

STUDY PERFORMANCE REPORT

State: Michigan

Project No.: F-81-R-8

Study No.: 230695

Title: Northern Lake Huron coolwater fish
community assessment

Period Covered: October 1, 2006 to September 30, 2007

Study Objective: To collect relative abundance, growth rate, and other biological data with which to assess responses of the Les Cheneaux Islands region and the St. Marys River coolwater fish communities to exploitation, management initiatives, and changing environmental and biological conditions.

Summary: The 2006 Les Cheneaux Islands survey has documented continued increases in yellow perch abundance and commensurate declines in growth rate. The increase in perch is fueled by a large 2003 year class. The longevity of that year class is a result of a lower total annual mortality rate of 68%, the lowest observed since the mid 1990s. The lower mortality rate is attributed principally to cormorant control which has been under way in the area since 2004. Also, fishing pressure in the area has not fully rebounded and a lower exploitation rate is likely providing for better survival. The 2007 survey was completed and laboratory and data analysis are underway.

Findings: Jobs 2 and 3 were scheduled for 2006-07, and progress is reported below.

Job 2. Title: Conduct Les Cheneaux survey and analyze survey data—The 2006 and 2007 field surveys were completed as scheduled. Only the 2006 data have been analyzed to date. The geometric mean catch-per-unit-of-effort (CPUE) in the gillnets for yellow perch increased for the third straight year in the Les Cheneaux Islands to 68.7 perch per lift. This is the highest level documented by this survey since 1981 and the third greatest mean CPUE since the survey began in 1969. The local recreational fishery has mirrored this trend with improving fishery catch rates and harvest levels.

Growth rate of yellow perch, as indicated by the mean-length-at-age-at-capture for age 3 perch, declined for the first time in seven years. This is believed to be due to the increasing density of perch in the area. The yellow perch growth rate is still, however, well above the state average rate and the long term average of the survey series.

The increase of yellow perch was initially fueled by a strong year class produced in 2003. This strong year class, however, is also persisting longer due to a lower total annual mortality rate. The rate exhibited by this year class so far is 68% which is the lowest seen since the mid 1990s. The lower total annual mortality rate is attributed to the reduction of cormorants achieved in the area since 2004 via the control efforts by the USDA's Wildlife Services office of Michigan. The amount of recreational fishing pressure in the area not rebounded to its former level so the angling exploitation rate is likely much less than in years before the perch population collapsed. This too is probably contributing to the lower overall total annual mortality rate.

Job 3. Title: Write annual progress report and write St. Marys report from 2006 survey data–

This performance report summarizes data from 2006 and some 2007 information and fulfills the requirements of Job 3. A report on the 2006 survey has been drafted and will be published as a Great Lakes Fishery Commission miscellaneous report on their web site after the draft has been reviewed and edited.

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Date: September 30, 2007