

DONALD SCAVIA

University of Michigan
Ann Arbor, MI 48104
scavia@umich.edu

EDUCATION

Ph.D., Environmental Engineering, University of Michigan, 1980
MS, Environmental Engineering, Rensselaer Polytechnic Institute, 1974
BS, Environmental Engineering, Rensselaer Polytechnic Institute, 1973

EMPLOYMENT HISTORY

University of Michigan

Professor of Environment and Sustainability, University of Michigan (2004-present)
Professor of Environmental Engineering, University of Michigan (2009-present)
Graham Family Professor of Environmental Sustainability (2009-2016)
Special Counsel to U-M President for Sustainability (2009-2016)
Director, Graham Environmental Sustainability Institute (2009-2016)
Director, Michigan Sea Grant Program (2004-2009)
Director, NOAA Cooperative Institute for Limnology and Ecosystems Research (2005-2007)
Research Assoc. Dean, School of Natural Resources & Environment, UM (2004-2006)
Adjunct professor, Division of Biological Sciences, University of Michigan (1980-1990)

National Oceanic and Atmospheric Administration

Chief scientist, National Ocean Service (2002 - 2003)
Director, National Centers for Coastal Ocean Science (1998-2002)
Director, Coastal Ocean Program Office (1990 - 1998)
Visiting scientist, National Sea Grant College Program Office, (1987 - 1988)
Visiting scientist, Office of the Chief Scientist (1988 - 1990)
Research scientist, Great Lakes Environmental Research Lab, (1975 - 1990)

PUBLICATIONS

Authored over 200 papers in refereed journals, including *Proceedings of the National Academy of Science*, *Science*, *BioScience*, *Frontiers in Ecology and Environment*, *Limnology and Oceanography*, *Environmental Science & Technology*, *Oceanography*, *Canadian Journal of Fisheries and Aquatic Sciences*, *Estuaries and Coasts*, *Water Resources Research*, and *Ecological Modelling*.

Co-editor: *Ecological Modeling of Lake Ecosystems*, and *From the Corn Belt to the Gulf: Assessment of Alternative Agricultural Futures*.

OTHER POSITIONS

Scientific Society Journal Editor

Associate Editor, *Frontiers in Ecology and Environment*, ESA, 2002-2006
Associate Editor, *Estuaries and Coasts*, Estuarine Research Federation, 1998-2007.

Board of Directors/Trustee

Great Lakes Observing System Board of Directors, 2009-2013
Mpala Wildlife Conservancy Research Center, Trustee, 2011-2014
Secretary, International Association for Great Lakes Research, 1983-1986.
Board of Directors, American Society for Limnology and Oceanography, 1987-1990.

Advisory Boards

NAS Roundtable on Science and Technology for Sustainability, 2016-present

External Review Board, LA Center of Excellence, Water Institute of the Gulf, 2016-present
National Wildlife Federation Great Lakes Leaders Council, 2009 – present
Annis Water Resources Institute, Grand Valley State, 2007 - present
Technical Advisory Committee, Healing our Waters Great Lakes Coalition, 2006-present
Erb Institute for Global Sustainable Enterprise, University of Michigan, 2005 - 2016
North American Nitrogen Center, Cornell University, 2005-present
Environmental Law and Policy Center, 2010-2013
Risk Science Center, University of Michigan, 2010-2015
National Research Council Committee on Missouri River Recovery 2008-2010
CLEANER/WATERS Network Science Committee, National Science Foundation, 2005-2007
Central Michigan University Biological Station, 2008-2010
Graham Environmental Sustainability Institute, University of Michigan, 2005 – 2007
Key National Indicators Initiative Environment Domain Committee, 2004-2007
State of Nation’s Ecosystems, Design Committee, Heinz Center, 1993-2004
Science and Technology Advisory Committee, National Sea Grant College Program, 1995-2000
Cooperative Inst. for Coastal & Estuarine Environ. Technology, Univ. of NH, 1995-2000

