

DORAN M. MASON, PHD

Curriculum Vitae

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EDUCATION

- Ph.D. Univ. of Maryland, College Park, MD - 1994- Marine Estuarine Environmental Science (Chesapeake Biological Laboratory). Dissertation: *Spatial Models of the Distribution, Foraging and Growth of Pelagic Fishes.*
- MS State University of New York, College of Environmental Science and Forestry, Syracuse, NY - 1989 - Environmental Science. Thesis: *Influence of Predation by Alevines (*Alosa pseudoharengus*) on the Survival of Larval Yellow Perch (*Perca flavescens*) in a Lake Ontario Embayment.*
- BS Michigan State University, East Lansing, MI - 1983 - Fisheries

DISCIPLINE

Quantitative Marine and Coastal Ecology - Community and food web dynamics, predator-prey interactions, anthropogenic impacts on food webs, biophysical coupling, habitat and habitat mediated interactions, recruitment dynamics, hydroacoustics/bioacoustics

PROFESSIONAL EXPERIENCE

- 2015 **Deputy Director, Acting (Feb-Aug)**, National Oceanic Atmospheric Administration-Great Lakes Environmental Research Lab, Ann Arbor, MI
- 2011-Present **Research Ecologist**, National Oceanic Atmospheric Administration-Great Lakes Environmental Research Laboratory, Ann Arbor, MI
- 2008-2011 **Director Science Division**, National Oceanic Atmospheric Administration, Great Lakes Environmental Research Laboratory, Ann Arbor, MI
- 2006-2008 **Science Branch Chief/Task Leader- Ecological Prediction**, National Oceanic Atmospheric Administration, Great Lakes Environmental Research Laboratory, Ann Arbor, MI
- 2007 **Deputy Director, Acting (Jan-Mar)**, National Oceanic Atmospheric Administration, Great Lakes Environmental Research Lab, Ann Arbor, MI
- 2004-2006 **Research Ecologist**, National Oceanic Atmospheric Administration, Atlantic Oceanographic Meteorological Laboratory, Miami, FL
- 2000-2004 **Research Ecologist**, National Oceanic Atmospheric Administration-Great Lakes Environmental Research Laboratory, Ann Arbor, MI
- 1997-2000 **Assistant Professor of Fisheries and Aquatic Science**, Dept. of Forestry and Natural Resources, Purdue University, West Lafayette, IN
- 1994-1997 **Post-Doctorate**, Center for Limnology, Univ. of Wisconsin, Madison, WI

JOINT APPOINTMENTS

- 2003-Present **Courtesy Associate Professor**, Dept. Fisheries and Aquatic Sciences, University of Florida, Gainesville, FL.

- 2000-Present **Adjunct Assistant Professor and Graduate Faculty**, Dept. Fisheries and Wildlife, Michigan State University, East Lansing, MI
- 2000-Present **Adjunct Assistant Professor**, School of Natural Resource and Environment, University of Michigan, Ann Arbor, MI
- 1994-1999 **Affiliated Scientist**, Prince William Sound Science Center, Cordova, Alaska

