

A Survey of Sport Fishing in Lake Superior Waters at Isle Royale, Michigan, 1998

Roger N. Lockwood

*Michigan Department of Natural Resources
Institute for Fisheries Research
212 Museums Annex Building
Ann Arbor, Michigan 48109-1084*

James Peck

*Michigan Department of Natural Resources
Marquette Fisheries Research Station
484 Cherry Creek Road
Marquette, Michigan 49855*

and

Jack Oelfke

*U. S. Department of the Interior
National Park Service
Isle Royale National Park
800 East Lakeshore Drive
Houghton, Michigan 49931-1895*

Abstract.—An on-site, direct-contact creel survey was conducted in the Lake Superior waters of Isle Royale National Park during June-August 1998 to estimate fishing effort, sport catch, sport harvest, and residency of non-charter anglers. The sport harvest of lake trout and coaster brook trout was of particular concern. Estimates were based on boat counts from air flights and from the ferry vessel *Voyageur II*, as well as from boating-party interviews at Isle Royale ports, at Grand Portage, MN, and onboard the ferry vessel *Ranger III*. Total boating effort at Isle Royale during June-August was 29,273 hours, of which 19,340 hours (66%) were by fishing boats. Total angler hours for the period were 62,232. Lake trout numerically made up over 90% of the sport catch, with an estimated harvest of 9,612 and an additional 10,760 caught and released. Eight other species were reported in the catch but variance associated with the much lower estimates precluded a comparison of harvest among these species. Coaster brook trout were not reported in the catch but splake were, and these are believed to be misidentified coaster brook trout or lake trout. Harvest estimates indicate that the current level of fishing is not harming any Isle Royale fish stock, but future creel surveys similar to this one are recommended.

Isle Royale is located in extreme northwestern Michigan waters of Lake Superior. It is about 45 miles long and 9 miles wide. Isle Royale and associated smaller islands were

established as Isle Royale National Park (IRNP) by an act of Congress in 1931. The IRNP boundary includes Lake Superior from the shore of Isle Royale lakeward 4.5 miles, including the