

Charles P. Madenjian
U. S. Geological Survey
Great Lakes Science Center
1451 Green Road
Ann Arbor, Michigan 48105
Work phone: (734) 214-7259
Mobile phone: (734) 223-5797
FAX: (734) 994-8780
e-mail: cmadenjian@usgs.gov

Occupational Objective

Research in natural resource ecology, particularly fisheries biology and management. Application of mathematical and statistical techniques to ecological systems and problems.

Educational Background

University of Hawaii Honolulu, Hawaii
Ph.D. 1988. Zoology. Research on the basic and applied aspects of dissolved oxygen dynamics in pond ecosystems. Ecology of patterns of production and respiration in ponds.

University of Michigan Ann Arbor, Michigan
M.S. 1979. Emphasis on fisheries biology, statistics and mathematical modeling. Skills in FORTRAN, PASCAL, BASIC and ALGOL programming, CALCOMP plotting, linear programming and Monte Carlo simulation.

Rutgers University New Brunswick, New Jersey
B.S. 1975. Major in aquatic biology. Solid background in ecology and mathematics. Member of Pi Mu Epsilon, mathematics honor fraternity.

Occupational Background

Great Lakes Science Center, U. S. Geological Survey
Ann Arbor, Michigan
Research Fishery Biologist. 1/92 to present. Research in the following four theme areas: (1) fish community dynamics and native fish restoration in the Laurentian Great Lakes, (2) invasion biology in the Laurentian Great Lakes, (3) evaluation and application of fish bioenergetics models, and (4) contaminant accumulation in fish. Research in theme area 1 is directed at understanding the dynamics of fish populations and fish communities in the Great Lakes and at restoring native fish populations to the Great Lakes. Research in this theme area draws heavily from the annual surveys conducted by the Great Lakes Science Center (GLSC). To track prey fish abundances through time, the GLSC has been performing bottom trawl surveys each year on all five Laurentian Great Lakes from as early as 1973. To complement the bottom trawl surveys, the GLSC has more recently begun to perform hydroacoustic surveys on the lakes each year. In addition, to track progress toward lake trout (*Salvelinus namaycush*) restoration, the GLSC annually conducts gillnet surveys in each of the lakes. For Lake Michigan, the annual gillnet surveys began in 1991 in the Northern Refuge of the lake. The annual bottom trawl surveys are not only essential for understanding the dynamics of the important prey fish species in Lake Michigan, but are invaluable in determining the degree of species interactions between the various species of prey fish. Likewise, the annual gillnet surveys are essential for determining progress toward lake trout restoration in the Northern Refuge of Lake Michigan. In addition, habitat suitability for cisco (*Coregonus artedii*) in Green Bay (Lake Michigan) has been investigated. Various types of both regression modeling and population modeling have also been used to better understand the dynamics of Great Lakes fish populations and fish communities. Cross-lake comparisons are

essential toward understanding prey fish dynamics and impediments to native species restoration in the Great Lakes. Research in theme area 2 is directed at understanding the effects of invasives on native and naturalized fish populations and fish communities and at identifying the important factors controlling the abundance of invasives in the Laurentian Great Lakes. Research in this theme area draws heavily from the annual surveys conducted by the GLSC. In addition, various types of both regression modeling and population modeling are used to better understand effects of invasives on fish communities as well as to assess the importance of various factors on controlling abundance of invasives. Cross-lake comparisons are essential in determining effects of invasives on Great Lakes food webs. Research in theme area 3 is directed at: (a) evaluating the performance of fish bioenergetics models both in the laboratory and in the field, and (b) applying fish bioenergetics models in new and novel ways to better understand feeding ecology of fish. Part of the effort in theme area 3 includes use of polychlorinated biphenyls (PCBs) as tracers for energy flow between prey and predator. Research in theme area 4 is directed at: (a) the sex effect on PCB concentrations in fish, (b) trophic transfer efficiencies of contaminants to fish from their food, and (c) rates of mercury excretion by fish. Bioenergetics modeling is also useful in studying sex differences in PCB concentrations. Laboratory experiments are used to estimate trophic transfer of PCBs, mercury, and other contaminants to fish from their food, as well as to estimate the rate of mercury excretion by fish.

