo by Sam Quagon).

float line. The modified nets will have mesh webbing attached between the float line and a foot rope. The foot rope

will then be attached to the lead line by legs, but no webbing will be present in the bottom four feet.

Study underway to find market for siscowet lake trout

By **Kalvin Perron Bay Mills News**

Bay Mills, Mich.—It is no secret that omega-3 fatty acids found in fish oil have been shown to have numerous health benefits, ranging from boosting memory in aging adults to promoting heart health by lowering cholesterol, triglycerides, slowing the buildup of atherosclerotic plaques (“hardening of the arteries”) and lowering blood pressure.

In fact, because of these positive health effects, fish oil capsules captured the lion’s share of the \$34 billion Americans spent in 2008 on supplements and other complementary and alternative medicines. Those figures amount to almost a third as much money as they spent on prescription drugs and are only expected to go up as Americans are more willing to shell out their hard-earned money on preventative care.

And that’s precisely what gets Michigan Sea Grant Extension Coordinator Ronald Kinnunen so excited when

he looks out at the vast openness of Lake Superior. He knows that somewhere deep below the surface of the great Gichigame swims the siscowet lake trout.

A bigger, older brother to the lean lake trout, the siscowet is a fat lake trout that lives in the deepest waters of the Great Lakes, up to 1300 feet. According to a study performed by Michigan State University, there are currently 616 million pounds of the fish in Lake Superior alone.

Kinnunen believes that number presents a huge untapped market to enter into the fish oil industry.

“It’s exciting when you think about all the possibilities,” he said. “There is a huge amount of these siscowet in the lake right now. There’s 20 siscowet to one lean lake trout. I tell the fishermen I talk to, ‘You’ve got to think beyond just selling the fish. Think about selling its oil, too.’”

Although there was never really a thriving market for siscowet lake trout in Michigan, Kinnunen said that roughly 600,000 pounds of the fatty fish was caught a year, up until the late 1980s, when high levels of pesticides such as chlordane began showing up in the fish. Because fatty predatory fish like the siscowet consume the smaller fish below them on the food chain, they have higher concentrations of pesticides due to a process called bioaccumulation.

But due to recent technological advances, Kinnunen said that a scientist at Louisiana State University has discovered how to remove any contaminants or impurities out of the fish. They also discovered that the siscowet is one of the oiliest fish they have ever seen, with much higher ratios of DHA to EFA than ocean fish, presenting an intriguing op-

portunity to tap into the multi-billion dollar market for its potential use in a fish oil supplement.

While the much more popular whitefish is also high in omega-3, Kinnunen said he envisions a diverse fisheries market where commercial fishermen are catching and selling the siscowet, as well.

“This has the potential to be a huge market,” he said. “This could diversify the fisheries here in Michigan. When you look at the siscowet, they do have some impurities in them, so it makes sense to use them for the oil now that the impurities can be taken out.” Not only can the siscowet be used for the oil, but Kinnunen said another exciting possibility is to use it for insoluble and soluble protein meal to add to dog food and infant formula.

With lake trout prices hovering around the 40 cents per pound range, Kinnunen said, when used for its oil, the siscowet averages about \$200 per pound; it is worth about \$20 per pound for the soluble protein meal while the insoluble would fetch about \$1 per pound.

With the commercial fishing industry all but disappearing in the state and with the economy faltering, Kinnunen said opening the door to the fish oil industry could be a godsend.

“I really am excited about the potential,” he said. “I’ve been looking at a lot of numbers of the past couple years to try and get some information out to the fishermen so they know where this stuff could go. The technology and the fish are there. It’s up to us to find a way to use them.”

(Reprinted with permission from the author.)



LCOOCC intern Sam Wiggins displays a siscowet lake trout captured in an assessment net. (Photo by Bill Mattes.)



Waawaashkeshi & asemaa

A story for hunters, gatherers and fishermen

Editor's note: *The following story was told by White Earth Tribal Archivist Andy Favorite and originally printed in Anishinaabeg Today, Vol. VI, No. 8, April 25, 2001, and is being reprinted with permission from Anishinaabeg Today.*

A long time ago, they say Mewinzhaa, aabiding biginaagow, there was an old man, see, these old men keep creeping into these stories all the time. This old man, his family had grown up, his wife had passed on, his kids had grown up, he had grandkids, (and) he had great-grandkids. He was quite elderly, he had white hair. And he lived in a village amongst our people. And this was at the time when we first learned about tobacco, this is our story," said Favorite.

"This old man, he knew he was getting up in his years, the winter of his life. He knew it would not be too long before he would pass over to the other side and go back home to where he came from. He took his favorite blanket, some kind of skin and hides. He trekked off from his village, he went way out in the brush, way up on a hill, his favorite spot where he could look over all across the countryside. He found a big tree that he really took a liking to, probably a great big, old pine tree. He sat right down at the base of that tree and wrapped that blanket around him, he was nice and cozy, it was in the fall of the year. It was kind of nippy out. As he sat there and thought about his life and he prayed and meditated, he thought about his people, or tribe, his children, his grandchildren. He thought about his ancestors, all the people that had come before him, about how they had lived and that future generations would live. That whole chain and circle of life, like that. And he sat there, he slowly went into a sleep and he died," Favorite recalled.

"But for some reason, his (the old man's) soul and his spirit stayed with his body. He just kind of leaned over and he laid there. Well, come spring, there was a mother deer, (an) onajaanii, (is) what we say. This mother deer, she walked close to that deceased Anishinaabe elder. And his soul and spirit rose up and entered her womb and got into her fetus," he said.

"So now he became a young deer," explained Favorite. "And when she gave birth in the spring, he came out of the birth canal, he looked down. He had two big black hoofs in the front, two in the back. He looked up and there were a beautiful, beautiful big set of ears, moving and shaking around. He looked and there was a big nose and two, big black eyes. He said who are you? And she said, "I'm your mother." And he said, "what are we?" And she said, "Well, we're deer. We're waawaashkeshi." And he looked down at his side and it was all red and he had white spots all over. And he said, "Am I one, too?" And she said, "Certainly. You're a deer. You're a gitigakoons. You're a fawn. You're Eyaabence. You're a little buck. I want to take you and I'm going to give you your first bath now, So you hold still." And she licked him all up all around his head and his body, and all around. Cleaned him up good with her saliva. Then she suckled him on her breasts, his first meal, nice warm milk, oh, he liked that. Then she said, "You know, I'm going to take you over and you're going to meet our relatives, the other deer people. You've got a lot of aunties and uncles, cousins, your grandparents, they live in the next set of woods over here, a little bit ways from here."

"So he was all excited, boy, he got to meet his relatives. He didn't know what a relative was but he was going to find out. And as they went over there, they came upon this big meadow and there stood a whole bunch of deer, Waawaashkeshiwag-akinigago. Oh, they were all over there. And he said "who is that over there? What are all those things?" She said, "That's our relative, that's the ones I was telling you about. Come here, this is your grandpa, this is your grandma over here, that's your auntie over there, uncle, here's your cousins." Whoa, them little deer started chasing around, running. Boy, them older deer, they called them over and they said, "We got to teach you what food to eat and what food not to eat. Some of the stuff around here is poison. You drink only the water that is moving, has an inlet, outlet, and a lake. Don't drink standing still water in the woods because it might have bacteria. In a snowstorm, you go crawl under pine trees, balsam trees and spruce trees; you'll be protected there. When there's an earthquake or a flood, this is where we go, up on this high ground over here. And when the hunters, when they come and catch us and kill us, this is how you run away. And this the food you eat over here," Favorite said.

And they taught this little one, Eyaabence, this little buck, about the Great Spirit, about the creation and about how the deer are part of this creation and that



Waawaashkeshi. (Photo by Charlie Otto Rasmussen.)



Putting down asemaa (tobacco) before taking a life, whether it be plant, animal or fish, shows respect for the spirits of those beings and thankfulness for their gifts to satisfy humans' needs. (Photo by Charlie Otto Rasmussen.)

the vegetation was (too) and that the water is the blood of the earth. They taught him about the Bemaadizijig, the Anishinaabeg, the human beings. And they said "those human beings. We're bummed out, us Waawaashkeshiwag. We feel bad because they kill us and they don't Biindaakojige. They don't put tobacco down. They don't know how to do that yet. And when they kill one of us, our soul rises up, Sssshhhh, and it hisses and it travels all over the woods and the meadows, the fields and the prairies, making a hissing noise because it's lost. We will be lost forever. We're bummed out and we feel bad because there won't be enough of us if they keep doing this. We won't be reborn in a new, baby deer, see, like that," continued Favorite.

"And so he (the baby deer/old man) really took in all they were telling him. He was like a sponge absorbing the water, you know, all these teachings. And as he grew older, he got to be four, five years old. He got a nice rack of horns and he wandered off by himself. And again, it was the fall of the year. He wandered back by his old village when he was Anishinaabe. He walked, it was daybreak, Waaban, the sun was just coming up in the east. He walked along the creek by his (former) village and a young giwose-inini, a hunter, he was coming out of his wigwam and he had his arrows, his quiver was on his back.

