Mazina'igan
A Chronicle of the Lake Superior Ojibwe
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Tribal ecosystems benefit from Great Lakes Restoration Initiative

By Jen Vanator, GLIFWC Great Lakes Program Coordinator

Odanah, Wis.—For the Anishinaabe, the protection and restoration of homeland ecosystems have always been priorities. Damage to these ecosystems and the natural resources within results in damage to tribal culture and lifeways.

With the introduction of the Great Lakes Restoration Initiative (GLRI) in 2009, the protection, management, and restoration of the Great Lakes and their ecosystems became national priorities. This program has allowed tribes to access the resources and partnerships necessary to translate the Anishinaabe point-of-view into projects that have restored portions of the Great Lakes ecosystem and that will protect the ecosystems and resources vital to the Anishinaabe lifeway and the health of the Great Lakes.

In the two years since the GLRI was implemented, GLIFWC member tribes have succeeded in using GLRI funds to complete ecosystem restoration projects in the Great Lakes basin and surrounding areas, as well as to acquire the capacity necessary to develop and implement long-term, adaptive management plans for the future protection and maintenance of these areas.

Restoration of Great Lakes ecosystems: Wetlands and waterfowl

Tribal natural resources departments have used GLRI funds to develop and complete projects designed to enhance and restore wildlife habitat and encourage the restoration and protection of native species. In Wisconsin, the Bad River Natural Resources Department (BRNRD) used GLRI funds to enhance waterfowl habitat. Since 2010 BRNRD constructed and installed sixty waterfowl nesting structures in wetland habitats throughout the Bad River reservation. BRNRD staff built and installed twenty wood duck boxes and twenty mallard nesting cylinders, monitoring their usage rates during the 2011 field season and was able to install an additional twenty wood duck boxes in February 2012.

Ed Wiggins, Bad River, assembles a wood duck box.

The Lac du Flambeau Natural Resources Department implemented a habitat restoration program on its reservation that aims to enhance wild rice and waterfowl production; benefit migratory species by increasing refuge habitat; control flooding; and provide hunting, fishing, and gathering opportunities. The project includes reconstructing a water impoundment that was flooded when a dam was breached, requiring the construction of both a control structure and spillway, and developing an environmental assessment. When completed, this project will produce 50 acres of open water, protecting approximately 1,000 acres of wetland.

Manoomin restoration

Restoring the habitat for manoomin (wild rice) has been a priority for tribes throughout the region. The Lac Courte Oreilles Band is using GLRI funds to convert an old cranberry marsh into wild rice beds, including the excavation of over 30 acres of cranberry bogs. To date, the tribal natural resources department has seeded over twenty-three acres, with the tribe celebrating 2011 as the first year that wild rice was taken to seed other historic wild rice areas on the reservation. In 2012, the tribe plans to scrape and seed the southern portion of the cranberry farm.

The St. Croix Band implemented a wild rice restoration and carp removal project for Clam Lake. **(See Building capacity, page 19)**

Perserverance yields substantial treaty harvest

By Sue Erickson, Staff Writer

Odanah, Wis.—An unprecedented early spring sent creel teams, fishermen and fisheries assessment crews scrambling for gear as lakes across the ceded territory began opening nearly a month before expected. Mille Lacs Lake's official 2012 ice-out date was March 26—the earliest on record. The average date for the lake's ice out is April 25.

Similarly in Wisconsin treaty spearing began on March 22 with Lac du Flambeau fisherman harvesting 416 walleye from lakes in Lincoln, Oneida, Price and Vilas counties and St. Croix spearers harvesting 73 walleye from St. Croix and Washburn county lakes. In Michigan, treaty spearing began on March 23 with members of the Lac Vieux Desert Tribe harvesting 131 walleye from 6 lakes in Gogebic and Iron counties.

Mille Lacs Band members opened the netting season on Mille Lacs Lake on March 28, and Bad River members also brought in a limited harvest with spears on that night. As of May 1, 2012, tribal fisherman from all eight bands harvested 78,658.5 pounds of walleye from a quota of 142,500 pounds and 10,967.2 pounds of northern from a quota of 15,000 pounds from Mille Lacs Lake. This represents 55% percent of the declared quota of walleye.

In Mille Lacs Lake tribal harvest has never exceed the allocation, which is determined on the basis of state and tribal population models; whereas, the state has exceeded its allocation several times between 1997 and 2007. From 2008-2011 state fishermen stayed well below their allocation.

In Wisconsin tribal spearers brought in 32,289 walleye from a quota of 54,057 and 323 muskellunge from a declared quota of 2,180. This harvest falls just below the 2010 record walleye spearing of 34,156 walleye, and ranks #2 in the years since 1985.

Despite the early start-up and record high temperatures, the season was chilly and windy for the most part. High winds and rough water required the closing of some Mille Lacs Lake landings on several nights during the season.


From lake to fish box, treaty fishers pull in a harvest from Lake Mille Lacs in late March that included walleye, northern pike and tulibee (pictured). (COR)

The early dramatic temperature fluctuations left lakes ice free, but the water temperature may not have warmed sufficiently to entice spawning, resulting in some low yields early on. Checking out lakes, waiting, returning if necessary—all were part of a season that required perseverance to bring in the harvest.

Students tap into tradition at Michigan sugarbush

By Charlie Otto Rasmussen, Staff Writer

LVD Old Village, Mich.—Shrouded in heavy steam that billowed from a rolling froth, the iron and steel hulk might pass for a scaled-down Civil War battleship. Tina LaBine approached, sidestepping a large stack of split firewood, and peered over the metal sidewall.

"Howah, we got a boil!" LaBine called.

Standing nearby over a collection of blue plastic tubs, Ron White craned his head and nodded. Kids of all ages emerged from the interface of maple forest and a blacktopped neighborhood to witness the transformation of watery sap to prized syrup: zhiwaagamizigan, the original sweetener of Woodland Indian nations.

After five days of collecting maple sap from an uneven landscape pocked with meltwater, the students from the Watersmeet area were gratified. "It's fun but it's hard work," said 16-year-old Tawnie Demaray. "No matter what, your feet always get wet."

Within a 40-acre stand of Ottawa National Forest hardwood, students selected large maples, placed asemaa offerings on the ground, and camp personnel helped drive nearly 100 taps into the mature trees. From each tap students hung a plastic bag to capture dripping sap; the flow spurred by warm days and cold nights. After school they hopped a passenger van bound for the sugarbush to transfer small bags of sap into holding tubs.

"When we started, the snow was deep and those kids were out there hauling sap every night," said Mike Hazen Sr., one of a half-dozen camp leaders from Lac Vieux Desert.

The weeklong mid-March camp grew from a WK Kellogg "Forest Futures" grant awarded to the Lac Vieux Desert Tribe. Forest Futures coordinator Jessica Majeske assembled a knowledgeable cast of community members to assist, including Tribal Council member, Hazen, along with Ron White, Joyce Davis, Wade Wiartalla, and Roger LaBine.

Sugar camp assistant Tina LaBine selects firewood to add to the Lac Vieux Desert maple sap evaporator. (Photos by Charlie Otto Rasmussen)

"We had a great group of adults that helped make the sugarbush a success," said Majeske. "It was quite an experience for the kids to see the whole process from start to finish."

Finishing required the daylong boil of nearly 200 gallons of sap in the wood-fired evaporator LaBine retrieved from southern Wisconsin. Under steady heat, the sap shed much of its water weight, leaving behind a pale golden reward. Like many sugarbushes, the Ottawa site yielded syrup at a 40:1 ratio.

Asked how their pure maple syrup measured up to the corn syrup-laden industry brands sold at stores: "Our stuff is fresh and natural," said 11–year-old Dominique Spolarich. "It's way better!" At a pancake breakfast prepared by students, parents and community members agreed. There's nothing like the real thing.

Camp leaders are counting on that enthusiasm to boost interest in sugarbushing in the years ahead.

"The kids are loving it. They'll be back next year and they'll bring their friends," said LaBine. "We're keeping the tradition alive out here."

Low flow

With winter checking out of the upper Great Lakes region close to a month early, sugarbush harvesters were left guessing when, or if, maple sap would flow. Maple tappers from Mille Lacs, Red Cliff, and Bay Mills—communities that **(See Michigan sugarbush, page 8)**

Lac Vieux Desert member Roger LaBine helps a pair of students pour maple sap into the evaporator. Inset: Sugar camp participants drove nearly 100 steel taps into large maple trees at a Lac Vieux Desert sugarbush located just inside the Ottawa National Forest. Blue plastic bags hung from each tap collected maple sap.

Mino Wiisinidaa (Let's Eat Good!)

Traditional foods for healthy living

By Molly Siegler, GLIFWC Community Dietician

Odanah, Wis.—The Mino Wiisinidaa project is fueled by the idea of returning to traditional Anishinaabe foods and harvesting practices as a means of establishing and maintaining healthy lifestyles.

The first year of the project is focused on collecting traditional recipes and ingredients, then testing and revising the recipes with a focus on health-conscious cooking.

The second year of the grant will concentrate on a series of cooking demonstrations at each of GLIFWC's eleven member tribes.

The final year of the project will center on producing a cookbook filled with collected and tested recipes and creating an instructional DVD with processing and cooking methods. For our purposes, we are defining traditional foods as foods indigenous to the Americas, the Great Lakes Region in particular.

Let's start a conversation about eating and cooking traditional foods and sharing recipes! Please contact Molly Siegler (715.682.6619 ext. 2147, msiegler@glifwc.org) if you have recipes and techniques to share or ideas for the project. Miigwech!

The Mino Wiisinidaa project is funded by the Administration for Native Americans, ACF, HHS.

Look for a recipe using traditional foods in each issue of the Mazina'igan. One of your recipes might be featured in a future issue.

Corn Pudding with Fresh Cranberries

Serves 12 people

6 cups	2% milk (substitute almond or soy milk), plus ½ cup extra
3 cups	yellow cornmeal
½ cup	unsalted butter (4 tablespoons)
1 cup	maple syrup
2 cups	whole, fresh cranberries, washed, discarding any blemished berries
½ tsp.	ground ginger
½ tsp.	nutmeg
½ tsp.	kosher salt

- Preheat oven to 325 degrees.
- Heat milk, butter, and maple syrup in large saucepan or Dutch oven.
- Meanwhile, blend cornmeal with ginger, nutmeg, and salt.
- Once milk has reached a barely discernible simmer, sprinkle cornmeal mixture into the milk, whisking constantly.
- Whisk cornmeal until pudding begins to thicken, then switch to a wooden spoon and continue stirring.
- When pudding reaches a thick consistency, transfer the mixture to a large bowl and mix in cranberries and additional milk.
- Pour corn pudding into buttered 9x13" baking pan and place in the hot oven.
- Bake pudding until set, about 20 minutes.
- Serve warm with additional maple syrup or milk.

State legislators advance wolf season in Minn. & Wis.

Odanah, Wis.—Under the protection of the federal Endangered Species Act, wolf populations in the upper Great Lakes have bounced back from the rock bottom lows of the middle-1900s.

On January 27 the US Fish & Wildlife Service removed wolves from the endangered species list, turning management over to state and tribal wildlife authorities in Minnesota, Wisconsin and Michigan. The move sparked great interest and passionate debate about public harvest opportunities; legislators in Minnesota and Wisconsin soon formulated harvest seasons for wolves, known as ma'iingan in the Ojibwe language. The wolf in Michigan remains a protected species.

Ma'iingan. (COR)

In Wisconsin—where wolves number around 800 animals—the passage of Senate Bill 411 laid the foundation for the first wolf season since a bounty was lifted in 1957. State leaders, however, bypassed the tribal consultation process drawing a patent response from James Zorn, Great Lakes Indian Fish & Wildlife Commission executive administrator.

"The bill represents an unnecessary and ill-considered rush to enact sweeping changes to ma'iingan management in the State," wrote Zorn in his February 27 testimony to the state senate. Zorn explained that in addition to state obligations to consult with Ojibwe treaty tribes under the *Voigt* decision, a great many native people share a unique relationship with ma'iingan—a creature viewed as a brother and teacher in traditional stories. In the Wisconsin ceded territory where most of the state's wolves reside, Ojibwe tribes share natural resource management authority with federal and state officials.

For their part, Minnesota officials initiated some discussion with tribes regarding harvest designs for the state's estimated 3,000 wolves as required by 1837 Ceded Territory Wildlife Management Plan. Initial proposals call for a 16-day hunting season that runs concurrent with the state gun deer season, plus a later trapping and hunting season. A considerably longer season is on the table in Wisconsin—from October 15 to as late as the end of February.

Meanwhile GLIFWC officials continue to press both states for a meaningful dialogue on how ma'iingan is managed across the ceded territories. ***–C. Rasmussen***

Wisconsin DNR releases preliminary wolf population estimate

The WDNR recently released a preliminary late-winter minimum wolf population estimate for the state. The population is estimated at 762-832 wolves, including about 744-812 wolves in 204 packs, and 18-20 lone wolves. About 30-31 wolves were considered to reside primarily on tribal reservations. Most Wisconsin wolves reside within the ceded territory, but about 123-144 were found in the "central sands" portion of the state, south of the ceded territory. While some refinement of this estimate will take place over the next two months, the number is not likely to markedly change. The estimate is essentially unchanged from the previous year.

It is not known if the lack of growth in the population is a singular event, or reflects a tapering off in population growth that many biologists have predicted would occur as most suitable habitat is becoming occupied. In Minnesota, which has about 3 times as much suitable wolf habitat as Wisconsin, the wolf population has stabilized at roughly 2900-3000 animals. It was also noted that over the last year illegal kills were higher in Wisconsin than in recent years, which may have also contributed to the lack of population growth.

Wisconsin uses a combination of radio collar data, volunteer tracking information and public reports to estimate wolf numbers, with the volunteer tracking data being the most important of these. However, some volunteer trackers have indicated an unwillingness to participate in this process next year since the data will now be used not only to estimate populations but to determine harvest levels.

Researchers track marten success in northern Wisconsin

By Tanya Aldred, GLIFWC Wildlife Biologist

Odanah, Wis.—This past winter GLIFWC staff collaborated with professors from UW-Madison and wildlife staff from the US Forest Service and Department of Natural Resources to conduct a study on waabizheshiwag (martens) in northern Wisconsin. The objectives of the study are to measure the success of the American marten stocking effort that was conducted from 2008 through 2010 in the Chequamegon Marten Protection Area (MPA) and surrounding area using genetic methods. Single-sample hair snares were used to collect hairs from martens at 200 sites across the Chequamegon-Nicolet National Forest.

"This information will help us genotype the 90 martens stocked in Chequamegon MPA and determine if stocked martens are reproducing successfully," said Jonathan Pauli, Assistant Professor at UW–Madison. "We'll also determine if the stocked martens are breeding amongst themselves and/or with establish 'resident' martens." Pauli and his lab extracted the hairs from all the brushes sent to them, identified the species based on certain characteristics of the guard hairs, and finally, extracted DNA from the hair follicles.

The techniques used in this type of research are important in order to study such an elusive species. Since endangered species are difficult to monitor due to high cost of field equipment and challenges associated with winter field work, new and more cost effective techniques have changed the way wildlife biologists collect data. Some of these more non-invasive techniques include conducting track counts, deploying trail cameras and setting hair snares. In order to estimate marten populations and determine the success of marten reintroductions, the use of non-invasive sampling techniques and genetic-based sampling designs are becoming an extremely useful tool in wildlife management.

The author baits and assembles a hair snare.

Inset: A hair snare camouflaged and ready to go. (Photos by Chad Collins)

Setting snares: the technical low-down

The hair snares consist of a 4" diameter PVC tube, blocked at the back end, and a polycarbonate front door screwed to a hinge attached to the tube. A monofilament nylon line was tied to the bait at the back end and tied to a cotter pin which was used to hold the door open. By using the monofilament line attached to bait inside the snare, we expect the marten to crawl inside to get at the bait, thereby pulling the cotter pin out of the door and the door would close. However, the door is on a hinge opening outward, therefore the marten can still get out of the trap, but the door would then close behind it as it exited the trap, ensuring no other animal could get inside, therefore, making it a single-sample hair trap. Steel brushes were placed inside the snare to collect the hair samples.

At each location we identified an appropriate place to deploy the hair snare (i.e. under/along a fallen tree, under/near stump or tip-up). Each location was marked with a GPS unit and the UTM coordinates. Cover type, snare location and lure used were recorded on a datasheet. The sites were labeled with flagging tape for ease of locating at later dates. Each snare was set in a sturdy position to ensure

(See Marten tracking, page 8)

On the cover

Wasanodae Johnson, Lac du Flambeau, knows springtime is wild leek time and picking it is worth a trip to the woods. Wild leek is known for its crunchy texture and a taste that blends garlic and onion. (see article, page 6) (Photo by biskakone Johnson)

Fur, fish and semi-retirement

Larry Lunsman looks on as GLIFWC Warden Brad Kacizak attaches CITES tags to otter pelts from Lunsman's trapline. GLIFWC enforcement officers issue tribal CITES (Convention on International Trade of Endangered Species) tags for certain furbearers, like otter and bobcat, commonly sold to market. Governments across the globe created the program to ensure the sustainable harvest of trade resources. (Photo by Charlie Otto Rasmussen)

By Charlie Otto Rasmussen
Staff Writer

Burnett County, Wis.—Cover the mortgage payment, make connections with family—here and gone—and loosen the grip of a demanding, fast-moving world. In a pair of waterproof boots, Larry Lunsman accomplishes all that and more in northwestern Wisconsin's St. Croix River country.

"I'm relaxed when I'm in the woods, along the river," said treaty fur trapper Larry Lunsman. "It doesn't matter whether I get something or not. I like handling the hides, getting them nice."

Semi-retired from a 38-year career trucking sand and gravel, Lunsman has the rope to increase time afield, trapping more and exercising harvest rights in the 1837 territory. From his longtime home near Twentysix Lake, the Lac Courte Oreilles member catches fisher, bobcat, beaver, muskrat and otter from a 40-mile trapline that arcs along the countryside's ponds and streams.

"It takes all day," said Lunsman. "A lot of sets, I drive to and check with binoculars. I've got them [traps] set so no one else can see them but me."

With international consumer demand for wild fur on the rise, it's a good time to be trapping. Fashion trends in China and Russia continue to elevate the value of Ojibwe Country furbearers. At recent auctions, buyers offered a $100 average for both otter and large fishers; muskrat averages have tripled in the last decade. Gas that lingers near $4 per gallon, however, offsets some of those gains in fur prices.

