

1990

# ANNUAL REPORT OF THE GREAT LAKES FISHERY COMMISSION

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## 1990 NEWS BRIEF

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- ▶ The Sea Lamprey Integration Committee (SLIC) began meeting in 1990. SLIC was established as a means to advise the commission on implementing the Integrated Management of Sea Lamprey (IMSL) program.

## COMMISSIONERS

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### *Canadian Section:*

F. William H. Beamish  
Paul Sutherland, Vice-Chair  
George Whitney  
Vacancy

### *U.S. Section:*

James Cady  
Charles K. Dutcher, alternate  
Constance B. Harriman  
Charles C. Krueger, Chair  
Vacancy

## SEA LAMPREY MANAGEMENT AND RESEARCH

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- ▶ The commission established a new research fund for alternative controls to focus on the development of and alternatives to lampricides in its control program.
- ▶ Lamprey endurance in velocity chutes was tested. The research indicated that since lampreys could not attach when fatigued, a swift current would wash them back downstream.
- ▶ Congress appropriated \$1.3 million for construction of a sterile male treatment facility, a pipeline extension, and the Ocqueoc River Barrier In-stream Testing Facility (ORBITF) at the Hammond Bay Biological Station.
- ▶ The commission funded Dr. John Holmes' (U of Toronto) study of sea lamprey ageing techniques.

## FISHERY MANAGEMENT, ENVIRONMENT, AND RESEARCH

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- ▶ The commission sponsored a workshop to develop study proposals on compliance and effectiveness of Canadian Great Lakes Ballast Water Control Guidelines. The commission co-sponsored (with the IJC) a workshop on options to prevent shipping introductions.
- ▶ Dr. Joe Koonce (Case Western Reserve) and Dr. Mike Jones (OMNR) received funds to develop a framework for evaluating the risks of managing artificially-maintained fisheries, thereby helping managers move to more sustainable configurations. The goal was to develop computer-driven decision support systems that focus on the ecology of Lakes Michigan and Ontario (Sustainability of Intensively Managed Populations in Lake Erie; SIMPLE).
- ▶ The commission authorized funds for a computer program to ensure cooperators an opportunity to maintain an accessible current, and reliable repository of salmonid stocking data for use in fishery management, IMSL, and forage modeling.

## PUBLICATIONS

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- Effects of the Lampricide [TFM] on Macroinvertebrate Populations in a Small Stream*, by H.J. Lieffers. (TR 55)
- Resistance to [TFM] in Sea Lamprey*, by Scholefield and Seelye. (TR 56)
- Effects of Changes in Dissolved Oxygen on the Toxicity of [TFM] to Sea Lamprey and Rainbow Trout*, by Seelye and Scholefield. (TR 56)
- Fish Community Objectives for Lake Superior*, edited by T.R. Busiahn. (SP 90-1)
- International Position Statement and Evaluation Guidelines for Artificial Reefs in the Great Lakes*, edited by J.E. Gannon. (SP 90-2)
- Lake Superior: The State of the Lake in 1989*, edited by M.J. Hansen. (SP 90-3)
- An Ecosystem Approach to the Integrity of the Great Lakes in Turbulent Times*, edited by Edwards and Regier. (SP 90-4)
- Exotic Species and the Shipping Industry: The Great Lakes-St. Lawrence Ecosystem at Risk*. GLFC and IJC.

# COMMITTEE ACTION, RESOLUTIONS, AND REPORTS

## LAKE COMMITTEES

- ▶ The **Council of Lake Committees** called upon agencies to provide input to the U.S. Coast Guard (for inclusion in their official report to Congress) regarding concerns and the need for urgent restrictions for controlling ballast water discharge. The council asked the Habitat Advisory Board to develop a draft policy on pen-rearing of salmonids in the Great Lakes.
- ▶ The **Lake Erie Committee** undertook initiatives to refine the estimate of natural mortality rate of walleye (which strongly influenced calculations of the annual total allowable catch) by implementing a large interagency tagging study. The committee noted data indicating a dramatic improvement in the survival of adult lake trout in response to sea lamprey control initiatives.
- The **Lake Huron Committee** reported that the known harvest of all species combined from Lake Huron totaled 11.5 million pounds in 1990, well below the sustained historic harvest of 18 million pounds. The committee stressed that lake trout rehabilitation in Lake Huron could not progress, regardless of controls on fisheries, with existing lamprey predation, and, thus, called for immediate action to control sea lampreys from the St. Marys River.
- ▶ The **Lake Michigan Committee** intensified efforts to gather information on the life history of chinook salmon, and all agencies agreed to mark their stocked chinook for the next three years to determine contributions of natural reproduction and various releases to the sport fisheries. The committee supported the development of a combined broodstock of Green Lake strain lake trout from four remaining lots of fish, as this strain has ancestry in southern Lake Michigan.
- ▶ The **Lake Ontario Committee** reported that stocked and indigenous predators were at encouraging levels, sea lamprey numbers were depressed, and forage species appeared to be abundant. The committee reaffirmed that the restoration of extirpated species in Lake Ontario remained a high priority for management agencies. The detrimental alteration, destruction, and loss of fisheries habitat in Lake Ontario continued to concern the committee.
- ▶ The **Lake Superior Committee** produced *Fish Community Objectives* for Lake Superior that called for the rehabilitation of herring stocks, the achievement of a sustained annual yield of lake trout and other salmonids, the achievement of a 90% reduction in sea lamprey abundance by 2010, and a no net loss of habitats supporting Lake Superior fisheries.

## BOARD OF TECHNICAL EXPERTS

- ▶ Developed research priorities based upon three visions: 1) healthy populations of self-sustaining native fish species supplemented with judicious stocking; 2) integrated sea lamprey management programs that support Fish Community Objectives; and 3) strengthening effective institutional and stakeholder partnerships.

## GREAT LAKES FISH DISEASE CONTROL COMMITTEE

- ▶ Indicated that epizootic epitheliotropic disease (EED) and bacterial kidney disease (BKD) continued to be of concern to agency fish hatcheries and urged the commission to continue its support and funding for disease research.
- ▶ Noted that Lake Michigan chinook mortality continued for the third year in a row. BKD was involved, but the question remained as to whether there was a co-infection with some as yet undetected agent.
- ▶ Channel catfish virus (CCV) disease was documented for the first time in the Great Lakes.

## HABITAT ADVISORY BOARD

- ▶ In an effort to supply fishery managers with a large database of fish community habitat suitability criteria for developing the lake committees' fish community goals, HAB contracted for the provision of the *Habitat Requirement Profiles for Selected Great Lakes Fish: A Literature Review and Summary*.
- ▶ Encouraged the state, provincial, and federal fishery agencies to participate in the Remedial Action Plan (RAP) process.

## COMMUNICATIONS

- ▶ The commission provided funds to support a "Stop the Invaders" campaign at the Minnesota State fair.

## 1990 BUDGET

The commission received the following funds from the United States and Canada (in U.S. dollars):

	United States	Canada	Total
Sea Lamprey Management and Research	\$6,024,900	\$2,867,340	\$8,892,240
Administration and General Research	\$416,100	\$416,100	\$832,200
Total	\$6,441,000	\$3,283,440	\$9,724,440