He had his bow in one hand and he had his knife on his belt. He opened the flap on his wigwam. As he came out of the wigwam, he spotted that Eyaabe. That buck was standing there. He looked over there and he got excited because he seen that buck. And as that buck started to walk, the hunter drew the arrow out of his quiver and he locked on his bow and drew back and he fired that arrow. Thud. He heard that (arrow) hit that deer. That deer took off real fast, was running along that creek. He (the hunter) come upon, about 200 yards away, there were some saplings of birch and popple. That deer ran in there and the hunter gave chase. The hunter was happy. The thoughts that were going through his mind is that 'my family is going to have enough food now. We're going to have clothes, we're going to have tools, we're going to use this whole deer. We're going to have a lot to eat. We're going to have our life and it's going to be helped, like that. As the hunter chased, those were the thoughts that were going through his mind. He felt glad, like that. Anyway, he got up to where that deer, he followed that blood trail and as he got up to where that deer was laying. He took his bow and arrow and hung them in the tree and as he pulled his knife out of the sheath and he reached down, he was going to cut the throat, how we do and gut the deer and field dress it.

And he went to bend over, he threw the knife down and grabbed his face and began to weep and cry. He began to explain, "I'm sorry, please, I'm sorry. I beg your pardon. Please forgive me." He was talking like that and he was weeping and crying. And when he looked down, the deer had turned back into the old man and he had that arrow in his side and he was panting. And that old man said, "Daga. Daga. Bizindan." He said, "Listen. I've got to tell you who I am. You remember me." He said, "I died and I went up to the woods. My soul, spirit was born into a deer. I went lived amongst the deer and I found out that they feel bad because we Anishinaabe are killing them. And we don't Biindakojige, we don't Odaapinaa Asemaa. We don't put tobacco down and therefore, their souls, "Sssshhhh," will hiss around the woods, (and) be lost. But if we put tobacco down, their souls will be born the next spring into a new deer, there will always be enough.

And that's our story as Anishinaabeg, where we learned how to use tobacco and why we use tobacco. And it's not just deer, . . . fish, wild rice, berries, anything (or everything) we take from the earth, if we put tobacco back, it makes it good, it makes it be more (for) the next growing season, like that. And so that's the story on how we learned how to use tobacco among the Anishinaabe-Ojibwe. Again, I learned that from the elders."

Student interns take to the woods

Assist with American marten research

By Sue Erickson, Staff Writer

Lac Courte Oreilles, Wis.—Waabezheshi (American marten) research in the Chequamegon-Nicolet National Forest (CNNF) got a big boost beginning in August 2008 with the help of student interns through the Lac Courte Oreilles Ojibwe Community College (LCOOCC). This is thanks, in part, to a two-year grant from the National Institute of Food and Agriculture administered through LCOOCC and involves collaboration with Purdue University and GLIFWC.

The grant program is designed to encourage the interaction among land grant universities and tribal colleges to foster research capabilities at the tribal colleges. The grant supplied funds for LCOOCC interns and other students to interact with scientists from Purdue University and GLIFWC so that they could learn about research into natural resources.

Under the supervision of Mike DeMarr, LCOOCC extension director and professor of natural resources, student interns surveyed 18 research sites last summer. Student interns conducted small mammal trapping designed to estimate the number of mice and voles and other small mammals at each research site. Also, students conducted vegetative surveys at each site. Vegetative surveys are used to estimate how many trees are present, how much woody debris is at each site and other characteristics of the forest. Finally at each site trail cameras are placed out to document any use of the site by martens.

Six student interns hiked into predetermined research sites last year during winter, spring and summer to set up camera equipment, small mammal traps and vegetative survey plots. The same will be done this coming year, DeMarr says. The areas chosen for these surveys will be determined by the location of martens monitored by GLIFWC and Purdue.

This winter students will set up cameras at six camera sites, with 4 cameras per site. The objective of the work with these cameras is to document the use of the site by martens. Since this work is done in the winter months, students hike into the CNNF on snowshoes carrying their gear, sometimes trekking one-half to three-quarter miles into the woods.

The camera sites are set and baited with deer meat treated with a particular lure, smelling close to skunk, DeMarr says. It seems to be an effective combination. Four to five martens were observed through the camera last winter. This year DeMarr plans to set the sites up a little earlier to avoid interference by hungry bear emerging from their winter dens. Last spring they managed to reek havoc with cameras at several locations.

During the summer of 2009 DeMarr and his student interns camped in the CNNF for three weeks to check their small mammal traps twice daily in order to minimize animals dying in the traps. Six student interns participated in the three-week camp-out, checking twelve small mammal trap sites each day.

In addition to the interns' involvement, DeMarr has incorporated the research project into some course work at LCOOCC, having students from the Environmental Science class perform some site work and check cameras. They captured wild turkey, deer and a wolf on tape in the process.

LCOOCC Intern Coordinator Amber Marlow said that the students thoroughly enjoyed the internship experiences. The internships are paid, and credits for a field methods class can be acquired if needed. While most of the interns are from LCOOCC, several graduate students from other colleges and universities have also participated.

But student involvement does not end with the fieldwork. They are required to develop and present a PowerPoint summary of their work as well. Some interns have also had the opportunity to present the research at the American Indian Science and Engineering Society's national conference and at the First American Land Grant Consortium conference in Washington, D.C.

"This way the students get to see the results of the data they have been gathering and have a chance to communicate it to others," Marlow says.



LCOOCC students Loren Frey (front) and Adam Fear fix bait to a tree in order to lure in wary pine martens. Any activity at the bait site was caught on cameras set at various locations around the site.



Recording information on a captured small mammal, Loren Frey, LCOOCC student, weighs the critter as Carl Habeck, LCOOCC student, records the data.



Assisting with pine marten research in the Chequamegon-Nicolet National Forest, Theresa Larson, Western Illinois University graduate student, releases a captured chipmunk after marking it. Since the availability of prey relates to the success of the pine marten, researchers collected information on numbers of small mammals at the site.



Student researchers camped out in the CNNF for three weeks this summer in order to frequently check traps and record data at 18 research sites. Included in the group were, in the front row, Theresa Larson, Western Illinois University; Jackie Bennett, LCOOCC; Loren Frey, LCOOCC. In the back row are: Carl Habeck, LCOOCC; Adam Fear, LCOOCC; Jake Beuleau, LCOOCC; Michelle Alden, Scott Community College, and LCOOCC Instructor Mike DeMarr.

Photos by Mike DeMarr.



Advanced Anishinabe Style Beaded Medallion

by Biskakone

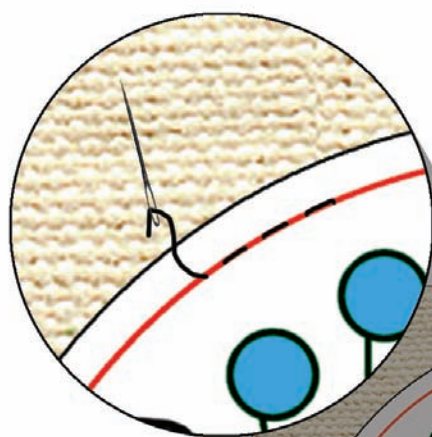
Step 1

Cut out the pattern along the dashed line. This will serve as the template for your medallion.



Step 2

Cut out a square of heavy canvas just big enough for the template to fit into.



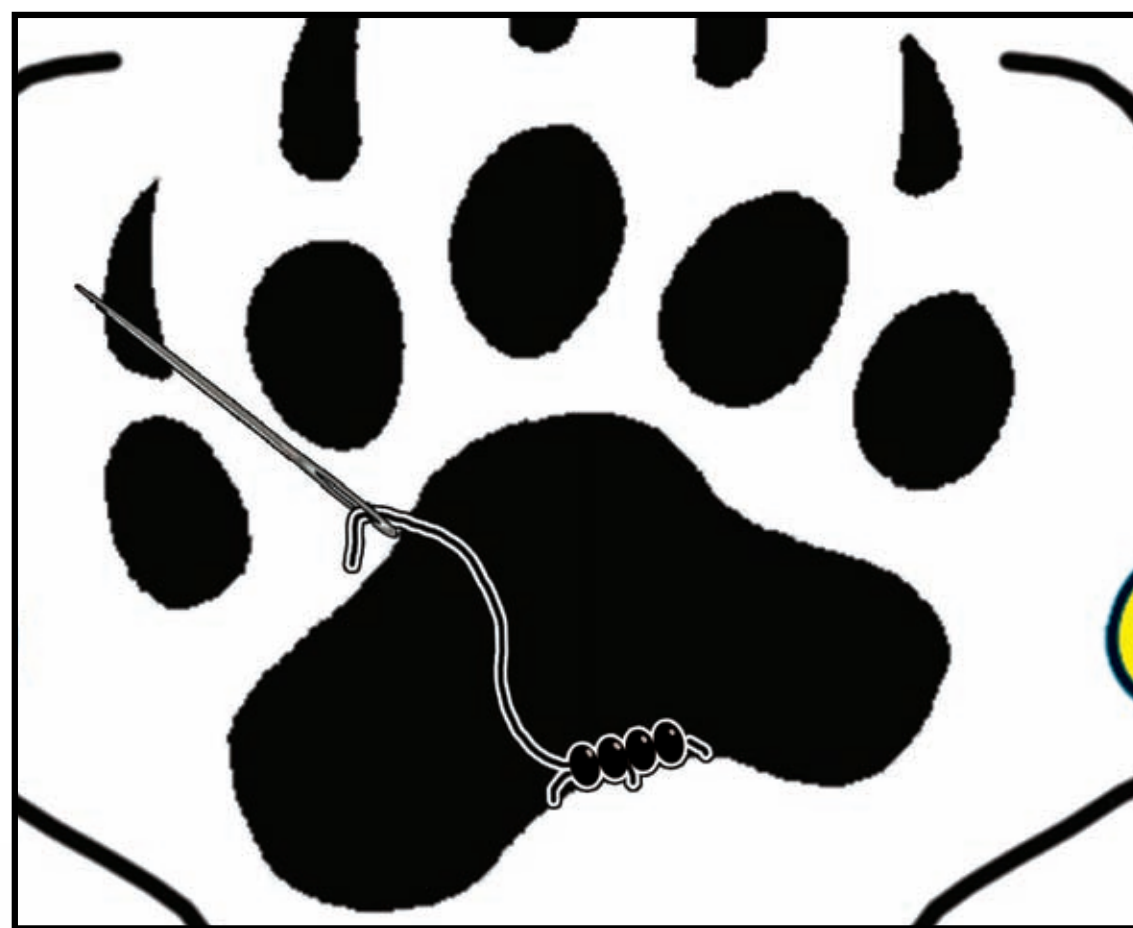
Step 3

Sew the two pieces together along the red line. A good hand stitch or a sewing machine stitch will do the trick. Now you are ready to bead!