Just how the numbers all shake out, Lunsman won't say. Secrecy, that enduring trait of trappers and fishermen, ultimately steers the conversation: details spared, productive locations vaguely enumerated. "I don't talk about numbers, where my traps are at, fishing holes, that sort of thing," he said.

Go fish

Treaty spearing and netting seasons are pretty short—a few weeks out of the year. Lunsman hops a boat with family members during the spring spearing season and has made a few trips to Mille Lacs after ice-out. But it's rod and reel that accompanies Lunsman on most fishing trips around his home east of Danbury: "I really like catfish. I have some good spots for them."

Weekdays, Lunsman said, are the best times to get out to fish the St. Croix River—a popular recreational waterway located a few miles from his home.

"There are so many canoes out there on the weekend. I had a catfish on the line and 38 canoes came by me. Then 38 canoes came paddling back," he said with good-humored groan. "They had to see that catfish."

On ventures outside the ceded territory—albeit no less crowded destinations—Lunsman picks up state licenses. His most recent purchase for a lake sturgeon permit iced a February trip to Lake Winnebago in southeastern Wisconsin.

"My back still hurts," he said with mock-wince, recalling his months-old experience on Lake Winnebago with hundreds of others hoping to spear a passing sturgeon. "I looked down in that hole for a long time. Didn't see much; a big carp and some shad. It's just one of those things you've got to try."

Fee exempt camping on National Forest campgrounds while exercising treaty rights

Through an agreement between participating GLIFWC member bands (Bad River, Bay Mills, Keweenaw Bay, Lac du Flambeau, Lac Vieux Desert, Mille Lacs, Red Cliff, and Sokaogon/Mole Lake) and the Eastern Region of the U.S. Forest Service, members of the participating bands exercising their treaty rights may camp for free and without length of stay restrictions for most campgrounds in the Chequamegon-Nicolet, Ottawa, Hiawatha, and Huron-Manistee National Forests.

Some fee-exempt campgrounds (especially those that are busy) still maintain a 14-day length of stay restriction between June 15 and August 15. This provision is periodically reviewed to ensure that these restrictions are not interfering with the exercise of treaty rights. There is generally no limit on the number of camping permits a person may obtain. For each new permit you will be asked about your camping activities from previous permits.

For free camping on National Forest campgrounds you must:

1. Be a member of a band that has ratified the Tribal/USFS Campground Agreement.
2. Obtain a tribal camping permit through your tribal registration station or GLIFWC.
   - Your registration station or GLIFWC will use the newly adopted online permitting system (*glifwc.nagfa.net*)
   - You will be issued a permit (similar to previous years)
     —The permit will require information including the National Forest you will be gathering on and your NAGFA license number. This is the document that you will use in lieu of payment at the campground of your choice.
3. Follow the camping registration procedures at the campground. Generally, this involves providing information requested on a registration form or envelope. Place your camping "tag" in the envelope and place the envelope into the fee tube.
4. Follow all campground rules and regulations found in the tribal rules.

More elk reshuffled

Students lend a hand

Lac du Flambeau School students joined WDNR and GLIFWC wildlife staff in preparing sedated elk for relocation south of Clam Lake. (GLIFWC photo)

Odanah, Wis.—A dozen elk are taking in new surroundings six miles south of Clam Lake after round two of the "assisted dispersal" project. The Wisconsin Department of Natural Resources, US Forest Service and GLIFWC are pooling their resources to trap-and-transfer small groups of elk away from the main herd, which numbers around 160 animals.

Following similar, successful elk relocation efforts in other eastern states, biologists hope assisted dispersal to unoccupied habitat in the Chequamegon National Forest spurs growth in the Wisconsin herd.

In early February, students from Lac du Flambeau School helped biologists handle sedated elk at the trap site. Mike Popovich, GLIFWC Enforcement Supervisor, said the students were thrilled to work with the animals, helping with health screenings and loading groggy animals onto a livestock trailer for relocation.

Educators interesting in scheduling student participation in ongoing elk projects may contact GLIFWC Biologist Jonathan Gilbert @ 715.685.2121. Volunteer opportunities typically occur during elk calving season—around May 20 to June 10—and assisted dispersal time in January-February. **(COR)**

Long Island plovers need protection

Visitors be aware of nesting habitat

By Joel Trick and Kim Mitchell
U.S. Fish and Wildlife Service
For Mazina'igan

New Franklin, Wis.—The piping plover is an endangered bird that is making a comeback, and Wisconsin is increasingly important to its survival and recovery. Piping plovers are small, sandy colored shorebirds similar to a killdeer in appearance, but much smaller and restricted to Great Lakes beaches and shorelines.

In the United States piping plovers occur in three separate populations, all of which are protected by the Endangered Species Act. The range of the Atlantic population runs along the eastern U.S. coast and Canadian Maritimes, and the population is listed as threatened. The Great Plains population nests throughout the U.S Great Plains and Canadian prairies and is also listed as threatened. The Great Lakes population, lying between the Atlantic and Great Plains populations, is restricted to the shores of the Great Lakes and is listed as endangered.

The Great Lakes population was at a low of 17 breeding pairs and its nesting range restricted to Michigan when it was listed as endangered in 1985. An active recovery program in Michigan helped the population slowly increase and expand. Last year, we had 55 nesting pairs and more than 10 percent of all Great Lakes piping plovers nested in Wisconsin. Even though piping plovers were extirpated in Wisconsin as a nesting bird years ago, our state is now important for the population's continued growth and recovery.

For successful nesting, plovers need extensive, wide beaches with little disturbance and few predators. Historically, they nested on many beaches along the shores of Lakes Michigan and Superior, but most of those sites have been developed for homes or industry. Even shorelines protected from development do not necessarily provide nesting habitat. Recreational beaches may have too much disturbance from people and their pets, as well as the predators and scavengers attracted by human garbage, for plovers to nest on them.

Long Island in the Apostle Islands National Lakeshore is probably the best nesting habitat for piping plovers in the entire state of Wisconsin. Although Long Island was historically a nesting stronghold, the last plovers nested there in 1980 after the population had declined throughout the Great Lakes. With the recovery program in Michigan and resultant population expansion, piping plovers started nesting on Long Island again in 1998. In part due to the protections and management given these birds in recent years, the local population is slowly increasing and six pairs nested on Long Island in 2011.

The successful re-establishment of this small nesting population in Wisconsin is helped by a truly collaborative effort of multiple partners that includes the National Park Service, Wisconsin Department of Natural Resources, Bad River Tribe, U.S. Fish and Wildlife Service and The Nature Conservancy.

In each of the past five years, these partners stationed full-time nest monitors on Long Island to find, protect and keep track of nesting plovers. Monitors mark off a boundary around each nest with sticks and bailing twine, adding "Closed Area" signs to keep people from coming near the nests. Nest monitors also talk with beach visitors about the need to keep their distance from plover nests and chicks. These efforts have paid off, as nesting plovers have enjoyed continued success, and the small population continues to grow.

The piping plover is an endangered bird that is making a comeback in Wisconsin. For successful nesting, plovers need extensive, wide beaches with little disturbance and few predators. Survival and recovery of this rare bird depends on us giving it space in the few areas it has left. (Photos by Joel Trick, U.S. Fish and Wildlife Service)

This year, the partners want to do all we can to protect nesting plovers from disturbance, including raising the awareness of beach visitors to the presence of nesting piping plovers. Long Island beaches are quite popular with local boaters and picnickers, and some of the more appealing areas also have nesting plovers. People may harm birds simply because they are not aware of their presence.

Dogs running free cause the most harm to nesting plovers and their chicks. Dog owners may not be aware of the harm done by their pet, but dogs harass adults off nests as well as directly kill adults and chicks. National Park Service law requires that pets be leashed throughout the National Lakeshore. On Long Island, Park Rangers plan to do their best this year to ensure that dogs do not harass nesting plovers or chicks.

The piping plover breeding period runs from May through July. We ask all people who visit Long Island beaches during this time to be aware of nesting plo-

(See Piping plover, page 18)

A first of its kind:

Returned Frog Bay land parcel to become Red Cliff Tribal National Park

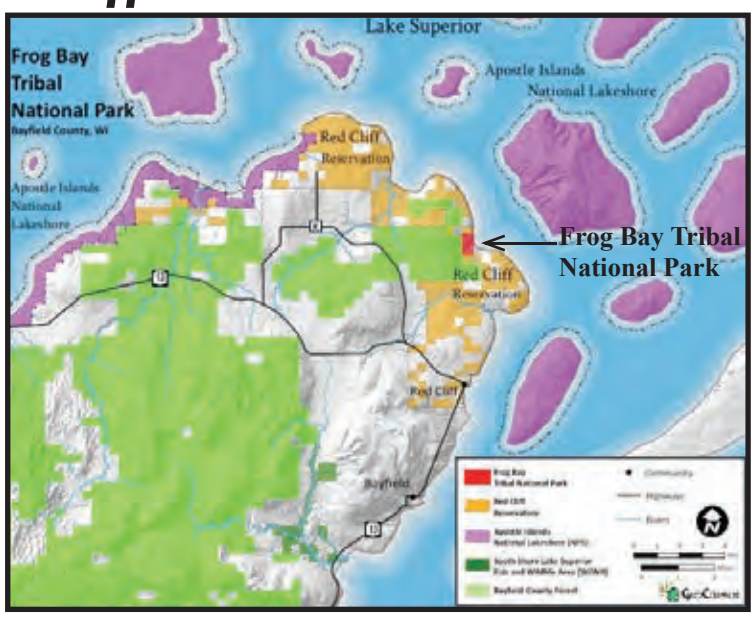
By Jen Burnett, GLIFWC
Great Lakes Outreach Specialist

Red Cliff Reservation, Wis.—The return of an 88.6-acre parcel of land surrounding Frog Bay to the Red Cliff Band of Chippewa can be described as a love story between people and their land. In 1980, David Johnson used his share of an inheritance to purchase this prime Lake Superior property. Although the land was originally a part of the Red Cliff reservation, the tribe could not afford to buy back the land at the time. David never developed the land because of his deep love of forests. But two years ago, when faced with leaving his children high property taxes or needing to open the land up to timber sales, David, in conjunction with the Bayfield Regional Conservancy, decided to sell the land back to Red Cliff.

Signing the deal that will turn Frog Bay into the first tribal national park are Shari Eggleson, Bayfield Regional Conservancy, and Rose Soulier, Red Cliff tribal chairwoman. (Photo by Jennifer Burnett)

Red Cliff Vice-Chairman Marvin Defoe said that the return of the land back to the tribe "means tremendously a lot to our people" and talked about the significance the land holds for the tribe. The land, which contains a prime example of boreal forest, was used for many generations as a teaching ground for plant medicine, a place for sitting out (fasting), and as a beautiful, scenic area for canoeing.

Red Cliff Tribal Chairperson Rose Soulier announced the tribe's intent to create the Frog Bay Tribal National Park on the newly reacquired property, in an area which is often called the gateway to the Apostle Islands. This tribal national forest will be the first of its kind and an "excellent example of tribal sovereignty." Tribal members will be able to gather medicine, conduct ceremonies and do other cultural activities in the park. The park will also be open to the general public for hiking, beach use, and other outdoor recreation, like bird watching.



Although David and Marjorie Johnson were unable to attend the signing ceremony due to health issues, they are "pleased that the tribe is making it [the land] into a public park and hope to be among its visitors soon."

Funding for the purchase was provided by the National Oceanic and Atmospheric Agency's Coastal and Estuarine Land Conservation Program. The Apostle Islands Area Community Fund also helped cover some of the costs associated with the acquisition.

Bagawaj zhigaagawinzhiig (Wild Leeks)

By Alex Wrobel, GLIFWC Forest Ecologist

Odanah, Wis.—As spring arrives, the forest floors are flourishing with new life. Like bright green "troops" invading last years' leaves the wild leek *(Allium tricococcum)* is a welcome sight to those seeking wild and fresh food after a long winter. These early plants are commonly referred to as "spring ephemerals" and are the first to arrive yet last for only a short time.

The wild leek or "bagawaj zhigaagawinzhiig" is also known as "Wenabozho's onion" or "the one he pointed out for food." The broad, smooth and light green leaves often have deep burgundy on the lower stems and onion-like bulbs rooted below the surface.

Generally, leeks grow in the rich, moist soils of deciduous forests throughout the eastern United States in small isolated clumps of densely crowded leaves. But of course the easiest way to confirm your identification is to tear off a piece of leaf or stem and take a sniff for the onion/garlic aroma.

Tribal members gather the bulbs and leaves of bagawaj zhigaagawinzhiig for food, either eaten raw or added as a seasoning to soups, stews, roasts or casseroles. Some tribal members gather and freeze a supply of these plants for use throughout the year. Often having an exceptionally strong flavor, this plant can be eaten sparingly. For certain people, it can cause gastric pain.

Bagawaj zhigaagawinzhiig should be harvested with respect. Tribal elders frequently teach that gathering ought to occur in amounts of only what is needed. Enough plants should remain undisturbed to ensure their survival for future generations.

Tribal members gather the bulbs and leaves of bagawaj zhigaagawinzhiig for food, either eaten raw or added as a seasoning to soups, stews, roasts or casseroles. (Photo credit: http://i.imgur.com/uHQLr.jpg. Inset photo by Biskakone Johnson)

Stuffed Morels With Wild Leeks

6 large morel mushrooms
3 tbsp. butter, melted
12 wild leeks
1/2 cup diced ham
1/2 cup grated sharp cheddar cheese
Salt and pepper

Steam morels until limp (about 3 minutes). Slice lengthwise along one side. Slice bulbs and chop leaves of wild leeks; mix thoroughly with butter, ham, and cheese. Season with salt and pepper to taste. Stuff mixture into morels; close-up mushrooms and place in buttered casserole. Cover and bake at 350 degrees for 20 minutes. Serves 6.

(http://north-link.net/cmsakry/1pub/8904mod1.htm)

Leek Dip

2 or 3 wild leeks (ramps)
1 (8 oz.) pkg. cream cheese
1/4 c. milk
1/2 tsp. salt

Place all ingredients in a food processor or blender and blend well, adding more milk if necessary to get it to the right consistency for a dip.

(www.Cooks.com)

Fried Wild Leeks

1. Parboil bulbs for 3 minutes.
2. Drain, add more water, and boil until tender.
3. Saute in butter, serve covered in bread crumbs.

(Field Guide to North American Edible Wild Plants)

Leek and Potato Soup

1 bunch leeks, approximately 3 to 5 leeks
2 tbsp. butter
4 potatoes, peeled and cubed
4 cups chicken stock
1/4 tsp. ground nutmeg
1 cup milk
salt and pepper to taste
fresh parsley to garnish

1. Trim leeks (discard green leaves)
2. Wash, drain and finely slice leeks
3. Melt butter in large saucepan
4. Add leeks
5. Cook 5 minutes
6. Add potatoes, stir in chicken stock, salt, pepper and nutmeg
7. Bring to boil, cover, let simmer 30 minutes
8. Cool slightly
9. Puree in food processor or blender
10. Reheat and stir in milk
11. Serve with garnish of chopped parsley sprinkled on top

(www.mjwdesign.com/portfolio/recipesfromthegarden)

Classic Ojibwe games return to LdF

By Charlie Otto Rasmussen, Staff writer

Lac du Flambeau, Wis.—Snow snakes glided and spears soared once again on the Lac du Flambeau reservation. Fourth grade students from throughout the Lakeland area school district competed in the Ojibwe Winter Games February 24 at the YMCA's Camp Nawakwa on Big Crooked Lake.

"The snow snake game hasn't been played by our tribe for over 170 years," said Wayne Valliere, Lac du Flambeau. "It's alive here once again."

Earlier in the week fifth-through-eighth graders from the Lac du Flambeau School participated in the traditional games, which were organized by the LdF Language Program. Following a family day that closed out the week, more than 400 people participated in the inaugural winter games.

Ready to launch a snow snake. (COR)

"This year is a test, and it's been excellent," said Biskakone Johnson, a language instructor and organizer from Lac du Flambeau. "We're looking to bring it back next year, and there's a possibility of having summer games."

Winter activities included snowshoe races, spear-and-hoop game, atlatl (spear throwing stick), and the snow snake game. Hardwood sticks measuring around five feet long represent a snake. Competitors propel the sticks—many ornate and engraved—down a long icy snow trench. Whoever launches their snow snake the farthest is the winner.

"It's a little bit like bowling," said 10th-grader Cedero Cloud. "You need to properly place your hands. There's precision in how you throw it to go far."

A Red Lake member, Cloud was among a group of native students from the Twin Cities area Robbinsdale School District that spent two days at Lac du Flambeau, playing winter games, or Bibooni-Ataadiiwin. GLIFWC Chief Warden Fred Maulson spent one morning with the students, explaining how tribes participate in natural resources harvest and management.

Biskakone Johnson said around 20 sponsors from the area supported the weeklong event including the LdF Police, Great Lakes Inter-Tribal Council, and GLIFWC. Students received awards and prizes at the end of each day.

Biskakone Johnson prepares to release a target hoop as a student competitor takes aim with a spear. (Photo by Charlie Otto Rasmussen)

Veterans' retreat proposed at Radigan Flowage
Rice beds protected

By Lisa David
GLIFWC Wildlife Biologist

Dairyland, Wis.—"Why isn't there a veterans' facility in northwest Wisconsin? …a facility that would be open to men and women of every branch of the service, young or old, of any color, nationality or background?" These questions were recently posed by the Dairyland Outdoor Veterans Retreat (DOVR) Board of Directors to state legislators, town officials, and interested citizens.

Since asking the questions, the DOVR Board of Directors has followed through with a series of informational meetings and draft plans explaining their intention to offer a peaceful place for veterans to rest and relax on the southern shore of the Radigan Dam Flowage in Douglas County.

However, a development such as this has raised questions about the possible negative impacts to Radigan's rice beds and to the largely undeveloped flowage which today sports a lone boat ramp and a small campground near the dam at the south end.

Recognizing the importance of the rice resource, the development group and the local town board have made efforts to ensure the health and stability of the rice beds. In response to concerns the Town of Dairyland recently and unanimously passed a slow-no-wake ordinance for the Radigan Dam Flowage and also agreed to maintain water levels at the site.

An educational partnership between DOVR and GLIFWC will produce informational kiosks to explain the boating ordinance, the need to curtail invasive weeds to maintain a healthy flowage, and the ecological and cultural importance of the wild rice resource.

Today DOVR is one step closer to making the veterans retreat a reality with a multi-year development plan to include a 28-unit lodge, 10 multiple-bedroom cabins, as well as a campground with tent and RV sites. Accommodations would be made handicapped accessible to accommodate disabled veterans.