HONORS, AWARDS, AND SPECIAL ACCOMPLISHMENTS

- Chandler-Misener Award for the best paper published in the Journal of Great Lakes Research in 2014. Scavia, D., J.D. Allen, K.K. Arend, S. Bartell, D. Beletsky, N.S. Bosh, S.B. Brandt, R.D. Briland, I. Daloglu, J.V. DePinto, D.M. Dolan, M.A. Evans, T.M. Farmer, D. Goto, H. Han, T.O. Hook, R. Knight, S.A. Ludsin, D.M. Mason, A.M. Michalak, R.P. Richards, J.J. Roberts, D.K. Rucinski, E. Rutherford, D.J. Schwab, T.M. Sesterhenn, H. Zhang, Y. Zhou. 2014. Assessing and addressing the re-eutrophication of Lake Erie: Central Basin Hypoxia. International Journal of Great Lakes Research 40(2): 226-246.
- Chandler-Misener Award for the best paper published in the Journal of Great Lakes Research in 2007. “Beletsky, D., D.M. Mason, D. Schwab, E. Rutherford, and J. Janssen. 2007. Biophysical model of larval yellow perch advection and settlement in Lake Michigan. Journal of Great Lakes Research 33:842-866.”
- Quality Step Increase 2005, NOAA Great Lakes Environmental Research Laboratory
- Leadership and Initiative Award 2003, NOAA Great Lakes Environmental Research Laboratory
- Team Award 2002- Recognition of leadership associated with developing coordinated and collaborative research programs, NOAA Great Lakes Environmental Research Laboratory
- Quality Step Increase 2002, NOAA Great Lakes Environmental Research Laboratory
- Leadership and Initiative Award 2001, NOAA Great Lakes Environmental Research Laboratory
- Scientific Productivity Award 2001, NOAA Great Lakes Environmental Research Laboratory
- Scientific Productivity Award 2000, NOAA Great Lakes Environmental Research Laboratory
- NSF Fellowship, June-July 1991, to attend summer course/workshop on "Patch dynamics in Terrestrial, Marine, and Freshwater Ecosystems", at Cornell University
- Fellowship, University of Maryland, Chesapeake Biological Laboratory, 1989-1991.
- Scholarship, July 1989, to attend Hydroacoustics Short Course. Sponsored by BioSonics, Inc.
- Best Paper Award, 3rd Annual Meeting of the Tide Water Chapter of the American Fisheries Society, Solomons, MD, January 1989
- Best Student Paper Award (runner-up), 30th Conference of the International Association for Great Lakes Research, University of Michigan, Ann Arbor, MI, May 1987

LEADERSHIP/PROFESSIONAL SERVICE/RESPONSIBILITY

- GLERL Science Council (2006-present)
- GLERL Management Council (2006-2011, 2015)
- GLERL Partnership- management on union (2006-2011, 2015)
- GLERL Policy Committee (2008-2013)
- NOAA OAR Charter Fund Panel (2009-2011)
- Management Council, Cooperative Institute for Limnology and Ecosystems Research (CILER), NOAA and University of Michigan Cooperative Institute (2011-Present)
- Cooperative Institute for Limnology and Ecosystem Research, Program Manager (2011-present)

- Program Manager- Great Lakes Ecosystem Forecasting. Funding Opportunity: OAR-GLERL-2007-2000905 (2007)
- Council of Fellows (Ecosystems), Cooperate Institute for Climate and Ocean Research (CICOR), NOAA and Woods Hole Oceanographic Institute Cooperative Institute (2006-2008).
- Member of the NOAA Southern Region Collaboration Team (2006-2008)
- Member of the SIMOR (Subcommittee on Integrated Management of Ocean Resources) workgroup on Executive Technical Qualifications for Ecosystem Managers of Ocean and Coastal Programs (2006-2007).
- Committee to update NOAA's 5 year Research Plan 2007-2011- Ecosystems Chapter
- Participant in NOAA Ecosystem Goal Team Workshop, March 23-24, 2006, Silver Spring, MD. Defining Ecosystem Approach to Management.
- NOAA representative on the South East/Gulf of Mexico Aquatic Nuisance Species Task Force (2005-2006).
- Research Adviser to National Research Council Research Associateship Program (2002-Present)
- Council of Fellows, Cooperative Institute for Limnology and Ecosystems Research (CILER), NOAA and University of Michigan Cooperative Institute (2002-2011)
- International Association for Great Lakes Research, Board of Directors (2000-2004), Past President (2003-2004), President (2002-2003), Vice-President (2001-2002), Chair Conference Committee (2000-2002)
- Great Lakes Fishery Commission (Binational- US and Canada), Board of Technical Experts (2000-2006). Theme Co-lead on invasive species and food web disruption science.

EDITORIAL BOARD

- Journal of Aquatic Biosystems (2011-2013)
- Journal of Experimental Marine Biology and Ecology, Special issue on Hypoxia (2009)
- Journal of Great Lakes Research (2000-2003)
- Canadian Journal of Fisheries and Aquatic Sciences (1999-2002)
- Transactions of the American Fisheries Society (1998-1999)

PEER REVIEW- SCIENTIFIC MANUSCRIPTS

Marine and Coastal Fisheries, Canadian Journal of Fisheries and Aquatic Sciences; Ecology; Estuaries and Coasts, Journal of Deep-Sea Research PT II: Topical Studies in Oceanography; Journal of Fish Biology, Journal of Great Lakes Research; Journal of Marine Research; Limnology and Oceanography; Sarsia: Nordic Journal of Marine Science; Transactions of the American Fisheries Society; Environmental Biology of Fishes; North American Journal of Fisheries Management; Reviews in Fish Biology and Fisheries; Advances in Limnology (Archiv fur Hydrobiologie)