Step 4

We will start beading the bear paw in the center of the medallion. There are a few types of beading stitches. For this lesson we will use a simple one. Start by poking your needle from behind the canvas up through the base of the bear paw as illustrated. Put on four black beads. go back through the template and canvas then come back up in the middle of the four beads then. Go back through the two beads. Make sure the beads are snug against each other but not too tight. Repeat the stitch until you have the outline of the bear paw done. Now you can start filling in the bear paw row by row. Continue beading the flowers stems and then the background. This may take some time to complete so make sure you have a lot of patience.



Step 5

Cut out your medallion. At this point you may want to stiffen the beaded piece by either sewing or pasting on a heavy stock of paper like a cereal box or a folder. This will ensure that it won't roll up as the wearer moves around.



Step 6

Your medallion is almost done! Now you can use your creativity to finish. I chose a red ribbon for the edging and instead of using a paw I used a silver button as you can see here. I used glass pony beads and a small loomed piece to give it that old time look. Some medallions have a loom neck wrap. Some have peyote stitch, the choice is yours. Have a great time beading!



Chi miigwech, niiji—Big thanks, friend

GLIFWC's Karen Danielsen walks on

Fifty-year-old mother, wife, ecologist and community leader Karen Christine Danielsen passed away at home near Mason, Wisconsin October 14, 2009.

Karen was born in Santa Monica, California to Berne and Jean Danielsen on October 24, 1958 and grew up in nearby Pacific Palisades.

A keen interest in the natural world spurred Karen into higher education where she earned both Bachelor and Master degrees in Biology from the University of California and California State University, respectively.

She first applied her passion for ecological protection in California, working for Channel Islands National Park, Los Padres National Forest and other agencies before moving to northern Wisconsin with husband Dale Thomas and son Sean.

As forest ecologist/botanist [evoking the nickname "Slash"] for GLIFWC for more than 11 years, she proved to be an influential advocate for the Ojibwe, infusing Traditional Ecological Knowledge into contemporary resource management.

Karen also shared her gifts and skills beyond the workplace, helping launch progressive organizations like the Northern Native Plants Project and the Bad River Watershed Association, where she served as a founding board member and past president. Committed to quality public education, she was elected to the Drummond Area School District Board, serving as Vice-President since 2005.

An avid reader and lover of writing, Karen was a regular contributor to *Mazina'igan*, sharing detailed insights about traditional uses of wild plants.

Fortified with intelligence, compassion, energy and a strong sense of humor, she drew friends wherever she went.



Photo by Dale Thomas.

Faced with a difficult melanoma cancer diagnosis early in 2009, she led her family through this final challenge with grace, strength and spirit. Karen is survived by husband of 20 years Dale and son Sean; her parents of Santa Maria, California; older sister Laurie Mayorga of Santa Maria, and younger sister Patrice Beebe of Los Angeles.

A memorial service and potluck dinner was held on Sunday, October 25—one day after Karen's 51st birthday—at Crosswoods Camp in Drummond.

In lieu of flowers or gifts, please direct memorials to Sean's college fund at M&I Bank, Ashland 715.682.3422.

Mazina'igan says chi miigwech to Karen Danielsen

On a personal note, *Mazina'igan* has been enriched with the regular contributions that Karen Danielsen, GLIFWC's forest ecologist, has provided for us over the past eleven years. We will truly miss her articles and her voice. Karen's unique style and sensitivity made the plant world come alive on paper. She could make even the tiniest, most unnoticed plant become a thing both of exquisite beauty and fascination while also weaving in the Ojibwe language and cultural connections. She had a gift and freely shared it with us.

She was able to teach us all a lot, not just about plants. Karen's life was truly committed to making a better world. Though soft spoken and gentle, she was a determined fighter for her beliefs and demonstrated tremendous courage and strength in loving and protecting those she loved, be it family, friends, animals, plants—the Earth. And so she was, and remains to be, a jewel, and we are fortunate to have had her with us.

Below is one of the last articles Karen wrote for *Mazina'igan*. We would like to share it one more time.

Discovering our Forest's Jewels: Namepin (Wild Ginger)

By Karen Danielsen, GLIFWC Forest Ecologist

Odanah, Wis.—Our northern forests conceal many beautiful "jewels" that can be discovered only by walking and being fully observant—not driving by at 55 mph. A superb example includes the flowers of namepin (wild ginger, *Asarum canadense*). During late spring and early summer, these maroon-colored flowers rest at the base of their parent plants, vaguely invoking an image of garnet stones casually dropped onto the forest floor.

These exquisite little flowers occur singly and rarely grow more than two inches in length and diameter. Cup-shaped with three pointed lobes, they have pale white centers, possibly for attracting the attention of ground-dwelling pollinators, such as beetles.

In spring, namepin, being a perennial plant, breaks its winter dormancy and develops two heart-shaped leaves on stout, erect stalks that results in an overall height of eight to ten inches. Dense white hairs cover the leaves and stalks. The leaves measure five to six inches, with each pair of leaves hiding a solitary flower—almost like two guards protecting a precious gem.

Namepin stems, technically referred to as a rhizomes, grow horizontally just below the soil surface, looking more or less like roots. These rhizomes smell and taste similar to that of the tropical Asian ginger (*Zingiber officinale*), which is commonly used for cooking. Namepin leaves also have a "ginger" fragrance.

The Ojibwe value namepin for its medicinal uses and as a food spice. Care should be taken, however, when handling this plant because it can cause skin rashes in some people. Furthermore, it contains aristolochic acid, which if consumed in large doses, may result in kidney failure.



Namepin plant. © 2003 Steven J. Baskauf <http://bioimages.vanderbilt.edu/>.

Namepin occurs throughout the Midwest and eastern United States and Canada. It grows in rich, moist to wet soils in a variety of plant communities including northern hardwoods, boreal forests, cedar swamps and mixed woodlands. It can be found in full sun, but prefers shady to partially shady sites.

For gardeners interested in growing native plants, namepin provides as excellent ground cover, forming a luscious green carpet, particularly in those shady areas where most plants cannot survive. Planting on a slope allows for better viewing of its clandestine flowers.

During the first year or two after planting namepin, watering and weeding may be regularly required. Once established, however, this plant needs minimal maintenance. Natural precipitation usually provides adequate moisture and fewer weeds develop as namepin becomes more crowded.

Additionally, namepin appears to be disliked by deer and other plant-munching animals. Gardeners need not waste time erecting fences or spraying foul-smelling liquids as deterrents, which seldom work anyway.

And with all that extra time, gardeners may want to wander and explore our forests searching for more hidden jewels.



Namepin flower. © 2003 Steven J. Baskauf <http://bioimages.vanderbilt.edu/>.

VITF vice-chairman Matt O'Claire walks on

Leaves legacy of treaty rights advocacy & service

Odanah, Wis.—Avid hunter, trapper, artist Matt “Rat” O’Claire, age 50, of the Bad River Band, walked on Tuesday, Sept. 15, 2009, at his residence. He was born July 2, 1959, in Milwaukee, and was the beloved son of Delores Martin and stepfather Joe Martin.

Matt served on GLIFWC’s Voigt Intertribal Task Force (VITF) as a Bad River representative since 1991 and was recently elected as vice-chairman. Actively involved in treaty rights exercise, he was a strong, outspoken advocate for the protection of those rights and tribal sovereignty.

“In honor of Matt’s service to protect and enhance Ojibwe rights, his vice-chairman position will remain without a replacement until the next election,” said Mic Isham, GLIFWC Board Chairman.

Active in his tribal community, he was also employed as the Bad River Tribal warden for 18 years and served on the Bad River Repatriation and Historic Preservation Review Board. He was also a cultural mentor and encouraged youth to take up traditional skills.

While an active outdoorsman, Matt was also an accomplished artist, whose most esteemed work was the drawing that now decorates the Bad River Tribal flag and logo. Matt’s artwork also appears on the cover of the first edition of *Casting Light Upon the Waters*, the 1991 joint assessment report on the status of the walleye fishery in Wisconsin ceded territory lakes as well as in other GLIFWC publications, including graphics used in the Mazina’igan such as the one to the far right.