The retreat's intention, "to use the flowage as a serene, quiet, back drop for restoring one's mind and soul, and re-uniting with family and friends" may one day provide comfort to tribal veterans who will find solace within this remote facility and its rice beds.

Aerial view of the Radigan Flowage. In response to concerns about Radigan's wild rice beds, a slow-no-wake ordinance was passed for the Radigan Dam Flowage and an agreement to maintain water levels was also reached. (Photo by Peter David)

Water Walker challenged to act
Challenges others to take up the bucket

By Sue Erickson, Staff Writer

Ashland, Wis.—"Water can be understood, heard. The spirits can speak. When you kneel by the water, feel its closeness. Everyone can feel it if you take the time and say thanks, miigwech for giving life." Nokomis (Grandmother) Josephine Mandamin, founder of the Great Lakes Water Walks, spoke softly but strongly about her commitment to the protection of Earth's fresh water during a presentation at the Northern Great Lakes Visitor's Center, Ashland, Wisconsin on March 26. Raised on Manatoulin Island and currently living in Thunder Bay, Ontario, Josephine is also Fourth Degree in the Three Fires Midiwiwin Lodge.

Copper pail carried by Water Walkers.

Josphine's journey as a water walker began in 2000 when attending a Sundance ceremony. There the Three Fires Grand Chief Eddie Benton Benai reminded women of their responsibility to the water and challenged them to become proactive on behalf of the water. She was told that if humanity continues with its negligence, drinkable water will be the price of gold.

Josephine returned to her Thunder Bay home wondering to herself, "What can I do about water?" She also thought of herself as a lifegiver—a mother, grandmother and great grandmother—and felt it incumbent on herself to leave a legacy as a responsible human being.

The idea of walking around Lake Superior came up as part of kitchen table talk and drew some chuckles at the thought. But the idea grew.

We had no money, no reliable car, "but the spirit moved us and the elders said just to do it," Josephine relates.

The first Mother Earth Water Walk began at Saxon, Wisconsin in 2003 after having raised $85.00. "We used no government money. All the money was from the heart," she said, but the goal was to circumnavigate Lake Superior on foot, carrying the lake's water in a copper pail. It took 36 days to complete that journey.

"Lake Superior reminds us of how powerful it is. It can take lives. It can be disastrous. Like women, it is very strong and you never know what it can and will do."

Lake Superior was only a beginning of the Water Walk legacy. It led to the 2004 walk around the upper portion of Lake Michigan. For Josephine Michigan's Upper Peninsula (UP) was a reminder that we need to take care of Mother Earth and look at our ancestors and our clans. In the UP the walkers saw many signs that previous elders left behind—"pictographs, signs—shadows of these spirits. It was good to see the spirits are with us…"

2005 brought the walkers and their bucket to the shores of Lake Huron. "This is where we experienced the brotherhood of the other half, the men." The men joined in the walk carrying the staff while the women carried the bucket. To Josephine this balance was good. "Male and female do have to walk together. We need to understand that."

In 2006 water walkers tackled Lake Ontario. Josephine recalls this as a particularly difficult journey because the water was so heavy. Later, reading research on the Lake's water, she discovered it was literally heavy due to a burden of contaminants.

Josephine Mandamin, founder of the Great Lakes Water Walks, greets a member of the audience at the NGLVC. (Photos by Sue Erickson)

For Josphine, Lake Erie in 2007 was the hardest lake to circumvent because of the many racist remarks thrown at the walkers along the way—"Get a job! Go back to the Rez!" The walkers tried to remain stoic and ignore them, but at one point a man actually grabbed the staff, objecting to the location of the American and Canadian flags.

In 2008 the Mother Earth Water Walk returned to Lake Michigan to complete the lower half. A journey which would take them through Chicago, where the walkers were recognized and greeted on behalf of Mayor Daley.

In 2009 Water Walkers returned east to cover the miles along the St. Lawrence Seaway, a journey Josephine recalls as "very beautiful like Lake Superior."

While 2010 was a resting year, a final Mother Earth Water Walk was organized in 2011, bringing water form the north, and oceans in the east, west and south to be mingled with Lake Superior's water and ultimately return to the sea. "Our objective was to raise a collective consciousness about our water. We received responses world wide," she says.

Josephine certainly achieved her objective, but says it is now up to others to help carry the message. "It's up to the young people now. I can barely walk anymore. Thirteen reservations in Ontario must boil their water now."

Josephine's challenges are to everyone: "Spend time with Mother Earth. Sit by the river. Talk to the water. You can hear her laugh, hear her breathing… Animals need us now. They have helped us in the past. Now it is our turn to take care of them." For more information see Mother Earth Water Walk website: *www.motherearthwaterwalk.com*.

Spring ephemerals give brief bursts of beauty

By Steve Garske, GLIFWC Invasive Plant Specialist

Odanah, Wis.—Spring has arrived early and fast, fueled by the warmest March ever recorded in North America. And as everyone who spends any time in the woods this time of year knows, some of our best known and most loved wildflowers have already burst into bloom.

These early bloomers are the spring ephemerals—spring beauties, trout lilies, toothworts, dutchman's breeches and squirrel corn, bloodroot, and wild leeks. Emerging from their 10-month sleep, these energetic little plants often appear within days of losing their snowy blanket. They grow rapidly in the abundant sunshine that streams down through the bare branches above. They flower for a week or two, and are already busy making seeds by the time the leaves are expanding above them. By mid-June they have all but disappeared below ground for another year.

Bloodroot (or *miskojiibik*) is an exception, often keeping its thick, powdery green leaves into mid-summer. As the trees are spreading their leaves, the spring ephemerals are quickly followed by summer-green plants such as trilliums *(baushkindjibgwaun)* and large-flowered bellwort *(waabishkijiibik)*.

Dutchman's breeches is one of our most unique wildflowers. (Photo by Steve Garske)

Spring ephemerals are often admired briefly and then quickly forgotten. But they were once welcomed not just for their beauty, but for the food and medicine they provided as well. Bloodroot (a member of the poppy family) was used to treat stomach cramps, as well as its more well-known use as a vivid red dye. The roots of trout lilies *(numaegbugoneen)* were mashed and used as a poultice to reduce swelling.

Cut-leaf toothwort *(aemaushtaunishaessiwung)* and its close cousin, two-leaved toothwort, are both members of the mustard family, which includes cabbage and other familiar garden plants. The flowers of this family typically have 4 sepals, 4 petals, 6 stamens and two ovaries (count 'em and see!). The underground parts (rhizomes) of cut-leaf toothwort in particular are thick and edible, with a crunchy taste similar to a horseradish. Spring beauty *(meeautikwaeaugpineeg)* roots are also edible, and the powdered roots were given to children to stop convulsions. Cut-leaved toothwort and spring beauty were both used as food by the Ojibwe and neighboring tribes.

Wild leeks (known as "ramps" down south) are renowned for their crisp flavor, somewhere between onions and garlic. This common native forest plant is closely related to garden leeks and onions. One rarely sees wild leek leaves with insect or deer damage, and it certainly appears that about the only creature that enjoys eating them are humans! (See Bagawaj zhigaagawinzhiig, page 6.)

Cut-leaf toothwort in full bloom. (Photo by Steve Garske)

Ephemerals hit hard times

Some have wondered why the distribution of spring ephemerals is so sporadic? One area may have an abundance of spring ephemerals, while another area not too far away may have only one species or none at all. One reason may be historical. When the timber barons reached the northwoods more than 100 years ago, they logged off huge areas of the ancient pine and hardwood forest, leaving highly flammable slash in their wake. Massive, intense fires often followed. In some areas these fires were so intense that they burned deep into the soil, destroying the roots and seeds of the spring ephemerals and other forest plants. In some areas the spring ephemeral populations (whose seeds are typically distributed by ants) never recovered.

More recently spring wildflower populations have taken a serious hit from various species of earthworms, all of which are introduced from overseas. These earthworms (including the nightcrawler and a smaller, similar-looking cousin, often sold in bait shops as "leaf worms" or "beaver tails") eat leaf and "duff" layer down to the ground.

Because they are adapted to growing in leaf litter, most of our native woodland wildflowers (not to mention some trees such as sugar maple) reproduce and grow poorly in earthworm-infested forests. Many of these plants go into severe decline or even disappear altogether, only to be replaced with European invaders such as hemp nettle, garden forget-me-not, wood bluegrass and even garlic mustard, which are resistant to earthworms. Development and habitat destruction have also taken their toll.

Spring comes but once a year. So get out in the woods and enjoy!

Marten tracking

(Continued from page 3)

it wouldn't roll or tip over if visited by a marten. Snares were baited with various kinds of frozen meats or jam with several drops of crayfish oil applied to the bait.

Gusto, a commercial scent, was used to lure animals to the snares; it gives off a strong essence of skunk. When checking the hair snares, we inspected each trap to look for signs that a marten may have visited the snare, such as prints in the snow. If the door looked as though it had been tripped or used, we carefully extracted the trap and removed the metal brushes wearing latex gloves and inspected each brush for hair samples. The used brushes were placed in a toothbrush holder and were labeled with the date and species. The used traps were then rebaited and set again. Although these snares were intended to lure in martens, they were also visited by other wildlife species such as akwaanawe nenaapaajinikeshinh (short-tailed shrew), miskwaa ajidamoo (red squirrel), zhingos (ermine/short-tailed weasel), ojiig (fisher) and gidagaabizhiw (bobcat).

GLIFWC Wardens Lauren Tuori and Dan North also assisted in the study by providing transportation to hair snare sites that were located off-road or on snowmobile trails.

Michigan sugarbush

(Continued from page 2)

span the ceded territories—report poor weather conditions and marginal sap flow.

"It was a very bad year for us," said Paula Carrick, who has a sugarbush at Bay Mills with her siblings Joe Carrick and Wanda Perron. "We ended up with less than a gallon of sap. It was dark sap and quickly went sour."

The 2012 sugarbush season lacked the more-or-less reliable pattern of freezing night temps that warmed back up during the daytime. Freezing and thawing temperatures create a pump effect, forcing downward-moving sap out through temporary taps.

Sugarbush time

The US Forest Service and Ojibwe treaty tribes cooperatively develop sugarbushes on ceded territory National Forest land. At Lac Vieux Desert's Old Village site—known as the Maple Leaf Drive Sugarbush—planners laid out guidelines for everything from harvest equipment to land use. For more information on setting up a National Forest sugarbush see the Tribal-USDA-Forest Service MOU available at *www.glifwc.org* or by calling GLIFWC Forest Ecologist Alex Wrobel 715.682.6619.

Essential Ojibwemowin

zhiwaagamizigan—maple sap

Mashkiigong-ziibi gets global recognition

Bad River/Kakagon Sloughs designated "Wetlands of Importance"

By Sue Erickson, Staff Writer

Odanah, Wis.—The Kakagon and Bad River Sloughs were affirmed as first class wetlands world-wide when listed as "Wetlands of International Importance" by the Ramsar Convention of Wetlands, a body with representation from 160 countries worldwide.

The Ramsar Convention, begun in Ramsar, Iran in 1971, is essentially a treaty between member countries to protect the ecology of areas designated as Wetlands of International Importance. This includes the promotion of sustainable, wise use of wetlands within each member country's borders and international cooperation in the protection and preservation of wetlands.

Lying at the heart of the Mashkiigong-ziibiing-ishkonigan (place of swampy marsh/river)/Bad River reservation in northern Wisconsin, the pristine Bad River and Kakagon Sloughs have long been cherished by the Bad River Tribe for their manoomin (wild rice) beds and their bountiful fishery and wildlife.

Listed by the Ramsar Convention as of February 2012, the Kakagon and Bad River Sloughs, often called the Everglades of the North, joined the Wisconsin's Horicon Marsh and the Upper Mississippi River to be among only 31 Ramsar recognized wetlands in the United States. It is the first tribally-owned Ramsar site in the country and was celebrated as the 2001st listing internationally.

The pristine Bad River and Kakagon Sloughs have long been cherished by the Bad River Tribe for their manoomin (wild rice) beds and their bountiful fishery and wildlife. (COR)

The Ramsar designation resulted from an initiative launched by the Wisconsin Wetlands Association (WWA). According to spokesperson Katie Beilfuss, WWA assembled a Wisconsin Ramsar Committee with a mission to identify, prioritize, and nominate Wisconsin wetlands for recognition by the Ramsar Convention. The Committee was unanimous in selecting the Bad River and Kakagon Sloughs as a number one priority.

Representatives from Bad River's Tribal Council and Natural Resources Department (BRNRD) attended a celebration of the Sloughs' Ramsar listing. Pictured are (L to R) Jessica Sweeney, BRNRD; Eldred Corbine, council member; Mike Wiggins, chairman; Frank Connors Jr., council member; and Naomi Tillison, BRDNR. (Photo courtesy of the WWA)

WWA approached both Ervin Soulier, director of Bad River Natural Resources Department (BRNRD), and the Bad River Tribal Council, who approved the proposed nomination. But the process required considerable documentation to be completed by BRNRD staff with WWA staff assistance.

Besides maps and boundaries, documentation of scientific, historical and cultural information is also sought along with evidence of community support, such as letters from natural resource agencies and a member of Congress.

Ramsar has nine formal criteria when considering a wetland for listing. Criteria involve status of the wetland's waterfowl, the fishery, and the ecological community as well as presence of rare wetland types. The Bad River and Kakagon Sloughs easily met six of the nine criteria.

According to WWA some of the benefits of a Ramsar designation include the potential for increased funding opportunities for education, land acquisition and restoration. The increased awareness of the site resulting from the designation can also encourage increased support for the conservation of the area as well as increased research and understanding of the wetlands.

The work undertaken by WWA to promote the nomination of sites for Ramsar designation—including the listing of the Kakagon and Bad River Sloughs—did not go unnoticed. WWA was selected for the Ramsar Conservation Award for Education as a result of their efforts.

CWD confirmed in the ceded territory

The first occurrence of chronic wasting disease (CWD) in a wild deer from the Wisconsin ceded territories was confirmed by the WDNR on April 3. The animal came from an area about three miles west of Shell Lake, Wisconsin in Washburn County.

The confirmation of the disease will induce stepped-up surveillance and testing efforts in the affected region. Testing will be available to tribes during the 2012 treaty deer season, according to GLIFWC Wildlife Section Leader Dr. Jonathan Gilbert.

Gilbert encourages people not to push the panic button, but be cautious. CWD is a deer health issue. "People harvest elk and deer in many places throughout the country where CWD is present, such as in Colorado. There is no evidence that CWD in cervids contributes to human disease," he says. GLIFWC will work with the State to coordinate management responses to the CWD confirmation and will likely ask tribes to participate in testing during the tribal deer season.

GLIFWC will post any new developments as they become available on our website (*www.glifwc.org)* or Facebook. If you have concerns or questions, contact Jonathan Gilbert at 715/682-6619, ext. 2121 or Public Information at 715-682-6619, ext. 107. For further information about CWD and handling harvested deer, see: *http://dnr.wi.gov/org/land/wildlife/hunt/regs/deer5.pdf.*

Summer highlights at Madeline Island Museum

May 26—Open for the season, 10 a.m. to 4 p.m. daily. Memorial Day weekend—*GLIFWC display and showing of "Mikwendaagoziwag—They Are Remembered,"* a documentary film about the Sandy Lake Tragedy.

June 3—*Visitor Appreciation Day*; $2 admission all day, 10 a.m. to 4 p.m.

July 4—*A Day on the Green: Madeline Island Celebrates the 4th of July;* museum open 12 noon to 5 p.m.

July 5—*Thursday evening book signing and talk by Sara Balbin*, author of "Spirit of the Ojibwe," 7:00 p.m.

July 20-22—*"Connecting Cultures: Exploring the Lake Superior Fur Trade,"* special event featuring an encampment in the museum yard of fur trade experts and living history reenactors.

August 23—*Thursday evening talk by John Carlson* on "Trapping on Madeline Island," 7:00 p.m.

August 25—Saturday all day—*Historical lacrosse game and player clinics*, with speakers and exhibits on the historic background of lacrosse.

September 1-2—*"Celebration of Anishinaabeg Music,"* including traditional and modern instruments and songs; full program information will be available by August 1.

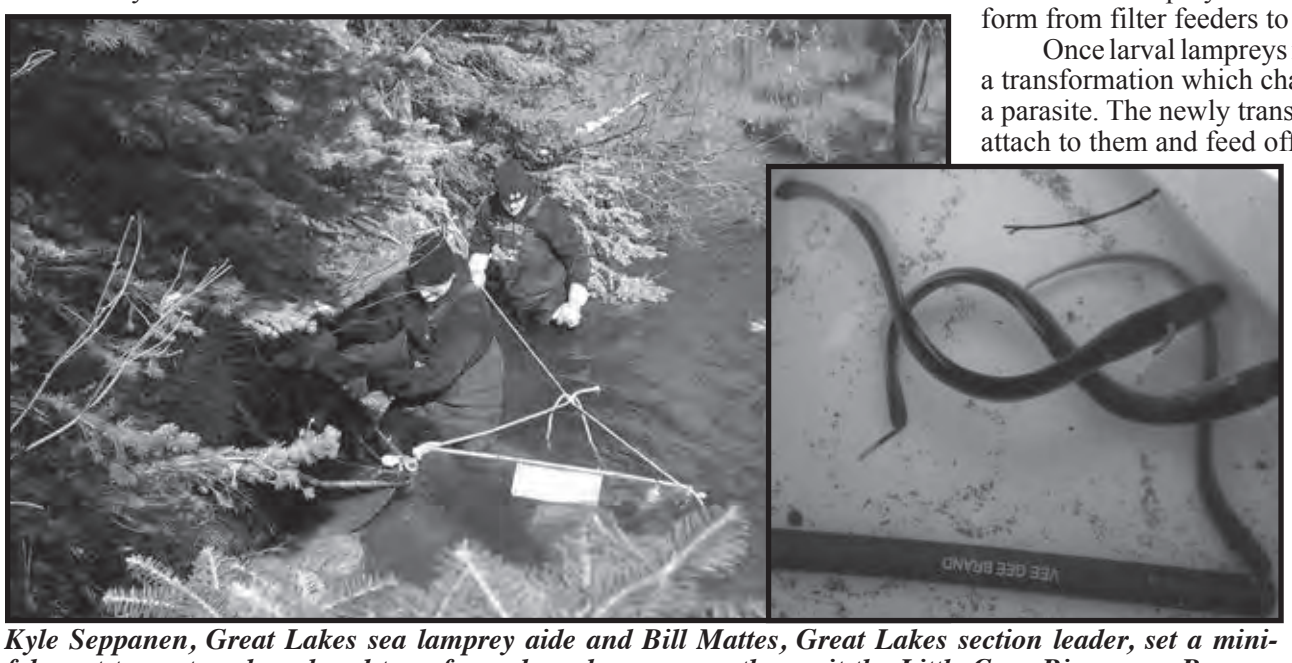
September 29-30—*"Treaty Day,"* in honor of the signing of the 1854 Treaty at La Pointe, with Anishinaabeg artists, including new works by Rabbett Before Horses Strickland, screening of the film *"Ojibwe Treaty Rights: Connections to Land & Water,"* a GLIFWC exhibit, and special exhibit and program on the traditional Ojibwe cradle board.

