Tribes and state set 2004 Mille Lacs Lake harvest quotas

Brainerd, Minn.—The 1837 Ceded Territory Fisheries Committee (CTFC), composed of tribal and state biologists, mutually agreed to a harvestable surplus level of 480,000 pounds of walleye for Mille Lacs Lake for the 2004 fishing season during the January 21-22 meeting in Brainerd. Based on the tribes’ five-year management plan for Mille Lacs Lake, the 2004 tribal quota is 100,000 pounds of walleye, which will be allocated among the eight Ojibwe bands. The state allocation is 380,000 pounds of walleye.

Last year’s lower harvest will continue this year, state fisheries biologist Neil Kmiczek said. “In light of that, we will potentially liberalize our harvest regulations to provide the greatest angling opportunities while staying within the allocation.”

Through consensus, the CTFC established the following harvest quotas for 2004 for Mille Lacs Lake: 270,000 pounds for yellow perch; 23,000 pounds for northern pike; 24,000 pounds for tullibee; and 28,000 pounds for burbot.

The 2004 quotas offer opportunities for sport and subsistence fishing alike, while also protecting the fishery, Kmiczek said. “Calculations were based on the best biological data available for Mille Lacs.”

“Based on the tribes’ five-year management plan for Mille Lacs Lake, the 2004 tribal quota is 100,000 pounds of walleye, which will be allocated among the eight Ojibwe bands. The state allocation is 380,000 pounds of walleye.”

The 2004 season is almost here. It won’t be long before the ice loses its grip on ceded territory lakes, and tribal members will be back on the landings. Above, Robert LaFave, Sr. (left) and Kelly Smith, Fond du Lac, pick walleye from a net at Mille Lacs Lake last year. (Photo by Sue Erickson)

Ice fishermen take on Lac Vieux Desert slush

Katkegoning, Mich.—More than a week of warm temperatures that spiked to 50 degrees in late February imprinted fishing shacks, snowmobiles and a few pick-up trucks in a thick layer of slush on Lac Vieux Desert. Clear sunshine and mild weather also sunk the annual tribal ice fishing tournament.

“We must have gotten 20 inches of snow in the last few weeks and then this warm weather. Access became an issue, and I had to cancel it,” said event organizer Paul LaBine.

LaBine and a few others from the LVD and Mole Lake bands still took to the ice on tournament day along with a few dozen state-licensed fishermen, laboring through a network of frozen areas and a quagmire of heavy, water-laden snow to reach fishing spots.

“I figured we’d run the tournament late this year so we wouldn’t have to count so many fish,” quipped LaBine. “That one year we must have measured 200 northerns alone.”

Designed for kids and families, the tournaments are held twice a year and usually include door prizes and awards for the largest fish. LaBine said. He bagged 44 walleyes in that period before the fish moved out into deeper water.

While ice fishing is typically slow in the middle of winter, the fishermen predicted some of the season’s best fishing was just around the corner.

“We’re getting some perch toward evening, but everything will pick up as we get closer to ice-out,” LaBine said. “Crappies and other panfish are usually pretty good out here.”

Some fishermen hauling black sleds loaded with gear marched toward shore, a snow ball fight broke out nearby, off to the east a handful of guys were disassembling their gear. (See Lac Vieux Desert, page 5)
Wild turkeys released in far northern Wisconsin

By Charlie Otto Rasmussen, Staff Writer

Ashland, Wis.—Once a rare bird in the Wisconsin ceded territory, wild turkeys have steadily edged north over the past decade. Following a series of releases in early March, the big birds leap-frogged into far northwestern Wisconsin in a project to test their hardiness at high latitudes.

With funding in large part by the National Wild Turkey Federation (NWTF), the Wisconsin Department of Natural Resources released 164 birds at six sites between Ashland and Solon Springs. State turkey trappers captured the birds in central Wisconsin using rocket-fired nets at established bait stations. After the birds were picked from the nets and placed in individual boxes, local NWTF volunteers trucked them as far as 200 miles to the release sites.

Tribal members, particularly those from Red Cliff, Bad River and Lac Courte Oreilles, may be well positioned to take advantage of harvest opportunities in several years if the birds adapt to the new areas.

“Wild turkeys continue to surprise us with their hardiness,” said NWTF Wisconsin and GLIFWC biologist Peter David.

2003 Manoomin season a good one

By Peter David
GLIFWC Wildlife Biologist

Odanah, Wis.—Preliminary results of the 2003 Wisconsin manoomin (wild rice) harvest survey are confirming what many pickers already knew: it was a pretty darn good year. Survey results indicate the state-licensed ricers picked nearly 50,000 pounds of green (fresh) rice last year, while the tribal off-reservation harvest exceeded 27,000 pounds. (Tribal on-reservation harvest—substantial at some reservations—is not measured in this survey.) These are the highest harvest estimates since the bumper crop that was enjoyed by pickers back in 1997.

The Great Lakes Indian Fish & Wildlife Commission (GLIFWC) has conducted the Wisconsin wild rice harvest survey every year since 1987, with the exception of 1988. The Wisconsin Department of Natural Resources (WDNR) cooperates with the survey by providing the names and addresses of individuals who purchase state rice licenses.

The survey has shown that wild rice harvest, like the annual plant itself, can vary greatly from year to year. The 1997 combined state and tribal harvest estimate exceeded 110,000 pounds, more than five times the level estimated for the dismal 1991 season.

Generally, as the crop goes, so does the harvest, although the relationship is not quite that simple. A good crop does not always equate to rice in the canoe, as rain or high winds during the harvest season can keep a good harvest from being realized. At the other extreme, a good crop can also trigger an extreme, a good crop can also trigger an interest in harvesting in occasional or first time ricers, leading to an even greater harvest than might have been expected—an effect most noticeable among state-licensed ricers. In 2003, for example, state license sales reached 621, over 40% higher than for 2002, and the highest figure in recent history.

Fortunately, high manoomin harvests do not need to trigger a concern regarding possible over-exploitation of the resource. Regulations limit wild rice harvesting to the traditional hand-harvesting techniques, which are inherently inefficient, taking only about 10-15% of the annual production, even with intensive, repeated effort. This ensures that ample seed is left to seed the bed and feed the ducks, coots, rails and other species that partake of manoomin’s generous gift.

The harvest survey also shows that ricers are enjoying some new opportunities. The survey identifies significant differences between the hypothetical “average” state harvesters as well as the harvesters who cooperated with the survey by providing the names and addresses of individuals who purchase state rice licenses.

In 2003, state ricers had an average of eight years of rice harvesting experience, and half had four years or less (a figure somewhat higher than average due to the “good crop” effect mentioned above). Tribal ricers in comparison had an average of 27 years of experience. Although ricers are not asked to provide their ages, it is likely that part of this experience difference results from the fact that tribal members tend to be introduced to riceing at an earlier age. Thus a thirty-year-old state ricer may only have a few years behind him or her at the tribal counterpart may be well into their second decade of picking.

Each one of those years will also, on average, reflect more time in the rice beds for the tribal member, who tends to go riceing more often. In 2003, for example, “Joe Average” tribal member made 5.3 rice trips, double the number of his state counterpart. And it appears that experience pays off: tribal members gathered an average of 55 pounds of green rice per trip, versus 34 for state licensees. Similarly, experienced state pickers outdid their novice fellows, both in the number of trips made and the amount of rice gathered per trip. These figures may also raise a flag of potential concern for future generation of tribal manoomin harvesters, as there appears to be relatively few tribal members coming into the ranks. If young pickers are doing their riceing on the reservations, they would not show up in this survey, but at least among off-reservation ricers, the percentage of new recruits is very low, thus raising the question of what the harvest figures for the 2003 season might look like. So, next fall when the seed heads are turning brown and the ducks and rails are moving into the rice beds, and you’re wondering if your pushpole is good for another year, remember to take a kid riceing.

GLIFWC would like to thank all the harvesters who cooperated with the annual harvest survey; your information makes an important contribution towards the management of this invaluable resource.

Today, Ojibwe people continue to hand-harvest manoomin (wild rice), a culturally important food.

On the cover
Mike Schrage, Fond du Lac wildlife biologist and a bull moose captured and radio-collared in early February 2003. (Photo submitted by Fond du Lac Natural Resources Department.)
Native Americans concerned with threat to cultural heritage

By Bill Thornley

“Rice chiefs had an important job to keep people from going out too early when the rice was not yet ready. Rice chiefs had absolute authority on the rice lakes, even over tribal chiefs. Each family would have a feast to give thanks for a bountiful harvest. They would feast wigwam to wigwam, and people left all full and happy.”

“Wild rice is a very important thing to us. That is what the Indian people refer to it as, manoomin—that is, free of genetic and scientific modification, and it is harvested in its natural lake and stream environment.”

The U.S. Department of Agriculture first began research on wild rice in 1906, and by the 1950s the University of Minnesota began domesticating wild rice. A wild rice “paddy industry” grew from up there in Northern Minnesota and spread east to Canada. Paddy wild rice is a hybrid grain made through cross-breeding. It is designed to be cultivated in farm paddies and mechanically harvested, unlike the traditional Native American method of gathering by canoe.

Native Americans are concerned that domesticated wild rice poses a threat to the natural wild rice beds due to “pollen drift” between domesticated and natural stands. Another major concern is genetic engineering, the act of extracting and implanting genetic materials from one organism to another to produce new or modified organisms. Mess with Mother Nature enough, and they will have forgotten this.

“Years ago the people would assemble at the ricing lakes,” Smith explained. “Years ago, Native people respected wild rice as a sacred gift. A gift from the Great Spirit. There are many rules and restrictions to it because it is sacred. We have been blessed with a rice that can provide much food in a store, but you cannot buy a way of life. As Anishinaabe people, we have always had wild rice. The process of colonization has impacted our way of life. They have impacted and undercut our communities.”

Anishinaabeg intents and rights

1. Wild rice is central and sacred to the heart and spirit of the Anishinaabeg and other Indigenous peoples.
2. The Anishinaabeg territories are the center of origin for natural, diverse original strains of wild rice.
3. Wild rice is an essential part of Anishinaabeg sustenance and survival, and its integrity is threatened by corporate control and genetic engineering.
4. The right and responsibility to protect wild rice for future generations is an inherent right of the Anishinaabeg and is further protected by our self-governance, sovereignty and treaty rights.

(Wild rice kernels on the stalk.)

“Indian people would fill a canoe with wild rice and sink it into a pit. They were always storing it. If kept dry, wild rice will last forever. But several rules go with wild rice, and our people knew them all. Wild rice attracts wildlife and fish, and it cleans the water. It is even used for medicine. But the DNR took over rice lakes in the 1930s and opened up the lakes (for harvesting) too early.”

They also said, Smith, got greedy about how much rice was taken.

“People would put big, high boards on the side of their canoes,” said Smith. “They would get more rice but there was nothing falling back into the lakes to re-seed the beds. There is an actual spirit that takes care of wild rice. We should not change things. Everything has been laid out like on a big blanket. We need to be thankful. Indian people have forgotten this.”

At the conference was Winona LaDuke, a former Vice Presidential candidate of the Green Party and a member of the White Earth Reservation in Minnesota. A 1982 graduate of Harvard, LaDuke serves as board co-chair for the Indigenous Women’s Network. And she is also a mother, worried about what her kids may be eating if things keep going the way they are.

