Mazina'igan
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"Manoomin Inventory:" A banner crop of rice information

By Charlie Otto Rasmussen
Staff Writer

Odanah, Wis.—After two years and hundreds of miles traversed by canoe, truck and aircraft, the Great Lakes Indian Fish & Wildlife Commission (GLIFWC) has completed a landmark inventory of manoomin waters in the Wisconsin ceded territory. The catalog of 329 sites represents the most in-depth accounting of manoomin—or wild rice—in the region to date.

With financial support from the Wisconsin Department of Natural Resources (WDNR) and Administration for Native Americans, GLIFWC wild rice aides set out to identify each lake, reservoir and river segment that supported wild rice during the summers of 2008 and 2009.

Traveling by fixed-wing airplane, GLIFWC Biologist Peter David verified select locations and also snapped aerial photographs of manoomin sites.

Packaged in a three-ring binder, the "Wisconsin Ceded Territory Manoomin Inventory" is organized by county, includes a brief narrative and for most sites, an aerial photograph. A detailed list of "non-rice" waters with either an historical manoomin presence or future potential suggests that the long-grain plant may find suitable growing habitat beyond confirmed locations.

"This is a living document," said David, principal investigator of the project. "Working with our partners, we can add regular updates and advance the development of a plan that will help direct manoomin stewardship and research."

Natural resources officials are currently discussing just how future wild rice stewardship activities will take shape. Using the "Manoomin Inventory" as a springboard, tribal and WDNR representatives are collaborating to develop a plan for all user groups in northern Wisconsin—wildlife and humans.

"We're transitioning into an era of stewardship, taking a landscape-wide approach to the resource instead of just focusing on individual waters," said David. "But there are still plenty of sites where manoomin can be recovered or established through seeding."

From 1987 to 2009, GLIFWC and its cooperating partners seeded just under 142,000 pounds of rice in northern Wisconsin and some adjacent waters in Upper Michigan. Beginning in late summer each year, GLIFWC purchases freshly knocked, or green, manoomin from harvesters. Natural resource staff from member tribes, along with state and federal agencies assist GLIFWC in seeding both historic rice waters and artificial impoundments with suitable habitat.

GLIFWC wild rice specialists recently cataloged 329 manoomin waters across the ceded territory of northern Wisconsin. For harvesters, researchers and natural resource managers, the volume entitled "Wisconsin Ceded Territory Manoomin Inventory," is a major step forward in 21st Century wild rice stewardship. (Photo by Charlie Otto Rasmussen)

"We want to increase our involvement in the more complex parts of manoomin stewardship by working cooperatively with lake associations, for example, on incorporating rice concerns into lake management plans and aquatic plant management plans," David said. Ricers and others interested in wild rice will have access to a digital version of the "Wisconsin Ceded Territory Manoomin Inventory" sometime later this year on the GLIFWC's website: *www.glifwc.org*.

(See Manoomin outlook, page 3)

Youth immerse in natural resource programs at KBIC

By Charlie Otto Rasmussen, Staff Writer

L'Anse, Mich.—No one would mistake this sight for dancing. But something about the heel-kicking, shin-smacking string of Keweenaw Bay Indian Community (KBIC) teenagers conjured visions of a Scandinavian jig. While Finlander blood surely runs through some of those youthful veins, this performance on the Gichigami shoreline was painfully orchestrated by biting black flies.

On rocky tip of Point Abbaye, fisheries biologist Gene Mensch (r) supervises the transfer of six-to-seven inch coaster brook into Lake Superior on July 15. A Keweenaw Bay Indian Community youth group helped with the stocking effort and participated in a handful natural resource enhancement activities on and around the reservation. (Photo by Charlie Otto Rasmussen)

As cries of "arrrghhh!" and bug-slapping echoed off the surrounding granite slabs of Point Abbaye, the kids powered through the annoyance to complete a job: stocking coaster brook trout into the 64-degree Lake Superior shallows.

"It's pretty awesome," said 16-year-old Cody Haataja who enjoyed shelter abreast a wave-splashed ledge—an area the flies seemed to avoid. "I could do this for a job."

Haataja stood at the end of a human chain comprised mostly of teens enrolled in a summer youth program sponsored by KBIC and the Superior Watershed Partnership. Tribal natural resources technician Rebecca Genschow got the procession moving by scooping out net-loads of six to seven inch brookies from a hatchery stocking trailer. Hand-over-hand, the Siskiwit Bay-strain fish were passed down in nets to Haataja and others, who dunked the colorful trout into the big lake.

"The youth program is all about exposing kids to the outdoors. We want to get them as familiar with their ceded territory as possible," said Todd Warner, KBIC Natural Resources Director. "They've been a big help at the tribal hatchery. Things like just loading fish into the stocking tank works so much more efficiently."

For some of the ten youth participants, working with fish became a high-point of the summer. To assist resource managers on future assessments, they marked fish by clipping specific fins (adipose) prior to release. In other cases, the teens implanted coded wire tags into the snout of brook trout. Both methods help fisheries staff evaluate the success and distribution of stocked fish in the Lake Superior region.

By the end of the considerable undertaking, the group had prepped and released approximately 5,300 coasters. Those fish followed tens of thousands of brook trout the KBIC hatchery program has released since the late-1990s.

"These kids are the future stewards of the area," said Warner. "The more time and experience they have outdoors, the better prepared they'll be down the road."

On the Sand Point recreation trail, the teens cleared debris and fixed rough patches on the path; they staffed a record-setting community fish derby sponsored by KBIC; and participated in general fish hatchery operations and maintenance. Warner said their participation in remov-

(See Youth, page 18)

Bay Mills, tribes trim overbearing cormorant colonies

Lethal control at Tahquamenon, Round Islands

By Charlie Otto Rasmussen, Staff Writer

Eastern Lake Superior—Chambering another round, Terry Carrick swings the 12- gauge shotgun just ahead of a large, airborne cormorant as the black bird flares toward the mainland. Carrick fires again, using ammunition donated by a local sportsmen club, and the stocky adult splashes into the blue-green water surrounding Tahquamenon Island.

It's late May and double-crested cormorant population control efforts are in full swing on Great Lakes islands near the place Ojibwe travelers long ago termed *Baawitigong*. Staff from the US Department of Agriculture (USDA), Michigan Department of Natural Resources and Environment and area tribes are several years into a coordinated effort that involves oiling eggs at large colony sites and killing limited numbers of adult cormorants.

"Since cormorant numbers have exploded over the past decades, they've really become a pest. We're seeing severe damage to island habitats and negative impacts on fisheries," said Mark Ebner, Inter-Tribal Fisheries & Assessment Program biologist. Ebner helps coordinate the efforts of Bay Mills Indian Community and three additional Michigan tribes working to keep cormorants in check on Lakes Huron, Michigan and Superior.

At Bay Mills, conservation officer Carrick and biologist Amanda Bosak spearhead control efforts on a pair of islands near the Ojibwe band's Upper Michigan reservation—Round Island, just offshore in the St. Marys River, and to the west, Tahquamenon Island.

Under the authority of the USDA, Bosak said the tribe began involvement in cormorant management activities in 2004. Spurred by reports from tribal commercial fishermen—and echoed by sport anglers—that ballooning cormorant colonies were depleting fish stocks, interagency biologists began exploring the best way to balance finned and feathered communities

"Cormorants are opportunists; they are going to prey on whatever is available," explained Ebner.

In some cases, the long-necked birds are gobbling up invasive species like round gobies and alewives, he said. But heavy losses of centuries-old food staples like walleye and yellow perch temper any silver lining attached to an ecosystem teeming with cormorants. The average bird weighs around four pounds and eats one pound of fish, or 25% of its total weight, every day.

"Only recently have seagull numbers started coming back," said Ebner. "Ring-billed gulls and herring gulls have been pushed out by cormorants on the smaller islands."

Once a casualty of toxic chemical accumulations in the Great Lakes ecosystem, double-crested cormorants increased dramatically after DDT and similar pesticides were banned in the early 1970s. While other birds like bald eagles affected by pesticides have made a nice comeback, the pendulum has swung far beyond recovery for cormorants.

Terry Carrick surveys Tahquamenon Island near the Upper Michigan mainland. In recent decades, Carrick said double-crested cormorant colonies have stripped the island bare of all trees and vegetation. Massive amounts of acidic excrement prevent new plant growth on the small rocky island. (Photo by COR)

Island hopping

On a foggy late spring morning, Bay Mills staff set out for Tahquamenon Island aboard the tribe's enforcement boat armed with #2 shotgun shells and corn oil. Metered out from a backpack sprayer in one-ounce bursts, corn oil halts development of cormorant eggs. Shot pellets, of course, bring down adults, which are submitted for biological analysis including a check of the stomach contents to inventory local fish species in the cormorant diet. Additional samples are sent to a Michigan State University diagnostic facility to test for avian flu.

"We're coming up on it," Carrick announces as the aluminum boat slows. Maybe three acres in size, the island appears through the gray morning haze, backlit by an emerging blue sky. Rocks and small boulders ring the shoreline, while overheard the sky churns with the screeching rabble of cormorants and gulls.

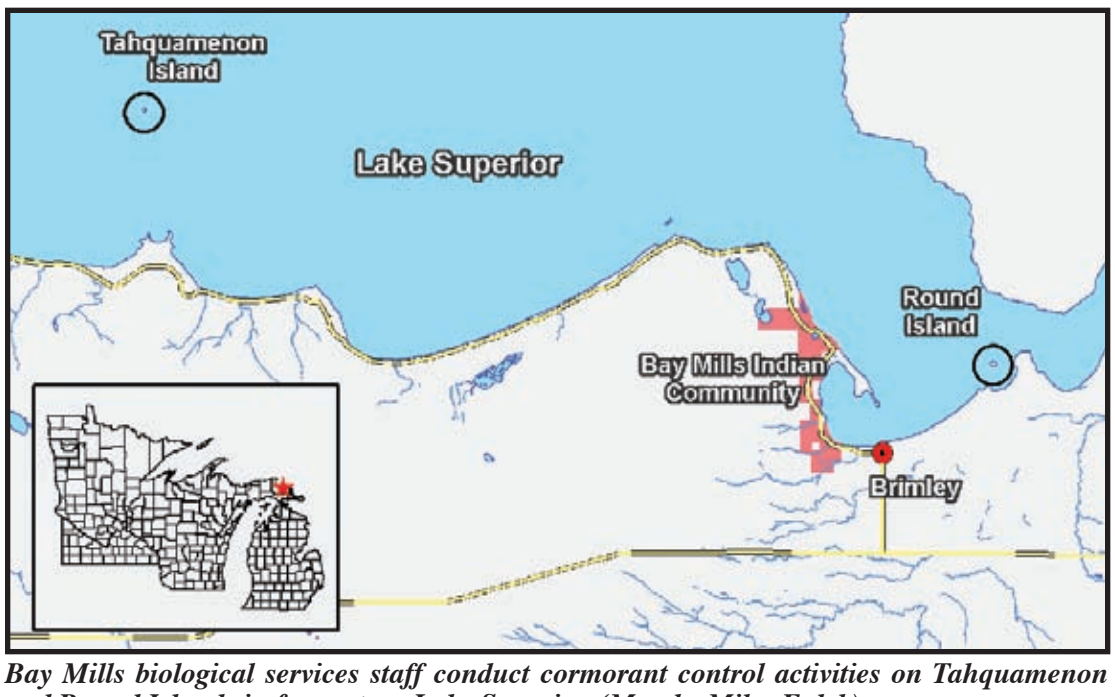
Amid the avian chaos, Carrick jumps onto the rocks and slings on an oil-filled backpack powered by a hand pump. Bosak follows with a clipboard to record their observations along with documenting each nest sprayed. Both are wearing rubber boots against the omnipresent layer of bird droppings that cover the island.

Striking off counterclockwise, they weave in between nests constructed of bleached sticks, plastic braids and driftwood scrap. Early hatchers, fuzzy gull chicks toddle for rocky cover. Except for an oval carpet of green grass in the island's center and some scattered moss, all other vegetation is dead.

"After all the trees are dead, they move to the ground where the gulls nest," Bosak says, tallying the light blue cormorant eggs that Carrick oils. Under federal control guidelines culling may not exceed 10% of a colonies' population.

With their island sweep complete and a pair of culled adult cormorants collected from offshore, the enforcement boat zips toward Sault Ste. Marie and Round Island to conduct a round of oiling. Here, cormorant impacts are comparatively modest with live, green trees sprouting across the cobble. Lots of other birds are present: ring-billed and herring gulls, Canada geese and black crowned night herons. Bay Mills staff and their partners hope to keep it that way.

Said Ebner: "There are benefits to a diversity of native vegetation, native shorebirds, native fisheries. That's what we're working toward."



Bay Mills biological services staff conduct cormorant control activities on Tahquamenon and Round Islands in far eastern Lake Superior. (Map by Miles Falck)

Along with egg oiling, a number of adult double-crested cormorants are culled during control operations. Resource staff record biological information and submit samples to Michigan State University's animal health center for avian flu testing. (COR)

GLIFWC aids in search for Asian carp

No more found in Calumet River

By Sue Erickson
Staff Writer

Odanah, Wis.—Far from the quiet shorelines of northwoods lakes, members of a GLIFWC electrofishing crew found themselves surveying the Calumet River near Chicago for Asian carp last June. Joining forces with two US Fish and Wildlife Service boats, GLIFWC's crew came to the urban scene in response to the discovery of one bighead Asian carp in Lake Calumet.

The lake is situated above the US Army Corps of Engineers' electronic barrier meant to keep the menacing fish from traveling up the Calumet River into Lake Michigan.

According to a release from the Asian Carp Regional Planning Committee, a commercial fisherman under contract with the Illinois DNR to perform survey work found the 20-pound bighead carp. Since Lake Calumet sits between the T.J. O'Brien lock and dam and Lake Michigan, the opportunity for the invader to enter the big lake was clearly there. This stimulated an intensified search for any more intruders.

Along with the USFWS boats, GLIFWC's crew leader, Ed White, and crew members Kris and Noah Arbuckle, surveyed the six-mile stretch of the Calumet River that runs between Lake Calumet and Lake Michigan. Lake Calumet was also surveyed with nets.

Accustomed to night time survey work on northern lakes where only croaking frogs and the call of the loon break the stillness as they motor along dark shorelines, the crew found themselves on a river with concrete and metal shorelines, heavily industrialized by huge recycling and lime plants. The crash, banging of metal as giant cranes scooped up metal and loaded it into waiting barges drowned the sound of their own noisy generator, White says. "The commerce there was heavy," he comments, "with barges, tugs and a few Great Lakes ships always coming and going."

Beating sun and 80 degree plus heat provided the opportunity for blistering sunburn as the work continued over three days. The good news was they found no more Asian carp in the six-mile stretch. "Between the three electrofishing boats, we covered it thoroughly," White says. They found a consistent population of smallmouth bass, grass carp, a lot of shad, a few rock bass, a few perch, and one walleye.

Since their boat was the only boat with a holding tank for fish, GLIFWC's boat became the transport vessel for captured game fish on the last day. The game fish were moved above the locks and dams because the river was going to be treated with rotenone, a fish-killing chemical, after the survey work was complete.

Meanwhile another source of concern surfaced in Indiana's Wabash River where Asian carp have also been detected and could be heading for Lake Erie.

Kris and Noah Arbuckle, GLIFWC electrofishing crew members, stare up at the concrete and metal shoreline of the Calumet River near Chicago where GLIFWC's crew helped search for Asian carp last June. (Photo by Ed White)

Originally some Asian carp were imported to be reared as food and some to clean catfish ponds in the south. Some of those ponds experienced flooding, and the imported carp escaped up the river.

So several species of carp, notably the bighead and silver carp, have been headed north via the Mississippi River for about two decades. In some areas of the river they have overtaken the native fishery.

The fish are noted for a voracious appetite—eating up to 40 percent of their body weight per day. They can grow up to 100 pounds, and they reproduce rapidly. For these reasons, an invasion of Asian carp into the Great Lakes could pose serious risks to the native fishery. They consume large amounts of plankton and smaller species of fish that compose the forage base for larger game fish, such as lake trout, salmon and whitefish.

The potential invasion of the Great Lakes by Asian carp has prompted concern from tribes and a number of Great Lakes states, some who have called for stronger preventative measures, claiming the electronic barriers and chemical treatments are not sufficient to keep the carp out.

The urgent need to address this issue was one reason GLIFWC offered assistance in the intensive search of the Calumet River.

Once off the river, GLIFWC's crew became embroiled in the bumper-to-bumper, stop 'n go, honking traffic of downtown Chicago. "You could hear every type of music playing in cars," White said, "so we rolled down our windows, put on a drum tape, and turned up the sound."

Adding a good solid drum beat and the powerful voices of Native singers to the mix let at least some folks know the Ojibwe were in town.

GLRI funds boost GLIFWC programs

By Sue Erickson, Staff Writer

Odanah, Wis.—News that GLIFWC was selected to receive not one, but two, competitive grants from the US Environmental Protection Agency plus a capacity grant was music to the ears of Ann McCammon Soltis, Intergovernmental Affairs director, who helped prepare the grant proposals. It meant that critical programs monitoring ceded territory resources valued by GLIFWC member tribes would be given new energy. On target were mercury monitoring, impact of invasive species on resources valued by the tribes, and Great Lakes initiatives.

GLIFWC was invited to submit formal applications for the two grants that were selected through EPA's competitive grant process, EPA having received the funds from the Great Lakes Restoration Initiative (GLRI).

One grant involves the expansion of GLIFWC's long-standing mercury testing program. GLIFWC will measure mercury levels in walleye, lake trout, whitefish, cisco, and siscowet from Lake Superior and walleye from inland lakes. The test results will be compared with data from previous testing, and the results from inland waters testing will be used to update tribal and lake specific GIS maps and consumption advice (maps) aimed at reducing health risks associated with consuming mercury contaminated walleye.

The second project focuses on the risks that invasive species pose to culturally significant resources. GLIFWC will develop species distribution models for invasive plants and for culturally significant native species. These models will be used to identify which invasive species pose the greatest risk to the selected native species and to help prioritize areas for early detection and/or rapid response efforts.

GLIFWC will also receive funding from the EPA to enhance its capacity to participate in the wide variety of Lake Superior and Great Lakes initiatives that are currently underway.

For one, GLIFWC will expand its involvement in the Binational Program to Restore and Protect Lake Superior by participating on a number of committees that address issues of concern to its member tribes, including habitat and terrestrial wildlife, aquatic communities, mining, chemicals and outreach. While staff has been involved in the Binational Program committees in the past, the funding will help increase staff ability to participate more fully.

