TRIBAL FISHING

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Newsletter of the Chippewa Ottawa Treaty Fishery Management Authority, 'Conserving for Future Generations'

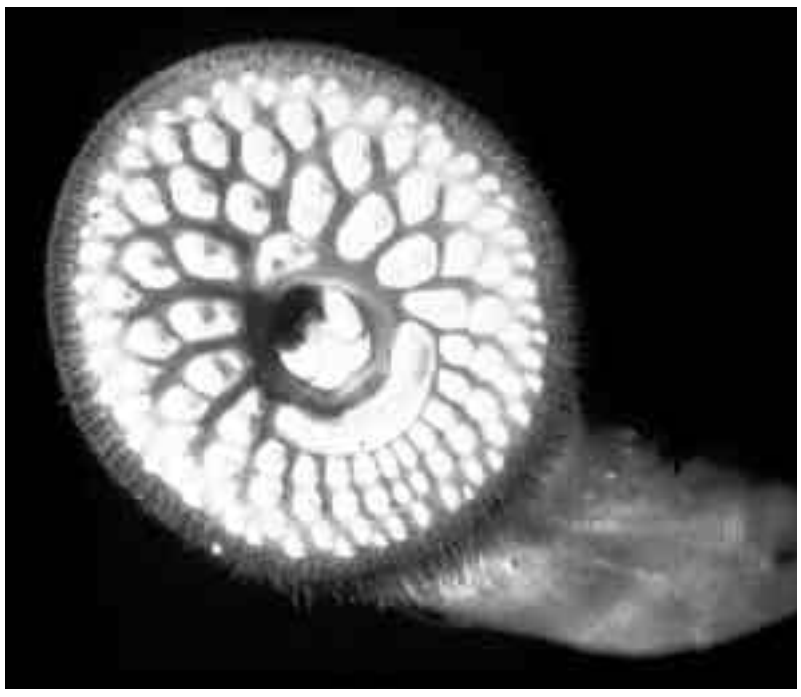
SLIS II HELD IN TWIN SOOS

By Jennifer Dale

Exciting new pheromone research presented at a recent symposium may give fishery managers the edge they need to control sea lamprey in the Great Lakes. SLIS II — the Great Lakes Fishery Commission Sea Lamprey International Symposium — was held Aug. 13-18 in Sault Ste. Marie, Mich., and Sault Ste. Marie, Ont. Those involved in lamprey control throughout the Great lakes attended, along with specialists from as far away as Australia.

USFWS biologist Gary Klar, head of the Sea Lamprey Control Program for the United States, helped organize the event. According to Klar, the event summarized what has happened since SLIS I in 1979, looked at current management and then the future.

Pheromone research is "probably the newest piece of science being worked on right now," said Klar. Scientists presenting their research on pheromones included Dr. Weiming Li, Department of Fisheries and Wildlife at Michigan State University, and Dr. Peter Sorensen, Department of Fisheries and Wildlife at the University of Minnesota.



Closeup of lamprey mouth, courtesy GLFC.

The group also looked at advances in technology in barriers, assessments and lampricides, he said.

Numerous working sessions were held during the weeklong symposium. Klar estimated that the 18 oral presentations with supporting articles added up to 50 to 60 works to be published in a special volume of the Canadian Journal of Fisheries and Aquatic Science. Klar, who hopes the publication will go to press next summer, thinks the volume will set the tone for lamprey control over the next 20 years.

Mark Ebener, fishery biologist at Inter Tribal Fishery Assessment Program, has been deeply involved with sea lamprey control for the past 15 years. He is co-writing articles for the upcoming volume, evaluating the consistency of individual observers of sea lamprey wounding on lake trout, and estimating the number of lake trout deaths by sea lamprey in the Great Lakes basin. He will also present a 20-year case history of Lake Huron.

"COTFMA has always been a strong supporter of the program," said Ebener, referring to the Chippewa Ottawa Treaty Fishery Resource Authority. He said the symposium "provided a good overview of where the program is at the turn of the century and provides future direction of sea lamprey control."