Center for Limnology, University of Wisconsin
Madison, Wisconsin

Research Associate. 9/90 to 1/92. Research on individual-based modeling of growth of salmonids and of microcontaminant uptake by salmonids in the Great Lakes. Responsibilities included development and exercising of individual-based computer simulation models, and application of the models to determine stocking strategies which minimize concentrations of contaminants in salmonids.

Center for Limnology, University of Wisconsin
Madison, Wisconsin

Postdoctoral Fellow. 7/89 to 8/90. Research on modeling of growth of young-of-the-year walleye. Responsibilities included development and exercising of individual-based computer simulation models, and application of the models to determine optimum stocking strategies for fingerling walleyes in Lake Mendota (Wisconsin).

Hawaii Natural Energy Institute, University of Hawaii
Honolulu, Hawaii

Research Associate. 12/88 to 7/89. Research on potential uses of cold-water effluent from expanded OTEC (Ocean Thermal Energy Conversion) operation. Responsibilities included development and exercising of computer simulation models for nutrient cycling and primary production in the cold-water effluent, and investigating the feasibility of enhancing ocean fisheries from artificial upwellings.

Hawaii Institute of Marine Biology, University of Hawaii
Kaneohe, Hawaii

Graduate Research Assistant. 7/83 to 11/88. Research on dissolved oxygen dynamics in aquaculture ponds. Responsibilities included modeling, writing of computer simulation and parameter estimation programs, statistical analysis of data, report writing, field work, development and maintenance of automated data logger for monitoring dissolved oxygen and meteorological parameters, and lab processing of samples.

Great Lakes Research Division, University of Michigan
Ann Arbor, Michigan

Research Assistant. 4/78 to 6/83. Research on environmental impacts of several different power plants on fish populations in the respective vicinities of these plants. Responsibilities included computer programming, data base management, data analysis and interpretation, writing sections of impact reports, lab duties and field work (including SCUBA diving). Author of statistical analysis sections of special reports for the J. H. Campbell Power Plant study.

University of Michigan Sea Grant Program
Ann Arbor, Michigan

Research Assistant. 4/77 to 4/78. Time series analysis and forecasting of fishery catch and effort. Responsibilities included modeling, interpretation of results and writing of report (M.S. thesis).

Teaching Background

School of Natural Resources, University of Michigan
Ann Arbor, Michigan

Teaching Assistant. 1/76 to 4/76, 1/77 to 4/77. Introductory applied statistics course. Responsibilities included recitation on problem solving, grading tests, and instruction in FORTRAN and in use of packaged statistical programs.

Professional Memberships/Recognition

Member of the American Fisheries Society.

Member of the International Association of Great Lakes Research.

Member of Board of Directors, International Association of Great Lakes Research, 2006-2009.

Associate Editor for the *North American Journal of Fisheries Management*, 1997-2008.

Associate Editor for the *Journal of Great Lakes Research*, 2001-2006.

Member of Core Group, Sea Lamprey Research Board, Great Lakes Fishery Commission, 2002-2008.

Adjunct Professor to the Department of Evolution, Ecology, and Organismal Biology, Ohio State University, Columbus, Ohio, 1993 to present.

Adjunct Professor to the School of Natural Resources & Environment, University of Michigan, Ann Arbor, Michigan, 1997 to present.

Adjunct Professor to the Department of Fisheries and Wildlife, Michigan State University, East Lansing, Michigan, 2002 to present.

Affiliate to the Quantitative Fisheries Center, Department of Fisheries and Wildlife, Michigan State University, East Lansing, Michigan, 2012 to present.