Review Committee Membership

Georgia Sea Grant Program Review, 2015
Hawaii Sea Grant Program Review, 2014
EPA Science Advisory Board Panel to review the Great Lakes Restoration Initiative, 2012
NRC Panel to review Missouri River Sediment Planning, 2011
EPA Board of Scientific Counselors Subcommittee to Review EPA Fellowship programs, 2006
Review of Darren Freshwater Institute, Rensselaer Polytechnic Institute, 2005
NOAA Office of Satellite Data, Processing, and Distribution program review 2003
Ecosystem Based Fisheries Management, Marine Fisheries Advisory Committee, 2000-2004
Multi-scale Experimental Ecosystem Research Center, University of Maryland, 1997
New Jersey Sea Grant Program review, 1989
Puerto Rico Sea Grant Program review, 1988

Interagency, Intergovernmental, and Multi-sector Committees

Vice Chair, National Ocean Partnership Program Working Group, 1996-1999
Chair, Subcommittee on U.S. Coastal Ocean Science, NSTC/CENR
Co-Chair Ecosystem Work Group, NSTC/CENR
Co-Chair Subcommittee on Ecological Systems, CENR
Chair, Hypoxia Assessment Team, CENR
Co-Chair Coastal Research and Monitoring Team, Clean Water Action Plan
Co-Chair, USGCRP Coastal Assessment Team

HONORS AND AWARDS

Best Paper Award for *Journal of Great Lakes Research*, 2016
Certified Senior Ecologist, Ecological Society of America
Recognized as Extraordinary Commerce Employee, 2002
Department of Commerce Gold Medal, 2001
NOAA Administrator’s Award, 1989, 2003
Outstanding or Sustained Superior Performance Awards, 1977, 1981-82, 1984-2004
Best Paper Award for *Journal of Great Lakes Research*, 1987
Tau Beta Pi, University of Michigan, 1976
Draper High School Hall of Fame, 1992

STUDENT ADVISING

PostDocs: Awoke Teshager, Yao Hu, Rebecca Logsdon Muenich, Serghei Bocaniov, Isabella Bertani, Margaret Kalcic, Daniel Obenour, Ibrahim Alameddine, Kyung Hwa Cho, David Bidwell, Mary Anne Evans, Myriam Larose, Yong Liu

PhD Chair/co-Chair: Daniel Rucinski, Irem Daloglu, Daniel Obenour, James Roberts, Andrew Bell

Other PhD Committees: Yuntao Zhou, Jeremy Guest, Alanood Alkhaled (Civil and Environmental Engineering, U-M); Ling Cao, Haejin Han, Kendra Walker, Christine Kirchhoff (SNRE/U-M)

Masters: Yuntao Zhou, Emily Kelly, Emily Wilke, Erica Zontek, Brian Colleran, Ken Mori, Kristina Donnelly, Daniel Fishman, Gregory Jacobs, Julie Mida, Melissa Antokal, Caitlin Ryan, Ajay Varadharajan, Nagapooja Seeba, Chelsea Ransom, Rachel Fletcher, Alicia Ritzenthaler, Steven Rippberger, Daneil Gerding, Berry Kennedy, Makely Lyon, Joshua Rego, Emily Taylor

Undergraduate Honor Students: Carolyn Hwang, Jennifer Kullgren

MANAGED OVER \$110,000,000 IN GRANTS, CONTRACTS, GIFTS SINCE 2005

Graham Sustainability Institute (**Graham Foundation & U-M: \$40,000,000**) Principle Investigator

NERRS Collaborative Science Program (**NOAA: \$20,000,000**) Principle Investigator

Dow Sustainability Fellowship Program (**Dow Chemical Co.: \$10,000,000**) Principle Investigator

Science support for Great Lakes restoration (**Erb Foundation & U-M: \$9,000,000**) Principle Investigator

Water Sustainability and Climate (**NSF: \$5,000,000**) Co-Principle Investigator

Integrated Ecosystem Modeling of the Causes of Hypoxia (**NOAA: \$5,000,000**) Co-Investigator