Ebener pointed to Lake Huron as a trouble spot, where sea lamprey control is still a struggle due to the St. Marys River, a major spawning site for the invasive exotic. He added that control in the other Great Lakes is "well on its way."

The work presented on pheromones was "groundbreaking, some of the most interesting work at the conference," he said. "It has potential use as part of a whole integrated package of sea lamprey control."

There are three major areas for possible use. According to Ebener, larval sea lamprey emit bile acids that adults sense and use as spawning location cues when they return to streams to spawn. Klar said the adults could be directed to these

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Sea lamprey migratory pheromones could help assessment and control efforts in the Great Lakes basin, new research suggests

By Jennifer Dale

For the past 25 years, Dr. Peter Sorensen, Department of Fisheries and Wildlife at the University of Minnesota, has been studying pheromones in fish. His decade-long study of the lamprey yielded hopeful control and assessment possibilities, as presented at SLIS II held recently in the Twin Soos.

"Pheromone research opens up a whole new realm of possibilities for lamprey control," said Sorensen, whose research is supported by the Great Lakes Fishery Commission."Nothing is equivalent to it."

Pheromones are chemical signals animals release into the environment to elicit a behavioral response in a member of the same species, and are instinctually recognized, Sorensen explained. The use of pheromones has become common in the management of insects affecting crops, attracting and trapping insects for assessment, and to disrupt their mating. The same might be possible in fish, Sorensen has found.

Fish rely on pheromones quite a bit, he said. Water turbidity makes it difficult to see, so visual cues aren't useful. However, chemical cues, working as odors, can be sensed over long distances and are potent in small amounts. This is especially true of the sea lamprey.

"Its nose is larger than its entire brain," said Sorensen."The lamprey's sense of smell is so very well developed it is sometimes called a 'swimming nose.'"

In the life cycle of the sea lamprey, larvae live in the streams, metamorphose into parasites and move out in the lakes. They later return to streams to spawn. Pheromones enable adult lamprey to find spawning streams (migratory pheromones), and to help them locate mates within the stream (sex pheromones).

Sorensen has found that there is a strong preference for the adults to return to streams where larvae are located. Larvae release a pheromone that adults can detect at very low concentrations, which allows them to locate the river. In fact, pheromones are essential — Sorensen found lamprey with a blocked nose can't find the spawning stream.

"We know why they find the streams now," said Sorensen."It's critical to the lamprey life history."

Sorensen thinks this probably evolved because the stream with larvae is a stream the young can survive in. His conclusions are backed up by trap capture data and lab testing. After a spawning stream has been treated with lampricide the number of returning adults drops drastically. Tests in the lab show that water from streams with larvae were attractive, and water with no larvae was not attractive — the adults strongly selected streams with larvae. Once the larvae are removed, the stream is no longer attractive.

Further studies showed that adding larval odor to water made it more attractive than normal water. Sorensen identified one of the chemical compounds larval lamprey release — petromozynol sulfate, a bile compound. He's proven that lamprey can recognize one gram in 50 billion liters of water.

"We can use it to attract — super attract — the lamprey," said Sorensen. "It's another option— a very good option."

Sorensen thinks that there are other compounds yet to be identified. His aim is to build a complete chemical identification of larval odors. The chemical attractants would be easy to use and environmentally safe, he added.

There are two ways the larval lamprey pheromones could be used, to estimate abundance, and to manipulate distribution to affect or change lamprey patterns.

A synthetic cue could be used to direct the lamprey where they are easily controlled.

Sex pheromone research by Dr. Weiming Li might help further. Once directed to where fish managers want them, the lamprey reproduction could be further controlled by sex pheromones and super sterile males.

Sorensen also sees the possibility of using pheromones measurements to locate larval lamprey and estimate their abundance — very useful when considering effort and cost. Sorensen estimated that half the lamprey budget is used for assessment, with a few people out in the big lakes looking for the lamprey.

Dr. Sorensen can be reached at pws@fw.umn.edu.

COTFMA/CORA MEETING BRIEFS

Oct. 26

A COTFMA/CORA meeting was called at the GTB Williamsburg Annex for the purpose of discussing the shift from COTFMA to CORA, and the future direction of CORA.