For more information about the museum and its programs, go to *www.madelineislandmuseum.org* or call 715-747-2415

Tribes/USFWS cooperate on larval lamprey capture

By Bill Mattes, GLIFWC Great Lakes Biologist

Keweenaw Bay, Mich.—On March 15th 2012, staff from GLIFWC, Keweenaw Bay Indian Community (KBIC), and US Fish and Wildlife Service Sea Lamprey Control Program (SLCP) met on the banks of Namebini-ziibiins (the Little Carp River). It was here that GLIFWC's Great Lakes Section expanded its cooperative work with KBIC and SLCP to trap bimiizii (sea lampreys) in the 1842 Treaty ceded area.



Kyle Seppanen, Great Lakes sea lamprey aide and Bill Mattes, Great Lakes section leader, set a mini-fyke net to capture larval and transformed sea lampreys as they exit the Little Carp River near Baraga, Michigan. (Photo by Matthew Mattes) Inset: A larval lamprey captured from Namebini-ziibiins (the Little Carp River) is roughly the length of a pencil-sized thermometer. (Photo by Bill Mattes)

Two mini-fyke net traps were set facing upstream in the river to capture larval and transformed lampreys as they migrated out on flows created by the spring snow melt (see inset picture).

Larval lampreys live in streams and sometimes migrate out of streams into near-shore areas of the Great Lakes. Larval lampreys burrow into soft sediments found in streams and near-shore areas of the lake. It is here that larval lampreys filter feed on algae and decaying matter that drift past their hiding places until they are ready to transform into their next life phase.

Larval lampreys can live in these areas for up to six years before they transform from filter feeders to parasites.

Once larval lampreys reach an average length of six inches long, they undergo a transformation which changes their mouth from that of a filter feeder to that of a parasite. The newly transformed lampreys leave their burrows, find a fish, then attach to them and feed off the fish's body fluids. After eighteen months feeding in this way, each lamprey will have grown from six inches long to 15-20 inches long, at which time they mature, migrate up streams, spawn, and die.

GLIFWC in cooperation with KBIC and SLCP set the mini-fyke nets in the Little Carp River to remove larval lampreys and newly transformed lampreys. The larval lampreys were removed before exiting the stream to settle into near-shore areas of the lake and transformed lampreys before they exit the stream and begin feeding on fish. It is beneficial to remove the larval lampreys because near shore, or lentic, areas of the lake are more difficult and more expensive to treat than streams.

As for the transformed lampreys, each one removed is unable to grow to adulthood. Transformed lampreys that leave the stream must find a fish quickly or die of starvation, no longer being able to filter feed. Each lamprey that makes it from the transformed stage to adulthood kills an estimated 20 pounds of fish in Gichigami (Lake Superior).

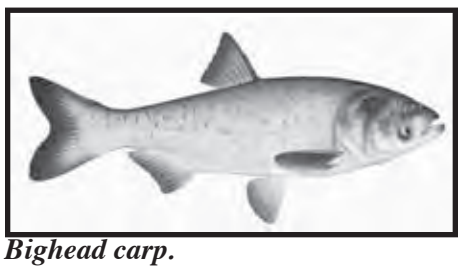
Asian carp: Threat to the Great Lakes

By Bill Mattes, GLIFWC Great Lakes Biologist

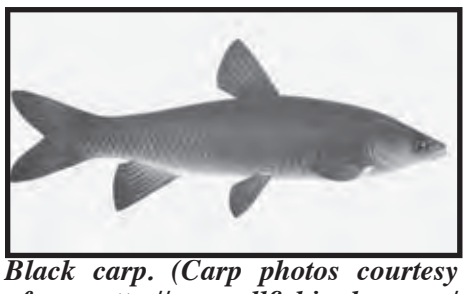
Odanah, Wis.—To date Asian carp, which could negatively impact native fish populations, have not established a population in the Great Lakes. Three Asian Carp were captured between 1999 and 2000 in Lake Erie and one was captured five miles from Lake Michigan in 2010. While their origin and route of entry is unknown, no others have been captured following intensive sampling.

Asian carp refers to four recently introduced carps; silver, bighead, black, and grass. Three other carps native to Asia have been here for years; common carp, goldfish, and crucian carp.

Silver carp.



Bighead carp.



Black carp. (Carp photos courtesy of www.ttp://www.allfishingbuy.com/Fish-Species/)

It is the silver carp that is famous for jumping into boats. In many U.S. waterways, silver carp are widespread and abundant.

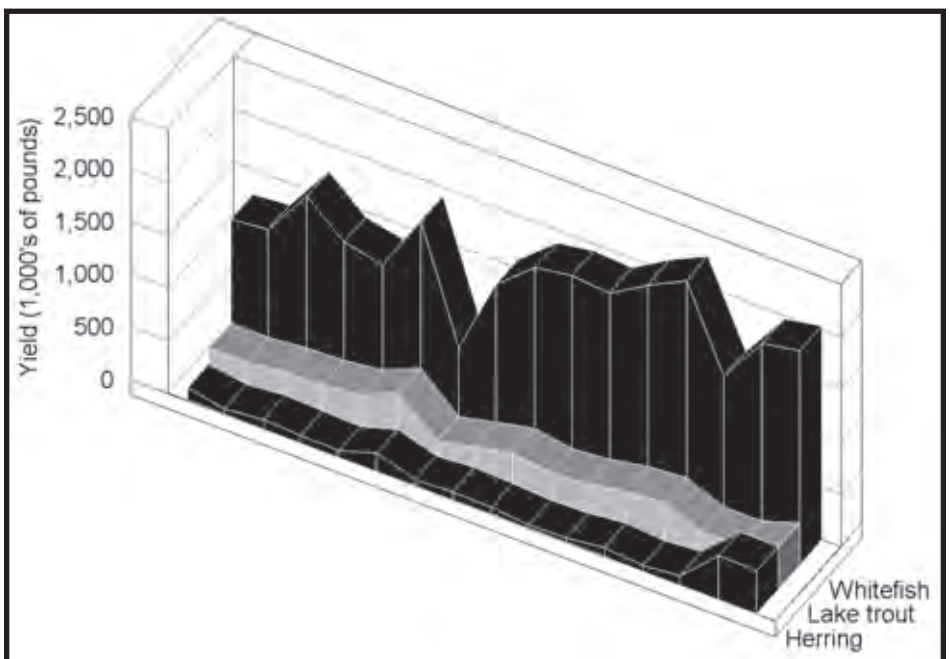
Bighead carp are found in the wild, but most are raised in ponds as a commercial food-fish and sold in local fish markets as well as exported abroad.

Grass and black carp also have commercial applications; they are used in commercial ponds as a bio-control to keep unwanted plants and mussels at low numbers.

Carp found outside of fish farm ponds have been introduced as a result of both stocking and escape from ponds during floods.

There is much concern over Asian carp invading the Great Lakes through the Chicago Area Waterway System (CAWS) which connects Lake Michigan with the Mississippi river system, where the carp are found in abundance.

The impact of Asian carp should they enter the Great Lakes is unknown but here is what we do know:



Tribal commercial yield during 1996 to 2011 from Gichigami consisted primarily of adikameg (lake whitefish), chinamekos (lake trout), and kewis (cisco, a.k.a. lake herring). The combined harvest of these fish during 2011 was 2.9 million pounds, which is the highest recorded for the time series. These high protien and omega 3 rich fish can be purchased through local markets. For more information on where to purchase fish see: www.lakesuperiorwhitefish.com/Purchase.html.

The Good:

Bighead and silver carps feed low on the food chain, similar to Gichigami's cisco and whitefish. Therefore, they are low in contaminants such as mercury. Also, like the native cisco and whitefish, they contain heart healthy omega 3 fatty oils.

The Bad:

In comparison to the favorite food fishes of most tribal members, such as walleye and whitefish, bighead and silver carps are very bony fish; having a similar bone structure to northern pike and muskellunge.

Silver carp are prone to propelling themselves into the air when a boat motor comes near which has led to boaters and water skiers being struck and injured by flying fish.

The Ugly:

The concern people have over bighead and silver carp is that they will compete with larval native fish in the Great Lakes. Their feeding may drive down the number of young predatory fish and disrupt the food chain by competing with and/or eating native larval prey fish.

For the most current information on what is being done to prevent and control the spread of Asian carp in the United States visit *http://www.asiancarp.us/* .

Netting through the ice on Pelican Lake

A learning experience

By Jennifer Burnett, Great Lakes Outreach Specialist

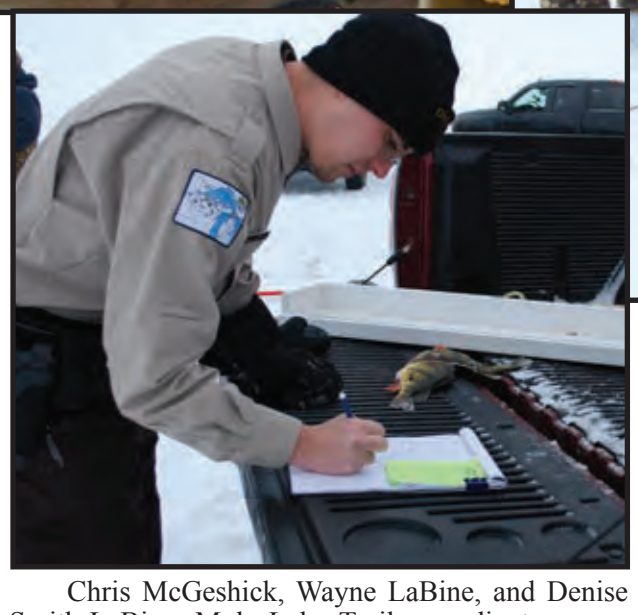
Crandon, Wis.—Bright and early on a cold, snowy Saturday morning, participants gathered for the 2nd annual Mole Lake Ice Fishing Workshop for the purpose of sharing knowledge about this fun winter activity with the Sokaogon community, especially tribal youth.

The morning began with a little classroom work and an overview of tribal spearing, netting, and unattended line regulations by GLIFWC wardens Roger and Adam McGeshick. After that, the kids learned about the traditional way Anishinaabeg would spear through the ice along with teachings for the proper way to spear fish.

That afternoon, the youth were invited to put what they learned in motion on Pelican Lake. GLIFWC's Chief Warden Fred Maulson demonstrated spearing through the ice, and kids tried hands-on jigging and spearing. They also set a 300-foot net under the ice, following a demonstration by Red Cliff fisherman Nathan Morris. Weaving the net along under the ice at fifty-foot intervals was something of fete but the entire 300 feet of net got set. In addition to spearing and netting, participants also learned how to set an unattended line baited with minnows and using tip-ups.

On Sunday morning everyone returned to the ice to check the net and lines for fish. No walleye or northern pike were caught or speared, but a few yellow perch flopped in the net, indicating some success at least. Despite the low catch, participants said they had a lot fun and were excited to get back out on the ice anytime to try to catch some bigger fish.

As follow-up Chris McGeshick checked the net during the week and he and Wayne LaBine even provided a fish fry for tribal representatives the night before the February Voigt Intertribal Task Force (VITF) meeting. That morning, February 2, McGeshick along with VITF representatives from Lac du Flambeau checked the net and pulled up two more nice-looking yellow perch. Those were duly recorded by the GLIFWC warden in attendance, Adam McGeshick.



Chris McGeshick, Wayne LaBine, and Denise Smith-LaBine, Mole Lake Trails coordinator, were principally responsible for organizing the successful event that brought about 30 tribal members including 17 tribal youth out on the ice for some firsthand ice fishing experience. McGeshick plans on offering the opportunity to catch a few fish and enjoy the outdoors again next winter.

Upper left: Wayne LaBine demonstrates how different okeyawag (fish decoys) will move in the water before Mole Lake youth headed out to spear. (Photo by Jennifer Burnett)

Bringing up three hundred feet of net set in Pelican Lake this winter required some power, especially at first. Chris McGeshick, Mole Lake, gives a hand to Frank Mitchell, Lac du Flambeau, as the net slowly emerges. Wayne LaBine stands by ready to take a turn at getting the net to the surface. (Photo by Sue Erickson)

To the left: GLIFWC Warden Adam McGeshick records the two perch netted from Pelican Lake on February 2. All treaty netting activity is monitored. (Photo by Sue Erickson)

Aquatic Invasive Species

By Miles Falck GLIFWC Wildlife Biologist

Aquatic Invasive Species (AIS) such as Eurasian water-milfoil and zebra mussels are organisms that have been introduced from other regions and lack the natural enemies that would normally keep their populations in check.

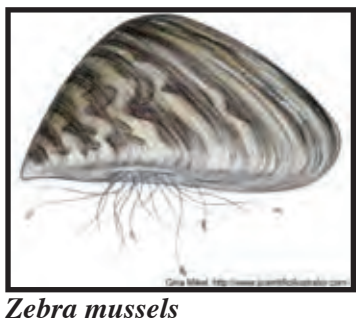
Once introduced to a lake or stream, AIS spread rapidly and out-compete native species for light, food, space, and other resources.

Because AIS are nearly impossible to eradicate, it is important to prevent spreading them to new waters in the first place.

There are many different AIS, having a variety of different impacts on native flora and fauna. Fortunately the prevention steps for all of them are the same:

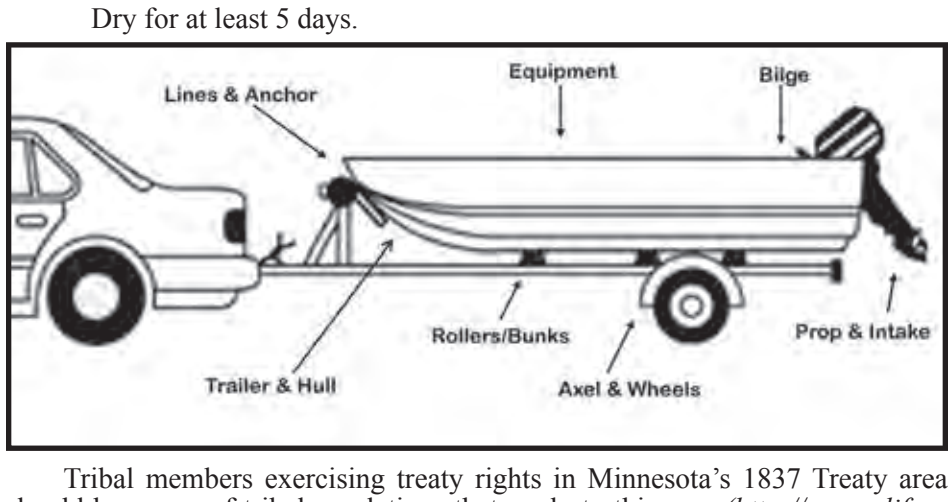
- **INSPECT** your boat, trailer, and equipment and **REMOVE** aquatic plants, animals and mud or debris before leaving the water access.
- **DRAIN** all water from your boat, motor, bilge and live wells before leaving the water access.

Eurasian water-milfoil



Zebra mussels

- **DISPOSE** of unwanted bait in the trash.
- **CLEAN or DRY** your boat, trailer, and equipment before transporting to another water.
  Spray/rinse with high pressure and/or hot water (104 degrees +)
  OR
  Dry for at least 5 days.



Tribal members exercising treaty rights in Minnesota's 1837 Treaty area should be aware of tribal regulations that apply to this area *(http://www.glifwc.org/Regulations/MN_Exotic.pdf)*.

For more information of invasive species, check our website *(http://www.glifwc.org/invasives)*.

Lakes & landings alive as spring season breaks early

By Sue Erickson with Inland Fisheries Section staff

Odanah, Wis.—The early start of the spring treaty fishing season meant that GLIFWC personnel, including creel teams and enforcement staff, needed to be on open landings ready to monitor the harvest on a daily/nightly basis several weeks earlier than usual. So preparation to provide coverage on landings throughout the treaty ceded territory went into high gear in mid-March. This involves, hiring, equipping and briefing numerous seasonal staff brought aboard to help monitor the spring spearing and netting harvest.

Meanwhile, in the office, permanent staff also readied for the season's marathon that brings a daily influx of effort and harvest data from both netting and spearing. A daily record includes the total number and pounds of walleye, northern pike, and other species of fish harvested by each tribe from Mille Lacs Lake in Minnesota. Nightly spearing harvests are also tallied for Wisconsin and Michigan ceded territory lakes to track the treaty harvest by lake and tribe on a daily basis. Each day, this information is used to update quota balances for individual lakes and determine whether or not any additional treaty harvest can take place.

Annual walleye quotas are determined after both state and tribal biologists collect and consider data from spring and fall assessments and produce models for lakes without recent estimates of population abundance. In both Minnesota and Wisconsin, GLIFWC biologists work with state biologists to determine lake quotas each year.

In the spring of 2012, GLIFWC crews covered the shores of 23 lakes in Wisconsin and one lake in Michigan.

Conducting population assessments was challenging in 2012 due to an early ice-out and drawn out spawning period. Biologists hypothesize that initially the fish were not ready to come into shore even though the ice was out.

Besides being used to determine harvest quotas, annual assessments provide insight into the health of a lake's fishery. "Regular spring and fall surveys allow for early detection of potential problems with a lake's walleye population such as declining adult abundance or failed recruitment," says GLIFWC Inland Fisheries Biologist Mark Luehring.

The 2012 spring fishing season was a long haul for staff who maintained daily/nightly vigils at landings throughout the long season. Oftentimes, spearfishing stretches into the wee hours of the morning before the creel crew can finally dim the kerosene lamp, pack up the fish measuring board, gather their records and head home. For netting, with net sets in the evening and pulls in the morning, landing crews are only given short breaks before returning to work day after day through the season. In the office, the data team worked straight through weekends making sure all harvest figures were current.

The spring season is a marathon effort on the part of all who participate, both staff and tribal fishermen. It is good to enjoy a successful harvest and through intensive monitoring ensure resources for seasons to come.