Great Lakes Integrated Sciences and Assessment Center (**NOAA: \$4,200,000**) Principle Investigator

Providing Support for Watershed-based Policy and Management Decisions: Lake Erie and City of Detroit (**Erb Foundation: \$3,000,000**) Principle Investigator

Coastal SEES: Enhancing sustainability in coastal communities threatened by harmful algal blooms (**NSF: \$3,000,000**) Co-Investigator

Great Lakes Biological Surveillance (**EPA: \$2,500,000**) Principle Investigator

Watershed-Estuary-Species Nutrient Susceptibility (**NOAA: \$2,500,000**) Principle Investigator

Forecasting Causes/Impacts of Lake Erie Hypoxia (**NOAA: \$2,200,000**) Principle Investigator

Center for Ocean Science Education Excellence-Great Lakes (**NSF/NOAA: \$2,500,000**) Principle Investigator

Climate Change Education (**NSF: \$1,000,000**) Co-Investigator

Urban Climate Adaptation (**Kresge Foundation: \$600,000**) Co-Investigator

Building cohorts of Great Lakes Scientists (**NOAA & USGS: \$549,320**) Principle Investigator

Validating and expanding the Great Lakes adaptation data suite (**GLOS: \$392,916**) Principle Investigator

Phosphorus load response modeling for Lake Erie (**EPA/Environment Canada: \$308,018**) Principle Investigator

Informing coastal adaptation in future climates: valuation of harmful algal bloom impact on ecosystem services in Lake Erie (**NOAA: \$299,525**) Principle Investigator

Enhancing stakeholder awareness of and responses to extreme precipitation effects on Lake Erie (**NOAA: \$275,617**) Principle Investigator

Transitioning to Operations NOAA-Supported Models the Gulf of Mexico and Chesapeake Bay (NOAA: \$200,000) Principle Investigator

Engaging Farmers in Nutrient Management (EPA: \$50,000) Principle Investigator

How quickly can target phosphorus reductions be met? Robust predictions from multiple watershed and lake models. (Ohio Sea Grant: \$23,435) Co-Investigator

RESTOR Act Review Board (Water Center of the Gulf: \$12,400) Co-Principle Investigator

PEER-REVIEWED PUBLICATIONS

[Links to papers since 2012 are below, others can be found [here](#)]

Scavia, D., I. Bertani, D.R. Obenour, R.E. Turner, D.R. Forrest, A. Katin. 2017 [Ensemble modeling informs hypoxia management in the northern Gulf of Mexico](#). Proc. Nat. Acad. Sci.

Lipor, J., B. Wong, D. Scavia, B. Kerkez, L. Balzano, 2017. [Distance-penalized active learning algorithm using quantile search](#). IEEE Trans. Signal Processing. in press.

Testa, J.M., J.B. Clark, W.C. Dennison, E.C. Donovan, A.W. Fisher, W. Ni, M. Parker, D. Scavia, S.E. Spitzer, A.M. Waldrop, V.M.D. Vargas, G. Ziegler. 2017 [Ecological forecasting and the science of hypoxia in Chesapeake Bay](#) BioScience. doi:10.1093/biosci/bix048

Scavia, D., M. Kalcic, R. Logsdon Muenich, N. Aloysius, I. Bertani, C. Boles, R. Confesor, J. DePinto, M. Gildow, J. Martin, J. Read, T. Redder, D. Robertson, S. Sowa, Y. Wang, H Yen. 2017 [Multiple models guide strategies for agricultural nutrient reductions](#). Frontiers in Ecology and the Environment. 15: 126–132

Bertani, I., C. E. Steger, D. R. Obenour, G. L. Fahnenstiel, T. B. Bridgeman, T. H. Johengen, M. J. Sayers, R. A. Shuchman, D. Scavia. 2016. [Tracking cyanobacteria blooms: do different monitoring approaches tell the same story?](#) Science of the Total Environment 575: 294-308