Regular business was also conducted. The Authority heard an audit report. The auditor's letter of opinion was unqualified, meaning he found nothing wrong. He complimented Jane TenEyck and staff and said it was a pleasure to do the audit.

Kirt Kilbourne of Raymond James & Associates, which handles the treaty rights retirement fund for tribal fishers and treaty-related personnel, was present to welcome new participant Little Traverse Bay Band. Kilbourne said he needs documents for the name change from COTFMA to CORA, and that he would meet with new individuals who wanted to participate in the fund. (The fund was established to help those who are not taxed build a savings in place of social security.)

In Conservation Committee reports, John Concannon, GTB, reported discussing implementation of the consent decree. He said GTB is not in favor of the Nov. 1 meeting with federal representatives, and would prefer to meet after Jan. 1, 2001, but they will attend the meeting. They also worked on gathering equipment, and local issues. John Koon, LRB, said the commission and the council held a joint meeting on implementation.

Public Information Officer Jennifer Dale asked if all tribes will still subcontract to hold the PIE program together. The Authority does want to continue the program. She has reviewed the 2000 communication plan and considered it fulfilled, and had a 2001 draft plan available. She furnished a letter from Project FISH, which is in need of funding, and did not recommend offering any funds.

Resource Developer Bucko Teeple reported access sites, grants, and USCG regulations.

He is meeting with Forest Manager Clyde Thompson on what the tribes would like to see with access sites in forestland, such as Pendells Bay mooring facility.

The final engineering plan for McKay Bay will soon be published for public notice, and the Prentiss Bay launch site public notice is out now.

Teeple is applying for two upcoming grants for the CORA strategic plan.

The US Coast Guard is granting no group waivers for EPURBS (cold water survival suits). Instead, individual applications will be reviewed by the Admiral, Teeple reported. Either they must meet with the USCG again, or cooperate. This also applies to flares, survival suits, skiffs and a number of other safety measures, said Teeple. It's up to the region to grant waivers; Hawaii may grant them, but not this region, he added. Teeple had prices — in bulk quantities EPURBS are $864.

Counsel Candy Tierney said this must be resolved—it's a federal violation otherwise. They will try to set up a meeting with Lt. Lahn.

For the changeover to CORA, TenEyck needs to close out the books, set up new accounts; obtain a new federal ID number; documentation for the treaty rights fund, audits, and so on, she said, as well as an official closure date. The Authority decided that CORA would officially begin Jan. 1, 2001, to avoid two sets of everything—from W-2s to audits—for the year 2000. They will start out fresh on the calendar year. However, the tribes will begin to operate as CORA now, and make do with what monies they have.

In new business, TenEyck reported $49,000 in new litigation monies down from the federal government—$5,000 is earmarked for a new edition of the treaty fishing guide, leaving $44,000 to be split five ways. Each CORA tribe will give TenEyck a budget for its portion.

The Authority discussed $8 million in the 2001 budget from the federal government — $2 million of that goes to the tribes rather than CORA, and its use is decided by the consent decree. It will be pro-rated out of the $8 million, they decided.

Chippewa Ottawa Resource Authority

CORA Board, Officers and Committee officers

Bay Mills Indian Community (BMIC or Bay Mills)
Jeff Parker, Tribal Chairman, CORA interim chairman
Tim Kinney, Conservation Committee Chairman

Grand Traverse Band of Ottawa and Chippewa Indians (GTB)
Robert Kewaygoshkum, Tribal Chairman
John Concannon, Natural Resource Committee Chairman

Little River Band of Ottawa Indians (LRB)
Bob Guenthardt, Tribal Chairman, CORA interim vice chairman
Bob Koon, Natural Resource Commission Chairman

