

Kevin E Wehrly

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Education:

Ph.D. in Natural Resources, University of Michigan, 1999.
M.S., in Natural Resources, University of Michigan, 1994.
B.S. in Biology, Ohio Northern University, 1991.

Positions Held:

Fisheries Research Biologist, Institute for Fisheries Research, Michigan Department of Natural Resources and the University of Michigan, 2000-present.

Lecturer, Program in Environment, College of Literature, Science, and the Arts,
University of Michigan, 2003-present.

Adjunct Assistant Professor of Environment, School of Natural Resources and
Environment, University of Michigan, 2003-present.

Post-Doctoral Fellow, USEPA, National Exposure Research Laboratory, Ecosystem
Research Branch, 1999-2000.

Lecturer, University of Michigan Biological Station, 1999.

Graduate Research Assistant, School of Natural Resources and Environment, University
of Michigan, 1991-1999.

Graduate Student Instructor, School of Natural Resources and Environment, University
of Michigan and University of Michigan Biological Station, 1992-1998.

Short-term Worker, Institute for Fisheries Research, Michigan Department of Natural
Resources, 1991-1993.

Laboratory Assistant, Biology Department, Ohio Northern University, 1989-1991.

Courses Taught:

ENVIRON 422 / EEB 440 / NRE 422 Biology of Fishes
ENVIRON 423 / EEB 441 / NRE 423 Biology of Fishes Laboratory
EEB 486 Biology and Ecology of Fishes (UMBS)

Awards:

S-Award (\$800), USEPA. 2000.

On-the-Spot Award (\$100). USEPA, 2000.

Post-Doctoral Fellowship. USEPA, 1999.

Buffalo Award (\$200). SNRE, University of Michigan, 1999.

Honorable Mention, Best Student Presentation. International Association for Landscape Ecology, East Lansing, MI. 1998.

Fishery Alumni Memorial Award. SNRE, University of Michigan, 1997.

Schwartz Memorial Scholarship. Ohio Northern University, 1987-1991.

Omicron Delta Kappa, Leadership Society. Ohio Northern University, 1991.

Tri-Beta, Honorary Society in Biology. Ohio Northern University, 1990.

Grants:

Modelling historic and spatial variation of Great Lakes walleye maturation schedules.

U.S. Fish and Wildlife Service, Great Lakes Restoration Act. PI: T. O. Höök. Co-PIs: K. Wehrly, T. Zorn, K. Kayle, L. Rudstam and S. Peacor. 2007-2007, \$75,000.

A hydrogeomorphic lake classification system for refining lake assessment at multiple spatial scales. EPA NLAPP. PI: P. Sorrano. Co-PI. 15 others. 2005-2006, \$245,208.

Developing a lake classification system for Michigan inland lakes. USFW State Wildlife Grant. Co P.I. with P. Sorrano, M. Bremigan, and J. Breck. 2004-2006.

Ecological inventory of inland lakes in Michigan. USFW State Wildlife Grant. 2004-2006, \$418,350. PI. K.E. Wehrly.

Landscape-based modeling of fish species distributions in Michigan Rivers for use in Great Lakes Aquatic GAP Analysis. U.S Geological Survey. PI. K.E. Wehrly. Co-PIs M. Wiley, D. Reader. 2003-2007, \$255,206.

Feasibility of using hydroacoustics to estimate fish abundance in large inland lakes. MDNR. Co-PI with R. Clark. 2002-2005. \$100,000.

Ecological classification of rivers for environmental assessment: demonstration, validation, and application to regional risk assessment across Illinois, Michigan, and Wisconsin. EPA STAR. Co-P.I. with P. Seelbach, M. Wiley, D. Allan, J. Lyons, L. Wang, D. Austen, B. Pijanowski, J. Stevenson. 2002-2005, \$842,547.

Inventory and evaluation of habitat improvement projects in Michigan streams. Federal Sportfish Restoration Funds and MDNR. Co-P.I with M. Wiley. 2001-2004, \$60,000.

Ecological and economic consequences of hydropower-related watershed restoration on salmonid productivity in Great Lakes tributaries. Michigan Sea Grant. Co-P.I. with E. Rutherford, M. Moore, and F. Lupi. 1999-2001, \$139,655.

Impacts of watershed fragmentation and restoration on fish habitat, migration, and production in Great Lakes tributaries. Great Lakes Protection Fund. Co-P.I. with E. Rutherford, J. Diana, P. Seelbach, J. Tyler. 1999-2002, \$244,334.

Innovative approaches to improve the TMDL process: using alternative watershed sampling designs to measure and classify exposure to natural and anthropogenic determinants of ecological condition. EPA RARE Program. Co-P.I. with S. Cormier. 2001-2003, \$124,000.

A small watershed characterization, classification, and assessment for West Virginia utilizing EMAP design and tools. EPA R-EMAP. Co-P.I. with D. Cincotta and N. Detenbeck. 2001-2003, \$360,000.

Publications:

Wehrly, K.E., L. Wang, and M. Mitro. 2007. Field-Based Estimates of Thermal Tolerance Limits for Trout: Incorporating Exposure Time and Temperature Fluctuation. Transactions of the American Fisheries Society 136:365-374.

McCauley, S.J. and K. E. **Wehrly**. 2007. Zebra mussel, *Dreissena polymorpha* (Pallas), attachment to Odonata larvae. Odonatologica 36(1): 63-69.

Seelbach, P.W., M.J. Wiley, M.E. Baker, and K.E. **Wehrly**. 2006. Initial classification of river valley segments across Michigan's lower peninsula. Pages 25-48 in R. M. Hughes, L. Wang, and P. W. Seelbach, editors. Landscape Influences on Stream Habitats and Biological Assemblages. American Fisheries Society, Symposium 48, Bethesda, Maryland.