“Manoomin was given to us by the Creator.” She began. “It defines us. You can only buy a way of life. It is a totally inferior product. It doesn’t taste right. So don’t call it wild rice; it misrepresents the product.”

Yet having created a changed product, the wild rice companies still wanted the image of a Native American product. Packages of paddy rice were soon in distribution featuring a picture of two Indians in a canoe harvesting the old-fashioned way. This infuriated those who had fought to preserve that practice, and a lawsuit was brought in 1988, resulting in a settlement, and the elimination of the two-Indian logo.

“Ojibwe people can’t compete with a combine,” said LaDuke. “It’s hard work to harvest wild rice. Without wild rice, they could be harvested with a combine, but it is a totally inferior product. It doesn’t cook right. It doesn’t taste right. So don’t call it wild rice; it misrepresents the product.”

Natural wild rice beds, said LaDuke, could easily be contaminated by pollen from the modified stands nearby. But, that said, would not be the way most contamination would occur.

“If it is in here, worry about the ducks,” she said. “That’s what moves it, and they can’t control that. Something as simple as ducks.”

Patents are a grant made by the government to an inventor, assuring the sole right to make, use, and sell the invention for a certain time period. Patents, said LaDuke, are now being placed on genetically engineered seeds.

“Our position is that patents are not for life forms,” she said. “It is unethical. Patents are property rights. If something patented in a field drifts on the wind into your field, you can sue for stealing it. It has happened.”

The Minnesota Cultivated Rice Council found out wild rice is good to combat cholesterol—we knew that!” LaDuke said. “We were trying to patent it and alter everything ‘bio-pirates.’ They’re taking something that belongs to everyone. You’re looking at globalized food systems which are controlled by fewer and fewer interests. We’re going to stand our ground. We say this is sacred, and keep your hands off our rice.”

Wild rice kernels on the stalk.
No sign of CWD in northern Wisconsin

Tribes push for preventative measures

By Jonathan Gilbert, Ph.D.
GLIFWC Wildlife Section Leader

Odanah, Wis.—During the 2003 treaty deer hunting season tribal members were given the opportunity to submit deer heads for testing for chronic wasting disease (CWD). This is the second year of tribal testing in northern Wisconsin, central Minnesota and western Upper Peninsula of Michigan. In 2002 more than 300 samples were submitted, and during 2003 around 100 samples were submitted. None of the submitted samples have turned up positive. During 2002 the Wisconsin Department of Natural Resources (WDNR) also tested deer from the Wisconsin ceded territories, and none of these samples were positive either. Thus, we can be fairly certain (more than 95% certain) that CWD is not present in the ceded territories of Wisconsin.

This is good news for northern deer hunters. However, it does not mean that we can rest on our laurels. CWD spread from western states, like Colorado, to Wisconsin, so it is not impossible for it to spread from southern Wisconsin to the north. The spread of CWD around the country from a couple of western states has occurred too rapidly, and the disease has spread too far for it to have happened without human assistance. People are responsible for the rapid and far-flung spread of this disease by the transportation of captive deer and elk to and from deer/elk farms. In order to keep CWD from infecting deer in the ceded territories, the transportation of infected cervids (members of the deer family including elk) from place to place must be stopped.

In Wisconsin, and other nearby states, the regulation of captive cervids fails primarily to the Department of Agriculture, Trade and Consumer Protection (DATCP). The tribes have asked who is responsible for ensuring that CWD is not spread from captive deer/elk to wild deer or elk in the north. This is a shared responsibility between the WDNR and DATCP, with DATCP responsible for the animals on the farms and WDNR responsible for the facilities (fencing and housing of animals).

The tribes have established a working relationship with WDNR over the years and a partnership with DATCP and WDNR to help achieve this goal. Effective methods for ensuring that captive animals and wild animals are not able to intermingle, either because captive animals escape from licensed farms or because wild animals enter farms; the types of regulatory controls that might be necessary regarding the movement of captive animals into the ceded territory, whether from sources outside of Wisconsin or from other licensed farms within the state; and the relationship between DATCP’s responsibilities and those of the WDNR, and how the two agencies might best collaborate to prevent the spread of CWD from captive herds to wild herds.

The tribes and the Voigt Intertribal Task Force remain committed to protecting wild deer populations in the ceded territory. They look forward to a dialogue and a partnership with DATCP and WDNR to help achieve this goal.

(Continued from page 1)

2003 Wisconsin/Minnesota off-reservation treaty deer hunt by tribal registration station

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2004 Mille Lacs Lake quotas

(Continued from page 1)

fish will be double-tagged to help determine tag loss rates.

Tribal creel clerks have been instructed to remove all tags encountered during the spring 2004 harvest monitoring. Any tags from speared or netted fish that may have been missed during harvest monitoring should be removed and given to any tribal biologist, creel clerk, or wardens.

Tags may be sent to Inland Fisheries Biologist, Nick Milroy, GLIFWC, P.O. Box 9, Odanah, WI 54861. Tags can also be reported by phone (715) 682-6619 or email (nmilroy@glifwc.org).
Grant funds UP fish advisory re-education program

Tribes declare for 2004 spring spearing in Wisconsin

Lac Vieux Desert ice fishermen

Both pollutants pose serious health risks when ingested in high amounts, the greatest risk being to children born to mothers who eat large amounts of fish containing these pollutants. Current advisories do indicate that certain kinds of fish taken from “safe” areas of the lakes and consumed in specific quantities are safe for the general population. However, confusion over what exactly constitutes a safe amount has caused many individuals to stay away from eating fresh fish altogether.

ITFAP will test fish such as walleye, whitefish and lake trout to determine current levels of contaminants in the waters of the Great Lakes surrounding the Upper Peninsula. ITFAP has been testing commercial tribal catch since 1991 and now has the most extensive database on contaminants in commercial fish in the Great Lakes.

While concerns about eating too much fish from specific areas are very real, residents of the Upper Peninsula, in general, and in the American Indian population, specifically, may be putting themselves at a greater risk nutritionally by eliminating fish from their daily diet.

Current studies show that the biggest health concerns for tribes in Michigan are diabetes and high blood pressure. Fish is a source high in the Omega-3 fatty acids which can be used to develop advisories and outreach activities that stress the importance of including safe amounts of fish from the Great Lakes in a healthy, traditional diet.

Warnings against eating fish in the Great Lakes are based on a concern about levels of methyl-mercury and PCBs present in the fish population. Warnings against eating fish in the Great Lakes are based on a concern about levels of methyl-mercury and PCBs present in the fish population.

Advisories warning residents to greatly reduce their intake of fish caught in areas of the Great Lakes have resulted in many residents altogether avoiding intake of this vital source of healthy Omega-3 fatty acids and proteins. This trend toward eliminating local fish from the diet is not only a primary source of income and a foundation for a healthy diet but, it also plays a key role in the traditions of family and community life.

Tribes declare for 2004 spring spearing in Wisconsin

Sault Ste. Marie, Mich.—A new program called “Eat More Fish But Choose Wisely” will help Upper Peninsula residents make the safe, smart choice to include Great Lakes fish in their diets.

The Health Services Division of the Inter-Tribal Council of Michigan has been awarded a $150,000 grant from the Agency for Toxic Substances and Disease Registry to fund a fish advisory re-education program that will positively impact both tribal and non-tribal residents of the Upper Peninsula.

ITC will work with the Chipewa Ottawa Resource Authority (CORA) and Inter-Tribal Fisheries and Assessment Program (ITFAP) to ensure that the fish consumers in the Great Lakes is based on concern about the levels of methyl-mercury and PCBs present in the fish population.

CLEANING GREAT LAKES FISH

1. Low levels of halogenated hydrocarbons tried to accumulate in fatty parts of the fish and should be removed.

2. Carefully fillet the fish with a sharp, long-bladed knife.

3. Skin the fillets, holding the tail in one hand. Run the blade between the skin and the meat along the table surface.

4. Trim off the fat near top center of the fillet.

5. Trim fat along edges of fillet.

6. Bake, boil or barbecue fish on a rack to allow fat to drip off.

(Reprinted from Food Safety News, a publication of the Michigan State University Cooperative Extension Service.)

Larry Brooke, (right) Lake Superior Research Institute chemist, tests for mercury levels in Lake Superior fish. In the 1999 study none of the Lake Superior fish contained mercury in excess of the US FDA’s limit for commercial sales of 1000 ppm (1.0 ppm). (Photo by Charlie Otto Rasmussen)

Michigan’s largest lake, had been pretty good but variable last year, and the fishermen hoped to time their trip just right this year. McGeshick said some of the island shorelines of Lac Vieux Desert were among his favorite places to fish in spring. The tribe has generally made low harvest declarations on their home-land lake; however, seeking to increase walleye densities.

“We don’t take many fish from this lake, we want to get that population up there,” he said.

A few tribal members headed back to the mainland where the old village, Katinogoning, and powwow grounds are set back from the shoreline. Others were content tending a handful of tip-ups and jigging for perch. It was a thrilling winter day. And despite the messy ice conditions and slow fishing, it was good to be out.

Funds from the grant, awarded to the Inter-Tribal Council in September, will be used to develop advisories and outreach activities that stress the importance of including safe amounts of fish from the Great Lakes in a healthy, traditional diet.

While concerns about eating too much fish from specific areas are very real, residents of the Upper Peninsula, in general, and in the American Indian population, specifically, may be putting themselves at a greater risk nutritionally by eliminating fish from their daily diet.

Recent studies show that the biggest health concerns for tribes in Michigan are diabetes and high blood pressure. Fish is a source high in the Omega-3 fatty acids and selenium, believed by many to decrease the risk of heart disease associated with these health concerns.

Funds from the grant, awarded to the Inter-Tribal Council in September, will be used to develop advisories and outreach activities that stress the importance of including safe amounts of fish from the Great Lakes in a healthy, traditional diet.
Three year thermal/depth study on lake trout wraps up

Keweenaw Bay, Mich.—A three year project undertaken by the Great Lakes Indian Fish & Wildlife Commission’s (GLIFWC) Great Lakes Section and funded by the U.S. Fish & Wildlife Service (USFWS) Great Lakes Fish and Wildlife Restoration Act is coming to conclusion. This project collected information on the depth and temperatures used by lake trout in Lake Superior through the use of archival tags. Fourteen of 124 lake trout implanted with depth and temperature archival tags were recaptured after an average of 372 days at large. Each tag holds up to 37,000 records of depth and temperature which are taken every 15 seconds and then averaged over a period of time, dependent upon how long the tag is “at large”—that is how long the tag is in the belly of a Lake Superior lake trout.

The first fish captured after being at large for 40 days had depth and temperature recordings averaged over every four minutes, while the last fish captured after being at large for 719 days had a depth and temperature recordings averaged every 60 minutes. Overall, the average temperature encountered by the 14 recaptured lake trout was 4.7°C (40.4°F), and the average depth was 28.4 meters (93.1 feet). Of particular interest to Bill Mattes, Great Lakes Section Leader, was the speed at which individual lake trout traveled from one depth to another. For instance, on December 6, 2001 at 4:12 p.m. one fish descended to 250 feet, and by 4:20 p.m. it had ascended to 51 feet, followed by a descent to 261 feet by 4:27 p.m.

