Mazina'igan
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Regional collaboration to develop plan for Great Lakes

By Sue Erickson
Staff Writer

Chicago, Ill.—A Grandmother's Song presented by Red Cliff Vice Chairman Mark Montano was part of the invocation he presented for the first convening of the Great Lakes Regional Collaboration (GLRC) in Chicago last December. Montano also recognized the important, spiritual connection between tribal people and the natural resources and the ongoing concern tribes have for the well-being of Mother Earth, especially the water.

The collaboration brought together stateside leaders from the Great Lakes states to focus on Great Lakes issues and improve coordination of Great Lakes initiatives. Montano's song set the stage of ongoing tribal participation throughout the planning process.

Great Lakes Indian Fish & Wildlife Commission (GLIFWC) and tribal representatives rubbed elbows and shared remarks with Great Lakes regional governors, state and federal congressional representatives, mayors and staff from federal cabinet agencies during the first convention.

The meeting culminated with the signing of the Great Lakes Declaration, which recognizes the Great Lakes as an "international treasure" and acknowledges the numerous collaborative efforts involving multi-governments and non-governmental stakeholders who are already addressing Great Lakes issues. The Declaration affirms the need to build "upon the extensive regional efforts to date, to collaboratively work together with the Great Lakes community toward a common goal of protecting and restoring the Great Lakes ecosystem in order to address the new and continuing challenges and ensure a healthy ecosystem for future generations."

GLIFWC Board of Commissioners Chairman Mic Isham, Lac Courte Oreilles, signed the Great Lakes Declaration on behalf of GLIFWC. Some representatives from GLIFWC member tribes also signed on behalf of their tribes, while others brought the declaration back to their tribal councils for consideration.

Sunrise over Lake Superior.

Among opening remarks were those presented by Tribal Chairman Frank Ettawageshik, Little Traverse Band of Odawa Indians who reminded participants of the need to protect the **(See Great Lakes, page 20)**

Wisconsin Act 118: The wetlands deregulation act?

By Peter David
GLIFWC Wildlife Biologist

Odanah, Wis.—They say you can't judge a book by its cover, and apparently the same is true of legislation.

Wisconsin Act 118 is often referred to by its proponents as the "Jobs Creation Act", and what could be better than creating jobs?

But dig even slightly below the surface of this title and you will see that Act 118 could more accurately be called the "Wetland Deregulation Act."

Bad River manoomin (wild rice). (Staff photo)

Act 118 significantly changed how, and when, the Wisconsin Department of Natural Resources (WDNR) reviews and issues permits for activities conducted on the state's shorelines.

In the past, activities in the near-shore area were carefully regulated in order to protect the critical ecological values these areas possess. But some building and developing interests found the permitting process onerous and worked to have it changed.

Act 118 was passed in 2003, and the WDNR has since been busy developing the rules necessary for its implementation. The proposed rules (under the consideration by the State Assembly and Senate Natural Resources Committees at press time) exempt a number of activities from the permitting process and create general state-wide permits for others.

As examples, no WDNR permit or review would be required for a riparian landowner to deposit up to two cubic yards of sand, gravel or stone in the lake bed every five years (that's enough to cover an area 13' x 13' nearly four inches deep), to rip-rap up to 75 feet of shoreline, or to conduct manual dredging. General state-wide permits, with a streamlined, "double check", 30-day review process would be used to address situations such as the placement of clear-span bridges on navigable waters less than 35 feet wide, the placement of new culverts, and certain types of mechanical dredging.

Opponents to the legislation fear that the ecological functions of many near-shore areas will be degraded as a result and are concerned that the public will be unable to protect themselves from actions that may negatively impact them or their property values.

Under the proposed rule, a small percentage of the state's waters—areas with particularly sensitive qualities—will not be subjected to the relaxed permitting standards of Act 118. These include state natural areas, trout streams, "Outstanding or Exceptional Resource Waters", and water with "scientific value" identified by the WDNR. Included in the latter category are waters with rare species, certain ecologically significant coastal wetlands along the Great Lakes, and of great interest to many tribal members, wild rice waters identified by the WDNR and the Great Lakes Indian Fish & Wildlife Commission.

This last point must be stressed: in order for wild rice waters to be pro- **(See Wisconsin Act 118, page 15)**

Fishermen work around ice, wind on Gichi Gami

By Charlie Otto Rasmussen
Staff Writer

Saxon Harbor, Wis.—Despite dramatic temperature fluctuations and shifting ice floes, tribal commercial fishermen pulled in a good catch last winter on Lake Superior, or Gichi Gami in the Ojibwe language. With whitefish stocks booming and lake trout continuing a strong recovery, fishermen successfully netted open water areas along the south shore.

"This season was marked by above average winds that prevented ice from forming on the main body of the lake," said GLIFWC Fisheries Biologist Bill Mattes. "Tug operators were able to run later in the season because of the open water created by the winds."

Locked in ice during most winters, Saxon Harbor east of the Bad River reservation was available to commercial fishermen this year. The tribal tug Thomas C. Mullens battered through near-shore ice on some days and became temporarily froze-in on others while working nearby gill nets. Warm southerly winds and arctic air currents wrangled over the position of ice floes around the harbor.

Peter Andrews, one of several tribal fishermen on the Mullens, said the crew has done fairly well finding whitefish, the target species. Gill nets were effective on the lakebed, in around 75-150 feet of water where the bottom-feeding whitefish congregate. Fish species generally occupy specific areas of the water column.

"I haven't seen a salmon since I've been here," Andrews said in early February. A popular fish with sport anglers, the exotic salmon species are usually found away from the bottom, closer to the surface. They also appear in and around Lake Superior tributaries. Tribal codes require a one-mile set back from river mouths to protect salmon.

The Mullens and other commercial tugs invariably find some lake trout in their nets. Since the tribal harvest quota is restrictive, however, commercial fishermen tend to shy away from lakers. Licensed fishermen receive a limited number of lake trout tags; once all the tags are filled, fishing for all other species shuts down as well.

"Commercial fishermen are allowed to release healthy lake trout from their nets and put them back into the lake," Mattes said. With valid lake trout tags for both Wisconsin and Michigan waters, the crew of the Mullens is eligible to harvest fish on either side of the invisible state line.

GLIFWC Great Lakes fishery staff conducted monitoring at Saxon Harbor, Houghton and Marquette throughout the winter, recording the length and weight of the tribal catch. Technicians also remove scale and otolith, or ear bone, samples from each fish to help determine their age.

"Over time we can track different age groups of fish with the monitoring data," Mattes said. "It's essential information to evaluate the health and size of fish populations."

An interagency workgroup of GLIFWC, tribal and state biologists analyze fisheries data annually to determine quotas and bag limits for key species like lake trout. Seasonal survey results, biological monitoring data and sport and commercial fishing harvest totals are primary indicators in evaluating the fishery, Mattes said.

Tribes declare for 2005 spring spearing in Wisconsin & spearing and netting in Minnesota

Wisconsin

In Wisconsin, the Bad River, Lac Courte Oreilles, Lac du Flambeau, Mole Lake, Red Cliff, and St. Croix bands declared walleye and muskellunge from 313 lakes plus 5 lake chains. Out of the safe harvest figure of 89,927 walleye for all ceded territory lakes, the bands declared a combined total of 43,692 walleye for the 2005 season.

Lakes were also declared for muskellunge. The combined muskellunge declaration is for 1,733 muskellunge from a safe harvest total of 4,818 muskellunge in ceded territory lakes.

In 2004, the spring spearing season in Wisconsin ceded-territory waters ran from April 9 through May 8, where a total of 405 tribal members from six bands speared on 188 lakes. A total of 27,546 walleye were harvested from 185 lakes. Numbers of other gamefish harvested were 207 muskellunge, 187 bass, and 20 northern pike. Average lengths were 15.4 inches for walleye and 38.1 inches for muskellunge.

The spring 2005 spearing season will mark the twenty-first consecutive year for this traditional, off-reservation treaty fishery.

Minnesota

The Mille Lacs, Fond du Lac, Bad River, Lac Courte Oreilles, Lac du Flambeau, Mole Lake (Sokaogan), Red Cliff, and St. Croix bands declared a combined total of 100,000 pounds of walleye from Mille Lacs Lake for 2005. Declarations were also made for other quota or cap regulated species in Mille Lacs Lake including yellow perch, tullibee, burbot, and northern pike.

In addition, declarations were made for Minnesota 1837 ceded territory lakes other than Mille Lacs that included seven lakes with a combined walleye declaration of 1,232 pounds and 19 lakes with a combined walleye declaration of 2,552 fish. All declarations for Mille Lacs and other lakes were made according to provisions of the Treaty Fisheries Management Plan for the 1837 Minnesota Ceded Territory for the Years 2003-2007.

In 2004, spring spearing and netting in Minnesota 1837 ceded territory waters ran from April 2 through May 3, where tribal members from eight bands harvested fish from Mille Lacs Lake with spears and gillnets. The number (and pounds) of harvest for each of the quota regulated species was 32,493 walleye (74,909 pounds), 3,199 yellow perch (2,246 pounds), 78 tullibee (91 pounds), 171 burbot (293 pounds), and 2,056 northern pike (9,213 pounds). Average weight was 2.3 pounds for walleye and 4.5 pounds for northern pike. No waters other than Mille Lacs Lake were harvested by the bands in 2004.

The spring 2005 spearing season will mark the eighth consecutive year for this treaty fishery.

Revised mercury maps available for spring fish harvest

The newly revised mercury maps will be out before the start of the spring spearing season. The maps have been updated with input from tribal members during focus group meetings last October. They will be available at registration stations, spearer's meetings, and on the web at *http://www.glifwc.org*. The revised maps will include a 1-800 number that can be called to request a map, for questions about the maps, or questions about mercury.

Mille Lacs Lake northern pike study to begin in spring 2005

By Nick Milroy, GLIFWC Inland Fisheries Biologist

Odanah, Wis.—With the successful walleye tagging study wrapping up, state and tribal fisheries biologists have focused their attention on planning and conducting a tagging study of the Mille Lacs Lake northern pike population.

During spring 2005, fisheries assessment crews from the Minnesota Department of Natural Resources (MnDNR), Great Lakes Indian Fish & Wildlife Commission (GLIFWC), and Fond du Lac Band (FDL) will use trap nets to capture, tag and release adult northern pike. Biologists hope to tag at least 2,000 of these fish. The last northern pike tagging study on Mille Lacs Lake ran from 1992 through 1998 and was conducted solely by the MnDNR. The current study is being proposed for two years.

State and tribal fisheries biologists are undertaking this cooperative tagging study to generate an up-to-date estimate of northern pike abundance that is independent of ongoing modeling efforts. Harvest characteristics and impacts will also be examined as will the seasonal movements and the spatial distribution of northern pike in Mille Lacs Lake.

The marking phase of this study is expected to begin in tributary streams to Mille Lacs Lake in late March or early April. Trap netting and tagging activities will gradually expand into the Rum River and other areas of Mille Lacs Lake as ice out occurs and sampling conditions allow.

Tribal netters should expect to see some northern pike in their catches that are marked with plastic tags which stick out from the side of the fish next to the dorsal fin. These tags will be yellow in color and will have "MN DNR" plus a number printed on them.

Tribal and GLIFWC creel clerks will document tag numbers as they are encountered in tribal catches monitored in 2005 and in future years. MnDNR creel clerks are planning to collect similar information from state-licensed anglers in conjunction with their annual creel surveys.

State and tribal survey crews also plan to conduct a recapture survey shortly after tagging is completed using experimental gill nets. These nets will be set on a short term basis at a variety of locations throughout Mille Lacs Lake.

On the cover

Fresh fish! Sharon Hallberg purchased four lake trout right off the boat from Peter Andrews on February 3 at Saxon Harbor for $1.00 a pound. Andrews and a small crew of tribal fishermen operated a commercial tug out of the harbor through the winter. (Photo by Charlie Otto Rasmussen)

Red Cliff prepares for spring spearing and netting

Quotas, lakes, mercury concerns & fish tales

By Sue Erickson
Staff Writer

Red Cliff, Wis.—Planning for the spring spearing and netting season starts early for GLIFWC member tribes. Lakes must be named and quotas declared prior to a March 15th deadline when declarations are submitted to the state in both Wisconsin and Minnesota.

For the Red Cliff Band, spearers were called together at a February 1st meeting to name lakes and discuss the amount of fish the tribe needed to declare for the 2005 season. That information would then be brought to the to the Red Cliff Tribal Council for approval.

One concern voiced early on at the meeting was that tribal quotas were down on most lakes, decreasing harvest opportunity on many lakes.

Mark Duffy, Red Cliff tribal conservation officer and spearer, estimated that the quotas in lakes commonly used by Red Cliff were down nearly 25%. "Adding lakes to our list will make up for that decrease," he said. The Red Cliff Band usually harvests most of its declared quotas. Last year, band members took 95% of the fish declared, according to Leo LaFernier, Voigt Intertribal Task Force representative.

The Red Cliff spearers decided to add seven lakes to their list of declared lakes this year, including Long, Amnicon, Minnesuing, Minong Flowage, Bladder, Atkins and Whitefish.

Sean Charette, Red Cliff Hatchery staff, announced that the hatchery crew would be out on several lakes, such as Nelson Lake and the Eau Claire Chain, collecting eggs and milt for hatchery use. Walleye raised from that effort will be stocked back into the lakes of their origin.

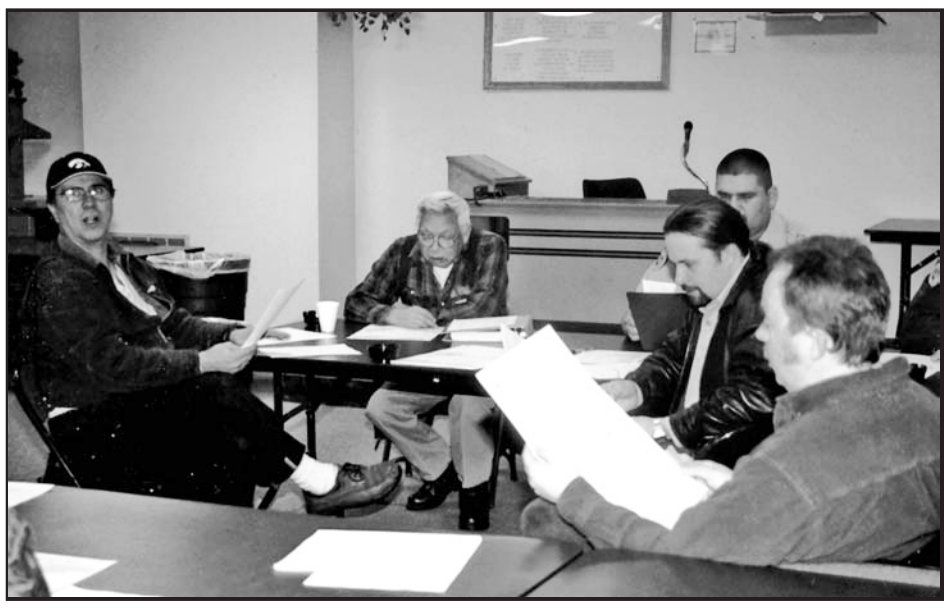
Hatchery staff will also be taking eggs at Lake Owen in a collaborative project with the Cable-area's Fish for the Future. Fish for the Future has ten one-acre ponds for rearing walleye fry to stock the lake and has worked successfully with the Red Cliff Hatchery in the past.

LaFernier also reminded tribal members of the opportunity available at Mille Lacs Lake this spring, both for netting and spearing. In 2005, the eight Ojibwe bands with treaty rights in Mille Lacs Lake may jointly harvest 100,000 pounds of walleye and 12,500 pounds of northern pike. Red Cliff's share of that joint quota is 7,143 pounds of walleye and 803 pounds of northern pike. The tribe also declared an allocation of 22,500 pounds of yellow perch, 714 pounds of cisco and 1,000 pounds of burbot. Red Cliff tribal members are allowed five netting permits per person to make a trip to Mille Lacs Lake worth the time and expenditure. "It is a long way to go and sometimes conditions are rough, so the tribe tries to provide ample opportunity for those who travel there," LaFernier said.

Another issue raised at the meeting was mercury contaminant levels in walleye. LaFernier passed out GLIFWC's color-coded mercury maps so spearers could identify which lakes commonly used by Red Cliff members had higher levels of mercury in the walleye. The maps are designed to help tribal members select lakes with lower levels of contamination.

For Marvin Defoe, Red Cliff Tribal Council member and spearer, mercury contamination concerns are a high priority, and he intends to label his fish as it is bagged. "I'm going to color-code bags of my fish this year so I don't handout fish with high mercury levels to families with kids or pregnant women," he commented.

Of course no gathering of fishermen can go without the opportunity to tell some fish tales. Stories started to flow once the meeting was adjourned, including the one when Marvin Defoe speared a musky and swung it, fighting mad, into the small spearing boat. That mad musky got his revenge on Marv's unwitting spearing partner, sinking his needle-sharp teeth into Jimmy Hudson's posterior. Ouch! "Oh yeah, and then there was the time…"



Red Cliff tribal spearfishmen met with members of their tribal council, Voigt Intertribal Task Force (VITF) representatives and GLIFWC enforcement during an annual spring spearing meeting. The meeting is used to determine the amount of fish needed by tribal members and which lakes they prefer to use. Similar meetings take place at other GLIFWC member reservations in preparation for spring spearing and netting seasons. Pictured above are Red Cliff Councilman Marvin Defoe, VITF Representative Leo LaFernier; GLIFWC Warden Mark Bresette; Red Cliff Councilman Mark Montano, and Red Cliff Conservation Enforcement Officer Mark Duffy. (Photo by Sue Erickson)

A fish tale

As related by Red Cliff's Marvin Defoe, who saw it himself!

Marvin was early at a boat landing one evening, waiting for dusk before going out spearing. Standing by the shore, he noticed the flat, shiny surface of a rock rising out of the water not too far off shore. On that rock sat a lone acorn. It wasn't long after he noticed the acorn that he saw a squirrel up in a nearby tree. It also had his eye on the acorn. Pretty soon that squirrel whipped down the tree trunk and, quick as a wink, jumped onto the rock. He sat there, acorn in hand, apparently ready to enjoy a snack. Suddenly, the water bubbled and swirled near the rock, and in an instant, a musky jumped up and grabbed that squirrel, acorn and all. All Marvin could see were the remaining ripples and tufts of squirrel hair adrift on the lake's surface. But it wasn't much later that another disturbance made swirls through the water by the rock, and darn if that old musky didn't pop right up and spit the acorn back onto the rock before quickly slipping back into the darkness of the water!

GLIFWC to survey Wisconsin & Michigan ceded territory lakes

By Joe Dan Rose, GLIFWC Inland Fisheries Section Leader

Odanah, Wis.—Each year during spring biologists with the Great Lakes Indian Fish and Wildlife Commission (GLIFWC) survey select lakes to assess the spawning adult walleye population. GLIFWC conducts these population surveys on behalf of its member tribes to generate sound scientific data that will help in the understanding and management of fisheries resources within Wisconsin and Michigan ceded-territory waters.

These surveys allow GLIFWC biologists to estimate the population of spawning adult walleye using electrofishing boats. The surveys start once the ice cover has left the lake and water temperatures warm-up enough to stimulate spawning. These mark and recapture surveys usually last 3-5 days. During the marking phase of these surveys, crews will capture adult walleye, mark them with a fin clip or floy tag, and release them back into the lake. Crews will then allow time for marked fish to mix with unmarked fish throughout the lake.

During the recapture phase of these surveys, a one night recapture run will be conducted along the entire shoreline, noting the number of marked and unmarked fish captured. After collecting biological data, all fish will be released alive. The lakes scheduled for spring 2005 mark-recapture surveys are listed to the right.

Wisconsin

Siskiwit Lake (Bayfield Co.)
Long Lake (Chippewa Co.)
Upper St. Croix (Douglas Co.)
Butternut Lake (Forest Co.)
Dam Lake (Oneida Co.)
Sand Lake (Oneida Co.)
Squirrel Lake (Oneida Co.)
Birch Lake (Sawyer Co.)
Chetac Lake (Sawyer Co.)
Windfall Lake (Sawyer Co.)
Annabelle Lake (Vilas Co.)
Big Muskellunge (Vilas Co.)
Big St. Germaine (Vilas Co.)
Harris Lake (Vilas Co.)
High Lake (Vilas Co.)
Kentuck Lake (Vilas Co.)
Lake Laura (Vilas Co.)
Presque Isle Chain (Vilas Co.)
Sherman Lake (Vilas Co.)
Squaw Lake (Vilas Co.)
Bass/Patterson Lake (Washburn Co.)

Michigan

Pomeroy Lake (Gogebic Co.)

For additional information or questions regarding these surveys, contact Michele Wheeler, inland fisheries biologist; or Joe Dan Rose, inland fisheries section leader at (715) 682-6619.