Scavia, D., J.V. DePinto, I. Bertani. 2016. [A Multi-model approach to evaluating target phosphorus loads for Lake Erie](#). J. Great Lakes Res. 42: 1139-1150

Zhang, H., L. Boegman, D. Scavia, D. A. Culver. 2016. [Spatial distributions of external and internal phosphorus loads in Lake Erie and their impacts on phytoplankton and water quality](#). J Great Lakes Res. 42: 1212-1227

Bocaniov, S.A, L.F. Keon, Y.R. Rao, D.J. Schwab, D. Scavia. 2016 [Simulating the effect of nutrient reduction on hypoxia in a large lake \(Lake Erie, USA-Canada\) with a three-dimensional lake model](#). J. Great Lakes. Res 42: 1228-1240

Kalcic, M., C. Kirchhoff, N. Bosch, R. L. Muenich, M. Murray, J. Gardner. D. Scavia. 2016. [Engaging stakeholders to define feasible and desirable agricultural conservation in western Lake Erie watersheds](#). *Env. Sci. Technol.* 50:8135-5145

Muenich, R.L., M. Kalcic, D. Scavia. 2016. [Evaluating the impact of legacy P and agricultural conservation practices on nutrient loads from the Maumee River Watershed](#). *Env. Sci. Technol.* 50: 8146-8154

Rucinski, D., DePinto, J., Beletsky, D., Scavia, D. 2016 [Modeling hypoxia in the Central Basin of Lake Erie under potential phosphorus load reduction scenarios](#). J. Great. Lakes Res. 42: 1206-1211

Bocaniov, S. and D. Scavia 2016 [Temporal and spatial dynamics of large lake hypoxia: Integrating statistical and three-dimensional dynamic models to enhance lake management criteria](#). Water Resources Res. ([Supplemental Information](#)) 52: 4247-4263