Thesis and Dissertation

Madenjian, C. P. 1979. Time series analysis and forecasting of fishery catch and effort. M.S. Thesis, Univ. of Mich., Ann Arbor, Mich. 54 pp.

Madenjian, C. P. 1988. Patterns of production and respiration in pond ecosystems. Ph.D. Diss., Univ. Hawaii, Honolulu, Hawaii. 191 pp.

Technical Reports

Jude, D. J., G. R. Heufelder, H. T. Tin, N. A. Auer, S. A. Klinger, P. J. Schneeberger, T. L. Rutecki, C. P. Madenjian, and P. J. Rago. 1979. Adult, juvenile and larval fish in the vicinity of the J. H. Campbell Power Plant, eastern Lake Michigan, 1978. Spec. Rep. No. 73, Great Lakes Res. Div., Univ. Mich., Ann Arbor, Mich. 574 pp.

Jude, D. J., G. R. Heufelder, H. T. Tin, N. A. Auer, S. A. Klinger, P. J. Schneeberger, C. P. Madenjian, T. L. Rutecki, and G. G. Godun. 1980. Adult, juvenile and larval fish populations in the vicinity of the J. H. Campbell Power Plant, eastern Lake Michigan, 1979. Spec. Rep. No. 79. Great Lakes Res. Div., Univ. Mich., Ann Arbor, Mich. 607 pp.

Jude, D. J., T. L. Rutecki, C. P. Madenjian, G. E. Noguchi, P. J. Schneeberger, S. A. Klinger, G. G. Godun, and M. H. Winnell. 1981. The physical, chemical and biological nature of Pigeon Lake, a Lake Michigan coastal lake. Spec. Rep. No. 78. Great Lakes Res. Div., Univ. Mich., Ann Arbor, Mich. 109 pp.

Jude, D. J., H. T. Tin, G. R. Heufelder, P. J. Schneeberger, C. P. Madenjian, T. L. Rutecki, P. J. Mansfield, N. A. Auer, and G. E. Noguchi. 1981. Adult, juvenile and larval fish populations in the vicinity of the J. H. Campbell Power Plant, eastern Lake Michigan, 1977-1980. Spec. Rep. No. 86. Great Lakes Res. Div., Univ. Mich., Ann Arbor, Mich. 436 pp.

Jude, D. J., C. P. Madenjian, P. J. Schneeberger, H. T. Tin, P. J. Mansfield, T. L. Rutecki, G. E. Noguchi, and G. R. Heufelder. 1982. Adult, juvenile and larval fish populations in the vicinity of the J. H. Campbell Power Plant, eastern Lake Michigan, 1981, with special reference to the effectiveness of wedge-wire intake screens in reducing entrainment and impingement of fish. Spec. Rep. No. 96. Great Lakes Res. Div., Univ. Mich., Ann Arbor, Mich. 516 pp.

Madenjian, C. P., G. L. Rogers, and A. W. Fast. 1985. Microcomputer modeling of nighttime dissolved oxygen dynamics in Hawaiian prawn ponds. Proc. Second International Conference on Warm Water Aquaculture-Finfish. Laie, Hawaii, Feb. 5-8, 1985.

Madenjian, C. P. 1993. Low polychlorinated biphenyl contamination in Lake Michigan rainbow trout due to short exposure time. U.S. Fish and Wildlife Service Research Information Bulletin No. 75, National Fisheries Research Center - Great Lakes, Ann Arbor, Mich.

Madenjian, C. P. 1993. Gear selectivity influences optimal harvest rate estimates. U.S. Fish and Wildlife Service Research Information Bulletin No. 76, National Fisheries Research Center - Great Lakes, Ann Arbor, Mich.

Muth, K. M., D. R. Wolfert, M. T. Bur, and C. P. Madenjian. 1993. Lake Erie fishery research, 1992. Report distributed at the 1993 Annual Lake Erie Committee Meeting.