PEER REVIEW- PROPOSALS

Great Lakes Restoration Initiative, NOAA/NOS/CSCOR, NOAA Habitat Restoration Program Projects, National Science Foundation, National Science Foundation/Coastal Oceans Program, National Sciences and Engineering Research Council of Canada, National Sea Grant, National Undersea Research Program, Alaska Sea Grant, Florida Sea Grant Program, University of Wisconsin Sea Grant, Maryland Sea Grant, Michigan Sea Grant, Minnesota Sea Grant, Mississippi-Alabama Sea Grant Consortium, New York Sea Grant, Great Lakes Fishery Trust, Great Lakes Research

Consortium, U.S. Civilian Research & Development Foundation, Saltonstall-Kennedy Competitive Grant Program, University of Michigan Water Center, Cooperative Institute (CILER)

REVIEW PANELS

National review panel for NOAA/NOS/CSCOR Ocean Acidification and Hypoxia RFP (Jan 2015), Review panel for the Aquatic Nuisance Species (ANS) National Sea Grant Program- Pre-Proposals for Great Lakes and the Gulf of Mexico Regions, Sept. 2006; Review panel for the Aquatic Nuisance Species (ANS) National Sea Grant Program- Full Proposals, Sept. 2004; USGS Science Center Strategic review panel (Great Lakes Science Center), February 23-27, 2004; Review panel for the Aquatic Nuisance Species (ANS) National Sea Grant Program, March 2002; Review panel for Lake Champlain Sea Grant Program, Grants award. December 2000

COMMITTEES

Performance Management Advisory Committee (PMAC, 2006-2011, 2015), Science Council (NOAA-GLERL; Strategic science planning and development, (2003-2005); Task Leader- Ecological Forecasting (NOAA-GLERL, 2004-Present); International Lake Ontario-St. Lawrence River Study of the International Joint Committee (IJC)- member of the Wetland/Environmental Technical Work Group (2001); Computer Committee (NOAA-GLERL, 2001-2003), Library Committee (NOAA-GLERL, 2001-2003), Technological Research for an Environmental Observatory System Committee (NOAA-GLERL, 2001-Present), Equipment Committee (NOAA-GLERL, 2000-Present), Yellow Perch Task Group of the Great Lakes Fisheries Commission (1998-2004); Liaison to the Lake Superior Technical Committee (1996-2000); Faculty Screening and Search Committee (Purdue University, 1999-2000), Curriculum committee (Purdue University 1998-2000), Equipment Committee Chair (Purdue University 1998-2000); Campus Grievance Committee (Purdue University 1998-99), Building Development Committee (Purdue University 1998-99), Student Awards Committee (Purdue University 1998-99); Computer Committee (Center for Limnology 1994-1997); Computer Committee Chair (Center for Limnology 1994-1995); Student Representative Computer Committee (Chesapeake Biological Laboratory 1992-1994); Computer Administrator Search Committee (Chesapeake Biological Laboratory 1993)

NOAA (NATIONAL) COMMITTEES

- NOAA Habitat Science and Ecological Forecasting Technical Team (2015-present)
- Ecological Forecasting Road Map- Habitat and Species Distribution Technical Team (2014-present)
- NOAA Southern Region Group (Gulf of Mexico)
- SIMOR Subcommittee on Integrated Management of Ocean Resources Working Group- Ecosystem Science Executive Technical Qualification (2006-2007)

NOAA (REGIONAL) COMMITTEES

- NOAA Habitat Blueprint Executive Council for Muskegon Lake-Lake Michigan (2014-present)

STEERING COMMITTEES

- Lake Physics and Fish Recruitment, Series of workshops sponsored by the Great Lakes Fishery Commission (2011-2012) to define a new research theme.
- Thiamine Deficiency Complex, Series of workshops sponsored by USGS-BRD Great Lakes Science Ctr. (2003-2004)

- Salmonid Communities in Oligotrophic Lakes II (SCOL II), series of 4 workshops sponsored by the Great Lakes Fisheries Commission (2000-2004)