Mattes presented findings and provided data to the Lake Superior Technical Committee at their bi-annual meeting in Ashland, Wisconsin on January 13, 2004. The temperature data will be used to fill in an important data gap in bioenergetics models of both lake trout and sea lamprey to and refine stock assessment models. The depth data gathered will be used to better understand the ecology of Lake trout and to draw insights into possible interactions between fish species, predator-prey relationships, and the interactions between lake trout and the sport and commercial fisheries.

Increased sea lamprey control effort in Lake Superior slated for 2004

For the 17th year GLIFWC’s Great Lakes Section staff cooperated with the U.S. Fish and Wildlife Service’s Sea Lamprey Control Program to monitor sea lamprey populations along Lake Superior’s south shore. From late April to early July 2003 four Wisconsin and three Michigan rivers were monitored with a total of 2,587 lampreys being captured.

Specific objectives of the Great Lakes Section’s lamprey trapping program are to monitor the upstream spawning movements of sea lamprey, to collect data on the biological characteristics of spawning sea lamprey (sex, length and weight), to estimate the number of lamprey spawning in each tributary, and to reduce the spawning potential of sea lamprey by removing a portion of the run.

The data collected during the annual population estimates contribute to a lake-wide management plan to control and reduce lamprey populations, which is lead by the Great Lakes Fishery Commission (GLFC). At the Lake Superior Technical Committee (LSTC) meeting in January, members were made aware that GLFC increased the base level of control in the Great Lakes by 15% annually. Since the early 1980s there has been a declining trend in treatment effort on Lake Superior and an increasing trend in numbers of spawning lamprey. However, considerable control effort was added to Lake Superior in 2004.

Also, at the LSTC meeting, GLFC representatives suggested an overall goal to reduce sea lamprey abundance in Lake Superior to roughly 39,000 spawning adults annually, abundances that have not been seen since 1994. This is equivalent to a sea lamprey marking rate of 5 marks/100 fish observed.

The Fish Community Objective for Lake Superior sea lamprey is “to suppress sea lamprey to population levels that cause only insignificant mortality on adult lake trout” with the management objective being “to suppress populations until annual lamprey-induced adult lake trout mortality is essentially insignificant (< 5%).”

GLIFWC’s biological crew battle cold and wind during fall lake trout & whitefish spawning assessment

Cold and high seas in October and November 2003 challenged GLIFWC’s Great Lakes Section personnel as they tagged spawning concentrations of lake trout and whitefish on eight Great Lakes. Each tag holds up to 37,000 records of depth and temperature. (Photo courtesy of Shawn Sitar, MiDNR)

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By Bill Mattes, GLIFWC Great Lakes Section Leader

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Common buckthorn among the top forest weeds

By GLIFWC Staff

Odanah, Wis.—While there are several hundred introduced plant species now thriving within the boundaries of the ceded territories, some of them are more worrisome than others because they are not only exotic, but also invasive, says Miles Falck, Great Lakes Indian Fish & Wildlife (GLIFWC) wildlife biologist.

This means that the introduced plants spread into natural habitats and choke out native plants. "Mazina’igan will be featuring an invasive plant in each upcoming edition to help the general public recognize these invaders on the landscape. Of course, early detection goes a long way in preventing their spread. Once entrenched, many of these plants can be very difficult or impossible to eradicate. Among the major forest weeds is common buckthorn—the invasive plant featured in this edition. For more information on invasive species, check out GLIFWC’s website at www.glifwc.org/epicenter.

Common buckthorn origin & history

Common buckthorn (Rhamnus cathartica L.) is native to Europe, western Asia, and northern Africa. It has long been planted as an ornamental and for hedges. In Wisconsin it was used as a hedgerow plant as early as 1849. In the early 1900s common buckthorn was promoted as a shelterbelt species on the northern Great Plains, until the realization that it was the alternate host of oat stem rust. By 1910 it was reported as locally common in southern Michigan, indicating that it was already naturalized there by that time.

Today buckthorn has escaped cultivation across much of the northern US and adjacent Canada. It is well-established in the upper Great Lakes region, especially around cities and towns. It is considered “ecologically invasive” in Wisconsin, “highly invasive” in Upper Michigan, and a “restricted noxious weed” in Minnesota.

Characteristics

Common buckthorn is typically a shrub or small tree, growing to 20 feet tall. The leaves are broadly oval, hairless, 1.2 to 2.4 inches long and usually about half as wide, with 2-4 pairs of upcurved veins on each side. They may be rounded or pointed at the tip. The leaf margins are bordered with small teeth. Leaf arrangement on the twigs varies from opposite to almost opposite to occasionally alternate. The twigs have grey-brown bark and scaly buds and are often tipped with a short thorn.

Common buckthorn is dioecious, with male and female flowers on separate plants. Small, inconspicuous, greenish-yellow flowers are produced from mid-May through June. These flowers appear in clusters of 2-6 at the bases of some of the leaf stalks.

After flowering, the female plants produce clusters of berry-like, deep purple to blackish fruits, each typically containing four seeds. These fruits have strong laxative properties (hence the species name, “cathartica”). The leaves of common buckthorn stay green until late in fall, weeks after most native species have lost their leaves. They turn yellow before falling.

Similar species

Another invasive buckthorn, Eurasian glossy buckthorn (Rhamnus frangula L.), has also escaped in temperate North America. It has glossy, shiny leaves that are usually alternate on the twigs. Its flowers have five sepals and five petals. Its fruits are reddish at first, turning dark purple to nearly black as they ripen. The buds are hairy but lack scales. Glossy buckthorn also invades upland forest, but prefers wetter soil than common buckthorn and is very invasive in wet woods and wetlands.

Two buckthorn species are native to the upper Great Lakes region. Alder-leaved buckthorn (R. alnifolia L’Her.) is a low, multi-stemmed shrub of floodplains, wetlands, and swamps, from southern Canada south to Tennessee and California. It never gets more than about 4.5 feet tall. It has alternate leaves that are similar to common buckthorn’s, but that tend to be somewhat larger and more elongate.

Management and control

Manual control is usually only practical for small populations or single plants. Removing the largest seed-producing (female) buckthorn plants first will prevent regrowth, so cutting is best followed up by immediately painting or spraying with herbicide. Manual cutting down buckthorn plants will result in vigorous resprouting and regrowth, so cutting is best followed up by immediately painting or spraying with herbicide on the cut stump. See “Chemical control” below for more on this technique.

Girdling is widely used on mature buckthorn and will usually kill the plants. Use an axe or a saw to cut two parallel lines around each stem, about 4.5 inches apart. The bark in between these two lines should then be peeled off. Make sure the

Reproduction and dispersal

Common buckthorn reproduces almost entirely by seed. The berries of common buckthorn have a bitter taste and are eaten and dispersed mostly by birds. Much of the fruit simply falls to the ground beneath the shrubs, producing a dense layer of seedlings.

Common buckthorn seeds have high viability. Seedling survival is higher on bare soil than on soil with a litter layer and competing plants.

Habitat preference and tolerance

Like many invasive species, common buckthorn has a wide habitat tolerance. It is typically an upland plant, but tolerates a broad range of moisture levels. It is also shade-tolerant (the seedlings are very shade-tolerant) and can invade mature forest. Early leaf-out and late leaf-fall gives common buckthorn an advantage over most native forest shrubs.

Typical habitats colonized by common buckthorn include fields, prairies, riverbanks, and woods. Often plants get started where the seeds are deposited by poring birds and can grow, including fen, fens, woodland edges, and under isolated trees. It seems to do best on moist, partly shaded sites.

Ecological impacts

Common buckthorn typically forms dense patches along border edges of woods, moving into the woods after disturbance. Eventually it forms a dense shrub layer, suppressing and driving out native shrubs and tree seedlings.

Like many other introduced plants in North America, common buckthorn leaves out earlier in the spring and holds its leaves longer in the fall than native shrubs do. Because of this early leaf-out, common buckthorn may threaten the eastern deciduous forest’s spring ephemeral plants, like Carolina spring beauty and yellow trout lilies, which depend on the abundant early spring sunshine for their survival.

In some areas of the east and midwest, especially near urban areas, buckthorns and other invasive shrubs have taken over the understory of entire woodlots, replacing native shrubs and tree saplings. Eventually, the forest starts to be converted to a shrub “forest” of buckthorn and other introduced plants.

Common buckthorn is also a threat to agriculture, because it is the principle alternate host for two serious introduced agricultural pests: the oat crown rust fungus and the soybean aphid. The fungus causes stem rust, a serious disease of cultivated oats, and requires common buckthorn to complete its life cycle. The soybean aphid is (like the soybean) native to eastern Asia and was first detected in North America in the Midwest in 2000. It has since spread throughout much of the eastern US, including the upper Great Lakes region. This aphid must overwinter on common buckthorn in order to survive the winter.

(Stopping the spread, page 20)
Moose: A limited resource in high demand

High mortality in Minnesota moose worries biologists

By Sue Erickson
Staff Writer

Fond du Lac Reservation, Minn.—For whatever the reason, moose—the tall, gangly giants of the north—have long held a special appeal to people. Perhaps it’s the animal’s size alone or an association with its remote, northern wilderness habitat that evokes that fascination, or it could be the broad, massive antlers that adorn the stately heads of mature bulls.

While neither an endangered or threatened species, wildlife managers are concerned about moose because they are in popular demand, be it for consumptive or aesthetic purposes.

“Of all the treaty resources in the 1854 Treaty ceded territory, moose currently are the most limited, and the demand is higher than the supply for both Indian and non-Indian alike,” says Fond du Lac Wildlife Biologist Mike Schrage.

Both the state of Minnesota and the three Ojibwe bands—Fond du Lac, Bois Forte and Grand Portage—allow a limited moose hunt each fall. The state has held a season since 1971; the Fond du Lac band has held a treaty season since 1989. Both the tribes and the state have limited permits that are dispersed in a lottery-like system. For the state hunters, obtaining one of the approximately two hundred permits available annually is a once-in-a-lifetime opportunity; whereas tribal members are more likely to have annual or semi-annual opportunity.

The high demand in hunting occurred as the need for a cooperative research project designed to learn more about the moose population and its problems. After several years of planning among cooperators, the first moose radio-collaring project was conducted in February 2001.

Now in the third year of the project, staffing from the Fond du Lac band and the 1854 Authority, representing the Bois Forte and Grand Portage bands, along with the Minnesota Department of Natural Resources (MDNR), the U.S. Geological Survey (USGS) and the U.S. Forest Service have successfully gathered needed data on several years of moose radio-collaring. The project has resulted in the need for a cooperative research project designed to learn more about the moose population and its problems.

The need for a cooperative research project designed to learn more about the moose population and its problems is higher than previously believed. Schrage and his colleagues are concerned about the rate of adult moose mortality. The study’s two-year figure indicates a 25-30% mortality rate, which is high and, if it continues, it is a real cause for concern. “This is worrying if it continues at this rate throughout the length of the study,” he says, “and needs good collaboration to keep the population stable or growing.”