Chi miigwech to all who participated in the 2012 season!

Prior to authorizing permits for a group of spearfishermen in Vilas County, GLIFWC creel clerk Roger McGeshick Sr. takes measurements from three steel spears. For treaty fishermen, spears must include 3 tines that are at least 4.5-inches long, each with a perpendicular barb greater than 1/8". The barbs help prevent speared fish from slipping off. (Photo by Charlie Otto Rasmussen)

Clifford Benjamin III obtains a spearing permit from GLIFWC creel clerk Mica Holmes at the Yellow Lake landing. There is a bag limit for each permit each night. Creel crews also handed out informational cards on cleaning boats and equipment to prevent the spread of aquatic invasive species. (SE)

Netters along the east shore of Mille Lacs. (Photo by Charlie Otto Rasmussen)

St. Croix's creel team benefits from many who return each spring to creel for the spearing season. St. Croix team members are: Kevin Hodge, Mike Bearheart, Jen Frazee, and daughter Sophia Sutton, Michelle Taylor (back), Matt Petersen, Nicole Bearheart (front), Mary Wicklund, Russell Thayer, Dawn Seagraves, Donny Wicklund, Toby Thomas, Mica Holmes, Pete Dunkley, George "Bubba" Reynolds, Missy Erickson. (Photo by Sue Erickson)

Travis Thorbahn hoists a walleye to the boat as Josh and Leelyn VanZile look on. The trio—all brothers from Mole Lake—found good walleye numbers on Long Lake in northeast Wisconsin during the spring spearing season. The battery-powered trolling motor attached to the stern allowed them to move in relative quiet along the shoreline. (Photo by Charlie Otto Rasmussen)

Scott Smith, Lac du Flambeau and Chris McGeshick, Sokaogon/Mole Lake landed this giant sturgeon while spearing on Yellow Lake, Burnett County this spring. (Photo by Sue Erickson)

GLIFWC creel clerk Andrew Prozinski measures a walleye at Liberty Beach landing. GLIFWC staff records the length, weight and sex of fish harvested by treaty fishers. (COR)

Mille Lacs Lake 2012 creel teams kept records on the harvest season, monitoring landings when nets were set and pulled. Pictured from the left, back row: Joe Dan Rose, Larry DeHate, Jack Corbine, Curt Greene, Joe Wade, Lenny Moore, William Prozinski, Andrew Prozinski, Perry Moore, Dave Parisien, Dora Benjamin. Middle row: Todd Stone, Cody Kleinschmidt, Nate Dreiling, Jake Parisien. Front row: Acorn Armagost, Ivana Benjamin, Ben Michaels, Jose Estrada, Samuel Lemieux. (Photo by COR)

In a boat piloted by Joseph Mitchell, Sedwick Armstrong pulls in a light net on the last day of March. The Lac du Flambeau members were fishing north of Liberty Beach on the Mille Lacs east shore. (Photo by Charlie Otto Rasmussen)

Gwanaajiwi mishi-ogaa! (big, beautiful walleye!) Stats were taken on this beauty brought in by a dip netter on one of GLIFWC's electrofishing boats before being returned to the lake. James M. Parisien, GLIFWC assessment crew member, stretches her out on the board for a quick length measurement. Data taken from spring assessments will be shared with data from other state, federal and tribal crews when biologist determine walleye populations in assessed lakes. (Photo by Butch Mieloszyk)

Ceded territories mining update

By John Coleman, GLIFWC Environmental Section Leader

Madison, Wis.—While iron mining initiatives seem to have slowed in Wisconsin recently, mining, particularly of sulfide ore deposits continues to expand in the region and large scale iron mining continues in Minnesota and Michigan. In the three-state area, several known sulfide mineral deposits are under exploration, two sulfide mineral projects are in the permitting process and one mine is currently under construction.

Michigan

Kennecott Minerals' Eagle Mine on the Yellow Dog Plains is currently under construction, and drilling through Eagle Rock to the orebody has begun. The most recent development related to this project involves a proposed 21-mile road from the mine site to the Humboldt processing facility.

Kennecott originally applied for a permit to construct this ore haul road, but after concerns were expressed by regulatory agencies and the public, the application was withdrawn in 2009. Now the County of Marquette has proposed a road in the same location.

Construction of the road would involve filling approximately 24.5 acres of wetlands and crossing 22 streams and would provide a direct haul road connection between the Eagle Mine and the Humboldt Mill. Kennecott's Humboldt Mill, where ore from the Eagle Mine would be processed, is currently under investigation by EPA's Super Fund program because of existing contamination.

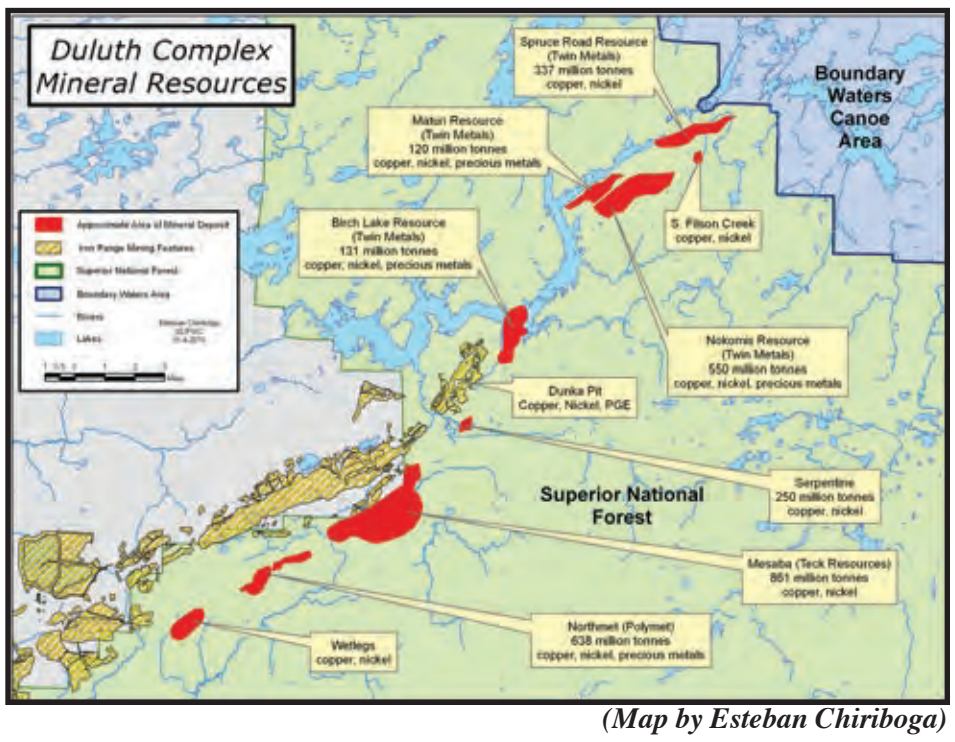
In March Kennecott Minerals released their 2011 Annual Report for the Eagle Project. It is available at: *http://www.lic.wisc.edu/glifwc/Kennecott/ydog/*

Orvana Minerals Corporation has applied for permits to develop an underground copper mine, called Copperwood, near Lake Superior and the Presque Isle River in the western UP. GLIFWC staff commented on the permit application, emphasizing concern that Orvana does not propose to backfill the mine. This would cause surface subsidence of approximately 7 feet and leave a 350-acre tailings pile. Staff are also concerned about long-term discharges to Lake Superior from the tailings pile and from the mine workings, which would be approximately 200 feet from the lakeshore. GLIFWC staff submitted information to the Army Corps and EPA related to the status of streams and wetlands at the site and the presence of over 100 old unplugged borings at the site. The Michigan DEQ has made a proposed decision to issue the mining permit and has included a list of conditions on the permit. It will make a final decision on the mine permit in May.

Orvana has also applied for a surface water discharge permit and wetland and stream fill permits but the Michigan DEQ has not yet determined that either of those permit applications are complete. When the applications are determined to be complete, there will be a public hearing and comment period. Tribal staff met with EPA staff in February to discuss those permit applications. In January staff visited the Orvana site along the shore of Lake Superior and identified groundwater fed streams and seeps. The observations made in January became the impetus for additional comments to the EPA and the Army Corps on streams at the proposed mine site

(See Mining update, page 18)

The Kennecott Humboldt Mill with wetland in foreground. (Photo by Chauncey Moran)



(Map by Esteban Chiriboga)

Too much of a good thing?

Elevated selenium in Goose Lake from local iron ore mines

By Sara Moses, GLIFWC Environmental Biologist

Odanah, Wis.—You may have heard of selenium. It is an "essential nutrient," meaning humans must have it in their diet to survive. Studies suggest the antioxidant properties of selenium may even protect against certain types of cancer. But, can there ever be too much of a good thing? In the case of selenium the answer is yes, especially for fish and birds that rely on aquatic resources for food.

High levels of selenium are particularly toxic to egg-laying wildlife that is part of the aquatic ecosystem, such as fish and certain birds and reptiles. The primary impacts in these species are decreased growth, survival and reproductive success, including failure of eggs to hatch—even debilitating and often fatal birth defects.

Selenium occurs naturally in rocks and soils, but the amount and form present varies greatly from region to region. Selenium can be released from the ground into the environment through human activities such as farming, mining and coal burning. Well known cases of selenium pollution have occurred in West Virginia's mountaintop coal-mining region and in the agricultural San Joaquin Valley of California. More recently, elevated selenium levels have been discovered within the ceded territories as a result of iron ore mining activities in Michigan.

The Tilden and Empire mines are open-pit iron ore mines located in Marquette County, Michigan and operated by Cliffs Natural Resources. The Empire mine has operated since 1963 and the Tilden mine since 1974. Combined, these operations move over 60 million tons of rock to produce approximately 12 million tons of iron pellets annually. Currently, the mines have approximately 10,000 acres of waste rock and tailings.

In 2008, the Michigan Department of Natural Resources and Environment (DNRE) became concerned by reports of elevated selenium levels in the facility effluents, waste rock seeps, and nearby surface waters. In response, DNRE measured selenium in water and fish in areas near the mines. Selenium levels in water exceeded the water quality criteria in several locations, in some cases by more than ten times the 5 micrograms per liter threshold considered by Michigan and the EPA to be protective of fish and aquatic wildlife.

Fish collected from the Escanaba River, Goose Lake and surrounding streams, including brook trout, northern pike, and white suckers all exceeded the EPA's suggested threshold values above which there may be impacts on fish reproduction. In some cases, fish exceeded the selenium threshold (7.91 mg/kg dry weight) by nearly 9-fold. Selenium levels in these fish were approximately 20 times the national average. The results confirmed that selenium is accumulating in fish at levels that may have adverse impacts on reproduction in these species, although the DNRE stated in a 2009 report that there was no evidence that the selenium levels in Goose Lake are adversely affecting the size of the fish populations at this time.

Although selenium contamination is primarily considered an issue for wildlife, exposure to very high levels, such as through the consumption of contaminated fish, can negatively affect human health over a long time period. Following the DNRE findings, the Michigan Department of Community Health issued fish consumption advisories based on selenium for fish from Goose Lake (northern pike and white sucker: one meal per month) and the Escanaba River (brook trout and white sucker: one meal per week). These advisories are more restrictive than the previous advisories for these waterbodies based on levels of other environmental contaminants, such as mercury and PCBs.

Cliffs and the DNRE are working together to address the issue of selenium contamination from the Empire and Tilden mines. The mining company is installing a new pumping station that is expected to eliminate 10% of the selenium discharges from the mines. In addition, Cliffs conducted a reproductive study on waterfowl and other birds near the mines by installing nest boxes, monitoring hatching and fledging success, and measuring selenium in unhatched or abandoned eggs. They are also collecting and measuring selenium in adult aquatic insects, a major food source of many bird species. The work is ongoing, but initial results suggested that hatching and fledging rates in the vicinity of the mines were comparable to regional success rates in 2010.

DNRE and Cliffs Natural Resources publish a periodic joint newsletter containing updates on the Selenium projects at the Empire and Tilden mines. These can be found on the Michigan Department of Environmental Quality's website *(http://www.michigan.gov/deq/)*.

Living for the seasons:
A Canadian Ojibwe experience

By Charlie Otto Rasmussen
Staff Writer

Counsel from her father guided Nancy Jones's hand as she fixed upon the enormous creature, crunching away on hardwood twigs.

"My dad said that when you really mean to kill something, like a beaver, shoot it in the head by the ear," she said. "And that's what I did."

Alone, hunting grouse north of Bad Vermillion Lake in northwestern Ontario, the eight-year-old encountered a familiar animal that betters both beaver and local game birds by around a thousand pounds.

"It was toward evening. My parents trusted me with a .22 (small caliber rifle) and I was walking looking for partridge or something. Through the trees I could see this moose."

She took aim, fired and connected with the massive head. And repeated.

"It took quite a few shots but I kept following it, and it was swaying. It could hear me, and kept moving, but I finally got it. My mom was so proud to have that moose hide for (making) moccasins."

The pluck that accompanied eight-year-old Nancy Jones originated in an exceptional younger self, cultivated on a nomadic upbringing in Ontario's boreal forests with her grandparents.

Nancy Jones and her Nokoomis. (Photo submitted)

"We'd go from good fishing areas to good hunting areas and to where there was good firewood. When we ran out of rabbits here, you move over there. We didn't live under the white man's law. We never lived on the rez [a First Nation reserve]."

That meant year-round wigwam living, pulling camp to make the most of seasonal abundance in the sprawling lake country. And steering clear of Ministry conservation officers disinterested in aboriginal rights appeals connected to the Treaty Three agreement.

Life with nokoomis and mishoomis cemented the character and worldview of the girl named Ogimaawigwanebiik. "It was mostly taking care of ourselves, finding locations that provided what we needed," she explained. "There was no fur selling, that I remember. We'd tan rabbits, beaver, whatever and make clothing or blankets."

This was Ojibwe living, old school; home, general store and pharmacy interwoven across a rich landscape. Mainstream products like cooking flour were acquired through trading moose meat and other surplus food stock.

A reunion with her parents at age eight yielded her first moose—and continuity. "We lived the same way," she said. "I remember my father being careful to hide the things he did. I don't remember them (Ministry officials) coming after him, but my father was aware of them."

Years slipped by in the Canadian bush and, as a young woman, Nancy made a connection with a local Ojibwe man. "I ended up marrying a trapper," she said. The union to John Jones turned out eight remarkable children. Nancy and her family settled on the eastern Rainy Lake reserve, Nigigoonsiminikaaning.

Even as a busy mother, Ogimaawigwanebiik continued to sharpen the skills she developed on the trap line, and in the fur shed, where the intricate work of skinning and preparing pelts consumed countless hours on frigid winter nights.

The Ministry of Natural Resources (MNR) took note of Nancy's work and in 1970 they came to call, recruiting her to represent northwestern Ontario at a national trapping convention. A 21-hour bus trip across Ontario delivered Nancy to the historic fur trade town North Bay located on the shore of Lake Nipissing.

"There was a whole bunch of people skinning beaver that first day," she recalled. "Then for the championship, they brought it down to three of us."

Twenty-one minutes after the starting bell sounded, Nancy held a fleshed-out beaver pelt, claiming the championship and top prize—a new toboggan. "People asked me 'what kind of knife do you use.' It was just one of those small six to nine-cent knives."

The following year she returned to North Bay to collect a MNR award for best-handled fur—an event where speed is a dispensable talent. "You take as long as want, you just have to make it beautiful," she said.

Know your food

Living a spiritual and active life, being mindful of your elders, helps nurture a reliable sense of what's good in the world. A way of realizing bimatiziiwin. To really get there, you also need to get a handle on diet—know where your food comes from.

"Young parents especially should be aware how good traditional food is and pass it on to their children," Ogimaawigwanebiik said. "It's so handy to go to McDonalds and eat a burger. But I wouldn't know what I'm eating if went there. I know where my deer meat comes from."

All those years of backcountry wigwam living, observing wildlife through the four seasons, ingrained certain truths about the nature of the food chain that sustains humans in so many ways. These things Nancy and her husband passed down to their children along a Treaty Three trapline.

"Living off the land I've always learned about what I'm eating whether it's porcupine or beaver," she said. "All these animals carry medicines my grandmother would tell me. When you look at a deer, watch what he eats, he eats the same things you make medicines out of—trees, leaves, grass, roots. When you eat the muskrat, you know he eats wiikenh, bitterroot, which is good for the throat. Pow Wow singers use wiikenh so their voices can be clear. It all connects."

Off-reservation harvest rights held by Ojibwe nations on either side of the international border play a crucial role in good eating—and bimatiziwin.

"Reservations are small areas and may not have everything you need," she said. "Beaver houses get cleared out, that meat is gone, the fur. It can be hard finding fish. With the treaty you can find the other things (on treaty-ceded territories)."

Although retired from a 25-year teaching career, Nancy continues to tutor community members about bimatiziwin. A vocal advocate for exercising reserved rights in the Treaty Three territory, she continues to live by example: hunting, fishing, gathering, and working a trapline in northwest Ontario where the late winter snowpack yields slowly to the ever-increasing sunlight.

"In the springtime, when the snow is down, I like to get my muskrats," she said. "That's what I do."

Canada's Treaty Three

A native trio representing Canada's Treaty Three Grand Council visited GLIFWC offices February 3 to learn more about tribal law enforcement and resource management in the Ojibwe ceded territories. Comprised of 28 First Nations in Ontario and Manitoba, the Grand Council works to promote and preserve aboriginal and treaty rights. Pictured in Odanah, Wis. from left: Dave Lindsay (T3), Jim Zorn (GLIFWC), Kekek Stark (GLIFWC), Irene Linklater (T3), Gerry DePerry (GLIFWC) and Matt Nahdee (T3). (Photo by COR)

Essential Ojibwemowin

***bimaadiziwin*—life (lived in a good, spiritual way)**

Niibing—When it is Summer

Niibing, niwaabamaanaanig ingiw awesiiyag. Moozoog, waawaashkeshiwag, esibanag, zhigaagwag, ma'iinganag idash makwag. Gaye ninganawaabamaag ingiw awakaanag. Bizhikiwag, bebezhigooganzhiig, gookooshag, maanishtaanishag, animoshag, gaazhagensag. Gaye ninga-wewebanaabimin, niin idash ninaabem. Ogaawag, ginoozheg, gidagagwadaashiwag, agwadaashiwag, namegosag. Jiimaaning gego gashkaasoken! Gimiigwechiwenimaag ingiw awesiiyag. Mii'iw.

