

STUDY PERFORMANCE REPORT

State: Michigan

Project No.: F-81-R-8

Study No.: 230548

Title: A statewide survey of Michigan anglers

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

Study Objective: The principal objective of this research is to develop and implement an overall strategy for collecting survey data on angler behavior. Specific objectives are to (1) Determine how often anglers fish and the general spatial distribution of fishing trips; (2) Determine indicators of catch for sport fish species; (3) To the extent possible, infer important ecological and economic considerations shaping the patterns of angling behavior. The project will result in a database on angler behavior and we will develop tools so that the division can easily query the data to support decision making. The project will also provide data for economic analyses of angler's recreational behaviors. Another project outcome will be a mechanism and instruments for cost effective, accurate, and reliable angler data collection through a combination of mail and web surveys.

Summary: Progress centered on the development of the angler survey approach and instruments. After review of alternatives, a combination of mail- and web-based survey designs was selected based on an assessment of their ability be representative of anglers, and collect reliable data in a cost-effective manner, yet maintain the flexibility of web-based surveys. For the mail survey, a short four-page mail survey was developed that focuses on angler behavior and details of two recent fishing trips. The design calls for this to be administered to a random sample of license holders on a monthly basis. A companion web-survey will ask similar questions but will be capable of having additional questions added to it based on management needs. The survey design and development were conducted with the assistance of Jody Simoes, graduate student, who was hired in January 2007 using matching funds that support a graduate student part time, which were obtained through a grant to Lupi from the Great Lakes Fisheries Trust. To prepare the survey question items and the question framing, we reviewed literature on angler surveys and web surveys, and collected recent examples of angler surveys. Specifically, we collected information about recent angler surveys from other state fisheries management agencies. Examples of recent angler human dimensions surveys were obtained from about two-dozen agencies, and we plan to make these available to other researchers via a web archive.

Findings: Jobs 1 through 4 were scheduled for 2006-07, and progress is reported below.

Job 1. Title: Develop survey instrument and approach.—The survey approach and the survey instrument were developed. The approach consists of combined mail and web survey modes. This mixed mode was selected based on a review of other studies and literature and an assessment of the advantages and disadvantages of alternatives. The mail portion consists of a short four-page mail survey which collects information about general angling behavior, details of two recent fishing trips, frequency of fishing in the past month, and some background demographic information about the angler. The mail survey will be implemented monthly to a sample of license holders. Keeping it short and focused on angler behavior reduces the costs of the mail mode, and allows us to obtain more accurate data on fishing behavior. The mail mode also has well-known sampling properties. The web portion of the survey has two stages, a recruitment stage and a panel survey. The recruitment stage involves sending a postcard invitation to a random sample of anglers inviting them to take the survey. The web panel survey then allows us

to repeatedly survey, over time, anglers that accepted the postcard invitation to join the web panel. The sampling properties of the web panel will need to be assessed by comparing respondents to the mail survey data and to the license list data. The advantage of the web panel is its cost effectiveness and its flexibility in terms of being capable of adding management driven questions on angler preferences and attitudes. The combined mode was deemed the most cost-effective way to reliably and flexibly address the broad range of human dimensions data collection needs. The design was also informed by an extensive review of the surveys that have been conducted by other state fisheries agencies.

Job 2. Title: Implement survey.—The survey was not implemented in 2006-07. This was only the first year of the study and it proved overly ambitious to complete the design in time for the survey to begin as originally scheduled in spring 2007. The design is now complete and the survey will be initiated in spring 2008.

Job 3. Title: Analyze data and refine survey design.—No work was performed on job 3 since data collection did not commence in 2006-07.

Job 4. Title: Prepare annual report and communicate results.—This report was completed and information was shared with Fisheries Division personnel at research team meetings and other meetings.