Causes of mortality include hunters, trains, cars, wolves, diseases, and parasites.

...will cause the moose to rub against trees, enough to leave them hairless in large patches. Without their protective winter coat, they can succumb to hypothermia. Schrage says to 50,000 ticks have been recorded on one moose, so the infestations can be very severe. This winter the crew radio-collared 18 moose; all had ticks, some more than others, Schrage says. Warm, dry fall and spring weather are more conducive to heavy tick populations.

Radio-collaring moose is a tricky and expensive business. The project has rewarded two-man crew (a pilot and a shooter) from Alaska with a small, highly maneuverable helicopter to tranquilize the moose for collaring. Staff in a fixed-wing Cessna 185 locates the moose; all had ticks, some more than others, Schrage says. Warm, dry fall and spring weather are more conducive to heavy tick populations.

Once down, the shooter starts with applying the ear tags and collar, while the copter picks up other crew, who proceed with various monitoring activities. A tooth is pulled for aging; blood samples are taken, hair samples taken for heavy metal testing; fecal samples for pregnancy testing. Moose are checked for external parasites like winter ticks, and an ultrasound is used to measure fat. Body temperature is also recorded. Finally, a reversal shot is given, and the moose wakes up in about three minutes. The whole procedure takes about one-half hour.

Unlike the previous two seasons, this year researchers had to contend with waist-high snow to reach the tranqulized animal, making a difficult job even more challenging.

If a dead moose is reported, it is imperative to get to the carcass quickly in order to collect the samples needed for testing. Predators, scavengers and hot weather can quickly dispossess a carcass, destroying the opportunity to learn why it died.

An average life span for a moose is between eight and twelve years. However, researchers estimate one radio-collared cow to be about eighteen years old and one bull to be about sixteen.

On rare occasions twelve to fourteen moose may be observed together. Schrage says, but they tend to be more solitary than herd-oriented. Typically, two or three may be together. They also tend to stay in the same location, although one collared bull has traveled fifty miles north to Ontario and seems to like it there.

Another bull routinely migrated each fall from Isabella, Minnesota, across twenty miles of blowdown, to the Boundary Waters and returned in the spring.

The current three-year study was funded in the large part by the MDNR, with the three cooperating tribes contributing funds and staff time; the USGS contributed staff time. Fond du Lac was awarded a Tribal Wildlife Grant, which will help fund much of the research for the next four years.

In the spring they will be checking for calf survival and later try to get a count on how many calves “hit the ground.” Calving season usually occurs in late May. This will give researchers a better idea on the survival rate for moose calves and the chances for a growing moose population.

Together, the tribes and agencies have successfully gathered needed data for a project that was too complex and expensive for any one of the entities to accomplish alone. Schrage says. He looks forward to continuing, cooperative research that will contribute to the health and well-being of those magnficent beasts—the Minnesota moose.

Glenn DelGiudice, biologist with the MDNR, gives a reversal drug to a cow moose. (Photo submitted by Fond du Lac Natural Resources)

A cow moose recovers from a tranquilizing drug wearing ear tags and a radio-collar. (Photo submitted by Fond du Lac Natural Resources)
Native son heads to D.C.
Famous Dave confirmed as Assistant Secretary-Indian Affairs

Chicago, Ill.—The U.S. Environmental Protection Agency (EPA) Region 5 recently granted the Fond du Lac Band authority to administer parts of the Clean Air Act. FDL is the first tribe in Region 5 to be granted this authority.

Under this authority, FDL will administer the Clean Air Act’s Division 11 (EPA) and use its own staff to conduct inspections and issue permits. The tribe plans to establish an air quality program and issue permits for air pollution sources in the county. FDL will also be responsible for ensuring compliance with the Clean Air Act.

Fond du Lac Band granted Clean Air Act authority

State speakers break records on Lake Winnebago

Exceed quota of female sturgeon

Osasko, Wis.—Speakers registered 1,303 sturgeon on February 14, opening day of the Lake Winnebago sturgeon season, according to the Wisconsin Department of Natural Resources.

By the time the season closed on February 15, 1,847 sturgeon were harvested. A total of 689 adult females were taken, putting the harvest 28% over the cap.

Besides setting the highest one-day harvest record and being the shortest season ever, the largest sturgeon (188 pounds and 79.5 inches long) was harvested, breaking the previous 51-year old record of 180 pounds.

State fish managers expressed concern over the overharvest. “Speakers were happy with the conditions and their success, but the harvest cap for adult females was exceeded by 28% and that concerns us,” said Ron Bruch, WDNR fisheries supervisor in Osasko. “The overharvest this year indicates that our system to control the sturgeon take, while close, falls a little short in safeguarding the population and the tradition of spearing for the long haul.”

Tribe favored in Mille Lacs Band boundary lawsuit

Onamia, Minn.—A March 9 ruling of the Eighth District U.S. Court of Appeals affirmed the earlier dismissal of a Mille Lacs County’s lawsuit, which sought to disprove the continued existence of the original 61,000-acre Mille Lacs Indian Reservation.

The appellate court upheld the May 2003 opinion of U.S. Judge James Rosenbaum who dismissed the case because the county did not have legal standing to question the status of the reservation boundaries.

In a seven-page decision, the appellate court said Rosenbaum was correct to dismiss the case because neither the county nor the First National Bank of Milaca, which joined the county as a co-plaintiff, could establish they had been injured or threatened by the possible existence of the old reservation boundaries. Any harms were, at this point, speculative rather than real.

The Mille Lacs Band of Ojibwe welcomed the decision, noting that the two-year litigation had been costly to the county and tribe alike and that future cooperation and respect between the county and tribe would provide improved services to all county and tribal citizens.

Senate Committee on Indian Affairs to lose leaders

Washington, D.C.—Leadership in the Senate Committee on Indian Affairs is headed for a change, according to the March issue of Native American Report. According to the report Committee Chairman Senator Ben Nighthorse Campbell (R-Colo.) will not seek reelection this year.

Inouye spearheaded the joint fishery assessment in Wisconsin which produced the Casting Light Upon the Waters Report in 1991 in order to address the walleye fishery issues that were causing violent controversy in Wisconsin. Those joint assessments have continued in Wisconsin ceded territory lakes and periodic updates, entitled Fishery Status Updates, are published every several years.

When Inouye first took leadership in the committee in 1987 it was a “select” committee, meaning only a temporary committee. It is now a permanent committee of the Senate. During his tenure with the committee, Inouye says he has visited about one-third of the tribes, more than any other congressman in U.S. history.

Gov. Doyle affirms government-to-government relationship with tribes

Madison, Wis.—Governor Jim Doyle recently issued Executive Order #39, affirming the government-to-government relationship between the state and the state’s eleven tribal governments. The order directs cabinet agencies to recognize the “unique legal relationship between the State of Wisconsin and Indian Tribes, respect fundamental principles that establish and maintain this relationship and accord Tribal governments the same respect accorded other governmental entities.” It also directs cabinet agencies to recognize the government-to-government relationship when making and implementing policies and programs that impact the tribes.
Conservation enforcement additions in Upper Michigan

L’Anse, Mich.—Two Upper Michigan natives joined GLIFWC’s Conservation Enforcement Division in February as Keweenaw Bay area wardens. Regional Supervisor Tim Tilson said the additions provide more effective coverage of off-reservation hunting and fishing in the Michigan treaty area. A total of five GLIFWC wardens are stationed at satellite offices in Keweenaw Bay, Lac Vieux Desert and Bay Mills.

New recruits Jim LaPointe and Summer Cohen join Tilson in patrolling Keweenaw-area forests, rivers and lakes in addition to 1824 Lake Superior waters. With at least two wardens available to jointly patrol Lake Superior, operations aboard GLIFWC’s 25-foot Boston Whaler, Opitosa Lady, can be conducted more safely, Tilson said. From search-and-rescue operations to locating lost commercial fishing nets, Tilson said that it can be a tough and dangerous job for only one warden.

Finding the pace of retired life a little too slow, enrolled Keweenaw Bay member Jim LaPointe returns to the field of law enforcement—this time around in a GLIFWC uniform. As former Michigan Department of Natural Resources warden supervisor for the western Upper Peninsula, LaPointe brings considerable experience in tracking hunting and fishing activity in the region. LaPointe’s 25-year enforcement career includes experience as a Michigan State Trooper, a DNR wildlife officer in both the Mackinac Peninsula and Upper Michigan, and ultimately promotion to DNR Supervising Sergeant.

The opportunity to work on Lake Superior was a major incentive to leaving retirement, he said, adding that his most enjoyable years as a state warden occurred prior to his promotions when he spent most of his time in the field. LaPointe grew up in L’Anse and earned a B.S. in Police Administration from Ferris State University in Big Rapids, Mich. He is married and has three children.

A lifelong Marquette-area resident and enrolled Lac du Flambeau member, Summer Cohen joins GLIFWC less than a year after graduating from Northern Michigan University’s Prelaw program. Cohen weighed several diverse career options before joining GLIFWC going onto law school, developing contemporary Indian clothing, or returning to a familiar environment of woods and water of her youth. Raised in a primitive cabin on forty forested acres south of Marquette, Cohen said she was ultimately drawn to work that required a lot of time outdoors. An avid pow wow dancer, Cohen said she’ll continue to design dance regalia and other fashions in her free time. She has a nine-year-old daughter and recently completed the move from Marquette to L’Anse. This autumn Cohen is scheduled to complete a 520-hour basic recruit training course at Chippewa Valley Technical College in Eau Claire, Wisconsin.
Emerald ash borer invades Michigan

The emerald ash borer, *Agrilus planipennis* Fairmaire, an insect native to Asia, has recently been introduced to North America, probably in the wood of Asian ash species used for stabilizing cargo in ships or for crating heavy consumer products. Scientists first detected this insect in May 2002 in southeastern Michigan, and by July 2002, they detected it across the St. Clair River in Windsor, Ontario in Canada.

For further information, call the Emerald Ash Borer Hotline toll-free at 1-866-325-0023 or log on the following websites: www.nrcs.usda.gov/eng/aab/new/2001emarlar.htm or www.emeraldashborer.info.

Anishinaabe uses of ash

Species of ash growing in the Northwoods include aagimaak (black ash, *Fraxinus nigra* Marshall), baapaagimaak (white ash, *Fraxinus americana* Linnaeus), and green ash (*Fraxinus pennsylvanica* Marshall). All three species have medicinal uses for the Anishinaabe. The wood of aagimaak and baapaagimaak is also widely used for constructing baskets, snowshoes, sleds, and other utility items.

Note: American mountain ash (*Sorbus americana* Marshall) is not a true ash and does not appear to be susceptible to the emerald ash borer.

Trees rarely survive an infestation. Healthy trees with low levels of infestation may potentially be saved using insecticides. But even then, the effectiveness of insecticides has not yet been conclusively determined.

The potential for the emerald ash borer to decimate ash tree species in North America has experts greatly worried. Hence, a program has been initiated to educate the public on the need to abide by the established quarantine areas and to report suspected infestations. Furthermore, the public has been instructed to dispose of infested ash trees by either burning or taking them to designated disposal sites.

