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The Walleye Fishery of the Detroit River, Spring 2000

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Abstract.–The objective of this study was to evaluate the spring walleye fishery on the Detroit River and compare results to historical catch survey data. In spring 2000, a progressive-access catch survey was conducted on the trailer boat fishery on the U.S. side of the Detroit River. A total of 1,114 interviews were conducted during the 9-week survey from March 11 to May 16, 2000. The estimated harvest was 97,292 walleyes from 344,741 angler hours, with 73% of the effort and 63% of the harvest taking place in the lower half of the river. This is a significant increase in both total effort and harvest compared to earlier surveys. The development of an intense spring fishery for walleye is likely the result of an increased walleye population in Lake Erie, publicity about the fishery, and improvements in boating and fishing equipment.

Introduction

Walleyes *Sander vitreus* support an important commercial and sport fishery in Lake Erie, with most of the harvest taking place in the productive western basin. From 1990 to 2002, the walleye harvest in the western basin averaged 3.4 million fish per year, compared to 1.6 million walleyes for the rest of the lake (Lake Erie Walleye Task Group 2003). In addition to supporting a fishery in Lake Erie, a significant number of walleyes migrate annually up the Detroit River into Lake St. Clair and Lake Huron. Recovery patterns for walleyes tagged in Lake Erie during the spring clearly illustrate this northward migration during April and May (Thomas and Haas 2003). These migrating walleyes support an intense seasonal fishery on the Detroit River. The objective of this study was to document harvest and effort by the trailer boat fishery in Michigan waters of the Detroit River during the spring walleye run.

The Detroit River is a 52-km long connecting waterway between Lake St. Clair and Lake Erie. The discharge of the river averages 5,200 m^3/s and flow velocities range from 0.30 to 0.88 m/s (Derecki 1984). The river is bisected by the international boundary with Canada.

Methods

A progressive-access catch survey was conducted from March 11, 2000 until May 16, 2000 along the U.S. side of the Detroit River. Nine public boating access sites were identified along the U.S. side of the Detroit River and all were included in the survey (Figure 1). The daylight hours were divided into two intervals. The first shift began at daylight and ended in the afternoon; the second shift began in the morning and ended at sunset. Shift hours varied by month due to varying length of daylight among months (Table 1). No effort was made to survey shore anglers or moored boats.

The creel clerk was scheduled for four, 10-hour shifts each week, including both weekend