- Bertani, I, D.R. Obenour, C. E. Steger, C. A. Stow, A. D. Gronewold, D. Scavia 2016. [Probabilistically assessing the role of nutrient loading in harmful algal bloom formation in western Lake Erie](#). J Great Lakes. Res. 42: 1184:1192
- Scavia, D., M. Kalcic, R. Logsdon Muenich, J. Read, N. Aloysius, C. Boles, R. Confessor, J. DePinto, M. Gildow, J. Martin, T. Redder, S. Sowa, Y. Wang, H. Yen. [Informing Lake Erie Agriculture Nutrient Management via Scenario Evaluation](#) April, 2016
- Lipor, J., L. Balzano, B. Kerkez, D. Scavia. 2015. [Quantile Search: A Distance-Penalized Active Learning Algorithm for Spatial Sampling](#). Proc. 53rd Annual Allerton Conf. on Communication, Control, and Computing.
- Great Lakes Water Quality Agreement [Annex 4 Objectives and Targets Task Team Final Report to the Nutrients Annex Subcommittee](#). May 11, 2015
- Obenour, D.R., A M. Michalak, and D. Scavia 2015 [Assessing biophysical controls on Gulf of Mexico hypoxia through probabilistic modeling](#). Ecol. Applications 25: 492-505
- Bartolai, AM, L. He, L. Motsch, R, Paehlke, D. Scavia 2015 [Climate Change as a driver of change in the Great Lakes-St. Lawrence River Basin](#). J. Great Lakes Res. 41 (Supplement 1): 45-58
- Comer, B., D.A., Fera, A.S. Splawinski, K.L Laurent, K.B. Friedman, G. Krantzberg, D. Scavia, I.F. Creed 2015 [Thriving and prosperous: How we rallied to confront collective challenges in the Great Lakes basin](#). J. Great Lakes Res. 41 (Supplement 1): 161-170
- Friedman, K. B., K. Laurent, G. Krantzberg, D. Scavia, I. F. Creed 2015 [The Great Lakes Futures Project: Principles and Policy Recommendations for Making the Lakes Great](#). J. Great Lakes Res. 41 (Supplement 1): 171-179
- Kalafatis, S.E., M. Campbell, F. Fathers, K. L. Laurent, K. B. Friedman, G. Krantzberg, D. Scavia, I. F. Creed 2015. [Out of control: How we failed to adapt and suffered the consequences](#). J. Great Lakes Res. 41 (Supplement 1): 20-29
- Krantzberg, G., I.F. Creed, K.B. Friedman, K.L., Laurent, J.A. Jackson, J. Brammeier, D. Scavia 2015 [Community Engagement Is Critical To Achieve A “Thriving And Prosperous” Future For The Great Lakes-St. Lawrence River Basin](#). J. Great Lakes Res. 41 (Supplement 1): 188-191
- Laurent, K., L. B. Friedman, G. Krantzberg, D. Scavia, I.F. Creed 2015 [Scenario analysis: a tool for strategic planning to achieve a thriving Great Lakes-S. Lawrence river basin](#). J. Great Lakes Res. 41 (Supplement 1): 12-19
- Laurent, K.L. D. Scavia, K. B. Friedman, G K. Krantzberg, I. F. Creed 2015. [Critical forces defining alternative futures for the Great Lakes–St. Lawrence River basin](#). J. Great Lakes Res. 41 (Supplement 1): 131-138
- Orr, C.J., K.C. Williams, K. L Laurent, K. B. Friedman, G. Krantzberg, D. Scavia, I. Creed 2015 [Trying Hard to Adapt to a Chaotic World: How Complex Challenges Overwhelmed Best Intentions in the Great Lakes region](#). J. Great Lakes Res. 41 (Supplement 1):139-149
- Steenberg, J., Timm, M., Laurent, K.L., Friedman, K.B., Krantzberg, G., Scavia, D., Creed, I.F., 2015 [Living on the Edge: How we converted challenges into profitable opportunities](#). J. Great Lakes Res. 41 (Supplement 1): 150-160
- Steenberg, J., Timm, M., Laurent, K.L., Friedman, K.B., Krantzberg, G., Scavia, D., Creed, I.F., 2015 [Living on the Edge: How we converted challenges into profitable opportunities](#). J. Great Lakes Res.
- Obenour, D.R. A.D. Gronewold, C.A. Stow, and D. Scavia 2014 [Using a Bayesian hierarchical model with a gamma error distribution to improve Lake Erie cyanobacteria bloom forecasts](#). Water Resources Res.
- Obenour, D.R., A M. Michalak, and D. Scavia 2014 [Assessing biophysical controls on Gulf of Mexico hypoxia through probabilistic modeling](#). Ecol. Applications <http://dx.doi.org/10.1890/13-2257.1>