In addition, the grant will enable GLIFWC to monitor broader Great Lakes initiatives that have impacts in the ceded territories, such as the GLRI, implementation of agreements on water diversions from the Great Lakes, and the updating of the Great Lakes Water Quality Agreement, making sure tribal perspectives are taken into account. "We are very excited about the opportunity to undertake these valuable projects as well as to expand our involvement in important Great Lakes initiatives," said McCammon Soltis.

Early manoomin season outlook

By Peter David, GLIFWC Wildlife Biologist

Odanah, Wis.—Wild rice pickers know that, as an annual plant, wild rice abundance can vary markedly from year to year. Serious rice pickers will scout out preferred waters before the season begins to improve their success when the harvest season arrives.

GLIFWC is also interested in monitoring beds, not only to help direct ricers to the most productive stands, but to monitor long-term trends in abundance, document the success of restoration efforts, and detect problems that may have popped up on particular waters.

As of press time, our surveys have been largely limited to ground checks in northwest Wisconsin; by the end of August we hope that a combination of air and ground surveys will give us some perspective on much of the ceded territory. However, even before the first survey was conducted we knew that, from a harvest perspective, 2009 was going to be hard to match. A 3+ week window of nearly perfect weather occurred during the harvest season in 2009, and coupled with a decent crop, produced the highest Wisconsin off-reservation harvest since we began annual surveys over two decades ago.

At this point in time, our surveys suggest that the crop will be below average to average in northwest Wisconsin. More anecdotal information suggests it may be doing better in north-central Wisconsin and adjacent portions of the UP, and in much of Minnesota. In many sites, plant development is about a week ahead of schedule, but development is lagging where heavy rains have raised lake levels near or above the 3 foot depth that rice generally tolerates.

As the harvest season nears, GLIFWC will post a summary of available abundance information on our website, (glifwc.org), but we still strongly recommend you conduct a little personal scouting on your own favorite ricing sites. And great crop or poor, a day in the rice beds is always an enriching experience. Enjoy yours!

On the cover

The cover shows a partial image of GLIFWC's soon-to-be-released 2010 annual poster, entitled Zhewenimaad (the one who has compassion for them). Designed by Lac du Flambeau artist biskakone Johnson, the poster features ma'iingan (wolf) and will be available through GLIFWC in September. For information, contact pio@glifwc.org or phone 715.685.2150.

Tribal programs enhance resources coast-to-coast

Fond du Lac hosts national conference

By Charlie Otto Rasmussen, Staff Writer

Cloquet, Minn.—Sometimes it takes an event like this to really grasp the importance of first nation natural resource programs. From fish and wildlife habitat enhancement to environmental protection and law enforcement, tribes have a largely unheralded but profound impact on the health of ecosystems. As the 2010 Native American Fish & Wildlife Society's annual conference unfolded, it didn't take long for participants to appreciate the remarkably rich cross section of the American landscape that tribes actively manage.

"With all the different experts from various fields, the conference was a great way to network and share information with people from across the country," said Reggie DeFoe, Fond du Lac (FdL) Natural Resources Director. "Federal, state and county-level resource managers took part as well. We were very happy and honored to host an event like this."

Conservation professionals numbering just shy of 300 from across the United States converged on the FdL Reservation June 6-10. Law Enforcement training, local tours, and a robust offering of technical sessions offered up learning opportunities for the full spectrum of participants.

Wildlife Biologist Tim Vosburgh from north-central Montana's Rocky Boy's Chippewa Cree Tribe detailed early success in a bighorn sheep reintroduction program. After only two lambing seasons, wild sheep numbers on the 122,000-acre reservation roughly doubled to around fifty. The original 25 animals—mostly ewes—were choppered in from the nearby Flathead Reservation through a unique intertribal arrangement with the governing Confederated Salish-Kootenai tribal authorities.

The rural, isolated Rocky Boy's is the westernmost Chippewa, or Ojibwe, community in the United States. With scant revenue sources available, tribal leaders see added benefits to restoring native species to their original range, Vosburgh said.

Tribal natural resource staff from Minnesota, Wisconsin and Michigan attended the NAFWS's annual conference June 6-10 at Fond du Lac's Black Bear Resort. From left: Peter David (GLIFWC), Todd Warner (Keweenaw Bay Band), Andrew Edwards (1854 Authority), Tom Callison (Grand Traverse Band), Mike Schrage (Fond du Lac Band), Pam Nankervis (Keweenaw Bay), Angela Aarhus Ward (1854 Authority), and Eric Clark (Sault Tribe). (Photo by Charlie Otto Rasmussen)

"If our population goals are reached [100 sheep], the tribe can provide for local hunting opportunities and a high-value tag to non-native sportsmen," Vosburgh said. "That money could then be used to fund reservation natural resource programs."

While the trend toward attracting sport hunters to supplement tribal budgets is gaining traction in the American West, conference presenters also explored the costs and somewhat ominous dynamics of wildlife health and population decline.

In the 1854 ceded territory of northeast Minnesota, FdL biologist Mike Schrage said a combination of factors magnified by climate change continues to impair the struggling moose herd. Ailments like brainworm, liver flukes, winter ticks and heat stress seem to be driving a steady decline in moose numbers according to an ongoing research project that pools the resources of Fond du Lac, the 1854 Authority and the Minnesota Department of Natural Resources.

"We didn't go into this study thinking climate change was going to be a factor but all our results are taking us there," said Schrage. "We're seeing high mortality even when moose should be in prime condition."

Researchers are shifting their attention to identifying crucial habitats in the boreal forest of Minnesota's Arrowhead region. Better understanding how moose use unique areas may help wildlife officials manage lands for the large ungulates known as *mooz* in the Ojibwe language.

"There's a strong tendency for cows to bring calves to specific habitats like swamp conifers close to small lakes and rivers," Schrage said. "These are important places."

Law enforcement training

As biologists and administrators prowled the confines of Black Bear convention center, law enforcement officers soaked in advanced training techniques under rain-shrouded skies. Tribal officers tailored a Fond du Lac gravel pit to conduct Simunition exercises, focusing on vehicle contact scenarios. A patented training system, Simunition features weapons that fire plastic rounds.

Participants nevertheless wore body armor and protective helmets during mock encounters with uncooperative individuals. Instructor Fred Maulson orchestrated a handful of situations involving all terrain vehicle contacts in addition to other common episodes like shining deer at night.

"A big emphasis was on how to communicate with all kinds of people—how to verbalize," said Maulson, Great Lakes Indian Fish & Wildlife Commission (GLIFWC) chief warden. "Wardens in some areas know pretty much everyone they encounter. But you need to be prepared to deal with strangers, especially those that may be hostile."

A number of GLIFWC staff delivered short presentations during the event including: Kekek Stark (*"The Past, Present, and Future of the National Fish Habitat Action Plan [NFAHP] from a tribal perspective"*), Peter David ("*GLIFWC Wild Rice Management"*), and Bill Mattes (*"Engaging Tribes in the Science of NFHAP: How GLIFWC Provides Scientific Expertise and Data to Great Lakes Basin Habitat Partnership"*).

NAFWS conference organizers are assembling proceedings from the 2010 conference, including contact information for all attendees. For more information online see: *www.nafws.org*.

An interagency capture crew assisted by helicopter contractor Pathfinder Inc. prepares a bighorn ram for translocation between the Flathead Reservation and Rocky Boy's Reservation. The ram was one of 25 sheep brought to Rocky Boy's in an effort to restore bighorn numbers in north-central Montana. A tribal wildlife grant from the US Fish & Wildlife Service funded the project. (Photo by Tim Vosburgh)

Tribal enforcement officers conducted training in apprehension of suspects on ATVs as well as simunition training exercises during the NAFWS annual conference. (Photo by Fred Maulson)

Lake Superior's untapped oil reserve

Fishing family contemplates use of siscowet lake trout

By Charles Eshbach
For Mazina'igan

Hancock, Mich.—Commercial fishing in the last decade has stabilized with several businesses having a substantial impact on their local economies. The Peterson family in Hancock, Michigan is a good example of this steady growth.

Besides the people they employ, the consistent supply of high quality fresh fish creates an even greater economic impact. Local people are enjoying the availability of fresh fish, and visitors are ordering these delicacies in area restaurants. This locally available product enhances the area's appeal to the visitor.

Businesses like the Peterson Fish Market are improving their harvesting and production techniques in order to remain sustainable and grow.

However, Lake Superior's native commercial fishermen, like the Petersons, have a common problem. What to do with their waste? As they harvest and process fresh fish from the Lake, over fifty percent is waste. Today this useless by-product has to go in the garbage. Gilmore and Chris Peterson want to change this. "We have to make our business more sustainable with less of a carbon footprint, and the only way to do that is to utilize our waste," Chris quickly points out.

Another problem in the Lake Superior fishery is the tremendous increase in the population of siscowet lake trout, also known as fat trout or fats. This species is too oily for human consumption and is avoided by commercial fishermen.

Chris explains, "There has never been this level of 'fats' in the Lake. They live in deep water where the bottom is flat, consuming large amounts of smelt, herring and chubs, giving them the title of '#1 predator in Lake Superior.' In 20 years, I predict they will take over the Lake," Chris continues.

Gilmore and Chris are third and fourth generation Native American fishermen. Gilmore struggled for years as a fisherman during the hard times. The hard work of a commercial fishing life and ever-changing markets has left only a few hardy souls remaining to do battle with Lake Superior and bring fresh fish to market. Gilmore and his wife Pat have slowly developed a strong business with their sons, Chris and Matt—all pulling together.

Now Gilmore and Chris have a plan to move their business to the next level, insuring the growing market for fresh fish remains sustainable while utilizing the waste. This can be done by extracting the oil from the fish waste and using it as bio-diesel fuel in their boats and trucks.

To process their waste into bio-diesel fuel they need to fish siscowet lake trout, or fats. This increased volume of fat lake trout going to oil production along with the waste would lower the cost of processing and make it feasible.

Pat and Gilmore Peterson, Peterson Fish Market, Hancock, Michigan, prepare fresh fish filets for sale. The family owned and operated business is looking at using fish waste and siscowet lake trout to produce bio-diesel fuel. (Photo by Charles Eshbach)

Filets of fresh Lake Superior fish are marketed by the Peterson Fish Market, a company also seeking to use the waste products to make the business more sustainable and "greener." (Photo by Charles Eshbach)

Chris explains further, "Fats are easy to catch, and there are no regulations on amounts that can be caught at present. Biologists estimate there are 660 million pounds of fat trout in Lake Superior. If we could catch an amount of fats to equal the waste we generate, we would have enough to start a processor."

The production of bio-diesel would create jobs, utilize waste, and change commercial fishing into a "greener" industry. The removal of one percent of the fat lake trout would not impact the population, but would begin to tap Lake Superior's oil resource, using a species that is not utilized at present.

Gilmore speaks from years of ever-changing markets and regulations when he says, "We must keep improving our methods. Utilizing our waste is the obvious way to go. I want to see this business continue to provide for my sons."

Editor's note: *Charles Eshbach is the Editor/Publisher of the Keweenaw Traveler, a tourist information tabloid. Charles has been a photographer, writer, and publisher in the Keweenaw for the past 40 years.*

Gichigammi warming towards possible record temperatures

According to a *Duluth News Tribune* report Lake Superior could be on its way to record high temperatures, with warmer temperatures occurring about a month early this year. According to a UMD researcher Jay Austin, the lake's temperature in July is about 59º F, whereas, it would typically be about 39º F, a 20º difference.

If this continues, Gichigammi could possibly reach a record warmth in August, topping the 1998 figure when the lake warmed up to 68 degrees. Temperature information is taken from three buoys maintained by the National Oceanic and Atmospheric Administration, which started keeping records in 1979.

—*July 9, 1010 edition of the* Duluth News Tribune*, article by John Myers*

Fish waste: Profitable solutions to processors' problems

By Ronald E. Kinnunen,
Michigan Sea Grant
For Mazina'igan

Marquette, Mich.—Michigan's commercial fish processing industry generates approximately five million pounds of waste annually from handling lake whitefish, lake trout, and salmon. The industry has long been challenged by the disposal or reuse of that waste.

In an effort to help the industry find better solutions to handling fish processing waste, Michigan Sea Grant and Michigan State University (MSU) Extension hosted a workshop on the issue in early 2010.

The workshop addressed issues ranging from disposal methods to potential uses of the waste. Charles Gould, an MSU Extension educator with compost and bioenergy production expertise, said that fish processors have five disposal options—burial, land application, landfill, wastewater treatment plants, and composting. State regulations define each disposal method. Specific details about each disposal method are posted at *www.michigan.gov/documents/deq/deq-whmd-swp-ExemptionFishWaste_247536_7.pdf*.

Gould talked in depth about compost production and anaerobic digestion. Fish waste can be made into high quality compost and be readily sold for a premium price.

Gould said that one farmer he has been working with for about three years is composting sheep manure and is getting $22 for a 50 pound bag and $150/cubic yard (a cubic yard is about 800 pounds). High quality compost made from fish waste should fetch a comparable price.

A study completed in 2005 pointed out that, if all the commercial fish waste in the Eastern Upper Peninsula were composted and sold as a premium product, the value of the compost to the producer would be over $900,000. This same study postulated that compost sold simply as cash and carry to gardeners is worth about $80,000 *(see http://web2.msue.msu.edu/compost/* and click on 'Publications').

Michigan is a compost-deficit state and there is a lot of room for growth in the compost market, according to Gould. Northern Michigan and the Upper Peninsula have an advantage over the rest of the state in that sources of carbon are more readily available. Gould said that anaerobic digestion holds great promise as a way to extract value from fish waste. A digester produces two outputs—biogas and digestate. Biogas can be used to generate electricity or replace natural gas. The digestate has no objectionable odor and can be land applied without odor concerns. The nutrients in fish waste are mineralized (meaning the nutrients are changed to a more plant available form) during the digestion process, thus increasing the value of digestate as a fertilizer.

Gould encouraged fish processors to think of fish waste management in terms of a sustainable system. He emphasized thinking of fish waste as something with value rather than a waste. He stressed putting fish waste in a form that processors could either use or that will bring an additional revenue stream into the business.

For the sake of yew:

Tribes, state, feds seek to save Apostle Island's Canada yew

By Sue Erickson, Staff Writer

Odanah, Wis.—In an effort to preserve a sampling of the old growth forest that once characterized the Great Lakes region prior to development, the National Park Service (NPS) launched a wildlife management plan aiming at protecting the unique vegetation on the Apostle Islands. Of particular concern is Canada yew, a native evergreen shrub occurring in old forest understory growth.

Unfortunately, Canada yew has been nearly extirpated on the mainland, and the Apostle Islands are among the few remaining strongholds for the shrub, according to Julie Van Stappen. Apostle Islands National Lakeshore natural resources branch chief.

The problem is deer love Canada yew and in recent years deer populations have exploded on some of the islands. "Yew seems to be almost like candy to deer," Van Stappen comments. "They'll choose yew over cedar and hemlock, which are their favorites on the mainland."

Unfortunately, Canada yew takes decades, perhaps centuries, to recover, Van Stappen says. "It's really slow growing. Rocky Island has been rehabilitating since 1950 when the deer population erupted there taking out all the Canada yew, and it still isn't fully recovered."

Essentially, preservation of the old growth vegetation comes down to deer herd management. Historically, Van Stappen says, the Apostle Islands had low numbers of deer. However, after they were logged, deer populations began to emerge on some of the islands. By 2000 deer herds developed on Sand, York, Devils, North Twin, and Raspberry Islands. On Sand and York especially the deer have been booming and the Canada yew disappearing at a fast pace.

In 2007 wildlife managers from NPS sat down with their counterparts from the Bad River and Red Cliff tribes, Great Lakes Indian Fish & Wildlife Commission (GLIFWC), and the Wisconsin Department of Natural Resources to develop a wildlife management plan that would protect these pockets of original Great Lakes forests on the islands.

As a first measure, tribal treaty hunters and state hunters with special nuisance hunt permits were encouraged to hunt the islands.

That met with limited success, Van Steppen said, and didn't sufficiently reduce numbers of the yew-munching deer herds. The deer reduction efforts clearly needed to be "cranked up" in order to save the yew and other old forest vegetation.

Canada yew.

Funds through the Great Lakes Restoration Initiative (GLRI) helped NPS do just that. Those funds enabled them to try a different reduction technique and collect more biological samples from the deer to get a better picture of the herd's make-up.

Reduction help came through the US Department of Agriculture's Animal and Plant Health Inspection Service who brought in trained marksmen with specialized equipment in the fall of 2009 and the spring of 2010. Both York and Sand Island were temporarily closed to state hunters from September 12, 2009 through May 15, 2010 to accommodate deer reduction.

(See Canada yew, page 15)

Waging war on wiley weeds

By Miles Falck
Wildlife Biologist

Ashland, Wis.—Several GLIFWC staff members recently turned out to assist with efforts to remove invasive buckthorn and Eurasian honeysuckle from Prentice Park in Ashland, Wisconsin. These shade-tolerant shrubs displace and out-compete native herbs, grasses, and tree seedlings that would normally be found in our woodland understories.

Buckthorn and Eurasian honeysuckle are invasive shrubs that were commonly planted as ornamentals up until very recently. Buckthorn and honeysuckle gain an advantage over native shrubs by leafing out earlier in the spring and retaining their leaves longer in the fall.

In addition, both species produce copious amounts of seed-filled berries. These berries are readily eaten by birds who then "deposit" the seeds in adjacent areas, thus spreading the plant. Judging from the thick stands found at Prentice Park, the birds have been eating and depositing buckthorn and honeysuckle seeds for some time.

In late May, about 50 volunteers helped to cut, spray and haul buckthorn and honeysuckle from the park's woodlands. Participants included staff from GLIFWC, Ashland County Land and Water Conservation, Ashland Public Works, several students and faculty from Northland College, members of the Northwoods Cooperative Weed Management Area (NCWMA), the Bad River Watershed Association, and interested community members.