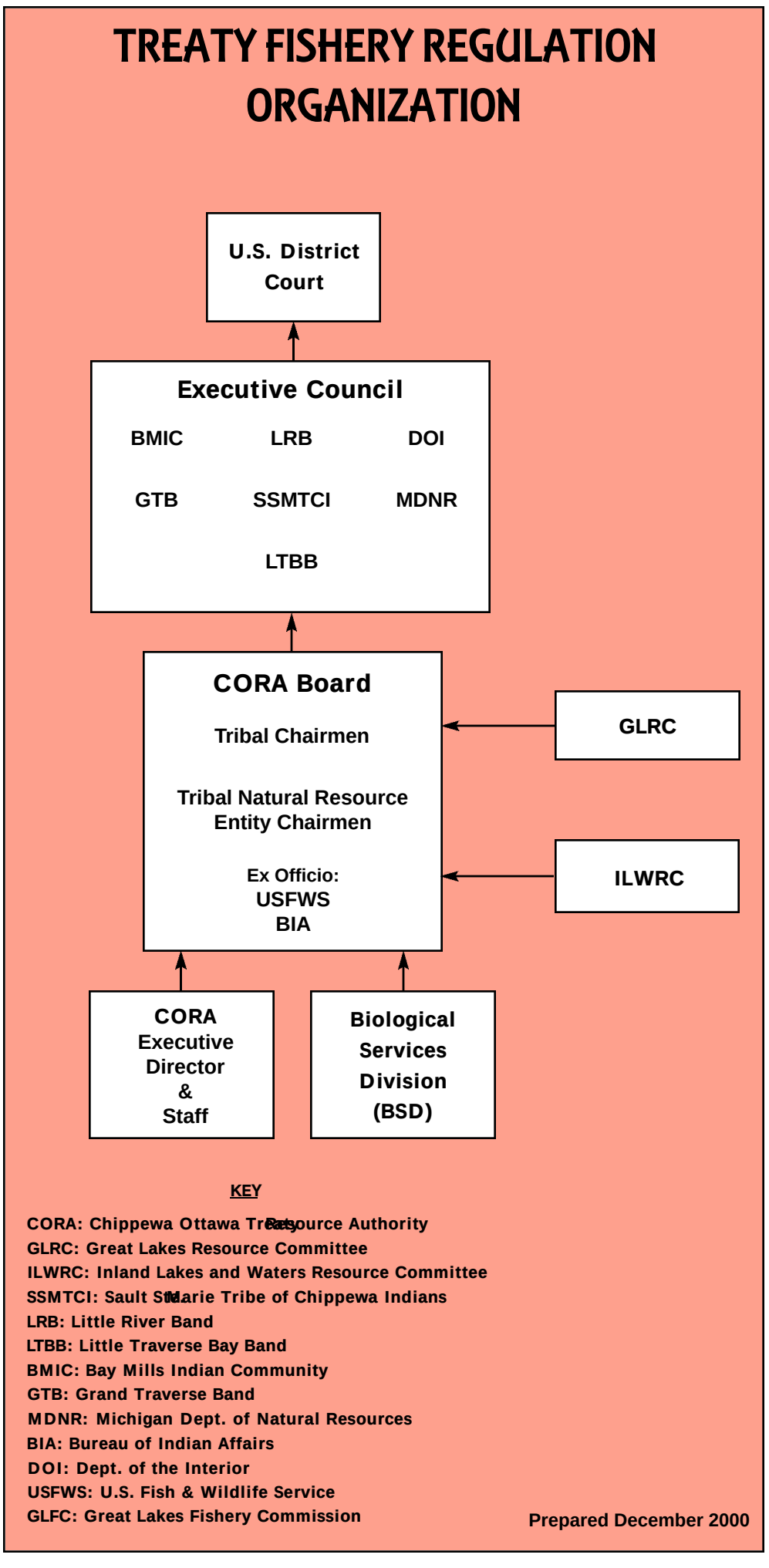
Little Traverse Bay Band of Odawa Indians (LTBB)
Jerry Chingwa, Tribal Chairman, GLRC* interim chairman
George Anthony, Natural Resource Commission Chairman

Sault Ste. Marie Tribe of Chippewa Indians (Sault Tribe or SSMTCI)
Bernard Bouschor, Tribal Chairman; Alternate: Fred Paquin, Tribal Unit 3 Director, Chief of Police
Vic Matson Sr., Conservation Committee Chairman, GLRC interim vice chairman

** "Great Lakes Resource Committee," which serves as the inter-tribal management body for the treaty fishery in 1836 treaty waters.*