- Daloglu, I. J.I. Nassauer, R.L. Riolo, D. Scavia 2014 [Developing a farmer typology to link agent-based models with SWAT](#) *Agricultural Systems* 129:93-102
- Bosch, N.S., M.A. Evans, D. Scavia, J.D. Allan 2014 [Interacting effects of climate change and agricultural BMPs on nutrient runoff](#). *J. Great Lakes Res.* 40: 581-589
- Pryor, S.C. D. Scavia, C. Downer, M. Gaden, L. Iverson, R. Nordstrom, J. Patz, G.P. Robertson 2014. [Chapter 18: Midwest. Climate Change Impacts in the United States: The Third National Climate Assessment](#). J.M. Melillo, T.C. Richmond, G.W. Yohe, Eds. U.S. Global Change Research Program 18:1-18
- Scavia, D., J. D. Allan, K. K. Arend, S. Bartell, D. Beletsky, N. S. Bosch, S. B. Brandt, R. D. Briland, I. Daloğlu, J. V. DePinto, D. M. Dolan, M. A. Evans, T. M. Farmer, D. Goto, H. Han, T. O. Höök, R. Knight, S. A. Ludsin, D. Mason, A. M. Michalak, R. P. Richards, J. J. Roberts, D. K. Rucinski, E. Rutherford, D. J. Schwab, T. Sesterhenn, H. Zhang, Y. Zhou. 2014 [Assessing and addressing the re-eutrophication of Lake Erie: Central Basin Hypoxia](#). *J. Great Lakes Res.* 40: 226–246. <http://dx.doi.org/10.1016/j.jglr.2014.02.004>
- Lemos, M.C., C. Kirchhoff, S. Kalafatis, D. Scavia and R. Rood 2014 [Moving climate information off the shelf: Boundary Chains and the role of RISAs as an adaptive organization](#). *Weather, Climate, and Society*.
- Rucinski, D., D. Scavia, J. DePinto, D. Beletsky 2014 [Lake Erie's hypoxia response to nutrient loads and meteorological variability](#). *J. Great Lakes Res.*
- Daloglu, I. J.I. Nassauer, R.L. Riolo, D. Scavia 2014 [An Integrated Social and Ecological Modeling Framework – Impacts of Agricultural Conservation Practices on Water Quality](#). *Ecology and Society*
- Zhou, Y., D. Scavia, A.M. Michalak 2014 [Nutrient loading and meteorological conditions explain interannual variability of hypoxia in the Chesapeake Bay](#). *Limnol. Oceanogr.* 59:373-374
- Scavia, D., M.A. Evans, D. Obenour 2013 [A scenario and forecast model for Gulf of Mexico hypoxic area and volume](#). *Environ. Sci. Technol.* <http://dx.doi.org/10.1021/es4025035>
- Obenour, D.; D. Scavia, N.R. Rabalais; E.R. Turner; A. Michalak 2013 [A retrospective analysis of mid-summer hypoxic area and volume in the northern Gulf of Mexico, 1985-2011](#) *Environ. Sci. Technol. Supporting Information*
- Bosch N.S., J.D. Allan, J.P. Selegean, D. Scavia 2013 [Scenario-testing of agricultural best management practices in Lake Erie watersheds](#). *J. Great Lakes. Res. Supporting Information*
- Bidwell, D., T. Dietz, D. Scavia 2013 [Fostering Knowledge Networks for Climate Adaptation](#). *Nature Climate Change.* 3:1-2
- Michalak, A.M., E. Anderson, D. Beletsky, S. Boland, N.S. Bosch, T.B. Bridgeman, J.D. Chaffin, K.H. Cho, R. Confesor, I. Daloğlu, J. DePinto, M.A. Evans, G.L. Fahnenstiel, L. He, J.C. Ho, L. Jenkins, T. Johengen, K.C. Kuo, E. Laporte, X. Liu, M. McWilliams, M.R. Moore, D.J. Posselt, R.P. Richards, D. Scavia, A.L. Steiner, E. Verhamme, D.M. Wright, M.A. Zagorski 2013 [Record-setting algal bloom in Lake Erie caused by agricultural and meteorological trends consistent with expected future conditions](#). *Proc. Nat. Acad. Sci.* 110 (16) 6448-6452 *Supporting Information*
- Shriberg, M., A. Horning, K. Lund, J. Callewaert, and D. Scavia 2013 *Driving Transformative Change by Empowering Student Sustainability Leaders at the University of Michigan*; In : [Transforming Higher Education: Stories & Strategies for Sustainability](#), P.F. Barlett and G.W. Chase (Eds). MIT Press
- Evans, M.A. and D. Scavia 2013 [Exploring estuarine eutrophication sensitivity to nutrient loading](#). *Limnol. Oceanogr.*
- Richards, R. P., I. Alameddine, J.D. Allan , D.B. Baker, N. S. Bosch, R. Confesor, J.V. DePinto, D.M. Dolan, J.M. Reutter, D. Scavia 2013 [Nutrient Inputs to the Laurentian Great Lakes by Source and Watershed Estimated Using SPARROW Watershed Models](#). *J. Am. Water Res. Assoc.*

