

## STUDY PERFORMANCE REPORT

State: Michigan

Project No.: F-81-R-8

Study No.: 230499

Title: Michigan Statewide Angler Survey Program.

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

**Study Objective:** 1) To obtain a continuous record of sport fishing effort, catch and harvest, catch and harvest rates, and catch composition for important Great Lakes, tributary, and inland fisheries of the State of Michigan. 2) To provide consistent protocols and data collection methods, program oversight, and timely data analysis of recreational fisheries statistics to Michigan DNR Fisheries Division managers and research biologists.

**Summary:** In fiscal year 2007, the Statewide Angler Survey Program (SASP) conducted 12 winter surveys (4 inland and 8 on the Great Lakes) and 34 summer surveys (11 inland and 23 on the Great Lakes). Schedules followed a random design and were completed well in advance of the season start. Creel clerks, lead workers, and supervisors received training prior to the open water season. Field oversight and Quality Assurance/Quality Control (QAQC) occurred at three levels. Supervisors and lead workers reviewed clerk performance in the field, data were received and reviewed every two weeks by personnel at the Institute for Fisheries Research in Ann Arbor, and program supervision and oversight occurred from Lansing and Charlevoix. Obligations were met and new technologies for the future enhancement of the SASP were developed. The year culminated with this report being completed on schedule.

**Findings:** Jobs 1–9 were scheduled for 2006-07, and progress is reported below.

**Job 1. Title: Survey Design.**—Great Lakes surveys were implemented with little change from previous years. Inland surveys were designed using knowledge and templates from previous creel seasons and expertise of the management unit staff. Winter survey designs were completed in the fall (October–December) and summer designs in February.

**Job 2. Title: Schedules.**—Stratified-random schedules were generated using MiCreel Designer (Su 2005).

One program-wide change was made for the 2007 season. During the summer months when afternoon shifts extend into the evening past 8:00 pm and morning shifts begin at 6:00 am, if a morning shift was randomly scheduled to follow an afternoon shift and a count was not scheduled for either 6:00 or 7:00 am, then that morning shift could be delayed 2 hours. If a count was scheduled for the first two hours of a morning shift, then that shift would start at 6:00 am regardless of the schedule worked the day before. Consideration for delaying a morning shift when it followed an evening shift was made to allow for greater down time between shifts, benefiting clerk performance and safety.

**Job 3. Title: Clerk Training.**—Creel clerk training was held at the Holiday Inn in Grayling on March 28 and 29. Attendance by all clerks and lead workers was mandatory. Technician supervisors and all permanent creel program staff were also present. Subjects covered included division updates (VHS information, new license package), fisheries of statewide importance (southeast Michigan,

Lake Huron), new research initiatives, changes and updates to survey scheduling, personnel considerations, PDA instruction, and review of data collection methods.

**Job 4. Title: Surveys.**—In fiscal year 2007, twelve winter surveys were conducted between January and March on the Great Lakes (8 surveys) and inland waters (4 surveys). Of those, eleven were funded through the SASP and one (Kent Lake) was funded and run through the Lake Erie Management Unit, with survey design and data processing conducted by SASP staff. Air flights were contracted to conduct the counts for the four winter surveys on Saginaw Bay.

During the open-water season (April through September), eleven inland surveys were conducted using 10.5 clerks (one clerk spent 50% of their time working the Au Train Lake and River in the Upper Peninsula and 50% on Lake Superior). Of the eleven surveys conducted, ten were funded and managed entirely through the SASP and one (Kent Lake) was funded and managed through the Lake Erie Management Unit, with survey design and data processing through the SASP. A roving count and roving interview design was used for these inland lake creel surveys. The only inland “large lake” survey in 2007 was the Torch/Portage Lake survey in Houghton County. Two clerks and a contracted air flight were used for conducting roving angler interviews and air counts for this survey, respectively. A partial inland survey on the Huron River (Lake Erie Management Unit) was conducted in the spring. This survey ended in mid-May due to a staffing vacancy and hiring freeze.

On the Great Lakes, 23 open-water surveys were conducted using 22.5 clerks (one clerk spent 50% of their time working on Lake Superior and 50% at an inland site – see above). Eight surveys tracking 20 sites were completed in Lake Michigan, eleven surveys tracking 23 sites were completed in Lake Huron and the St. Marys River. Three surveys tracking five sites were completed in Lake Superior, and one survey was conducted covering all of the Michigan waters in Lake Erie. Air flights were contracted to make boat counts on the St. Marys River, Northern Lake Huron, Saginaw Bay, and Lake Erie. Instantaneous, interval, or aerial counts were made at Great Lakes sites, depending on the site and mode. An access-point interview design (boat launches, piers, or shore) was used for the Great Lakes sites.

**Job 5. Title: Field Oversight and QAQC.**—Data were received bi-weekly in Ann Arbor. Bi-weekly creel schedule change forms were filled out by the clerks, reviewed by their supervisor or lead worker, and turned into Ann Arbor every two weeks (with copies sent to Lansing). Supervisors and lead workers filled out QAQC forms on the clerks they supervised and returned these forms to Lansing. Schedule changes were discussed with and approved by Lansing personnel prior to implementation.

**Job 6. Title: Data Analysis.**—The 2006 and 2007 winter inland survey estimates for Black Lake, Lake Charlevoix, and Lake Gogebic were completed during this reporting period. Results were distributed to the appropriate Management Unit biologists, as well as other interested parties. Estimates were completed for 2006 Great Lakes surveys and results were distributed as required under the 2000 Consent Decree and also made available to Fisheries Division personnel via a Lansing server.

**Job 7. Title: Survey Evaluation.**—We evaluated the adequacy, reliability, and efficiency of project operation and protocols throughout the year. Evaluation occurred through regular meetings or conference calls of SASP staff (October, November, December 2006; February, March, August 2007), and through ongoing, as-needed consultation with Management Unit supervisory personnel and creel clerks. The survey operation and protocols were judged to be adequate for current Fisheries Division needs. A new research project was also initiated (Study 230557,

beginning October 2007), to further evaluate and improve efficiency of angler survey design and estimation techniques in Michigan.

**Job 8. Title: New Technology Development.**—The following new technology development activities were undertaken or completed during the 2006-07 study year:

- 1) Reviewed old estimation program (Creelan) and found and partially fixed several errors in that program. Old Great Lakes survey estimates were combined.
- 2) Ported the PDA data entry program (MiCreel Assistant) to Great Lakes creel surveys. Since December 2006, all clerks have used the new PDA program for data entry. The PDA program was maintained and refined during the winter and summer survey seasons.
- 3) Ported MiCreel Estimation Program for Great Lakes creel estimation.
- 4) Presented three training sessions for clerks and program staff, focusing on use of MiCreel Assistant, scheduling, program, and estimation programs.
- 5) Provided technical support to SASP for problems encountered with MiCreel Assistant, scheduling program, and estimation programs.

**Job 9. Title: Reporting.**—This report was prepared on schedule.

**Literature Cited:**

Su, Z. 2005. Inland creel surveys. Michigan Department of Natural Resources, Federal Aid in Sport Fish Restoration, Project F-81-R-6, Study 230646, Annual Performance Report, Ann Arbor.

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