Muth, K. M., D. R. Wolfert, M. T. Bur, and C. P. Madenjian. 1994. Lake Erie fishery research, 1993. Report distributed at the 1994 Annual Lake Erie Committee Meeting.

Madenjian, C. P. 1994. Algae removal by zebra mussels in western Lake Erie. National Biological Survey Research Information Bulletin No. 16, National Fisheries Research Center - Great Lakes, Ann Arbor, Mich.

Madenjian, C. P., and S. W. Gabrey. 1994. Walleye consume more fish than do birds in the western Lake Erie ecosystem. National Biological Survey Research Information Bulletin No. 53, Great Lakes Science Center, Ann Arbor, Mich.

Madenjian, C. P., D. M. Whittle, J. H. Elrod, R. O'Gorman, and R. W. Owens. 1995. A simulation model looks back at PCB concentrations in alewife. National Biological Service Research Information Bulletin No. 34, Great Lakes Science Center, Ann Arbor, Mich.

Muth, K. M., M. T. Bur, and C. P. Madenjian. 1995. Lake Erie fishery research, 1994. Report distributed at the 1995 Annual Lake Erie Committee Meeting.

Bur, M. T., K. M. Muth, and C. P. Madenjian. 1996. Lake Erie fishery research, 1995. Report distributed at the 1996 Annual Lake Erie Committee Meeting.

Passino-Reader, D. R., R. M. Stedman, and C. P. Madenjian. 1996. Status of forage fish stocks in Lake Michigan, 1995. Report distributed at the 1996 Annual Lake Michigan Committee Meeting.

Madenjian, C. P., R. M. Stedman, T. J. DeSorcie, and D. R. Passino-Reader. 1997. Status of prey fish populations

in Lake Michigan, 1996. Report distributed at the 1997 Annual Lake Michigan Committee Meeting.

Madenjian, C. P. and T. J. DeSorcie. 1998. Status of prey fish populations in Lake Michigan, 1997. Report distributed at the 1998 Annual Lake Michigan Committee Meeting.

Madenjian, C. P., T. J. DeSorcie, and J. McClain. 1999. Lake trout rehabilitation in Lake Huron -- 1998 progress report on coded wire tag returns. Report distributed at the 1999 Annual Lake Huron Committee Meeting.

Fleischer, G. W., C. P. Madenjian, L. M. TeWinkel, T. J. DeSorcie, and J. D. Holuszko. 1999. Status of prey fish populations in Lake Michigan, 1998. Report distributed at the 1999 Annual Lake Michigan Committee Meeting.

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Fleischer, G. W., C. P. Madenjian, T. J. DeSorcie, and J. D. Holuszko. 2000. Status and trends of prey fish populations in Lake Michigan, 1999. Report distributed at the 2000 Annual Lake Michigan Committee Meeting.

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Fleischer, G. W., C. P. Madenjian, T. J. DeSorcie, and J. D. Holuszko. 2001. Status and trends of prey fish populations in Lake Michigan, 2000. Report distributed at the 2001 Annual Lake Michigan Committee Meeting.

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Madenjian, C. P., T. J. Desorcie, and J. D. Holuszko. 2004. Status and trends of prey fish populations in Lake Michigan, 2003. Report distributed at the 2004 Annual Lake Michigan Committee Meeting.

Madenjian, C. P., T. J. Desorcie, J. McClain, and A. Woldt. 2005. Lake trout rehabilitation in Lake Huron -- 2004 progress report on coded wire tag returns. Report distributed at the 2005 Annual Lake Huron Committee Meeting.

Madenjian, C. P., D. B. Bunnell, T. J. Desorcie, J. D. Holuszko, and J. V. Adams. 2005. Status and trends of prey fish populations in Lake Michigan, 2004. Report distributed at the 2005 Annual Lake Michigan Committee Meeting.