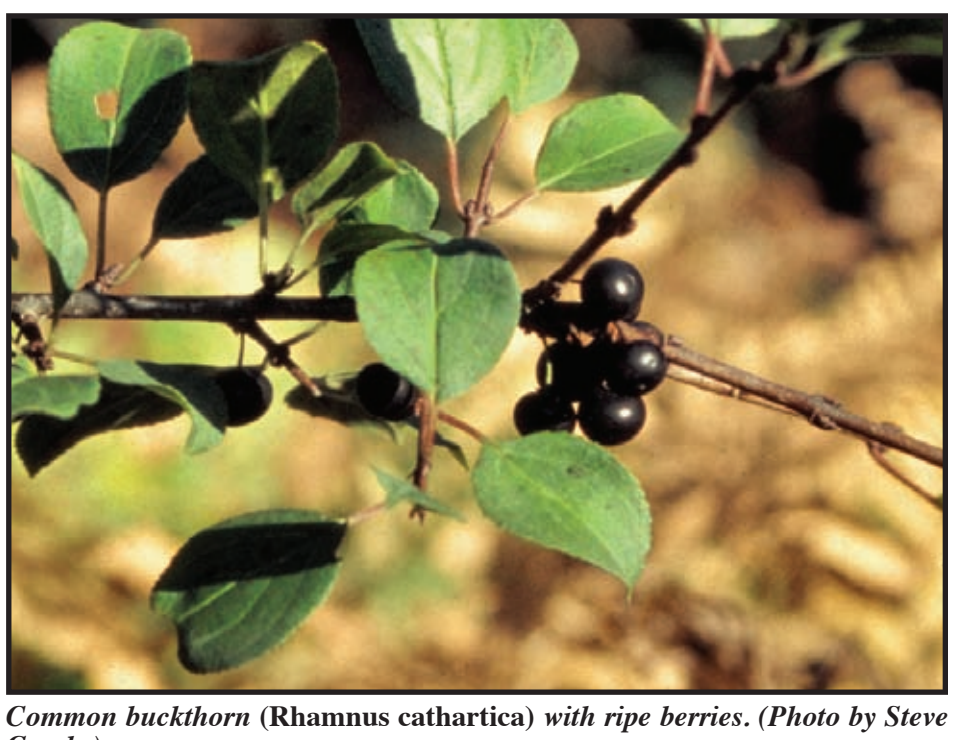
The project provides an outdoor classroom to supplement three spring semester classes at Northland College, raises awareness about the impacts of invasive species on local resources, and provides a demonstration area for control methods.

Darienne McNamara, NCWMA coordinator, provided training on plant identification and safe tool and herbicide use. Volunteers set to work with loppers and hand saws to cut down the shrubs. Others hauled the cut brush, some of it as large as five inches in diameter, up to the road.

A steady "beep-beep-beep" could be heard all day as staff from the Ashland Public Works Department used a front-end loader to push the brush to the end of the road where it was loaded into waiting dump trucks. By the end of the day, three dump trucks of brush had been felled and hauled away. The cut stumps were treated immediately with herbicide to prevent their regrowth.

Much work remains to be done in the park. There is still a lot of buckthorn and honeysuckle to remove, and the seedbank in the soil will warrant follow-up treatments in the fall and spring to eliminate new seedlings. Also, the park is adjacent to Fish Creek Sloughs, where purple loosestrife control efforts by GLIFWC staff are now underway.

Shelly Ellson, GLIFWC payroll manager, hauls buckthorn from Prentice Park's woodlands to the highway. (Photo by Lynn Plucinski)



Common buckthorn **(Rhamnus cathartica)** *with ripe berries. (Photo by Steve Garske)*

"Partners" cast for largemouth bass on Big Chip

By Charlie Otto Rasmussen
Staff Writer

Nearly one hundred fisheries biologists, natural resource administrators and guides took part in 2010 Partners in Fishing event on June 9-10.

Scott Smith, (right) a Voigt Intertribal Task Force representative from Lac du Flambeau, with an 11-inch Chippewa Flowage bass. (COR photos)

Hayward, Wis.—Partners in Fishing, the low-key annual gathering of Wisconsin fisheries officials, marked 2010 as Year of the Bass. Largemouth, that is.

Event organizer and chairman of the Joint Assessment Steering Committee (JASC) Robert Jackson made the slapdash proclamation June 9 before resource managers from the state, tribes and federal government motored onto the Chippewa Flowage armed with fishing tackle that included custom Bureau of Indian Affairs crank baits.

In actuality fisheries officials have real concerns about the impact of growing largemouth numbers on northwest Wisconsin waters. Bass appear to be taking a bite out of young walleye populations on some lakes with historically strong natural walleye reproduction.

"We're seeing evidence that bass are preying on significant numbers of small walleyes," said GLIFWC fisheries biologist Mark Luering. "In discussions at the Partners event, there's consensus among biologists that largemouth numbers are increasing in many places where walleyes are declining. Local guides we spoke with corroborated the changes in some of these lakes like the Chippewa Flowage."

On formerly productive walleye waters, biologists predict that angler regulation changes are on the horizon to promote largemouth harvest and decrease the walleye take. In addition, Luering said that treaty spearers are being encouraged to harvest more bass. In 2010 largemouth bass quotas increased on 20 Wisconsin lakes fished by tribal members.

Although the state bass season opener was still more than a week away, Jackson challenged Partners fishermen to target "bucketmouths," offering prizes to the boats that landed the most bass-inches. Catching lots of small fish could—and did—make up for only a handful of large bass.

Special guests from past Partners events, William Henderson and Gilbert Brown returned to fish, bringing fellow football standout Dorsey Levens. All three retired Green Bay Packers were key members of the 1997 and 1998 Superbowl teams.

When the competition wrapped up on day two, Jackson's boat had suspiciously landed the most bass-inches, drawing applause and groans from the 90-some participants. Said Levens in mock outrage: "I'd like to come back again next year, but y'all got to stop cheating!"

While Partners has become a fun and productive event, its roots lay in the tumultuous late 1980s when tribal fisheries managers experienced less than ideal working relationships with their state counterparts. Senator Daniel Inouye helped bridge the divide in 1990 fostering the JASC, which teamed state, tribal and federal biologists in walleye population assessments. The collection of fisheries experts discovered that tribal fishing did not harm populations and, in the process, put northern Wisconsin lakes on the map as likely the most studied waters on the globe. For more information online: *www.glifwc.org/publications/FisheryStatusUpdate.html*

Gill net study underway:

Will modified gill nets lessen incidental lake trout catch?

By Bill Mattes, GLIFWC
Great Lakes Section Leader

Gay, Mich.—A gill net is a gill net. Or is it? Many associate gill nets with indiscriminately killing all fish that encounter them. But the truth is gill nets are a very selective gear in that they target a certain size of fish and a certain area of a lake or river.

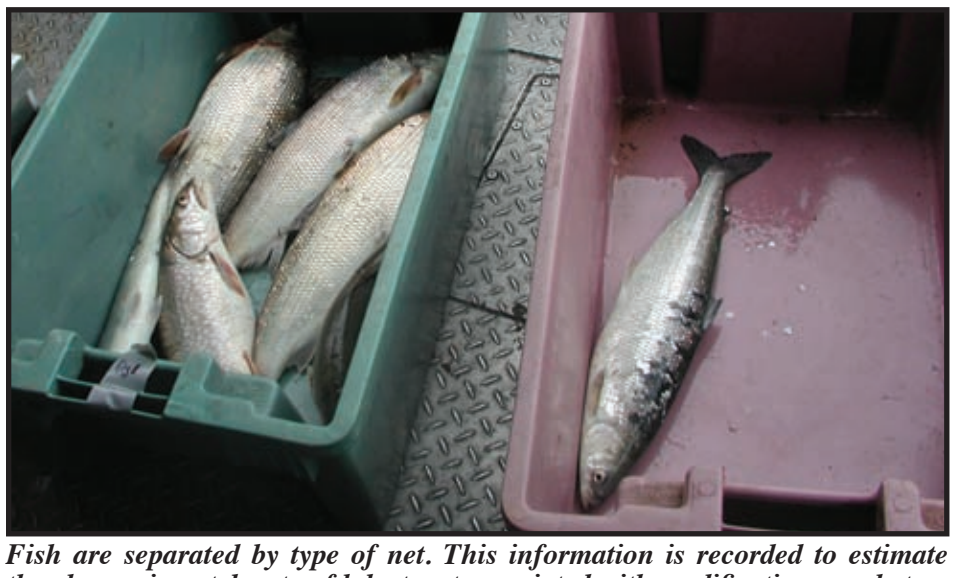
In Lake Superior this can be used to "target" fish because many fish are separated by depth and area. For instance, cisco (a.k.a. lake herring) are fished with "floating" gill nets with "small mesh;" whereas lake whitefish are fished with "bottom-set" gill nets with "large mesh."

Starting last fall and continuing through next summer, staff from GLIFWC's Great Lakes Section are working on a pilot-project funded by the Great Lakes Fish and Wildlife Restoration Act which is addressing how two different types of gill nets catch fish.

One net is a standard bottom-set gill net and the other is a modification to the typical bottom-set gill net used by the commercial fishery—a "legged" net. Legged gill nets are an uncommon application of the bottom set gill net which is commonly used in the tribal commercial fishery on Lake Superior. The application allows for fish closely associated with the bottom of the lake to escape capture by "legging," or lifting, the gill net off the bottom a specified distance.

The plan of the pilot-project is to evaluate how modifying the gill net reduces the catch rate of lake trout while maintaining the catch rate of lake whitefish. Large-mesh bottom-set gill net fisheries which target lake whitefish have been limited in the upper Great Lakes because of the incidental harvest of lake trout. Bottom-set nets used by many commercial fisheries in Lakes Superior, Huron, and Michigan are limited by regulations which place limits on the harvest of lake trout and the amount of gill net used. Both the lake trout harvest quotas and effort limits constrain the lake whitefish fishery.

Modifications to gill nets that reduce the incidental catch rate of lake trout while maintaining the catch rate of lake whitefish would benefit both the fishery and the lake trout rehabilitation process, especially in the lower lakes where lake trout have yet to be rehabilitated.



Fish are separated by type of net. This information is recorded to estimate the change in catch rate of lake trout associated with modifications made to a typical bottom-set gill net. (Photo by Bill Mattes)

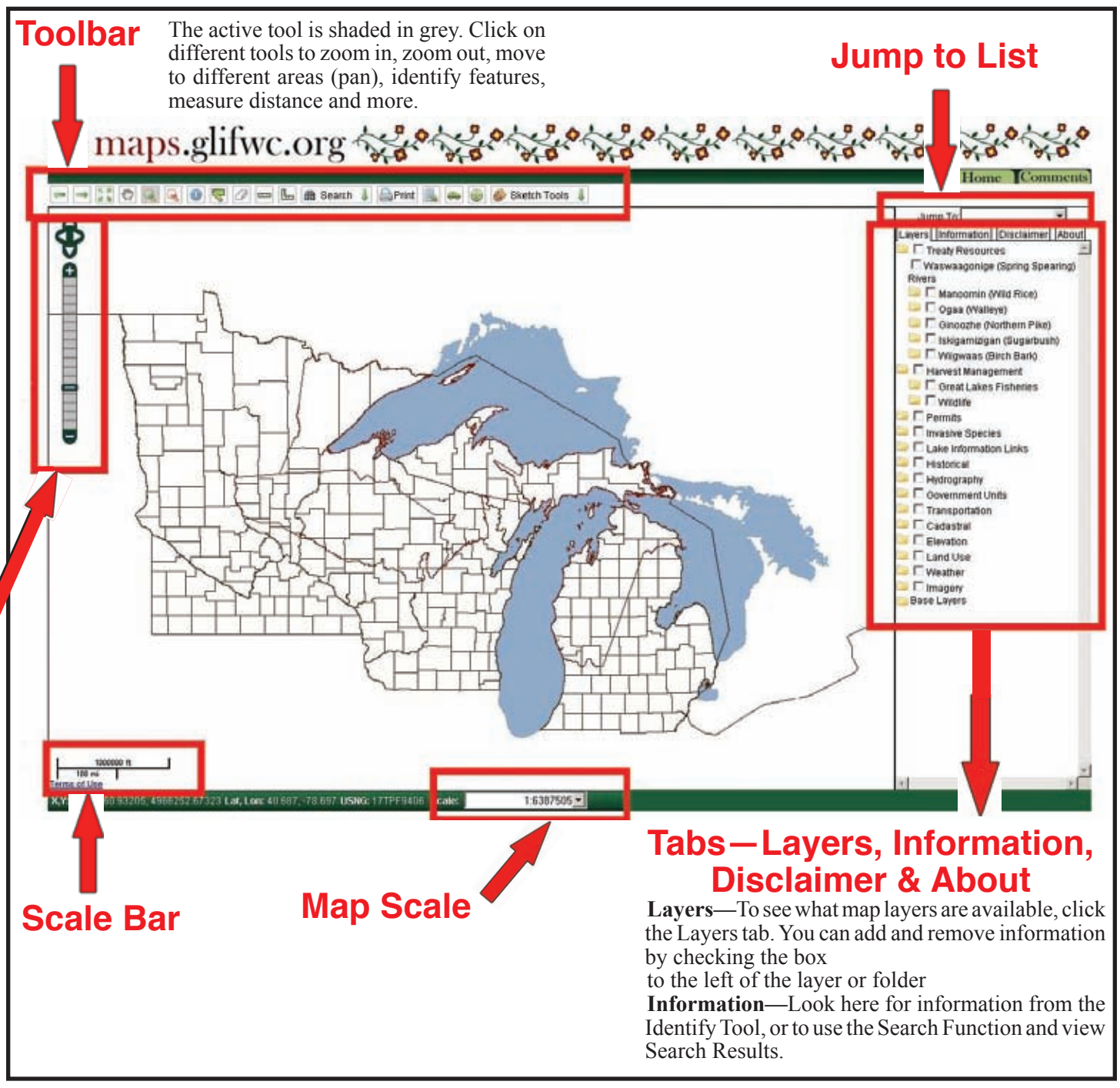
New and improved

MAPS.GLIFWC.ORG—It's not just about invasive species anymore

By Dara Olson
GLIFWC GIS Specialist

Some exciting changes and improvements have been made to the GLIFWC map website! Ever wonder which manoomin lakes have been seeded in your neck of the woods or curious about how they might look from the air? Need to know where public lands are located in the ceded territory or if your favorite lake has a management plan? What the topography is like in a certain area you'd like to visit and what that area looks like from satellite photos? With everything from wetland fill permit requests filed with the US Army Corps over the years to current weather conditions, the new and improved GLIFWC mapping website might just be the best-kept secret on the web!

(A link to GLIFWC's Mapping website is also provided on GLIFWC's main website *www.glifwc.org*.)



How to use the map

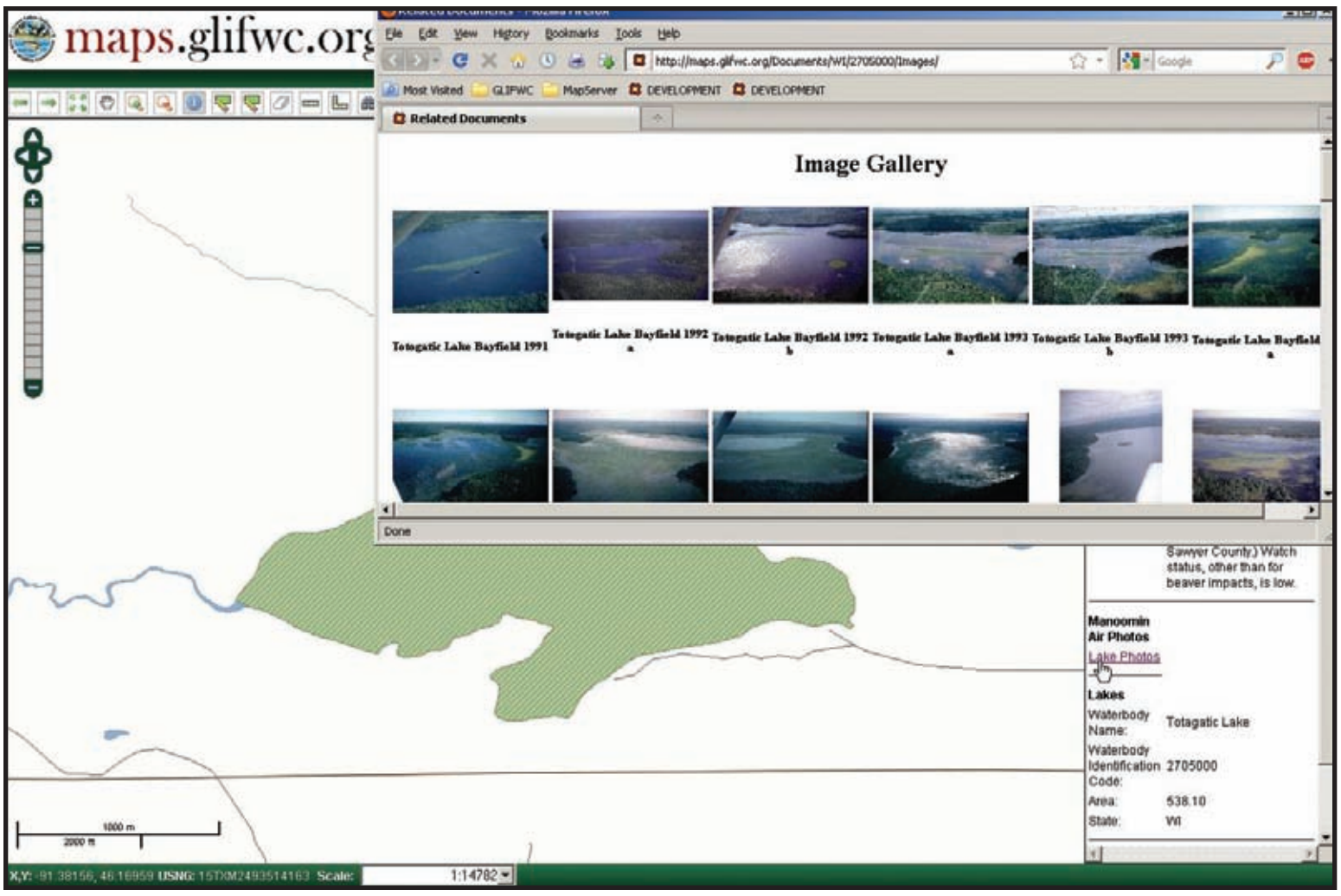
Let the GLIFWC mapping website work for you!

1) Go to maps.glifwc.org.

2) Check out the FOLDERS on the right-hand side of the page. Open one that interests you.

3) Check the box to the left of a feature you want to view. Remember, you can zoom in or out at any time using the Zoom In Tool or the Zoom Out Tool on the toolbar.

Below is an example of the information provided on the website for manoomin.



Turn on the manoomin (wild rice) aerial photos layer to see which manoomin lakes have aerial photos. Click the link in the "Information" tab to open a window with photos from prior years to present. Browse through to see changes in these rice beds over time.

Be sure to check back frequently! This web site is a work in progress. Over the next few months you will see more features added to the map, as well as tools to make it easier to use. For additional information about this website email Dara Olson: dolson@glifwc.org.