(When it is summer, we see those wild animals. Moose (pl.), deer (pl.), racoons, skunks, wolves, and bears. Also, I look for them those domestic animals. Cows, horses, pigs, sheep (pl.), dogs, cats. Also, we will fish with a line, me and my husband. Walleyes, northern pikes, crappies, sunfish, lake trout. In the boat, don't get sunburn! You give thanks to them those animals. That is all.)

Bezhig—1

OJIBWEMOWIN (Ojibwe Language)

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

—Short Vowels: A, I, O
Idash—as in about
Mitig—as in tin
Niizho—as in only

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

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

When/If... Animate Transitive Verbs-B-Form

Agim!—Count him/her!
Wiidookaw!—Help him/her!
Wiidanokiim!—Work with h/h!
Ganawenim!—Take care of h/h!
Agim**ag**,—**When/if I** count **him/h**,
Agim**inaan**,—**When/if I** count **you**,
Agim**inagog**,—**When/if I** count you all,
Agim**agwa**,—**When/if I** count **them**.
VTA root verbs are command form and speak of living things. Switch VTA verbs in the grammar patterns. Alone they are not a complete sentence.

Niizh—2

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

A. Niwaabamaag ingiw bineshiiyag. Giwaabamaag ina?

B. Ninoondawaag ingiw banajaayag. Ginoondawaag ina?

C. Nimbiibaagimaa a'aw memengwaa, "Ambe memengwaa!"

D. Niminwenimaag odoodashkwanishiyag. Giminwenimaag ina omaa?

E. Gaawiin niwaabamaasiig ingiw maangwag. Imaa niwaabamaa diiniisi..

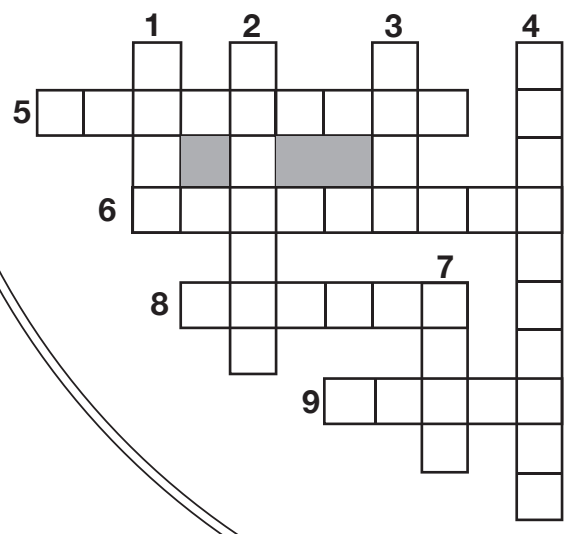
F. Jiimaaning, zaga'iganing ninzegi'aag ingiw zhiishiibag.

G. Nimiigwechiwenimaag ingiw awesiiyag idash gaye manidoonsag.

O	B	B	M								
A	I	R	A	E	O						
N	N	D	A	N	M	T					
I	E	B	N	G	A	E	E				
A	S	G	G	E	A	J	N	K			
I	H	A	W	N	A	I	A	G	Z		
N	I	Y	A	K	I	D	M	A	W	I	
G	I	E	G	W	Z	O	B	Z	Y	A	I
I	Y	I	A	M	E	M	E	N	G	A	A
W	A	A	W	N	G	O	I	H	E	H	G
M	G	J	I	I	M	A	A	N	I	N	G

Niswi—3

IKIDOWIN ODAMINOWIN (word play)



Down:
1. here
2. walleyes
3. please
4. skunks
7. don't

Across:
5. lake trout (plural)
6. domestic animals
8. bears
9. those (animate)

Niiwin—4

VTA B-form

Wiidookawi**yaan**. —When/if **you** help **me**. -iyaan.
Wiidookaw**ad**.—When **you** help **him/her**. -ad.
Wiidookawi**yaang**.—W/if **you** help **us**. -ag,
Wiidookawadwa.—Wh/if **you** help **them**.
Ganawenimiyaan, niminwendam.
If you help me, I am happy.
Ganawenimad, minwendam.
If you help her, she is happy. -inaan,
Minwendam, wiidanokiimiyaang.
She is glad, if you work with us.
Mindwendam, wiidanokiimadwa. -agwa
He's happy, when you work with them.

Goojitoon! Try it!
Translation below.

1. Agim! Agim_____ ingiw bineshiiyag mii gwayak.

2. Niminwendam, ganawenim_____, oshki-abinoojiyens.

3. Wiidookaw_____, gaye niwii-wiidookawaa. Mino-giizhigad noongom. Giizhaate.

4. Ambe omaa! Daga, wiidookaw_____. ninjiibaakwe.

5. Mindimoye gii-ikido, "Ganawenim_____, giwii-ganawenim. Giwii-biinitoon endaayaan. Eya'!"

Translations:

Niizh—2 **A.** I see them those birds. You see them? **B.** I hear them those baby birds. You hear them? **C.** I call out to that butterfly, "Come butterfly!" **D.** I like them dragonflies. You like them? here? **E.** I do not see those loons. There I see a bluejay. **F.** In the canoe, on the lake I scare them those ducks. **G.** I give thanks for them those wild animals and also insects.

Niswi—3 ***Down:*** **1.** Omaa **2.** Ogaawag **3.** Daga **4.** Zhigaagwag **7.** Gego. ***Across:*** **5.** Namegosag **6.** Awakaanag **8.** Makwag **9.** Ingiw

Niiwin-4 **1.** Count him! **When I count them, (-agwa)** those birds, it is correct. **2.** I am happy, **when I take care of him (-ag)**, the new-baby. **3. When you help her (-ad)**, also I will help her. It is a good day today. It is a warm day. **4.** Come here! Please, if **you help me (-iyaan)**, I am cooking. **5.** The elder woman said, "**When/if I take care of you (-inaan)**, you will take care of me. You will clean my home. Yes!"

Let's be good water workers Nibi (water) may need our help

Our hearts say miigwech (thank you) in the springtime when the Spring Maiden returns to our homelands chasing away that old man, the Spirit of the North. This is the time when the snow melts, and the ice slowly recedes off the lakes, leaving nibi freely flowing. Springtime is a wonderful, watery time of the year!

This is also a good time to think closely about nibi as a precious gift—a lifegiver. Fresh, clean nibi is needed for all humans, plants, fish, and animals to live. That is why we must be the caretakers of nibi and make sure that our fresh water stays clean for all of us who share life on aki (earth).

We can be good workers for our water, helping to keep it pure and not wasting it. Let's get some facts about fresh water (fresh because we cannot drink salty, sea water) and think about what we can do as good water workers! *(SE)*

Word Scramble

Put the letters in the right order to complete the sentence!

All living things need _____ to live.
tawer

When water evaporates, it travels into the air and becomes part of a _____.
dlocu

Less than 1% of all the water on the earth is _____water.
sefrh

We _____ water in the liquid form.
ikrdn

Check for leaks and save hundreds of _____ of water a day.
allogns

You'll save water by taking a quick _____.
howser

Wash bikes and cars with a _____ and sponge instead of a running hose.
kecbut

Ask your _____ to look for ways to save water.
mfaiyL

Word bank: gallons, cloud, fresh, water, family, drink, bucket shower

Facts about water

- There is the same amount of water on Earth as there was when the Earth was formed. The water from your faucet could contain molecules that dinosaurs drank.
- Water is composed of two elements, Hydrogen and Oxygen. 2 Hydrogen + 1 Oxygen = H2O
- Nearly 97% of the world's water is salty or otherwise undrinkable. Another 2% is locked in ice caps and glaciers. That leaves just 1% for all of humanity's needs—all its agricultural, residential, manufacturing, community, and personal needs.
- Water regulates the Earth's temperature. It also regulates the temperature of the human body, carries nutrients and oxygen to cells, cushions joints, protects organs and tissues, and removes wastes.
- 75% of the human brain is water and 75% of a living tree is water.
- A person can live about a month without food, but only about a week without water.
- If you drink your daily recommended 8 glasses of water per day from the tap, it will cost you about 50 cents per year. Drinking water from bottles can cost you up to $1,400 dollars. Bottled water produces up to 1.5 million tons of plastic waste per year.
- Water is part of a deep interconnected system. What we pour on the ground ends up in our water, and what we spew into the sky ends up in our water.
- The average total home water use for each person in the United States. is about 500 gallons a day. Check your home for leaks to save hundreds of gallons of water a day. At leaky faucet can drip 3,000 gallons per year.
- Taking a bath requires up to 70 gallons of water. A five-minute shower uses only 10 to 25 gallons.
- Water expands by 9% when it freezes. Frozen water (ice) is lighter than water, which is why ice floats in water.
- Water is the only substance that exists in liquid, gas and solid form:
  - When the sun heats up the water in our oceans, rivers and lakes the water begins to evaporate (water in its **liquid** form).
  - Condensation is when water rises into the atmosphere (water in its **gas**) form) where it condenses to form clouds.
  - Precipitation then falls to the earth in the form of rain (water in its liquid or snow (water in its **solid** form).

(Word scramble and water facts reprinted from USEPA.)

Look and Find. Find all the animals pictured below. Minose (good luck)!

Updated mercury maps available at GLIFWC

By Jennifer Burnett
GLIFWC Great Lakes Outreach Specialist

Odanah, Wis.—Spring spearing and netting of ogaa (walleye) from inland lakes is an important part of the Anishinaabe lifeway. By participating in the spring harvest seasons, tribal members reaffirm their off-reservation treaty harvest rights while providing their families with a nutritious food source. Like many other fish, ogaa is high in protein, low in fat, and a good source of other important nutrients.

However, this tradition often comes with a concern about exposure to mercury through consumption of fish. GLIFWC's mercury maps help tribal members make informed choices that allow continued ogaa consumption while reducing their exposure to mercury.

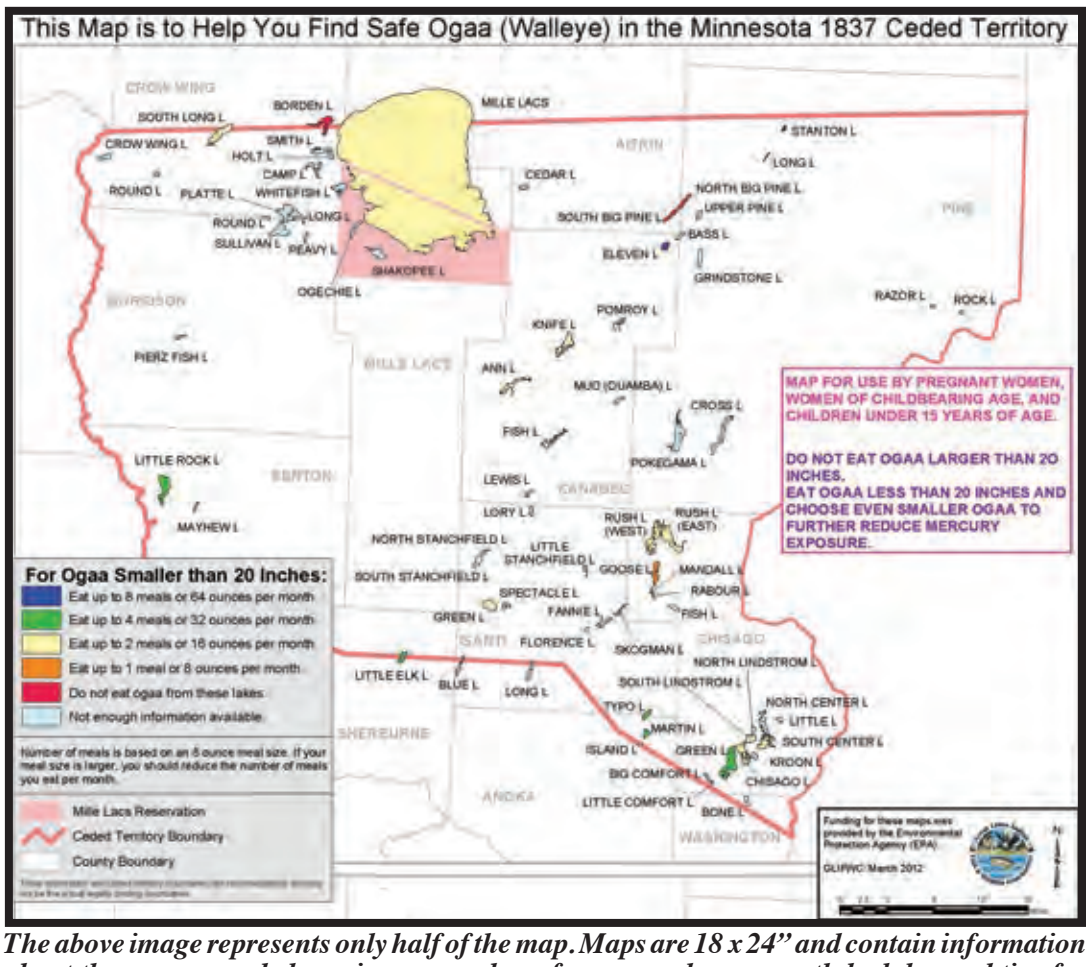
Under funding through the Great Lakes Restoration Initiative ( ), GLIFWC is working on continuing updates to the mercury maps for its member tribes.

The mercury maps were updated in early 2012 after a round of mercury sampling in fish from last year's harvest. They were made available at tribal registration stations or to tribal natural resources departments for this spring's spearing and netting season.

Each map includes the monthly recommended consumption of ogaa for the lakes typically harvested by GLIFWC member tribes. Maps are also available online at *www.glifwc.org/Mercury/* for download.

Women of childbearing years and children need to be particularly cautious about the consumption of mercury. Therefore, it is wise to mark packages of ogaa fillets, so the lake of origin is known.

GLIFWC will also be sampling 360 ogaa this spring from commonly harvested lakes in the ceded territories for the level of mercury present. With the results of this spring's testing, there will be another round of updated maps for the 2013 harvest.



The above image represents only half of the map. Maps are 18 x 24" and contain information about the recommended maximum number of ogaa meals per month by lake, and tips for sorting and labeling ogaa prior to freezing.

Binational Forum looks at mining in Lake Superior region

By Jennifer Burnett, GLIFWC
Great Lakes Outreach Specialist

Ashland, Wis.—The Lake Superior Binational Forum held a public input meeting about mining impacts in the Lake Superior watershed. The forum is the public component of the Lake Superior Binational Program comprised of twenty-four members that represent business, Tribal/First Nations, labor, recreational, tourism, health, environmental, and academic interests from the United States and Canada.

This meeting focused on the various impacts iron mining could have on Lake Superior basin communities as well as ecosystem management in the basin. Bad River Tribal Chairman Mike Wiggins, Jr. welcomed the attendees to the 1842 ceded territory. GLIFWC's Director of Intergovernmental Affairs Ann McCammon-Soltis gave a presentation about the tribal roles in mine permitting and environmental reviews.

After the presentations, the forum invited all public comments concerning iron mining in the Lake Superior basin. Video of the presentations and forum questions is available online at *www.superiorforum.org*.

A future Binational Forum meeting focusing on sulfide mining will be held in Marquette, Michigan in September and will be open to the public.

Presentation Titles:

- "The Role of the U.S. Environmental Protection Agency and Mining in the Lake Superior Basin" Dr. Susan Hedman (Administrator of Region 5 USEPA)
- "A Binational Approach to Managing the Lake Superior Ecosystem: How Does the Lake Superior Binational Program Manage the Natural Resources in the Lake Superior Basin?" Lynelle Hanson (UWEX) & Nancy Larson (WDNR)
- "The Costs and Economic Benefits of Ferrous Mining Economies: A Holistic Approach" Dr. Tom Power (Emeritus Professor University of Montana)
- "Historical Environmental Impacts of Ferrous Mining in the Lake Superior Basin" Mike Ripley (Environmental Coordinator, Chippewa Ottawa Resource Authority)
- "Tribal Roles in Environmental Review and Mine Permitting: A U.S. Perspective" Ann McCammon-Soltis (GLIFWC)

Long Island piping plovers

(Continued from page 5)

vers and avoid harming these birds by staying out of marked nesting areas. Most importantly, keep dogs on their leashes.

Survival and recovery of this rare bird depends on us giving it space in the few areas it has left. We do not want to inconvenience visitors. With only six nesting pairs, the area of beach where access is restricted to protect plover nests is relatively small and the period of time for the restriction is not long. We hope the public will be supportive and help us recover piping plovers.

Ceded territories mining update

(Continued from page 14)

Minnesota

GLIFWC staff continue to assist the Fond du Lac tribe in its role as a cooperating agency in the preparation of a supplemental Environmental Impact Statement (EIS) for the Polymet Northmet project. In 2010 EPA gave the first draft of the project EIS its lowest possible rating, prompting the Army Corps and the State of Minnesota to gather additional data and perform additional analyses for a revised draft.

Work proceeds and staff continue to raise relevant concerns, including providing comments on the socioeconomic analysis being prepared for the project, and the adequacy and accuracy of baseline data characterizing groundwater contribution to river flow. Those comments include recommendations on hydrologic model calibration and sensitivity analysis.

Other sulfide mineral mine projects under development in Minnesota include the Teck Mining Company site immediately northeast of the proposed Polymet project, and the Twin Metals deposits on the shores of Birch Lake and the Kawishiwi River. These are in advanced stages of exploration and are expected to apply to the state for permits within the next year or two. (See map page 14)

Wisconsin

A continuing concern at the Kennecott Flambeau Mine site has been the "Industrial Outlot" which has been producing runoff contaminated with metals since at least 1999. Three remediation plans for the site have been previously implemented. In 2011 a fourth plan was proposed and is being implemented in 2012. A Clean Water Act citizen's lawsuit is underway over the discharge of pollutants to a water of the United States at the Flambeau Mine site.

Legislation to separate ferrous and non-ferrous mining regulations in Wisconsin failed to pass the Wisconsin Legislature, which adjourned on March 17, 2012. GLIFWC and a number of its member tribes opposed the bill and provided information and testimony to the legislature that described their concerns. In the wake of the legislation's failure, the company proposing a new iron mine in the Bad River watershed in Ashland County announced its intent to abandon their proposal and leave the state.

Exploration drilling by Aquila Resources for sulfide mineral ores was conducted last summer at the Reef site in Wisconsin's Marathon County and drilling occurred this past winter at the Bend and other sites in Taylor County in the Chequamegon-Nicolet National Forest. More exploratory drilling by Aquila is anticipated.

