

STUDY FINAL REPORT

State: Michigan

Project No.: F-80-R-3

Study No.: 471

Title: Chinook salmon population dynamics in Michigan's waters of the Great Lakes

Period Covered: April 1, 1991 to September 30, 2002

Study Objectives: (1) To assemble the volumes of data collected on all life stages of chinook salmon (*Oncorhynchus tshawytscha*) since the inception of the salmon program in Michigan; (2) to capture these data into computerized databases to allow for a) management and update of such data, b) analysis, c) development of predictive capabilities for future management of chinook salmon, and d) easier dissemination of these data to other interested researchers; (3) to develop information and mathematical models from these data which will allow managers to predict, with some predetermined level of certainty, the outcome of various management strategies for chinook salmon; and (4) to begin the process of a holistic approach to the management of the Great Lakes through the development of mathematical models to predict, with some predetermined level of certainty, the outcome of various management scenarios on the Great Lakes' ecosystem.

Summary: Results of this study are given in the following reports.

Internal reports:

Clevenger, J. 1991-2002 (13 annual reports). Summary of the chinook and coho salmon harvest from Michigan weirs on tributaries of Lakes Michigan and Huron. Michigan Department of Natural Resources,

Enclosed:

Hesse, J. A. 1994. Contribution of hatchery and natural chinook salmon to the eastern Lake Michigan fishery, 1992-1993. Michigan Department of Natural Resources, Fisheries Research Report 2013. Ann Arbor.

Wesley, J. K. 1996. Age and growth of chinook salmon in Lake Michigan: verification, current analysis, and past trends, Michigan Department of Natural Resources, Fisheries Research Report No. 2029. Ann Arbor.

Formerly submitted (Project F-53-R-13):

Weeder, J. A. 1997. A genetic comparison of Lake Michigan chinook salmon (*Oncorhynchus tshawytscha*) to their source population. Michigan Department of Natural Resources, Fisheries Research Report 2032. Ann Arbor.

Prepared by: David F. Clapp

Dated: September 30, 2002