GLIFWC wardens mix fire fighting duty/training into schedules

By Sue Erickson, Staff Writer

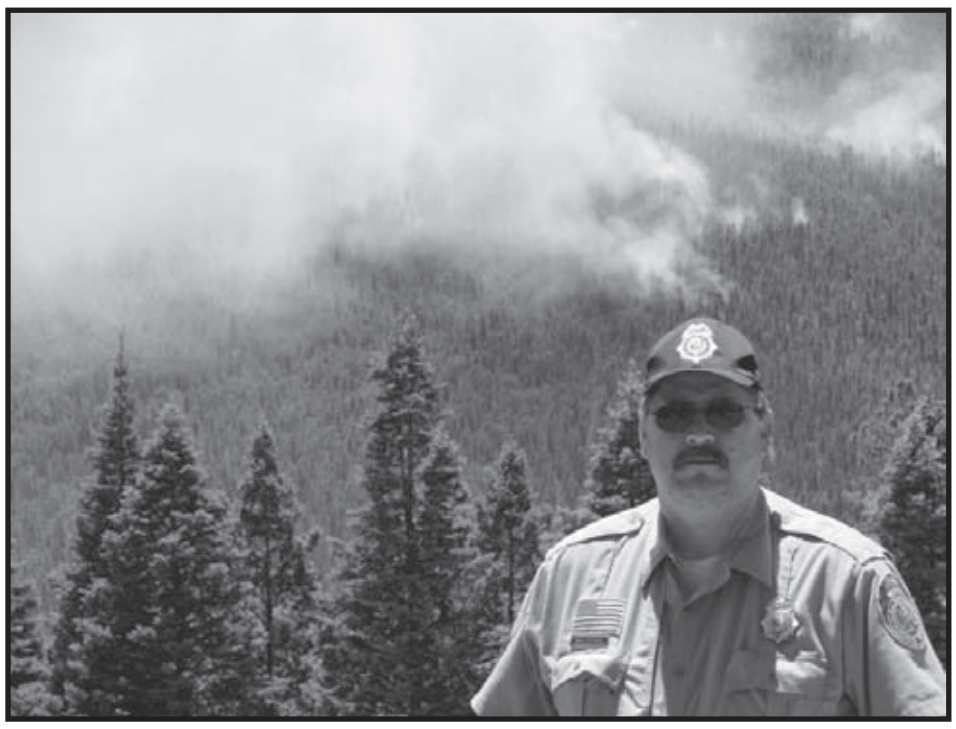
GLIFWC wardens serve as security on fire duty

Odanah, Wis.—Three GLIFWC wardens packed their bags this summer and took off for the western states of New Mexico and Arizona where wild fires were roaring in national forests. Their eligibility for fire duty was a result of fire training sponsored through the Bureau of Indian Affairs Great Lakes Agency in January of 2009 when ten GLIFWC officers received certification.

Once on site their role at the South Fork fire in New Mexico and the Schultz fire in Arizona was largely security. Wardens Mike Popovich and Robin Arunagiri spent a full fourteen days at the South Fork fire, and GLIFWC Enforcement Chief Fred Maulson served 11 days at the Schultz fire site primarily maintaining security at the fire camps as well as at roadblocks. "A lot of times we are also public information agents, informing people what roads are open, which are closed, and answering questions about the status of the fire," Maulson says.

While this was a first-time experience, Maulson anticipates that he and his warden staff will be serving at future fire events, or other major national events where security staff is needed.

"We are not only helping out during a crisis situation, but also expanding our own involvement and recognition nationally," Maulson says. He thanks Great Lakes Agency Fire Management Officer Joyce Zifko especially for being instrumental in obtaining the wild fire training and resulting certification that allows them to provide the services.



Smoke billows behind GLIFWC Warden Mike Popovich who, along with Warden Robin Arunagiri, spent two weeks providing security at new Mexico's South Fork fire and the adjacent firefighters camp. Chief Fred Maulson also assisted with security at the Schultz fire in Arizona. (Photo by Rabin Arunagiri)

Promoting the Ojibwe trapping heritage

Crandon, Wis.—"Ojibwe people have been trapping for hundreds of years. We trapped prior to European settlement, but today it's a vanishing skill," says Roger McGeshick, Sokaogon/Mole Lake trapper and GLIFWC warden. To encourage more tribal participation in this traditional skill, McGeshick offers classes on trapping.

Recently, he put on a one-day "introduction to trapping" class at the Sokaogon/Mole Lake reservation. Sponsored through the tribe, McGechick, who also instructs a full, two-day Trapper Education course, opened the class to all community members, young and old alike. "This was intended to give people a peek at trapping with only a minimum of hands-on opportunities," McGeshick says. The Trapper Education course entails work in the field with lots of hands-on experience.

However, using a 120-slide PowerPoint presentation, he covered a lot of ground in the six-hour session, beginning with the history of trapping in Wisconsin, much which revolved around tribal trapping.

Motivations for trapping, both recreational and economic, were discussed along with the ethics of trapping. He emphasizes the need to be responsible when laying traps by checking them daily. "Out of respect to the animals you are trapping, or even another animal that might get caught, you need to check those traps every day," he says.

He also reviewed the types of traps, tools and paraphernalia of the trapping trade, such as pliers, wire cutters, stretchers, and rubber waders. McGeshick makes as many of his own tools as possible, so also demonstrated construction of some items.

Trap sets and how to trap muskrat, mink and beaver were discussed along with fur handling or how to skin and stretch a fur.

Before the session was done, participants made their own colony trap for muskrat, so they returned home with a least one item of equipment in hand. Some went home with more as a result of drawings and door prizes during the day. Prizes included two sets of mink stretchers, five weasel stretchers, two weasel boxes and a current edition of a trapping magazine.

Participants in the "Learn to Trap" program that was held on Saturday, July 17th, 2010 in Mole Lake were, Back Row (L to R): GLIFWC Warden Roger McGeshick, Cameron McGeshick (Assistant), Tyler VanZile, David Maedke, Carly Quade and Annette VanZile. Front Row (L to R): Alexis Quade, Emmalee VanZile. Not pictured: Beth Maedke (Assistant), Chris Leach, Sr. (Cook) and Chris McGeshick (Assistant). (Photo submitted)

McGeshick is grateful for the support from the tribe, which provided funding for the session and enabled them to serve a lunch. He thanks especially Chairman Garland McGechick and Treasurer Tom Van Zile for their support. Also assisting was Chris McGeshick who aided in the instruction, discussion and photography. Also helping were his sister Beth Maedke, who helped with sign-up and door prizes, his son Cameron, who demonstrated trap sets he uses, and Chris Leach, who prepared the lunch.

McGeshick will be offering a full two-day Trapper Education class early in October prior to the trapping season. For information about that class contact him at 715.889.3200. Information will also be posted on the GLIFWC website at *www.glifwc.org* and GLIFWC's Facebook page.

Net recovery in Lake Superior

Marquette, Mich.—GLIFWC Wardens Dan North and Heather Naigus located and retreived three "ghost" nets from Gichigami in the Marquette and Houghton area this summer.

Retrieval was made possible due to information obtained from local sportsmen. Once given a location for a possible lost net, the two wardens drag the area and pull the net.

"Local fishermen become aware of lost nets if their gear becomes entangled in it," North explains. "Then they usually take a GPS reading for location. In one instance, the fisherman actually pulled up part of a net with his gear. He attached a buoy to it so it could easily be found."

Ongoing contact with representatives from area sportsmen's groups has increased communication and opportunities for retrievals. "Our contact information is out there. People have our cards, and contact information is even on some sport fishing websites, so some people call us directly now," North says.

If you have information about lost nets, contact Warden Dan North at 715.292.5165 or Warden Heather Naigus at 906.458.3778.

GLIFWC rescues at LCO and KBIC

Odanah, Wis.—GLIFWC officers responded in several emergency situations this summer. Warden Jessica Gokee, Lac Courte Oreilles, was on the scene at the Lac Courte Oreilles tribal office when Brooke Dennis experienced a heart attack and passed out. Gokee, along with staff from the LCO Police Department administered CPR . Gokee performed mouth-to-mouth resuscitation until medical personnel arrived to stabilize Thomas' condition.

On Lake Superior, Warden Dan North responded to a mayday call from a Keweenaw Bay tribal member who was on the lake in a 16-foot boat in heavy seas with a failed motor. The individual was also sending up flares, North says. North was able to reach the boat and succeeded in towing it to shore and safety.

Wardens receive meth awareness training

Lac du Flambeau, Wis.—"When looking at the hazardous solvents and acids used in the production of methamphetamine, it's hard to believe anyone would put that into their bodies," says GLIFWC Warden Roger McGeshick following a full day training on methamphetamine (meth) awareness at Lac du Flambeau on July 19th.

GLIFWC wardens were joined by personnel from the Fond du Lac Band in Minnesota and the Minocqua Police Department for a full day orientation to meth and meth labs presented by Sam Hanson, Jefferson State Community College, Alabama.

Designed to alert enforcement personnel to the possible presence of meth, the training highlighted things officers might observe that would be linked to meth and meth production. Hanson began with an overview of the problem with meth and meth labs, showing a "before and after" photo of an individual meth user. "The person

(See Warden training, page 10)

Swinging summer camps combine culture, fitness and science

By Heather Naigus
GLIFWC Warden

This past June, over one hundred youth came from Michigan, Minnesota, Wisconsin, and New Mexico to participate in one of the three cultural programs co-hosted by GLIFWC, Hannahville Indian School, Northern Michigan University's Center for Native American Studies, and the United States Forest Service (USFS).

The three programs were offered at Camp Nesbit: the Camp Onji-Akiing, the National Indian Youth Leadership Program (NIYLP), and the Science, Technology, Engineering and Math (STEM) program. All three programs were based around the Medicine Wheel, which explored the mental, physical, emotional, and spiritual connections between the experiential activity and the participant.

All programs used a positive approach model (based upon NIYLP goals) and drew upon wisdom from past generations to enrich the lives of our tribal youth today.

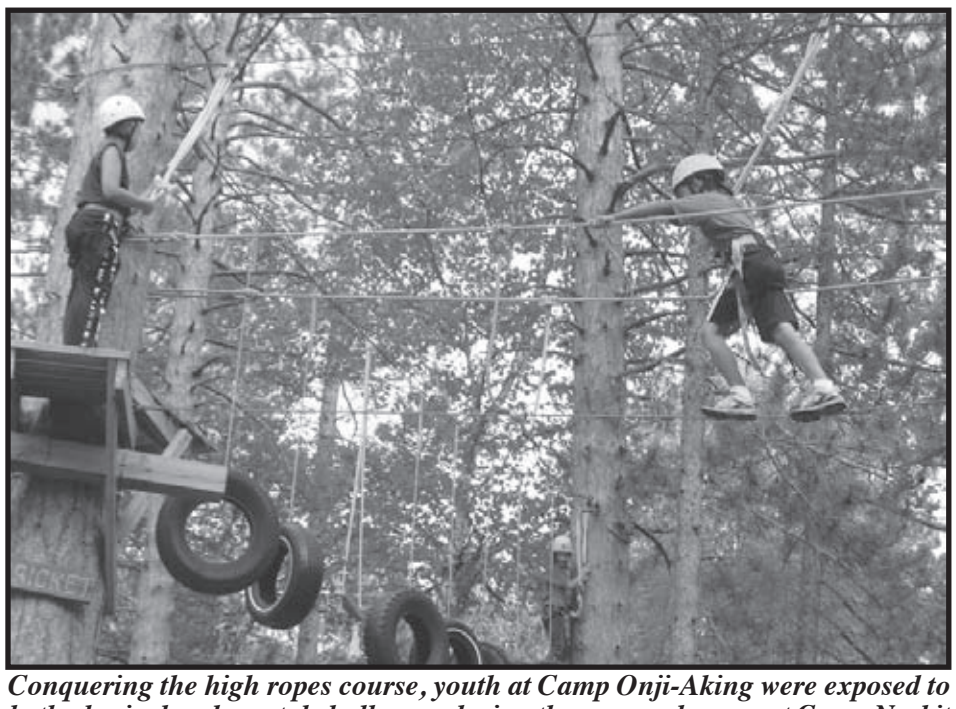
Located deep in the Ottawa National Forest, the camp allowed youth to experience rustic cabins on the lake, family-style meals, adventure-based learning workshops, and talking circles around a campfire. The programs were designed to connect youth with the outdoors while learning about their heritage.

First was Camp Onji-Aking (from the earth). GLIFWC partnered up with the USFS for the second annual cultural summer camp program. This program proved both inspirational and exciting! Twenty-six youth from Michigan and Wisconsin participated in this experiential learning program that incorporated traditional teachings to educate youth on natural resource careers, treaty rights, and outdoor recreation.

Onji-Aking Camper Romeo Salas, Bad River, was on target this summer with bow and arrow. He was one of the few who nailed the small target—a spade card, visible behind him. (F. Maulson)

Youth participated in a traditional opening ceremony and then were serenaded by loon and bullfrog calls while they went about their daily activities, including: geo-caching, canoeing, fishing, and archery. USFS staff conducted workshops on forestry, botany, and fisheries' careers. Youth were challenged on the high ropes course and obstacle course. Similar to the modern day game capture the flag, youth and staff played Warrior Games each night.

"Everyone at the camp was awesome. They are all my family now."
—Ilan Tena, Dineh tribal youth participant



Conquering the high ropes course, youth at Camp Onji-Aking were exposed to both physical and mental challenges during the one week camp at Camp Nesbit in the Ottawa National Forest. (Photo by Fred Maulson)

Second, the National Indian Youth Leadership Program was host to forty-four youth from around the region. This extended program concentrated on many facets of leadership and participated in many of the same above activities. Two of the highlights were the all day canoe trip followed by the Pine Mountain Music Festival's concert featuring Eddie Benton Banai, author of *The Mishomis Book*.

Finally, the STEM program hosted thirty-six youth from around the Upper Great Lakes region and a Dineh contingent from New Mexico. This program has a long history dating back to the mid-1980s.

The program took place both at Camp Nesbit and on the NMU campus. Youth enjoyed the activities in the Ottawa National Forest but were then transferred to Marquette to stay in the residence halls at NMU. Several types of college and cultural workshops were offered including: physics, art, virtual loom work, fish studies, crime scene analysis, wigwam models, black ash basket, history of Presque Isle and video editing.

GLIFWC, Hannahville, and the NMU Center for Native American Studies developed these programs for our youth to experience memorable challenges and gain educational insight as well as cultural connections. The goal is to give youth the tools to build strong tribal youth communities. In addition, the objectives are to deepen the connection to the heritage and promote environmental stewardship with our camp programs.

GLIFWC would like to say CHI-MIIGWECH to Rich Sgarlotti, April Lindala, Marty Reinhardt and Chief Fred Maulson for their continued devotion and hard work to make these programs a reality for our youth! Miigwech to all the staff, supporters, and parents! We look forward to seeing you next summer at Camp Nesbit!

For information on camps contact: Fred Maulson at 715.682.6619, ext. 113 or Heather Naigus at 906.458.3778.

A big challenge for a little person! GLIFWC Warden Dan North helps an Onji-Aking camper prepare for climbing a rope ladder or cargo net as part of an obstacle course completed by the campers. (Photo by Heather Naigus)

Wardens receive meth training

(Continued from page 9)

looked like he had aged by 50 years after a year or so on meth," McGeshick said.

Hanson also reviewed the methods used by meth producers and the hazards of the ingredients used in meth production. This is important, McGeshick says, because if a person comes across a meth lab in a home or in the forest, materials need to be approached with caution. Ingredients include highly toxic materials such as solvents and acids. Most of the ingredients, McGeshick says, are available at local hardware stores or even Walmart, like ammonia.

If officers observe quantities of compounds such as these, or, for example, a large number of batteries or Sudaphed tablets, they would have reason to suspect possible meth production. Hanson also emphasized the danger these clandestine meth labs present to children present in home or forest lab environments. They are at high risk for exposure to the toxic ingredients as well as air born toxics from cooking, and also to early introduction of drug use.

Hanson also clued them in on "Rave drugs" and "Rave dances," where youth are locked in a building all night and drugs that are derivative of meth are passed around.

"The training was very well presented and informative," McGeshick says. "We all came out with a better understanding of meth, the process of making meth, and what to be aware of pertaining to meth labs."

GLIFWC Warden Robin Arunagiri headed up a Hunter Safety Class this summer as lead instructor. Holding the class in Garrison, Minnesota, close to the Mille Lacs Reservation, Arunagiri was assisted by GLIFWC Warden Jim Mattson, Morgan Haglin and Chuck Walthers. With high scores in both the written and practical exams, 17 youth and three adults succeeded in passing the course. The class was held at the Garrison Fire Department building and the hands-on gun practicum at the Wealthwood Rod and Gun Club. (Photo submitted)

Ma'iingan and the Ojibwe

By Peter David, GLIFWC Wildlife Biologist

The following article is a chapter excerpted from the book, ***Recovery of Gray Wolves in the Great Lakes Region of the United States*** *reprinted with the permission of the publisher, Springer Science and Business Media. Full credits appear at the end of the article.*

Preface

This chapter will attempt to explore the significance of wolf recovery in the western Great Lakes region to one group of people—those known to others as the Ojibwe or Chippewa, and to themselves as the Anishinabe. It is not written by an Ojibwe, but by an individual who has had the pleasure and privilege of working with and for the Ojibwe for over two decades. It does not purport to extend the concepts discussed to other Native American nations—even those others residing in the western Great Lakes region—though in some cases there will be similarities.

It also does not intend to suggest that it fully captures the complexities of the relationship that exists between the Ojibwe and the wolf—or even that a singular relationship exists. The connection that individual Ojibweg share with ma'iingan tends to be deep, significant, and personal; any suggestion in the essay below that implies otherwise reflects only the shortcomings of the author.

Ma'iingan (wolf). (© 2010 Clipart.com, a division of Getty Images.)

Introduction

The resurgence of the wolf in the western Great Lakes region holds great significance to many people, but the cultural meaning it holds for the Ojibwe is especially profound, for ma'iingan, or the wolf, is the one species in all of nature with whom the Ojibwe—as a people—feel the greatest common union.