CORA staff
Faith McGruther, executive director
Jane Teneyck, assistant executive director
Bucko Teeple, resource developer
Bev Aikens, executive secretary
Deanna Bowen, secretary

Biological Services Division staff
Tom Gorenflo, director
Mike Ripley, environmental coordinator
Mark Ebener, assessment biologist
Karen Wright, fisheries technician
Richard Reining, fisheries technician
Greg Wright, fisheries enhancement coordinator
Joel Cameron, assistant fisheries enhancement coordinator
Mary Menominee, executive secretary



CORA EXTENDS DEADLINE FOR LOGO CONTEST: Artists invited to enter by Feb. 15, 2001

The contest to create a logo for the new entity, Chippewa Ottawa Resource Authority (CORA), has been extended for a number of reasons. The CORA board directed Public Information Officer Jennifer Dale to extend the deadline for a February decision. Current contestants will be contacted about the decision and will remain entered in the contest.

"We are not discounting present entries. They are beautiful," said Little River Band Chairman Bob Guenthardt, who chaired a recent CORA meeting where entries were reviewed. The CORA board wants two things. First, the contest announcement did not appear in the Little Traverse Bay Band newsletter. Second, the board wants to see all logo entries on a draft letterhead.

Members of CORA tribes—Bay Mills Indian Community, Grand Traverse Band, Little River Band, Little Traverse Band, and Sault Tribe—are invited to enter a logo contest for the Chippewa Ottawa Resource Authority (CORA).

Entries must be original art, in color, no larger than 10 inches in width. Graphic artists are also welcome, call for details.

The design must be circular, use the elements of water and earth, and symbolically promote stewardship of resources. Anishnabe themes are encouraged. Some examples are woodland floral designs, clan animals, or pictographs. The text should read "Chippewa Ottawa Resource Authority." Or, the artist could designate an area for text.

Artists should keep in mind that the design will be reduced to about two inches in width when used for letterhead, and design accordingly.

The entries are due no later than Feb. 15, 2001. Entries should include a full name, address and phone number, and an explanation of the symbolism. Send entries to: Jennifer Dale, Bay Mills Indian Community, 12140 W. Lakeshore Dr., Brimley, MI 49715.

A cash prize is offered! The artist will receive recognition. The winning entry will become the exclusive property of CORA. For more information, contact Jennifer Dale, 906-248-3241, ext. 1170, newspaper@bmic.net.

Limited Lake Huron Distribution Study conducted this fall under new agreement

BAY MILLS — A fish distribution study will be conducted in the Bay Mills small boat gill net zone in northern Lake Huron this fall to determine distribution of whitefish and incidental species like lake trout in a targeted whitefish gill net fishery. The results will allow tribal, state and federal agencies to determine the amount of gill net effort that can be fished without compromising the health of other species.

Bay Mills Indian Community will issue a permit and conduct the study, using one fisherman with onboard daily monitoring. The study began Oct. 3 and ends Dec. 31.

Under the terms of the permit, no more than 1,000 lake trout can be harvested during the three-month study. This quota, in addition to recreational, and state and Canadian commercial harvests, will ensure that Lake Huron lake trout mortality will not exceed recommended levels for rehabilitation.

All live lake trout captured during the study will be counted and released.

Gill net gangs will be set in each of two depth strata in northern Lake Huron's Hammond Bay in grids 505 and 506. One strata is 75 to 150 feet in depth; the other strata is 150 feet and greater. Gill nets will be marked in accordance with Chippewa Ottawa Resource Authority (CORA) rules and regulations: each gang of gill nets, which are set from the bottom, are clearly marked at each of its two ends with a buoy on the surface. CORA urges caution in navigating around these nets.

Six to twelve 1,000-foot gill net gang lifts will occur in each depth strata every month. State, federal, tribal and university biologists have determined the minimum and maximum amount of effort necessary to statistically compare catches among depth strata and seasons. Additional catch trigger levels will ensure that excessive catches do not occur during the study.

The Michigan Department of Natural Resources, Bay Mills Fishery Program and the U.S. Fish and Wildlife Service will rotate onboard monitoring duties. They will collect data on location, water depth, season, water temperature, gill net effort, and number of each fish species captured.

