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James C. Schneider, Editor

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MICHIGAN DEPARTMENT OF NATURAL RESOURCES
FISHERIES DIVISION

Fisheries Special Report 25
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MANUAL OF FISHERIES SURVEY METHODS II: WITH PERIODIC UPDATES

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Foreword

The Manual of Fisheries Survey Methods was prepared in 1981 to provide a philosophical framework for sampling Michigan waters and reaffirm and standardize procedures that had drifted through the years. Forms were revised, as needed, to record the most important elements of information. The target audience was field biologists and technicians of the Fisheries Division. Generally, the emphasis was on why and how to sample, rather than exactly how to sample. That left considerable discretion in the hands of the surveyor about, for example, which species to target and how large a sample was needed to solve a specific management problem. It also left open the option to ignore fishes considered to be relatively unimportant to sport fishing.

This has been a "living" document. Sections of the original, especially appendices on growth and length-weight relationships, were updated on an irregular basis and distributed to the small list of manual holders. Some revisions did not reach their audience. By 1998, it was apparent that more sections needed updating, some ideas should to be added and others deleted, and the reasons for surveying should be broadened. Thus, this first major revision was born. It too, will never be completely finished. Some of the above problems will be reduced by maintaining an official version of the Manual of Fisheries Survey Methods II on our Intranet Web Site where it can be more easily updated and distributed. All sections of the document were updated and edited. The names of the original authors (some of which have retired) were retained on the new version unless changes were substantial.

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In 1981, as now, certain types of information were essential and could be meaningfully summarized on forms. Paper forms are gradually being replaced by computerized forms linked to databases. However, the concept of forms as packets of related information remains viable and is still the organizing theme of this revision. The new computerized "Fish Collection System" has eliminated some paperwork and guarantees accurate computation of many statistics used routinely. Forms that have been essentially replaced by the computerized system are FISH COLLECTION (R-8058), SURVEY PLANNING (R-8060), and FISH GROWTH (R-8070). Variations of these forms are in electronic format and can be downloaded. Computer software can also create tables used for Status of the Fisheries Reports. These reports summarize catch by species and size, and growth and age composition information.

"Users Guide for the Fish Collection System, April 8, 1997, DNR Fisheries Division" describes the current capabilities of the computer system and exactly how to use it. Consider it a companion document to this survey manual. It is available as a MS-Word document on file servers at most DNR offices under the file name: FISCOL.DOC.

Some forms have been little used since 1981. Examples are LAKE SURVEY SUMMARY (R8063), STREAM SURVEY SUMMARY (R8064), and LAKE PHYSICAL DESCRIPTION (R8057). They are still included in the revision because they contain important elements of information and should be used when appropriate. If nothing else, they can guide the assembly of databases that are in the process of development.

For additional practical discussion of fish survey methods, see "Fisheries Techniques" (2nd edition), edited by B. R. Murphy and D. W. Willis and published by the American Fisheries Society in 1996.

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James C. Schneider, editor
January 2000

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