Matt was a lifelong resident of Odanah. He attended St. Mary’s Grade School and graduated from Ashland High School in 1977. Matt later attended the Chippewa Valley Technical Institute, Eau Claire.

He is survived by his mother, Delores Martin; two sisters, Darla (Ron White) O’Claire and Jeanine O’Claire, both of Odanah; two sons, Robert O’Claire of Odanah and Dillon B. Benton of Oneida; a daughter, Naomi (Chad) Fluck of the Twin Cities; two grandchildren, Lyla and Tyler Fluck; nephews and great nephews, Joe Martin III, Harold (LeEllen) White, Robert Stone,



Donavin O’Claire and Dominic Suarez; nieces and great-nieces, Nicole O’Claire, Misty White and Miyah White.

He was preceded in death by his father, Floyd O’Claire; a brother, Mark O’Claire; a great-nephew, Marcus Mathew White; and his grandparents, Cinnamon and Julia Bressette, who raised him.

A funeral service was held on Monday, Sept. 21, at the Bad River Community Center in Odanah with Alton “Sonny” Smart officiating.

His voice will be missed, but his legacy as an advocate for tribal rights lives on.

Lessons from the drum

Learning to be a drum singer and a man

By **Charlie Otto Rasmussen**
Staff Writer

Red Cliff, Wis.—Roy Redhail eyed the group of seven boys seated on the Makwa House lawn around a newly constructed drum. In a staggered circle a few steps behind, stood the boys’ mothers and a few observers. A South Dakota resident, Redhail had journeyed to northern Wisconsin to deliver a message—one intended to shape the life paths of each aspiring drum singer: abusing a woman is never okay. Period.

“You have to respect women. That’s where you come from,” explained Redhail, an Oneida member and experienced singer.

Redhail’s admonition emerged as a capstone of teachings targeted at native boys who all too often witness destructive behavior in their homes and communities. The drum, which the seven-12 year-olds helped create, would provide the physical and spiritual glue to live that good life Ojibwes sometime call mino-bimaadizi.

“The first thing you learn about something like this is respect,” he said, holding his hand over the drum. “There’s good energy here.” Earlier in the summer, Red Cliff’s Nathan Gordon guided the children through the drum and drumstick construction process.

The Red Cliff Family Violence program and the Wisconsin-based American Indians Against Abuse hosted the July 17 gathering at Makwa House, a single family-residence-turned-community

building for domestic violence and sexual assault prevention services. Advocate Nanette “Nutty” Gokee worked with other tribal staff to organize this past summer’s program designed to check domestic abuse before it begins.

“This year we were focused on Red Cliff’s boys—how to incorporate culture like drum making with our domestic work,” Gokee said.

At the drum circle, Redhail pounded out some basic notes with a borrowed stick as the boys watched. “The sound of the drum will bring many of your relatives together. When you hear that drum, something feels good inside,” he told the group. “Do you want to sing?”

After a few uneasy grins and shoulder-shrugs, they took up their recently completed drumsticks and followed Redhail’s lead. He took the youngsters through five songs originating from the Sun Dance at Wounded Knee. By the last song, the fatigued boys needed two hands to power the drumsticks.

“This drum will help the kids stay away from drugs, gangs, drinking and from bad things. This is where we teach leadership,” Redhail said in an address to the mothers. “It’s hard for boys to watch the father hit or abuse the mother. It slows their development. The medicine in this drum will help them with relationships—how to relate to one another without yelling. It’s about empathy.”

When Redhail finished, the gathering feasted the drum inside Makwa House. As for the future, it was in boys’ hands. And with a support structure comprised of family and tribal staff at

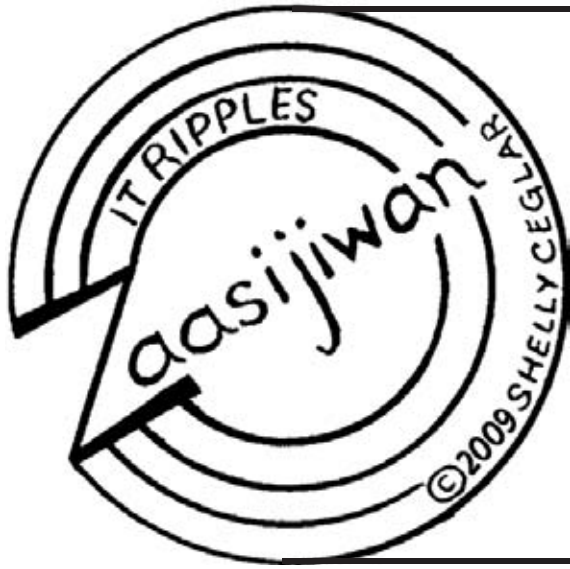


Above: Oneida member and domestic abuse consultant Roy Redhail leads a group of Red Cliff boys through a song on their new drum. The Red Cliff Family Violence program and American Indians Against Abuse sponsored Redhail’s visit. Inset: Roy Redhail. (Photos by COR.)

the ready, help would be there when they needed it.

For more information on American Indians Against Abuse contact Executive Director Teri Tainter at (715) 634-9980 or aiaawitribes@cheqnet.net.





Biboon—It is Winter

Gigii-piingej ina? Gigii-maazhendam ina? Bazigwiidaa dash maajitaadaa! Gidaa-mamaajimmin. Gidaa-izhaamin agwajing. Gidaa-pimosemin. Gidaa-niimimin. Gidaa-zhooshkwada'emin. Gidaa-zhooshkwaagimemin. Gidaa-wiidookawaanaanig. Gidaa-manisemin. Aaniin waa-minochigeyang? Gidaa-wiikwajitoomin. Ojibwemodaa! Ikidog awesiiyag izhinikaazowinan. Gidaa-gagwejimaanaanig gichi-aya'aag. Gidaa-pizindawaanaanig aadizookaanag.

(Are you feeling cold? Do you feel out of sorts? Let's all get up and let's all start an activity! We can move. We can go outside. We can walk. We can dance. We can skate. We can ski. We can help someone. We can cut firewood. What good things do you want to do? We can try to do something. Lets all speak Ojibwe! Say wild animal names. We could ask question to the elders. We should listen to the sacred stories.)

Bezbig—1 OJIBWEMOWIN (Ojibwe Language)

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

—Short Vowels: A, I, O
Dash—as in about
Ingiw—as in tin
Ikidog—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.

Oshki-mazina'igan
Aaniin Ekidong
(How do you say....)

free download or purchase:
<http://minnesotahumanities.org/resources/aaniin>

Science: agwii—it sticks, tacky
Math: biinjibajigan—funnel
Punctuation: dookibii'igan—period
Music/Dance: aasan—plural leggings
Body Function: Aayaagade.—S/he gags.
Social Studies: aagomowin—harbor
Place Names: gidoodoonaan, gimaamaayinaan, gookomisinaan, maamaanaan—mother earth

Niizh—2 Circle the 10 underlined Ojibwe words in the letter maze. (Translations below)

- A. Daga ikidog. Makwa, makwag, makoons, makoonsag.
- B. Makwa nibaa. Makwag nibaawag waanzhang.
- C. Amik, amikwag, amikoons, amikoonsag. Miinawaa.

D. Waabooz, waaboozoog, waaboozoons, waaboozoonsag.

E. Esiban, esibanag, esibanens, esibanensag. Esibaniban.

F. Migizi, migiziwag, migiziins, migiziinsag.

G. Gaag, gaagwag, gaagoons, gaagoonsag. Ikidon mooz.

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

Niswi—3

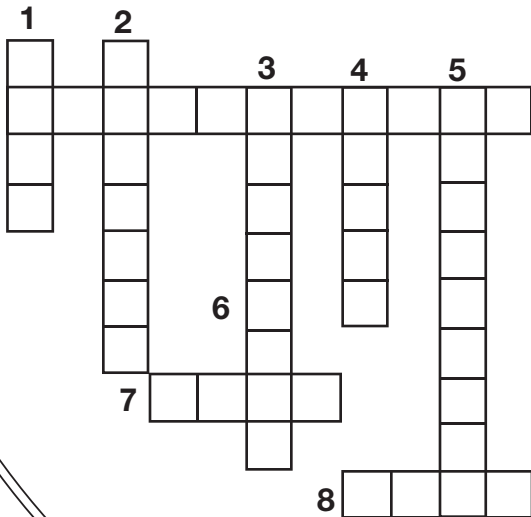
IKIDOWIN
ODAMINOWIN
(word play)

Down:

1. Moose
2. Bird
3. Raccoons
4. New
5. Chipmunks

Across:

6. Let's all speak Ojibwe!
7. Porcupine
8. Please



Niiwin—4

Nawaj Awesiiyag

Waawashkeshi, waawaashkeshiwag, waawaashkeshiins, waawaashkeshiinsag. Deer, deer, fawn, fawns.

Agongos, agongosag, agongosens, agongosensag, Chipmunk, chipmunks, young chipmunk, young chipmunks.

Bineshi, bineshiyag, bineshiins, bineshiinsag, Bird, birds, chick, chicks

Gijigijigaaneshii, gijigijigaaneshiiyag, gijigijigaaneshiins (ag) Chickadee, chickadees, baby chickadee...

