

## STUDY FINAL REPORT

State: Michigan

Project No.: F-80-R-8

Study No.: 230669

Title: Prey selection and predation rate of piscivorous fish

Period Covered: April 1, 1996 to September 30, 2007

**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.

**Findings:** Only Job 9 was scheduled for 2006-07, and progress is reported below.

**Job 9. Title: Publish final report.**—Results of this study are published as:

Breck, J. E. In press. Aspects of fish growth and predator-prey interactions: modeling relative weight, predicting maximum prey size, and evaluating predator growth and prey survival in experimental ponds. Department of Natural Resources, Fisheries Research Report, Ann Arbor.

The research report contains a description of the experiments conducted, the models developed, and the regressions fitted in order to quantify prey selection and predation rate of piscivorous fish and the consequences for growth.

**Prepared by:** James E. Breck

**Date:** September 30, 2007