Madenjian, C. P., S. A. Pothoven, P. J. Schneeberger, D. V. O'Connor, and S. B. Brandt. 2005. Preliminary evaluation of a lake whitefish (*Coregonus clupeaformis*) bioenergetics model. In Proceedings of a workshop on the dynamics of lake whitefish (*Coregonus clupeaformis*) and the amphipod *Diporeia* spp. in the Great Lakes. Edited by L. C. Mohr and T. F. Nalepa. Great Lakes Fish. Comm. Tech. Rep. 66. pp. 189-201.

- Nalepa, T. F., L. C. Mohr, B. A. Henderson, C. P. Madenjian, and P. J. Schneeberger. 2005. Lake whitefish and *Diporeia* spp. in the Great Lakes: an overview. *In* Proceedings of a workshop on the dynamics of lake whitefish (*Coregonus clupeaformis*) and the amphipod *Diporeia* spp. in the Great Lakes. *Edited by* L. C. Mohr and T. F. Nalepa. Great Lakes Fish. Comm. Tech. Rep. 66. pp. 3-19.
- Fleischer, G. W., C. P. Madenjian, R. F. Elliott, and M. L. Toney. 2005. Planktivores. *In* The state of Lake Michigan in 2000. *Edited by* M. E. Holey and T. N. Trudeau. Great Lakes Fish. Comm. Spec. Pub. 05-01, pp. 25-32.
- Madenjian, C. P., T. J. Desorcie, J. McClain, and A. Woldt. 2006. Lake trout rehabilitation in Lake Huron -- 2005 progress report on coded wire tag returns. Report distributed at the 2006 Annual Lake Huron Committee Meeting.
- Madenjian, C. P., D. B. Bunnell, T. J. Desorcie, J. D. Holuszko, and J. V. Adams. 2006. Status and trends of prey fish populations in Lake Michigan, 2005. Report distributed at the 2006 Annual Lake Michigan Committee Meeting.
- Bunnell, D. B., C. P. Madenjian, J. D. Holuszko, T. J. Desorcie, and J. V. Adams. 2007. Status and trends of prey fish populations in Lake Michigan, 2006. Report distributed at the 2007 Annual Lake Michigan Committee Meeting.
- Bronte, C. R., B. Breidert, S. Hansen, D. Hanson, M. Holey, J. Jonas, S. Lenart, C. Madenjian, A. Martell, P. McKee, E. Olsen, P. Peeters, S. Robillard, T. Smigielski, and G. Wright. 2007. Lake Michigan Lake Trout Working Group report. Report distributed at the 2007 Annual Lake Michigan Committee Meeting.
- Claramunt, R. M., B. Breidert, D. F. Clapp, R. F. Elliott, C. P. Madenjian, P. Peeters, S. R. Robillard, D. M. Warner, and G. Wright. 2007. Status of salmonines in Lake Michigan, 1985-2006. Report distributed at the 2007 Annual Lake Michigan Committee Meeting.
- Dettmers, J. M., C. P. Madenjian, P. J. Allen, S. A. Pothoven, and T. F. Nalepa. 2008. Impact of recent invasive species on nearshore fishes. *In* The state of Lake Michigan in 2005. *Edited by* D. F. Clapp and W. Horns. Great Lakes Fish. Comm. Spec. Pub. 08-02, pp. 19-26.
- Madenjian, C. P., D. M. Warner, D. B. Bunnell, R. M. Claramunt, and J. M. Dettmers. 2008. Status of planktivore populations. *In* The state of Lake Michigan in 2005. *Edited by* D. F. Clapp and W. Horns. Great Lakes Fish. Comm. Spec. Pub. 08-02, pp. 49-54.
- Claramunt, R. M., D. F. Clapp, B. Breidert, R. F. Elliott, C. P. Madenjian, D. M. Warner, P. Peeters, S. R. Robillard, and G. Wright. 2008. Status of Chinook salmon. *In* The state of Lake Michigan in 2005. *Edited by* D. F. Clapp and W. Horns. Great Lakes Fish. Comm. Spec. Pub. 08-02, pp. 71-80.
- Madenjian, C. P., D. B. Bunnell, J. D. Holuszko, T. J. Desorcie, and J. V. Adams. 2008. Status and trends of prey fish populations in Lake Michigan, 2007. Report distributed at the 2008 Annual Lake Michigan Committee Meeting.
- Bronte, C. R., B. Breidert, S. Hansen, D. Hanson, M. Holey, J. Jonas, S. Lenart, C. Madenjian, A. Martell, P. McKee, E. Olsen, P. Peeters, S. Robillard, T. Smigielski, and G. Wright. 2008. Lake Michigan Lake Trout Working Group report. Report distributed at the 2008 Annual Lake Michigan Committee Meeting.
- Claramunt, R. M., B. Breidert, D. F. Clapp, R. F. Elliott, C. P. Madenjian, P. Peeters, S. R. Robillard, D. M. Warner, and G. Wright. 2008. Status of salmonines in Lake Michigan, 1985-2007. Report distributed at the 2008 Annual Lake Michigan Committee Meeting.
- Bunnell, D. B., C. P. Madenjian, J. D. Holuszko, T. J. Desorcie, and J. V. Adams. 2009. Status and trends of prey