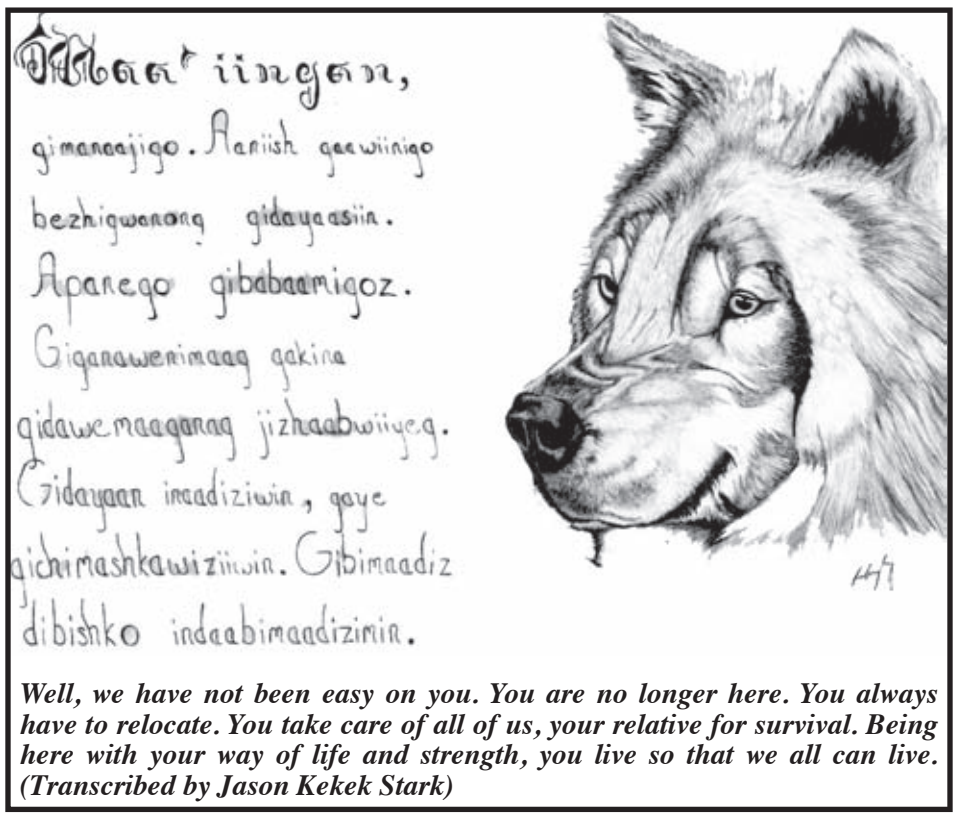
The relationship with ma'iingan goes back nearly to the origin of the people themselves. Wolf enters the Ojibwe Creation Story early and dramatically. In that story, as related by Lac Courte Oreilles (LCO) spiritual leader Eddie Benton-Banai in *The Mishomis Book* (1988), Original Man is the last creature the Creator sends to earth. He is given the task of walking the world to give names to all its plants and animals. As he completed this task he observed that each animal held its own kind of wisdom. He also noticed that all the other animals came in pairs, while he was alone.

That was an observation worth mentioning to the Creator.

The Creator responded by providing not a lover, but a brother; not a woman, but a wolf: Ma'iingan. The Creator indicated that Original Man and Ma'iingan were to travel the world together, and visit all of its places. As the two undertook this great journey, they became very close. They grew to realize their unique brotherhood with each other, and with all of creation.

When their travels were over, however, the Great Spirit told them that they now had to go their separate paths. Despite this physical separation, He indicated that Man and Ma'iingan would forever be linked, telling them "What shall happen to one of you shall also happen to the other. Each of you will be feared, respected, and misunderstood by the people who will later join you on this earth."

This linkage of wolf and man is a central tenet of the traditional Ojibwe belief system. And for others who hope to understand the significance of the recovery of wolves in the western Great Lakes region to the Ojibwe, no other characteristic is as important—or perhaps even necessary—than being able to fully envision the natural consequences of holding this world view. Those who can conceptually embody this perspective will find it easy to understand why the Ojibwe's vision of wolf management often differs so significantly from those in the non-Indian community.



Well, we have not been easy on you. You are no longer here. You always have to relocate. You take care of all of us, your relative for survival. Being here with your way of life and strength, you live so that we all can live. (Transcribed by Jason Kekek Stark)

The Union

Although Ma'iingan's role in the Creation Story foretold the similar pathways that the Ojibwe and the wolf were to follow on the grand scale, it does not portray the remarkable similarity of existence that also occurred on a daily basis.

The relatively harsh environment of the western Great Lakes could alternatively provide great abundance or meager provision. Ojibwe survival depended on understanding the biotic community that enveloped them, and that understanding was often gained through the thoughtful observation of their spiritual brother—the animals and plants—in that community. Of all the species in nature that the keen collective eye of the Ojibwe fell upon, none resonated so closely with life as ma'iingan.

The list of similarities is long and has frequently been noted (Lopez 1978). Some of the most notable: both are significant predators who shared common prey and in some instances, hunting techniques; both shared similar social organization, living in extended family groups in which all adults act as parents toward the young; larger Ojibwe tribes lived within a territorial distribution on the landscape in juxtaposition with other tribes, and similar to wolves, these territories often had buffer areas between them.

These similarities in nature led to a very different perspective toward wolves than was commonly found in livestock-raising societies, where wolves—not surprisingly—were vilified as a threat to livelihood. The Ojibwe, in contrast, recognized that wolves embodied many of the qualities that they themselves needed to survive on a demanding landscape. While a person of European decent is likely to be insulted by being called a wolf, an Ojibwe may take this as extreme compliment, for who has greater knowledge of the natural world, who hunts with greater stamina and skill, who works in greater cooperation, and who goes to greater extreme to provide for their young than ma'iingan? The Ojibwe who was truly wolf-like was one who was likely to survive and flourish.

It is striking that the Ojibwe did not appear to view ma'iingan as a competitor, although both depended on some of the same resources for survival. The sighting of wolf tracks that causes many contemporary deer hunters to conclude that prey will be reduced or absent from an area triggered just the opposite reaction from the Ojibwe hunter (who was hunting a landscape where wolves had not yet been targeted by eradication efforts). Wolf sign was good sign, for an area that could support wolves could likely support them as well. Where wolf sign was lacking, the Ojibwe were likely to face difficulty meeting their own needs.

This relationship between the abundance of wolves and game also was recognized by early European explorers to the region. On August 9, 1831, Henry Schoolcraft (1975) was canoeing about 18 miles south of what is currently Rice Lake, Wisconsin. He noted in his journal that "During the night wolves set up their howls near our camp, a sure sign that we were in deer country."

This lack of animosity toward wolves does not mean that negative interactions never took place between ma'iingan and the Ojibwe. Although written records are not common, wolves were occasionally harvested by tribal members. Danziger (1979:13) includes a reference to wolves impaling themselves "while snatching hungrily at baited hooks suspended about five feet off the ground" (though some Ojibwe contend harvesting may have been spurred by European contact). Wolves also negatively impacted the Ojibwe at times—becoming bold around camps or taking animals captured in Ojibwe traps (Tanner 1994). Based on their absence from available records, however, more significant negative impacts—such as attacks directly on Ojibwe people—appear to have been rare or nonexistent.

There may be an explanation of the perhaps surprising lack of wolf attacks on humans in the western hemisphere in a story retained in the Ojibwe oral tradition, and preserved in ink by Basil Johnson (1990). In this story, the first humans made the animal beings to do all their work for them, and the animals—who at this time

(See Ma'iingan and wolf, page 12)

Ma'iingan and the Ojibwe

(Continued from page 11)
could converse freely among themselves and with humans—eventually convened as a group to address this unfair situation. The options contemplated by the angry group went so far as to include killing the humans. A dog that slunk off to tell the humans of this discussion was followed, captured, and returned to the group by a wolf. The group was outraged by the dog's act of treason, but spared its life. Makwa (the bear), speaking on behalf of the group, told the dog "For your betrayal, you shall no longer be regarded as a brother among us. Instead of man, we shall attack you. Worse than this, from now on you shall eat only what man has left, sleep in the cold and rain, and receive his kicks as a reward for your fidelity."

Perhaps this event displaced any aggression between ma'iingan and the Ojibwe, and helped maintain a positive relationship between the two. This story may have also been used to teach Ojibwe children that the relationship with ma'iingan—and other animals—is better founded in brotherhood than dominion.

The Contemporary Relationship

Although rooted in ancient understandings, the relationship the Ojibwe have with ma'iingan is not constrained to an ancient expression. The application of the old teachings on a contemporary landscape plays out with some unusual clarity in the recovery of wolves in the western Great Lakes region. Wisconsin can be looked at as a particular example.

In a coincidence—or not—of time and geography, the recovery of wolves in Wisconsin occurred in a neat time-step with the affirmation of Ojibwe off-reservation treaty rights in the state.

On March 8, 1974, Wisconsin was believed to be wolf-less. This fact likely was not in the forefront of the minds of Fred and Mike Tribble, two members of the LCO Band set out that morning to spear fish on Chief Lake. Chief Lake borders the LCO reservation; part of the lake is within the boundary, part is outside. This human construct meant little to the fish swimming below the ice on Chief Lake, but it meant a great deal to the state wardens who arrested the Tribbles for being on the wrong side of the line. Still, the arrest came as no surprise to the Tribbles, because they had notified the Department of Natural Resources (DNR) of their intent before going out that morning.

The two brothers were initially found guilty. However, a year later, the LCO Band of Lake Superior Chippewa filed suit in federal court on behalf of all its members, arguing that the tribe had never relinquished the right to hunt, fish, and gather from the lands they had ceded to the United States government (LCO Band of Chippewa Indians v. Voigt). The treaties of 1837 and 1842, for example, which ceded lands that eventually became parts of Wisconsin, Minnesota, and Michigan (Fig. 17.1), both contain articles that provide for the reservation of these rights, which the tribes held at the time the treaties were signed. The state, they argued, did not have the right to enforce its law upon the Tribbles.

Interestingly, in the year that passed between the initial arrest and the appeal, another seemingly small event occurred that involved the crossing of a political boundary: several wolves ventured into northwestern Wisconsin from the growing population in neighboring Minnesota. It was the first documented presence of wolves in the state in over a decade and a half (Wisconsin Department of Natural Resources 1999).

Both the court case and the wolves would advance slowly. Four years passed before Judge James Doyle ruled against the Band and its treaty rights claim. Over this time, Wisconsin's wolf population increased to only about 25 animals, most of whom remained bunched near the original pack territory in Douglas County. The LCO Band appealed the Doyle decision to the U.S. Court of Appeals, Seventh Circuit, instigating an additional decade of litigation—a decade during which Wisconsin's wolf population, too, would struggle.

In late January of 1983, the federal Appeals Court ruled in favor of the Band, in what became known as the Voigt decision. By the time this decision was handed down, the state's wolf population had actually declined to about 19 animals.

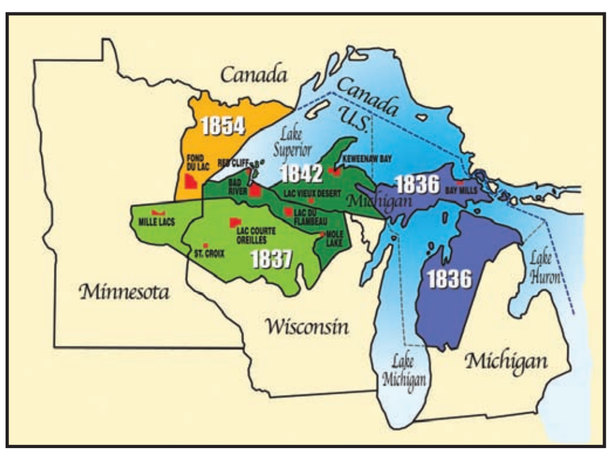


Fig. 17.1 Lands ceded by the Ojibwe in the treaties of 1836, 1837, 1842, and 1854. Ceded territory boundaries are representations and may not be the legally binding boundaries.

Photo by MacNeil Lyons, National Park Service.

Later that year, the U.S. Supreme court refused to hear an appeal of the Voigt decision, affirming the Appeals Court ruling. Litigation continued through a series of trials to define the extent of the Ojibwe treaty rights, to determine the permissible scope of state regulation, and to establish the extent of the tribes' regulatory authority. During this period, the LCO Band, and the other Ojibwe bands that had been signatories to the treaties and had joined the litigation, began exercising their treaty rights for the first time in recent history, on off-reservation lands and waters in the ceded territories. These exercises were conducted under annual interim agreements hammered out in negotiation with the state. These would prove to be difficult times for both the wolf and the Ojibwe.

Many non-Indians in the state regarded the reaffirmation of the treaty rights the same way they regarded the recovery of the wolf: not as the restoration of a lost part of the region's heritage, but as the resurrection of a dangerous threat to the state's natural resources. The quiet woods of northern Wisconsin began to make national news as tribal members once again began exercising old practices, including the taking of fish by spear at night. (The Lac du Flambeau or "Lake of the Torches" Band, takes its name from this practice.) Although the tribal harvest was tightly regulated and coordinated with state harvest levels to ensure resource protection, tribal fish-spearers were frequently met with crowds of angry protesters, and bumper stickers appeared stating "Save a Deer, Shoot an Indian" (Satz 1991). Fish-spearers were pelted with rocks, gunshots were fired over their heads, and an individual with a pipe bomb was arrested near a boat landing. Meanwhile, Wisconsin's wolves were getting similar treatment, except the bullets were aimed to kill. With annual mortality rates in excess of 35%, the wolf population struggled to maintain itself. The leading cause of death among wolves: gunshot wounds (Wisconsin Department of Natural Resources 1999).

In 1989, opposition to the exercise of treaty rights was peaking, and wolf populations continued to flounder. In spring of that year, Governor Tommy Thompson went to federal court to seek an emergency halt to the exercise of treaty rights indicating that he would rather shut down spearing than bring in the National guard to act as peacekeepers. Judge Barbara Crabb denied his request, stating "If this court holds that violent and lawless protests can determine the rights of the citizens of this state, what message will this send? Will that not encourage others to seek to resolve disputes by physical intimidation?" (Whaley with Bresette 1994).

In October of that year, with tension over the exercise of treaty rights running high throughout the state, members of the Lac du Flambeau Band shocked many state officials and residents by rejecting, in a 439 to 366 vote, a multimillion dollar offer from the state to greatly curtail the exercise of the rights (Satz 1991). This vote silenced many critics who believed that the tribes were exercising the treaty rights primarily to drive up the amount of what they expected would be an eventual monetary settlement from the state.

By May of 1991, the trials to determine the scope of the treaty rights had finally run their gamut, and the Voigt litigation concluded rather quietly when neither party choose to appeal Judge Crabb's summary judgment. Protests at the boat landings began to wane. Coincidentally, for the first lime in recent history, the Wisconsin wolf population reached two score animals. For both the tribes and the ma'iingan, the future was more encouraging than at any time in decades, but the fight for either also was hardly over.

Although the issue of Ojibwe treaty rights had run its course in the courts of Wisconsin, similar litigation had begun unfolding in Minnesota in 1990. This included litigation addressing the same 1837 treaty that the Wisconsin case had discussed, as this treaty ceded lands that also became part of present-day Minnesota (Fig. 17.1). The six Ojibwe bands in Wisconsin that were cosignatories to the 1837 Treaty intervened in the case in March of 1995. Around this time Wisconsin's wolf population began to rise in earnest. The courts in Minnesota were busy in 1997, with a ruling in late January in favor of the tribes, a ruling in April by the Appellate Court to agree to hear an appeal, and a decision by the Appellate Court in August upholding the original ruling by the District Court. Meanwhile, at a wolf den somewhere in Wisconsin—quite possibly within the 1837 treaty area—a pup was born that pushed Wisconsin's wolf population into triple digits.

In 1998, Minnesota made a final appeal to the U.S. Supreme Court, which the court agreed to hear. However, on March 24, 1999, all doubt about the existence of the treaty rights for Wisconsin's Ojibwe bands was laid to rest when the Supreme Court ruled in favor of the tribes. Wisconsin's wolf population was now growing at a healthy rate. By year's end it was estimated at nearly 200 animals, and the Wisconsin DNR downgraded the status of wolves under state law from endangered to threatened.

By 8 years later (2007), Wisconsin's wolf population likely exceeded 540 animals (Wydeven et al. this volume), a figure that suggests ma'iingan may be nearing its biological carrying capacity in the state. And 33 years and 4 days after the arrest of Fred and Mike Tribble, the U.S. Fish and Wildlife Service officially delisted wolves in its Western Great Lakes Distinct Population Segment. Most of the wolves living in the delisted region reside in areas originally ceded by the Ojibwe to the U.S. government.

While many people are aware that the affirmation of the treaty rights restored the opportunity for the tribes to hunt, fish, and gather in the ceded territories under their own regulation, many are unaware that these court cases also restored the tribes' opportunity to help manage those off-reservation resources. These resources include species, such as wolves, which were listed as endangered under federal, state, and tribal regulations at the time of litigation. As a result, over the last 20 years, tribal involvement in off-reservation management of ma'iingan greatly exceeded what would likely have occurred in the absence of affirmation of the treaty rights. This involvement in management of ma'iingan was deeply important to the tribes, in part because Wisconsin's Ojibwe reservations are too small to hold more than a few wolves. One form of that involvement consisted of participation in the development of the state wolf management plans for Minnesota, Wisconsin, and Michigan.

The increased involvement by the Ojibwe in off-reservation management of wolves has frequently juxtaposed conflicting cultural perspectives, and created challenges for managers attempting to bridge these differences. It is notable that while many see the exercise of treaty rights as primarily harvest-driven, there may be no area with a greater divergence in management perspectives between the states and the tribes that in the arena of this (at least to date) unharvested species. At the same time, within the realm of off-reservation management, ma'iingan has proved to be one of the most challenging species for the tribes themselves to address.

Contemporary Management Issues

Following the affirmation of the off-reservation treaty rights, the tribes created the Great Lakes Indian Fish and Wildlife Commission (GLIFWC) to assist them in the exercise of those rights. Within GLIFWC, a board known as the Voigt Intertribal Task Force makes decisions regarding inland fish and wildlife issues in the 1837 and 1842 ceded territories. The task force, which takes its name from the Voigt decision, consists of representatives from 9 of GLIFWC's 11 member tribes. This is the body that ultimately has to formulate and enunciate the positions of various Ojibwe bands on contemporary ma'iingan management.

For a variety of reasons, this task has not been easy. Foremost among these is the cultural significance of ma'iingan. The creation story gives ma'iingan a stature that is unique even among other clan animals. In fact, the spiritual significance of the wolf is so profound that many tribal members feel a certain degree of discomfort discussing it, considering ma'iingan a topic best addressed only by those most intimate with tribal philosophy. Even members of the task force, who routinely address management issues on a wide array of fish and wildlife species, sometimes indicated that certain matters concerning wolves were best resolved not by themselves but by select tribal spiritual leaders.