COMPLETED GRADUATE STUDENTS

- Doctor of Philosophy:
Damon Krueger. 2010. Food Web Constraints on Chinook Salmon Recruitment in a Large Lake Michigan Tributary. University of Michigan.
Anne Krause. 2004. The Role of Compartments in Food-web Structure and Changes Following the Biological Invasions in Southeast Lake Michigan. Michigan State University.
- Masters of Science:
Andrea Jaeger. 2006. Invasive species impacts on ecosystem structure and function. Michigan State University.
Jeremy Price. 2005. Evaluation of fixed location, riverine, hydroacoustics for enumerating out-migrating chinook salmon smolts. Michigan State University.
Matthew Balge. 2003. Spatio-Temporal Dynamics of Yellow Perch- Implications for Yellow Perch Recruitment Alewife Interactions in Lake Michigan. Michigan State University.

GRADUATE ADVISORY COMMITTEES

- Masters of Science: Brain Nagy (West Virginia University); Tom Braile (Purdue University)
- Doctor of Philosophy: Andrea Jaeger (Michigan State University), Jud Kratzer (Michigan State University), Bob Foy (University of Alaska); Amy Sheaffer (Purdue University)

POST-DOCTORAL

- Aaron Adamack, Hongyan Zhang, Lori Ivan, Andrea Vander Woude, Yoonkung Cha

TEACHING

- Hydroacoustics Workshop- Plattsburgh, NY (April 10, 2001)
- Marine Biology (Purdue University, spring: 2000)
- Fisheries Science and Management (Purdue University, spring: 1997-2000)
- Summer Practicum: Aquatic Field Techniques (Purdue University, May-June: 1998-1999)

Outreach and Education

- Professors in the Class Room (1997-2000)
- National Ocean Science Bowl (2010-2015)
- Washtenaw Elementary Science Olympiad (2010-2014)
- Contribution to numerous outreach and information brochures on food webs and invasive species (<http://www.glerl.noaa.gov/pubs/brochures/broch.html>)

ORGANIZED SYMPOSIA/CONFERENCE SESSIONS/SESSION CHAIR

- Coupled interactions between natural and human systems – on the interplay between aquatic ecosystem health, human behavior and decision-making, and aquatic invasive species. 146th American Fisheries Society meeting, Kansas City, Missouri, August 21-25, 2016.

- Soundscapes and Chemoscapes: Insight into the Function, Health, Management, and Restoration of Coral Reef Ecosystems. 13th International Coral Reef Symposium, HAWAII, 19-24 June, 2016.
- Theory and Application of Soundscape in Freshwater, Estuarine, and Marine Ecosystems. Summer ASLO (Association for the Sciences of Limnology and Oceanography). Santa Fe, NM, June 5-10, 2016.
- Advances in understanding the impacts of aquatic invasions: Integrating knowledge from freshwater to marine systems. 2014 Aquatic Sciences meeting (JASM), Portland, OR, May 18-23, 2014.
- Climate Variability and its Impacts on Environmental and Ecosystems in the Great Lakes Region. 52nd Annual Conference on Great Lakes Research, International Association of Great Lakes Research. Toledo, OH May 18-22, 2009.
- Alien Fish or Catch of the Day? 14th International Conference on Aquatic Invasive Species. Key Biscayne FL. May 14-19, 2006.
- Physical and Biological Coupling in the Great Lakes. 48th Annual Conference on Great Lakes Research, International Association of Great Lakes Research. Ann Arbor, MI May 23-27, 2005.
- Hydroacoustics and Forage Fish Assessment. 48th Annual Conference on Great Lakes Research, International Association of Great Lakes Research. Ann Arbor, MI May 23-27, 2005.
- Invasive Species: A Global Threat to Large Lakes. 46th Annual Conference on Great Lakes Research, International Association of Great Lakes Research. Chicago, IL. June 2003.
- Fisheries and Food Webs. 44th Annual Conference on Great Lakes Research, International Association of Great Lakes Research, University of Wisconsin at Green Bay, Wisconsin, WI June 10-14, 2001
- Marine Fish Ecology (Session moderator). Southeastern Division of the American Fisheries Society, Jacksonville, FL, Feb 24-25, 2001
- Space, Time and Scale: New Perspectives in Fish Ecology and Management (Co-Chair - Stephen B. Brandt) National American Fisheries Society, Monterey, California, August 1997.
- Models from Individuals to Ecosystems: Exploring Ecological and Fisheries Issues in the Great Lakes (Co-Chair - Kyle Hartman) 40th Annual Conference on Great Lakes Research, International Association of Great Lakes Research, SUNY College at Buffalo, Buffalo, New York, May 1997.
- Data Visualization and Satellite Observations of Water Color in the Great Lakes (Co-Chair - Barry Lesht) 39th Annual Conference on Great Lakes Research, International Association of Great Lakes Research, Erindale College, University of Toronto, Toronto, Canada, May 1996