fish populations in Lake Michigan, 2008. Report distributed at the 2009 Annual Lake Michigan Committee Meeting.

Claramunt, R. M., B. Breidert, D. F. Clapp, R. F. Elliott, C. P. Madenjian, P. Peeters, S. R. Robillard, D. M. Warner, and G. Wright. 2009. Status of salmonines in Lake Michigan, 1985-2008. Report distributed at the 2009 Annual Lake Michigan Committee Meeting.

Madenjian, C. P., D. B. Bunnell, J. D. Holuszko, T. J. Desorcie, and J. V. Adams. 2010. Status and trends of prey fish populations in Lake Michigan, 2009. Report distributed at the 2010 Annual Lake Michigan Committee Meeting.

Madenjian, C. P., B. Breidert, C. Bronte, S. Hansen, D. Hanson, M. Holey, J. Jonas, S. Lenart, A. Martell, P. McKee, E. Olsen, P. Peeters, S. Robillard, T. Smigielski, and G. Wright. 2010. Lake Michigan Lake Trout Working Group report. Report distributed at the 2010 Annual Lake Michigan Committee Meeting.

Claramunt, R. M., B. Breidert, D. F. Clapp, R. F. Elliott, C. P. Madenjian, P. Peeters, S. R. Robillard, D. M. Warner, and G. Wright. 2010. Status of salmonines in Lake Michigan in 2009: a report from the Salmonid Working Group. Report distributed at the 2010 Annual Lake Michigan Committee Meeting.

Bunnell, D. B., C. P. Madenjian, J. D. Holuszko, T. J. Desorcie, and J. V. Adams. 2011. Status and trends of prey fish populations in Lake Michigan, 2010. Report distributed at the 2011 Annual Lake Michigan Committee Meeting.

Madenjian, C. P., B. Breidert, C. Bronte, R. Gordon, S. Hansen, D. Hanson, M. Holey, T. Treska, J. Jonas, S. Lenart, A. Martell, P. McKee, E. Olsen, P. Peeters, S. Robillard, and G. Wright. 2011. Lake Michigan Lake Trout Working Group report. Report distributed at the 2011 Annual Lake Michigan Committee Meeting.

Claramunt, R. M., B. Breidert, D. F. Clapp, R. F. Elliott, C. P. Madenjian, P. Peeters, S. R. Robillard, D. M. Warner, and G. Wright. 2011. Status of salmonines in Lake Michigan in 2010: a report from the Salmoind Working Group. Report distributed at the 2011 Annual Lake Michigan Committee Meeting.