The Great Lakes awash in policies

By Tina Adler, Contributing Correspondent
Environmental Health Perspectives

When a national resource has 8,300 miles of shoreline and 6 quadrillion gallons of fresh water—making it the largest surface freshwater system on Earth—it's bound to attract some attention. Now surround that resource with eight states, two Canadian provinces, and multiple tribal lands, and you've got a political hot spot known as the Great Lakes basin. Add to this picture vast numbers of individuals and industries relying on the water to serve as their fishing—and dumping—grounds as well as a source of drinking water, transportation, recreation, and power, and it's no wonder the U.S. government alone has about 140 programs devoted to the care and maintenance of the Great Lakes.

The Great Lakes basin has suffered from severe pollution problems, one of the most dramatic being recurring fires on one of Lake Erie's arteries, the Cuyahoga River. The fires began in 1936, when a spark from a blowtorch ignited waste oil floating on the river. Recurrent fires continued until the early 1970s, when policy makers and others decided to crack down on pollution.

Nowadays, the fires are history and the lakes are cleaner. But the Great Lakes remain plagued by mercury contamination, legal and illegal dumping of industrial chemicals, burgeoning populations of invasive species, and dwindling food supplies and habitat for native creatures. The Environmental Protection Agency's (EPA) *National Coastal Condition Report II*, released in January 2005, ranked the health of the lakes' coastal waters between poor and fair, based on the deterioration of coastal wetlands, the poor condition of the lake bottoms, low levels of dissolved oxygen, and sediment contamination.

After 30 years of new policies, regulations, procedures, guidelines, agreements, and directives aimed at helping the lakes, old problems persist, and new ones are cropping up. Policy makers have determined that the Great Lakes are suffering from good, but very disorganized, intentions and a shortfall in funding. As former EPA administrator Mike Leavitt said in a 2004 speech, "We have lots of musicians, but we need more harmony."

Finding harmony

In May 2004, in an effort to support restoration efforts and, some analysts say, create political goodwill in key election states during an election year, President Bush jumped into the Great Lakes policy arena. He issued an executive order that recognized the Great Lakes as a "national treasure" and established an interagency task force of 10 cabinet and agency heads to coordinate restoration projects under the EPA's leadership.

The president also directed the EPA to convene a Great Lakes Regional Collaboration (GLRC) of stakeholders in the lakes. Participants held their first meeting on December 3, 2004. The collaboration includes elected officials from the eight Great Lakes states (Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania, and Wisconsin) and representatives of municipal and county governments, environmental groups, and 30 Indian tribes. The Canadian provinces of Québec and Ontario, as well as the Government of Canada, serve as observers.

The collaboration, although intended to bring harmony to a discordant orchestra of voices and opinions, is "unprecedented in its scale and bureaucratic complexity," the *Christian Science Monitor* asserted in its December 22, 2004 edition. Nevertheless, the collaboration "is coming together very well," says Gary Gulezian, director of the EPA's Great Lakes National Program Office in Chicago. The collaboration is "an idea whose time had come," he asserts.

Most of the work of the collaboration is being done through eight "strategy teams." Any representative of groups working on Great Lakes issues may volunteer to be on a team. Each team is addressing one priority issue: habitat and species, indicators and information, areas of concern, reduction of persistent bioaccumulative toxics, invasive species, sustainable development, coastal health, and non–point source pollution. These priority issues were endorsed by the Council of Great Lakes Governors (CGLG), a partnership formed to facilitate environmentally responsible economic growth. Each team is developing draft recommendations on how to make progress in its respective issue area. The recommendations will be publicly released in summer 2005 and finalized by the end of the year.

Part of the impetus for the collaboration was a 2003 report by the Government Accountability Office (GAO), then known as the General Accounting Office. The report asserted that restoration efforts for the Great Lakes lack leadership and organization, and require a comprehensive strategy similar to ecosystem restoration projects in South Florida and the Chesapeake Bay. "The GAO report really sparked things," says Andy Buchsbaum, director of the National Wildlife Federation's Great Lakes Natural Resource Center in Ann Arbor, Michigan, and a member of three of the strategy teams. A flurry of congressional hearings on the Great Lakes and the CGLG's list of restoration priorities followed the publication of the report.

Buchsbaum and other Great Lakes experts describe the collaboration and cabinet-level task force as both unique and beneficial. Other policy initiatives either have focused on single issues, were limited geographically, or had few collaborators, he notes. Moreover, the EPA has put a lot of muscle into the collaboration and task force, Buchsbaum says.

That muscle was Leavitt, who took a personal interest in the lakes. He toured the Great Lakes states last year to discuss the environmental problems and brought those concerns cabinet-level attention. However, Leavitt's involvement may be short-lived, as he was confirmed as secretary of the Department of Health and-Human Services on January 26, 2005.

What his departure means to the collaboration and the task force remains unclear. "It is a cause for concern," says Buchsbaum. "The process has been pretty self-sustaining to a large degree, at least for the first few months, but we don't know if that will continue without Leavitt's involvement." He adds, "The big question is, at this time next year will we be able to say that this process has built momentum toward Great Lakes restoration? Or will it have simply distracted the players and stalled the momentum?"

The collaboration does have international support. Canada has representatives on all of the strategy teams established at the December collaboration meeting, says Marie-Christine Lilkoff, a spokesperson for the Canadian Department of Foreign Affairs. In a speech at the December meeting, Canadian consul general Anne Charles said, "The government of Canada welcomes the establishment of the U.S. Interagency Task Force and actions to improve coordination and strategic direction on Great Lakes policy, priorities, and programs in the United States, and to collaborate with Canada." And in a press release issued when the task force was announced, David Anderson, Canada's minister of the environment at the time, called the executive order "a strong sign of the importance of the Great Lakes to the United States government."

Cutting out or prioritizing?

However, the task force's goal to prioritize restoration efforts is giving some members of the Great Lakes community the jitters. Industry representatives recognize the importance of gaining a better understanding of "where we are going and what we are trying to do," says George Kuper, president of the Council of Great Lakes Industries in Ann Arbor, whose group includes Canadian and U.S. businesses. At the same time, Kuper, who is serving on two of the collaboration strategy teams, worries that the task force may inadvertently divert resources from successful efforts already under way, such as the Great Lakes Binational Toxics Strategy (GLBTS).

The GLBTS is a Canadian–U.S. agreement to work toward virtual elimination of 12 toxic, persistent, bioaccumulative substances from the Great Lakes basin and to reduce levels of an additional 15 substances from the environment around the Great Lakes. The agreement leaves it up to companies to decide how to achieve these goals, Kuper says. Environmentalists don't like that it's voluntary, "but it's the most efficient way of meeting the targets and time tables," he asserts. "And it's working—we're on track to meet the GLBTS goals by or before the 2006 deadline."

Another concern is that efforts to coordinate and prioritize during tight budget times might be an excuse by policy makers to do less rather than more, says James Zorn, a policy analyst with the Great Lakes Indian Fish & Wildlife Commission (GLIFWC), which represents the interests of 11 Ojibwe tribes. Zorn cochairs the collaboration's persistent bioaccumulative toxics strategy team.

What's lacking in restoration efforts is not priority setting but substantive policy or legislation to control the problems, Zorn says. Finally, he says, the devil is in the details: "It's a big step if these divergent groups can agree on the priorities, but the question is will they agree on the specifics?" At the same time, Zorn appreciates that "Congress is more likely to listen when tribes speak as part of a collaboration on such issues as protecting habitat and resources."

In response to concerns that the prioritizing will be more of a pruning, Gulezian says that the strategy teams are taking the approach of looking at policies, programs, and procedures already in place, and identifying which are the most effective at meeting the collaboration's goals. The outcome won't necessarily mean more funding for priority issues or pet programs, but instead, he believes, better use of existing resources.

(See Tribes want more input, page 5)

Shortjaw cisco considered for endangered species listing

By Bill Mattes, GLIFWC Great Lakes Section Leader

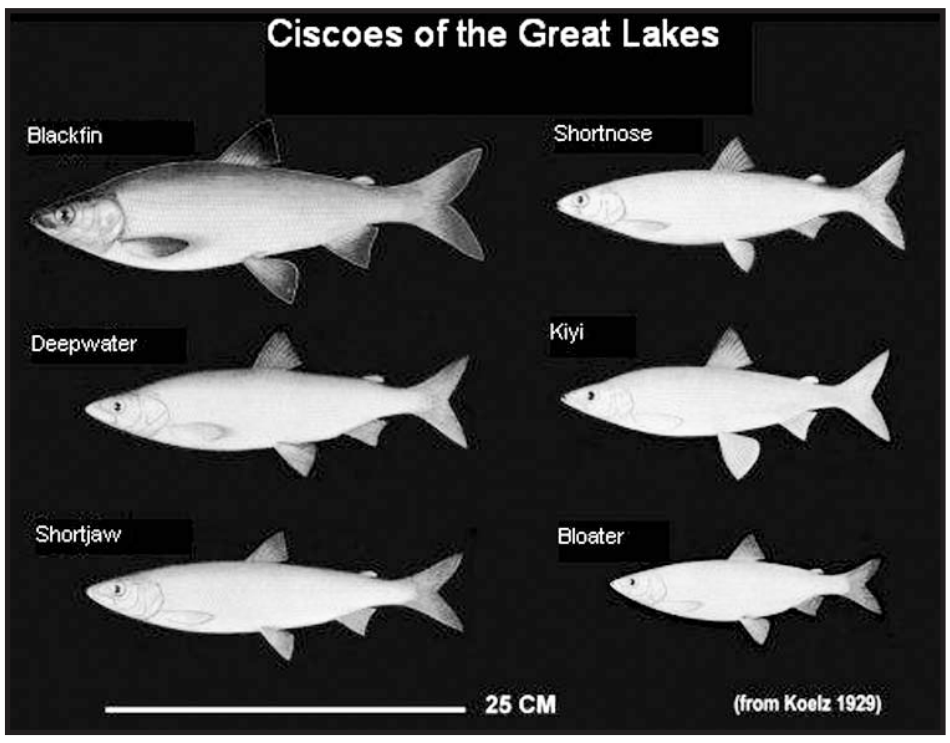
Lake Superior—The shortjaw cisco is currently being considered for listing as a candidate species under the U.S. Endangered Species Act (ESA). The shortjaw cisco is in a group of fishes known as Coregoninae or ciscoes. This includes more familiar fish such as the whitefish, herring, menominee whitefish, and a group of fish collectively referred to as chubs.

The most common chub in Lake Superior is the bloater, but this group of fishes also includes the lesser known fish- kiyi and shortjaw. Other chubs, thought to be gone from Lake Superior, are the blackfin, deepwater and shortnose.

Currently, the shortjaw cisco is listed as a "Threatened" species in Canada by the Federal Committee on Status Of Endangered Wildlife. The shortjaw is also listed as "Threatened" by the Michigan Department of Natural Resources (DNR), "Endangered" by the Wisconsin DNR, and as a "Species of Special Concern" by the Minnesota DNR. The U.S. Fish and Wildlife Service (FWS), has requested a status report to be developed by the U.S. Geological Survey. The report will be used to conduct a full status review of the shortjaw. Based on the status review, if the shortjaw appears to be in danger of extinction or likely to become endangered in the foreseeable future, FWS will conclude that the species is warranted for listing. Once that decision is formalized by publication of a "candidate notice of review," the species will become a candidate species.

Candidate species under the ESA are given a listing priority number and join over 200 other candidates waiting for listing. All candidates are warranted for listing, but listing is precluded by other work, so the species will wait for listing until resources are available to FWS to complete the listing process in accordance with a listing priority system. While a candidate species, it may, and should, be the subject of candidate conservation actions by various cooperating agencies and organizations. Candidate conservation is intended to reduce threats sufficiently so that listing is no longer warranted. If no threat reduction and improvement in status occurs, eventually, listing as endangered or threatened proceeds.

Some of the ciscoes, such as the herring, are widely distributed, while others, such as the bloater and kiyi, are found only in the Great Lakes. As a rule, the members of Coregoninae are hard to identify as their shapes and sizes are highly variable and are linked to where they live. For instance, herring from Lake Superior look different from landlocked herring (tullibee) inhabiting inland lakes in Wisconsin and Minnesota, even though they are the same species.



Although the range of the shortjaw cisco once included all of the Great Lakes, its present range in the United States is limited to Lake Superior. In Canada, the complete range of shortjaw is unknown. However, the fish is found in inland lakes to the north and west of Lake Superior.

If the shortjaw cisco is warranted for listing, there will be opportunities for input by all affected and interested parties regarding candidate conservation and listing. The listing process includes public review, and prior to official public review, the FWS is required to consult and coordinate with affected parties.

The FWS Endangered Species Branch, located in East Lansing, Michigan is the lead office for shortjaw cisco ESA issues. If anyone has questions regarding the shorjaw cisco, they can contact Bill Mattes, Great Lakes Section Leader at 715/682-6619 ext.120.

Tribes want more input into Great Lakes diversion decisions

(Continued from page 4)

Diverting diversions

Managing the use of Great Lakes water supplies is another hot topic in the basin, and one that is being addressed outside of collaboration efforts. The Great Lakes governors and the premiers of Ontario and Québec are in the process of implementing water use principles outlined in the Great Lakes Charter Annex of 2001. The annex is a good-faith agreement signed by the Great Lakes governors and premiers to protect the basin's water supplies. Since signing the annex, the governors and premiers have been developing plans—or "implementing agreements"—to turn the principles outlined in the annex into legally binding standards.

The governors and premiers, in consultation with an advisory team of representatives from industrial, agricultural, municipal water supply, shipping, and environmental groups, are developing a management plan for regulating water diversions and withdrawals. The goal is to create uniform water management standards based on the annex principles for the states and provinces.

The central concern of the agreements is water diversions, or the permanent removal of water from the lakes—for example, to supply drinking water to several towns. Among other directives, the draft implementing agreements call for states to use collective decision making when deciding on proposals for significant new or increased water uses. The draft agreements also require that the basin be improved by any new or increased diversion or significant use of water.

The CGLG itself has received about 10,000 public comments on the drafts of the implementing agreements since releasing them in July 2004 for public review, says Lisa Wojnarowski, a CGLG program associate. Additional comments went to state and provincial governments. The state and provincial staffs who developed the agreements are now revising the implementing agreements based on those comments. Their goal is to have revised versions to the governors and premiers by this summer, says Wojnarowski.

Critics say that the agreements fail to make precise, enforceable recommendations. "We feel the proposed agreements do not provide a sufficient level of protection of waters in the Great Lakes basin," says Lilkoff. "All jurisdictions [should focus more on] the need for greater conservation measures to make more efficient use of this finite resource."

The Walter & Duncan Gordon Foundation, a public policy foundation in Toronto, invited four water conservation experts to review the draft agreements, and they agreed that the conservation measures outlined do not go far enough, as they wrote in a report to the foundation. At the same time, the experts wrote, the agreements need to be much simpler with more clearly stated principles.

Buchsbaum, however, considers the standards outlined in the agreements unprecedented in their level of protection. He is "cautiously optimistic" about the future of the agreements, "because there is consensus over the principle that we need to take a stronger action over diversions," he says. He would always like to see the standards be tighter, he says, "but the general framework is good."

The controversy now is over who will sit at the table when water use proposals are being assessed, Buchsbaum says. Unlike standards for water use in other areas of the country, the Great Lakes standards would be guided by what's good for the lakes' ecosystems, instead of by local economic pressures or whoever managed to claim the water first.

Tribes in the Great Lakes basin argue that they have been excluded from the drafting process of the agreements, says Ann McCammon Soltis, a policy analyst with GLIFWC. The draft agreements say that states must consult with tribes about all proposed diversions or withdrawals, but "mere consultation is insufficient," McCammon Soltis wrote in comments presented in October to the CGLG. "The states do not have unfettered discretion to authorize withdrawals or diversions that would adversely affect or undermine treaty-guaranteed rights," she asserted.

Representatives of the CGLG and tribal leaders met at the end of January to discuss the tribes' and Canadian First Nations' grievances. The governors' representatives made clear that the agreement will not abridge treaty rights, and that they understand the tribes' concern about being part of the process, says Zorn. However, how much the government plans to seek tribal participation remains unclear. At the same time, tribal governments could interfere with the process if not included, he notes.

Future funds

The long-term effect of these recent policy initiatives is hard to predict. The outcome will depend, in part, on how advocates manage to compete during tight budget times for federal dollars. Congressional representatives from Great Lakes states plan to reintroduce legislation to boost federal funding for the Great Lakes. The Senate's Great Lakes Environmental Restoration Act proposes $6 billion for the lakes over the next 10 years, up from roughly $700 million. A similar House bill seeks $4 billion over five years. With billions of dollars going to huge restoration efforts like those for the Chesapeake Bay and the Everglades, advocates in the north hope to garner a similar financial commitment to ensure the Great Lakes continue to live up to their name.

*(Reprinted from **Environmental Health Perspectives** 113:A174-A177 (2005).)*

Hair in a snare

Mapping American marten range in Wisconsin

By Charlie Otto Rasmussen, Staff Writer

Mellen, Wis.—The only steel you'll find on these fur traps consists of a stout wire impaling a red chunk of beaver meat. Two boards, a few nails and strips of rodent grade glue board round out the parts list for this benign contraption.

Wildlife specialists from the Great Lakes Indian Fish & Wildlife Commission (GLIFWC), Department of Natural Resources and the U.S. Forest Service (USFS) strung a mid-winter trap line of "hair snares" across Chequamegon-Nicolet National Forest to determine the whereabouts of the struggling American marten, or waabizheshi.

"The survey is essentially to document the presence or absence of martens throughout the National Forest," said Jonathan Gilbert, GLIFWC wildlife biologist.

The biologists attached the snares—framed by two boards nailed into a "V" shape—to 240 trees in northern Wisconsin. Affixed to the inside of the "V," an appetizing serving of beaver meat coated with ripe crawfish oil clung to a short length of wire. In order to reach the bait, martens were required to pass across segments of glue boards commonly used to catch mice and rats around the house. Although not sticky enough to capture a marten, the glue traps do a nice job picking up hair samples.

"Animals can enter from the top or bottom of the snare," Gilbert said. "Either way, the glue strips pick up a sample whether the animal makes it to the bait or not."

Biologist Jonathan Gilbert examines the interior of a hair snare. Sticky pads in either end capture hair of animals attempting to reach the bait—a piece of beaver meat. (Photo by COR)

Along with the one to two pound pine martens, other small furbearers inevitably discover the snares, leaving behind hair and sometimes a puzzle for biologists to solve. Some of the evidence, like swatches of raccoon hair, is fairly easy to identify, Gilbert said. Anything that appears to be left by a marten or fisher gets shipped to a Michigan State University (MSU) laboratory in East Lansing for confirmation through DNA testing.

"I expect the vast majority of the samples will be from fishers and other animals," Gilbert said. "Marten hair might make up around 15% of the total."

Gilbert submitted 235 segments of hair to MSU graduate student Bronwin Williams who is preparing the samples for DNA analysis. Williams conducted a similar hair survey on the nearby Ottawa National Forest during summer 2004 using the very same snares employed in Wisconsin. Survey results are expected in early summer after DNA testing is complete.

U.S. Forest Service staff assemble scented lures at a GLIFWC facility for attracting martens from long distances. (Photo by Charlie Otto Rasmussen)

A radio-collared American marten known as "Archie" bounds through a hair snare site. (Pat Zollner, photo by remote camera.)

For more immediate results USFS Biologist Pat Zollner rigged several 35 mm cameras equipped with infrared trigger switches to further document wary animals at the baited snare. Biologists are curious about how martens behave around the snares seasoned with meat and natural lures.

While a number of flying squirrels—frequent visitors to the snares—showed up on the film, the experiment yielded only one good marten picture, an animal known to researchers as "Archie." Captured and fitted with a radio collar by GLIFWC staff last fall, the male is one of a two martens known to reside in this stretch of mature hemlock-hardwood forest.

Familiar territory

On the Chequamegon half of the combined, million acre national forest, Gilbert and GLIFWC Wildlife Technician Ron Parisian have invested the last 15 years studying and monitoring martens. The animal remains on the Wisconsin endangered species list following reintroductions in the last quarter of the 20th century.

With assistance from North Central Research Station staff, Gilbert and Parisian currently monitor 13 martens in a 50 square mile region centered in southwest Ashland County. Each animal is collared with a custom radio transmitter that reveals not only where an animal is located, but also whether it is active or at rest.

"We're looking for patterns," Gilbert explained. "What are the conditions that influence marten activity: specific weather conditions, temperature or other factors?"

All the information collected on the Ojibwe clan animal, waabizheshi, is vital to understand why the Wisconsin population is declining or simply laboring to maintain steady numbers. Gilbert said preliminary data from the hair snares confirm that martens generally exist right around the original reintroduction areas, with very few animals showing up in outlying regions. By comparison, pine martens are flourishing and expanding in nearby Minnesota and Upper Michigan forests.

"The adults and their young experience rather high mortality and reproduction is low. More work needs to be done to better understand the marten's decline," Gilbert said.