Twolined chestnut borer outbreak

Native insect not a threat to healthy trees


Unlike the emerald ash borer (see above), the chestnut borer does not kill healthy trees. Essentially, a healthy oak has a functioning “immune system” to repel the chestnut borer. Thus, chestnut borers typically infest oaks that have already been significantly damaged by various environmental factors. For example, recent drought conditions and the outbreak of the forest tent caterpillar, *Malacosoma disstria*, have weakened many of our forest’s oaks, making them susceptible to this insect. National forest and state forest personnel have noted a significant increase in oak mortality.

Ironically, oaks may benefit from outbreaks of the chestnut borer. Dr. Timothy Schowalter, a professor of entomology at Oregon State University, has been studying the role of native insects in maintaining forest health in the Pacific Northwest. Native insects may be one of the important factors in preventing an overcrowing of trees. By attacking weakened trees, native insects create conditions more favorable for healthy trees—keeping healthy trees healthy.

Articles by Karen Danielsen

GLIFWC Forest Ecologist

Larval stage of a twolined chestnut borer (left) and an adult twolined chestnut borer (right). (Photos by Robert A. Haack, USDA Forest Service)

Only recently have entomologists begun changing their view of native insects from vectors of destruction to devices of healthy forest management. Similar to the changing views on the role of fire in forest management, the benefits of native insects may become more acceptable as researchers uncover more examples of this positive relationship.

On the contrary, by introducing from other areas, such as the emerald ash borer, have not developed a long term relationship with our forests. Trees, healthy or not, often have no “immunity” to these introduced insects. Consequently, introduced insects often spread rapidly, independent of and not limited by, environmental factors that weaken trees.

An adult twolined chestnut borer measures approximately 1/2 inch long. Two, faint, golden lines decorate its black back. The larva measures approximately 1/2 inch long.
Tribal resource management in the Great Lakes Fishery

By Charlie Otto Kasmussan, Staff Writer

Sault Ste. Marie, Mich.—As federal courts consistently uphold the reserved rights of Ojibwe people in the upper Great Lakes, tribal natural resource organizations are increasingly vital co-managers of fish, wildlife and the environment. While individual tribes maintain departments to oversee on-reservation resources, the remainder of the treaty-ceded territories in Michigan is administered by two intertribal agencies: Great Lakes Indian Fish & Wildlife Commission (GLIFWC) and Chippewa Ottawa Resource Authority (CORA).

With five member tribes from the upper and lower peninsulas of Michigan, the Sault Ste. Marie-based CORA regulates treaty harvests in the 1836 ceded territory. Like GLIFWC’s role in the 1842 ceded territory, CORA works to conserve fish stocks and other natural resources for future generations.

“The 1836 Treaty fishery is probably one of the most regulated fisheries in the world,” said Jennifer Dale, CORA public information officer. “We are subject to regulations of each tribe, CORA, as well as federal and state marine and wildlife safety regulations. Tribal fisheries also attend HACCP training. HACCP, or Hazard Analysis Critical Control Point System, is a systematic approach to food safety designed to avoid foodborne illnesses.”

Originally organized as COTFMA, or Chippewa Ottawa Tribal Fishery Management Authority, CORA formed in association with the 2000 Consent Decree and added two more treaty tribes. Crafted by tribal, state and federal officials, the Consent Decree allocates harvest limits for commercial and sport fisheries and five Michigan tribes: Bay Mills Indian Community, Grand Traverse Band, Little River Band, Little River Band of Ottawa Indians and Pottawatomie Band of Ottowa Indians.

“The 2000 Consent Decree requires an incredible amount of ongoing work to determine annual harvest levels based on biomathematical models,” said Dale. “We use our models to inform both tribal and state figures, such as data from catch reports and assessments.”

Federal and state biologists join fisheries experts from the five tribes to form the 1836 Technical Fishery Committee, which calculates safe harvest levels for each species. The groups meet around six times a year to share information and discuss management opinions.

“The current agreement differs from its predecessor, the 1985 Consent Order by using biology—managing by species—rather than a geographic approach to determine what’s best for the conservation of the fishery, now and in the future,” Dale said. “The lakes are still on a grid system, but management will be accomplished by fish species.”

While lake whitefish is the most important commercial species to tribal fishermen, Dale said the heart of the 20-year Consent Decree lies in lake trout recovery, especially in Lakes Huron and Michigan. Primary rehabilitation zones established through the Decree protect historic spawning sites and control commercial and angler harvest. lake trout fishing areas are policed by conservation officers from the five CORA members to enforce tribal codes, U.S. Coast Guard vessel safety regulations and HACCP guidelines. Tribal wardens work cooperatively with Michigan Department of Natural Resources officers who share authority to cite tribal recreational, commercial and subsistence fishermen for civil and criminal infractions. Each CORA tribe has an interagency committee, which calculates safe harvest levels.

Tribal and state figures, such as data from catch reports and assessments, are sent to tribal, state and federal fisheries programs. For example, the Department of Natural Resources (DNR), hatchery staff have turned out nearly two million lake trout, brook trout, walleye, largemouth bass, and whitefish ranging in size from 1.5 to 14 inches long.

“Our focus is to manage and enhance native fish species in the area,” said Mike Donofrio, Natural Resources Director for the upper peninsula tribe. “There is some public interest in restoring rainbow trout and salmon stocking, but those species don’t fit within our approach to ecosystem management.”

Lake trout management units in the Great Lakes

By Charlie Otto Kasmussan, Staff Writer

L’Anse, Mich.—Over the past fifteen years, the Keweenaw Bay (KB) Tribal Fish Hatchery in Marquette, Michigan has played a leading role in restoring native fish populations to Lake Superior. Through tribal programs and partnerships with the U.S. Fish & Wildlife Service (USFWS) and Michigan Department of Natural Resources (DNR), hatchery staff have released over 11 million lake trout and brook trout into the lake. Today, the hatchery serves as an isolation facility, providing disease-free lake trout brood stock for rehabilitation programs in the Great Lakes. (Illustrations by Gene Mensch)

Lake trout management units in Lake Superior

Keweenaw Bay hatchery, interagency partnerships enhance Michigan fishery

By Charlie Otto Kasmussan, Staff Writer

From eggs to healthy yearlings, the trout leave the tribal hatchery approximately 15 to 20 days after hatching, transported to Wisconsin-based federal hatcheries in Iron River and Geron. Once the fish reach sexual maturity, biologists use the disease-free fish for propagation and restoration projects in Lake Superior.

“The offspring from the brood stock are stocked back into areas of Lake Super-ior without natural reproduction or areas producing a short supply of fish,” Donofrio said. “This cooperative effort is designed to benefit everyone who values the resource.”

Following the early successes of the tribal-federal partnership, the state DNR has signed on to more recent agreements, providing additional money and expertise to enhance and monitor the fish populations.

“We’ve had a good working relationship with the tribe,” said George Madison, DNR fisheries biologist. “Their cooperative efforts are effective and efficient. We work closely together to enhance the fishery.”

“The cooperative effort between our agencies is one of the most valuable in the Great Lakes,” said Jeff Rorvick, tribal program director. “We are working together to improve the fishery, and we look forward to funding our resources on future projects.” In addition to the ongoing trout brood stock development, the three agencies are working to create a family-oriented largemouth bass fishery at Lighthouse Point in Marquette County, an area used for picknicking and is home to an annual pow wow. Through the cooperative efforts of tribal, state and federal fisheries programs, lake trout populations are recovering in many areas of Lake Superior. The Keweenaw Bay Tribal Fish Hatchery serves as an isolation facility, providing disease-free lake trout brood stock for rehabilitation programs in the Great Lakes. (Illustrations by Gene Mensch)
and audience participation to determine originality, use of the Ojibwe language, sportsmanship, drumming and singing styles, a hand drum team with no more than years. The competition will grow in coming years, which makes her hopeful.

The rules required a three-man hand drum team with no more than three women back-up singers. A panel of judges considered attire and showmanship, drumming and singing styles, originality of the Ojibwe language, and audience participation to determine the winners.

For the winners—first place went to a drum group from the Bad River reservation, Powless Incorporated. The singers included Wendell, Jerome and Martin Powless. One of their songs was sung entirely in the Ojibwe language, which Lapacca thinks may have been a deciding factor. The group also returned $100 of their $1,000 prize money to WOIB to use for the next hand drum competition, obviously hopeful that this competition will grow into an annual tradition.

Second place went to Midnight Express, featuring Crow Belkourt, John74, and Opie Bedau, and the third place win went to the Mille Lacs Band Singers, comprised of Eric, Less, and Gabe Gahbow. Between performances, an opportunity was taken to honor LCO elder Sarah (Cookie) Morrow with an honor song and dance. She was present to hear several of her grandsons, George and John, perform during the competition.

Emceed by Larry “Amik” Smallwood, Mille Lacs, and Eddie Benton-Banai, LCO, the event continued after the competition to include a dance to honor the judges and a huge round dance that packed the auditorium’s floor as everyone joined in the dance.

Among the competitors at the hand drum contest were Menominee’s Smokey Town Singers. The powerful beat and voices of the singers filled the auditorium.

By Sue Erickson

Staff Writer

Lac Courte Oreilles, Wis. — Extra seats had to be brought in to accommodate the crowd attending the first-ever, WOIB Radio-sponsored hand drum competition February 14 at the Lac Courte Oreilles (LCO) Casino Lodge and Convention Center. The event contributed to a Valentine’s Day full of powerful drumming, singing and dancing that extended from noon to 10:30 in the evening.

Camille Lapacca, WOIB Radio manager, was pleasantly surprised by the turn-out and the positive comments about the event, which makes her hopeful that the competition will grow in coming years.

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Emceed by Larry “Amik” Smallwood, Mille Lacs, and Eddie Benton-Banai, LCO, the event continued after the competition to include a dance to honor the judges and a huge round dance that packed the auditorium’s floor as everyone joined in the dance.

Among the competitors at the hand drum contest were Menominee’s Smokey Town Singers. The powerful beat and voices of the singers filled the auditorium.

By Sue Erickson

Participants also enjoyed the music of Randy Wood, Northern Cree Singers, who performed songs from his latest release, “Round Dance Blues.”

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Staff Writer

Lac Courte Oreilles, Wis. — Extra seats had to be brought in to accommodate the crowd attending the first-ever, WOIB Radio-sponsored hand drum competition February 14 at the Lac Courte Oreilles (LCO) Casino Lodge and Convention Center. The event contributed to a Valentine’s Day full of powerful drumming, singing and dancing that extended from noon to 10:30 in the evening.

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Participants also enjoyed the music of Randy Wood, Northern Cree Singers, who performed songs from his latest release, “Round Dance Blues.”
How did it all begin?

“The Ojibwe creation story”

By Nee-Gaw-Nee-Gah-Bow, A Wolf Clan member of the Lac Courte Oreilles Ojibwe Band

Throughout the ages, humans have always attempted to understand how everything we hear, see and feel began. The universe, the earth and the life on the earth—where did this all come from? The Bible explained that everything was created by a Supreme Being in seven days, including human beings. However, modern scientific research and criterion refute simplistic explanations and models.

The Ojibwe creation story cannot be scientifically refuted because the explanation is spiritual, and the model is life itself. It is almost as though the Ojibwe creation story substantiates the scientific criterion and model.