Madenjian, C. P., D. B. Bunnell, T. J. Desorcie, M. A. Chriscinske, M. J. Kostich, and J. V. Adams. 2012. Status and trends of prey fish populations in Lake Michigan, 2011. Report distributed at the 2012 Annual Lake Michigan Committee Meeting.

Madenjian, C. P., B. Breidert, C. Bronte, K. Donner, R. Gordon, S. Hansen, D. Hanson, M. Holey, T. Treska, J. Jonas, M. Holtgren, P. McKee, E. Olsen, P. Peeters, S. Robillard, and G. Wright. 2012. Lake Michigan Lake Trout Working Group report. Report distributed at the 2012 Annual Lake Michigan Committee Meeting.

Bence, J. R., N. E. Dobiesz, C. P. Madenjian, R. Argyle, R. Barbiero, J. N. Bowlby, R. M. Claramunt, R. O'Gorman, and T. Schaner. 2008. Top-down effects of open-water salmonine predators in the Great Lakes. Quantitative Fisheries Center Technical Report T2008-07. Michigan State University.

Claramunt, R. M., D. M. Warner, C. P. Madenjian, T. J. Treska, and D. Hanson. 2012. Offshore salmonine food web. *In* The state of Lake Michigan in 2011. *Edited by* D. B. Bunnell. Great Lakes Fish. Comm. Spec. Pub. 12-01, pp. 13-23.

Bunnell, D. B., C. P. Madenjian, T. J. Desorcie, M. J. Kostich, K. R. Smith, and J. V. Adams. 2013. Status and trends of prey fish populations in Lake Michigan, 2012. Report distributed at the 2013 Annual Lake Michigan Committee Meeting.

Madenjian, C. P., B. Breidert, C. Bronte, K. Donner, R. Gordon, D. Boyarski, D. Hanson, M. Holey, M. Holtgren, J. Jonas, E. Olsen, S. Robillard, T. Treska, and G. Wright. 2013. Lake Michigan Lake Trout Working Group report.

Report distributed at the 2013 Annual Lake Michigan Committee Meeting.

Madenjian, C. P., D. B. Bunnell, T. J. Desorcie, M. J. Kostich, P. M. Armenio, and J. V. Adams. 2014. Status and trends of prey fish populations in Lake Michigan, 2013. Report distributed at the 2014 Annual Lake Michigan Committee Meeting.

Madenjian, C. P., D. Boyarski, B. Breidert, C. Bronte, B. Dickinson, K. Donner, M. Ebener, R. Gordon, D. Hanson, M. Holey, J. Jonas, E. Olsen, S. Robillard, T. Treska, M. Williams, and G. Wright. 2014. Lake Michigan Lake Trout Working Group report. Report distributed at the 2014 Annual Lake Michigan Committee Meeting.

Bunnell, D. B., C. P. Madenjian, T. J. Desorcie, M. J. Kostich, W. Woelmer, and J. V. Adams. 2015. Status and trends of prey fish populations in Lake Michigan, 2014. Report distributed at the 2015 Annual Lake Michigan Committee Meeting.

Madenjian, C. P., D. Boyarski, B. Breidert, C. Bronte, B. Dickinson, K. Donner, M. Ebener, R. Gordon, D. Hanson, M. Holey, J. Jonas, E. Olsen, S. Robillard, T. Treska, B. Weldon, and G. Wright. 2015. Lake Michigan Lake Trout Working Group report. Report distributed at the 2015 Annual Lake Michigan Committee Meeting.

Madenjian, C. P., D. B. Bunnell, T. J. Desorcie, M. J. Kostich, M. A. Chriscinske, and J. V. Adams. 2016. Status and trends of prey fish populations in Lake Michigan, 2015. Report distributed at the 2016 Annual Lake Michigan Committee Meeting.

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Journal Articles and Book Chapters

Madenjian, C. P., and D. J. Jude. 1983. Error bounds for estimates of entrained ichthyoplankton. *Canadian Journal of Fisheries and Aquatic Sciences* 40:10-16.