Valuable information will be gathered in the study by biological sampling. Information collected from representative samples of lake trout and whitefish will include length, weight, scale samples, sex ratio, spawning condition, incidence of lamprey marks, fin clips, and diet data. Whenever possible, biological information will be collected from lake sturgeon.

The Technical Fishery Review Committee, made up of state, federal and tribal biologists, was charged with developing a statistically valid and conservative plan for the original study. The current study continues to gather more information during the fall fishery in order to identify depth strata and months in which gill net fishing can occur with minimal lake trout catch.

In addition to the assessment fishery in 75 feet and greater depths, nine small boat gill net vessels have been permitted to target whitefish in waters less than 75 feet in the Bay Mills small boat gill net zone starting Oct. 1. Both the small boat fishery and assessment fishery are a result of the extensive negotiations among state, tribal and federal representatives that resulted in the new agreement.

For more information, contact Bay Mills Fishery Biologist Ken Gebhardt at 906-248-3241; ITFAP Director Tom Gorenflo at 906-632-0072; MDNR Fisheries Division at 517-373-1280; MDNR Fisheries Biologist Jim Johnson, Alpena Office, at 517-356-3232; or, USFWS Project Leader Jerry McClain, Alpena Fishery Resources Office, at 517-356-3052.

Using pheromones for lamprey control easy, safe

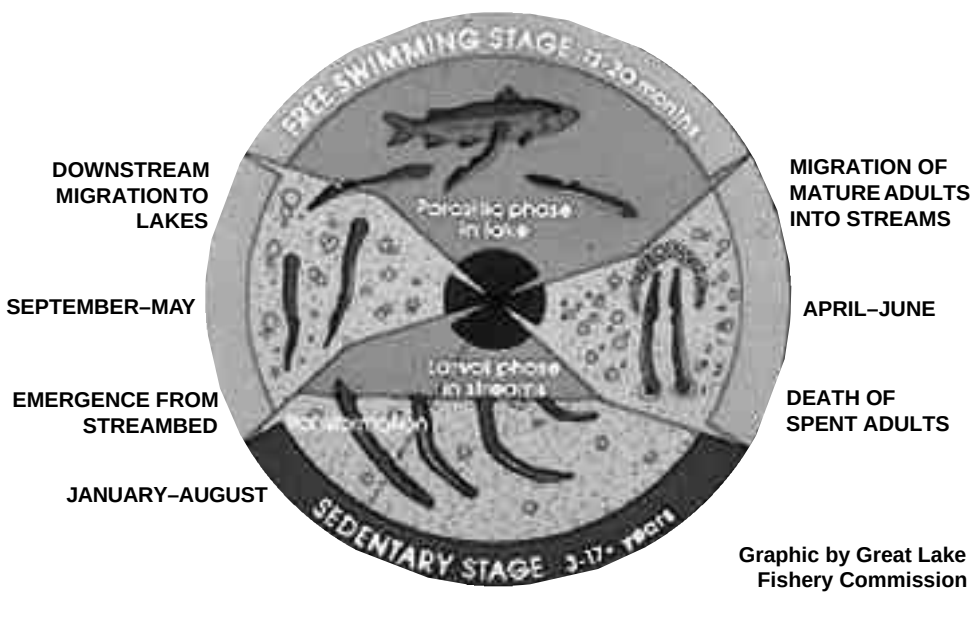
From SLIS II, Page 1

spawning areas for control, or directed away to areas where they are not able to reproduce.

Males emit pheromones in order to attract females. Pheromones could be used to direct adults where they can be controlled, said Ebener, Or, suggested Klar, to disrupt reproduction.
Sterile males have been used in the past to disrupt reproduction. It's possible that male pheromones could also be used in the development of a "super sterile male" that could out-compete normal males.

"From our perspective, pheromone research would be very useful technology, if we can determine how to use it," said Klar.