2004 off-reservation treaty deer harvest by tribal registration station (final figures)

Registration Station	*Antlerless*	*Antlered*	*Totals*
Bad River	104	95	**199**
Lac Courte Oreilles	224	176	**400**
Lac du Flambeau	296	153	**449**
Mole Lake	76	57	**133**
Red Cliff	104	156	**260**
St. Croix	221	281	**502**
Mille Lacs	25	15	**40**
Totals	**1,050**	**933**	**1,983**

Waterfowl season in retrospect

Some hunters target adaptive harvest management

By Peter David
GLIFWC Wildife Biologist

Waterfowl biologists are starting to review harvest data from the northern half of the Mississippi Flyway—including the states of Minnesota, Wisconsin, and Michigan where the ceded territories lay—and they are confirming what many hunters already knew: it wasn't much of a hunt. Despite a relatively long season with large bag limits for both state and tribal hunters, and abundant manoomin (wild rice) beds to attract and fatten the birds, many hunters stored their decoys for next year without bagging or even seeing many birds.

This in itself is not particularly unusual; waterfowl hunting has always been an "iffy" art: "If the weather is right, if the decoys are set well, if the birds come through, we might do alright." And to those who love this art, success is never measured simply by tallying the number of birds reduced to possession. But a lack of success seems to be more the norm than usual in recent years. In addition, when biologists decide that bird population levels are great enough to offer liberal hunting packages, many ducks hunters develop an expectation that the season should be a good one—an expectation that can leave them feeling disappointed when it isn't fulfilled.

This failed expectation also leaves some hunters thinking that those biologists who set the season don't know a paper duck from a real one.

This also has some hunters questioning the way harvest regulations are set. In particular, they are questioning the validity of an approach that biologists have been using since 1995 called Adaptive Harvest Management, or AHM for short. AHM is not unique to waterfowl management; it is being applied to the harvest of a variety of species. The benefits of AHM are that it helps biologists deal with the great amount of uncertainty involved in complex biological systems, and when properly applied, it can promote learning, increasing our understanding of how these systems work.

Much of this learning comes as a product of simplification; in the case of waterfowl management, this means that regulation packages will be limited to just a few options, without the great level of minute tinkering that occurred in the past. That tinkering, while well intended, has clouded our ability to understand the impacts of the very regulations that were being implemented. How do you really know the effect of a change in bag limit between years, when you also changed the dates of hunting, the types of special zones or split seasons that were allowed, and the shooting hours at the same time?

AHM also typically involves population modeling, incorporating an annual comparison of how well various models predicted what was actually observed in nature. The models that perform the best are given more weight in subsequent years; those that predict poorly are devalued. Determining which models are the best predictors can increase our understanding of these ecological systems.

So far, the AHM models for waterfowl have consistently called for relatively liberal harvest packages, given the levels of duck populations and wetlands observed on annual surveys. This has some hunters concerned that we may be killing too many birds and depressing populations, for the fall flights of ducks have often been less than impressive during this period.

However, what we may be learning is that our harvest regulations have less influence on duck numbers than we might suspect—at least under recent conditions. This past fall, very mild weather left water open in Canada far later than usual.

In addition, agricultural crop failures in large areas resulted in grains being left in the field rather than harvested, providing an abundant food supply to migratory birds. As a result, many ducks did not move through our area until late in the year. The impact of these environmental conditions likely dwarfed the impact of hunting regulations in determining what kind of season local hunters had.

It is also possible our regulations have been more conservative than was necessary in the past. If our regulations have less impact than was thought, it may be possible to apply liberal regulations under a wider array of conditions than previously considered. There is, however, a great inertia to overcome in this regard, and it goes back to hunter's expectations. Our expectations of what kind of season we are likely to experience under liberal regulations may need to be adjusted from what they have been in the past. Without that change in perspective, there is likely to be resistence to any change in management approaches.

Scientifically, AHM is still in its infancy, and it is not without shortcomings. Present models rely too greatly on data from mallards and species with smaller populations. Species with less of a presence in the harvest are poorly addressed at present. But the AHM approach to management is not fixed; like other management tools it can be modified and improved over time. And it is important to remember that other approaches used had limitations as well. In fact, the application of science to waterfowl management is largely a product of the last century. Working with the complex and variable systems that nature produced over a millennium, it's not surprising that we still have a ways to go in understanding them.

Wild turkeys adapting to northern habitat, climate

By Charlie Otto Rasmussen
Staff Writer

Ashland, Wis.— Wild turkeys released into far northern Wisconsin one year ago experienced good breeding success and are adapting well to the higher latitude.

According to reports from the Department of Natural Resources (DNR) and landowners, birds in many of the release sites appear to be in excellent shape as winter draws to a close.

A total of 160 wild turkeys were trapped by rocket-fired nets in the Merrill area and transported to six release sites: three in the greater Ashland agricultural region and three in the vast forestlands around Brule. Because much of the landscape is cloaked in trees, biologists monitoring the flocks have had some difficulty evaluating breeding success in the Brule area following the 2004 mating season. A handful of broods, nevertheless, were identified in the region by late summer.

In contrast, the farm fields and pastures of east-central Bayfield County near Ashland offer excellent viewing opportunities for motorists and local residents. Todd Naas, DNR wildlife biologist, said that at least 10 broods have been identified in the area. Last year's cold, wet spring seemed to have little impact on reproduction success and regularly observed broods included an average of eight young turkeys, known as poults.

Until recent years few wildlife professionals supported wild turkey releases at higher latitudes, considering the deep snow and cold of typical northern winters impediments to survival. Wild turkeys, however, have proven heartier than first believed and can successfully locate food sources in diverse habitats.

In spring 2006 three new wild turkey management zones will appear on the map, all within the Wisconsin ceded territory. State and GLIFWC biologists monitoring the turkey transplants are expected to discuss potential harvest quotas once the population appears healthy enough to support hunting seasons.

In recent years, most wild turkey harvests by treaty hunters have occurred in Burnett County and a few other locations scattered along southern portions of the ceded territory.

The Wisconsin treaty spring turkey hunting season runs from April 13 to May 22. In addition to a valid small game hunting permit, tribal members must obtain harvest tags from a GLIFWC warden or tribal conservation department before going hunting. All treaty-harvested turkeys must be registered. Hunters should also refer to individual tribal ordinances for additional hunting restrictions or requirements.

Company to market chemical compounds derived from birch bark

By Karen Danielsen, GLIFWC Forest Ecologist

The Anishinaabeg have gathered the bark of paper birch since time immemorial. Recognizing its unique qualities, such as its tenacious resistance to decay, tribal members use birch bark to produce traditional lodges, canoes, food storage containers, medicines, and countless other culturally significant items.

Curious about this resistance of birch bark to decay, scientists began studying some of specific chemical compounds seemingly responsible for this property. The scientists isolated these compounds, known as triterpenes, and found them to be antifungal, antibacterial and antiviral.

A newly established company, called Naturnorth Technologies LLC, has recently patented processes designed to extract these triterpenes from birch bark to produce chemical derivatives, such as betulin and betulinic acid, for commercial purposes. This year, the company expects to market betulin (which has been shown to protect healthy skin) to be used as an ingredient in cosmetics.

Research for isolating and extracting triterpenes from birch bark began at the University of Minnesota, Duluth in its Natural Resources Research Institute. The Institute, as its mission statement reads, "fosters the economic development of Minnesota's natural resources in an environmentally sound manner to promote private sector employment." Consequently, the Institute served as an incubator facility for the fledgling Naturnorth Technologies, originally called NaturTek.

Now established at its own site, owners of Naturnorth Technologies include Potlatch Corporation and Synertech (a subsidiary of Allete, Inc). The Natural Resource Research Institute continues investing in the company, partnering with its owners to develop and produce additional chemical derivatives from other compounds, such as fatty acids and tannins, also found in birch bark.

The company expects to eventually produce and market an array of chemical derivatives to be used as ingredients in agrochemicals, wood protection, coating materials, nutraceuticals (nutrient supplements), and pharmaceuticals. Company chemists speculate that as many as 500 different chemical compounds could eventually be derived from birch bark.

The question arises: Will these new industrial uses of birch bark impact the tribal off-reservation gathering of birch bark within the ceded territories?

Resources

www.naturnorth.com

www.duluthsuperior.com/mld/duluthsuperior/business 10766049.htm?template=contentModules/printstory.jsp

www.nrri.umn.edu

Durable plant collections bound for public & tribal schools

Anishinaabe plant names used

By Karen Danielsen, GLIFWC Forest Ecologist

Odanah, Wis.—Botanists collect plants for documentation and scientific purposes, meticulously noting the location and date of the collection, neighboring plants, habitat type (northern upland forest, boreal forest, etc.) and other pertinent information. An herbarium, which can consist of one small cabinet to a large building filled with many cabinets, serves as a storage facility for these collections.

If prepared and stored properly, these plant collections, referred to as herbarium specimens, can remain intact for decades, if not centuries. In fact, some plants collected as early as the 1600's continue to be studied by modern-day botanists!

Students often use herbarium specimens to learn about plants. Unfortunately, herbarium administrators, charged with the security of these specimens, often restrict access for younger students. The jostling of these specimens by rambunctious juveniles tends to produce, understandably, a slight edginess in most herbarium administrators.

Empathizing with these herbarium administrators, Kathleen Morgen, an environmental educator for the Northern Great Lakes Visitor Center (University of Wisconsin Extension), proposed developing robust replicas of herbarium specimens that could be used by aspiring botanists of all ages. She wanted these replicas to be durable enough to withstand a youngster's rough handling, yet sophisticated enough to sustain an adult's interest.

Borrowing from a simple concept demonstrated by Mike Airoldi, a former Wisconsin high school teacher, she proposed laminating color copies of freshly prepared herbarium specimens to be distributed among the public and tribal schools in Northern Wisconsin. These specimens would look like the real thing, only they would be better—resistant to rips and stains.

To implement her plan, she applied for and received funds from the Wisconsin Environmental Education Board, using matching funds and services from the Cooperative Education Service Agency District 12 and the USDA Forest Service, Chequamegon-Nicolet National Forest. She also requested assistance from GLIFWC to help with assorted technical tasks and to provide the known Anishinaabe name(s) for each collected plant (as approved by tribal elders).

During the summer and autumn of 2004, employees from University of Wisconsin Extension (Extension) and GLIFWC collected and identified 200 plants from various public lands in Northern Wisconsin including the Chequamegon-Nicolet National Forest, the Northern Highland-American Legion State Forest, Flambeau River State Forest, and the St. Croix National Scenic Riverway. USDA Forest Service employees assisted with plant identification.

After collection, Extension employees prepared the plants as herbarium specimens by first placing the collected plants into a standard plant press—consisting of newspaper, cardboard and special absorbent cardboard (called blotters) securely strapped between two pieces of wood. Then, while still in the press, the plants were dried at room temperature in low-humidity conditions (in high-humidity conditions, botanists often dry plants in a well-ventilated wooden box using the heat emitted from 100-watt light bulbs).

Finishing the process, Extension employees gently arranged and glued each dried plant on to a separate 11x17 inch, stiff, acid-free, piece of archival quality paper. Employing computer technology, the finished herbarium specimens were scanned to create digital images, a contemporary form of storage.

Botanists usually attach labels, printed with the information recorded at the time of collection, directly on to the herbarium specimens. However, for this project, GLIFWC employees added electronic labels to the digital images.

From the completed labeled digital images, GLIFWC and Extension employees printed master copies, each measuring 11x17 inches. Color-copying of these masters produced 36 copies of all 200 labeled plant images, which were subsequently laminated for that extra child-proof protection.

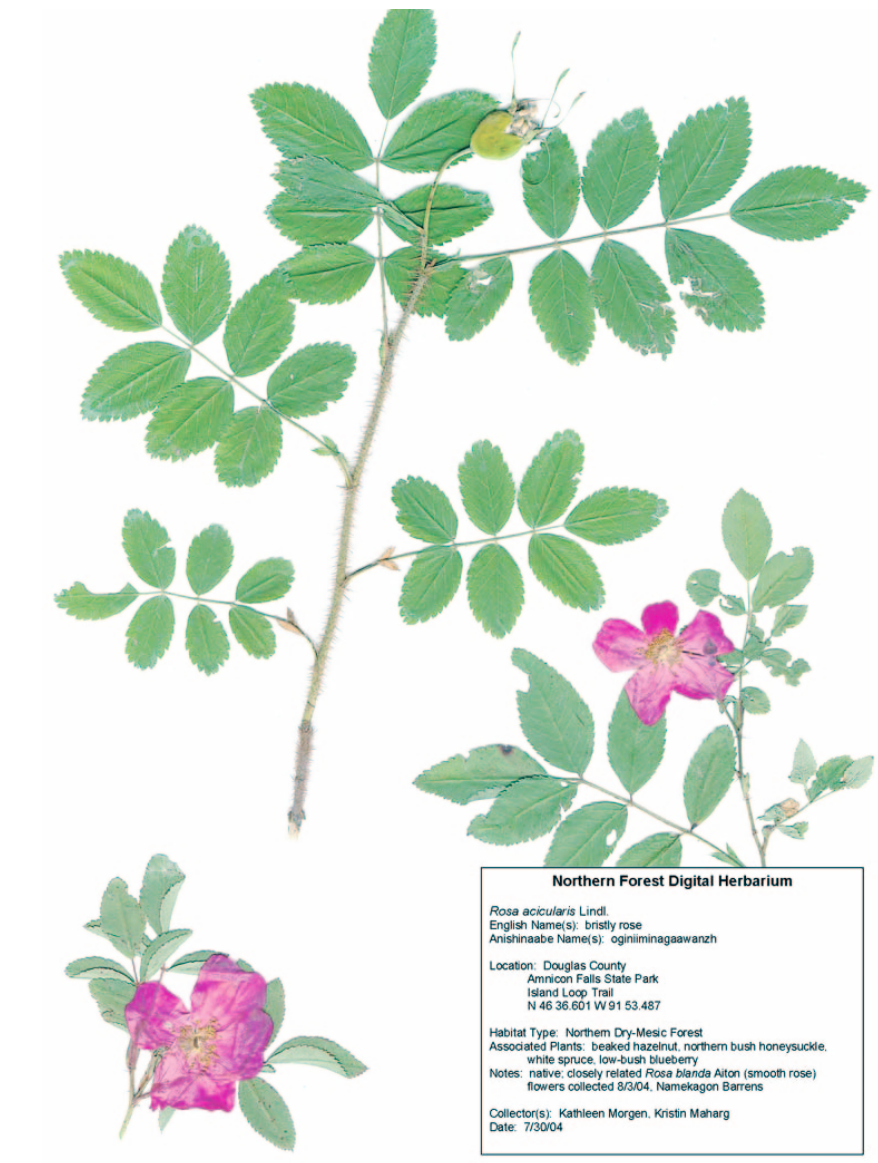
The outcome is a stunningly attractive hands-on educational tool. A gorgeous image of adjimag (American mountain ash, *Sorbus americana Marshall*) adorns stark white paper with bursting ruby-red berries and deep-green leaflets methodically arranged along purplish stems. Another image, of oginiiminagaawanzh (bristly rose, *Rosa acicularis Lindl.*), displays abundant russet-colored prickles, seemingly poised and ready to injure anyone tempted to pluck its fluorescent-pink flowers.

Other images display more subtle beauty, such as wiigobaatig (American basswood, *Tilia americana L.*) with its enormous, jagged-edged leaves punctuated by delicate veins; and kaakaagiwanzh (hemlock, *Tsuga canadensis L.*) filling the white background with stubby needle-leaves, tinted bright green on one side and milky-green on the other. If framed, these images could easily emulate fine art.

Kathleen has written an accompanying user guide full of additional information. Without question, the project partners have accomplished the goal of producing a useful, hands-on educational resource for both children and adults. Furthermore, the project has introduced a few basic insights to the Anishinaabe relationship with plants.

For more information on this project, please contact Kathleen Morgen at (715) 685-2676 or kathleen.morgen@ces.uwex.edu

Project Partners: University of Wisconsin-Extension (Northern Great Lakes Visitor Center), Cooperative Education Service Agency No 12., Great Lakes Indian Fish & Wildlife Commission, and USDA Forest Service (Chequamegon-Nicolet National Forest)



Acknowledgements: Produced under a 2003-2004 grant from the Wisconsin Environmental Education Board.

Wisconsin & Michigan wolves back on the endangered list

By Peter David, GLIFWC Wildlife Biologist

A January 31 ruling by a federal judge in Oregon has had an immediate impact far from the borders of the Beaver State. A lawsuit by Defenders of Wildlife and 18 other groups challenged a 2003 federal action which downlisted the status of wolves from Endangered to Threatened in most of the northern and western US based upon the relatively secure existence of wolves in a couple of core areas within that range.

For example, wolves were downlisted in the "Eastern Distinct Population Segment" (DPS), a block which stretched across the northeastern US from North Dakota to Maine, and as far south as Missouri and Kansas, based upon wolf populations in northern Minnesota, northern Wisconsin and the Upper Peninsula of Michigan

This ruling came at a time when the U.S. Fish and Wildlife Service (USFWS) was proposing to delist wolves entirely within the Eastern DPS, and preparing a similar proposal for the Western DPS. Some groups in Wisconsin were already contemplating approaches to a public harvest that could occur following delisting. These actions will have to be revisited following the court's ruling that the downlisting process failed to meet the intent of the Endangered Species Act to restore listed species to a significant portion of their historic range.

The ruling is a seen as a significant victory for wolves and wolf proponents. Although the USFWS is still reviewing the decision (and pondering whether an appeal would be appropriate), the ruling restored Endangered status and federal protection over large parts of the United States where wolves were once found but have thus far demonstrated little or no recovery. This will be viewed positively by many Ojibwe, who have a unique cultural linkage with their brother, ma'iingan.

Other, especially some Wisconsin and Michigan livestock raisers, and some individuals who hunt bears with dogs in Wisconsin, view the ruling as a setback. These groups had supported downlisting in the two states believing that wolves had recovered within them, and feeling that the additional control mechanisms that become available with downlisting, including the application of lethal control to depredating animals, were needed. Without them, they warned, individuals may decide to take wolf control into their own hands. (The ruling has little immediate effect in Minnesota, where wolves have been listed as threatened for over two decades.)

Ma'iingan tracks. (Photo by COR)

The federal judge appeared to agree that wolves in the two states likely have recovered, but left it to the Service to decide how revisit the downlisting proposal. One possibility would be to downlist only in the two states (and perhaps around the core of the western population), where little controversy over recovery status is likely to exist, but even this proposal could take a year or more to accomplish.

From a purely scientific perspective, the ruling may also provide an interesting experiment for the Wisconsin population. Had the downlisted status stood, and delisting followed, efforts might have begun to initiate a harvest season, to keep the number of state wolves near the population goal of 350 currently listed in the Wisconsin Wolf Management Plan. This goal was an estimate of the state's "cultural carrying capacity"—a level that most people in the state would accept. Others felt that this goal was too low—including many Ojibwe, who tend to have a greater acceptance (i.e. a higher cultural carrying capacity) for ma'iingan.

Since some population models suggest that the ecological carrying capacity for wolves in the state may be only about 500 animals, they argued it would be better to let the wolf population approach that level, and see how the state's human population responds to that level before expending a great deal of effort to suppress the wolf population to a level that may be lower than necessary. With the current state wolf population exceeding 400, this ruling may buy enough time to determine the accuracy of the population models, and the true tolerance level Wisconsinites hold for the brother of the Ojibwe.

Ceded territory news briefs

Famous Dave steps down from BIA post

Washington D.C.—Dave Anderson, a Lac Courte Oreilles tribal member better known as Famous Dave in northern Wisconsin and Minnesota, formally resigned his position as Assistant Secretary of Indian Affairs, effective February 12, after serving about a year under the Bush Administration.

Anderson feels that he can more effectively impact Indian Country by "focusing my time on developing private sector economic opportunities for Indian entrepreneurs," as opposed to managing the daily operations of the Bureau of Indian Affairs.

Anderson is well-known for his successful chain of restaurants, Famous Dave's. He has founded three companies now publicly traded on Wall Street and has created over 18,000 new jobs in America. He remains committed to developing economic opportunities in Indian Country.

Mille Lacs Band marks 150th anniversary of 1855 Treaty

Mile Lacs reservation, Minn.—About 500 members of the Mille Lacs Band celebrated the 150th anniversary of the 1855 Treaty on February 22nd. The 1855 Treaty created the Mille Lacs reservation. The Treaty, which was signed in Washington, D.C. on February 22, 1855, recognized four fractional townships along the southwestern shore of Mille Lacs Lake and three islands in the southern part of the lake as the Mille Lacs reservation.

An interpretive display was created as part of the celebration. It will also be on display at the Grand Casino Hinckley from March 14-28 and at the Mille Lacs Indian Museum from April through August 2005.

(Information taken from the March 2005 ***Ojibwe Inaajimowin****)*

New deputy forest supervisor on the CNNF

Park Falls and Rhinelander, Wis.—Jeanne Higgins will fill the position of Deputy Forest Supervisor for the Chequamegon-Nicolet National Forest (CNNF), according to a February announcement by Anne Archie, CNNF supervisor. Prior to this appointment, Higgins served as the Acting Deputy Forest Supervisor on the Nez Perce National Forest in central Idaho.