There was a time of complete darkness, void and vacuum, where only the Great Spirit Power existed. Therefore, there was a beginning, but there will never be an end. So here is the Ojibwe creation legend.

In the void the Great Spirit Power insights a vision consisting of the entire universe, the earth, and all forms of life, including human beings. All life was created each for a specific balancing purpose and equal in all respects. All life must be in balance in order to continue forever. Human beings being born and eventually dying are a good example of one form of balance.

All forms of creation are alive and living, even the whole universe and earth because they have all been created from the Great Spirit Power. The Great Spirit Power is called the Creator in spoken Ojibwe.

The balancing phenomenon began with the order of creation itself. The first order of creation was the appearance of the universe with all the stars, galaxies, comets, black holes, solar systems, planets, moons, and the earth. One of the objects in our solar system is the Sun, a star which gives light and heat to earth in an order of white light and absolutely cold, a vacuum.

The first order of creation began with a noise in the bleakness of the void. What we hear today when we hear the sacred rattle shake is the noise that occurred at the very beginning of the first order of creation and the beginning of creation itself. This is why we shake the sacred rattle before every prayer or ceremony. It reminds us in a sacred way to know how it all began and that whatever we do in a sacred way is like the creation of something new in view of all the Spirits.

The second order of creation was the placing of all growth on the face of the earth—all the vegetation, trees, grass, plants, water-growths—many of which are worshipping plants and animals. Everything is alive spiritually. So extensively, even to the extent that other races of people believe that Anishinaabe are worshipping plants and animals. Some Anishinaabe have the spiritual power to speak to trees and buffalo, plants and animals. Everything is alive spiritually.

Fimis Scriptus!

Tribal hatcheries released over 76 million fish in both on and off-reservation waters in 2003
**OJIBWEMOWIN**

- **Locative Usage**
  - Gizhaabikizigan (an)—stove (s), Gizhaabikiziganing—at the, on the stove
  - Mikwamii-makak (oon)—Fridge, ice-box (es)
  - Mikwamii-makakong—in the, to the fridge
  - Ishkode—fire
  - Ishkodeng—in the, to the fire
  - Abwewin—frying pan
  - Abwewining—in the frying pan
  - Onaagan—dish
  - Onaaganing—in the dish
  - Goojitoon! Try it!

**Translation below.**

### Noun Locatives

Adding a suffix ang, ing, or ong to a noun will denote location; to the, at the, from the, in the... waakaa’igan—(an house) (s)
Waakaa’iganing—to the house aadoupowin (an)—table (s)
adoopowin— at the table adaaawewigamig (oon)—store (s)
adaawewigamig—to the store dewe’igan (ag)—drum (s)
dewe’iganing—at the drum oodena (wan)—town (s)
oodenaang—in the town

### Double vowel system of writing Ojibwemowin.

- Long vowels: AA, E, II, OO
  
  - Waaboo—as in father
  - Giiizhik—as in fire
  - Naboo—as in moon
  
- Short Vowels: A, I, O
  
  - Dash—as in about
  - Iima—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.

### Nizh—2

**Translation below.**

1. Endasogiizhik jiibaakwewigaamikong nimibigizige.
2. G placements gii-paakwezhiganike.
3. Mewinzha minimooneyag ogii-rawinge’aawaa’
   abwaajigan.
4. I’iwiw bii-miijin i’iw
   naboo.
5. Giesiwin naanokimis gii-paakwezhiganike.

**Down:**

1. Or
2. You are hungry.
3. Egg
4. Frying pan
5. And

**Across:**

1. Every day in the kitchen I bake things.
2. In the morning my Grandmother she made bread.
3. A long time ago elder women made bread over an open fire. D. Today cooks they fry fry bread.
4. Are you hungry? Come in! Sit down!
5. I want to eat that soup.
6. Do you want to drink black-medicine-liquid (coffee)?

**Niswi—3**

**Locative Usage**

Gizhaabikizigan (an)—store (s),
Gizhaabikiziganing—at the, on the stove
Mikwamii-makak (oon)—Fridge, ice-box (es)
Mikwamii-makakong—in the, to the fridge
Ishkode—fire
Ishkodeng—in the, to the fire
Abwewin—frying pan
Abwewining—in the frying pan
Onaagan—dish
Onaaganing—in the dish

**Goojitoon! Try it!**

**Translation below.**

1. Nimiijinan miinan adoopowin____.
2. Nimaamaa obiina’aanan waawanoon
   abwewin____.
3. Waabang ina giwii-izhaa oodena____?

**Niizh—2**

**Translation below.**

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2. In the morning my Grandmother she made bread.
3. A long time ago elder women made bread over an open fire.
4. Today cooks they fry fry bread.
5. Are you hungry? Come in! Sit down!
6. I want to eat that soup.
7. Do you want to drink black-medicine-liquid (coffee)?

**Niswi—3**

**Across:**

1. Gemaa
2. Gibakade
3. Waawan
4. Nase’igewag
5. Onaagan
6. Abwewin
7. Waabang
8. Ziigwan

**Niiwin—4**

**Across:**

1. I eat blueberries at the table.
2. My mother put in eggs in the frying pan.
3. Tomorrow do you want to go to the town?
4. Sue she cooked meat in the fire.
5. Rob and Tony are working at the store.

There are various Ojibwe dialects; check for correct usage in your area. Note that the English translation will lose its natural flow as in any world language translation. This may be reproduced for classroom use only. All other uses by author’s written permission. All inquiries can be made to **MAZINA’igan**, P.O. Box 9, Odanah, WI 54861.
Kids’ page: Nature news

Furry animals that change coats

Waabooz (showshoe hare) and zhingos (weasel)

Spring is soon to come, and you may be thinking about changing coats. You will put away your heavy winter coat and take out a lighter weight one for spring. Animals also change coats in spring and fall. They shed their heavy winter coat in the spring and grow back a thicker coat each winter.

A few animals also change the color of their coat two times a year. In the fall they change from a thin, brown coat to a thick, white coat. When it starts to get warm again, they change back to the thinner, brown coat.

In our area of northern Minnesota, Wisconsin and Michigan, these animals are the zhingos (weasel) and waabooz (snowshoe hare). Actually, there are many types of weasels and only the short-tailed ermine and the least weasel change coat color, except for the least weasels that live in the southern parts of the United States. They stay brown all year long.

Why do these animals change coats?

They change their coats twice a year to blend into the world around them. This is called camouflage. If they are sporting a white coat in the snowy wintertime, it will be more difficult for other animals to see them. Fox, coyotes, fishers, and wolves all enjoy a snowshoe hare or a weasel for lunch, if they can catch one. So it is important for them to remain hidden. In the spring and summer with the white snow all gone, the wooded areas where they live turn earthy brown colors and so do the coats of weasels and snowshoe hares. But weasels and hares cannot change coats as quickly as you do. It may take up to ten weeks for the coat to slowly change color and weight.

What’s the difference between a hare and a rabbit?

Rabbits do not change their coat color in the winter and spring like the snowshoe hare. The hare also has very large hind feet, longer ears and longer hind legs. The long hind legs help it stand up and reach higher branches, for they love to nibble buds from trees and also like to gnaw on bark. Hare babies, called leverets, are born with fur and with their eyes open, unlike rabbit babies.

The snowshoe hare is usually larger than a cottontail rabbit, but smaller than a jackrabbit. The hare generally weighs about 2-4 pounds and is about 15” long.

Why is it called a “snowshoe” hare?

During the winter the snowshoe hare grows very thick fur on its feet with very stiff hairs that work like a snowshoe, helping the hare travel over snowy ground without sinking into the snow. With its long back legs and large hind feet, a snowshoe hare can run up to 27 mph and travel ten feet in one leap.

Weasels will eat rabbits and hares.

Snowshoe hare have to watch out for weasels. Weasels are small, but very fast little animals, usually weighing less than one pound. They have long bodies with short legs and long tails. Weasels like to eat mice and moles, but the larger male weasels will try to catch rabbits and hares as well. Their long, thin bodies make it easy for them to go down holes where rabbits or mice may be hiding.

(Information taken from the Wisconsin Department of Natural Resources website and the University of Michigan’s Animal Diversity website.)

Can you help the zhingos get to the wabooz?

Zhingos (weasel).

Waabooz (snowshoe hare).
Summer harvest opportunities

Introduction
During 2000 and 2001, GLIFWC staff interviewed tribal elders regarding non-medicinal uses of plants. With approval from the elders, we have decided to share this information as a regular feature in Mazina’igan in the form of a harvest calendar.

In this issue, the harvest calendar is devoted to those plants that may be gathered for non-medicinal uses during the upcoming summer months of ode’imin-giizis, time for picking strawberry moon (June); aabita-niibino-giizis, half way through the summer moon (July); and manoominike-giizis, ricing moon (August).

Fruits and Nuts
raw, jams, jellies, pie fillings, breads, pancakes
miskominan—raspberries
oshkizhaanimuk—dewberries
odaatagaagominag—blackberries
miinan—blueberries
ode’imin—strawberries
gozigaakominag—juneberries
bibigweminan—elderberries
dataaqgominan—rhizohberrys
*b*black haw berries
ookweminan—black cherries
asasaweminan—choke cherries
bawe’iminan—pin cherries
sewa’kominan—sand cherries
zhaa’bominan—carrtans
bagwaji bagesaanag—wild plums
bagan—hazelnuts

Packing Materials
for berry gathering
waagoga—ferns
aasaakamigoon—mosses

Grains
casseroles, soups, breads, pancakes
manoomin—wild rice

Roots
roasted, sauteed, steamed, boiled
bagwaji zhigaagawinzhiig—wild leeks
bagwaji zhigaagananahzhig—wild onions
apakweshkway ojiibikan—cattail roots
anaakanashk ojiibikan—bulrush roots
anaakanashk ojiibikan—rush roots
doodooshaaboojiibikan ojiibikan—dandelion roots
namepin ojiibikan—wild ginger roots

Greens
raw, sauteed, steamed, boiled
*watercress leaves*
*pigweed leaves*
*aster leaves*
*beach peas*
anajimimun—wild peas
* wild asparagus stems

Disclaimer
While the list identifies those plants that can be harvested during the summer months, we strongly recommend that before you pick them, you meet with elders in your community to talk about proper ways of harvesting, times of harvesting and proper preparation of the plants before eating them. This is important because some plants need to be harvested in certain ways to ensure that they will continue to grow, while other plants need to be properly washed and prepared prior to eating or using them. In addition, those elders can also help you in different uses of these plants.
*We have been unable to find the names for these plants in Ojibwe names for these plants.