Aquila Resources's primary project is on the Michigan side of the Menominee River and is known as the Back 40 project. Aquila is looking for additional precious metal ores to feed a mill they hope to build. Several exploration companies have applied to Oneida County for permits to do additional exploratory drilling at the Lynne site on the Willow River. The Oneida County board is considering those permit application and plans to hold public meetings on June 23 from 9 a.m.–noon at the Town of Lynne and 2:00-5:00 p.m. at Rhinelander.

New *Ojibwe People's Dictionary* Try it—It's free! It's fun!

By Sue Erickson, Staff Writer

Red Cliff Reservation, Wis.—We can now end the era of looking up an Ojibwe word and then wonder how to say it. The new *Ojibwe People's Dictionary* does it all—spelling, pronunciation by fluent Ojibwe speakers and various forms of the word if you want to go deeper. It's great!

Using a big screen, Michael Sullivan, University of Minnesota, introduced the new *Ojibwe People's Dictionary* to the Red Cliff Community the evening of March 23 at the Legendary Waters Casino and Resort.

Sullivan, a Lac Courte Oreilles (LCO) member and a PhD student in linguistics, is also the community language curator for the new dictionary.

This exciting new resource offers the Ojibwe language in both written and oral forms online. Giving some dimension to the project, Sullivan noted that the popular dictionary by John Nichols and Earl Nyholm, *A Concise Dictionary of Minnesota Ojibwe*, contains 7,000 entries; whereas the new online dictionary already has 30,000 entries and is growing.

Quick and easy to use, a word can be searched in either English or Ojibwe, and you don't need fancy players or extra software. If the word has a speaker icon next to it, you will able to hear the word spoken usually in several dialects. No more stumbling, mumbling and guesswork needed!

On site, you will have a chance to meet the speakers used by the dictionary. They appear in picture with an introductory recording.

You can find the site quickly by entering "Ojibwe Dictionary" on your search engine. It will be the first item up on the page. Just click, and you'll be there.

Since the project was done collaboratively between the University of Minnesota and the Minnesota Historical Society, many photos and pictures that illustrate the words are also on the site along with modern pictures, part of featured "Cultural Collections."

Under "Language Help" further information about various aspects of Ojibwemowin is available, such as information about word stems, word families, and parts of speech.

Sullivan emphasized that the Ojibwe language is not a language of the past, but one that is alive and growing. For instance, the project is currently entering all the popular sport words—football, baseball, basketball, hockey, and soccer terminology.

He also emphasized the need to gain more fluent speakers and the need to encourage youth to use the language in order to keep the language alive and growing into the future. Within the language, he says, lies knowledge and perspectives unique to the Ojibwe people. The online introduction explains it like this:

"The Ojibwe language can explain why we must respect the earth and take responsibility for caring for the land, water, and its resources. It is the antidote to global climate change, environmental destruction, and unhealthy lifestyles. The Ojibwe language is where we turn for philosophy, history, science, medicines, stories, and spirituality. It is our university and the key to our cultural survival." While rich in rewards, Sullivan noted learning the language takes determination, persistence and courage, but it can also be fun and addictive. "People will be abandoning Facebook and getting addicted to the Ojibwe site," he quipped.

The event was introduced with a prayer by Rob Goslin and also featured drumming and a feast. Emcee for the evening, Jason Schlender, LCO Ojibwe College, North language instructor, noted in his introduction that "revitalization of the language is a daunting and heavy task, but rewarding…It is very important that we learn the language so we can know the world and truly view it through our own eyes."

Prior to the presentation participants enjoyed Reggie Defoe on his hand drum and songs by Nathan Goslin and Frank Morris.

Mike Sullivan, Lac Courte Oreilles, introduced the new* Ojibwe People's Dictionary*, an online dictionary, to a gathering at Red Cliff's Legendary Waters Casino and Resort. Sullivan, pursuing doctoral studies in linguistics, is also the Language Curator for the dictionary. The online dictionary is easy to use, free, does not require new software, and importantly, offers an opportunity to hear the word spoken in different dialects. (SE)

Building capacity & expertise through GLRI

(Continued from page 1)

In cooperation with the Wisconsin Department of Natural Resources and the Burnett County Land and Water Resources Department, the tribal natural resources department removed roughly 13,000 pounds of carp while protecting 84 acres of remnant wild rice habitat with 950 feet of nylon net barrier.

Through these and other restoration projects, tribes have successfully begun the long process of restoring degraded ecosystems to ensure that they can continue to provide for the sustainable exercise of Anishinaabe lifeways.

Removal of carp from Clam Lake.

Building tribal capacity: Baseline data & staff

In addition to providing the resources for tribes to immediately implement restoration projects, GLRI helped tribes build the capacity to develop and implement long-term management goals to protect the Great Lakes ecosystems.

One of the most important resources necessary to develop long-term management plans is site-specific data. Tribes used GLRI funds to build baseline data necessary to develop plans that address pressing issues facing the Great Lakes ecosystem. This data will be an important basis for the development of restoration, protection, and management plans throughout the Great Lakes states and critical to monitoring changes to the Great Lakes ecosystems.

Documenting invasive species/protecting native species

The Bay Mills Indian Community has surveyed over 1,600 acres of lands and waters throughout the reservation for invasive plant species. The survey recorded 22 invasive plant species on the reservation, including purple loosestrife, Japanese knotweed, giant knotweed, and narrow-leaved cattail—all high priority species. With this information, the tribe plans to implement further projects to eradicate these species using manual or chemical treatments and to design an education program to protect over 1,585 acres of submerged aquatic habitats from invasive species.

The Keweenaw Bay Indian Community is also developing an invasive plant species control program to identify and control invasive species on reservations that threaten the existence of native plants, with control efforts focused on purple loosestrife, Japanese barberry, spotted knapweed, and Eurasian watermilfoil. KBIC also works in collaboration with a number of groups and agencies on invasive control efforts and native seed collection and propagation, including the United States Forest Service, Midwest Invasive Plant Network, the Baraga County Conservation District, and others.

GLIFWC has undertaken a project to survey and document the distribution and abundance of non-native plants across northern Wisconsin and western Upper Michigan. With this information, GLIFWC plans on developing a species distribution model for ten culturally significant native plants and a forecast model that will demonstrate the threat to those native plants posed by the non-native plants. The data gathered and developed through this project will help to inform and prioritize targeted management actions aimed at protecting the native plants.

Tribes have also begun to gather the data necessary to monitor the health of fish populations and habitats in lakes throughout their reservations and ceded territories. The Bay Mills Indian Community is using GLRI funds to study the linkages between tributaries and the Whitefish Bay and their significance for lake whitefish management. The tribe is taking genetic samples from lake whitefish to be analyzed by students from Lake Superior State University to determine whether the fish sampled at each site in Whitefish Bay belong to genetically distinct spawning populations.

The Red Cliff Band used GLRI money to perform a shoreline assessment to get a better understanding of the current fish community, shoreline habitat, and overall water quality along twenty-two miles of tribal shoreline. In the future, this information about the shoreline community may benefit tribal fishermen. In the first year, the tribe found an overabundance of the invasive Eurasian ruffe throughout the shoreline, with high concentrations found in multiple locations that could pose a threat to native fish targeted by tribal fishermen. The tribe plans to continue sampling through next season, with attention to shoreline areas documented with high ruffe abundance.

Building expertise

Tribes have used GLRI funds to hire new staff with the specific expertise necessary to track and analyze activities that have the potential to impact tribal land. KBIC hired a mining technical assistant to track mining exploration and potential mining activity within its ceded territory and reservation boundaries. The assistant compiles technical and scientific data, provides outreach to the community, and assists the tribal government in making decisions regarding mining activities. The Bad River Band has used GLRI funds to hire two seasonal and two full-time employees, including a wildlife-GIS specialist and a natural resources project coordinator, to track and analyze activities that may potentially impact the reservation, ceded territories, or the watershed.

These projects represent just a few of those that have been completed or implemented by GLIFWC and its member tribes in the two years since the GLRI was implemented. The success of these projects show that the protection and restoration of the natural world remain priorities for the Anishinaabe.

Gillnet skills program shaves dollars

By Charlie Otto Rasmussen

Lac du Flambeau, Wis.—In a world driven by technology, traditional craftsmanship, native know-how, has a way of fading. In the last decade alone, just about any tool or implement an outdoors person needs is offered online—fast and convenient. During that same period GLIFWC and its member tribes have expanded community outreach efforts to help offset the trend, offering skills courses in carving wild rice sticks and push poles, making baskets, and weaving together snowshoes.

A gillnet-making pilot program sponsored by GLIFWC and Great Lakes Inter-Tribal Council got underway March 14-16 at Lac du Flambeau's multi-purpose building.

"Our goal is to create a community-wide capability, where people can make their own nets instead of buying them," said instructor Dan North, a GLIFWC conservation officer. "It's a program that can be put on in communities across the ceded territory; knowledge to be passed down,"

A typical nylon (or monofilament) gillnet that measures 4' x 100' runs about $100; someone with a little net-making know-how can pick up materials and do it for less than half the price.

North—who developed his net weaving skills in the late 1990s as a GLIFWC intern for the Great Lakes Section—said gillnets are versatile fishing tools and encouraged tribal members to become more familiar with them.

"The nice thing about these nets is you can select the size of fish you want to catch by adjusting the mesh size," he said. "Whether you're fishing Mille Lacs or subsistence fishing on Lake Superior, having the skills to work with nets will help in specific applications."

Lac du Flambeau members weave a gillnet during a skills program sponsored by GLIFWC and the Great Lakes Inter-Tribal Council. GLIFWC officer Steven Amsler (far right) and six other Commission officers helped community members learn how to weave 4' x 100' gillnets. (Photo by Dan North)

To the left: Andrea Johnson claimed this gillnet after a raffle for participants that had perfect attendance at the net making class. (Photo by Fred Maulson)

Students "survive" at GLIFWC winter camp

By Charlie Otto Rasmussen
Staff writer

LVD Old Village, Mich.—With blustery winds, biting cold and swirling snow, the weather turned out picture perfect for Ishpaagoonika—GLIFWC's first winter skills and survival camp. Forty kids from Wisconsin and Upper Michigan converged at Lac Vieux Desert January 21-22 where they learned how to stay warm and survive in tough winter conditions.

Bundled in coats—some plush, others thin—kids split out into groups and visited a series of outdoor educational stations manned by GLIFWC officers. For students that spent the day in cotton hoodies, the lesson about dressing for the weather became crystal clear.

"You need to think ahead. What am I going to need to survive?" GLIFWC's Lauren Tuori told a group of a dozen kids. "It's how you dress. It's putting together a survival kit. I have a lighter, a ton of matches and magnesium so I know I can light a fire." While fireproof in solid form, magnesium shavings scraped from a block are highly flammable. The students watched as Tourey ran a knife blade across a flint rod imbedded in one edge of the block. The friction launched a spark into a quarter-sized pile of magnesium that immediately produced white flame.

"This thing is awesome!" said Jacob Jondreau, holding a small block of silvery magnesium-about the size of a small candy bar. "I'll carry one of these when I go out in the woods."

Jondreau, a young camper from Gwinn, was among a handful of students that traveled from North Star Academy, a K-12 public charter school in Marquette. North Star provided two passenger vans and other support to Ishpaagoonika, said Heather Naigus, camp developer and GLIFWC officer. Naigus serves as consultant to North Star's Community Environmental Education program—an outdoors club for the school's seventh grade class.

"North Star has the highest population of native kids in the area. About 12%," Naigus said. "Working with the students and the educators there has been a great way to grow GLIFWC's public outreach efforts."

Beyond survival tips, Ishpaagoonika campers rotated to additional stations that detailed fishing through the ice with spear and decoy, and emergency shelter construction. Another meeting place highlighted fur trade history, trapping techniques and pelt identification.

While students spent only one night—on the floor of LVD's new recreation center—Naigus hopes to expand the camp next winter to include the entire weekend.

"In the evening we play games in leadership and team building. We have talking circles and the kids really respond well," Naigus said. For more information contact Heather Naigus @ 906.458.3778.

Students take in a trapping lesson from GLIFWC Officer Tom Kroeplin. (COR)

Steve Noble, a Hannahville Indian School student, produces a spark using a pocket knife and a magnesium block. (Photo by Charlie Otto Rasmussen)

White Earth Conservation Officer Ronald Warren maneuvers a snowmobile through a tactical training course on Lac du Flambeau's frozen Pokegama Lake. The GLIFWC Enforcement Division assisted instructors from Northeast Technical College in conducting winter training February 7-9 during the Native American Fish & Wildlife Society convention. More than two dozen tribal wardens from the upper Great Lakes region joined GLIFWC officers in the winter exercises. (Photo by Fred Maulson)

GLIFWC conservation officers helped out Ducks Unlimited (DU) again in 2012 during the "Fishing for Ducks" event February 18 on Lake Mille Lacs. Robin Arunagiri, GLIFWC officer and local DU Committee member, and four additional wardens enforced rules at the annual ice-fishing contest fundraiser and provided security. (Photo by Robin Arunagiri)

Clip & Save

2012 GLIFWC enforcement youth activities/education

Class	Date	Place	Contact
Boating Safety	May 19-20	St. Croix	Brad Kacizak (715) 562-0030
Boating Safety	May 21-23	Lac Courte Oreilles	Mike Popovich (715) 292-7535 Lauren Tuori (715) 292-8343
Hunter Safety	June 11 & June 16-17	Mole Lake	Roger McGeshick (715) 889-3200 Adam McGeshick (715) 209-7217
ATV/Snowmobile Safety	June 11-13	Red Cliff	Mike Soulier (715) 209-0093 Jim Stone (715) 292-3234
ATV Safety	June 14-16	Bad River	Vern Stone (715) 292-8862
Boating Safety	June 19-21	Lac du Flambeau	Jonas Moermond (715) 562-0026 Riley Brooks (715) 562-0300
Learn to Trap	June 23-24	St. Croix	Brad Kacizak (715) 562-0030
ATV/Snowmobile Safety	June 26-28	Lac du Flambeau	Jonas Moermond (715) 562-0026 Riley Brooks (715) 562-0300
ATV/Snowmobile Safety	July 7-8	Mole Lake	Roger McGeshick (715) 889-3200 Adam McGeshick (715) 209-7217
Boating Safety	July 19-21	Bad River	Vern Stone (715) 292-8862
ATV/Snowmobile Safety	July 21-22	St. Croix	Brad Kacizak (715) 562-0030
Camp Onji-Akiing	July 23-27	Camp Nesbit Sidnaw, Mich.	Heather Naigus (906) 458-3778 Fred Maulson (715) 682-2113
Take a Kid Fishing Day	August 11	Mille Lacs	Robin Arunagiri (715) 889-0734
Hunter Safety	August 13 & August 20-21	Lac du Flambeau	Jonas Moermond (715) 562-0026 Riley Brooks (715) 562-0300
Hunter Safety	August 22-24	Lac Courte Oreilles	Mike Popovich (715) 292-7535 Lauren Tuori (715) 292-8343
Hunter Safety	August 22-25	Lac Vieux Desert	Dan North (906) 292-5165
Hunter Safety	August 25-26	St. Croix	Brad Kacizak (715) 562-0030
Hunter Safety	September 7-8	Mille Lacs	Robin Arunagiri (715) 889-0734
Hunter Safety	September 10 & September 14-16	Red Cliff	Mike Soulier (715) 209-0093 Jim Stone (715) 292-3234
Learn to Hunt	September 15-16	St. Croix	Brad Kacizak (715) 562-0030
Hunter Safety	September 17 & September 19-22	Bad River	Vern Stone (715) 292-8862
Hunter Safety	September 17-20	Marquette, Michigan	Heather Naigus (906) 458-3778 Matt Kniskern (715) 292-5320
Learn to Trap	September 29	Mole Lake	Roger McGeshick (715) 889-3200 Adam McGeshick (715) 209-7217
Trapper Education	October 20-21	Mole Lake	Roger McGeshick (715) 889-3200 Adam McGeshick (715) 209-7217
Trapper Education	December 8-9	St. Croix	Brad Kacizak (715) 562-0030
ATV	December 15-16	Mille Lacs	Robin Arunagiri (715) 889-0734

For updated information on these events and others please be sure to check our website at ***www.glifwc.org*** or visit us on **Facebook**.

Camp Onji-Akiing

5th–8th grade students
July 23-27, 2012

GLIFWC is excited to announce our 2012 Cultural Summer Camp Program: Onji-Akiing and Science, Technology, Engineering, and Math (STEM).

A collaborative effort between GLIFWC and the US Forest Service (USFS), Onji-Akiing (From the Earth) is a cultural outdoor adventure-based camp that focuses on natural resource career exploration and treaty rights. This camp is held at beautiful Camp Nesbit, nestled in the heart of the Ottawa National Forest near Sidnaw, Michigan, also home to the calling loons of Lake Nesbit.

Leadership and service learning activities are important aspects of this program. Activities also focus on group cooperation and communication, problem-solving, self-confidence, leadership, physical exercise, spiritual growth, social skills, as well as respect and responsibility to self and community. Hands-on activities include a group obstacle course, high ropes course, fishing, archery, swimming, canoeing, GeoCache, and cooperative games.

Centered on the Medicine Wheel, this camp explores Native American traditional ways and traditional ecological knowledge, but also emphasizes learning in the areas of forestry, biology and botany. Youth will work with staff from GLIFWC and the USFS. Transportation in specific areas will be provided. This camp is free of cost. Deadline for accepting applications is June 29, 2012.

Clip & mail

Summer Camp Registration Form
Lake Nesbit Environmental Center
Sidnaw, Michigan
July 23-27, 2012

Participant Name _____

Address _____

City _____ State _____ Zip _____

Email _____

Grade _____ Age _____

Tribe Affiliation _____ (if none, leave blank)

Phone #( )_____

① Please attach another sheet of paper with a short essay (at least 100 words) on why you want to attend Camp Onji-Akiing. Please include any special achievements and how this camp might help you in school, your community, and with any life goals.

② Please attach one letter of recommendation from an adult, not related to you, about why they think you should attend the camp and will benefit from it.

③ Students are accepted on the basis of their essays, recommendations, and space availability. In the event you are accepted, you will be expected to sign a statement saying that you will participate fully in all activities and parents/guardians will have to complete and sign health forms and permissions for all camp activities.