She has worked in a variety of positions on the National Forests in the Western United States since 1987, including small sales forester; GIS coordinator; National Environmental Policy Act coordinator; Fish, Wildlife, Botany and Planning Staff Officer; District Environmental Coordinator; Operations Forester, District Ranger, and Planning Staff Officer.

Menominee Indians exercise first sturgeon season in a century

Menominee, Wis.—The Menominee Indian Nation, the U.S. Fish and Wildlife Service and the Wisconsin Department of Natural Resources celebrated the Menominee's first sturgeon season in a century during a celebration February 5th at Keshena, Wis.

The celebration kicked off the first of two scheduled lake sturgeon fishing seasons this year for tribal members who obtained a sturgeon fishing license.

Historically, tribal members would wait for sturgeon to migrate in the spring along the streams and river to harvest them with spears. Sturgeon was a mainstay in the tribal diet. However when two dams were placed downstream on the Wolf River in the 1880s and 1920s, lake sturgeon could no longer move upstream onto the reservation. To allow for a tribal sturgeon harvest, the USFWS stocked over 56,000 lake sturgeon into Legend Lake since 1994 to establish a sturgeon fishery. Assessments reveal that there are now sufficient lake sturgeon over 40 inches to provide a limited tribal harvest season.

(Information from a USFWS New Release, February 2, 2005.)

U.S. Coast Guard to address giant loophole in invasive species program

Buffalo, New York—Great Lakes United (GLU) along with other environmental organizations called upon the US Coast Guard (USCG) to stop granting exemptions to 80 percent of the ocean-going vessels that enter the Great Lakes claiming they don't carry ballast. In a recent press release GLU spokesperson Jennifer Nalbone stated, "The Coast Guard's program has a loophole big enough to drive a cargo ship through." She pointed out that the ships carry "residual water and sediment that can harbor invasive organisms" and that since 1993 the USCG has had the power to require these vessels to retain all ballast contents onboard or use approved treatment to prevent invasive species introduction.

On January 7 in the Federal Register the USCG admitted its ballast water program to protect the great Lakes from invasive species omits at least 80 percent of the ocean vessels that enter the lakes each year.

Ships heavy enough with cargo declare no ballast on board, whereas they very likely have residual tons of ballast and accompanying sediment and organisms.

The Coast Guard is collecting public comments and will hold a public hearing on "no ballast on board" management strategies on May 9 in Cleveland, Ohio.

(Information from a January 18, 2005 Great Lakes United press release.)

On the road to fish farming at Red Cliff

New aquaculture demo facility almost up and running

By Sue Erickson
Staff Writer

Red Cliff, Wis.—Moving from idea to reality has taken about ten years for the University of Wisconsin-Superior (UW-S) Aquaculture Demonstration facility located on the Red Cliff reservation. The 8500 square foot building is almost complete, and Facility Director Greg Fischer is awaiting shipments of equipment to arrive, including circular, fiberglass rearing tanks that will soon fill the now empty building.

For now the long, barn-like structure is empty except for a maze of white, water pipes strung in rows along the length of the ceiling with arms hanging down ready to connect to rearing tanks when they arrive.

Fischer envisions having fish in the tanks by May, and the smell of fresh paint will give way to the smell of fresh fish—the unique odor of a vigorous rearing facility—sometime this spring.

The aquaculture facility is a state-run project with UW-S as the lead agency. Other partners include the Red Cliff Band of Lake Superior Chippewa, the Wisconsin Aquaculture Association and the Wisconsin Department of Agriculture.

The original concept for the demonstration aquaculture facility was first forwarded by former Ashland Mayor Lowell Miller through the Ashland Development Corporation about ten years ago. At first the thought had been to locate it near the Ashland Agricultural Extension station, but the area was not suitable to meet the demands of water flowing in and out of the facility—a major consideration for an aquaculture operation.

Red Cliff then became a consideration because of its hatchery operation and the ability to provide a lot of good water and to safely output used water with minimum environmental impact.

The next giant step towards the project occurred about six years ago, when former Governor Tommy Thompson earmarked $3 million from gaming revenues for the project and $350,000 for equipment, but another couple years passed before test drilling began on the 40 acres of land leased from the Red Cliff Band. Once testing was complete, Phase II of the project, construction of the buildings, began about a year ago.

The Aquaculture Demonstration Facility is largely about education and demonstrating a hands-on practical approach to aquaculture, or fish farming, Fischer says. Therefore, the facility will provide a learning environment for people in aquaculture or related businesses as well as for high school and college level science students.

Aquaculture is basically the raising of fish for consumption versus raising fish for stocking and conservation purposes, such as the Red Cliff Hatchery does. "We see aquaculture as providing economic development opportunities that are suitable to the northland environment; however, people need to be educated towards this particular business," Fischer says.

The UW-Superior Aquaculture Demo Facility at Red Cliff only awaits the arrival of equipment, such as rearing tanks, to fill up the new, 8,500 square foot building. Facility Director Greg Fischer pictured with a new Hyrdotech drum filter from Sweden, plans on having fish in the tanks by May. (Photo by Sue Erickson)

Raising fish is like raising other live animals, he points out, and people need to understand their specific needs in regard to conditions and food, or to recognize disease and know what to do about it. Fish farms, like the orchards and farms in the area, provide fresh, wholesome food and can be raised in an environmentally sound manner.

The aquaculture facility will offer people a place to learn, first-hand, how to rear and handle fish. "There isn't going to be anything like genetic manipulation going on. We'll be teaching what is normal," Fischer says, "through applied science." Possibly there will be processing workshops for smoked and fresh fish and marketing workshops.

Fischer sees fish farming as an up and coming industry because fish populations are being depleted worldwide, creating a demand for domestically produced fish. Contamination in some fish

(See Aquaculture facility, page 18)

Letters to the Editor

Dear Editor re: powerline

The following is a speech I gave during citizen comments to the Washburn County Board of Supervisors the night the supervisors voted to rescind opposition to the Arrowhead-to-Weston Transmission line:

I thought I'd bring you a little bit of heaven, and what I'm bringing is what is called wild rice. My family gathers wild rice. We gather at Potato Lake, Mulligan Lake, Dilly Lake, and the Namekagon River.

Now there are not many places left in the world where you can harvest this wild rice. This is one of the few places on the planet to do that. The reason we can do that is we have clean water; we have light air pollution. That's why we can do this; that's why I can feed my family on this rice.

Now if you vote tonight in favor of negotiating with the American Transmission Company (ATC), you are going to start in motion a series of pressures that will ultimately end up in you selling the rights to ATC to cross public land in Northwestern Wisconsin, and by doing that you are going to create a demand for more coal-fired electricity from either the Dakotas, or you are going to create a demand from northern Manitoba, the home of the Pimichicimac Cree. Their territory has been turned into a northern slum so we can keep our lights down here.

Now I think most of you would agree that there are too many lights on in Spooner way too many lights. We waste about 30 percent of electricity in this community. So I ask you to keep that in mind when you vote tonight. I don't want you to pretend this isn't about life and death matters. If you vote to negotiate with this company, you will threaten our livelihood, which is wild rice.

It is not just Nick VanderPuy talking; it is people from Lac Courte Oreilles who back in 1916 were forced by Northern States Power to give up 15,000 acres of their wild rice beds. That led directly to diabetes, drunkenness, and a wasted life for many, many people.

Chief Potac got up and said, "The White Man comes from the city to take this electricity to send it back so that painted people and half-drunk people can consort under the street lamp," and that story is still true today.

That electricity will be used down in Chicago; it will be used in Waukesha County; it will be used in Pewaukee. They don't have wild rice down there. To be true conservatives, vote for the wild rice, vote for the clean water, and do not negotiate with this company until the ultimate end approaches. And as you have heard, by negotiating with this company, you put at risk dozens of other property owners who are now going to have to say, "You know what? My country decided to go along with the easy route, the three-quarters of a million [dollars] or the million or whatever it is."

And I challenge you to come up with more imagination and more courage to make a moral choice not to go with unlimited development, pushing concrete and lights and pushing more and more pollution on us every day, and the very least you can do is invite the Great Lakes Indian Fish & Wildlife Commission, get some advice from them, and talk to people who can teach us, how to stop wasting so much electricity.

At the end of my speech, I attempted to give a small bag of wild rice to Washburn County Chair Peter Hubin and Washburn County Corporate Attorney Ed Fischer. Hubin declined the wild rice.

Chief Potac was warning about Northern States Power Company, 80 years ago, flooding the Chippewa River. The following are his exact words.

"The men of the great cities come to the Indian with a proposal to exchange these lands here at this sacred spot. These lands given us many years ago by the Great White Father at Washington. This land is the land the white man did not then want…to build a great dam to flood this sacred land and submerge the graves of these forebears. Now, what does the White Man really want this land for? It is to develop the white light for his streets and homes, its great halls and ballrooms where his squaws come painted and half-dressed to consort with other white men in semi-darkness and half-nakedness. To drink much firewater amid much disorder. It is not good that the White Man acquire this land for their purposes to see it is not good. Our answer to your proposal therefore is no, no, no."

—Submitted by Nick VanderPuy

Dear Editor re: mercury abatement

It is unfortunate that some of the mercury reduction programs mentioned in the winter issue of ***Mazina'igan*** exist only on paper, or ran out of steam when they ran out of funding.

Initially, the Bay Area Mercury Abatement Program sponsored public awareness activities and set up special projects to reduce or eliminate mercury in certain consumer products such as thermometers, thermostats, and light switches in the trunks and hoods of automobiles. One positive outcome of the program is that the city of Ashland passed an ordinance prohibiting the sale of items containing elemental mercury. As a result, mercury thermometers can not be purchased from any Ashland store. Thermostats, however, which contain 5 to 7 times more mercury than a thermometer, can be purchased in a variety of styles and brands from any retail outlet that also carries the non-mercury-containing electronic types. Also, representatives from two area car dealerships knew nothing of mercury switch replacements.

Part of the reason for this lack of compliance is that funding for the Mercury Abatement Program ran out, and there is no (and never was) specific party designated to monitor compliance.

There are many admirable projects around Lake Superior aimed at zero discharge. We must, however, remain steadfast in our efforts to ensure that toxin levels do not continue to increase as they have been.

—Submitted by Barbara Bayuk

Flowering rush: A spreading problem

Early detection can help stop this plant

By GLIFWC Staff

Odanah, Wis.—Flowering rush is a non-native ornamental plant that is just beginning to gain a foothold in the upper Great Lakes region. While the potential impacts of this plant are not well understood, it has proven to be aggressive where found, forming large, dense patches along shorelines and in wetlands.

To the left: Pinkish-white flowers of the non-native ornamental flowering rush. Above: Flowerheads (umbels) of flowering rush. (Photos by Sam Quagon)

What is flowering rush? Where did it come from?

Flowering rush *(Butomus umbellatus)* is native to Eurasia. It is the only member of the flowering rush family (or *Butomaceae*) in the world. It was probably introduced to North America in the late 1800s, being first observed in Quebec around 1897. It is now common along the St. Lawrence River and the shores of Lake Champlain.

In recent years it has spread westward from these areas, helped in part by its sale as a garden plant. Although still relatively uncommon in the region, flowering rush is now established in scattered sites in Michigan, Minnesota and Wisconsin, including at least two sites in northern Wisconsin. It has been found outside cultivation as far west as Montana and Idaho.

Flowering rush is considered invasive in Minnesota, Wisconsin, and Michigan. Sale and possession of flowering rush is banned in Minnesota.

How to tell flowering rush apart from other shoreline vegetation?

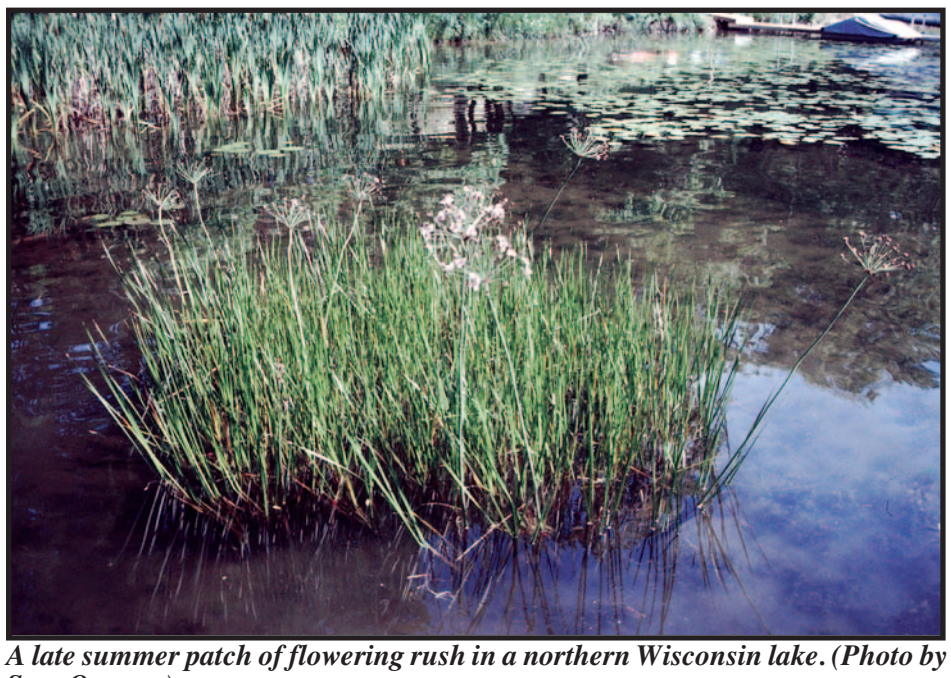
Spiralling leaf tips of flowering rush. (Photo by Sam Quagon)

Flowering rush can grow as an emergent, or submersed in water as deep as 10 feet. It is strongly rhizomatous, spreading underground to form extensive patches. The submersed leaves produced in deeper water are limp and flexible. Aerial leaves, produced in shallow water and on wet ground, are long, narrow and stiff, and can reach more than 3 feet tall. Flowering rush leaves do not have a blade and tend to twist spirally near the tip. Both the leaves and stems are triangular in cross-section.

Only flowering rush plants growing in shallow water or on moist ground produce flowers. The flower stalks may reach 5 feet, though they are usually shorter than this. About 20 or 30 attractive pinkish-white (rarely white or pinkish-brown) flowers of up to 1 inch across are produced in a terminal head. Each flower appears on its own stem, with each stem about the same length (2-4 inches) and coming from about the same point, forming a structure called an umbel (like a dill flowerhead). Each flower has three short sepals alternating with three longer petals.

Flowering rush is a very distinctive and easily-recognized plant when in bloom. Except for several members of the carrot family, or Apiaceae, flowering rush is our only aquatic plant that produces flowers in umbels. (Flowering rush differs from carrot family plants in a number of other characteristics, though, with carrot family plants usually having round stems, small, white, 5-petaled flowers, and flat, lacy leaves.)

When not in flower, flowering rush can be difficult to detect, as it closely resembles the sedges, bulrushes, and arrowheads with which it often grows. There are some differences, though. Most sedges and bulrushes have stems that are more-or-less triangular in cross-section, but leaves that are flat or folded. Arrowheads *(Sagittaria spp.)* often have leaves that are triangular in cross-section, and appear very similar to flowering rush when not in flower, but their roots are clearly segmented. Finally, most bur-reeds *(Sparganium spp.)* have leaves that are triangular in cross-section, but their flowerheads are not showy and resemble large burs. The flower stalks of flowering rush persist well beyond flowering time and can be helpful when searching for the plant in fall.



A late summer patch of flowering rush in a northern Wisconsin lake. (Photo by Sam Quagon)

How does flowering rush spread?

Flowering rush is perennial, regenerating each spring from its underground rootstock. Dispersal is mainly vegetative, via small, pea-sized bulblets that form in large numbers along the rhizomes. These bulblets easily detach, and each one is capable of growing into a new plant. Bulblets and rhizome fragments can be dispersed by water, animals or human activities. Rhizomes and attached bulblets are sometimes spread by muskrats, which use plant material for their homes.

Flowering takes place in mid- through late summer. Only plants in shallow water or on wet ground produce flowers. Each flowerhead can produce thousands of seeds. The seeds float and can live for many years. Seedling establishment and survival is apparently low in natural habitats, though, as the seedlings are poor competitors with the existing vegetation.

Two types of flowering rush have been introduced to North America: a diploid type, with two sets of chromosomes, and a triploid type with three sets of chromosomes. Flowers of the diploid type are self-compatible and capable of producing large numbers of viable seeds, while those of the triploid type are self-incompatible and seldom produce seed. Triploid plants often produce bulblets in place of some of the flowers.

Only one of the approximately 12 known flowering rush populations in Minnesota produces viable seed, a factor which may be responsible for the low rate of spread of this plant in the state so far. Diploids probably have an advantage in long-distance dispersal, but triploids can spread vegetatively more rapidly.

Where does flowering rush live?

Flowering rush inhabits shores, riverbanks, marshes, ditches, shorelines, seasonally flooded fields, and other wet places. It typically grows as an emergent plant on wet ground or in shallow water, but can also grow completely underwater, forming persistent patches.

In its native Europe it tends to be suppressed by shoreline sedges and other species, and often forms a band between the shoreline community and the waters edge. It responds well to fluctuating water levels and quickly colonizes newly-exposed ground. Rivers, with their fluctuating water levels and ability to carry bulblets and seeds downstream, are quickly colonized.

What effects does flowering rush have on the environment?

Little research has been done so far on the effects of flowering rush on natural habitats. It has the ability to produce dense stands and can grow so densely that it interferes with shoreline uses. Along the Snake River in Idaho, it has been reported as "outcompeting the willows and cattails."

In the St. Lawrence River watershed, at least one researcher considers it to be more aggressive in invading natural communities than purple loosestrife *(Lythrum salicaria)*. It seems to have less effect on native plant communities than purple loosestrife, though, perhaps because flowering rush's growth form doesn't allow it to fill all the available space, allowing other plants to persist at low levels within the patches. Its effects on fish and wildlife are so far unknown.

What can be done about flowering rush?

Apparently little has been done to control flowering rush in natural habitats in North America. Control of even small populations can be difficult, as small fragments left in the substrate can regrow.

As with invasive plant control in general, leaving the native plant community intact can go a long way towards preventing the establishment and spread of flowering rush.

(See Flowering rush, page 13)

How can you help prevent the spread of aquatic invasive species in ceded territory waters?

By Jim Thannum
GLIFWC Natural Resource Development Specialist

Determine if the water body you intend to fish or rice in is reported to have Aquatic Invasive Species.

This can be done by watching for Exotic Species Advisory warning signs posted at boat landings, using the internet to access maps at GLIFWC's web site **http://glifwc.org**, and examining maps at tribal registration stations that highlight known AIS in tribal walleye and wild rice harvest lakes (i.e. it is important to note that additional area lakes have AIS that are not listed on these maps).

It is import to realize that a lake maybe infested with exotic species but has yet to be reported or have a warning sign installed. As a precaution, please take the preventative steps listed below and protect ceded territory waters for future generations.

Inspect and remove aquatic plants, animals, and mud from your boat, trailer and equipment.

Curly pondweed

Curly pondweed begins to grow rapidly with the warming water temperatures of early spring, forming large, dense patches which can clog waterways. By mid-summer the pondweed canopy begins to die back, and the resulting high oxygen demand caused by this decaying vegetation can adversely affect fish populations.

Curly pondweed has been found in many popular fishing lakes throughout Minnesota, including Mille Lacs Lake. Curly pondweed has also been found in popular Wisconsin fishing waters, including Pelican Lake, Lake Minocqua, Tomahawk Lake Chain, Kentuck Lake, Little Saint Germaine, and Lake Wissota among others.

Eurasian water-milfoil

Eurasian water-milfoil often reproduces by fragmentation, with 4-8 inch pieces breaking off, rooting, and forming new plants. This trait enables the plant to be easily transferred from lake to lake by outboard motors and trailers. Dense stands of Eurasian water-milfoil can alter predator-prey relationships, leading to increases in forage fish and decreases in larger fish (i.e. walleye and musky).

Researchers have found that during daytime feeding periods, 3-4 times as many fish feed in areas with native plant communities as in the milfoil patches. Furthermore, when milfoil dies in the fall, it decays, lowering oxygen levels in the water for fish. Eurasian water-milfoil has been found throughout the Twin Cities area and has spread northward in that state to many lakes including Mille Lacs Lake.

Eurasian water-milfoil has also been found in popular Wisconsin fishing waters including the Chippewa Flowage, Round Lake and Little Round Lake (Sawyer County), Lake Metonga, Rainbow Flowage, Lake Minocqua, Minong Flowage, Eagle Chain and others.

Drain all water from your motor, live well, bilge, transom wells, etc.

Spiny water fleas and zebra mussels can accidently be transferred from lake to lake through water left in motors, live wells, bilges, and transom wells. The spiny water flea reproduces rapidly and competes with young perch and other small fish for food.