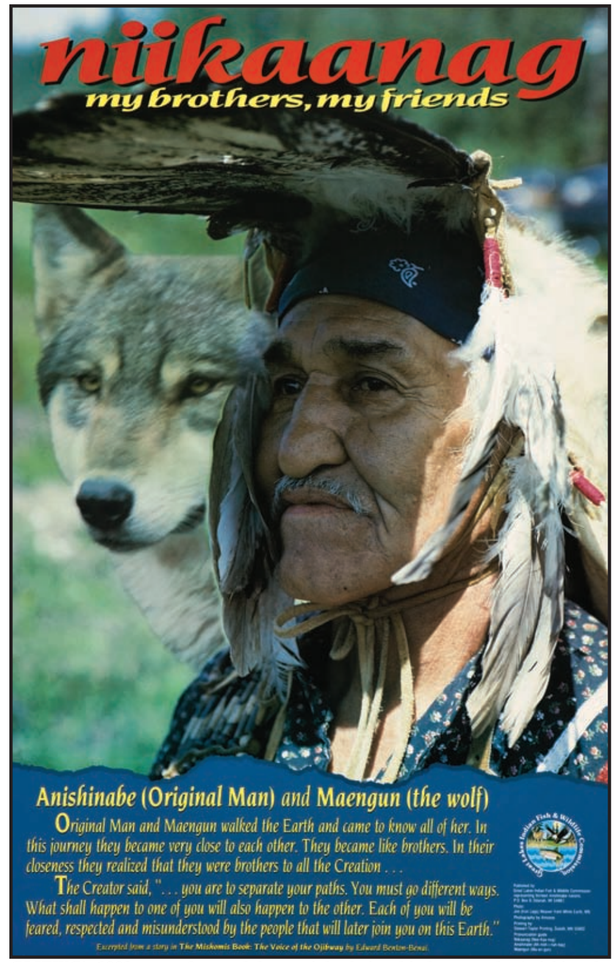
The bands' efforts to formulate positions on wolf management also were complicated—as they were for state and federal managers—by the changing biological status of wolves. Although wolves were never abundant in comparison to most other species the task force addressed, wolf populations were changing annually. This was especially true in the period following litigation, when the bands, coincidentally, were able to shift their energies from reestablishing the treaty right, to exercising it—all while expanding their role in the management of off-reservation resources. Although wolf populations were trending in a direction much desired by the tribes, the growth also meant that management issues were in a relatively constant state of flux.

Finally, the Ojibwe's world view toward ma'iingan is so markedly different from that held by most state, federal, and private interests that it was sometimes difficult to find even a common language with which to discuss management issues. This point can be exemplified by examining a few of the issues central to most non-Indian discussions of wolf management: federal legal status, population goals, and management in response to depredation.

Federal Legal Status

Despite the significant gains that wolves made in the western Great Lakes region, GLIFWC's member bands opposed the federal delisting of wolves in the Western Great Lakes Distinct Population Segment. This position may have been based less on a sense that regional wolves remained threatened with extinction than on a belief that the cultural significance of wolves was so great that it was difficult for the bands to consider the species "recovered" just because this minimal threshold had been reached. Indeed, even after full recovery occurs, the types of protection afforded by the Endangered Species Act (ESA) are likely to be seen from the Ojibwe perspective as remaining appropriate for an animal with the cultural significance of ma'iingan. In short, the ESA is a non-Indian construct, and the Act's definition of "recovered" simply does not reflect the Ojibwe's meaning as applied to ma'iingan.

The position of the Ojibwe regarding wolves is similar to the one held by many non-Indian Americans in regard to eagles. Eagles, particularly bald eagles, maintain a unique status as a symbol of the country. This status is recognized legally in the Bald Eagle and Golden Eagle Protection Act, which provides special protection for these birds not because they are unique biologically, but culturally. Ma'iingan holds an even higher place of cultural significance to the Ojibwe, and if similar, post-delisting protection had existed for wolves, there may have been greater acceptance of the loss of protections that the ESA provided. This is particularly true because the tribes held real concerns over certain aspects of the state management plans that would be setting much of the region's direction in wolf management following delisting. One significant example is Wisconsin's wolf population goal.



GLIFWC's 1992 poster featured the special relationship between the Anishinaabe and ma'iingan as described in* The Mishomis Book *by Edward Benton-Benai. Pictured with ma'iingan is the late Jim (Iron Legs) Weaver, White Earth tribal member, photographed by Amoose. This poster is out-of-print.

Population Goals

Population goals are a frequent cornerstone of state management plans, yet there is probably no topic for which the language of discussion between the state and the tribes has less common ground. The differences are clear to those who can truly understand the Ojibwe ontology of *What happens to the wolf, happens to you*. How different might state management plans be if they had been written in the belief that they would be shaping not only the future of wolves but the human community as well?

One does not need to look far. The first sentence of the Minnesota Wolf Management Plan (Minnesota Department of Natural Resources 2001) reads: "The goal of this plan is to ensure the long-term survival of wolves in Minnesota while addressing the wolf-human conflicts that inevitably result when wolves and people live in the same vicinity." Clearly, this is not drafted from the perspective of the Ojibwe, who do not consider simple survival an adequate goal for ma'iingan (or themselves), and who view occasional "conflict" with wolves as being as natural—and about as significant—as occasional disagreements with your brother.

Those who can embrace this perspective will also understand why discussions of basic wildlife management parameters such as "minimum viable populations" and "population caps" sound offensive to one holding the Ojibwe world view, when applied to ma'iingan. Like the wolf, many Ojibwe populations have struggled to maintain themselves. They do not use these terms when discussing the future of their **(See Ma'iingan, page 14)**

Ma'iingan and the Ojibwe

(Continued from page 13)
own communities, and feel they are inappropriate in the discussion of ma'iingan's future as well.

Wisconsin's management plan lists a population goal of 350 animals, and indicates that public harvest could be considered when that threshold is surpassed. This goal differs significantly in number and in nature from the goals in Minnesota—with a minimum population goal of 1,600 and no consideration of a general public take for the first 5 years following federal delisting—or proposed in Michigan's draft management plan, which does not set a numeric goal or make any recommendation regarding general public take (Michigan Department of Natural Resources 2007).

The current goal for Wisconsin also differs significantly from versions proposed in earlier drafts of the plan. An initial proposal of 300-500 animals evolved into a goal of a minimum of 350 wolves (without a stated maximum), before finally being established at simply 350 animals. According to the plan, the goal of 350 animals was settled on "as a reasonable first attempt at assessment of social tolerance" (Wisconsin Department of Natural Resources 1999:16).

Clearly, the community whose social tolerance was being assessed was not Ojibwe. Although the earlier proposed goals may have had greater acceptance by the tribes than the one ultimately adopted, the preferred tribal alternative was often stated simply as allowing wolves to reach their "natural population level." This approach is akin to setting the goal on the basis of the biological carrying capacity for ma'iingan, as opposed to some variable (and estimated) human social carrying capacity.

The expression "natural level" is a remarkably succinct description of the general Ojibwe perspective toward ma'iingan management, and the desire to reach this goal overshadowed other considerations by the bands. Topics such as public take have yet to be appreciably explored by the Voigt Task Force, in large part because of the strong feeling that it was grossly premature—perhaps even morally wrong—to discuss these topics before the population had fully recovered by reaching its natural level.

Lethal Depredation Control

The issue of lethal control of wolves that depredated livestock was an uncomfortable one for the tribes to address. Although lethal control tends to have rather broad acceptance among the non-Indian society and is a fairly standard component of non-Indian management regimes, it has far less support among the Ojibwe community.

It is an interesting coincidence that the three western Great Lakes states that support viable wolf populations have all prohibited capital punishment for a century or more. It appears that many in the non-Indian community are uncomfortable killing their brothers, even when the crimes they committed have been deadly themselves. It should not be surprising that many traditional tribal members feel the same unwillingness to apply the death penalty to brother wolf—especially when the actions for which the wolves are being persecuted are "wrong" only from a particular human perspective.

(Photo by Amoose)

It is also important to note that one of most common justifications for lethal control programs—that they can increase public support for higher wolf populations—is essentially moot when applied to the Ojibwe public, who do not feel that social carrying capacity should determine population levels of ma'iingan in the first place.

Indeed, one tribal member told me, "Depredation is basically a non-Indian issue, and it should be addressed by non-Indians."

GLIFWC's member bands, in exercising their off-reservation authority, ultimately decided not to oppose the judicious application of lethal control. However, the decision was not made without great discussion, and the task force was not unanimous in its decision. The bands also strongly desired that high levels of verification of wolf depredation be required, that control efforts be targeted as much as possible toward individual animals that have been verified as depredators of livestock, and that nonlethal methods of control remain the preferred alternative whenever possible.

The bands also feel strongly that depredation control remains just that: a response to individual wolves in individual situations, to provide relief to people experiencing losses to their livelihood. It must never creep toward a de facto form of population control.

Conclusion

The rebound of ma'iingan populations in the western Great Lakes region holds great meaning to the Ojibwe, who understand that their future is intertwined with that of the wolf. While this rebound brings hope to many in the Ojibwe community, the great intimacy of this relationship with ma'iingan also means that wolf "recovery" will only be realized from an Ojibwe perspective when the ma'iingan population reaches its natural level on the landscape, and becomes a fully integrated and accepted component of the community.

Acknowledgments

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Wisconsin ma'iingan numbers continue to climb

By Peter David, GLIFWC Wildlife Biologist

Odanah, Wis.—According to figures released by the Wisconsin Department of Natural Resources, the number of wolves in the state that made it through the winter of 2009-2010 is estimated to be 690 to 733, a figure which is about 10% higher than last year's estimate.

The annual winter wolf count relies on aerial tracking of radio-collared wolves, trail cameras, and snow track surveys by DNR and volunteer trackers. Also included are wolf sightings by members of the public. The agency has conducted these counts since the winter of 1979-1980 when there were 25 wolves in the state.

A total of 180 wolf packs were detected in Wisconsin during the winter count consisting of at least two adult wolves each. Biologists found 150 packs distributed across northern Wisconsin—most within the Ojibwe ceded territory—and 30 packs in central Wisconsin. The largest pack in the state included 11 wolves, and at least 52 packs had five or more wolves in them.

This continued upswing in the state's wolf population is viewed positively by many Ojibwe, who traditionally view their fate as intertwined with ma'iingan's.

It is unknown if the wolf population will continue to grow, or even if the current population is sustainable. The rate of growth appears to be slowing, and many biologists believe most wolf habitat in the state is now occupied. Populations of wildlife species that have been introduced, re-introduced, or which, like wolves, recolonized historic habitat on their own, often initially overshoot the biological carrying capacity of the landscape before their numbers settle at more sustainable levels.

Although the US Fish and Wildlife Service feels that wolf populations in the Western Great Lakes Region have recovered and no longer need the protection of the Endangered Species Act, ma'iingan continues to be federally listed (as endangered in Wisconsin and Michigan, and threatened in Minnesota) as a result of court challenges to previous delisting attempts. If wolves were delisted, management authority would pass from the Service to the states and tribes.

Culture & attitudes toward ma'iingan

Recent study highlights the influence of upbringing

By Peter David
GLIFWC Wildlife Biologist

Odanah, Wis.—A soon-to-be published masters thesis highlights the profound impacts that cultural upbringing has on the attitudes people hold regarding wolves. Victoria Shelley from the University of Wisconsin-Madison is currently putting the final touches on her thesis which compares the attitudes of members of the Bad River Tribe of Ojibwe to those held by non-tribal residents of Wisconsin's wolf range.

The cultural significance of ma'iingan to the Ojibwe—going all the way back to the Anishinabe Origin Story—suggested that attitudinal differences were likely to exist, but the strength of those differences had previously been little explored. In addition, tribal perspectives towards wolves and wolf management have frequently been under represented in the current dialog surrounding the management of wolves on the Wisconsin landscape they have recolonized.

Working closely with Dr. Adrian Treves and Dr. Lisa Naughton, Shelley compared the results of a mail survey sent to the two groups. With returns from 376 Bad River tribal members and 403 non-tribal members, she had plenty of data to analyze. And the attitudinal differences she found were marked.

Overall, Shelley's thesis found that Bad River members "showed a higher tolerance for wolves, held more positive values towards wolves, and were more supportive of protective wolf policy." For example, when asked their opinion regarding the statement "I think wolves are essential to maintaining the balance of nature," 76% of the Bad River tribal members agreed, compared to 39% of the non-tribal members. Regarding the statement "I think Wisconsin's growing wolf population threatens deer hunting opportunities," 26% of the tribal members agreed, compared to 57% of the non-tribal—even though deer hunting for tribal members tends to be more subsistence based.

Parallel results surfaced on wolf policy questions. When asked if they believed there should be a public hunting or trapping season on wolves, 63% of the Bad River tribal members selected either the "never," or "only when depredations become unmanageable" options, compared to 27% of the non-tribal respondents. When asked about what level the wolf population should be kept below, 52% of the tribal respondents indicated there should be no cap on the population, versus 15% of the non-tribal respondents.

Generally, the cultural affiliation of the respondents had a greater impact on attitudes than other demographic factors, such as gender, education, or whether individuals were hunters or not. Shelley found that attitudes towards wolves "seem to be rooted in cultural differences that precede other individual characteristics that arise later in life."

Shelley's thesis notes that these cultural differences are so marked that some of the language commonly used by the non-tribal community while discussing wolves may seem inappropriate to tribal members. The term "tolerance," for example, does not really reflect the relationship many tribal members have with wolves, while the word "management" has dominion connotations that contrast with a stewardship perspective more commonly held by Bad River tribal members. Even more jarring is language about population caps, because traditional Ojibwe—who see their fate as intertwined with that of ma'iingan's—may view that term as suggesting their own population should be capped.

With many individuals and units of government across the county trying to determine their own relationship with wolves, Shelley's thesis shows the tremendous influence cultural influence has on attitudes, and serves as reminder that different types of relationships are possible. This broadening of the discussion can only serve ma'iingan well.

More survey results are available online at *www.nelson.wisc.edu/people/treves/WolfSurvey.html*.

Jeff Savage peals back a small piece of birch bark destined to become a basket, or wiigwaasi-makak. Director of the Fond du Lac Cultural Center and Museum, Savage specializes in "endangered Ojibwe arts" and is working with Red Cliff's Marvin DeFoe and others on a second summer of birch bark canoe building with Anishaabemowin students. Of the eight language students working on the 2010 project, Savage said: "hopefully a few of these guys will be inspired to carry this on." (Photo by Charlie Otto Rasmussen)

Apostle Islands Canada yew

(Continued from page 6)

This past year about 100 deer were culled from the islands. All the venison, Van Stappen says, is donated to the Red Cliff tribe for distribution. Importantly, more data about the islands' deer population was also collected. Prior to 2009, very little was known about the islands' deer population, according to Dr. Jonathan Gilbert, GLIFWC wildlife section leader. This is why GLIFWC agreed to help the NPS collect biological information.

GLIFWC Wildlife Technician Micah Cain collected biological samples from all the culled deer, recording gender, age as determined by teeth samples, nutritional status from kidney and bone marrow samples, and diet from stomach samples. In addition samples were sent to Madison for CWD testing. This information will be collected and recorded in an annual report on status of deer on the sampled islands.

Browse survey work has also begun, which is surveying specific vegetative plots, keeping track of how the vegetation changes over time, essentially recording the impact of deer browse.

By stepping up the herd reduction, Van Stappen thinks they are approaching goal on York Island, but Sand Island still needs more help.

So work remains to be done in order to preserve the old growth setting of the islands which can hopefully continue to provide a glimpse into an historical habitat.

Maulson appointed to national council

GLIFWC Chief Warden Fred Maulson was among 18 people recently appointed to serve on the national Wildlife and Hunting Heritage Council. The announcement came July 23rd from Secretary of the Interior Ken Salazar and Department of Agriculture Secretary Tom Vilsack.

The Council is a group created to advise the two departments about recreational hunting and shooting sports activities and associated wildlife and habitat conservation. The appointments are for a two-year term and representatives come from around the nation representing many foundations and sports and conservation groups.

The council is an official advisory group under the Federal Advisory Committee Act that will help to promote and preserve America's hunting heritage for future generations. It will also provide a forum for sportsmen and women to advise the federal government on policies related to wildlife and habitat conservation endeavors that (a) benefit recreational hunting; (b) benefit wildlife resources; and (c) encourage partnership among the public, the sporting conservation community, the shooting and hunting sports industry, wildlife conservation organizations, the states, Native American tribes, and the federal government.

Both GLIFWC Chief of Enforcement Fred Maulson and White Earth's Alfred Fox received the 2010 Patricia M. Zakovec "Conservation Officer of the Year Award" during the Native American Fish and Wildlife Society's (NAFWS) national conference June 6-10 at Fond du Lac's Black Bear Casino Resort. Also honored with awards were Ferdinand Martineau, former Director of FdL's Natural Resource Department, who received the 2010 "Glen Miller Tribal Leadership Award," and Jay Huseby, Red Lake, who was awarded the "Biologist of the Year Award." Pictured above from the left are: Mic Isham, chairman of GLIFWC's Board of Commissioners; Tom Maulson, chairman of GLIFWC's Voigt Intertribal Task Force; Alfred Fox, Ferdinand Martineau, Fred Maulson, Jay Huseby, Bill Bailey, chief warden of the Grand Traverse Band, and Don Reiter, Menominee and NAFWS regional director. (Photo by Heather Naigus)

May 2010 fur prices from NAFA auction of wild furs

Species	Average	Top	Forecast
Eastern Beaver Western Beaver	$15.33 $12.45	$130.00 $42.00	Problems due to dressing alternatives. Price of castor good.
Otter, Sect. I Otter, Sect. III	$45.05 $19.51	$84.00	Slowly coming back from price drop.
Muskrat, Eastern I Muskrat, Sect. II	$2.66	$17.00	Strong demand in China will make healthy market.
Bobcat, North Central Bobcat, Northern	$71.77 $51.36	$175.00 $132.00	Strong prices held on in western sections, better color cats.
Wild Mink, No. Central I	$13.52	$24.00	Sales expected to open at last season levels.
Marten, Heavy I Marten, Semi-heavy I Marten, Sect. III	$49.42 $45.13 $21.77	$150.00 $84.00	Strong interest from Russia & China; large size and dark color in demand.
Fisher, Sect. I	$56.42	$90.00	Prices dropping some from hike a few years ago.
Raccoon, West-North Central	$13.95	$32.00	Backlog of furs needs to clear before favorable conditions return.
Lynx, Sect. I Lynx, Sect.III	$88.54 $25.01	$240.00	Demand and clearances strong
Coyote, West, Heavy Coyote, Semi-Heavy	$32.43 $16.36	$115.00 $28.00	Be selective. Demand best for pale western heavies.
Red Fox	$17.18	$72.00	Best demand for eastern, heavy, semi-heavy.
Bear	$87.45	$270.00	

For more complete forecasts and pricing on other species: http://www.furharvesters.com/furforecast.htm

Treaty deer, bear & furbearer harvest 2009/2010

Deer

Registration Station	Antlered	Antlerless	Totals
Bad River	74	70	144
Fond du Lac*	25	22	47
Lac du Flambeau	80	148	228
Lac Courte Oreilles	133	177	310
Lac Vieux Desert	7	6	13
Mille Lacs	66	81	147
Mole Lake	45	105	150
Red Cliff	66	116	182
St. Croix	119	221	340
Totals	**615**	**946**	**1,561**

*Deer registered by Bad River and Red Cliff members.