- Daloglu, I. K.H. Cho, D. Scavia 2012 [Evaluating causes of trends in long-term dissolved reactive phosphorus loads to Lake Erie](#). *Environ. Sci. Technol.* 46:10660-10666
- Obenour, D.R., A.M. Michalak, Y. Zhou, and D. Scavia. 2012. [Quantifying the Impacts of Stratification and Nutrient Loading on Hypoxia in the Northern Gulf of Mexico](#). *Environ. Sci. Technol.* dxdoi.org/10.102/es204481a
- EPA Science Advisory Board. 2012. [Review of Great Lakes Restoration Initiative Action Plan](#). EPA, Washington, DC 50 pg.
- Roberts, J.J., S. B. Brandt, D. Fanslow, S. A. Ludsin, S. Pothoven, D. Scavia, T. O. Höök. 2011. Effects of hypoxia on consumption, growth, and RNA:DNA ratios of young yellow perch. *Trans. Amer. Fisheries Soc.* 140:6, 1574-1586
- Lund, K., K. Dinse, J. Callewaert, D. Scavia. 2011 Benefits of using integrated assessment to address sustainability challenges. *J. Environ. Stud. Sci*, DOI 10.1007/s13412-011-0047-7
- Mida, J.L. D. J. Jude, J.S. Schaeffer, D.M. Warner, D. Scavia 2011 Response of *Mysis diluviana* lipids and fatty acids to changes in lower food webs in Lake Michigan and Huron. *J. Great Lakes res.*
- Liu, Y. G.B. Arhonditsis, C. Stow, D. Scavia 2011 Comparing Chesapeake Bay Hypoxic-Volume and Dissolved-Oxygen Profile Predictions with A Bayesian Streeter-Phelps Model. *Ecol. Modeling*. JAWA
- Roberts, J.J., S. B. Brandt, D. Fanslow, S. A. Ludsin, S. Pothoven, D. Scavia, T. O. Höök. 2011. Growth and condition of yellow perch in response to hypoxia: Synthesis of lab and field results. *Trans. Amer. Fisheries Soc.*
- Evans, M.A., G.A. Fahnenstiel, D. Scavia 2011 Incidental oligotrophication of North American Great Lakes. *Environ. Sci. Technol.* 45 (8), pp 3297–3303
- NRC 2011 [Missouri River Planning: Recognizing and Incorporating Sediment Management](#). National Academy of Sciences, Washington DC. 135 pp.
- Evans, M.A. and D. Scavia 2010. Forecasting hypoxia in the Chesapeake Bay and Gulf of Mexico: Model accuracy, precision, and sensitivity to ecosystem change. *Environ. Res. Lett.* 6 015001 doi: 10.1088/1748-9326/6/1/015001
- Bell, A., M. Lemos, and D. Scavia. 2011. Cattle, Clean Water, and Climate Change: Policy Choices for the Brazilian Agricultural Frontier. *Environ. Sci. Technol.* 44(22): 8377-8384
- Arend, K.K, D. Beletsky, J.V. DePinto, S.A. Ludsin, J. J. Roberts, D. K. Rucinski, D. Scavia, D. J. Schwab, T. O. Höök 2011 Hypolimnetic hypoxia in the central basin of Lake Erie: understanding seasonal and interannual effects on habitat quality of important fish species. *Freshwater Biology* 56(1): 366-383
- Rucinski, D.K., D. Beletsky, J. V. DePinto, D. J. Schwab, D. Scavia. 2010 A Simple 1-Dimensional Climate Based Dissolved Oxygen Model for Central Basin of Lake Erie. *J. Great Lakes Res.* 36:465-476
- Liu, Y, M.A. Evans, D. Scavia. 2010 Gulf of Mexico Hypoxia: Exploring Increasing Sensitivity to Nitrogen Loads. *Environ. Sci. Technol.* 44 (15), pp 5836–5841
- Fahnenstiel G.A., T. Nalepa, S. Pothoven, H. Carrick, D. Scavia. 2010. Lake Michigan lower food web: Long-term observations and Dreissena impact. *J. Great Lakes Res.* 36:1-4
- Fahnenstiel, G.A., S. Pothoven, T. Nalepa, H. Vanderploeg, D. Klarer, D. Scavia. 2010 Recent changes in primary production and phytoplankton in the offshore region of southeastern Lake Michigan. *J. Great Lakes Res.* 36:20-29
- Mida, J.A., D. Scavia, G. L. Fahnenstiel, S. A. Pothoven, H. A. Vanderploeg, D. M. Dolan. 2010 Long-term and recent changes in southern Lake Michigan water quality with implications for primary production. *J. Great Lakes Res.* 36: 42-49