Spiny water fleas

Spiny water fleas have spread from Lake Superior to inland ceded territory waters including:

- St. Louis River, Island Lake Reservoir, and Fish Lake Flowage in Minnesota,
- Gile Flowage in Wisconsin,
- Lake Gogebic and Michigamme Lake in Michigan.

Zebra mussels

Zebra mussels have spread throughout the Great Lakes and up the Mississippi River system to the Twin Cities. Zebra mussels are now found in over 43 inland lakes in Wisconsin and 200 waterways in Michigan, posing a serious threat to inland ceded territory waters. In recent years zebra mussels have spread to two 1842 ceded territory waters:

- Second Lake (Fortune Pond) near Crystal Falls, Michigan, and
- Lake Metonga near Crandon, Wisconsin.

Zebra mussels have been found to clog the intakes of water systems, damage boat motors, and injure people with their sharp shells. Zebra mussels can also spread from lake to lake by attaching themselves to Eurasian water-milfoil. A number of waters currently have both of these invasive species, including Lake Metonga near Crandon, the Mississippi River near the Twin Cities, and Lake Winnebago, Lake Geneva, Sturgeon Bay, and Machichanee Flowage in southern and eastern Wisconsin.

Dispose of unwanted bait in the trash on land away from water.

Never release live bait into a waterbody, or transfer aquatic animals or water from one waterbody to another. Rusty crayfish and smelt provide good examples of the danger posed by exotic species that were used for bait.

Rusty crayfish

Rusty Crayfish were brought into Wisconsin for bait in the 1960s and are now found in over 100 lakes and streams in northern Wisconsin. They have also spread throughout 1854 ceded territory waters in Minnesota. As rusty crayfish spread, they uproot vegetation, depriving native fish of cover and food, making waters murky, and eating fish eggs.

Smelt

Smelt have been found in 21 northern Wisconsin lakes. They pose the greatest risk to walleye in smaller, deep, clear lakes lacking a diverse fishery. The impact of smelt on walleye populations can be seen in Sparkling Lake (Vilas County, Wisconsin) where they were first discovered in 1981.

Historically this lake had good natural reproduction, but as smelt numbers increased, fishery surveys started showing that young walleye weren't surviving into the fall of their first year. This problem continued with fall fisheries surveys documenting no significant natural reproduction since 1988. It is believed that smelt compete directly with juvenile walleye for food, limiting walleye recruitment.

Wash your boat and equipment with hot water (>104° F) or a vinegar/salt water solution, and then rinse with a high pressure hose.

If you have hard-to-treat equipment that cannot be exposed to hot water you can:

- dip equipment into 100% vinegar for 20 minutes to kill harmful aquatic species such as spiny water fleas and zebra mussels; or
- use a 1% table salt solution for 24 hours to replace the vinegar dip.

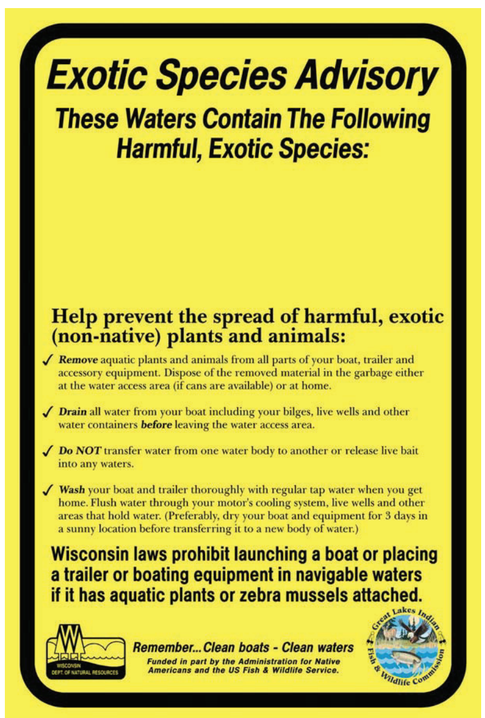
This table provides correct mixtures for the 1% salt solution in water:

Gallons of water	Cups of salt
5	2/3
10	1 1/4
25	3
50	6 1/4
100	12 2/3

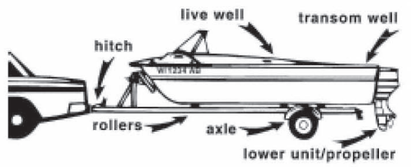
- **If hot water is not available, spray equipment with high-pressure water.**
- This step is particularly important to take after boats have been used in ceded territory waters known to possess spiny water fleas (St. Louis River, Island Lake Reservoir, and Fish Lake Flowage in Minnesota, Gile Flowage in Wisconsin, and Lake Gogebic and Michigamme Lake in Michigan); zebra mussels (Second Lake, also known as Fortune Pond in Michigan, and Lake Metonga in Wisconsin); or heterosporis parasites (Vilas County lakes including Lac Vieux Desert, Big Arbor Vitae, Scattering Rice, Eagle, Carpenter, Cranberry, Catfish, or Yellow Birch Lakes or Oneida County lakes Dam, Sand, and Columbus).

DRY equipment.

If possible, allow for 5 days of drying time before entering new waters.



Watercraft Check Points



Trailer:
- □ Axle
- □ Bunks
- □ Frame
- □ License Plate
- □ Lights/wiring
- □ Rollers
- □ Spare Tire
- □ Wheels
- □ Winch Rope

Boat:
- □ Floor
- □ Hull
- □ Live well
- □ Transom Well

Motor:
- □ Intake Pipe
- □ Prop
- □ Lower Unit

Boat Accessories:
- □ Anchor
- □ Bow Line
- □ Ladder
- □ Tow Rope
- □ Transducer
- □ Trolling Motor

Other Accessories:
- □ Bait Bucket
- □ Fishing Line
- □ Landing Net
- □ Tackle

Clean Boats, Clean Waters
Volunteer Watercraft Inspection Program

Flowering rush

(Continued from page 11)

Manual control can be useful for small populations. The numerous bulblets along the rhizomes readily detach when disturbed, and each rhizome fragment or bulblet can produce a new plant. Therefore pulling is not recommended, unless a serious attempt is made to remove all the underground fragments. Digging might be appropriate for patches on exposed wet ground, where there is no immediate danger of bulblets or rhizomes floating away. Plants can be disposed of by composting away from water.

Cutting flowering rush patches about one inch above the ground can be an effective means of control. Several cuttings spaced through the summer is most effective at limiting spread and preventing seed set, and can significantly weaken the plants. Most rhizome growth occurs late in the season, so cutting the shoots at this time may reduce vigor the following year.

Herbicides are difficult to use on flowering rush, as they tend to wash off the plant's narrow leaves. If control with herbicides is attempted, care should be taken to avoid spraying surrounding (and competing) vegetation. Any attempt to control flowering rush in aquatic habitats must be done using herbicides formulated for use over water. Permits are required for herbicide application over water in many states, including Wisconsin, Michigan and Minnesota.

Grazing by domestic ducks has been used to control flowering rush in Europe. There is no evidence so far that wild ducks are having any impact on flowering rush in North America, though. In areas such as farm ponds, where domestic ducks could be concentrated and subsidized with artificial feeding, this method might be effective.

Biocontrol research into insects and disease organisms that might infest flowering rush in its home range, and that might also control it in North America, has so far not been attempted. The fact that flowering rush has no close relatives anywhere in the world, though, suggests that it might be a good candidate for biological control in the future.

The best way to prevent the spread of flowering rush is to avoid planting it. After a day out on the lake, boats and equipment should be cleaned thoroughly, and bait buckets and live wells emptied well away from water. If at all possible, everything should be allowed to dry completely before heading out to the next lake.

As for water gardening, lots of beautiful native substitutes for flowering rush are available. Swamp milkweed *(Asclepias incarnata)* is an easy to grow perennial in wet soil. The wine-colored flower clusters are very attractive to butterflies, and you may even discover that the plants are providing a home for monarch caterpillars! Other attractive plants for wet areas include marsh marigold *(Caltha palustris)*, water arum *(Calla palustris)*, and even orchids such as grass pink *(Calopogon tuberosus)*. (Grass pink needs acid soil and should not be dug in the wild.)

Native plants propagated from local or regional populations are the most environmentally acceptable and the most likely to do well here. If you would like more information on growing native plants, and on commercial sources for these plants, contact Karen Danielsen at the GLIFWC offices (715) 682-6619 ext. 125.

Reporting

If you notice flowering rush on the landscape, please report it to your state Department of Natural Resources (DNR) or to GLIFWC.

For More Information

This article was adapted from a more detailed article posted on GLIFWC's website—see *http://www.glifwc.org/epicenter/*.

Literature references for this article are listed at *http://www.glifwc.org/epicenter/Butomus_umbellatus/refs.html*.

Links to other websites on flowering rush appear at *http://www.glifwc.org/epicenter/Butomus_umbellatus/links.html*.

General information on invasive plant control can be found in the Nature Conservancy Weed Control Methods Handbook at *http://tncweeds.ucdavis.edu/handbook.html*.

Workshops on prevention of invasive species

Apply HACCP techniques to aquatic invasives

By Sue Erickson
Staff Writer

Odanah, Wis.—Locating potential problem points in the food production process and developing plans to avoid them is all part of Hazard Analysis and Critical Control Point (HACCP)—a procedure now mandated in the commercial processing of seafood.

To help prepare tribal and other commercial fishermen to implement HACCP requirements, Michigan State University (MSU) Sea Grant, along with the Great Lakes Indian Fish & Wildlife Commission (GLIFWC), provided workshops for Lake Superior fishermen several years ago, introducing them to HACCP management during the processing of Lake Superior fish and fish products.

The same process used in the seafood industry is now being applied to the prevention of aquatic invasive species (AIS) through a HACCP management system developed by Ron Kinnunen and Jeff Gunderson, MSU Sea Grant.

Workshops targeting individuals involved in lake and fishery management as well as commercial businesses were invited to the one-day seminars that introduced them to the AIS-HACCP procedures. "We wanted people who are on the water and could unintentionally spread AIS plants or animals from lake to lake in the course of their work—like fishsery assessment crews, conservation officers and fish hatchery employees," explains Jim Thannum, GLIFWC natural resources development specialist and workshop presenter.

Three workshops were presented this winter at the Keweenaw Bay, Red Cliff and Lac Courte Oreilles reservations respectively. Trainers used an AIS-HACCP workbook and an informational CD to help participants identify where in the course of their particular jobs they might encounter invasives and identify preventative steps to avoid their spread.

For instance, one night a GLIFWC fish assessment crew may be sampling walleye populations on two lakes. One has milfoil; the other does not. Steps to prevent the spread of milfoil might be: 1.) use a different net in the infected lake that is properly identified with a red tag, 2.) be sure to conduct the fishery assessment in the uninfected lake first; 3.) be sure to inspect and clean boat, trailer and equipment when entering and leaving the boat landing.

The AIS-HACCP manual provides a record keeping system for field workers to record information about the existence of AIS in specific water bodies and to record their own preventive measures. One of the forms used in the AIS-HACCP manual is an inventory sheet developed by GLIFWC Inland Fisheries Biologist Michele Wheeler for use by GLIFWC electrofishing crews during fall and spring surveys. "Because GLIFWC assessment crews monitor numerous lakes in the ceded territories during their seasonal assessments, it is critical that they are both aware if a specific lake contains AIS, which AIS

Ron Kinnunen, Michigan Sea Grant, presents during a training workshop at the Keweenaw Bay reservation demonstrating the use of HACCP techniques for controlling the spread of aquatic invasive species. GLIFWC staff have participated in the training. (Photo by Jim Thannum)

species are present, and that all necessary precautions are taken not to spread the species to the next lake on our list," Wheeler says. GLIFWC crews routinely pressure wash boats and trailers after every lake as a precaution.

Wheeler is also careful to organize her list of lakes, making sure that AIS-infected lakes, especially those containing zebra mussels and spiny water fleas, are done at the end of the survey week, so that boats and trailers can be steamed cleaned (over 200 degrees) and allowed to thoroughly dry.

The fishery crews have also been trained to be on alert for invasive species while on the water and to identify their location, if noted, with GPS coordinates. While some lakes may not be identified as containing AIS, it is possible that they have not been surveyed or reported as yet. "We encourage our crew members to be vigilant and to report as accurately as possible the location of any AIS noted in a water body," Wheeler says.

The inventory checklist for the crew also emphasizes a thorough check and cleaning of boat and trailer along with routinely disinfecting boats and equipment including nets, measuring boards, aerators, drain holes, tanks, and droppers.

The one-day workshops attracted participation from a broad range of professionals, including federal, state and tribal natural resource managers; U.S. Fish and Wildlife Service fisheries biologists; federal, state and tribal hatchery personnel; tribal environmental biologists; tribal and GLIFWC conservation officers as well as educators.

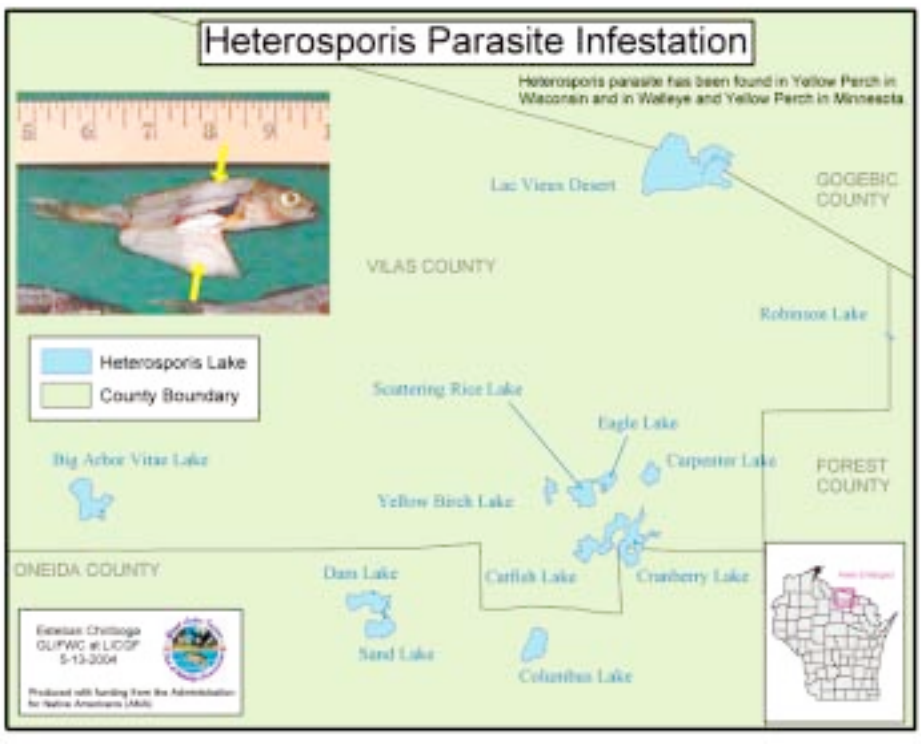
A video, *From Net to Sale*, developed by the Great Lakes Sea Grant Network, was designed to accompany the AIS-HACCP workshops, but can also stand alone as a training mechanism on AIS-HACCP techniques. The video is available through Minnesota Sea Grant at 2305 E. 5th St., Duluth, Minnesota 55812; call (218) 726-8106 or e-mail seagr@d.umn.edu.

The workshops were sponsored by the Administration for Native Americans and the Great Lakes Protection Fund.

Fish parasite spreads in northeast Wisconsin

By Charlie Otto Rasmussen, Staff Writer

Odanah, Wis.—First discovered in fish on the Eagle River chain in 2000, the non-native parasite Heterosporis is showing up in additional lakes in northeast Wisconsin, including the Michigan border lake, Lac Vieux Desert.



Great Lakes Indian Fish & Wildlife Commission (GLIFWC) biologists are advising tribal fishermen to be on the look out for fish infected with the parasite.

While it is not known to kill fish or be harmful to humans, the fillet tissue of fish with Heterosporis contains white areas that resemble freezer burn.

"We're encouraging tribal fishermen to turn in any fish they suspect carries this parasite," said GLIFWC Inland Fisheries Section Leader Joe Dan Rose.

"Contact your local GLIFWC warden or any inland fisheries biologist, and we'll arrange to collect the fish for testing."

Tribal fishermen in the Lac Vieux Desert, Mole Lake and Lac du Flambeau areas are most likely to encounter fish with Heterosporis, Rose said. Most recently, the parasite has appeared in fish on Big Arbor Vitae, Echo and Robinson Lakes.

While the parasite commonly shows up in yellow perch in infected areas, it has been identified in different fish species including walleye, northern pike and burbot.

The Wisconsin Department of Natural Resources has published tips to help keep the pathogen from spreading to other waters:

- Do not throw infected fish back into a lake or other natural water bodies. Instead place the fish in the garbage, burn them or bury them.
- Thoroughly dry all equipment (outside of boats and trailers, nets, boots, ect.) when moving from one waterbody to another. Heterosporis can survive under moist conditions, but is vulnerable to dry conditions.
- Drain all live wells and bilges away from lakes and rivers, on soil if possible, so the water does not run into a natural water body. Because it is difficult to dry live wells and bilges completely, these areas can be disinfected with a bleach solution of one cup bleach in five gallons of water.

Contact GLIFWC at (715) 682-6619 to report possible Heterosporis in fish or for more information.

Miigwech Kendall Rice!

One of Indian Country's big helping hands walks on

By Sue Erickson, Staff Writer

Minneapolis, Minn.—On January 15, 2005 in St. Louis Park, Minnesota, Kendall Rice, at the age of 73, walked on. Born on October 14, 1931 at Quinter, Kansas, son of John and Edith (Nahquabe) Rice, Kendall's life was one that touched and helped many others. Among those people were members of GLIFWC staff who participated in a cultural presentation by Kendall and his wife, Lillian, during one of GLIFWC's first staff days about fifteen years ago.

A member of the Prairie Band Potawatomi Nation in Kansas and the Native American Church, Kendall experienced hardship early in his life, especially when he was taken from his home at a young age to a boarding school in Marty, South Dakota. Like many young Indian children at boarding schools, Kendall was forbidden to speak his language, even to his relatives. Punishments administered by the Catholic nuns were severe, including isolation and beatings, for infraction of these rules. The school experience was so bad, that Kendall and a cousin ran from the school, walking, sometimes falling down and holding each other up, all the way back to their home in Kansas.

Recently, Kendall was able to share his experiences in boarding school during testimony to the Minnesota legislature in October 2004, just months before he walked on. His testimony was in support of a resolution proposed by the Alliance of Early Childhood Professionals asking the state to acknowledge the importance of the Ojibwe and Dakota languages and support the revitalization of these languages. These were the types of initiatives that Kendall and Lillian came to support and encourage—initiatives and programs that heal, empower and "reconnect" Indian people to the "natural way."

Kendall actually left home and went out on his own at the age of 13, working to earn his way in a variety of capacities—dishwashing, farm work, whatever was available. In fact, farm work brought him to Wisconsin where he found work harvesting potatoes on a potato farm and where he and Lillian first met. After they were married, they made their home on Partridge Lake Road near Star Lake. They lived and raised their family there, following what Kendall called the "Indian way" or "the natural way."

The couple came into a role as cultural advisors and consultants following what Lillian describes as "going through our own pain with alcoholism." It was during recovery that Kendall became aware that Indian people really needed to "reconnect" as they began to heal, which led him to extensive work with treatment programs, primarily as a cultural advisor. He began as a cultural advisor at the Ain-Dah-Ing Halfway House in Spooner. "Kendall walked with people to find their own way and encouraged them to find that for themselves. He never pushed his own beliefs and values," says Lillian, who spent 56 years with Kendall. He also traveled to Oklahoma while working with Ain-Dah-Ing and brought back the idea of the sweat lodge to the area, she says.

Kendall also worked with the Mash-Ka-Wisen Treatment Center in Sawyer, Minnesota and the Gaawin Minikwe Resource Center in Superior.

Kendall listened to countless "Fifth Steps" during his life and continued to be available even while he was ill. If someone called, Lillian says, he would get right up out of bed to help. Following his death, Lillian has received many calls from people, acknowledging his help and reporting, "I'm still sober today," she says.

In the same way, he devoted some of his last energies towards the language re-introduction initiative in Minnesota through the Alliance of Early Childhood Professionals' efforts. Kendall envisioned a "Bringing the Bush to the City" program in conjunction with the language revitalization. Alliance spokesperson

Kendall Rice (center) testifies before the Minnesota Legislature October 2004 supporting a resolution that Minnesota recognize Dakota and Ojibwe languages and support the revitalization of these languages. On his left is Jim Northrup Sr., Fond du Lac and the person on his right is Cleone Thompson. (Photo submitted)

Margaret Boyer said he was hoping to establish more wild plant areas in the city, using city and county parks and several areas he had identified to re-introduce native plant species, because he knew the language is very connected to the Earth. He believed that to learn the language the children must also have strong connections with their environment and eventually connections back to their reservations. This effort to restore language and fundamental connections to the Earth are a major part of his legacy.