LIFECYCLE OF THE SEA LAMPREY



Graphic by Great Lake Fishery Commission

More federal funds put to lamprey control; GLFC to use new methods

ANN ARBOR—Congress passed legislation in October that provides a several million dollar funding increase for the Great Lakes Fishery Commission's sea lamprey control program, according to a GLFC press release. The funds will be used to reduce sea lamprey populations in the Great Lakes and to employ new sea lamprey control techniques that do not rely on lampricides, said the statement.

The commission will also receive an additional $200,000 from recent legislation to allocate sport fish restoration dollars, according to the statement.

"The recent action in Congress is outstanding news for the fishery," said Commissioner Roy Stein, chairman of the sea lamprey integration committee and professor at Ohio State. "These additional funds will allow our research into exciting innovations that will one day allow us to control sea lampreys with minimal use of lampricides. The funding increase will mean a stronger, more environmentally friendly, sea lamprey control effort. Thanks to Congress' action, more fish in the Great lakes will have a fighting chance to survive to spawn or be harvested."

Cook Inlet beluga harvest would be determined by various Native groups under Dec. 6 agreement

ANCHORAGE (AP)— Alaska Natives of various ethnic heritages would share responsibility for dividing up harvest of beluga whales in Cook Inlet under an agreement reached Dec. 6.

The stipulation agreed to by most parties in a U.S. District Court hearing Dec. 6 could help heal a bitter rift between two groups of local Native hunters — those from the Inlet's traditional Athabascan villages and those of Inupiat or Yupik heritage who now live in the region.

During the past decade, the Cook Inlet beluga population has plunged from an estimated 1300 whales to just 350 today. Federal biologists blame the decline on subsistence hunting. Under proposed regulations, the recovery of the Cook Inlet beluga population would rely almost exclusively on restricting Native subsistence hunting to two whales per year over the next 25 years.

But the question of who would decide which Native villages or hunters would get those kills has hampered efforts to manage the local harvest and work out a recovery scheme. It has been a lightning rod for bad feelings and disputes between many local Athabascan tribal leaders and Natives, often with Inupiat heritage, who also hunted the whales.

"It's the issue behind the issue," said Michael Payne, assistant regional administrator of protected resources for the National Marine Fisheries Service.

After the allocation debate was repeatedly raised Dec. 6, administrative law Judge Parlen McKenna proposed that the whole question be taken off the table. He asked that attorneys stipulate that it be decided later by local Alaska Natives as they hammer out harvest details with NMFS.

Tribe to fish lobster despite no Ottawa agreement

YARMOUTH, Nova Scotia (AP) — Fishermen from the Shubenacadie tribe will take to the waters off southwestern Nova Scotia when the six-month commercial lobster season opens — without a fishing deal with Ottawa.

The tribe plans to fish as many as 3,500 traps, or a nine-license equivalent, in District 34, which runs from Baccaro, Shelburne County, to a point near Digby, Chief Reg Maloney said. It also plans to fish up to 1,500 traps, or the equivalent of four licenses, in District 33, between Halifax and Baccaro.

The tribe, whose members live on the Indian Brook reserve, has not signed a fishing agreement with Ottawa and simply delivered its fishing plan Nov. 9 to the Department of Fisheries and Oceans.

"We're still reviewing it," DFO spokeswoman Wendy Williams said Monday. "We haven't responded yet officially."

She was able to confirm that six lobster licenses have been offered to Indian Brook to be fished this fall. Five are in District 33 and one is in District 34.

"To date, they haven't been accepted," Williams said. The licenses are being offered without the need to sign a formal agreement, she said.

An alliance of non-tribal fishermen has urged federal Fisheries Minister Herb Dhaliwal to inform the tribe that unauthorized lobster fishing will not be tolerated.

Last year, more than 5,000 people in 1,700 boats set gear in 13,000 square miles of ocean in eastern Canada's most lucrative fishery.

Denny Morrow, co-ordinator for the Atlantic Fishing Industry Alliance, said that the Marshall decision clearly stated that Micmacs are to exercise their treaty right to fish in their traditional fishing grounds.

"Indian Brook has provided no evidence that the lobster grounds in southwestern Nova Scotia were ever a part of the band's traditional fishing area," he said.

Chief Maloney maintains that all of Nova Scotia is the traditional hunting and fishing ground of his people.

