

STUDY FINAL REPORT

State: Michigan

Project No.: F-35-R-23

Study No.: 631

Title: Inventory and classification of warmwater river fish communities

Period Covered: April 1, 1997 to March 31, 1998

Study Objective: For the rivers of Michigan's Lower Peninsula:

- (1) Develop operational models of site-specific fish habitat variables (e.g. temperature, substrate) using watershed- and landscape-scale habitat variables.
- (2) Using key variables defined in (1), classify river sites into distinct "habitat types".
- (3) Develop operational models predicting fish population and community characters from habitat variables.
- (4) Building on the habitat classification in (2), classify fish communities into distinct types.
- (5) Determine the effects of water temperature on the distribution and abundance of stream fishes.

Findings: Results of this study are given in the following series of reports:

Seelbach, P.W., and M.J. Wiley. 1997. Overview of the Michigan Rivers Inventory (MRI) Project. Michigan Department of Natural Resources, Fisheries Technical Report 97-3, Ann Arbor.

Seelbach, P.W., M.J. Wiley, J.C. Kotanchik, and M.E. Baker. 1997. A landscape-based ecological classification system for river valley segments in Lower Michigan (MI-VSEC Version 1.0). Michigan Department of Natural Resources, Fisheries Research Report 2036, Ann Arbor.

Wiley, M. J., S. L. Kohler, and P. W. Seelbach. 1997. Reconciling landscape and local views of aquatic communities: lessons from Michigan trout streams. *Freshwater Biology* 37:133-148.

Wiley, M.J., and P.W. Seelbach. 1997. An introduction to rivers—the conceptual basis for the Michigan Rivers Inventory (MRI) project. Michigan Department of Natural Resources, Fisheries Special Report 20, Ann Arbor.

Wehrly, K.E., M.J. Wiley, and P.W. Seelbach. 1998. Landscape-based models that predict July thermal characteristics of Lower Michigan rivers. Michigan Department of Natural Resources, Fisheries Research Report 2037, Ann Arbor.

Wehrly, K.E., M.J. Wiley, and P.W. Seelbach. 1998. A thermal classification for rivers in Michigan's Lower Peninsula. Michigan Department of Natural Resources, Fisheries Research Report 2038, Ann Arbor.

Zorn, T.G., P.W. Seelbach, and M.J. Wiley. 1998. Patterns in the distributions of stream fishes in Michigan's Lower Peninsula. Michigan Department of Natural Resources, Fisheries Research Report 2035, Ann Arbor.

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