In June 2004 Kendall was awarded Phillips Neighborhood Champion Award by the Phillips community in Minneapolis for community-orientation and teaching spiritual ways to the community. In 1996 Lillian and Kendall were awarded Outstanding Elders in recognition of their contribution to the fight against HIV and AIDS in Native America by the National Native American AIDS Prevention Center in Portland, Oregon.

Following his "natural way," Kendall always loved the outdoors—hunting, gathering maple sap, fishing. "He was careful in the way he hunted, careful not to take does when they had young and taking only what we needed to eat," Lillian says. "We lived off the land when the kids were growing up." He also loved to feed the birds and animals around their home, and as a true man of the North, he also loved football and Nascar.

It was only after their children were grown that Lillian and Kendall moved to the Minneapolis area, largely to work with cultural and treatment programs there.

Kendall's brothers Andrew, Willliam "Bill," and Eddie; sisters Lillian, Audrey, Darlene, Dallas and Marie preceded him in death. He is buried, by request, next to two children Loyd Morris and Rose Lynn. Those surviving Kendall include his wife Lillian; four sons, Richard, Arnold, Sherwin and William, one daughter Victoria (Mimi); one adopted daughter Myrna Medicine Horse; 19 grandchildren and 9 great grandchildren.

The U.S. Environmental Protection Agency (EPA) Region 5 recently granted the Bad River Band of Lake Superior Chippewa the authority to administer parts of the Clean Air Act in a manner similar to states. EPA Region 5 Acting Administrator Bharat Mathus signed the decision document and presented the certificate to Bad River Tribal Chairman Donald Moore on February 9 at the Bad River Lodge and Convention Center in Odanah, Wis. As a result of this action, the Wisconsin Department of Natural Resources, Michigan Department of Environmental Quality, Minnesota Pollution Control Agency and EPA must give the Bad River Band advance notice of any Clean Air Act Title 5 operating permit applications they receive for air pollutant sources within 50 miles of the reservation boundaries. The tribe would then be able to review and comment on certain aspects of these permits and those comments may be taken into consideration before issuing the final permits. (Photo by Lynn Plucinski)

A call for old time recipes

A reader recently requested ***Mazina'igan*** to put out a call for old time recipes using foods traditionally harvested from the lakes and woods, like a recipe for preparing acorn soup or muskrat. If you have any recipes from grandma and grandpa for game or wild plants you would like to share, ***Mazina'igan*** would appreciate receiving them.

Mail to ***Mazina'igan***, GLIFWC, P.O. Box 9, Odanah, Wisconsin 54861 or e-mail to pio@glifwc.org. Miigwech!

Wisconsin Act 118

(Continued from page 1)

tected from the negative impacts possible under Act 118, they must be identified.

Over the years, the Great Lakes Indian Fish & Wildlife Commission (GLIFWC) has built a data base of wild rice waters, using data from harvest surveys, restoration efforts, aerial surveys and other sources. However, this data base is not complete, with new waters being added on an annual basis. Although most of these are smaller waters, with relatively little human harvest, they still provide great ecological value. They support many species of wildlife, provide duck hunting and trapping locations, and can help maintain water quality at the sites where they are found.

If you believe that you may know of any rice beds that GLIFWC may not be aware of, please contact Peter David or Dan North at GLIFWC, (715) 682-6619, as soon as possible; efforts are underway to make the wild rice water date base as complete as possible before the next construction season. Miigwech for your help!

Tribal leader seeks to ban Indian logos

Madison, Wis. (AP)—The head of the Great Lakes Inter-Tribal Council called on lawmakers on March 8 to prohibit Wisconsin schools from using Indian logos and nicknames in what he called a historic speech meant to improve communication between the state and the tribes.

Raymond DePerry, chairman of the Red Cliff Chippewa and president of the council, said the mascots were discriminatory images of Indians that needed to be eliminated.

He also said it was hurtful to see business use those images and for communities to continue using derogatory terms to name Wisconsin waterways, singling out Squaw Bay in the Madison area.

"It is unfortunate that we musk ask our Legislature to enact legislation outlawing such practices in our public schools," DePerry said. "But it is even more painful that local school boards and public schools have allowed such practices to continue."

DePerry's speech marked the first time the tribes have been asked to formally address a joint session of the Legislature at the state Capitol. It also comes on the heels of a contentious period between lawmakers and the tribes, particularly over gambling issues.

DePerry said after the speech that he avoided talking about gambling because the tribes have made their positions clear on that issue.

Still, his call to ban Indian logos and mascots received a mostly tepid response. While the audience—many of them from tribes—erupted at DePerry's call for legislation, a minority of lawmakers reacted enthusiastically.

There are 38 Wisconsin school districts at last count that have Indian logos, mascots or nicknames, according to the Wisconsin Indian Education Association.

Assembly Speaker John Gard, who invited the tribes to address lawmakers, said he was open to discussions about the legislation, but acknowledged it was a politically volatile issue.

Gard said his preference was to allow local school districts to take steps to change the mascots without a state mandate, but he promised he would not stand in the way of any legislation that would require such a change if lawmakers embraced it.

"We need to have a greater level of sensitivity to it," said Gard, R-Peshitgo.

The issue of Indian logos and nicknames has bitterly divided some school districts. While the tribes insist the symbols are derogatory, supporters say they are meant to honor Indians, not insult them.

The Osseo-Fairchild school board voted in July 2002 to change its chieftain head logo to the letters "OF." Four months later, voters upset by the change

recalled four board members, and the new board reinstated the logo. After more complaints, the board decided in April 2004 to change the image from a Plains Indian, which doesn't live in Wisconsin, to the image of a Ho-Chunk, a tribe with about 1,500 members in several western Wisconsin counties.

The board consulted with local Ho-Chunk members on the revamped logo, which is very similar to the other one. But that has not alleviated the concerns of some tribes.

Senate names leaders, members to committees for 109th Congress

As the 109th Congress gets under way, leadership is changing hands on key panels for Native American programs.

The big change is on the Senate Indian Affairs Committee, with the retirement of chairman and longtime Indian Country friend Sen. Ben Nighthorse Campbell (R-Colo.). Taking over as chairman is Sen. John McCain (R-Ariz.), also considered a friend by the Indian community. McCain is not new to this position: he chaired the committee from 1995 to 1997.

Sen. Daniel Inouye (D-Hawaii) will stay on the committee, but not as ranking minority member. That position will go to Sen. Byron Dorgan (D-N.D.), who has served on the committee for the past several sessions.

In addition to Campbell, those leaving the Indian Affairs Committee include: Sens. Orrin Hatch (R-Utah), James Inhofe (R-Okla.) and new Democratic leader Harry Reid (D-Nev.).

Change for HELP

Changes have been made in other Senate committees important to Native Americans as well.

Sen. Mike Enzi (R-Wyo.) will take over as chairman of the Health, Education, Labor and Pensions (HELP) Committee, which oversees Indian education and health programs housed in the Education Department and Health and Human Services Department. Enzi replaces Sen. Judd Gregg (R-N.H.), who will stay on the HELP committee, but will take over the helm of the Senate Budget Committee.

A second-term lawmaker, Enzi has been chairman of the Employment, Safety and Training Subcommittee. In a statement, Enzi identified flexibility in federal education initiatives and health care cost issues as top priorities for the new Congress.

Appropriations Committee

Sen. Thad Cochran (R-Miss.) is the new chair of the powerful Appropriations Committee, which sets spending levels for Native American and other federal programs. He replaces Sen. Ted Stevens (R-Alaska), who had to leave because of term limits.

Democratic leadership on both the HELP and Appropriations committees remains unchanged: Sen. Edward Kennedy (D-Mass.) will continue as senior Democrat on HELP, while Sen. Robert Byrd (D-W.Va.) will lead the minority on the Appropriations panel.

Democrats will have one fewer member on HELP this year with the retirement of Sen. John Edwards (D-N.D.), who did not seek re-election to the Senate while running for vice president. Independent Sen. James Jeffords (I-Vt.), who aligns with Democrats will continue to serve on the panel.

Cochran's rise on the Appropriations Committee is the first of several changes there. Sen. Wayne Allard (R-Ore.) will join the committee, replacing Campbell, and Democrats will see their membership reduced from 14 to 13 with the retirement of Sen. Ernest Hollings (D-S.C.)

On the House side, where committee assignments were not yet firmed up, Republicans have selected Rep. Jerry Lewis (R-Calif.) to head the Appropriations Committee. Lewis replaces Rep. Bill Young (R-Fla.) who has reached his term limit as committee chair.

109th Congress

Senate Indian Affairs Committee
Sen. John McCain (R-Ariz.), Chairman

Republicans	Democrats
Craig Thomas, WY	Byron Dorgan, SD
Lisa Murkowski, AK	Daniel Inouye, HI
Pete Domenici, NM	Kent Conrad, ND
Gordon Smith, OR	Daniel Akaka, HI
Larry Crapo, IN	Tim Johnson, SD
Tom Cobum, OK	Maria Cantwell, WA
Richard Burr, NC	

Senate Labor, Health, Education & Pensions Committee
Sen. Mike Enzi (R-Wyo.), Chairman

Republicans	Democrats
Judd Gregg, NH	Edward Kennedy, MA
Bill Frist, TN	Christopher Dodd, CT
Lamar Alexander, TN	Tom Harkin, IA
Richard Burr, NC	Barbara Mikulski, MD
Johnny Isakson, GA	Jeff Bingaman, NM
Mike DeWine, OH	Patty Murray, WA
John Ensign, NV	Jack Reed, RI
Orrin Hatch, UT	Hillary Clinton, NY
Jeff Sessions, AL	Pat Roberts, KS

Independent: James Jeffords, VT

Senate Appropriations Committee
Sen. Thad Cochran (R-Miss.), Chairman

Republicans	Democrats
Ted Stevens, AK	Robert Byrd, WV
Arlen Specter, PA	Daniel Inouye, HI
Pete Domenici, NM	Patrick Leahy, VT
Christopher Bond, MO	Tom Harkin, IA
Mitch McConnell, KY	Barbara Mikulski, MD
Conrad Burns, MT	Harry Reid, NV
Richard Shelby, AL	Herb Kohl, WI
Judd Gregg, NH	Patty Murray, WA
Robert Bennett, UT	Byron Dorgan, ND
Larry Craig, ID	Dianne Feinstein, CA
Kay Bailey Hutchison, TX	Richard Durbin, IL
Mike DeWine, OH	Tim Johnson, SD
Sam Brownback, KS	Mary Landrieu, LA
Wayne Allard, OR	

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Wardens recruited to fill Wisconsin & Minnesota posts

By Charlie Otto Rasmussen
Staff Writer

Three new conservation wardens are on duty across the center of the ceded territory. In February the GLIFWC Enforcement Division added officers to satellite offices in Lac du Flambeau, St. Croix and Mille Lacs. The recruits will patrol off-reservation public lands and waters, enforcing tribal conservation codes and supervising the safe harvest of fish and wildlife.

Lac du Flambeau

Former Wisconsin deputy conservation warden Jonas Moermond is working in familiar surroundings around the Lac du Flambeau reservation. The new GLIFWC officer has spent recent years living and working in the Willow Flowage area due south of the reservation. Moermond spent much of his time as a forest ranger on the 26,000 acres of state land and water that makes up the property.

A native of Antigo, Wis., Moermond attended college at UW-Stevens Point, finishing with a Bachelor of Science in Resource Management and an Environmental Law Enforcement minor. He credits exposure to strong hunting values as a youngster with his career choices: "I learned early on that there's a right way and a wrong way to utilize natural resources. Conservation enforcement benefits everyone," Moermond said.

Bear hunting with hounds tops Moermond's list of favorite outdoor activities. While harvesting only a few bears himself over the years, Moermond said he enjoys working with his hounds and assisting other hunters.

He is engaged to be married, with an April wedding planned.

Jonas Moermond.

Matt Bark.

Matt Koser. (Photos by COR)

Mille Lacs

Tribal fishermen in the Mille Lacs area may spot a new badge on the water and at boat landings this spring. Conservation Warden Matt Bark joined the GLIFWC Enforcement Division on January 10 and is stationed in the 1837 Treaty area of east-central Minnesota.

A native of Washburn, Wisconsin, Bark attended school at Chippewa Valley Technical College in Eau Claire, completing an associate degree in Criminal Justice followed by a 520-hour Basic Recruit training program. Bark worked alongside Red Cliff and Bad River wardens for part of winter and spent the balance of his time in the Mille Lacs area becoming more familiar with the local environment. Bark's regular duties are coordinated through officer Jim Matteson at the GLIFWC satellite office located on the Mille Lacs reservation.

While fishing is fun, Bark's true passion is golf, he said. He looks forward to spending free time on area golf courses. Bark said he has quickly grown to enjoy life in the Mille Lacs area: "It has a small town feel; it feels like home," he said.

St. Croix

Matt Koser is moving from one reservation community to another. The former Lac du Flambeau resident began conservation enforcement duties as a St. Croix-area GLIFWC warden on February 21.

Koser's field experience includes an internship as an ordinance officer with the Lac du Flambeau Tribal Police Department. In December 2005, he is scheduled to graduate from the University of Wisconsin-Superior with a double major in Sociology and Criminal Justice. Koser also holds an Associate Degree in radio and television broadcasting from Brown Institute in Mendota Heights, Minn.

With a strong interest in communications and entertainment, Koser still moonlights as a disc jockey, mostly for special events like weddings. As the spring spearing season gets underway, however, much of his time will be devoted to the boatlandings where he will coordinate conservation enforcement with Mark Thayer from nearby Lac Courte Oreilles. Kosar said he plans on relocating to Spooner permanently by April.

Training develops enforcement skills, interagency relations

By Charlie Otto Rasmussen, Staff Writer

Odanah, Wis.—Annual winter training for GLIFWC conservation enforcement officers included a technological leap and more involvement with the Wisconsin Department of Natural Resources (WDNR) this year.

GLIFWC Network Administrator Lee Cloud (standing) assisted the Enforcement Division in setting up laptop computers. In addition to storing daily logs and other data, the wardens can access detailed satellite maps of ceded lands. (Photo by Charlie Otto Rasmussen)

Wisconsin based GLIFWC wardens met with WDNR staff at Fort McCoy in mid-February, examining law enforcement protocols and brushing up on driving and shooting skills in the field.

"The WDNR training program went very well all around," said Fred Maulson, chief warden at GLIFWC. "There was a lot of good information, and we continue to develop better working relations with our state counterparts."

Ten wardens stationed at northern Wisconsin Ojibwe reservations traveled to the enforcement training center at Fort McCoy. Already cross-deputized with state enforcement credentials, one-half of the GLIFWC wardens completed the standard requirements for annual recertification. The remaining officers were just beginning the two-year process of gaining the authority to enforce Wisconsin conservation laws.

"Law enforcement in the ceded territory can be much more effective by working together with not only the states, but other agencies as well," Maulson said. GLIFWC wardens stationed in Upper Michigan are planning to train with officers from the U.S. Forest Service later this year, he added.

Back in Odanah, GLIFWC wardens conducted exercises intermittently from late February through March. GLIFWC officers and instructors, John Mulroy and Mike Soulier, headed up the annual cold water rescue refresher on Chequamegon Bay. Wearing insulated wetsuits, participants moved between open water and ice, reviewing methods for safely conducting rescue operations on frozen lakes and waterways.

For many wardens, the less familiar component of this years' training centered on technological advances. With assistance from grant monies, each GLIFWC officer received and worked with new laptop computers and digital cameras.

"A lot of the required daily logs and paperwork is condensed onto the computers," Maulson said. "It's a big time saver, freeing up wardens to be more versatile in the field."

Maulson said the digital cameras will additionally make processing evidence in the field more efficient.

For additional information on GLIFWC's Enforcement Division contact GLIFWC's main office at (715) 682-6619.

Elections bring changes to GLIFWC Board

By Charlie Otto Rasmussen, Staff Writer

Mille Lacs, Minn.—One time GLIFWC intern Mic Isham ascended to GLIFWC Board of Commissioners Chairman following elections on January 25. Isham served as Board vice-chairman since 1998, a position now filled by Curt Kalk, head of natural resources for the Mille Lacs Band.

Comprised of individual tribal representatives from all eleven GLIFWC member tribes, the Board of Commissioners establishes policy and provides direction for the exercise of reserved hunting, fishing and gathering rights in the ceded territories of Wisconsin and portions of Michigan and Minnesota.

"GLIFWC does so much for the natural resources and the Ojibwe nation as a whole. Due to GLIFWC's diligent data collection on fish, game and plants, we now have the best information ever about the natural resources in the ceded territories, and that benefits all of us, both Indian and non-Indian," said Isham, a Lac Courte Oreilles (LCO) Ojibwe.

"The Board will continue to be a strong advocate for the rights our ancestors reserved for us in 19th century treaties. These rights are fundamental to who we are as a people, not unlike constitutional rights held by all Americans," Isham added.

In the remaining position on the GLIFWC Board, Sokaogon's Wayne LaBine continues on as treasurer following the recent elections.

Isham replaces long-time Board Chairman Tom Maulson of Lac du Flambeau, who headed the legislative body for more than eleven years. Maulson's departure comes on the heels of a political shift at the Lac du Flambeau reservation.

Since federal courts reaffirmed Wisconsin inland treaty rights in 1983, Maulson has been among the most visible advocates for off-reservation hunting and fishing. He will continue to chair the Voigt Intertribal Task Force, a GLIFWC standing committee that makes natural resource management recommendations to the Board. Maulson has held that position for the last twenty years.

An Environmental Studies graduate from Northland College in Ashland, Wis., Isham interned at GLIFWC in the mid-1980s, compiling a comprehensive inventory of wild rice in northern Wisconsin through aerial and ground surveys, elder interviews and Department of Natural Resources (DNR) data. He later held positions with the Wisconsin Conservation Corps, DNR, U.S. Environmental Protection Agency, and LCO Conservation Department. For the past ten years he has served on the LCO Tribal Governing Board.

GLIFWC's Board of Commissioners is comprised of tribal representatives from all eleven member tribes. Serving as officers for 2005 are, left to right, Curt Kalk, vice chairman; Mic Isham, chairman; and Wayne LaBine, treasurer. (Photo by Sue Erickson)

Five GLIFWC employees were awarded recognition pins at a staff meeting February 24 in Odanah. Pins are issued on five-year employment anniversaries to all staff members. 2005 pin recipients: Dan North (5 years), Mike Plucinski (20 years), Ed White (15 years), Julie Ante (5 years) and Sharon Nelis (15 years). (Photo by Charlie Otto Rasmussen)

Aquatic invasive species coordinator joins GLIFWC biological staff

By Sue Erickson, Staff Writer

Dara Olson. (Photo by Sue Erickson)

Odanah, Wis.—Dara Olson, Mercer, Wisconsin, envisions spending a lot of time on ceded territory lakes this summer as GLIFWC's new aquatic invasive species (AIS) coordinator. GLIFWC's AIS program focuses on identification and control of invasive species in the region's lakes.

Funded through the Bureau of Indian Affairs for one year, Olson's position involves coordinating invasive species field work this summer and assisting with obtaining permits, supplies and equipment for GLIFWC's two invasive species survey crews and one control crew. She will also be surveying lakes as part of the aquatic invasive survey crew and assist with planning an aquatic invasive species conference slated for this fall.

Having grown-up and attended high school in Mercer, Wisconsin, Olson is familiar with the area. She attended college at UW-Stevens Point, graduating with a Bachelor of Science degree in ecosystem restoration and management.

Her previous experience includes work with the Zion National Park in Utah surveying and removing exotic plants, and she also worked for the National Park Service on the exotic plant management team for Lake Mead, Nevada.

Prior to moving West, she became acquainted with GLIFWC when working with the Northwoods Weeds initiative out of Washburn, Wisconsin.

During her free time, Olson heads to the great outdoors. She enjoys backpacking, hiking, camping, cross-country skiing—playing out-of-doors in general.

Aquaculture facility

(Continued from page 10)

species also factors-in. Aquaculture can offer a clean, uncontaminated product; whereas fish caught in some lakes and streams may contain unsafe levels of mercury or other contaminants.

Yellow perch and possibly some walleye will be the first to arrive at the facility. They will be raised in the four one-acre outdoor ponds adjacent to the facility. Potentially in the future, they may bring in some blue gills, crappies, tiliapia and some cold water species, such as rainbow trout, brook trout, or arctic charr.

None of the species harvested by tribal commercial fishermen in Lake Superior will be raised, such as lake trout and whitefish, so the aquaculture facility will not be in competition with the current commercial fishery. However, commercial fishermen could possibly benefit from some of the processing and marketing workshops in the future.

The facility basically has the potential to produce any species, Fischer says. It was built to be flexible and able to meet future aquaculture needs.

The facility will be outfitted with state-of-the-art equipment such as the new $12,000 Hydrotech drum filter, which just arrived from Sweden. "Our vision is to show how aquaculture can be environmentally friendly and fit into the landscape," Fischer comments. The operation is required to obtain permits and provide effluent data to the Environmental Protection Agency to discharge water from the facility. Additionally, the facility is working with the Red Cliff Tribal Environmental and Natural Resources Departments to meet all the tribal concerns for the area. The facility's high capacity wells will be monitored and tested on a regular basis.