Miigwech to those speakers in Mille Lacs, Minnesota and Lac du Flambeau, Wisconsin for their help in providing us with the Ojibwe names for these plants.
More gathering opportunities

**Tobacco**
- nebeebik anishin—clover leaves
- doodooshaaboojigik anishin—red willow leaves
- bagaaminjish anishin—hazel nut leaves
- datqawon anishin—humbleberry leaves
- *pigweed leaves*
- winimishig aaboojish anishin—wintergreen leaves
- miskwaamihizh aaboojish anishin—red willow (kinnickinnick) bark
- wigob ojibjikan—basswood roots

**Perfumes**
- namewashkoons anishin—spearmint leaves
- wingiishi anishin—sweet grass leaves

**Lipstick**
- bibigwemin—elderberries (mixed with tallow)

**Hair conditioners**
- sasap kwinaan—red willow bark
- giizhik aniibishan—white cedar leaves
- miskwaabiimizh aniibishan—red willow (kinnickinnick) bark
- *peppermint leaves*

**Insect repellents**
- namewashkoons anishin—spearmint leaves
- *peppermint leaves*
- sasap kwinaan—red willow leaves
- miskwaabiimizh aniibishan—red willow (kinnickinnick) bark

**Dyes**
- odadatagaagenan—blackberries (dark blue)
- minian—blueberries (dark blue, purple)
- gozigaakominog—juniper berries (dark red)
- bagwaj biyessagen—black plums (purple)
- *bawe’i minan—poinsettias (dark red)*
- miskominan—raspberries (pink)
- ode’iminan—strawberries (red)
- assawemian—choke cherries (dark red)
- *bihigwemin—elderberries (purple, red)*
- zhaahominan—currants (red)
- waasakone—goldenrod flowers (yellow)
- *blue iris flowers (purple)*
- miskondibi wabigoon—Indian paintbrush flowers (red)
- *lily flowers (orange)*
- *miskwewijikan—bloodroots (red, orange, yellow)*
- waagog—ferns (green, brown)
- aasaakamigoon—messes (green, brown)
- *lichens (orange, purple)*

**Weaving Materials**
- mats, baskets, twine
- apakweshikway anishin—cattail leaves
- wiigowog—basswood inner bark
- miskon—paper (white) birch bark

**First repatriated item arrives at LVD**

By Sue Erickson
Staff Writer

Lac Vieux Desert, Mich.—When you walk into offices at the Lac Vieux Desert Legislative (LVD) reservation in Michigan, you will see large plastic jugs about two feet high on reception counters asking for penny donations. The jugs are part of the newly established LVD Tribal Historical Preservation Office’s (THPO) effort to raise money for a tribal cultural building. Recently granted THPO status by the National Park Service, LVD became one of only 41 THPOs nationally.

Currently, the LVD THPO is staffed by giiwegiizhigookway (Betty) Martin, historic preservation officer and Alina McGeshick, historic preservation assistant, who already have their work cut out for them.

On the heels of the new THPO being established, came a once-in-a-lifetime opportunity—the chance to provide a home for an ancient Ojibwe dugout canoe. The whole story is somewhat serendipitous.

McGeshick was at the U.S. Forest Service (USFS) Visitors’ Center at Watersmeet, Michigan helping to formulate a new exhibit featuring the seasonal activities of the Ojibwe, when a USFS staff person asked if the tribe would be interested in taking the old, 32’ dugout canoe which had been on display in the Center. McGeshick immediately said yes, excited about the opportunity to bring such an artifact home.

Jay Shifra, a resort owner, originally discovered the canoe in 1953 at the far end of Thousand Island Lake in Gogebic County. It was found at the south end of the lake, completely submerged with a small tree growing out one end it. Shifra managed to get the canoe pulled out and transported to his resort.

Photographs were sent to several Wisconsin historians who believe it was an old Ojibwe dugout canoe built to hold about 20 people. Measuring 32 1/2 feet long, 31 inches in width at the center and 21 inches high, the old white pine dugout weighs about 500 pounds. Considering its size and weight, movement and placement of the artifact becomes a major project, as McGeshick and Martin found out.

They needed to get the dugout off the Visitors’ Centers’ premises quickly to make way for renovations. The largest trailer available through the tribe was about 20 feet long, Martin says, short about 12 feet. However, that was the best available.

They arrived at the Center on March 2, a contingency of about six or seven people, when they realized this operation would require a few more hands to accomplish. Then, out of the blue, about twenty prisoners from Camp Ojibwe arrived at the Center, actually bound for another work site. How serendipitous! Prison staff allowed the men to help remove the dugout, ten men on each side of the old artifact. They gently placed it on the twenty-foot trailer driven by the LVD Construction crew, and with their help Martin and McGeshick drove slowly behind the truck and trailer to a storage building behind the casino. “It seemed like half of the canoe was hanging off the back end of the trailer,” McGeshick says, “I was so afraid it would just break in half.”

But it arrived safely to its destination, and the Camp Ojibwe prisoners, who also followed them there, marched the dugout into its temporary home in the storage building. “Its size makes it a difficult item to place somewhere,” Martin says. However, she is hopeful that a facility for this artifact and others to follow will soon be available to the THPO.

The canoe has never been dated, so there is some historic data gathering to be done on the old dugout. There is some conjecture that the dugout was actually burned out and then smoothed over, although there appears to be some axe marks on the prow. Oddly, it also has two 31-inch, iron support bars in the middle and one iron ear hole. Historians suggest that the dugout was possibly used during logging activities as well.

LVD’s THPO plan to contact the Canadian Conservation Organization in Ottawa, which provides on-site assistance in developing archeological information, preservation techniques and training. Hopefully, they will be able to date the dugout.

Repatriation of tribal artifacts usually does not come so easily, Martin comments. The tribe is involved in several other repatriation efforts, including the return of an LVD water drum that is currently at the Milwaukee Public Museum and a ceremonial spoon and a headdress associated with the Big Drum, both at the Wisconsin State Historical Society in Madison.

Plans are underway to map all tribal lands, identify gravestones as well as all other culturally significant and sensitive areas of the LVD lands and reservation.

The THPO will be working with tribal elders on site identifications.
GLIFWC to survey inland waters for aquatic nuisance species

By Miles Falck, GLIFWC Wildlife Biologist

Odanah, Wis.—This summer, Great Lakes Indian Fish & Wildlife Commission (GLIFWC) staff will be surveying inland waters for Aquatic Nuisance Species (ANS). ANS are species that have been introduced from other regions and disrupt native ecosystems. Common examples include purple loosestrife, Eurasian water-milfoil, and zebra mussels. Some recent arrivals in northern Wisconsin’s inland waters include the spiny water flea in Iron County’s Gile Flowage and zebra mussels in Lake Metonga in Forest County.

Many of these species have been introduced via ballast water in ocean-going ships that sail the Great Lakes. Once these organisms become established in the waters, they find their way into inland waters by hitch-hiking in bait buckets, live-wells, boat trailers, and other equipment. The spread of ANS species can be checked by following these simple procedures:

- Remove any visible mud, plants, fish or animals before transporting equipment.
- Eliminate water from equipment before transporting.
- Clean and dry anything that came in contact with water.
- Never release plants, fish or animals into a body of water unless they came out of that body of water.

Many boat landings have been posted to remind boaters of the need to clean and dry their equipment. This work will also be coordinated with WDNR, other cooperating groups and citizen volunteers to avoid duplicating efforts.

ANS surveys planned for this summer will target waters with significant treaty resources such as wild rice or walleye lakes and waters in close proximity to infested waters. This work will also be coordinated with WDNR, other cooperating groups and citizen volunteers to avoid duplicating efforts.

停止 buckthorn

(Continued from page 7)

外（暗）和内（浅色）的苗（camphium）都被去除，或者植物可能生存。茎应该被切下，确保在几周内做出确定，确保植株没有有效地被根系切断。任何新的幼苗都应该被切掉。

挖掘的土壤中会产生糖，通过叶子被运输到根部，造成水分和矿物质带走，一路上通过木头（xylem）移动。最终，根茎杀死了整株植物。大型植物和有丰富食物储备的植物在它们的根部可以采取一年的生长期。

化学控制

杀虫剂应被使用，这样可以阻止更多的其他方法，如果其他方法无效或者可能的话，当植物的健康状况受到损伤时。粗放型的喷洒应该在有降雨时被避免，如果在几周后降雨，可能会被看到。

机械控制

机械控制可以避免被使用，移除幼苗，以减少被干扰的土壤。

生物控制

结合控制是不可取的，因为这些昆虫是自然的天敌，倾向于杀死这些植物，实际上，这些昆虫在它们的自然环境，通常会杀死所有这些有害的植物。

控制

种植可能是控制常见的和光亮buckthorn的方法，在社区和其他延伸的地方。Buckthorn softwood可以被使用，而spring burning会有效地消除它们。烧毁也可以被用来控制较大的植物。这些植物仍然需要被保持，甚至可能需要在切除了茎的植物。

文化控制

火可能是最好的方法，在控制常见的和光亮buckthorn和光亮的外来品种。Buckthorn软木可以被使用，而spring burning会有效地消除它们。烧毁也可以被用来控制较大的植物。这些植物仍然需要被保持，甚至可能需要在切除了茎的植物。
Tribal fisheries, wildlife projects funded through federal program

GLIFWC tribes receive $1 million

By Charlie Otto Rasmussen
Staff Writer

The U.S. Fish & Wildlife Service (USFWS) recently awarded five GLIFWC member tribes more than one million dollars in grants to conserve and improve natural resources on tribal homelands. Fond du Lac Bad River, Lac Courte Oreilles, Lac du Flambeau, and Keweenaw Bay are among the regional tribes to receive the federal grants following a nation-wide competitive selection process. Secretary of the Interior Gale Norton on January 26 announced that sixty federally recognized tribes would share nearly $14 million under two grant initiatives, the Tribal Landowner Incentive Program and Tribal Wildlife Grant Program. The programs target protection, restoration and management of fish and wildlife habitat to benefit at-risk species, including those federally listed as endangered or threatened. On the Lac du Flambeau (Ldf) reservation, natural resource officials are using a $120,330 Tribal Wildlife Grant award to help launch lake sturgeon restoration efforts on the Bear River and Lac du Flambeau Chain of Lakes. Larry Wawronowitz, Ldf fish and wildlife director, said that a handful of dams first created around a century ago have disrupted sturgeon spawning patterns, sharply reducing reproduction. The Wisconsin Department of Natural Resources—one of a handful of partners in the project—will help collect and transfer eggs from nearby sturgeon populations to the tribal hatchery. Soon after the eggs hatch, the tiny sturgeon will grow to six to eight inches in rearing ponds before being released into reservation waters.

“Very few fish are still in the system, and it will take some time to rebuild the population. This is a long-term project,” Wawronowitz said, noting that it takes female lake sturgeon more than 20 years to become sexually mature. While fisheries-related projects represent the most widespread application of the grant awards among GLIFWC tribes, the USFWS also funded a wild rice restoration project and moose population study requested by Fond du Lac. The tribe received four grants in all.

The USFWS has earmarked another $9 million dollars to fund additional tribal conservation projects in the future. Agency officials expect to issue a request for proposals sometime during summer 2004, inviting tribes to apply for the new project money. Unsuccessful applicants from the recent grant distribution are also encouraged to refine and resubmit their proposals for consideration. American Indian tribes control more than 52 million acres in the contiguous United States, while Alaska native corporations hold an additional 40 million acres.

For more information about grant opportunities contact Minneapolis-based USFWS tribal liaison John Leonard at (612) 713-5108.
Native American Study majors added to Northland College curriculum

By Sue Erickson
Staff Writer

Ashland, Wis. – Students attending Northland College in Ashland, Wisconsin will be able to opt for a Native American Studies major for the first time, much to the delight of Professor Joe Rose, Native American Studies (NAS) program director. For him, the new majors fulfill a long-held personal and professional goal.