Wehrly, K.E., M.J. Wiley, and P.W. Seelbach. 2006. Influence of landscape features on summer water temperatures in lower Michigan streams. Pages 113-127 in R. M. Hughes, L. Wang, and P. W. Seelbach, editors. Landscape Influences on Stream Habitats and Biological Assemblages. American Fisheries Society. American Fisheries Society, Symposium 48, Bethesda, Maryland.

Baker E., K.E. **Wehrly**, P.W. Seelbach, L. Wang, M.J. Wiley, and T. Simon. 2005. A multimetric assessment of stream condition in the Northern Lakes and Forest Ecoregion using spatially explicit statistical modeling and regional normalization. Transactions of the American Fisheries Society 134:697-710.

Horne, B.D., E.S. Rutherford, and K.E. **Wehrly**. 2004. Simulating effects of hydro-dam alteration on thermal regime and wild steelhead recruitment in a stable-flow Lake Michigan tributary. River Research and Applications 20:185-203.

Wehrly, K.E. M.J. Wiley, and P.W. Seelbach. 2003. Classifying regional variation in thermal regime based on stream fish community patterns. Transactions of the American Fisheries Society 132:18-38.

Wiley, M.J., P.W. Seelbach, K.E. **Wehrly**, and J. Martin. 2003. Ecological context normalization using linear models: a meta-method for scaling stream assessment indicators. Pages 202-223 in T.P. Simon, Editor. Biological response signatures: multimetric index patterns for assessment of freshwater aquatic assemblages. CRC Press, Boca Raton.

Reports and Theses:

Steen, P.J., and K.E. **Wehrly**. Submitted. History and inventory of stream habitat improvements for the State of Michigan. Michigan Department of Natural Resources, Fisheries Technical Report.

Lockwood, R.N. and K.E. **Wehrly**, and D. Hayes. 2005. Sample sizes for inland lake habitat and lakeshore development metrics. Michigan Department of Natural Resources, Fisheries Technical Report 2005-3, Ann Arbor.

Baker E.A., K.E. **Wehrly**, P.W. Seelbach, M.J. Wiley, L. Wang, and T.P. Simon. 2002. Regional normalization models for assessing ecological integrity in streams of the Northern Lakes and Forest Ecoregion. U.S. Environmental Protection Agency, R-EMAP, Final Report for Grant R-82620701-2, Duluth, MN.

Wehrly, K.E. 1999. The influence of thermal regime on the distribution and abundance of stream fishes in Michigan. Ph.D. Dissertation, The University of Michigan.

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

Wehrly, K.E. M.J. Wiley, and P.W. Seelbach. 1998b. A thermal habitat classification for rivers in Michigan's lower peninsula. Michigan Department of Natural Resources, Research Report Number 2038, Ann Arbor.

Wehrly, K.E. 1995. The effects of temperature on the growth of juvenile lake sturgeon, *Acipenser fulvescens*. Michigan Department of Natural Resources, Fisheries Research Report Number 2004, Ann Arbor.

Presentations:

Wehrly, K.E., M. J. Wiley, and P. W. Seelbach. Landscape influences on stream temperatures in Michigan. American Fisheries Society, Madison, WI. August 2004.

Wehrly, K.E. The influence of temperature on fishes. Ann Arbor Chapter Trout Unlimited, March 2003.

Wehrly, K.E. Thermal Ecology of Michigan Fishes. North American Native Fish Association Annual Meeting, Ann Arbor, MI. August 2002.

Wehrly, K.E., M.J. Wiley, and P.W. Seelbach. Using a landscape-based approach to develop watershed management plans and restoration targets. DEQ Nonpoint Source (NPS) Grantee Workshop, Lansing, MI. June 2001.

Wehrly, K.E., M.J. Wiley, and P.W. Seelbach. Application of landscape-based tools in statewide water quality monitoring and assessment programs. Department of Environmental Quality GLEAS Workshop, Lansing, MI. May 2001.

Wehrly, K.E., P.W. Seelbach, M.J. Wiley, M.E. Baker, and T.G. Zorn. Developing a macro-habitat information framework: Michigan's approach to classifying stream resources. Annual Meeting of the North Central Division AFS, Rivers and Streams Technical Committee, Rock Island, IL. March 2001.

Wehrly, K.E., P.W. Seelbach, and M.J. Wiley. Monitoring and assessing trends in Michigan's fish populations and aquatic resources. Annual Meeting of Michigan Chapter, North American Lake Management Society; and Michigan State Section, American Water Resources Association, East Lansing, MI. March 2001.

Wehrly, K.E., M.J. Wiley, and P.W. Seelbach. Application of a thermal habitat classification for Lower Michigan Rivers. Fisheries/Riparian/Watershed Workshop for the Huron-Manistee National Forests, U.S. Forest Service, Cadillac, MI. February 1999.

Wehrly, K.E., M.J. Wiley, and P.W. Seelbach. Local- and landscape-scale controls on thermal characteristics in Michigan rivers. International Association for Landscape Ecology Conference, East Lansing, MI. March 1998.

Wehrly, K.E., M.J. Wiley, and P.W. Seelbach. Landscape influences on thermal habitats in Michigan rivers. 126th Annual Meeting of the American Fisheries Society, Dearborn, MI. August 1996.

Wehrly, K.E., M.J. Wiley, and P.W. Seelbach. Predicting site-scale temperature patterns using watershed-scale parameters in Michigan streams. 125th Annual Meeting of the American Fisheries Society, Tampa, FL. August 1995.

Wehrly, K.E. The effects of temperature on the growth of juvenile lake sturgeon, (*Acipenser fulvescens*). Annual Meeting of the Canadian Zoological Society, Guelph, Ontario. May 1993.