Bear

Registration Station	Males	Females	Totals
Bad River	9	0	9
Fond du Lac	4	0	4
Lac du Flambeau	5	3	8
Lac Courte Oreilles	0	0	0
Lac Vieux Desert	0	0	0
Mole Lake	1	2	3
Red Cliff	5	7	12
St. Croix	1	2	3
Totals	**25**	**14**	**39**

No Bears harvested in Minnesota.

Bobcat/Otter

Registration Station	Bobcat Male	Bobcat Female	Otter Male	Otter Female
Bad River	1	5	0	0
Fond du Lac*	1	0	0	0
Lac du Flambeau	1	4	1	0
Lac Courte Oreilles	2	4	4	1
Mole Lake	0	1	0	0
Red Cliff	0	2	1	0
St. Croix	2	1	7	9
Totals	**7**	**17**	**13**	**10**

*No otter or bobcat harvested in Minnesota or Michigan.

Fisher

Registration Station	Fisher Male	Fisher Female	Totals
Bad River	0	0	0
Fond du Lac	0	0	0
Lac du Flambeau	0	0	0
Lac Courte Oreilles	66	28	94
Mole Lake	0	0	0
Red Cliff	0	1	1
St. Croix	32	29	61
Totals	**98**	**58**	**156**

No fisher harvested in Minnesota or Michigan.

Survey and assessment teams gain helping hands

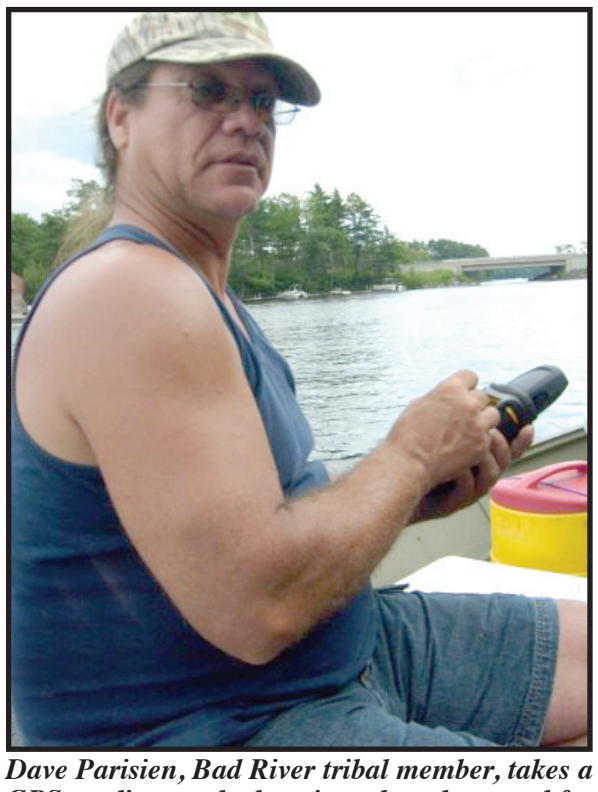
The Eradicators! Fighting terrestrial invasive plants, the crew led by Wildlife Technician Ron Parisien put some big dents in the purple loosestrife and leafy spurge populations this summer. Parisien notes that the target spots for these invasive plants in Bayfield and Ashland Counties have shown a dramatic decline; however, their efforts to control loosestrife in Fish Creek Sloughs which extends over years remains a challenge. GLIFWC has used both biological and chemical controls for loosestrife. The seasoned crew pictured above includes: Jake Parisien, Jose Estrada, Ron Parisien and Ron Parisien Jr. (Photo by Sue Erickson)

Summer wild rice intern Cara Robinson, Northland College biology major, and limited term employee (LTE) David Nevala, Bad River tribal member, map manoomin (wild rice) beds in Wisconsin, a project completed before heading out on ceded territory lakes for annual wild rice surveys. Nevala, who intends to pursue a career in enforcement, returned for his second year of survey work. The team's goal is to complete surveys of 40 plus lakes this season. (SE)

Great Lakes Section interns, Acorn Armagost, LCO Ojibwa Community College student, Scott Braden and Amber Mealman, Northland College students, settle in for their ride out to Black Point in Keweenaw Bay, Michigan to set assessment nets. This summer they assisted with juvenile sturgeon and juvenile whitefish assessments, lamprey control and a modified gill net study. While not on the water, they also entered data, assisted with aging otoliths, harvest monitoring, and repairing gill nets. (Photo by Bill Mattes)

Heading up the search for aquatic invasive species is GLIFWC's Lacey Hill, aquatic invasive species project coordinator. Hill joined GLIFWC staff in June for a six-month program. During the summer, invasive species crews will complete surveys on 50 lakes—30 are Wisconsin ANS lakes and 20 in the St. Croix watershed. Not pictured, Jason Meacham also joined the survey crew for a stint on the lakes this summer. (Photo by Dave Parisien)

A veteran of aquatic invasive species surveys Sam Quagon, Lac Courte Oreilles tribal member, returned for another summer on ceded territory lakes. Quagon has been surveying since aquatic nuisance species (ANAS) surveys began in 2004. Above, he searches for zebra mussel veligers by dragging a veliger net. (Photo by Dave Parisien)



Dave Parisien, Bad River tribal member, takes a GPS reading on the location where he netted for zebra mussel veligers, which are free swimming immature mollusks. Working with the aquatic invasive species surveys for the summer, Parisien has previously been employed as a limited term employee for GLIFWC in a variety of capacities. (Photo by Lacey Hill)

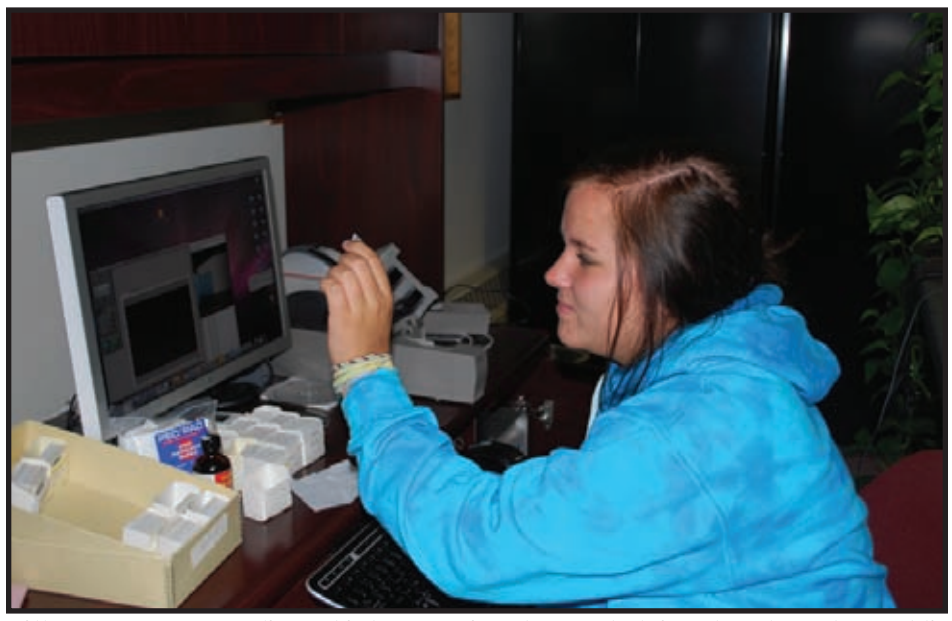
William (Tony) Gilane uses a collection cup from one of the plankton nets to gather zebra mussel veliger samples for analysis. The small pressure sprayer aids in condensing the plankton samples. Gilane came aboard the aquatic invasive species program this summer as a LTE. The LTEs enabled the program to double its efforts for part of the summer by creating an additional crew. A Bad River tribal member, Gilane has worked with several GLIFWC programs previously. (Photo by Sam Quagon)

Interns work on archiving, data entry

Vanessa Ante, Red Cliff tribal member and UW–Oshkosh graduate with a biology major, spent endless summer hours scanning documents for GLIFWC's Intergovernmental Affairs Division creating a digital archive. The digital files will make information more assessable and save space. Vanessa is entering a PhD program in medical research at the University of Tennessee this fall. (SE)

Latisha McRoy, Bad River tribal member, spent the summer assisting with GLIFWC's Ojibwe language project, which is funded through the Administration for Native Americans. In her second year as a GLIFWC intern, she worked primarily on data entry and checking written transcriptions against audio tapes, making necessary corrections. McRoy graduated magna cum laude from UW-Superior with a Bachelor of Arts degree in history and First Nations studies. (Photo by Sue Erickson)

Learning the ropes at GLIFWC, Monica Isham, Lac Courte Oreilles tribal member, spent a three-month summer internship shadowing GLIFWC Executive Administrator Jim Zorn while earning six credits at UW-Green Bay where she is a senior. A pre-law student, Isham plans to enter law school, hopefully the UW-Madison School of Law, after graduating from Green Bay. Attending meetings, such as the Voigt Intertribal Task Force and Board of Commissioners meetings as well as conferences like the "Greening Our Blue Borders Conference" in Milwaukee this summer, Isham has been immersed in the multiple issues that confront tribes today, particularly as they relate to treaty rights and resource management. She reports on-the-scene experiences that have taught her much about tribal sovereignty and tribal rights. Attending a "Town Hall" meeting in Minnesota exposed her directly to the anti-treaty movement. In the course of the summer she was also introduced to the multiple players who compose the political and legal arena where these issues are addressed. (Photo by Sue Erickson)



Jill Peters, UW-Madison biology major, lent a helping hand to the Public Information Office (PIO) as an intern this summer. Jill tackled the project of digitizing PIO's slide archive. The task required hours of scanning and filing. She took a break in July when she headed to Costa Rica to help out the sea turtles and manatee as part of a class requirement. (Photo by Sue Erickson)

Tribal accountants learn new software

Training was held on July 13, 14, and 15th at the Bad River Casino/Convention Center on SAGE MIP fund accounting. These classes were offered to tribes within the Commission that use these modules in their tribal operations. The three-day training attracted 25 participants from Keweenaw Bay, Red Cliff, Bad River and the Commission. These sessions were conducted by Cindy Sharpnack, Senior Trainer from Austin, Texas. Further training on modules not covered in this session may be available in the future. (SE)

Youth encourage native plants

(Continued from page 1)

ing the invasive plant, spotted knapweed, from reservation lands, provided a welcome boost in the labor-intensive effort that requires hand pulling.

While yanking out invasives yields immediate results, the youth group's legacy to the area plant community may rest in a new geodesic greenhouse located on the KBIC fish hatchery grounds. Working with volunteers and other crews, the KBIC teens helped construct the cedar-framed dome and kicked in muscle power to landscape the exterior. Inside, planting boxes sprout native plant species like black-eyed susan and a black, south-facing water tank helps control air temperature. Warner said that in the coming years, a variety of native species will be cultivated in the greenhouse.

KBIC's new native plant greenhouse was constructed with help from volunteers and a number of groups, including teens enrolled in the KBIC youth program. (COR)

Now wrapping up a second consecutive summer working with tribal youth groups, Warner said he's already looking forward to next year. "It's really nice for everyone involved," he said.

Walkers/runners promote a legacy of peace

By Sue Erickson & giiwegiizhigookway Martin

Lac Vieux Desert Reservation, Mich.—Preparing to embark on the World Peace and Prayer Day Walk/Run at the Ketegitigaaning Ojibwe Nation (Lac Vieux Desert) asemaa (tobacco) was passed to all participants for a time of prayer. According to event coordinator giiwegiizhigookway Martin, the walk/run is an effort to "create awareness and understanding of the importance of developing a culture of peace within ourselves and our community."About 87 walkers and runners completed either a one mile or 5 kilometer circuit on June 21 and their names were added to the lst Peace Resolution for our Nation.

About 70 miles away from the Ketegitiganning Ojibwe Nation's Peace Walk/Run in Michigan, a number of GLIFWC and Bad River tribal staff completed a one-mile course in Wisconsin, participating in support of the effort towards someday achieving world peace. A total of 147 runners/walkers supported the event.

The Lac Vieux Desert Drum was on hand to sing a song before the run started. Each runner was given a tobacco tie to carry as they ran, and upon return tied it on the Sacred Cedar Tree of Life that was planted in front of the Lac Vieux Desert Tribal Offices specifically for this event.

Chairman James Williams, Jr., and Vice Chair Joette Pete-Baldwin commented that they hoped this movement and the event would continue daily in our lives and within our community and the world. They stated that this is an effort to show that the tribal government supports and advocates for PEACE.

A fox hide was donated by tribal elder Ruth Antone for Peace. The hide will be trimmed with ribbons containing the name of each and every participant and will be updated annually. The fox hide will be made into a staff and kept in the Tribal Council room as a reminder of the event and the PEACE we want for all of our people.

Miigwech for a great effort!

Passing asemaa for a time of prayer before starting a run/walk for peace at the Lac Vieux Desert reservation. (Photo by Julie Ante)

Bad River and GLIFWC staff prepare to walk and run in support of Lac Vieux Desert's effort towards peaceful communities and world peace. (Photo by Sue Erickson)

Healing Circle Run connects eight reservations

2010 Healing Circle core team completed the entire 7-day circle connecting eight Ojibwe reservations in Wisconsin, Michigan and Minnesota. Team members include Jen Schlender, LCO; Jason Schlender, LCO; Donny Gokey, LCO; Neil Kmiecik, Lakota and Run organizer; and giiwegiizhigookway Martin, LVD. (Photo submitted)

This contingency of runners and walkers joined with the Healing Circle Run's core team on Day 3 to complete the leg from the Sokaogon/Mole Lake reservation in Wisconsin to the Lac Vieux Desert reservation in Michigan. Runners and walkers included, from the left: Jason Jackson, Lac Vieux Desert (LVD); Dillon Polar, Forest County Potawatomi (FCP); Myra VanZile, Mole Lake (MLK); Oliva Wagnitz, MLK; Leelyn VanZile, MLK; Cassandra Krugersterna, MLK; Tia Gilligan, FCP; Rhonda Rachel, FCP; Dillon Wagnitz, MLK; Artie VanZile, MLK, and Matt Ritchie, FCP. (Photo by Jen Schlender)

Barreling toward the finish of the "Big Man's Marathon" which concluded the Red Cliff-to-Superior leg of the Healing Circle Run is Lac Courte Oreilles' (LCO) Donny Gokey. Close behind him on the 50 yard sprint to the finish is Jason Schlender, LCO and Stanley Kmiecik, Bad River. The Healing Circle Run is a seven-day run centered on prayers for healing. Each day begins and ends with a circle, a ceremony and a time for sharing. (Photo by Jen Schlender)

Binesiwag miinawaa Bineshiinhyag (Big birds and little birds)

ozhaawaashkobineshii (indigo bunting)

nenookaasi (ruby throated hummingbird)

majiitaagoozid (yellow warbler)

migizi (bald eagle)

bineshiinh (rose breasted grosbeak)

gookoo'oo (great horned owl)

opichi (american robin)

ajiijaak (great blue heron)

giizhikaandomineshii (cedar waxwing)

meme (pileated woodpecker)

moonigwane (common flicker)

diindiisii (blue jay)

maang (common loon)

Photo Credits: indigo bunting: http://thundafunda.com/33/animals-pictures-nature/indigo-bunting-pictures.php; ruby throated hummingbird—Encyclopaedia Britannica.com (eb.com); yellow warbler—http://elta.files.wordpress.com/2008/10/yellow-warbler.jpg; bald Eagle—© 2010 Clipart.com, a division of Getty Images; rose breasted grosbeak—eb.com; great horned owl: www.itsnature.org/air/birds-air/great-horned-owl-2/; robin—eb.com; common flicker—© 2010 Clipart.com; great blue heron—eb.com; cedar waxwing—eb.com; pileated woodpecker—© 2010 Clipart.com; blue jay—eb.com; common loon—© 2010 Clipart.com.

Dagwaaging—When it is Fall

Dagwaaging, nindikid, "Aaniin endaso diba'iganek diba'igiiziswaan? Noongom, ningikinoo'amaagoz. Nimbizindam. Ningikinoo'amaage. Gaye, ninandagikendaanan. Gabe-giizhik, daso-diba'igan ningaagiikid, "Agindaasodaa!" Nindagindamawaanaanig awesiiyag. Ninzaagi'aa makoons, Hope izhinikaazo. Nindazhimaanaanig bineshiiyag. Nimbimosemin agwajiing. Ongow abinoojiiyag gichi-odaminowag. Nindasigibii'igemin. Nindagindaasomin. Nindojibwemomin. Giiweyaan, nindanweb idash ninibaa. Gashkii-dibikad. Mii'iw.

(When it is fall, I say, "What time is it clock?" Today, I go to school. I listen. I teach. Also, I seek to learn. Every day, every hour, I speak, "Let's all read!" We read about wild animals. I love a bear cub. Hope she is named. We talk about birds. We walk outside. Those children they really play. We write numbers. We count. We speak Ojibwe. When I go home, I rest and I sleep. The night is dark. That's all.)

Bezhig—1

OJIBWEMOWIN (Ojibwe Language)

Double vowel system of writing Ojibwemowin.