Inside the water quality lab, Fischer points to a computer which is hooked into the wells. A few clicks on the mouse and well read-outs are available on the screen, showing exactly how much the well is pumping. The wells are controlled by variable-speed drives (VSD), so they do not run continuously only to the extent needed. The system is very environmentally friendly as we are not pumping excess water from the aquifer, only what is needed at the various times in the hatchery processes, Fischer states.

Additionally, this system also is a very good energy-saving tool for the facililty, as the pumps tend to use a lot of energy when running full speed. With VSDs, the pumps do not run at full speed.

Discharge from aquaculture tends to be high in phosphates and nitrates, so the facility will use two settling basins to reduce levels of these nutrients, making the discharge environmentally safe.

Construction of the main rearing barn, a tractor barn and well building were all part of Phase II, now nearing completion. The project also envisions a Phase III, which would be the construction of an administration/classroom building, but funding has not yet been secured for this phase.

Even though it's been a long haul between idea and reality, Fischer is pleased to see the facility on the brink of operation. He attributes success of the project to the efforts of many, including Red Cliff's Tribal Chairpersons over the years, George Newago, Jeanne Buffalo-Reyes and now Ray DePerry. He's also grateful for the support of Senator Robert Jauch, Representative Gary Sherman and federal Congressman Dave Obey and Senator Robert Kohl.

Red Cliff Hatchery teeming with coasters

Experiments with over-wintering walleye

Red Cliff, Wis.—There's a baby boom at the Red Cliff Tribal Hatchery. Hatching trays, raceways, and rearing tanks are all teaming with coaster brook trout, ranging from barely visible fry to the 16 to 18-inch brood stock that cruise the indoor raceways waiting for fish food to spray the surface of the water.

Inside the main hatchery building, the crew, including four temporary staff, fin clipped yearling coasters in preparation for the scheduled March stocking. Fin clipping was no small project, since 100,000 wriggling 6.5-inch fish had to be netted and clipped. That's why the extra temporary crew was brought in, according to Sean Charette, hatchery manager. The yearlings were lightly anesthetized prior to fin clipping to make the procedure more manageable.

Disease-free for four years, the Red Cliff Tribal Hatchery is a Class A hatchery and the only producer of the Lake Nipigon strain of coaster brook trout nationally. The hatchery's teaming tanks are a result of nine years' work in rearing and stocking this particular strain of brook trout.

This winter the hatchery held 800,000 eggs in the process of hatching, about 100,000 one-month old fry and another 25,000 two-month old fry on the verge of feeding. For their first several months of life, the fry depend on their egg yolk for nourishment. The sac slowly becomes absorbed into the fish itself, eventually forming part of its stomach. "They start coming to the top of the tank when they are ready to start feeding," Charette explains as he opens the cover to a tank blackened with the thousands of small fry hovering near the bottom. Sure enough, a few were swimming upward, an indication that the hatchery would soon be including them at mealtime.

This new batch would need room to grow. That's one reason why the one-year olds needed to be stocked in early March. "We like to grow them to about nine inches because they have a better chance of survival when stocked," Charette explains.

The hatchery also recently stocked about 76 six-year old brood-stock fish into the wild at Point Detour, which was also the destination for the yearlings. Buffalo Bay, Sand Bay and Raspberry Bay have also been stocked over the years. They are all locations which border the reservation.

Sean Charette, hatchery manager, checks one tray holding about 22,000 one-month old coaster brook trout fry. The hatchery produced a total of about 800,000 fry.

At the Red Cliff Tribal Hatchery Brandon Smith, Joe Lamoreaux, Francis Cadotte, and Robert Charette undertook the project of fin clipping 100,000 yearling coaster brook trout prior to stocking them at Point Detour in early March.

The hatchery starts using fish for brood stock at age three, when they are at their prime, and releases them at six-years old, Charette says. Huge raceways in a separate building hold the brood-stock that are separated by year class.

Walleye production

This winter the hatchery is also engaged in an experiment—over wintering walleye in one of their outdoor rearing ponds. The problem with rearing outdoors during the winter relates to the lack of oxygen in the water, Charette explains.

This winter the hatchery aerated one pond, using a windmill to pump in oxygen. So far, it is so good for the 1,000 nine-inch walleye, 5,000 "brookies" and many thousands of fatheads for forage that inhabit the pond. The experiment seems to be working.

The one-acre pond is monitored daily for temperature, oxygen level and gas in the water. Staff also monitor the thickness of ice, so the pond doesn't freeze to the bottom, encapsulating all the fish in a giant ice block!

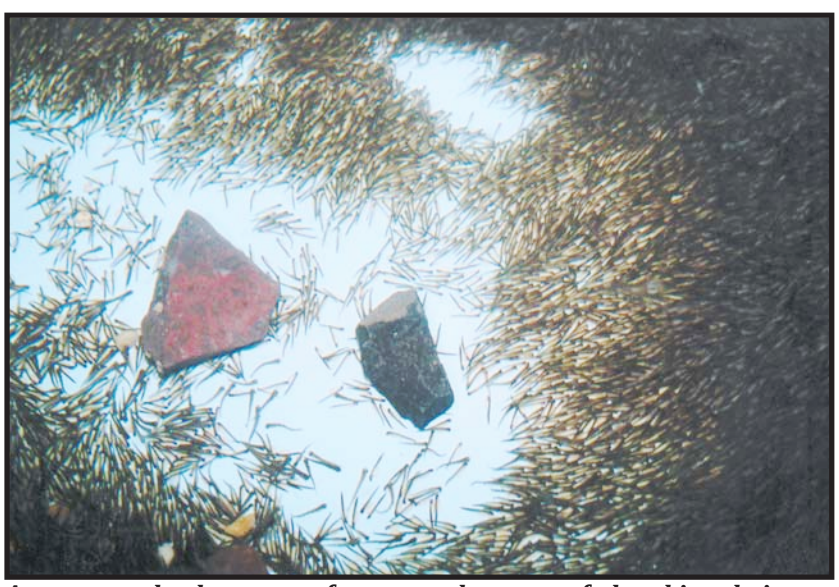
The walleye being raised will be returned to their lake of origin, Nelson Lake, as 12-inchers plus, following the spring spearing season, Charette says.

The hatchery has two other one-acre ponds and has converted two former sewage ponds into two-acre rearing ponds. If the experiment is successful, other ponds will be used next winter for rearing.

The windmill helps cut down on electrical expense, one of the hatchery's major operating costs, making the venture more practical and cost effective.

While it takes a lot of man-hours to monitoring all the hatchery's fish inside and out, Charette credits the assistance of the Red Cliff Natural Resource Department staff, including Matt Symbal, Shelley Gurnoe and Brian Bainbridge, for the hatchery's success.

Article & photos by
Sue Erickson, Staff Writer



At two-months the coaster fry are on the verge of absorbing their egg sac and will be ready to feed. The hatchery rears the fish for about a year until they are 9 inches before stocking.

Coaster brook trout brood stock.

For the first time, the Red Cliff Tribal Hatchery used a windmill to aerate one if its rearing ponds which holds walleye and coaster brook trout. If successful, the fish will be stocked this spring.

Grandma Genny: The gift that keeps on giving

By Sue Erickson, Staff Writer

Red Cliff , Wis.– It's Friday and Grandma Genny's little white sedan comes rolling into the parking lot of Red Cliff's Evenstart building in time for her ten o'clock class for the Lac Courte Oreilles Ojibwe Community College (LCOOCC) outreach program. Prompt as usual, she hauls her class materials up the steps into the classroom and gets set-up as students also begin to appear.

Retiring just doesn't seem to be in the cards for Genevieve Goslin, better known in the Red Cliff community as Grandma Genny. At 84 she's still teaching art classes for the LCOOCC extension at Red Cliff, putting in twenty plus hours a week at the Red Cliff Clinic as an on-duty foster grandparent and walking a mile a day during the winter, two miles a day during the summer.

With bright, brown eyes and a ready smile, Genny explains, "I was going to quit teaching this year. I thought by now everybody had taken my class, but they called me and wanted me to keep teaching. So this semester we're doing fingerweaving." As students filed in, they quietly took out their fingerweaving projects and immersed themselves in creating multi-colored, woven belts from long hanks of yarn fastened to a simple round stick.

Grandma Genny, mother of two and grandmother to ten, has been teaching for the LCOOCC outreach since 1997, offering courses in weaving, beading, moccasin-making and drawing and painting. She has offered an outreach class every semester since 1997 with the exception of fall 2005.

Actually, over the years Grandma Genny has taught at all levels—Headstart, grade school, high school and now college. So, she knows many of her students when they sign-up for her LCOOCC classes; she's probably worked with many of them as children. It was during her position as an assistant to the Indian culture teacher at Bayfield High School that she first acquired her title as more-or-less everyone's "Grandma Genny."

Grandma Genny's career in education began following her husband's death in 1979. Her career as a beader started when she signed up for a beading class in 1982 offered through Northland College's outreach program. "Back then I knew absolutely nothing about beading," she says. " But I also knew I wanted to go do something more with my life." She ended up graduating with an Associate of Arts degree from the Institute of American Indian Arts, Santa Fe, New Mexico in 1983 at the age of 63. She specialized in three-dimensional arts, and at that time she was elected to the *Who's Who in American Jr. Colleges* for her achievement.

In 1987 at the age of 66, she was hired as a teaching assistant at the Bayfield High School and began attending classes towards a bachelors degree at Mount Senario College in Ladysmith, taking classes two weekends a month.

In 1992, due to illness she had to quit attending college and resign her position at the Bayfield High School. Although she was unable to complete all of the Bachelor of Arts degree requirements, in 1994 Mount Senario awarded her an honorary Bachelors of Fine Arts degree during their graduation ceremonies.

Red Cliff's "Grandma Genny" Goslin teaching fingerweaving at the Lac Courte Oreilles Ojibwe Community College outreach site on the Red Cliff reservation. She also teaches beadwork and moccasin making. At 84 years old, Grandma Genny continues a twenty-year plus career as an educator that began when she was 63 years old. Student Carl Butterfield Sr. works intently on his class project, a woven belt for a dance outfit. (Photo by Sue Erickson)

By example, she was also able to encourage her daughter, Diane, to pursue a college education at Northland College, even though she was a busy mother of five. Diane graduated and is currently teaching Native culture at Bayfield High School.

In fingerweaving class, Grandma Genny first introduces the students to three basic designs—diagonal, arrowhead and straight. They complete small samples of each pattern. Then, they tackle the belt, which requires thirty strands of yarn about 90 inches long and will result in a belt with long fringes that is typically worn with a pow-wow dance outfit.

Patterns and color schemes vary with each student. Grandma Genny helps them along if they run into a problem, but basically encourages and praises them as the belts develop. There's a gentle conversation flow as students pursue the craft, with a few ripples of laughter here and there. The class is actually rather calming, and there's a sense of stress-free, creativity—a time when many of these students, busy as working parents pursuing an education, can set aside a lot of their worries and focus on creating something both practical and beautiful.

This semester a friend of Grandma Genny's, 82-year old Elizabeth "Tiny" Cadotte signed up for class. Herself an accomplished beader like Grandma Genny, she's not interested in the credits, but just wanted to learn something new. That's one of the things that Grandma Genny most enjoys about teaching. "When teaching, you keep learning," she says.

On days when she's not teaching Grandma Genny spends from 9:00 a.m. to 2:00 p.m. as a volunteer foster grandparent at the Red Cliff Clinic. She sets up shop, so-to-speak, in the foyer near the play area for children. Her job is to keep an eye on the kids if their parents are seeing a physician. "It's amazing how many people come up to me to just to see what I am working on now. They just watch me work," Genny says.

Out of her bag, she pulls out a display of glittering beadwork—necklaces, bracelets, rings—all in different beading patterns and color combinations. Her skill and knowledge are apparent, as is her continuing enthusiasm to share and teach.

The delicate beadwork dangling from aging but deft fingers seems to symbolize her—sparkly, beautiful, colorful, creative and ageless. They are gifts, much as she has been a gift to the community—one of those gifts that just keeps on giving.

Great Lakes collaboration

(Continued from page 1)

region's land and water from a looming crisis: "For generations we have heard the cries and felt the tears of our Mother Earth, felt the pulse of her life blood water struggling to survive the abuses that have been heaped upon her. One hundred and fifty years ago we had a resource in the Great Lakes region that was considered inexhaustible. It lasted barely two generations. This was the White Pine forest. The White Pine of this century is water."

The convening was a result of Presidential Executive Order issued by President Bush in May 2004 that established a Great Lakes Interagency Task Force in the Executive Branch and called upon the EPA Administrator to convene a meeting of the GLRC for the purpose of adopting a framework to enhance coordination of Great Lakes policy development among all affected governments, develop goals and strategies for the protection and restoration of the Great Lakes, and to encourage US/Canadian cooperation.

GLRC participants are working towards a December 2005 deadline to prepare and present a consensus-based Great Lakes Restoration and Protection Plan.

To achieve the plan, eight Issue Area Strategy Teams were appointed to address priority issues. These include: Non point Source; Persistent Bioaccumulative Toxics Reduction; Invasive Species; Habitat/Species; Area of Concern Restoration/Sediments; Indicators and Information; Sustainable Development; and Coastal Health.

While each team will focus on its particular area, three "overarching issues" are to be taken into consideration by all the strategy teams. These include promoting of programs to protect human health against adverse effects of pollution; consideration of the unique tribal interests and identification of strategies and priorities that "relate to the health, welfare, and culture of Tribal Communities." The third overarching issue to be considered by all teams is the need for research and monitoring.

GLIFWC staff sit on four of the strategy teams and a number of staff from GLIFWC member tribes also sit on various strategy teams. Most teams have between three and six tribal representatives involved.

The Executive Committee, which also has tribal representation, will identify a liaison for each of the above overarching issues to make sure they are being considered by each of the eight teams.

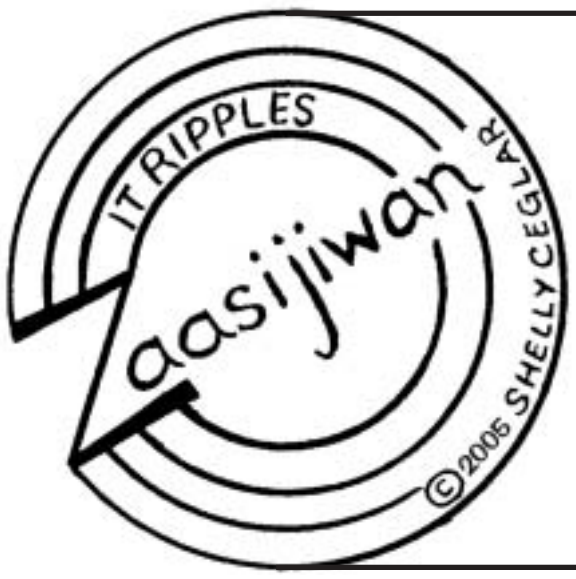
GLIFWC Policy Analyst Jim Zorn co-chairs the strategy team on bioaccumlative toxics. While he feels the collaborative setting of priorities is useful, he feels that what is really needed is the legislation and funding to support the control of the problems.

Zorn is also concerned that prioritization during an era of budget cuts could result in less, rather than more, dollars directed towards Great Lakes initiatives.

A spring meeting of the GLRC will be hosted by the Grand Traverse Band in Michigan, and in July or August Summit I will be co-hosted by Fond du Lac and the City of Duluth when a draft strategy will be released.

A public comment period will follow Summit I, after which the strategy teams and the executive committee will review the comments and prepare a final strategy. The final strategy will be released during Summit II in December 2005 in accordance with the deadline set forth in the Executive Order.

GLIFWC member tribes represented at the meeting include: Lac Vieux Desert Band of Chippewa, the Mille Lacs Band of Chippewa, Sokaogon Chippewa Community, Lac du Flambeau Band of Chippewa, the Fond du Lac Band of Lake Superior Chippewa, the Red Cliff Band of Lake Superior Chippewa and the Keweenaw Bay Indian Community. Numerous other tribes from throughout the Great Lake Region also participated in the Great Lakes Regional Collaboration.



Ziigwan—It is Spring

Gibakade na? Jiibaakwewigamigong, ina gibiijimaandaan i'iw wiisiniwin? Giizhidemagad. Niminwendaanan okaadaakoon. Niibing, nimiijin eshkandaming. Endaaso-gigizheb nimiijin wewaagijiizid. Giminwendaan ina anij'iiminaaboo? Giminwendaan ina baaka'aakwenaaboo? Gaawiin niminwendaan waabi-manoomin. Ningabaatoon manoomin. Ziigwang, Anishinaabeg iskigamizigewag. Minopogwad.

(Are you hungry? In the kitchen, do you smell that food? It is done cooking. I like them carrots. When it is summer, I eat watermelon. Every day when it is breakfast, I eat a banana. Do you like pea soup? Do you like chicken soup? I do not like white rice. I boil it, wild rice. When it is spring, Ojibwe they boil down sap. It tastes good.)

Bezhig—1

OJIBWEMOWIN
(Ojibwe Language)

Double vowel system of writing Ojibwemowin.
—Long vowels: AA, E, II, OO
W<u>aa</u>boo—as in f<u>a</u>ther
Miigw<u>e</u>ch—as in j<u>a</u>y
G<u>ii</u>zhik—as in s<u>ee</u>n
Nab<u>oo</u>b—as in m<u>oo</u>n

—Short Vowels: A, I, O
D<u>a</u>sh—as in <u>a</u>bout
<u>I</u>maa—as in t<u>i</u>n
Endas<u>o</u>—as in <u>o</u>nly

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

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

Verbs
Transitive Inanimate

Many food words are non-living, inanimate nouns. You must use VTI type verbs.

Waabandan—See it!
Gojipidan!—Take a taste of it!

<u>Ni</u>waaband<u>aan</u>.—I see it.
<u>Gi</u>waaband<u>aan</u>.—You see it.
<u>O</u>waaband<u>aan</u>.—S/he sees it.
<u>Ni</u>waabandaamin.—We see it.
<u>O</u>waabandaanaawaa.—They see it.
<u>Ning</u>ojipid<u>aan</u>.—I taste it.
<u>Gi</u>gojipid<u>aan</u> —You taste it.

This VTI pattern continues for "an" ending verbs.

Niizh—2

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

A. Mino-<u>oshki</u>-gikinoonowin! <u>Niwaabamaa</u> a'aw <u>aandeg</u>.

B. Nigii-shaabwii gaa-biiboong omaa <u>megwaayaak</u>.

C. <u>Giin</u> dash, gigii-shaabwii. Gigitizimin <u>gaye</u>.

D. Baabaase baapaagaakwe'ige. <u>Bakade</u> dash ojaanimizi.

E. <u>Wayiiba</u> zaagibagaa dash baashkaabigwanii.

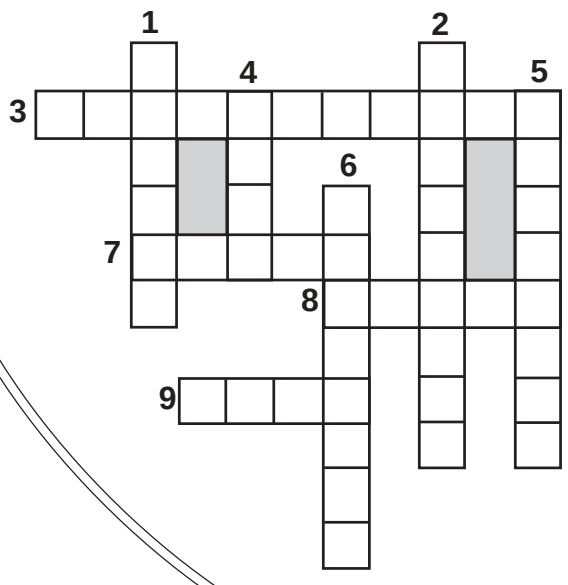
F. <u>Ogaawag</u> wii-naagoziwag.

G. Giwii-ikidomin, "Miigwech, <u>Gichi-Manidoo</u>."

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

Niswi—3

IKIDOWIN
ODAMINOWIN
(word play)



Down:
1. Soup
2. Taste it!
4. And
5. I eat it.
6. Thank you.

Across:
3. Carrots
7. New, young
8. Over there
9. That (animate)

Niiwin—4

VTI Roots are in Commands

Minwendan!—Like it!
<u>Ni</u>minwed<u>aan</u> naboob.—I like soup.
<u>O</u>minwendaanaawaa.—They like it.
Jiibaakwaadan!—Cook it!
Ninjiibaakwaadaan naboob.—I cook soup.
Gijiibaakwaadaan naboob.—You cook soup.
Ojiibaakwaadaan.—S/he cooks it.
Ninjiibaakwaadaamin.—We cook it.
Ojiibaakwaadaanaawaa.—They cook it.

Goojitoon! Try it!
Translation below.

Ni....aan

Gi....aan

O....aan

Ni....aamin

O....aanaawaa

1. _____jibaakwaad____ naboob gisinaag.
2. _____minwend_____ waabi-manoomin gaye.
3. _____jiibaakwaad____ bizhiki-wiiyaas.
4. _____gii-kojipid_____ ina onagizhiinsan?
5. _____minwend_____ makade-mashkiki-waaboo.