For questions or concerns, please contact:

Heather Naigus
906-458-3778
hnaigus@glifwc.org

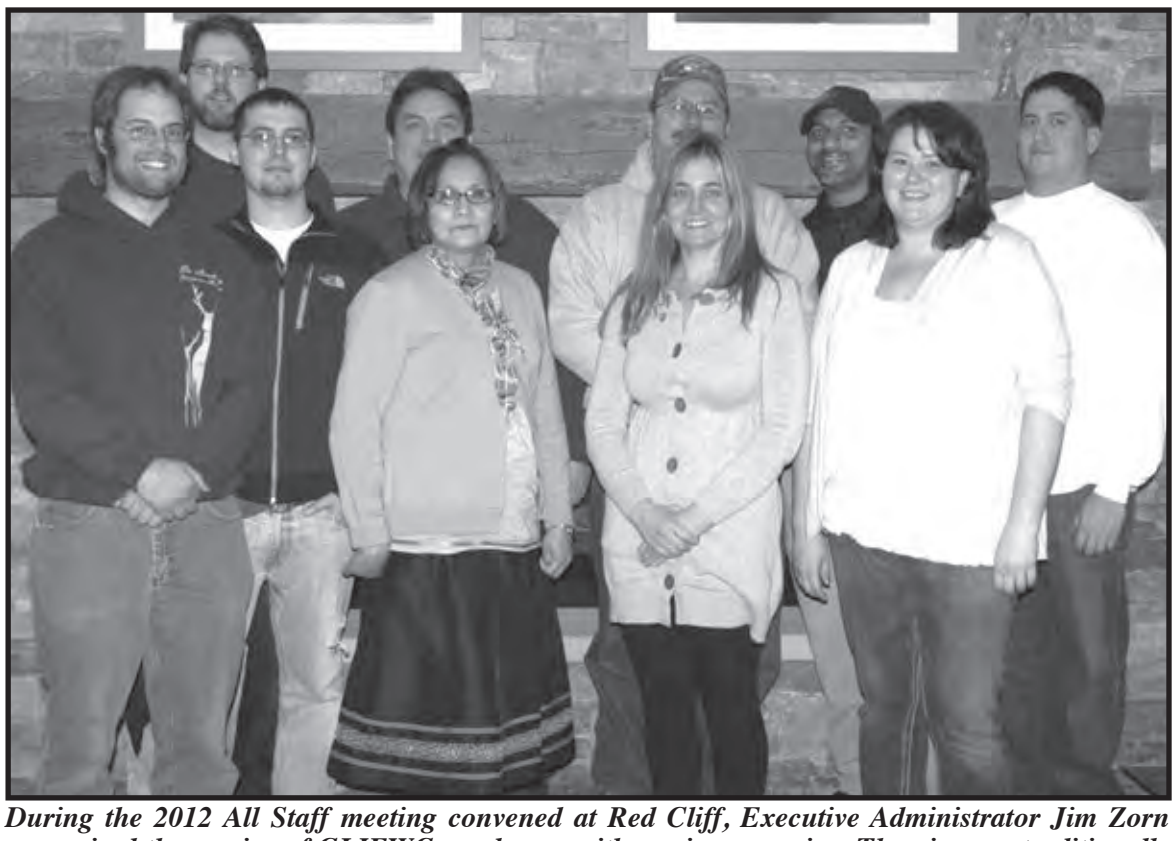
Fred Maulson
715-682-6619 ext. 113
fmaulson@glifwc.org

Mail application, essay and letter of recommendation to: GLIFWC, Attn: Camp Registrations, PO Box 9, Odanah, WI 54861

Deadline for accepting applications is June 29, 2012

GLIFWC news

Recognizing his 25 years with GLIFWC, Board of Commissioners Chairman Mic Isham presented GLIFWC Executive Administrator Jim Zorn with a Pendelton blanket at the January 24 Board meeting at Red Cliff. Isham thanked Zorn for his leadership and commitment to GLIFWC, first as a policy analyst and as executive administrator since 2006. (SE)



During the 2012 All Staff meeting convened at Red Cliff, Executive Administrator Jim Zorn recognized the service of GLIFWC employees with anniversary pins. The pins are traditionally presented to staff at 5-year increments. From left: Mark Luehring (5), Charlie Rasmussen (15), Adam McGeshick (5), Joe Dan Rose (15), Sue Nichols (10), Mike Popovich (5), Heather Naigus (5), Robin Arunagiri (5), Jenny Krueger (15), and Lee Cloud (15). (Photo by Sue Erickson)

Marvin Defoe Sr., Red Cliff elder, presented Gerald DePerry, GLIFWC deputy administrator, with a carved eagle feather and a beautiful wooden plaque carved with the image of lake sturgeon at the January Voigt Intertribal Task Force meeting in Red Cliff. Defoe said he was honoring DePerry for his long-term dedication and service to GLIFWC. (SE)

Healing Circle Run/Walk
July 14–20, 2012

The 2012 Healing Circle Run/Walk is intended to be a prayer for healing. During the 2001 Healing Journey Run, participants thought of a teaching about healing—"for a nation to heal, it must begin with the individual. As a person heals, then that person can help heal his/her family. As a family begins to heal, they can help heal their community. As communities heal, they can help the nation heal. As nations heal, they can help Aki (the earth), and our plant and animal relatives to heal." The 2012 Healing Circle Run/Walk is an opportunity for people to come together to pray for healing for themselves, their families, their communities, their nation, Aki, and our relatives.

The 2012 "Healing Circle" Run/Walk will occur from July 14-20, 2012. The run/walk will connect eight Ojibwe reservations in northern Wisconsin, Michigan, and Minnesota starting at the Lac Courte Oreilles Reservation and ending at Lac du Flambeau on July 14 (Day 1), then ending at Mole Lake on July 15 (Day 2), at Lac Vieux Desert on July 16 (Day 3), at Bad River/ Red Cliff on July 17 (Day 4), at Fond du Lac/Black Bear Casino on July 18 (Day 5), at St. Croix on July 19 (Day 6), and at Lac Courte Oreilles on July 20 (Day 7).

If you are interested in participating as a core runner, or having a group of runners from your reservation participate, or just need more information please contact Rose Wilmer, Sue Nichols, or Neil Kmiecik at GLIFWC at (715) 682-6619. All participants must assume personal liability, as well as responsibility for their own transportation and expenses.

Off-reservation gathering

Through an agreement between participating GLIFWC member bands (Bad River, Bay Mills, Keweenaw Bay, Lac du Flambeau, Lac Vieux Desert, Mille Lacs, Red Cliff, and Sokaogon/Mole Lake), the Eastern Region of the U.S. Forest Service, members of the participating Bands exercising their treaty rights may gather non-timber forest products from the Chequamegon-Nicolet, Ottawa, Hiawatha, and Huron-Manistee National Forests as well as the following state properties in Wisconsin:

- Big Bay State Park
- Brule River State Forest
- Copper Falls State Park
- Crex Meadow Wildlife Area
- Eddy Creek Fishery Area
- Flambeau River State Forest
- Governor Knowles State Forest
- Northern Highlands—American Legion State Forest
- Powell Marsh Wildlife Area
- Willow Flowage Scenic Waters

For off-reservation gathering you must:

1. Be a member of a band that has ratified the Tribal/USFS MOU Agreement
2. Obtain a tribal gathering permit through your tribal registration station or GLIFWC.
   - Your registration station or GLIFWC will use the newly adopted online permitting system (glifwc.nagfa.net)
   - You will be issued a permit (similar to previous years)
     -The permit will require information including the National Forest you will be gathering on and your NAGFA license number.

New GLIFWC staff
Administration staff up by one

Keith Rolof, Keweenaw Bay tribal member, joined GLIFWC's administrative staff in January as a budget analyst, bringing a strong background in accounting skills to the position.

Keith grew up in L'Anse, Michigan. Although he spent the majority of his high school years in Edwardsville, Illinois, he graduated his senior year in L'Anse and went on to study Computer Information Systems at Northern Michigan University (NMU). After a year at NMU he transferred to Michigan Technological University where he completed a degree in business administration with an accounting concentration and a minor in psychology.

While attending college, he worked with Lake Accounting as an intern/staff accountant and later as a tax preparer. He also worked with Kimberly Clark's International Tax Department as part of a three-person team in a semester-long project.

Once graduated, he began work in the Keweenaw Bay Indian Community's (KBIC) accounting office and later with the KBIC Natural Resources Department as an operations & compliance specialist, a broad-based position with the department.

GLIFWC's budget analyst position attracted Keith because it concentrates on working with numbers. "The position allows me to use my degree and it's all numbers. That's what I like…working with numbers," Keith says.

Keith is currently residing in Ashland, Wisconsin. He enjoys a variety of sports including snowmobiling, four wheeling, golfing, bowling, and he's beginning to dabble with photography. **(SE)**

New GLIFWC Staff

Vanator brings experience in tribal programs, environmental law

The ceded territories of the upper Great Lakes provide access to both diverse and outstanding outdoor recreation. For avid cross-country skier and mountain biker, Jennifer Vanator, the opportunity to relocate in Wisconsin offered a welcome change.

"The lifestyle fit is better," said Vanator—GLIFWC's new Great Lakes Program Coordinator—an environmental law expert and recent Washington DC resident. Vanator now makes her home in Bayfield and works out of the GLIFWC central office in Odanah, helping spearhead tribal participation in the Great Lakes Restoration Initiative.

Even more than the lifestyle change, Vanator is excited to return to the Midwest to work on Great Lakes issues. As program coordinator, she reviews a spectrum of initiatives that potentially affect the health of Gichigami—with special focus on natural resources that tribal members rely upon. Some of her work in Spring 2012 includes analyzing updates to resource protection agreements between the United States and Canada under the Great Lakes Water Quality Agreement.

Vanator holds a JD from the Vermont Law School where she also earned a master degree in Environmental Law. In Washington DC she worked for a national law firm representing tribal governments before Congress and Federal agencies and in litigation. **(COR)**

Leith to assist with traditional foods project

Help has arrived for the Planning and Development (P & D) division and the Administration for Native Americans (ANA) Traditional Foods Project. Zoongee Leith, Bad River tribal member, officially assumed her new secretarial post on April 9, splitting her time between P &D and the ANA grant project.

A graduate of Ashland High School, Leith is also attending Lac Courte Oreilles Ojibwe Community College on a part-time basis, pursuing a human services degree. Prior to coming to GLIFWC, she worked for the Bad River Band as a benefits counselor.

Her awareness of GLIFWC's diverse activities and involvement in natural resource management issues along with treaty rights sparked her interest in joining GLIFWC as staff.

Beyond work and studies, Leith keeps busy with her three children, Geneva (13), Josephine (6) and Maggie (2). She says there's not much time left for leisure pursuits. **(SE)**

New enforcement recruits Rebecca Olson (left) and Holly Berkstresser will both be entering basic training at Fort McCoy in April. (SE)

Siegler focuses on traditional foods/nutrition

Locally grown foods, good nutrition, and cooking is what it's all about for Molly Siegler. She joined GLIFWC staff in December 2011 as the community dietitian working with GLIFWC's Administration for Native American's Mino Wiisinidaa: Let's Eat Good program—a three-year grant focusing on traditional foods and nutrition.

Molly grew up in southern Kansas in a town called Winfield and attended Grinnell College in Iowa where she majored in political science and met her husband to be, Noah Siegler, an Ashland, Wisconsin native. While in college, Molly's interest turned toward the issue of politics and food, and she also began encouraging the use of locally grown foods on campus. She started a local foods group and held free potlucks around the college every few weeks, basing meals on themes and using locally grown foods.

Following Grinnell, Molly pursued her interest in food and cooking by enrolling in the Culinary Institute of America (CIA) for an intensive two-year program which featured three-week course blocks focusing on a wide variety of cooking as well as food-related topics such as menus, nutrition, and food safety.

Meanwhile, Noah took a position in Washburn with Stage North, so on completion of the CIA, Molly headed to northern Wisconsin. She spent three years working with area schools in Washburn and Ashland with an Americorps program designed to bring local foods into schools and provide nutrition education. This included finding opportunities to get students out of the classrooms onto farms, teaching four to five lessons each week on nutrition as well as starting school gardens.

Meanwhile, Molly moonlighted for two seasons as the pastry chef at the prestigious Wild Rice Restaurant near Bayfield, Wisconsin.

Her interest in the position with GLIFWC was piqued because it provided challenges and a great learning experience. Molly will be collecting traditional recipes during the first year of the grant, testing those recipes and working to make them healthier where it applies. In the second year of the grant she will be on the road doing three cooking demonstrations on each of the GLIFWC member reservations. In the third and final year, she will produce a cookbook and DVD, developed from the collected and tested recipes based on traditional foods.

When not working, Molly is working. She writes and edits for the Whole Foods Market Cooking program. She also enjoys—surprise—cooking, and spends a lot of time with Noah at Stage North in Washburn. **(SE)**

New enforcement recruits will be off to basic training

Rebecca Olson

Joining the Enforcement Division as a warden stationed in the Eastern District, Rebecca "Forest" Olson brings previous experience with GLIFWC and as a US Park Service ranger.

A graduate of Sierra Nevada College, Reno, Nevada, with a four-year degree in Native American studies, the Michigan native is anxious to pursue her career in law enforcement with GLIFWC.

Rebecca worked for one season as a creel clerk for GLIFWC, an experience that encouraged her to apply for a position as warden when the opportunity arose. In addition to her academic degree, she spent four years as a ranger with the Park Service on the Manitou Islands in the Sleeping Bear Dunes National Lakeshore.

She grew up and completed her high school degree at the Leelanau School in Michigan's Lower Peninsula; however she is also familiar with the Eastern District's terrain in the Upper Peninsula.

Outside of work, Rebecca is busy with her two-year old daughter, Roen, currently living and being cared for in Traverse City and her little pug-chihuahua mix. She also enjoys beadwork, sewing and fishing in her spare time.

Rebecca will be entering basic training at Fort McCoy from April 2 through July 8 prior to being stationed.

Holly Berkstresser

A second new Enforcement recruit, Holly Berkstresser, is a native of Michigan, growing up and completing high school in Rockford. She went on to pursue her education at Northern Michigan University (NMU), completing a bachelor of science degree in Native American studies in 2011.

Her interest in a position as a GLIFWC warden was stimulated through her work with GLIFWC enforcement personnel at summer camps sponsored by GLIFWC and NMU. As the student program coordinator for NMU, she worked extensively with the STEM and Leadership camps as well as the Medicine Wheel program. This experience, along with growing up in a military/enforcement family, led her to apply for a warden position as openings appeared. Her father's military experience in the air force as well as a police officer and firefighter, make her comfortable in an enforcement career setting.

During leisure hours, Holly prefers to be on the water. An experienced rower, she also enjoys fishing and kayaking.

Following four months at basic training at Fort McCoy, Holly will be stationed in the Western District. **(SE)**

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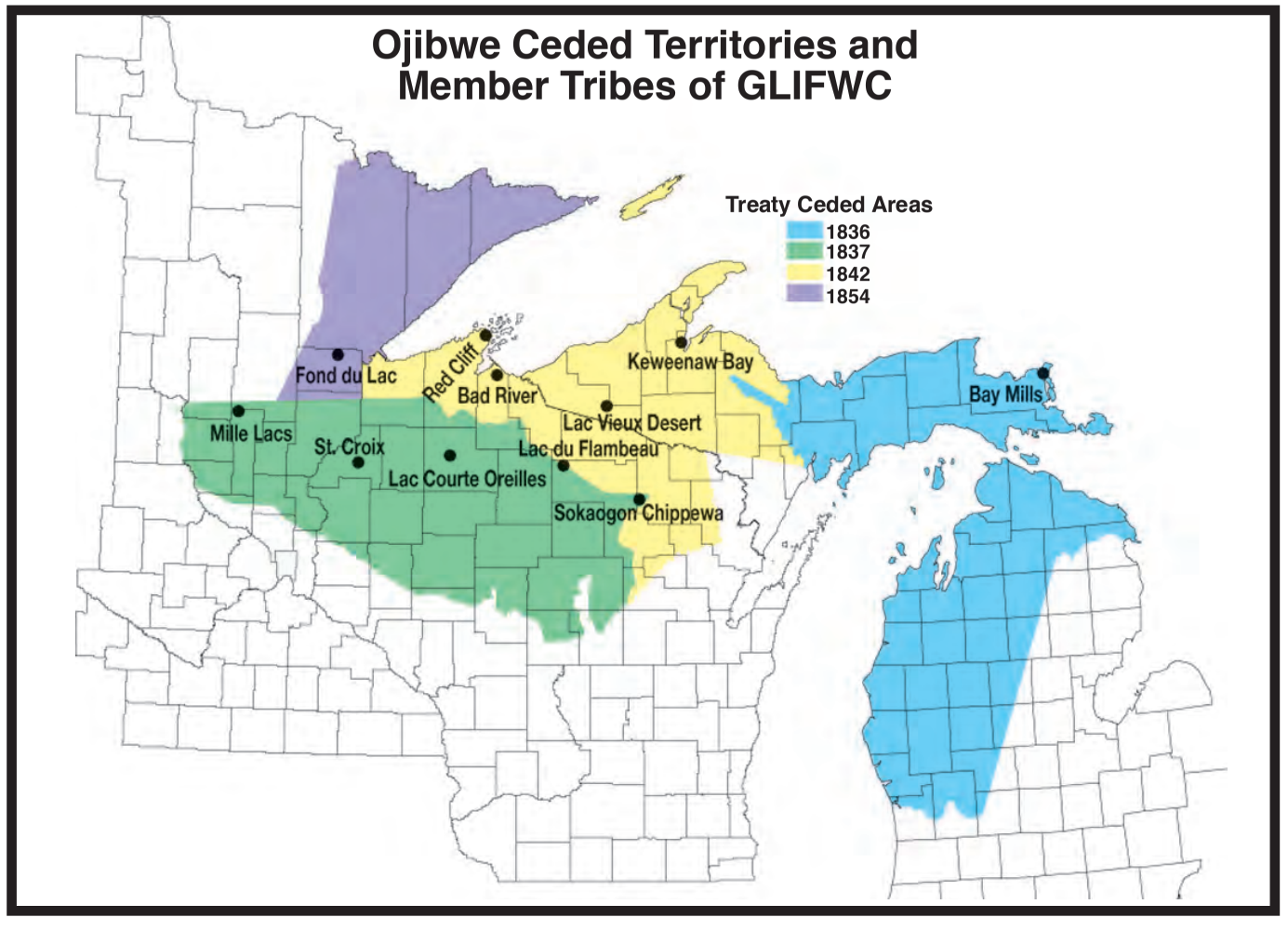
Although **MAZINA'IGAN** enjoys hearing from its readership, there is no "Letters to the Editor" section in the paper, and opinions to be published in the paper are not solicited. Queries as to potential articles relating to off-reservation treaty rights and/or resource management or Ojibwe cultural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

For more information see GLIFWC's website: **www.glifwc.org**.



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