Madenjian, C. P., and D. J. Jude. 1985. Comparison of sleds versus plankton nets for sampling fish larvae and eggs. *Hydrobiologia* 124:275-281.

Madenjian, C. P., D. J. Jude, and F. J. Tesar. 1986. Intervention analysis of power plant impact on fish populations. *Canadian Journal of Fisheries and Aquatic Sciences* 43:819-829.

Madenjian, C. P., G. L. Rogers, and A. W. Fast. 1987. Predicting night time dissolved oxygen loss in prawn ponds of Hawaii: Part I. Evaluation of traditional methods. *Aquacultural Engineering* 6:191-208.

Madenjian, C. P., G. L. Rogers, and A. W. Fast. 1987. Predicting night time dissolved oxygen loss in prawn ponds of Hawaii: Part II. A new method. *Aquacultural Engineering* 6:209-225.

Madenjian, C. P., G. L. Rogers, and A. W. Fast. 1988. Predicting nighttime dissolved oxygen loss in aquaculture ponds. *Canadian Journal of Fisheries and Aquatic Sciences* 45:1842-1847.

Madenjian, C. P., G. L. Rogers, and A. W. Fast. 1990. Estimation of whole pond respiration rate. *Canadian Journal Fisheries and Aquatic Sciences* 47:682-686.

Madenjian, C. P. 1990. Patterns of oxygen production and consumption in intensively managed marine shrimp ponds. *Aquaculture and Fisheries Management* 21:407-417.

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- Fast, A. W., F. M. D'Itri, D. K. Barclay, S. A. Katase, and C. P. Madenjian. 1990. Heavy metal content of coho (*Oncorhynchus kisutch*) and chinook salmon (*O. tshawytscha*) reared in deep upwelled ocean waters in Hawaii. *Journal of the World Aquaculture Society* 21:271-276.
- Rogers, G. L., C. P. Madenjian, and A. W. Fast. 1991. Estimation of oxygen transfer rates for mechanical aerators in brackishwater aquaculture ponds. *Journal of Applied Aquaculture* 1:63-77.
- Madenjian, C. P., and S. R. Carpenter. 1991. Individual-based model for growth of young-of-the-year walleye: a piece of the recruitment puzzle. *Ecological Applications* 1:268-279.
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REFERENCES

Michael J. Hansen
Professor
University of Wisconsin - Stevens Point
174 College of Natural Resources
Stevens Point, Wisconsin 54481
(715) 346-3420
mhansen@uwsp.edu

James F. Kitchell
Professor
Center for Limnology
University of Wisconsin
Madison, Wisconsin 53706
(608) 262-7259
kitchell@wisc.edu

Stephen R. Carpenter
Professor
Center for Limnology
University of Wisconsin
Madison, Wisconsin 53706
(608) 262-8690
srcarpen@wisc.edu

William Creal
Water Bureau Chief
Michigan Department of Natural Resources and Environment
Lansing, Michigan 48909
(517) 335-4176
crealw@michigan.gov

Edward S. Rutherford
Research Fishery Biologist
NOAA Great Lakes Environmental Research Laboratory
Ann Arbor, Michigan 48108
(734) 741-2118
ed.rutherford@noaa.gov

Brett M. Johnson
Professor
Department of Fishery and Wildlife Biology
Colorado State University
Fort Collins, Colorado 80523
(970) 491-5002
brett.johnson@colostate.edu

Brian Breidert
Leader
Lake Michigan Fisheries Program
Indiana Department of Natural Resources
Michigan City, Indiana 46360
(219) 874-6824
bbreidert@dnr.in.gov

Peter Cott
Environmental Monitoring Specialist
Government of the Northwest Territories
Yellowknife, Northwest Territories
X1A 2L9, Canada
(867) 920-6352
cott@ualberta.ca