ORGANIZED WORKSHOPS

- NOAA OAR-NMFS Modeling uncertainty workshop. April 13-15, 2015. NOAA sponsored workshop (Co-organizer). NOAA Great Lakes Environmental Research Laboratory.

- Lake Michigan – Muskegon lake Connectivity Workshop II: Stakeholder Needs. November 13, 2014. (Co-organizer – Allan Steinman Annis Water Resources Institute Grand Valley State University).
- Lake Michigan – Muskegon lake Connectivity Workshop I: Science Needs. April 28-29, 2014. (Co-organizer – Allan Steinman Annis Water Resources Institute Grand Valley State University).
- Study group of fisheries acoustics in the Great Lakes. Series of workshops to develop Standard Operating Procedures for fisheries acoustics, 2002-2005. (Co-organizer- Lars Rudstam Cornell University). Sponsor: Great Lakes Fisheries Commission. Workshop I- January 2003. Workshop II May 2003, Workshop III February 2004. (*International*)
- Exotic invertebrates, food-web disruption, and lost fish production: understanding impacts of dreissenid and cladocerans invaders on lower lakes fish communities and forecasting invasion impacts on upper lakes fish communities (Co-organizer – Brian Shuter, University of Toronto). Sponsor: Great Lakes Fishery Commission, Great Lakes Fishery Trust, Ohio Sea Grant. 2000. University of Toronto, Ontario, Canada. *One workshop/year: 2000-2005. Workshop objectives to coordinate research among investigators and keep partners informed of new research directions. (International)*
- Great Lakes Acoustics Workshop IV: Inter-Calibration of Scientific Echosounders in the Great Lakes. (Co-organizer: Ted Schaner, Ontario Ministry of Natural Resources). Sponsor: Great Lakes Fishery Commission. Oct 24-27, 2000. Burlington, VT. (*International*)

PROFESSIONAL SOCIETIES

- American Association for the Advancement of Science
- American Fisheries Society
- Ecological Society of America
- International Association of Great Lakes Research

CONTRACTS AND GRANTS PENDING

1. Operational Lake Erie Hypoxia Forecasting for Public Water Systems Decision Support. NOAA CSCOR 2017-2021, \$1,943,520.

CONTRACTS AND GRANTS (~\$9.5 MILLION SINCE 1998)

1. Bioeconomic impacts of aquatic invasive species in Lake Michigan. Great Lakes Fishery Trust. With David Finnoff (Univ Wyoming), Hongyan Zhang (CILER), Ed Rutherford (GLERL), Frank Lupi (Mich State Univ). 2016-2018.
2. A Coupled Physical-Biological Model to Forecast Larval Yellow Perch Distributions, Growth Rates, and Potential Recruitment in Lake Erie. Great Lakes Fishery Commission. With X. Xia (CILER, UM), K. Prangle (OSU), S. Ludsin (OSU), E. Rutherford (GLERL), D.M. Mason (GLERL), and M. Wiley (UM). 2011-2013. \$199,699.
3. GLRI- Assessing risk of Asian carp invasion and impacts on Great Lakes food webs and fisheries. Ed Rutherford, Doran M. Mason, Hongyan Zhang, Aaron Adamack. 2011-2015. \$711,173.
4. GLRI- Identify Land Use Tipping Points That Threaten Great Lakes Ecosystems. Great Lakes Restoration Initiative (GLRI). Doran M. Mason, Edward Rutherford (GLERL), Joan Rose (MSU FW), Brian Miller (Univ Illinois), and Bryan Pijanowski (Purdue Univ). \$389,000 (yr 2)