Mooz, moozoog, moozoons moozoonsag. Moose...

Goojitoon! Try it!
Translation below.

1. Niwaabamaag ingiw waawaashkeshi_____.
2. Ziigwang agongos_____ wii-bimibaatoowag mitigong.
3. Bineshi_____ bimisewag. Bakadewag noongom.
4. Aaniin apii waa-niigiwaad gijigijigaanesh_____?
5. Gidaa-pamenimaanaanig ingiw mooz_____.

- oog
- wag
- iinsag
- ensag
- yag

Translations:

Niizh—2 A. Please you all say it! Bear, bears, cub, cubs. B. Bear, s/he is sleeping. Bears, they are sleeping in the den. C. Beaver, beavers, baby beaver, baby beavers. Again. D. Rabbit, rabbits, little rabbit, little rabbits. E. Raccoon, raccoons, little raccoon, little raccoons. Deceased raccoon. F. Eagle, eagles, young eagle, young eagles. G. Porcupine, porcupines, young porcupine, young porcupines. Say it for moose.

Niswi—3 Down: 1. Mooz 2. Bineshi 3. Esibanag 4. Oshki 5. Agongosag Across: 6. Ojibwemodaa 7. Gaag 8. Daga

Niiwin-4 1. I see them those deer (pl) (wag). 2. When it is spring baby chipmunks (ensag) will be running in the tree. 3. Birds (yag) they are flying. They are hungry today. 4. When will they be born baby chickadees (iinsag). 5. We should take care of them those moose (pl) (oog).

There are various Ojibwe dialects; check for correct usage in your area. Note that the English translation will lose its natural flow as in any world language translation. This may be reproduced for classroom use only. All other uses by author's written permission. Some spellings and translations from The Concise Dictionary of Minnesota Ojibwe by John D. Nichols and Earl Nyholm. All inquiries can be made to **MAZINA'IGAN**, P.O. Box 9, Odanah, WI 54861 pio@glifwc.org.



ANA manoomin grant is winding down

By Sue Erickson
Staff Writer

Odanah, Wis.—The nutty fragrance of parching rice filled the air around many rice camps in Ojibwe country this fall as families dried, parched and threshed their manoomin, thankful for a bountiful season. On six Ojibwe reservations, wild rice workshops were also in full swing as Great Lakes Indian Fish & Wildlife Commission (GLIFWC) staff worked with tribal youth to demonstrate both ricing techniques and processing the manoomin.

The ricing workshops were one aspect of a two-year grant from the Administration for Native Americans (ANA) that wrapped-up this fall. Besides the workshops, the multi-faceted grant assisted with wild rice surveys, reseeding, and upgrading processing equipment.

According to Reggie Cadotte, ANA wild rice grant coordinator, manoomin workshops were held at Lac Courte Oreilles, Lac du Flambeau, and Sokaogon/Mole Lake in Wisconsin and at Lac

Vieux Desert, Keweenaw Bay, and Bay Mills in Michigan. Similar workshops were presented at five other reservations in 2008, making a total of eleven workshops, one for each of GLIFWC's member tribes.

Cadotte gives kudos to GLIFWC's Sharon Nelis for running the 2009 wild rice harvesting and processing workshops benefiting 136 tribal youth by sharing her knowledge from a lifetime of ricing experience. Assisted by Mike Wiggins Jr. and Dave Pero, Nelis zigzagged across the ceded territories loaded with the ricing paraphernalia needed for the workshops. She demonstrated knocking rice, went step-by-step through processing manoomin, and also shared some of her favorite manoomin recipes while demonstrating various ways to cook wild rice.

Besides the mechanics of ricing and processing, the cultural importance of manoomin and respect for the plant were stressed as well as adherence to regulations pertaining to harvesting wild rice.

In conjunction with the wild rice workshops, GLIFWC wardens ran canoe safety courses for 117 tribal youth, and

Cadotte assisted 84 tribal youth in making their own knocking sticks so they could actively participate in harvesting manoomin this fall.

While ricing workshops were in full swing, survey crews from GLIFWC and the Wisconsin Department of Natural Resources finished up a summer surveying wild rice beds, completing a second component of the grant. The ANA grant provided for one survey crew, which surveyed over 50 waters in Michigan's Upper Peninsula.

In addition, over 50 Wisconsin waters were surveyed with funding from both ANA and the Wisconsin Department of Natural Resources. John Patrick, GLIFWC staff, coordinated the crews and surveying methods with Peter David, GLIFWC wildlife biologist.

Using GIS for mapping locations, the crews checked manoomin beds for abundance and health and recorded the data. ANA also assisted with funding aerial surveys.

Esteban Chiriboga, GLIFWC ANA GIS specialist, also studied the manoomin beds from an historical perspective, pulling together data relating to where beds have reportedly been.

In addition, Cadotte gathered Traditional Ecological Knowledge about manoomin through interviews with elders and rice chiefs who recommended where reseeding efforts should be focused.

He said elders stressed the importance of harvesting and reseeding manoomin "in a culturally appropriate way putting down asemaa, with a good spirit and a clear body and mind."

A final component of the grant involved helping tribal processors upgrade their equipment. Through ANA, GLIFWC purchased a limited number of stainless steel parching pans, mechanical rice threshers, canvas tarps for drying, and bag sealers. Wild rice processors could obtain these items in exchange for quantities of finished rice.

Over 1600 pounds of finished rice were collected. The manoomin will be distributed to tribal programs of member reservations in the near future.

"Since wild rice is culturally such an important food and also known to be a very nutritious food, it feels great to provide quantities to the tribal food programs and know it can be included in the diets of more tribal members," Cadotte says. While Cadotte only worked with the grant in its final year, he welcomed the opportunity to learn from and work with so many tribal members in the process of completing the grant. "It was a hectic year, especially this fall, but the project benefited so many people as well as our sacred manoomin that it made me feel really good," Cadotte comments, "and I will definitely be out there next year, ready with my ricing sticks!"



Lac Vieux Desert youth work on finishing their ricing poles during one of the ANA wild rice workshops this summer. The workshops took participants through the entire ricing process, beginning to end. (Photo by Jim St. Arnold.)



Learning the basics of ricing, a Lac Courte Oreilles youth tries his hand at parching manoomin over an open fire during a wild rice workshop instructed by GLIFWC's Sharon Nelis. Next step will be the winnowing. (Photo by Sharon Nelis.)



Practicing on dry land, youth at Bay Mills get the feel of a canoe and ricing sticks before going out on the water while Mike Wiggins, Bad River, provides instruction on handling a canoe. (Photo by Sharon Nelis.)



At Lac Vieux Desert, Charlie Fox splits a cedar log providing the cedar sticks that youth will hone into a set of ricing sticks, also known as rice knockers. (Photo by Wesley Ballinger.)



Ice fishing with decoy & spear

An Ojibwe tradition

By Sue Erickson, Staff Writer

Ice fishing is a great way to enjoy biboon (winter). Of course, you have to wait until the ice is very thick and safe! You do not want to go out on ice without checking with someone who knows it well. Do you know anyone who fishes through the ice?

Fishing through the ice was not always a sport like it is for most today. For centuries the Ojibwe people needed to catch fish through the ice to survive. Today, many people have ice shacks and pop-up ice tents to use while ice fishing, but the Ojibwe people constructed their own tent on the spot. Some people still fish this way today.

First, you have to cut a hole in the ice. Then a tent is needed to darken the area around the hole that has been cut in the ice. This helps the fisherman see into the water below and spot fish swimming in the area. This is important, especially if you are spearing fish, because you have to see what you are aiming at. In the old days, the Ojibwe used saplings for a frame and covered it with materials such as hides or birchbark. Today, people use blankets or tarps to cover the frame.

Some people fish with an okeyaw (decoy), a wooden fish carved and painted to resemble a small fish that a big fish would like as a snack. The decoys are made to move around in the water, acting like a real fish. When the big fish, called a predator fish, comes in to grab the decoy, the person will take aim and spear it. Spearing is called akwa'waa in the Ojibwe language. Today, many people also bob, or jig, through the ice for fish using baits. Spearing is not always allowed.

Ice fishing is fun. It's a great winter activity, but you have to learn how to do it right—learn where the fish are, learn what (See *Who's who in the fish world*, page 19)



Onaakosidoon (set up as a frame) for an ice fishing bagiwayaanegamig (tent).

Artwork by Wesley Ballinger



The tent blocks out the light, so the fisherman can see the giigoonhyag (fish) swimming below.



Akwa'waa (fishing through the ice with a spear). Using a decoy to attract a gichi-giigoonh (big fish), the fisherman is ready with his anit (spear).



Who's who in the fish world

(Continued from page 18)

decoys or baits to use, and learn how to use them. It's also good to know how to build an ice tent, so you can block out the light and keep out some of the cold wind as you watch for that big fish to come by your fishing hole.

Some of the fish caught by ice fishing are listed below.



Ginoozhe is ready to strike.

