

STUDY PERFORMANCE REPORT

State: Michigan

Project No.: F-80-R-3

Study No.: 669

Title: Prey selection and predation rate of piscivorous fish

Period Covered: October 1, 2001 to September 30, 2002

Study Objective: To estimate survival of juvenile bluegills in ponds as a function of bluegill size and density and predator size and density, and to concurrently measure predator survival and growth.

Summary: According to the study as amended in 2000-01, Jobs 1, 3, and 5 were active this year. Because of the recent retirement of the research pond technician and additional temporary changes in assignments and priorities, little additional progress was made on this study in 2001-2002. Fish were held in preparation for a pond experiment in summer 2003, but ponds were not stocked or drained and the experiment was not conducted. There should be adequate numbers of predators to conduct predator-prey experiments during the 2002 growing season.

Findings: Jobs 1, 3, and 5 were scheduled for 2001-02, and progress is reported below.

Job 1. Title: Stock ponds.—Because of the recent retirement of the research pond technician and additional temporary changes in assignments and priorities, ponds were not stocked for this study this reporting period.

Job 3. Title: Drain ponds.—Because of the recent retirement of the research pond technician and additional temporary changes in assignments and priorities, ponds were not drained for this study this reporting period.

Job 5. Title: Conduct strong test of predation model.—Because of the recent retirement of the research pond technician and additional temporary changes in assignments and priorities, the experiment to test the predation model was not conducted during this study this reporting period.

We are holding juvenile walleye, and reproducing populations of largemouth bass and bluegill at the Saline Fisheries Research Station. Walleye fry were reared in two ponds in 2001, and the ponds were partially drained in fall 2001 to confirm the presence of juveniles. They reached 90 and 180 mm total length (TL) by October in the 2 ponds. The juvenile walleye are being held in two ponds in 2002. Largemouth bass are also present and reproducing in several ponds. The plan is to hold fish in 2001-2002 so that predators and prey are available for experiments in the summers of 2003 and 2004. With the additional reproduction that will take place next spring, there should be adequate numbers of fish to conduct experiments during the 2003 growing season.

Prepared by: James E. Breck

Date: September 30, 2002