The NAS program at Northland began thirty years ago with the arrival of Rose on staff. Rose, along with NAS staff, have steadily built the program, but now students could only minor in NAS or pursue a Native American concentration within a history major.

“The addition of NAS majors greatly enhances our program,” Rose says, “and is complementary to the environmental liberal arts emphasis for which Northland is well-known.” Actually, two NAS majors are being offered starting next fall. The Native American Studies/Outdoor Education major integrates Native American teachings and skills with those of the Outdoor Education program, and the Native American Studies/Business major provides management and entrepreneurship skills to students interested in business careers or tribal management.

The new majors were first recommended by the Native American Studies Task Force, a group of native and non-native individuals who have been working towards strengthening the college’s NAS program over the past two years. Rose says. He also credits support from Northland College President Karen Halbersleben, Dean Linda Sletten, and the Science Division Head Christian Bisson for the final adoption of the two majors.

After Rose and Clayton Russell worked on numerous drafts of the core components for the NAS majors, written proposals were submitted to the Dean’s Course Approval Committee. From there the proposals were submitted to the Academic Counsel, which gave their final stamp of approval in late December 2003.

The NAS majors feature courses in Native American culture, literature, language, history, philosophy, ethnobiology, and art. The NAS/Natural Education major also emphasizes experiential skills with a focus on leadership, management, communication, and teaching skills, while the NAS Business major focuses on management skills and relationships with a non-Native society.

In addition to the new majors, the NAS program is in the process of building a new Native American museum on campus that will feature the traditional, seasonal activities of local tribes. The museum is located in Mead Hall, directly across from the NAS staff offices. The museum will sponsor a number of activities and events once it is completed.

Beyond its core program, the NAS also sponsors the all-campus Thanksgiving Day feast in the fall and Native American Awareness Days and Powwow each spring. The 30th annual powwow was held on March 20th at the Northland College gym. Native American Awareness Days features a variety of events and activities, including storytellers and guest speakers on Native American topics and issues.

For more information on a NAS major, minor or course offerings see the website at www.northland.edu.

Winnebooshoo finds his way!

By Nee-Gaw-Nee-Gah-Bow
A Wolf Clan member of the Lac Courte Oreilles Ojibwe Band

The Anishinaabe people had experienced almost all their meat supply. The meat animals, i.e. the deer, bear, partridge, moose, etc., may not have been plentiful due to a severe winter, so tribal hunters were unable to kill enough animals to meet the necessary tribal demand.

The families were disillusioned and fearful of hunger. Lack of adequate clothing, and all the other supplies they delivered from animals, such as needles for sewing, bones for utensils, and hides for boots and blankets. Hunting parties after hunting parties returned without much meat. This was getting very serious as winter would soon be approaching.

Winnebooshoo who lived amongst the Anishinaabe and was not unaware of their plight. Winnebooshoo was a medicine man who could exercise the power of his spirit to find the unknown and make things happen. He was sent and placed to live amongst the Anishinaabe by the Creator to help them in times of despair and to teach them medicine and how to live a good life. So the Anishinaabe called upon him to help them to secure meat and other vital necessities for their survival.

Winnebooshoo knew where all the animals were in a far distant area. He had to go there to try and persuade them to return to their original habitat near the Anishinaabe communities. This would be a very difficult task and journey.

However, Winnebooshoo was determined to help the Anishinaabe. He traveled alone through thick and dark forests, forged treacherous streams and rivers, and climbed steep wind and rocky slopes of big hills. He traveled for many days and only rested a little during the darkness at night. Even though he knew where he was going, he had never traveled this way alone before. In his consistent trek, in what he assumed was the correct direction, he realized that he was off track. Despite this he decided to encounter the animals and persuade them to return to the Anishinaabe, he continued his unending journey, crossing the tall grass dance that he started to dance with and amongst the tall grass across the field.

He was so happy that while he was dancing he laughed, shouted, was happy, and sang. He was so elated that he even forgot that he was in search of animals. He danced like this for a long time with the tall grass, but before it got dark, he spotted animals at the other end of the open field. Not only were the animals aware, but they were so overjoyed to see Winnebooshoo, so happy that they were eager to go back home amongst the Anishinaabe People. And they didalong with Winnebooshoo. The Anishinaabe People survived and went on with their lives.

How do you interpret this Winnebooshoo story? It has a moral. The moral is not always the same for everyone.

This Winnebooshoo story tells me that powerful spirits can have negative emotions and even get lost. Sometimes I get lost in my search for something that I really need in life. However, in despair something will come along that will lift me up and make me so happy to the extent that what I needed was bestowed upon me without even trying. They say this is a sign for having a lot of fun with me also.

Native American tribal leaders: Proud, skillful treaty negotiators

Mount Pleasant, Mich.—The lives and times of Native American tribal leaders in the Great Lakes region who signed treaties with the federal government in the 1820s are featured in a new Clarke Historical Library exhibit at Central Michigan University.

The exhibit centers on 22 full-color lithographs of Native American leaders published in Boston in 1853. The lithographs were made from images that were color prints made from the original, mostly watercolor paintings of the Indian leaders drawn from life at the various treaty ceremonies.

The lithographs, purchased by the library at a Chicago auction in 2003, were color prints made from the original, mostly watercolor paintings of the Indian leaders drawn from life at the various treaty ceremonies. The original sketches were destroyed in an 1865 fire at the Smithsonian Institute in Washington, D.C.

The exhibit also features a number of other printed items that shaped relationships between Native Americans and Euro-Americans, including: several books written by Potawatomi leader Simon Pokagon and printed on birch bark; the first copy of the New Testament published in the Ojibwe language, printed in 1833; a first edition of Henry Wadsworth Longfellow’s poem “Song of Hiawatha,” which was published in Boston in 1855.

“Native American Treaty Signers in the Great Lakes Region” runs through July 16 in the library’s Francis and Mary Lois Molson Gallery. Admission is free and open to the public. For more information visit their website at www.clarke.cmich.edu.
New faces at GLIFWC

By Sue Erickson, Staff Writer

Matt Hudson, environmental biologist

The new year brought several new staff members to GLIFWC offices. Among them is Matt Hudson who joined the Biological Services Division as GLIFWC’s environmental biologist in January.

Hudson hails from West Bend, Wisconsin. He completed his undergraduate studies in water chemistry at UW-Stevens Point and obtained a Masters degree at the University of Minnesota in water resources science with a focus on environmental chemistry.

His previous work experience includes a one-year internship as head researcher for a Wisconsin Department of Natural Resources’ (WDNR) Lake Planning Grant. This study entailed collecting samples, analysis and compiling the final report. He also worked as a lab technician while at UW-Stevens Point. Other related experience includes a summer internship with the WDNR as a water resources technician, involving him in sample collection and data analysis.

Several GLIFWC staff members who have, or will in 2004, reach 5-10-15-20 year milestones during All Staff Day on February 26 in Odanah. (Photo by Charlie Otto Rasmussen)

Tanya Aldred, wild plant/wildlife technician

February 2nd marked the start for Tanya Aldred as GLIFWC’s new wild plant/wildlife technician. A Keweenaw Bay tribal member, Aldred calls Ishpeming, Michigan her hometown, but in fact, moved multiple times around the state during her early school years.

She graduated with a Bachelor of Science degree in fisheries and wildlife management from Michigan State University in Lansing in 2001, but soon departed for Australia where she lived and worked for a year and a half in the western Australia outback.

While in Australia she volunteered with the federal Conservation and Land Management Program and also had an opportunity to be involved with dolphin research at the Dolphin Research Center on the Australian west coast.

Other related professional experiences include working on crayfish research in Michigan inland lakes and with the U.S. Fish & Wildlife Service’s Sea lamprey Control Program while pursuing her degree. She also volunteered with the Lamprey Control Program after returning from Australia in September 2003.

In her current position with GLIFWC, she will be working with the long-term understory plant research to determine the impact of logging on understory plants as well as with wildlife management projects. The position entails both data entry and field work.

Aldred lives in Ashland. Her leisure pursuits include a number of outdoor activities, such as snowboarding, hiking, camping and canoeing. She also enjoys yoga and has recently taken up kick boxing.

Michele Wheeler, inland fisheries biologist

The Biological Services Division welcomed Michele Wheeler to her new position as an inland fisheries biologist in January. Wheeler, a native of Pennsylvania, moved to Ashland, Wisconsin from California, where she has been working on her Master of Science degree in fisheries at Humboldt State University. She obtained her Bachelor of Science degree in environmental resource management at Penn State University, Pennsylvania.

She spent a number of years working in the sciences surrounding the salmonid fishery. This included several positions with the U.S. Forest Service that involved spawning assessment and restoration, work with water quality monitoring and a position at a University of Washington research station on the Olympic Peninsula evaluating the benefits of restoration projects to the fishery. Wheeler also worked for a private, non-profit organization in an outdoor science education program for youth.

Her husband, Jon, graduated from Northland College in Ashland and the couple had been interested in settling in northern Wisconsin. This stimulated her interest in the position with GLIFWC as well as an opportunity to work in a situation where one can see your work directly applied.

In her position Wheeler will be supervising assessment crews and coordinating spring adult walleye population estimates and fall walleye recruitment surveys conducted by GLIFWC in Wisconsin and Michigan lakes. She will also be involved with planning and preparation for spring harvest monitoring and various other projects.

Wheeler is kept busy outside of work with ten-month old twins, Lily and Caitlin. She and her husband like fishing, walking in the woods and canoeing. They hope to find time to enjoy these activities in the northland. She also enjoys quilting and wood working, but since the twins arrived has had little time for leisure pursuits.

For more information on GLIFWC visit our website at www.glifwc.org. You may also become a subscriber to Mazina’igan by e-mailing pio@glifwc.org and providing us with your mailing address. Subscriptions to Mazina’igan are free.

GLIFWC staff was privileged to observe an Anishinaabe naming ceremony for Sharon Nelis, a Bad River member and program assistant in GLIFWC’s Planning and Development Division. Above, Tobasonakwut Kinew passes a pipe to Sharon and speaks her spirit name for the first time, nenaaikiizhiigook, or Healing Sky Woman. Kinew explained that everyone has an Anishinaabe name which is how one is identified in the spirit world. After moving on from this world, one’s Indian name is important in continuing the journey into the next life, he said. While some traditional people frown on open discussion of namings and other ceremonies, Kinew, a spiritual leader from Onigaming, Ontario related that cultural secrecy is a product of assimilation when government policy forced Indian people to renounce their heritage or face punishment. The ceremony took place during All Staff Day on February 26 in Odanah. (Photo by Charlie Otto Rasmussen)
MAZINA’IGAN (Talking Paper) is a quarterly publication of the Great Lakes Indian Fish & Wildlife Commission, which represents eleven Ojibwe tribes in Michigan, Minnesota and Wisconsin. Subscriptions to the paper are free. Write: MAZINA’IGAN, P.O. Box 9, Odanah, WI 54861, phone (715) 682-6619, e-mail: pio@glifwc.org. Please be sure and keep us informed if you are planning to move or have recently moved so we can keep our mailing list up to date.

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