"They have to recognize that we have a treaty right that allows us to do this without a license. We must be on the water unmolested," he said.

Last spring, DFO offered four licenses to Indian Brook to be fished in District 32, east of Halifax, along a portion of the Eastern Shore. That offer was refused and the lobster season there is now closed.

This fall, the tribe decided on how many traps to fish "in consultation with our fishermen," Maloney said.

"But I think myself, I think it's quite high," he said, adding the number may actually be lower.

Last summer, federal fisheries officers seized a total of 1,758 lobster traps from St. Marys Bay that did not carry DFO identification tags and confiscated eight boats including one donated by the government. Indian Brook's self-regulated summer lobster season ran there from July 3 until Oct. 15.

It will be up to individual tribal members to obtain a boat and gear if they want to participate in the upcoming season.

"The band gets 10 percent of each boat's take, money or product," Maloney said.

The rest of the catch belongs to the boat's owner.

The tribe is hoping to be able to sell catches locally, perhaps to the same buyer who purchased product from their summer fishery in St. Marys Bay, Maloney said.

This fall, the band plans to fish from ports in Shelburne and Yarmouth counties, Maloney said, although he was not sure which ports would be used.

Gillnetters, environmentalists sue Corps of Engineers

BELLINGHAM, Wash. (AP) — Three environmental organizations and the local leader of the Puget Sound Gillnetters Association have filed a lawsuit against the U.S. Army Corps of Engineers over expansion of the BP Cherry Point Refinery.

The suit, filed Nov. 21 in U.S. District Court in Seattle, alleges the corps violated federal law in approving a permit extension for expansion of a pier at the refinery. It asks the court to limit the amount of crude oil that can be processed at the refinery and require the corps to prepare an environmental impact statement on the dock expansion to better protect marine life there.

Complainants include Ocean Advocates, Fuel Safe Washington, the North Cascades Audubon Society, RE Sources and Dan Crawford, a Sudden Valley gillnetter.

"The goal is to get the same kind of mitigation on this project that we were able to get on the Pacific International Terminals project," Fred Felleman, spokesman for Ocean Advocates, told The Bellingham Herald.

BPAmoco, which took over ARCO earlier this year, received corps permission to build its pier expansion in 1996. The company then filed for an extension to that permit because the pier was not going to be finished in the five years required by the original permit.

Col. James Rigby of the corps' Seattle office decided no environmental impact statement was necessary in granting an extension.

The environmental groups say Rigby was wrong, especially considering dwindling herring stocks that call Cherry Point home. They also say he failed to seek public comment on the matter before making his decision.

Cherry Point herring have been disappearing at an alarming rate in recent years, down from more than 6,324 short tons in 1994 to less than 800 short tons this year. The stock historically has been the largest in the state and is the state's only spring-spawning herring stock.

Scientists aren't sure what has caused the collapse of the herring stock. BP believes it's not the culprit, said company spokesman Brian Sullivan, adding that the herring now spawn only near the refinery.

"This suit is not directed at BP, but at the corps," said Carl Weimer, executive director of RE Sources. "They have policies in place and we thought there would be an open public process, which is normally where we'd get involved. But they didn't do that."

Dave Schmalz, president of the North Cascades Audubon Society, said the corps' decision undermined years of negotiations and settlements meant to protect Cherry Point.

"Slowly but surely the state, in cooperation with the citizens and the project proponents, have been putting together a regulatory structure that more adequately and appropriately protects the resources at Cherry Point," Schmalz said.

Weimer and Schmalz said they do not want the BP pier expansion stopped. But they want to see stronger efforts to ease the effects on marine life.

BP officials have said they have worked with regulators for nine years and believe they've answered every possible question.

Pilings for the pier expansion already have been driven, and workers are now building the deck across the pilings. Work is expected to be finished in summer 2001.

"Tribal Fishing" is published by the Chippewa Ottawa Treaty Fishery Management Authority Public Information program. The program is administrated by the Bay Mills Indian Community Newspaper Dept.

Please direct all inquiries to Jennifer Dale, 12140 W. Lakeshore Dr., Brimley, MI 49715, 906-248-3241, newspaper@bmic.net.

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