5. GLRI- Identify Land Use Tipping Points That Threaten Great Lakes Ecosystems. Great Lakes Restoration Initiative (GLRI). Doran M. Mason, Edward Rutherford (GLERL), Joan Rose (MSU FW), Brian Miller (Univ Illinois), and Bryan Pijanowski (Purdue Univ). \$500,000 (yr 1)
6. NGOMEX: The Effects and Impacts of Hypoxia on Production Potential of Ecologically and Commercially Important Living Resources in the Northern Gulf of Mexico. NOAA/NOS/CSCOR. With Mike Roman and James Pierson (Univ Maryland), Stephen B. Brandt (Oregon State Univ), James Cowan (Louisiana State Univ), Shaye Sable (Louisiana Dept of Fisheries and Wildlife), Aaron Adamack (Univ Michigan/CILER), Fredrick Sutter (NOAA NMFS SE Regional Office). 2009-2013. \$1,464,820.
7. Nonconsumptive predator effects in a pelagic community: an integrated laboratory, field and modeling approach. With Scott Peacor (MSU, Lead PI). 2008-2012. National Science Foundation. \$464,704.
8. Advanced Ecosystem Forecasting Tools: the integration of fisheries acoustics into fixed platform observing systems for real-time measures of fish abundances. With Steven A. Ruberg, and Stephen B. Brandt, James C. Hendee, Asa Packer and James Dawson, David A. Score, Jonathan S. Fajans. NOAA/OAR AA Discretionary Funds \$131,483
9. Advanced networking for coastal observations. With Steve Ruberg (GLERL, Lead PI) and Steve Brandt (GLERL). 2008-2009. NOAA High Performance Computing and Communications Program. \$151,863.
10. Development of Fisheries Independent, Habitat-Based Indices of Abundance for Pre-Reproductive Gag Grouper in the Northeastern Gulf of Mexico. 2007-2010. Submitted to: NOAA MARFIN. PIs: William Lindberg (Lead)-UFL, Stanley D. Locker, Mary C. Christman, Debra J. Murie-UFL, Albert C. Hine, Robert A. Swett-UFL, Doran M. Mason-GLERL, Thomas K. Frazer-UFL, Thomas H. Greenhalgh. \$298K
11. Temperature and Salinity Affects on the Growth and Survival of Juvenile Penaeid Shrimps: Implications for the Influence of River Diversions on Production. \$424,000. 2006-2008. With Lawrence Rozas (Lead PI, NOAA Fisheries Service), Thomas Minello (NOAA Fisheries Service).
12. GOMEX 2006- Spatially-explicit, high resolution mapping and modeling to quantify hypoxia effects on the living resources of the northern Gulf of Mexico. 1,462,729. 2006-2009. With Stephen Brandt (Lead PI) and Stuart Ludsin (NOAA GLERL), Michael Roman, William Boicourt, & David Kimmel (U. of Maryland); Frank Jochem (Florida International U), Peter Lavrentyev (U. of Akron).
13. River Discharge as a predictor of Lake Erie yellow perch recruitment. \$347,583. Great Lakes Fishery Commission. 2006-2010. With Stuart Ludsin (Lead PI), Henry Vanderploeg, George Leshkevich (GLERL), Tomas Höök (CILER), Brian Fryer & Daniel Heath: (U. Windsor), Timothy Johnson (OMNR), David (Bo) Bunnell (USGS-GLSC), Jeff Tyson (ODNR-DOW), and Christine Mayer (Lake Erie Center, U of Toledo)
14. Habitat Selection and the Performance of Gag Grouper Across a Range of Hard-Bottom Habitat in the Northeastern Gulf of Mexico. \$294,301. MARFIN National Marine Fisheries Service. 2004-2007. With William J. Lindberg, Tom Fraser, and Debra Murie (University of Florida).