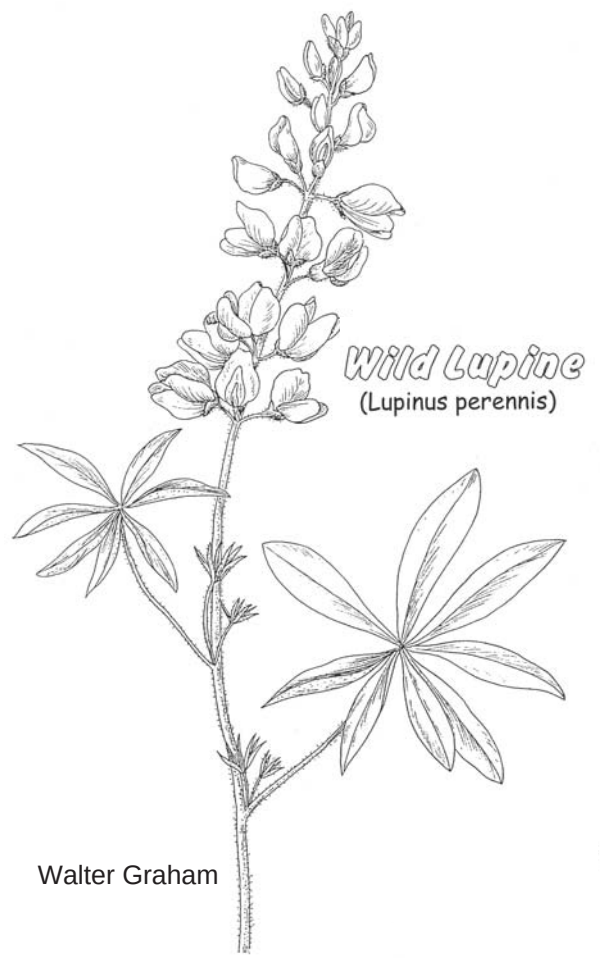
Translations:
<u>Niizh—2</u> **A.** Happy-New-Year! I see that crow. **B.** We survived when it was winter in the woods. **C.** You also you survived. We are older also. **D.** Woodpecker, s/he is knocking on things/trees. S/he's hungry and s/he is busy. **E.** Soon the buds will come out, it will be blooming. **F.** Walleyes, they will be visible. **G.** We will say, "Thank you, Great-Spirit."
<u>Niswi—3</u> **Down:** **1.** Naboob **2.** Gojipidan **4.** Dash **5.** Nimiijin **6.** Miigwech **Across:** **5.** Okaadaakoon **7.** Oshki **8.** Iwidi **9.** A'aw
<u>Niiwin—4</u> **1.** <u>We</u> cook soup when it is cold. **2.** <u>She</u> likes white rice also. **3.** <u>They</u> cook beef. **4.** Did <u>you</u> taste the macaroni? **5.** <u>I</u> like black-medicine-liquid (coffee).

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.

Native Plants to Color
Know your Native Plants

Ann Rogelberg

This reddish-stemmed plant is usually between two and four feet tall. The blue-violet flowers brighten the fall landscape. If you look closely you may see it while waiting for the school bus in September. The forest is where this plant calls home.



Walter Graham

Wild lupine adds a splash of deep blue to the meadows in the southern range of the north country region. Don't confuse this wild plant with the "domesticated" lupine found in gardens and along roadsides!

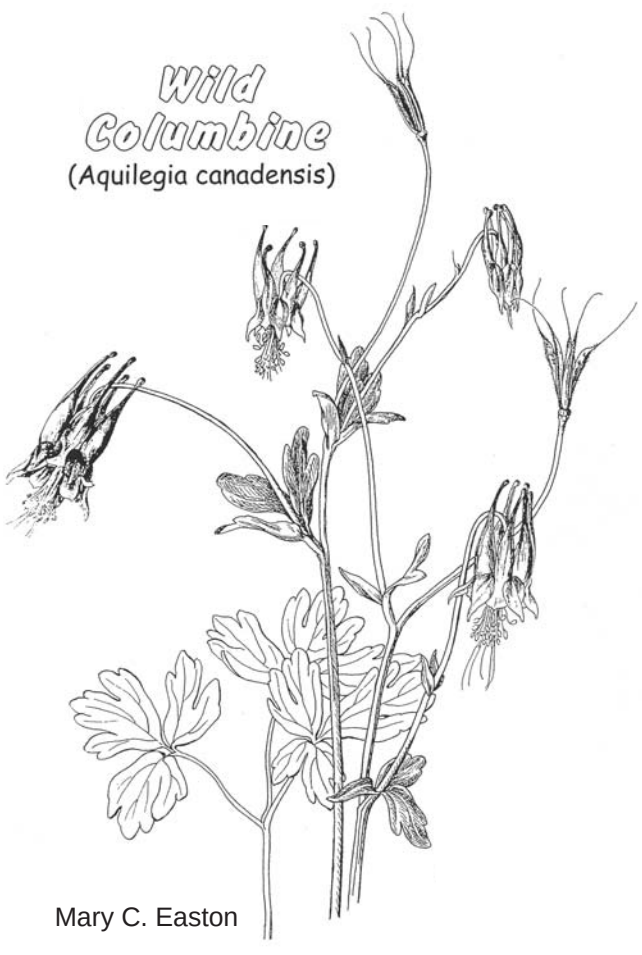
Mary C. Easton
Mary Emily Eaton

This showy flower is found in rain gardens, roadsides, and wetlands. The leaves are a cool, powdery green, and the flowers are bright blue with a hint of yellow.

Images reprinted with permission from Native Plants of the North Country Coloring Book of the Western Great Lakes Region published by the Northern Native Plants Project of the Sigurd Olson Environmental Institute of Northland College, Ashland, Wisconsin. The full 88-page book is available at the Sigurd Olson Environmental Institute, 1411 Ellis Avenue, Ashland, WI 54806. Call (715) 682-1223.

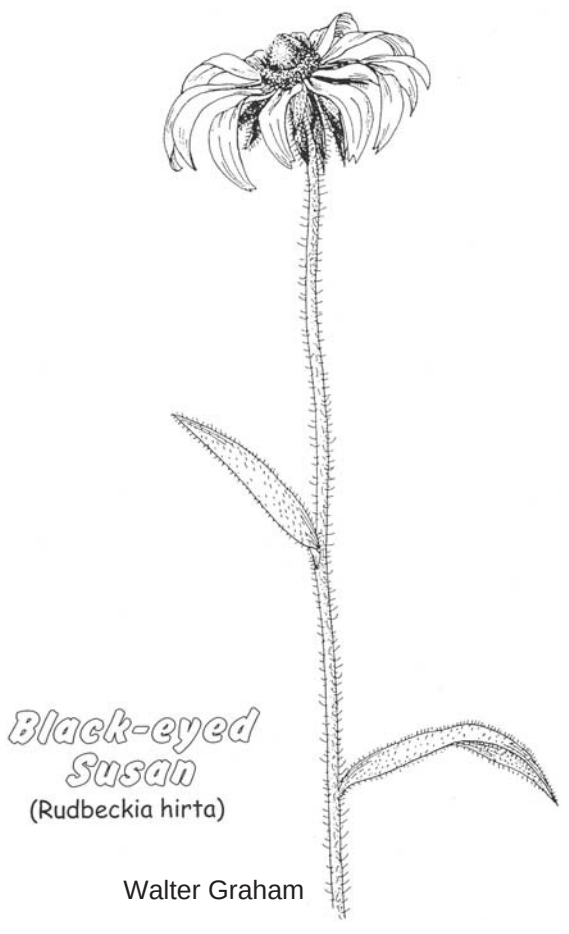
Ann Rogelberg

You might want to put this plant in your garden because of its lovely lavender flowers. These showy flowers begin blooming at the end of summer, after most other flowers have wilted. What a delightful surprise to find this colorful flower along the brushy roadside!



Mary C. Easton

The showy, red and yellow flowers of wild columbine hang on glossy red stems from May to July. The flower is composed of five points that reach toward the sky. The forest is home to this plant.



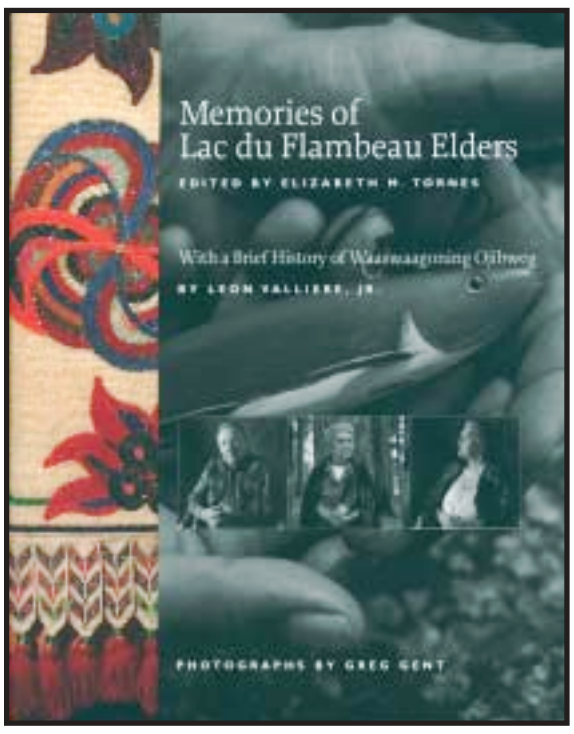
Walter Graham

It is easy to see where this plant gets its name. The petals of this flower are bright yellow, and the center is all black—like a dark eye. The black-eyed Susan grows in meadows.

Good reading from Indian Country

Memories evoke greater appreciation for Lac du Flambeau elders

By Charlie Otto Rasmussen, Staff Writer



Author and former NBC news anchor Tom Brokaw calls Americans who came of age during the Great Depression and Second World War the "Greatest Generation." Bound by values like honor and love of family and country, they persevered through many hardships, making sacrifices that yielded innumerable benefits for later generations.

Indian Country has its own unique roll of Greatest Generation heroes and heroines. Like their white countrymen, they transcended the crippling economic depression of the 1930s and served the United States at home and abroad during World War Two. But there's more to their story. In spite of ongoing assimilation efforts, like boarding schools, regardless of reservation out-migrations to urban areas in search of employment, these American Indians of the Greatest Generation managed the incredible responsibility of keeping time-honored lifeways alive. Under pressure to abandon sacred and defining traditions, many Indian people held in secret their language, spirituality and unique world view.

Unassuming but outstanding in character, elder Indians salvaged and preserved the past, passing on their cultural know-how to the people of today. In the upper Great Lakes region, Ojibwe elders routinely educate those willing to learn. A growing appreciation among young tribal members of Ojibwemowin (Ojibwe language) and traditional environmental knowledge are key elements to their legacy.

The new release, *Memories of Lac du Flambeau Elders*, captures more than a dozen stories of life and endurance on a northern Wisconsin Ojibwe reservation. Born in the second and third decades of the last century, this Greatest Generation comments on childhood recollections and how the Lac du Flambeau community has evolved through the years; they describe family dynamics, favorite pastimes and offer advice for living a good life.

Originally appearing as a serial in the monthly paper *Lac du Flambeau News*, the interviews collected in *Memories* are the product of an oral history project directed by Elizabeth Tornes in 1996. A staff of tribal volunteers—oftentimes friends or relation to the elder—conducted most of the interviews utilizing a standardized list of questions. Since the interviewer's voice is omitted from the transcript, readers may find it helpful to photocopy the questionnaire, which is located in an appendix, as a reference and bookmark.

While each individual describes a distinctive life story, *Memories* reveals a common history shared by the elders. Traditional hunting, fishing, gathering and gardening provided sustenance to Lac du Flambeau families. They canned everything from venison to vegetables in times of abundance, preparation for the lean winter months. With a dependable food supply available for self-reliant tribal members, the Great Depression had few consequences in the lives of some children. Several 1930s-era youngsters like Cecilia Defoe said they were unaware of the Depression at the time—there was always food on the table. Furthermore, they converted boxes into snow sleds, played any number of games and had the run of the forests, marshes and lakes surrounding the Flambeau community.

Life at Flambeau during this period, however, was far from easy by just about any standard. Children as young as four were pulled from their households and forced to enroll at the on-reservation boarding school sponsored by the Bureau of Indian Affairs. Separated from their families for extended periods, Flambeau children were forbidden to speak Ojibwemowin and schooled in vocational skills to encourage assimilation.

Somewhat battered, but far from eliminated, Ojibwe culture and language transcended many challenges through the efforts of these Greatest Generation tribal members. Filled with humor and heartache, good times and adversity, *Memories* reveals the weighty, often subtle, contributions of elder Indians at Lac du Flambeau. An introductory historical timeline by Leon Valliere Jr. provides context for the elder interviews, explaining key events and milestones that shaped life in Ojibwe Country. Historical images interspersed with contemporary black and white elder portraits by Greg Gent bring life to each story in the book.

Published by the Center for the Study of Upper Midwestern Cultures, *Memories* is available through the University of Wisconsin Press, bookstores and online vendors.

Old Coast Guard Station to be Indian cultural center

After several years of negotiations, public education, project revisions, public hearings, County Board changes, redistricting of the site, a series of Milwaukee Journal Sentinel editorials, and solid support from the American Indian community, HONOR/Loonsfoot and Milwaukee County have finally signed a lease for renovation of the old Coast Guard Station on Milwaukee's Lake Michigan shoreline.

The Coast Guard station, the first station ever built, will become an Indian Education and Cultural Center. It will be the site for implementation of Act 31, a Wisconsin law that requires the teaching of Indian history, government, and culture to all public school students three times during their 12 years in school. Act 31 is largely unimplemented and under funded by public schools and in fact Wisconsin lags behind other sates in this area, despite the fact it has the most federally recognized tribes east of the Mississippi.

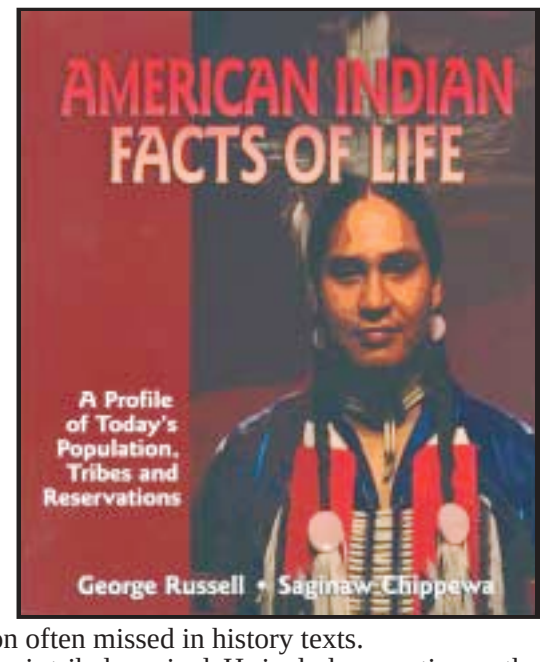
What does this mean as the next steps? Fund-raising of course is the big challenge. Raising $3.5 million in the next two years is a bottom line. Architectural plans are in place. Some contributions have already been received. A local office is operational. A business plan is being developed. And a lot of coordination is underway.

For those interested in contributing to the project send your gift or pledge to HONOR, 6435 Wiesner Road, Omro, Wisconsin 54963 and earmark it "Coast Guard Station project." Your gift is tax deductible.

(Reprinted from the Jan/Feb 2005 ***HONOR Digest****.)*

Book profiles Indian Country with current facts, figures and issues

By Sue Erickson, Staff Writer



A handy and thought-provoking resource on American Indians, George Russell's latest edition of *American Indian Facts of Life: A Profile of Today's Population, Tribes and Reservations* contains a plethora of facts along with commentary regarding America's tribal population. First printed in 1994, the new 2004 edition provides updated facts and figures about American tribes in a succinct and easy-to-read format.

Loaded with interesting tribal statistics as well as graphics and historic photos, the book presents an historic overview, including the ever-changing American policies towards tribes and a discussion of their impact on tribes and Indian people over the years—information often missed in history texts.

One of Russell's main concerns is tribal survival. He includes a section on the future, which is especially thought-provoking for the Indian reader. With an emphasis on the issue of blood quantum and the dilemmas it poses for tribal identity in the future, Russell points to the possibility of the vanishing Indian as "Indian blood" become more diluted. Calling it "genetic roulette," Russell says, "There is a generational genetic time-bomb quietly ticking in Indian country; it's called blood quantum."

The book also responds to commonly asked questions—an excellent tool for teachers; provides a guide to determining genealogy for Indian people, and contains a study guide/quiz on the information covered throughout the book.

Russell is a member of the Saginaw Chippewa Tribe of Michigan. He has successfully built a career in civil engineering and construction in Phoenix, Arizona. His business career followed college and a stint in the US Army. He also produced the first edition of Reservations Map in 1990. *American Indian Facts of Life* and Reservations Maps are interactive with the www.nativedata.com website. They are published by the Native Data Network, 9027 North Cobre Drive, Phoenix, AZ 85028. The book sells for $16.00, paperback.

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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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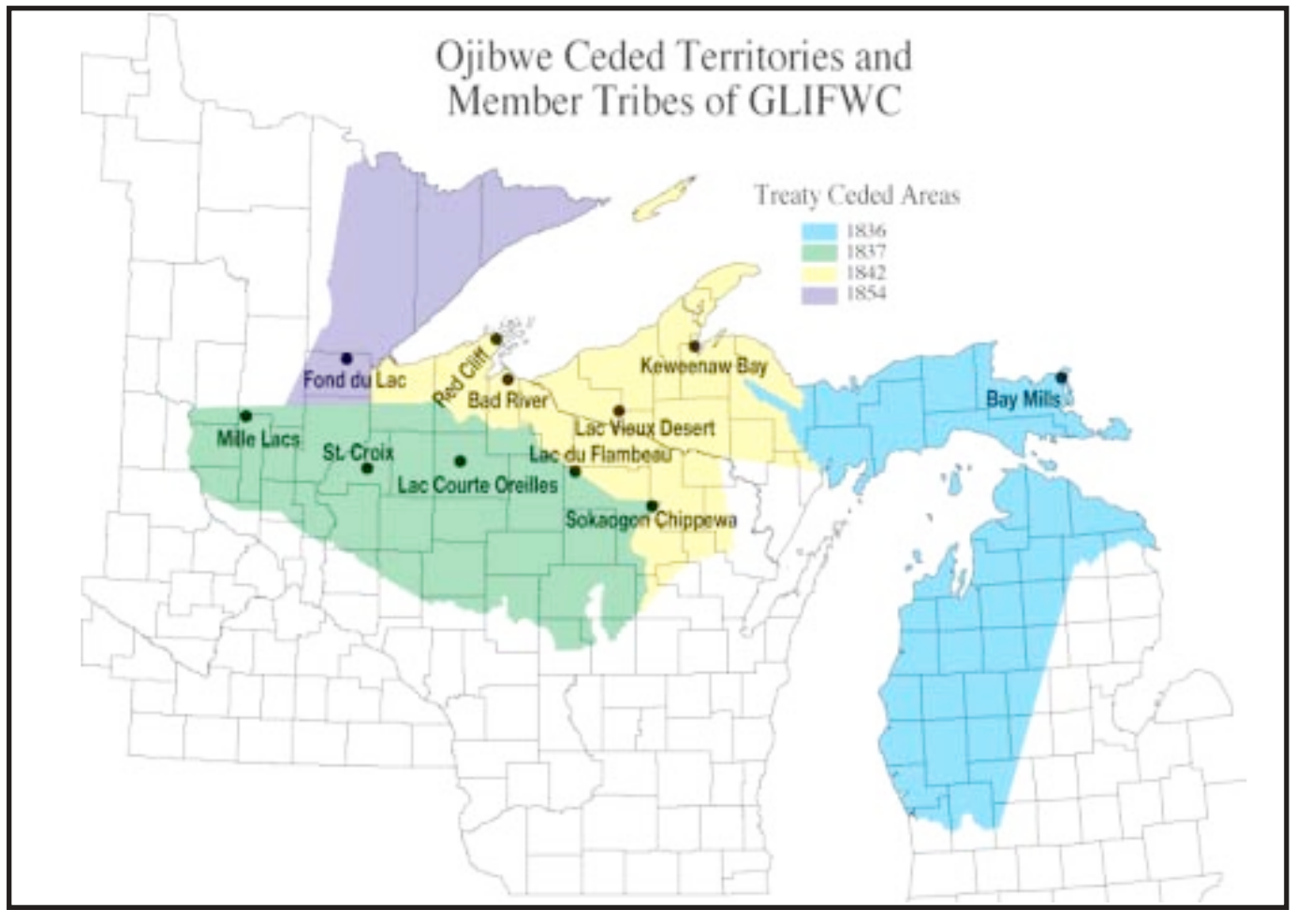

Mazina'igan

A Chronicle of the Lake Superior Ojibwe