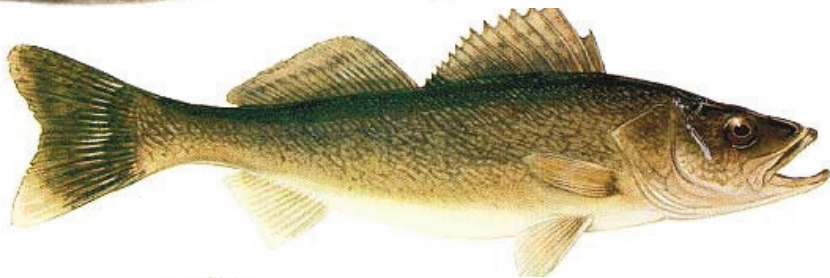
Ojibwe Word	English Word
Ginoozhe	Northern pike
Ogaa	Walleye
Namé	Sturgeon
Asaawe	Perch
Nameycush	Lake trout
Adikameg	Whitefish
Mizay	Lawyer/Burbot

Draw a line from the fish to the matching Ojibwe word. Good luck!

(Answer on page 23)



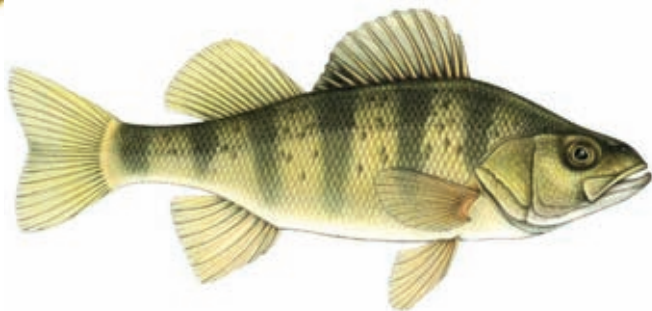
Nameycush



Namé



Adikmeg



Mizay



Ogaa



Asaawe



Ginoozhe



GLIFWC safety courses flourish

First GLIFWC Trapper Safety Class a success

By Sue Erickson, Staff Writer

Odanah, Wis.—A fall round of safety classes included several Hunter Safety courses and, for the first time ever, GLIFWC wardens presented a trapper education course in partnership with the Wisconsin Department of Natural Resources (WDNR).

GLIFWC Warden Roger McGeshick was the lead instructor for the two-day class offered at the Sokaogon/Mole Lake reservation on September 17-18. McGeshick was assisted by WDNR Wardens Brad Dahlquist and Tim Otto, GLIFWC Warden Tom Kroepin, who has 40 years of trapping experience, and Chris McGeshick from Mole Lake. He credits the success of the class to their helpful input.

Roger McGeshick received his instructor certification following successful completion of training offered by the Wisconsin Trappers Association.

Ten individuals completed the two-day course, including two Mole Lake and one Lac du Flambeau youth. Thanks to the Mole Lake Convenience Store, everyone who completed the class received a ten dollar gift certificate. Other participants ranged in age from 20 to 50 years old and came from as far away as Milwaukee, McGeshick says.

Trapping ethics as well as trap types and sets were presented, with Dahlquist reviewing state trapping regulations. Demonstrations and some hands-on experience gave participants a feel for using some of the trapping equipment.

McGeshick says he's something of a newcomer to trapping himself. His interest was sparked about three years ago when attending a WDNR fur school for enforcement personnel in Madison. He was so enthusiastic, he stopped and bought trapping equipment at Gander Mountain on the way home and has been involved ever since.

The trapper safety class, he notes, is required for any state-permitted individual, regardless of age, who did not obtain a trapping license prior to January 1, 1992. Tribal members trapping outside the ceded territory are subject to the same rule.

"We strongly encourage all beginning treaty trappers to enroll in the education course," McGeshick said. "Although the course is not a requirement for tribal members to trap on ceded lands, participants learn ethics and important fundamentals. Responsible trapping is an essential part of taking furbearers."



Completing the first ever Trapper Safety Course are, front row, from the left: Cameron McGeshick, Rayfield Tallier, Walter Roberts, Frederick Maulson, Ryan Bystrek, and Roger McGeshick, GLIFWC Warden & Trapping Instructor. Back row: Chris McGeshick, Glen Wempner, Christopher Leach, Herb Ponta, Martin Rathaber, James Loucks, and Tom Kroepin, GLIFWC Warden. (Photo submitted.)

Hunter education courses were also in full swing this fall with classes presented at the Mille Lacs reservation in Minnesota and at St. Croix, Bad River and Lac du Flambeau (LdF) in Wisconsin. The LdF Hunter Safety Class attracted a whopping 33 participants from around the region. Wardens Emily Miller, Jonas Moermond, Tom Kroepin, and Enforcement Chief Fred Maulson instructed the course.

At St. Croix Warden Matt Bark assisted St. Croix tribal police in presenting the class, and at Mille Lacs Wardens Jim Mattson and Robin Arunagiri partnered with Mille Lacs tribal wardens. Instructors during Bad River's Hunter Safety class included Wardens Vern Stone, Jim Stone and Robin Arunagiri.



WDNR Warden Tim Otto demonstrates a water set during the Trapper Safety Class at the Mole Lake Reservation. (Photo submitted.)



Cameron McGeshick, Mole Lake, with a bank set for mink/muskrat on the Mole Lake Reservation. (Photo by Roger McGeshick.)



Notice

Because there will be no spring edition of the *Mazina'igan*, please check GLIFWC's website at www.glifwc.org or contact your local GLIFWC warden for upcoming safety classes.

Lac du Flambeau's (LdF) Hunter Safety Class drew a record number of participants this fall with thirty-three students from around the region. The class is pictured to the left with instructors: far left, back row: LdF Tribal Warden Ray Wolf and GLIFWC Warden Jonas Moermond; mid right, back row: GLIFWC Wardens Tom Kroepin, Emily Miller, Roger McGeshick, Mike McKenzie, and GLIFWC Enforcement Chief Fred Maulson. (Photo submitted.)



Getting a feel for the bow, students participating in the Connecting Youth With Positive Alternatives Conference at St. Germain, Wisconsin try their hand at archery. GLIFWC wardens set up and manned four archery exhibits during the youth conference as well as sponsored a casting competition. (Photo by Fred Maulson.)

GLIFWC wardens work with area youth

Encourage outdoor skills

By Sue Erickson, Staff Writer

St. Germain, Wis.—GLIFWC wardens participated in the “Connecting Youth With Positive Alternatives Conference,” a one-day event sponsored by the Vilas County Youth Coalition. The Coalition’s goal is to help youth discover fun and interesting things to do within the community without drugs or alcohol. These would include hobbies as well as potential volunteer activities.

“Our officers are committed to encouraging youth involvement in outdoor activities,” says Chief Warden Fred Maulson. “So the Youth Coalition’s goals seemed to be a natural for us.”

Over two hundred sixth graders from five schools, including the Lac du Flambeau School, were invited to the September 23rd event at the St. Germain Community Park.

Hands-on learning exhibits provided the youth opportunity to experience a variety of activities. Divided into groups of 25-30, the students rotated through the exhibits. GLIFWC wardens set up and manned four archery stations at the event and also sponsored a casting competition. Both were well received by the youth, according to Maulson.

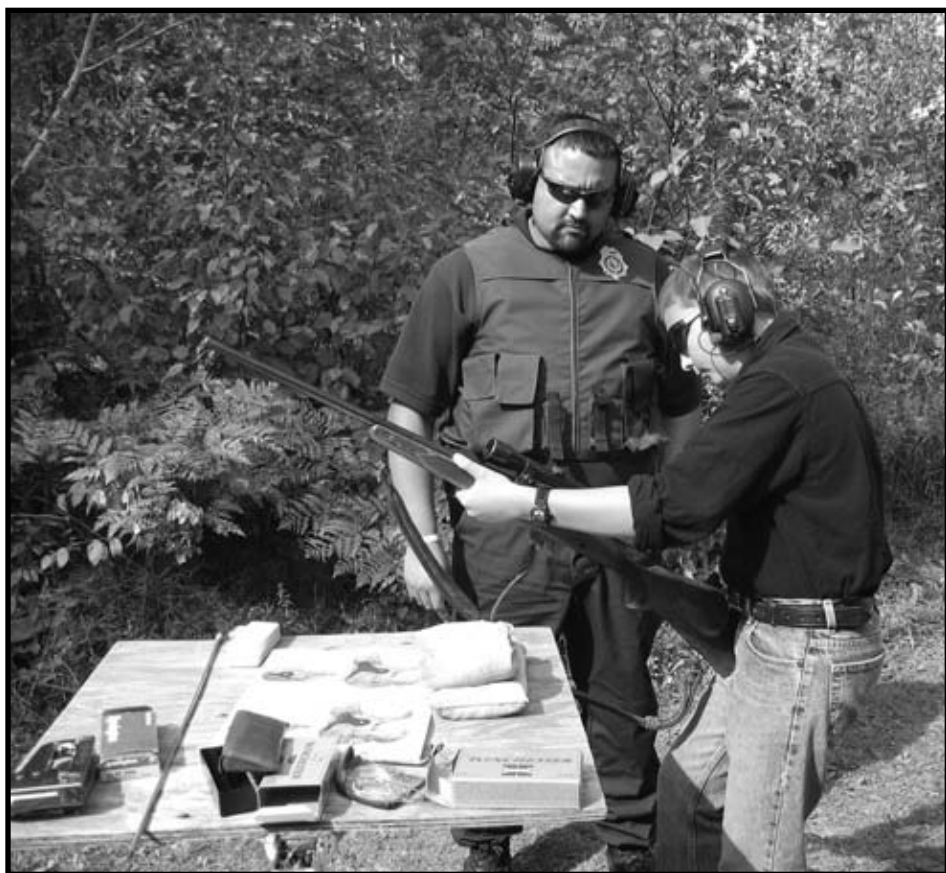
GLIFWC officers who participated along with Maulson were John Cooksey, Jonas Moermond, and Roger McGeshick.