15. Study group on fisheries acoustics in the Great Lakes. \$60,289. Great Lakes Fishery Commission. 2002-2005. With Lars Rudstam (Cornell University)
16. Quantifying the impact of exotic invertebrate invaders on food web structure and function in the Great Lakes: A network analysis approach. Great Lakes Fishery Commission, 2002-2005. \$185,151. With Robert E. Ulanowicz (Chesapeake Biological Lab, Univ Maryland) and Ann Krause (PhD student, Michigan State Univ).
17. Bioenergetics response of gag grouper to reef habitat configuration. University of Florida Sea Grant, 2002-2004. \$140,000. With W.J. Lindberg (Univ Florida), D.J. Murie (Univ. Florida).
18. Modeling the influence of lake circulation patterns, upwelling events and turbulence on fish recruitment variability in Lake Michigan. Great Lakes Fishery Trust, 2002-2005. \$350,419. With Dmitry Beletsky (University of Michigan), David Schwab (NOAA Great Lakes Environmental Research Laboratory), Edward Rutherford (University of Michigan), and John Janssen (University of Wisconsin).
19. Development of a hindcast-forecast alewife fall condition model from weather information and 1-D thermodynamics model. NOAA Great Lakes Environmental Research Laboratory, summer 2001. \$5,000. With C. Madenjian (USGS-BRD), T. Croley II (NOAA/GLERL)
20. Role of upwelling events in the recruitment dynamics of alewife. NOAA Great Lakes Environmental Research Laboratory, summer 2001. \$5,000. With George Leshkevich, Mike McCormick, David Schwab (NOAA/GLERL).
21. Dynamics of Alewife Recruitment Variability in Lake Michigan. Great Lakes Fishery Trust, 2001-2004. \$360,000. With E. Rutherford (UM), C. Madenjian (USGS-BRD), W. Patterson (Syracuse Univ).
22. Development of a lake-wide acoustics monitoring program for Lake Superior pelagic fishes, phase I: *In situ* relations of target strength to fish size and target classification. Great Lakes Fish and Wildlife Restoration Act, Great Lakes Fishery Commission, 2001-2003. \$61,900. With M. Hoff (USGS-BRD)
23. Environmental Protection Agency-Great Lakes National Program Office. 10th International Conference on the Conservation and Management of Lakes, June 2003. Wrote and submitted proposal on behalf of IAGLR as Chair of the Conference Committee and member of the Board of Directors in support of the 2003 joint international conference with ILEC (International Lakes and Environment Committee. \$30,000. Followed by a \$10,000 supplement.
24. Effects of microhabitat and macrohabitat characteristics on the distribution and movement of young-of-year fish in wetlands of Saginaw Bay, Lake Huron. Cooperative Institute for Limnology and Ecosystem Research (CILER) Scientific Enhancement Program, Joint Investigator Pilot Project, summer 2000. \$9,100. With T.G. Coon and S.A. Johnson (Michigan State Univ)
25. Development and assessment of spatially explicit models of salmonid distributions in Lake Michigan. Cooperative Institute for Limnology and Ecosystem Research (CILER) Scientific Enhancement Program, summer 2000. \$5,000. With T. Hood and E. Rutherford (Univ. Michigan)
26. Exotic invertebrates, food web disruption, and fishery upheaval: Understanding impacts of dreissenid and cladoceran invaders on lower-lakes fish communities and forecasting invasion

- impacts on upper lakes fish communities. Great Lakes Fishery Commission, 2000-2004. \$51,450. With B. Shuter (University of Toronto).
27. Habitat mediated predator-prey interactions: implications for sustainable production of gag grouper in the Eastern Gulf of Mexico. University of Florida Sea Grant, 2000-2002. \$153,900, with W.J. Lindberg (Univ Florida), D. Murie (Univ. Florida)
 28. Salmonid spawning stock abundance, recruitment and exploitation in the Muskegon River, Michigan. Great Lakes Fishery Trust, 1999-2002. \$316,000, With E. Rutherford (Univ Michigan)
 29. Mechanisms affecting recruitment of yellow perch in Lake Michigan. Great Lakes Fishery Trust, 1999-2002. \$360,000. With J. Dettmers (Illinois Natural History Survey), J. Janssen (Loyola Univ), D. Jude (Univ Michigan), S. McNaught (Central Michigan Univ)
 30. Constraints on growth of Lake Superior lake trout. Great Lakes Fishery Commission, Aug 1999 – June 2001. \$15,500. With Tim Johnson (Ontario Ministry of Natural Resources)
 31. Great Lakes Acoustics Workshop IV: Inter-Calibration of Scientific Echosounders of the Great Lakes. Great Lakes Fishery Commission, Aug 1999 – May 2001. \$14,500. With T. Schaner (Ontario Ministry of Natural Resources)
 32. Spatial distribution and overlap of alewives and larval yellow perch in Lake Michigan: implications for yellow perch recruitment. Illinois-Indiana Sea Grant College Program, 1998. \$12,000.
 33. Sustainability of the Lake Superior Fish Community: An Analysis of Opportunities and Constraints. University of Wisconsin Sea Grant, 1998-2000. \$287,000. With J.F. Kitchell (Univ Wisconsin)