- Liu, Y. and D. Scavia. 2010. Analysis of the Chesapeake Bay Hypoxia Regime Shift: Insights from Two Simple Mechanistic Models. *Estuaries and Coasts* 33:629–639
- Fishman, D., S.A. Adlerstein, D. Scavia, (in press) Phytoplankton Community Composition of Saginaw Bay, Lake Huron, during the Zebra Mussel (*Dreissena polymorpha*) Invasion: A Multivariate Analysis, *J. Great Lakes Res.*
- Fishman, D., D. Scavia, S.A. Adlerstein (in press) Causes of Phytoplankton Changes in Saginaw Bay, Lake Huron during the Zebra Mussel Invasion. *J. Great Lakes Res.*
- Scavia, D. and Y. Liu. 2009. Exploring Estuarine Nutrient Susceptibility. *Environ. Sci. Technol.*, 2009, 43 (10), 3474-3479
- Boesch, D., L.B. Crowder, R.J. Diaz, R.W. Howarth, L.E. Mee, S.W. Nixon, N.N. Rabalais, R. Rosenberg, J.G. Sanders, D. Scavia, R.E. Turner . 2009. Nutrient enrichment drives Gulf of Mexico hypoxia, *Eos Trans. Amer. Geophysical Union.*
- Han, H., J. D. Allan, D. Scavia. 2009. Influence of Climate and Human Activities on the Relationship between Watershed Nitrogen Input and River Export. *Env. Sci, Technol.* 43:1916–1922
- Stow, C.A. and D. Scavia 2009. Modeling Hypoxia in the Chesapeake Bay: Ensemble Estimation Using a Bayesian Hierarchical Model. *J. Marine Systems* 76: 244–250
- Daley, B.A. and D. Scavia. 2008. An Integrated Assessment of the Continued Spread and Potential Impacts of the Colonial Ascidian, *Didemnum* sp. A, in U.S. Waters. NOAA Technical Memorandum NOS NCCOS 78, 61 pp.
- Swaney, D.P., D. Scavia, R.W. Howarth, R.M. Marino 2008 Estuarine Classification and Response to Nitrogen Loading: Insights from Simple Ecological Models. *Estuarine and Continental Shelf Science* 77: 253-263.
- Scavia, D. and K.A. Donnelly 2007. Reassessing Hypoxia Forecasts for the Gulf of Mexico. *Env. Sci. Technol.* 41, 8111–8117
- Dubravko, J, V.J. Bierman, Jr., D. Scavia. R. Hetland. Forecasting Gulf's Hypoxia: The Next 50 Years? 2007. *Estuaries and Coasts*, 30(5): 791-801.
- Nassauer, J.I., M.V. Santelmann, and D.Scavia (Eds). 2007 From the Corn Belt to the Gulf: Assessment of Alternative Agricultural Futures, Resources for the Future, Washington, D.C.
- Donner, S. D. and D. Scavia. 2007 How climate controls the flux of nitrogen by the Mississippi River and the development of hypoxia in the Gulf of Mexico. *Limnol. Oceanogr.* 52(2): 856-861
- Bierman, V.J Jr., S.C. Hinz; D. Justić, D.Scavia, J.A. Veil, K. Satterlee, M. Parker. 2007 Predicted Impacts from Offshore Produced Water Discharges on Hypoxia in the Gulf of Mexico. *SPE Facilities, Construction, and Operations*. Society of Petroleum Engineers.
- Scavia, D. and S.B. Bricker 2006 Coastal Eutrophication Assessment in the United States. *Biogeochemistry* 79: 187–208.
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