Taking aim! GLIFWC Warden Jim Mattson and Mille Lacs Tribal Warden Jared Rosati stand by as students in the Mille Lacs Hunter Safety Class get ready to fire during the field day. The course involves both classroom review of regulations and hands-on practice in handling guns safely. (Photo submitted.)



GLIFWC wardens completed another successful Hunter Safety course at the Bad River Reservation this fall. Participants included, in the front row, Brett Krueger, Casey Krogstad, Logan Neveaux, Daniel Jackson, Dakota Szwarek, Matthew Stone, and Kevin Jeffords. Back row: Instructor Jim Stone, Kellan Schraa, Eliot Wasserman, Joseph Szwarek, Curtis Wilmer, and instructors Robin Arunagiri and Vern Stone. (Photo submitted.)



During the Bad River Hunter Safety Class field day, a student demonstrates how to safely load a rifle for instructor Jim Stone, GLIFWC warden. (Photo by Vern Stone.)



Out in the Big Apple—GLIFWC Warden Heather Naigus (center) participated in an international conference sponsored by the Great Lakes Law Enforcement Commission regarding Great Lakes enforcement issues this fall. Participants included both law enforcement personnel and biologists from states and Canadian provinces bordering the Great Lakes. Numerous issues were addressed including drug transport, illegal immigration, fishing issues and bait fish i.d. Naigus learned how to identify species of bait fish as part of an ongoing effort to prevent both invasive species and disease introduction into the Great Lakes. Next year the conference is slated to be held in Michigan with hopes for more tribal involvement. (Photo submitted.)



Mooningwanekaaning-minis Anishinaabeg Maanwanjiiding

Revitalizing the Anishinaabeg connection to Madeline Island

LaPointe, Wis.—“We need to figure out the Island’s importance to us and to gather, share stories, so we don’t forget,” commented Henry Buffalo Jr. speaking at a September 25th gathering on Madeline Island. The event invited Anishinaabe people to revisit Mooningwanekaaning-minis (Madeline Island), once a major Ojibwe community and homeland, for a day of recollection, re-connection, ceremony, camaraderie and celebration.

About 500 Anishinaabeg along with non-Indian friends gathered at the Island’s Ojibwe Memorial Park. Significantly, over a century and a half ago about 4000 Anishinaabe people came together on the Island for the 1854 Treaty negotiations. Both the 1842 and 1854 Treaties were signed at LaPointe, the latter on September 30, 1854. Not surprisingly, several speakers alluded to the need for a cultural center on the Island to help preserve the many cultural and spiritual Ojibwe ties to this historic site. Participants also enthusiastically embraced the suggestion to put the Island on the National Register of Historic Places as well as to seek a larger site for an annual Anishinaabeg Gathering and Pow-wow.

During his presentation Buffalo, whose great, great grandfather and great, great, great grandfather are both buried on the Island, remarked on the vision of those Ojibwe predecessors who negotiated the treaties all the while struggling with language and cultural barriers, but still securing the treaty rights for generations to come—the treaty rights which many Anishinaabeg exercise today.

The day’s events began in a good way with a morning pipe ceremony led by Red Cliff’s Leo LaFernier and a water ceremony presented by Sue Nichols, Goldie Hanson, Carolyn Gouge, and Sharon Nelis. The ceremonies were followed by a series of speakers with a noon luncheon hosted by the Community of LaPointe and an evening feast presented by the Mooningwanekaaning-minis Anishinaabeg Maawanjiiding committee. Drumming and dancing followed the feast.

Northland College Native American Studies Professor Joe Rose launched the educational dimension of the gather-

ing with an overview of Ojibwe history, recounting historical highlights of events and policies which impacted the Ojibwe people from initial European contact through the treaty era. Sparkling with interesting historical details and stories of politicians and policies that impacted Ojibwe lives and history, Rose’s account provided a great background for the discussion to follow.

Buffalo filled in details about the actual treaty negotiations, the process and the struggles, pointing out that the tribes did not always understand that they were selling land. Often they thought they were selling just trees or access to minerals.

Both Robert Van Zile, Sokaogon/Mole Lake, and Dr. Rick St. Germaine talked about the eventual dispersal of the Ojibwe from the Island, Van Zile, emphasizing the importance of the strong medicine lodge that existed on the Island and that one of the seven clans with teachings dispersed to each new inland community.

St. Germaine recounted some of the dangers encountered as the Anishinaabeg began their dispersal inland, including battles with the feared Fox over the resources, such as white-tailed deer. He detailed the founding of the Lac Courte Oreilles community by Bear Clan hunters on an expedition from the Island. “This is a reminder that we are all relatives,” he said. “Our roots are right here. This is truly our home.”

Jason Schlender, Lac Courte Oreilles, emceed the event that included other speakers like White Earth’s Winona LaDuke. LaDuke had further visions for an Ojibwe presence on Madeline Island. She sees Mooningwanekaaning-minis as a place to explore wind energy and grow native seeds, even wild rice, in an environment that will protect their integrity from genetically altered species. She emphasized the need to return to native foods and to growing foods! The Mooningwanekaaning-minis Anishinaabeg Maawanjiiding committee organized the gathering with the support from the Forest County Potawatomi, Apostle Islands Community Fund, Madeline Island Museum, Fond du Lac Band of Lake Superior Chippewa, Bad River

Band of Lake Superior Chippewa, St. John’s UCC, the Anishinaabeg Fund of the Duluth Superior Community Foundation, Ashland Walmart, and numerous LaPointe community organizations. Committee members included Sue Nichols, Lorraine Norrgard, Sharon Nelis, Carolyn Gouge, Joe Rose, Pastor Marina Lachecki, Steve Cotherman, Jean

Buffalo, Leo LaFernier, Demetri Morris, Edith Leoso, and Gretchen Morris. It is hoped by those attending that this will become an annual event.

Organizers encourage anyone interested in joining the organizing committee or submitting comments about the gathering to email: migathering2009@aol.com.

An eagle in the crowd at Island gathering Ideas about tribes & eagles surface

LaPointe, Wis.—Special guests at the gathering on Madeline Island were the migizi (bald eagle), Columbia, and her handler Mary Beth Garrigan, both from the National Eagle Center (NEC), Wabasha, Minnesota. A center of attention especially for the children, they came to fulfill part of the NEC’s mission to connect migiziwig (eagles) with Native Americans and veterans. This is because of the special significance eagles hold within tribal communities and for American veterans.

Columbia is a rescued eagle that is permanently disabled and unable to return to the wild. She along with three other migiziwig, Harriet, Angel and Was’aka, and one giniw (golden eagle) from California named Donald, are all permanent residents at the NEC and are considered “educational raptors/ambassadors.” As such, these winged celebrities live a busy, scheduled life, making appearances throughout the region as part of the NEC’s outreach programs. Youth as well as adults get a close-up look at these magnificent raptors while the handler teaches about the mysteries and ways of these powerful birds.

The NEC itself is a federally designated interpretive facility located on the Mississippi River directly on the eagles’ migratory route. It opened its doors in 2007, although its beginning heralds back to the 1980s when an eagle observation deck was first erected through the efforts of Eagle Watch, Inc.

Eagle observation remains a primary attraction. The NEC is located directly on the bald eagle migratory route; consequently, it offers an excellent opportunity to view eagles in great numbers in their natural habitat along the banks of the river, especially from November to March.

The Center also features an aviary, with nose-to-beak observation and a no cage environment for its five-tethered disabled residents, educational exhibits and interactive displays that highlight the importance of the eagle to Native Americans and to American veterans. NEC also provides lectures and sponsors educational events with guest speakers on-site and in outreach presentations.

Would tribal aviaries be possible?

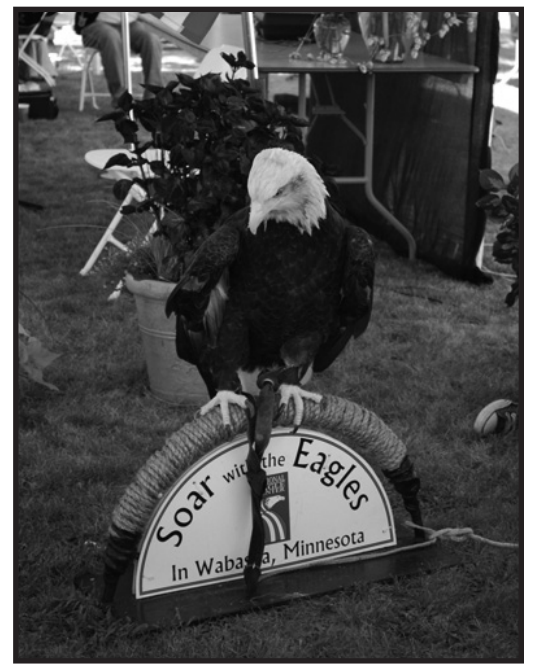
While NEC has experienced great success, there are more possibilities on the horizon. At least Garrigan hopes so. In particular, she wonders about the potential for tribally-run aviaries and eagle feather repositories. She brought the subject up while at Madeline Island and got a positive response.