REFERRED PUBLICATIONS

1. Krueger, D.M., E.S. Rutherford, D.M. Mason, and Y. Cha. Electronic Availability. Foraging ecology of walleye and brown trout in a Great Lakes tributary. *Journal of Great Lakes Research*. <http://www.sciencedirect.com/science/article/pii/S0380133015002142>.
2. Zhang, H. Rutherford, E.S. , Mason, D.M., Breck, J.T, Wittmann, M.E., Cooke, R.M., Lodge, D.M., Rothlisberger, J.D., Zhu, X., Johnson, T.B. 2016. Forecasting the impacts of silver and bighead carp on the Lake Erie food web. *Transactions of the American Fisheries Society*: 145(1): 136-162.
3. Vanderploeg, H.A., S.A. Pothoven, D. Krueger, D.M. Mason, J.R. Liebig, J.F. Cavaletto, S.A. Ruberg, G.A. Lang, R. Ptacnikova. 2015. Diel vertical migration and offshore-onshore differences in predatory interactions among indigenous zooplankton and visually preying nonindigenous zooplankton and fish in Lake Michigan. *Journal of Great Lakes Research*: 41(Supplement 3): 125-142.
4. Jiang, L. M. Xia, S.A. Ludsin. E.S. Rutherford, D.M. Mason, J. Marin Jarrin, and K.L. Prangle. 2015. Biophysical modeling assessment of the drivers for plankton dynamics in western Lake Erie. *Ecological Modeling*: 308: 18-33.
5. Niu, Q. M. Xia, E. Rutherford, D. Mason, E.J. Anderson, D.J. Schwab. 2015. Investigation of Inter-basin Exchange and Inter-annual Variability in Lake Erie: Using an Unstructured-grid

Hydrodynamic Model. *Journal of Geophysical Research-Oceans*: 120: 21 pp.
(DOI:10.1002/2014JC010457)

6. Cooke, R.M., M.E. Wittmann, J.D. Rothlisberger, D.M. Lodge, E.S. Rutherford, H. Zhang, D.M. Mason. 2014. Out-of-sample validation for structured expert judgment of Asian carp establishment in Lake Erie. *Integrated Environmental Assessment and Management* 10: 522-528.
7. Wittmann, M.E., R.M. Cooke, J.D. Rothlisberger, E.S. Rutherford, H. Zhang, D.M. Mason, D.M. Lodge. 2014. Use of structured expert judgement to forecast invasions by bighead and silver carp in Lake Erie. *Conservation Biology*. *Conservation Biology* 29: 187-197.
8. Zhang, H., D.M. Mason, C.A. Stow, A.T. Adamack, S.B. Brandt, Z. Zhang, D.G. Kimmel, M.R. Roman, W.C. Boicourt, and S.A. Ludsin. 2014. Effects of hypoxia on habitat quality of pelagic planktivorous fishes in the northern Gulf of Mexico. *Marine Ecology Progress Series* 505: 209-226.
9. Scavia, D., J.D. Allen, K.K. Arend, S. Bartell, D. Beletsky, N.S. Bosh, S.B. Brandt, R.D. Briland, I. Daloglu, J.V. DePinto, D.M. Dolan, M.A. Evans, T.M. Farmer, D. Goto, H. Han, T.O. Hook, R. Knight, S.A. Ludsin, D.M. Mason, A.M. Michalak, R.P. Richards, J.J. Roberts, D.K. Rucinski, E. Rutherford, D.J. Schwab, T.M. Sesterhenn, H. Zhang, Y. Zhou. 2014. Assessing and addressing the re-eutrophication of Lake Erie: Central Basin Hypoxia. *International Journal of Great Lakes Research*. 40(2): 226-246. (IAGLR Chandler-Misener Best Paper Award, 2015)
10. Krueger, D.M., E.S. Rutherford, and D.M. Mason. 2013. Modeling the influence of par predation by walleyes and brown trout on the long-term population dynamics of Chinook salmon in Lake Michigan: A stage matrix modeling approach. *Transactions of the American Fisheries Society* 142: 1101-1113.
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