

Summary of Creel Survey Results for the St. Clair River, Lake St. Clair, and the Detroit River, 2002–05

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Abstract.—For decades, the St. Clair River, Lake St. Clair, and the Detroit River (collectively referred to in this report as the St. Clair System) have supported recreational fisheries based on self-sustaining populations of muskellunge, smallmouth bass, walleye, white bass, and yellow perch. These waters were last creel surveyed in 1983–85. Since that time, extensive ecological changes have taken place and the fish community has changed in response. An on-site creel survey was conducted from April 2002 to February 2005 to document the fishing effort, catch, and harvest for boat anglers on the Michigan portions of the St. Clair System and for the ice fishery on Lake St. Clair. We found that overall annual fishing effort across the St. Clair System from April 2002 to March 2003 (the time period with the most complete data) exceeded 3.0 million angler hours, a decline of 13% from the 3.4 million angler hours estimated by creel survey for the same waters 20 years earlier. This decline was minor in comparison with drastic declines in fishing effort documented by angler surveys at other areas on Michigan waters of the Great Lakes. Numerically, white bass dominated the harvest in the Detroit River, yellow perch dominated the harvest in Lake St. Clair, and walleye dominated the harvest in the St. Clair River. Large numbers of smallmouth and largemouth bass were caught, but few were harvested. A high proportion of the muskellunge that were caught were also released. When compared with the harvest 20 years earlier, walleye, smallmouth bass, and white bass harvests declined 31%, 46%, and 78%, respectively. Declines in population abundance were identified as likely factors in the reduced harvests for walleye and white bass. Reductions in smallmouth bass harvests were attributed to increased voluntary practice of catch-and-release by bass anglers. The costs for conducting this creel survey were substantial (\$316,964 annually) and included six seasonal creel clerks (fisheries assistants) and a private aviation business for aerial boat counts. However, the estimated annual economic activity generated by just the boat and ice fisheries on the St. Clair system, exceeded \$36.4 million. This estimate was a minimal or conservative estimate because the creel survey did not cover all aspects of the fishery in the St. Clair System (for example, shore fishing and night fishing were not included). If the shore fishery and night fishery had been monitored with the creel survey, we expect that the total annual fishing effort expended by anglers on the system from 2002 to 2005 would have approached 40% of the total effort expended on all of Michigan's Great Lakes waters combined. We submit that a fishery supporting this level of participation, affecting fish populations shared with other jurisdictions, and generating substantial economic activity should be creel surveyed regularly, and more frequently than every 20 years.

¹ Retired