“Wouldn’t it be great if tribes had aviaries for permanently injured eagles? These would be places that rehabilitators could send birds that could not be returned to wild and also a source of eagle feathers for the tribes,” she comments.

Similar to the NEC, she envisions tribal aviaries with resident eagles and corresponding eagle feather repositories from their molted feathers with an educational component to engage community youth in cultural study as well as environmental science and eagle care.

According to Garrigan, the Zuni Tribe in New Mexico already operates an aviary for eagles, and the program has proven to be a success so far. However, climatic conditions for an aviary in the northern US creates different housing challenges to consider than one located in the desert, she points out.

Currently, she is working on moving the idea forward, touching base with a variety of stakeholders including the tribes, US Fish and Wildlife Service, raptor rehabilitators and veterinarians, essentially looking for interested cooperators, hoping to develop a conference and a platform for the next step forward.



Columbia.



Veteran firekeeper Leo LaFernier, Red Cliff, tended the Sacred Fire throughout the gathering on Madeline Island.



Ceremonies at Sandy Lake, Minnesota took place in October this year due to the Minwaajimo Treaty Conference and GLIFWC's 25th celebrations in July. Despite a fall chill in the air, ceremonies took place, remembering and honoring the ancestors who perished as part of the 1850 Sandy Lake tragedy. The Sokaogon/Mole Lake Drum provided honor songs; pipes were lit and passed, and a water ceremony performed prior to all enjoying a feast at the site of the Mikwendaagoziwag Memorial. (Photo by Sue Erickson.)



Visiting officials from the Environmental Protection Agency (EPA) enjoyed a September tour of the Kakagon Sloughs on the Bad River Reservation prior to a dinner meeting with tribal representatives. Discussing pertinent Lake Superior issues during a dinner meeting are Luke Jones, EPA's Region V Indian Environmental Office, and GLIFWC Executive Administrator Jim Zorn. (SE)



Marking the landing site on his GPS unit prior to launching, GLIFWC Inland Fisheries Biologist Mark Luehring prepares for a night out on the water performing electrofishing surveys this fall. GLIFWC inland fisheries crews worked with partners from Bad River, Sokaogon, St. Croix, U.S. Fish and Wildlife Service, and Wisconsin DNR to complete fall assessments for juvenile walleye on 103 lakes in Wisconsin, 10 lakes in Michigan, and Mille Lacs Lake in Minnesota. Electrofishing along the shoreline of walleye lakes in the fall allows GLIFWC biologists to determine whether a year-class of walleye was produced in the spring. (Photo by Aurora Conley.)

Tribes participate in Healing Our Waters conference

By GLIFWC Staff

Duluth, Minn.—The annual Healing Our Waters Great Lakes Restoration conference took place on September 10-12, 2009 in Duluth, Minnesota. Karen Diver, chairwoman of the Fond du Lac Band of Lake Superior Chippewa, provided a welcome on behalf of her tribe.

She recognized the good work done by the many environmental organizations present at the conference and talked about the efforts of the Fond du Lac band to bring about environmental improvements and sustainability on its reservation. The mayors of Duluth and Superior also welcomed the attendees.

Because conference participants came from across the Great Lakes, organizers wanted to give them a flavor of the status and trends on Lake Superior and the efforts to restore and protect the lake that are being undertaken by the Binational Program to Restore and Protect Lake Superior. The Binational Program is responsible for developing the Lakewide Management Plan (commonly referred to as the "LaMP") for the lake. Three representatives from the Binational Program, including GLIFWC Policy Analyst Ann McCammon Soltis, gave an overview of the status of the lake, with Soltis focusing on habitat issues in detail and others reviewing topics such as critical pollutants.

The participants heard presentations on a variety of issues affecting the Great Lakes, including: the proposed Great Lakes Restoration Initiative, which could bring significant funding for Great Lakes protection and restoration; a proposal for a national "Great Waters" restoration coalition; Great Lakes restoration priorities and projects; global warming; and water quality and quantity issues.

Intern to help with tribal outreach efforts

By Sue Erickson
Staff Writer

Odanah, Wis.—GLIFWC is in the process of improving its website to better address the information needs of the tribal public, and help has arrived to assist with this process. Aurora Conley, Bad River tribal member and Lac Courte Oreilles Ojibwe Community College (LCOOCC) student, began a ten-month internship with GLIFWC's Wildlife Section to focus primarily on improving the message about what the Biological Services Division does for the tribes and posting that message to the GLIFWC web site.

"My primary task is to help with public outreach, to get GLIFWC's messages out to the tribal public and the general public in an electronic format," Conley says.

The internship is sponsored through LCOOCC. While working at GLIFWC 20 hours per week, Conley will also pursue her studies in renewable energy at LCOOCC's Bad River Outreach site.

Conley is a graduate of Ashland High School and already holds an associate degree from LCOOCC in human services. Prior to returning to Bad River, Conley worked for several years with the Honor the Earth Organization at the White Earth reservation in Minnesota.



(Answers from page 19)

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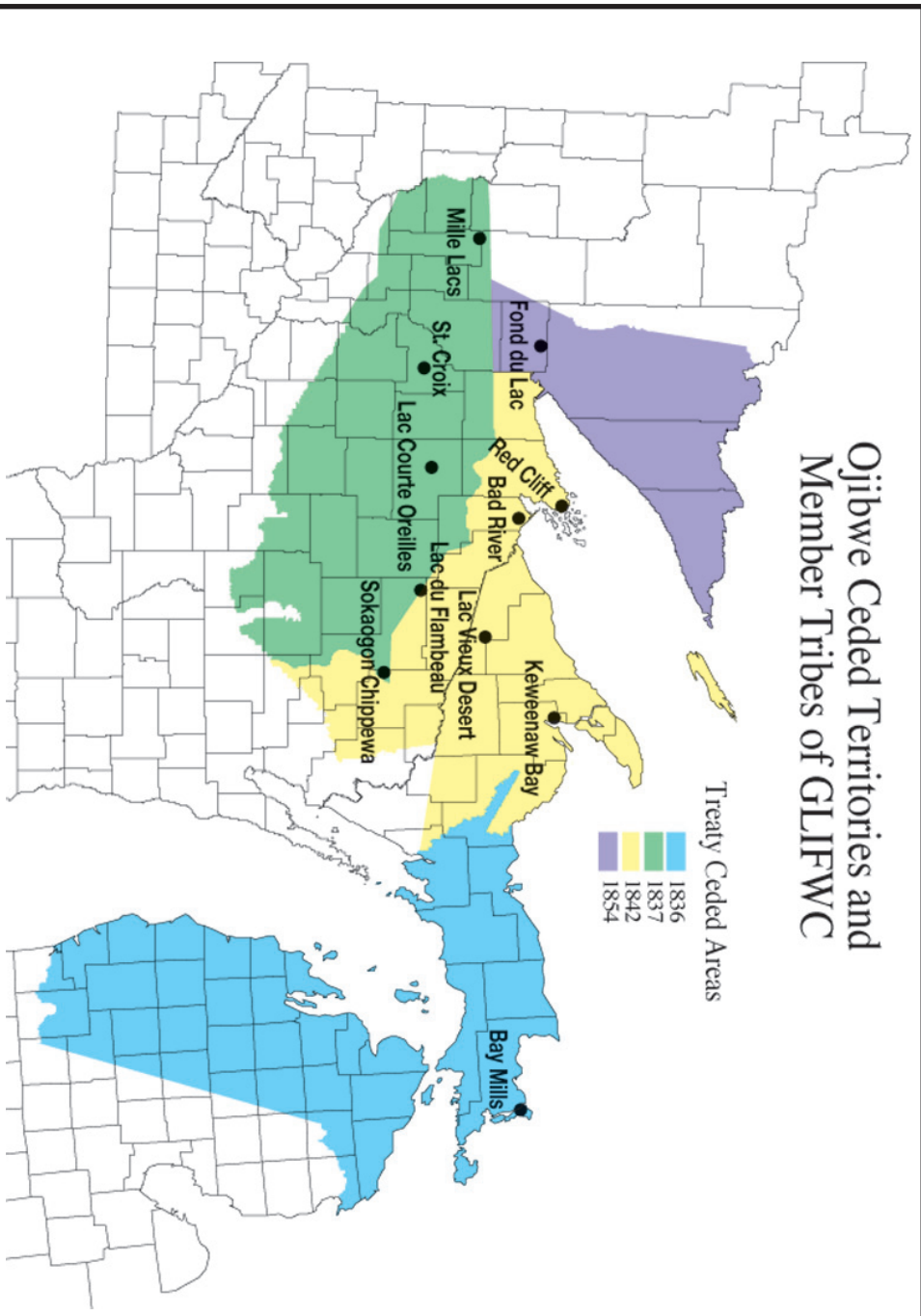
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Although **MAZINA'IGAN** enjoys hearing from its readership, there is no "Letters to the Editor" section in the paper, and opinions to be published in the paper are not solicited. Queries as to potential articles relating to off-reservation treaty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

For more information go to GLIFWC's website: www.glifwc.org.

**Ojibwe Ceded Territories and
Member Tribes of GLIFWC**



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