—Long vowels: AA, E, II, OO
Waabooz—as in father
Miigwech—as in jay
Aaniin—as in seen
Mooz—as in moon

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

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

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

Clock: An easy pattern using numbers

Aaniin endaso diba'iganek?
What thusly unit is it?
(VII's) "It is..." verbs.
Diba'iganed.—It is such at time.
Naawakwe.—It is noon.
Aabita-dibikad.—It is halfway-night.
Ningo diba'iganed.—It is 1 o'clock.
Niizho diba'iganed.—It is 2 o'clock.
Niso diba'iganed.—It is 3 o'clock.
Gii-niiyo diba'iganed.—It was 4 o'clock.
Wii-naano-diba'iganed.—It will be 5:00.
Niizho diba'iganed ashi aabita: It is 2 o'clock and halfway. (2:30)

Niizh—2

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

A. Gigizhebaa. Ningoshkoz. Ninoondawaag bineshiiyag.

B. Gekek onandawaabandaan miijin. Opichiwag aazhikwewag.

C. Animosh, migi. Bimibaatoo. Gwaashwani. Gaa!

D. Ambe omaa! Namadabig! Gigizhebaa-wiisiniwin.

E. Waasakonebidoon gizhaabikizigan. Boodawen. Jiibaakwedaa!

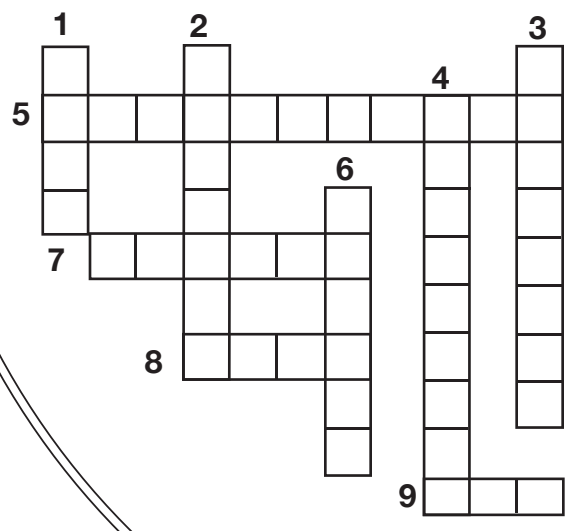
F. Ishpi-giizhigad. Dakayaa dash noodin agwajiing.

G. Inashke! Nikag izhaawag zhaawanong.

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

Niswi—3

IKIDOWIN ODAMINOWIN (word play)



Down:
1. three
2. I sleep
3. Build a fire!
4. wild animals
6. how? or what? or Greetings!

Across:
5. S/he is named so.
7. halfway
8. and (in counting)
9. Short for No!

Niiwin—4

Aaniin endaso diba'iganek?

Diba'igiiziswaan—clock, watch
Diba'igaan—minutes
Ishkwaa—after Jibwaa—before
Ningodwaaso diba'igaans ishkwaa niso-diba'iganed.
It is 6 minutes after 3:00. This pattern for time
1 to 29 minutes after the hour, change numbers.
Midaaso diba'igaans jibwaa niiyo diba'iganed.
It is 10 minutes before 4:00 (or 3:50).
31 to 1 minute before the next hour.
There are also informal times:
Waaban.—It is dawn.

Naano

Niiyo

naawakwe

ashi-aabita

Niizho

Goojitoon! Try it!
Translation below.

1. ____(2) diba'iganek, niwii-izhaa zaaga'iganing.
2. ____ (5)diba'iganed ashi aabitaa. Nimaajaa. Giwii-izhaa na gaye?
3. Gigii-nibaa na aabita-dibikak ____ _____ (12:30).
4. Nimbakade. Niwii-wiisin noongom. (12:00) _____.
5. Nimaamaa anokii wiisiniwigamigong. Maajaa midaaso diba'igaans jibwaa (4)_____ diba'iganek.

Translations:

Niizh—2 **A.** It is morning. I wake up. I hear the birds. **B.** A hawk he looks for food. Robins they scream. **C.** The dog, he barks. He runs. He jumps. NO! **D.** Come here! You all sit down! Morning food—Breakfast. **E.** Turn on the stove. Build a fire! Let's all cook! **F.** It is late morning. It is cool and windy outside. **G.** Look! Canadian geese they are going to the south.

Niswi—3 ***Down:*** **1.** Niso **2.** Ninibaa **3.** Boodawen **4.** Awesiiyag **6.** Aaniin ***Across:*** **5.** Izhinikaazo **7.** Aabita **8.** Ashi **9.** Gaa

Niiwin-4 **1.** When it is **2–Niizho** o'clock, I want to go to the lake. **2.** It is **5–Naano** o'clock and halfway (5:30). I am leaving. Do you want to go, too? **3.** You were asleep? when it was halfway-night **and halfway** (12:30 a.m.)? **4.** I am hungry. I want to eat now. I**t is noon. Naawakwe**. **5.** My mother works at a restaurant. She leaves when it is 10 minutes before **4–Niiyo** o'clock (3:50).

 Some spellings and transaltions from The Concise Dictionary of Minnesota Ojibwe by John D. Nichols and Earl Nyholm. All inquiries can be made to **MAZINA'IGAN**, P.O. Box 9, Odanah, WI 54861 pio@glifwc.org.

The Wisconsin Tribal Judges Association (WTJA) presented eagle feathers to several of its members in honor of and appreciation for their years of service to WTJA during a June 11 ceremony in Carter, Wisconsin. Recipients of the honor as pictured above are: Robert Kittecon, Menominee; WTJA President Leland Ninham, Oneida; Ervin Soulier, Bad River, and Fred Ackley, Mole Lake. WTJA formed in 1985, and according to its mission statement, "is dedicated to the protection of tribal sovereignty through judicial education, cooperation, collaboration and respectful communication while embracing tribal traditions, customs and values." (Photo by Rose Wilmer)

Current Wisconsin Secretary of Transportation Frank Busalacchi traveled to Old Odanah May 24 and delivered a formal apology to the Bad River Tribe for past offenses to a nearby burial ground. During a 1960 state project to expand US Highway 2, construction crews bulldozed gravesites and witnesses watched the remains of Bad River ancestors tossed into trucks and hauled away. Said Busalacchi: "I regret it has taken this long to come to this point." (COR)

Anishinaabe ranger brings Ojibwe culture into Park Service dialog

By Sue Erickson
Staff Writer

Damon Panek. (Photo submitted)

Bayfield, Wis.—Damon Panek, White Earth Ojibwe, recently returned to his old post as a park ranger with the National Park Service's Apostle Islands National Lakeshore (APIS), but he's coming back with a new twist in his job – cultural educator. His focus will be on the integration of natural and cultural resources in the APIS. He will weave the Ojibwe culture throughout all programming to help communicate key messages. Panek hopes to inspire all audiences to reconnect with their own culture to learn from the past and instill a powerful sense of stewardship in the present.

As a ranger, Panek has a lot of opportunity to work with the public through special APIS programs as well as numerous opportunities to work with youth. "What I like to do when talking about APIS and its resources is focus on the Ojibwe's relation to the region, in other words how Ojibwe are connected. Many times that comes through the language; Ojibwe words often relay those deep connections," Panek says. The language emphasizes the importance of the APIS's resources to the Ojibwe people and their culture.

By demonstrating Ojibwe connections to the region, Panek hopes to stimulate others to recognize their own unique connections as well.

Opportunities to work with youth through schools also arise. One program takes 6th and 7th graders from Bayfield, Minocqua and many other regional schools on a three-day, two-night visit to Stockton Island. Using the opportunity to talk about Native history, treaties and culturally important resources, Panek weaves Ojibwe perspectives into the various programs.

Being innovative about encouraging language use and language recognition, he has games like Ojibwe Jeopardy with categories that relate to culture, and the answers have to be in Ojibwemowin. Of course, plenty of dictionaries are available to help!

Panek is also working with a collaborative effort to develop a display at the Northern Great Lakes Visitors Center, which would talk about the real and potential impact of climate change on resources that have cultural and spiritual importance to the Ojibwe.

Paul Strong named new Chequamegon-Nicolet National Forest supervisor

Paul Strong. (Photo submitted)

Milwaukee, Wis.—Effective July 4, Paul Strong took the reins as the new forest supervisor of the Chequamegon-Nicolet National Forest, headquartered in Rhinelander, Wisconsin. His selection for the position was announced in May by Eastern Regional Forester Kent Connaughton.

"We are absolutely delighted to have Paul assume a different leadership role in the Eastern Region," Connaughton said. "He brings a tremendous wealth of experience, skills, and knowledge to his new position, and will continue to provide valuable perspectives as we strive to meet the natural resource challenges of the 21st century."

Strong comes to the Chequamegon-Nicolet from his position as deputy forest supervisor of the Mark Twain National Forest in southern Missouri, a position he's held since 2005. He replaces Jeanne Higgins, who transferred in February to become forest supervisor of the Humboldt-Toiyabe National Forest in Nevada, and acting forest supervisor Tony Erba, who will return to his previous position of deputy forest supervisor on the Chequamegon-Nicolet.

"I am delighted to be returning to northern Wisconsin and am looking forward to working with the great staff of the Chequamegon-Nicolet on the pressing forest conservation issues of our time," said Strong. "I am equally excited to engage with tribal, state, and local governments, as well as the many communities and communities of interest in the Northwoods," he added.

In Ojibwe Country, Strong is noted for his leadership during the negotiations of a Memorandum of Understanding (MOU) between the Forest Service and many Ojibwe bands with treaty rights in the ceded territories. The MOU provided increased access to forest products in the Chequamegon-Nicolet National Forest in Wisconsin and the Ottawa, Hiawatha and Huron-Manistee National Forest in Michigan as well as camping opportunities.

Paul Strong began his professional career as a biologist in 1985 administering outreach conservation programs in the Lake Superior watershed for Northland College's Sigurd Olson Environmental Institute in Ashland, Wisconsin. He started working for the U.S. Forest Service as a wildlife biologist on the Chippewa National Forest in northern Minnesota in 1990. In 1994, he transferred to the Chequamegon-Nicolet National Forest and spent eight years there serving in a variety of positions, including wildlife biologist, planner, information technology program manager, and public affairs officer/tribal liaison. In 2002, he took the position of legislative affairs coordinator for the Forest Service's Eastern Region and later served as the deputy director of renewable resources staff there.

Strong is a native of Maine and holds a B.S. degree in biology from the University of Maine, a M.S. degree in wildlife ecology from Oklahoma State University, and a Ph.D. in wildlife resources from the University of Maine. He and his wife Donna have three daughters (graduate school, U.S. Navy, and college) and a son (grammar school). They enjoy a variety of outdoor activities.

(USDA press release)

Making baskets worthy of the tree

Skilled artists demonstrate black ash basketry

By Lorraine Norrgard
For Mazina'igan

La Pointe, Wis.—Walking up to the Madeline Island Museum you could hear pounding out in the yard. Saturday and Sunday, July 10-11, Renee Wasson Dillard, Little Traverse Bay Band of Odawa, and Edward Peterson, Lac du Flambeau Ojibwe from Harbor Springs, Michigan, were demonstrating the pounding of a black ash log and all the steps to making a finished basket.

Peterson had visitors fascinated with a beautiful photographic display about black ash tree identification, growth, harvesting the tree, peeling the bark and the threats of the emerald ash borer. Later, he took everyone outside to observe the actual pounding the log to produce splints.

Next Renee demonstrated splitting the splints into weaving strips and weaving complex patterns of market baskets, lidded baskets, purses, strawberry baskets, and a variety of other outstanding pieces. The exterior bark of the ash tree was also folded and sewn into a hanging berry basket since nothing is wasted from the tree.

Besides being a master crafts person, Renee is a powerful teacher. The audience was fully engaged in her stories. She told about being a child who often had to "Get out of the way." So she would hide under the table and imaginatively make animal shapes out of little scraps of black ash that fell on the ground while listening to and watching her elders. She told this story as she fashioned the same tiny animals from ash for children nearby, asking them to guess what kind of animal she was making. One child said a dog and one said a horse, and Renee said, "That's right-I made you the dog and you the horse (though they were the same)." She then explained the importance of imagination to smiling parents.

Renee emphasized the importance of giving thanks to the tree before harvesting, and each step of the way toward a finished basket. She said, "This process teaches you everything you need to know in life: patience, love, carefulness, balance, kindness, truth. It gives us all the gifts of the seven grandfathers."

Renee learned to make black ash baskets from her grandmother and community elders. She first started making baskets when she was 12 years old. She explained that, "You don't need a lot of tools.....just an axe, knife, and a pair of scissors. No glue or tape or knot is used at all in making the baskets. Anyone can do this, and it is important to keep this tradition alive. Our ancestors know the sounds of my knife scraping, and motions of my splitting the bark. My ancestors don't know the beep of a video game or the motion of calling on a cell phone. When they recognize my motions and these sounds they come close and help me. Making a black ash basket links me to them; we are connected through this. That is why I do it. The spirit of the black ash tree is still in these splints I use, and I only hope that I can make a basket worthy of the tree."

Peterson and Dillard educated visitors on how the black ash trees are being destroyed by the emerald ash borer, and they reminded everyone not to transport firewood across state lines. Renee said her elders said to just let the borers run their course, and eventually the borer will run out of trees and die. She explained the need to harvest seeds now and keep them in a seed bank (USDA has seed bank info on their website) so that the black ash trees can be replanted for future generations.

This is an important native tree and Renee makes market baskets to use in the grocery store, instead of plastic or cloth bags. "That's what we always used and black ash baskets are strong. They last a lifetime, "remarked Renee to some women looking at them. "The Europeans brought us things that we wanted, but nothing that we needed! We have everything we need right here, but we have to appreciate and protect that."

Dillard and Peterson support themselves making baskets and doing workshops on black ash and other traditional fiber arts such as cattail and bulrush mat making and finger weaving. Renee is receiving the Michigan Heritage Award for her expert master craftsmanship and her teaching skills in natural woodland fiber arts at a ceremony August 14, 2010.

To schedule a workshop or contact Renee Wasson Dillard email: lightallaround@yahoo.com.

Renee Wasson Dillard crafts black ash baskets at the Madeline Island Museum during a two-day presentation in July. Dillard, along with Edward Peterson, Lac du Flambeau tribal member, explained construction of the baskets step by step, beginning with pealing and pounding the ash. (Photo by Lorraine Norrgard)

Practicing physician and flute maker Arne Vainio strikes a tune for Fond du Lac Language Camp participants June 25 near Big Lake. Ojibwemowin speakers teamed up with traditional craftsmen to demonstrate how to create implements including manoomin knockers, push poles, baskets and pottery. Instructors also detailed hand drum construction during the four-day event. (Photo by Wes Ballinger)

Indian Bowl: A Lac du Flambeau Tradition since 1951

The action is back at Lac du Flambeau's Indian Bowl where residents and visitors alike can enjoy the sights and sounds of the pow-wow. Sheena Caine, visiting shawl dancer from Lac Courte Oreilles, showed her support to the new Lake of the Torches Pow-wow on June 24, opening night. Mceed by father and daughter, Nick Hockings and Nicole Larson, the two-hour event both invites audience participation and is educational with an explanation of the various dances and dance regalia. The audience is welcomed to join in intertribal dances and some challenging games, like the feather dance—picking up a feather stuck in the ground with your mouth while continuing to dance, no stopping! Of course, no pow-wow is complete without craft and food vendors, the latter offering wild rice soup, fry bread, Indian tacos—all that enticing pow-wow fare. For more information: Call the George W. Brown Jr., Museum and Cultural Center (715) 588-3333 or go to www.lacduflambeauchamber.com/attractions. (Photo by Colten Vernon)

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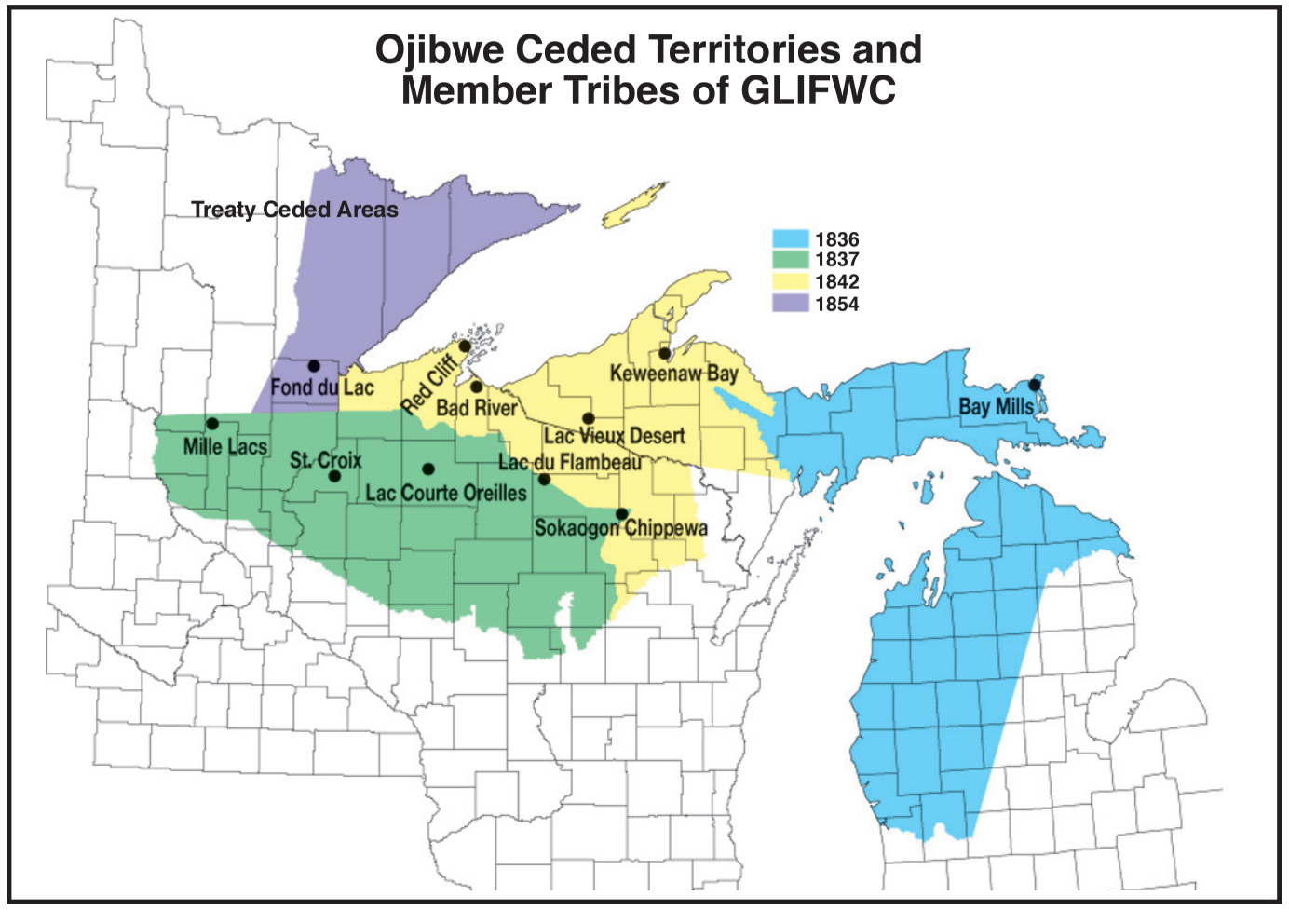
For more information see GLIFWC's website: www.glifwc.org.



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