

DINA M. LEECH

Department of Biological and Environmental Sciences
Chichester Science Building
Longwood University
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Farmville, VA 23909
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EDUCATION

Ph.D., Environmental Sciences, 2001

Dept. of Earth and Environmental Sciences, Lehigh University, Bethlehem, PA

"Tolerance and Behavioral Responses of Freshwater Zooplankton to UV Radiation"

Advisor: Dr. Craig Williamson

B.Sc., Biology, 1994 (Ecology Concentration) Magna cum laude

James Madison University, Harrisonburg, VA

"Timing of Chromatin Diminution in Freshwater Cyclopidae"

Advisor: Dr. Grace Wyngaard

CURRENT POSITION

Department of Biology, DePauw University, Greencastle, IN

Assistant Professor, August 2009-Present

POST-DOCTORAL PROFESSIONAL EXPERIENCE

Institute of Marine Sciences, University of North Carolina at Chapel Hill, Morehead City, NC

Research Associate, Summer 2007-Summer 2009

Project: Land Use Affects on the Coastal Lakes of the Alemarle-Pamlico Peninsula, NC

University of North Carolina, Environmental Sciences and Engineering Dept., Chapel Hill, NC

SPIRE Postdoctoral Fellow, Spring 2003-Spring 2007, Dr. Robert Wetzel, advisor

Project: Indirect effects of elevated atmospheric CO₂ and UV radiation on carbon cycling and species diversity in the microbial loop

Duke University, Biology Department, Durham, NC

Postdoctoral Researcher, Fall 2001-Spring 2003, Dr. Sönke Johnsen, advisor

Project: UV vision and the feeding behavior of bluegill sunfish, *Lepomis macrochirus*

AWARDS AND HONORS

Dissertations Initiative for the Advancement of Limnology and Oceanography (DIALOG) V

Selected Symposium Participant, 2003, American Society of Limnology and Oceanography

National Institutes of Health Seeding Postdoctoral Innovators in Research and Education

(SPIRE) Postdoctoral Fellowship, 2003, University of North Carolina at Chapel Hill, NC,

Kravis Fellowship, 2001, Department of Earth and Environmental Sciences, Lehigh University, Bethlehem, PA

Dissertation Improvement Funds, 1998, 1999, Department of Earth and Environmental Sciences, Lehigh University Bethlehem, PA

PEER-REVIEWED PUBLICATIONS

- Ziervogel, K., **D.M. Leech**, and C. Arnosti. 2013. Differences in the substrate spectrum of extracellular enzymes in shallow lakes of differing trophic status. *Biogeochemistry* doi:10.1007/s10533-013-9874-9
- Leech, D.M.**, M. May, A. Metternich, A. Pistoia, R. Rominger, K. Fortino, and L. Bedard. Absence of Seasonal, Synchronous Shifts in the Bacterial Communities of Two Contrasting Ponds. (in review *Microbial Ecology*)
- Leech, D.M.**, S.H. Ensign, M. Piehler. 2013. Spatio-temporal patterns in the export of dissolved organic carbon and chromophoric dissolved organic matter from a coastal, blackwater river. (in review, *Global Biogeochemical Cycles*)
- Leech, D.M.**, M.T. Snyder, and R.G. Wetzel. 2013. Alterations in the photomineralization of allochthonous DOM related to elevated atmospheric CO₂. (in review, *Inland Waters*)
- O'Connor, M.I., M. F. Piehler, **D.M. Leech**, A. Anton, and J.F. Bruno. 2009. Warming and resource availability shift food web structure and metabolism. *PLoS Biology* 7(8): e1000178. doi:10.1371/journal.pbio.1000178.6
- Tranvik, L.J., Downing, J.A., and 25 others. 2009. Lakes and impoundments as regulators of carbon cycling and climate. *Limnology and Oceanography* 54: 2298-2314.
- Leech, D.M.**, W.J. Boeing, C.E. Williamson, S.A. Cooke, and L. Torres. 2009. UV enhanced fish predation and the differential migration of zooplankton to UV radiation and fish. *Limnology and Oceanography* 54: 1152-1161.
- Leech, D.M.**, M.T. Snyder, and R.G. Wetzel. 2009. Natural organic matter and sunlight accelerate the degradation of 17 β -estradiol. *Science of the Total Environment* 407: 2087-2092.
- Chow, A.T., **D.M. Leech***, T. Boyer and P. Singer. 2008. Impact of simulated solar irradiation on disinfection byproduct precursors. *Environmental Science and Technology* 42: 5586-5593.
*Corresponding Author
- Cooke, S. L., C. E. Williamson, **D. M. Leech**, W. J. Boeing, and L. Torres. 2008. Effects of temperature and ultraviolet radiation on diel vertical migration of freshwater crustacean zooplankton. *Canadian Journal of Fisheries and Aquatic Ecology* 65: 1144-1152.
- Riggsbee, J.A., C.H. Orr, **D.M. Leech**, M.W. Doyle, and R.G. Wetzel. 2008. Suspended sediments in river ecosystems: photochemical sources of dissolved organic carbon and adsorptive removal of dissolved iron. *Journal of Geophysical Research-Biogeosciences* 113: G03019, doi:10.1029/2007JG000654.
- Williamson, C.E., DeLange H., and **D.M. Leech**. 2007. Do zooplankton contribute to an ultraviolet clear-water phase in lakes? *Limnology and Oceanography* 52: 662-667.
- Lango, A., **D.M. Leech*** and R.G. Wetzel. 2007. Indirect effects of elevated atmospheric CO₂ and UV radiation on culturable bacteria. *Fundamental and Applied Limnology* 168: 327-333. *Corresponding Author

- Leech, D.M.** and S. Johnsen. 2006. UV vision and the feeding ecology of bluegill sunfish, *Lepomis macrochirus*. *Canadian Journal of Fisheries and Aquatic Sciences* 63: 2183-2190.
- Leech, D.M.**, A. Padeletti, and C.E. Williamson. 2005. Zooplankton behavioral responses to UV radiation vary within and among lakes. *Journal of Plankton Research* 27: 461-471.
- Leech, D.M.**, C.E. Williamson, R.E. Moeller, and B. Hargreaves. 2005. UV radiation and zooplankton vertical distribution and abundance: Testing for UV behavioral avoidance. *Archiv für Hydrobiologie* 162: 445-464.
- Boeing, W.J., **D.M. Leech**, C.E. Williamson, S.A. Cooke, and L.E. Torres. 2004. Damaging UV radiation and invertebrate predation: conflicting selective pressures for zooplankton vertical distribution in the water column of low DOC lakes. *Oecologia* 138 (4): 603-612.
- Leech, D.M.** and C.E. Williamson. 2001. *In situ* exposure to UV radiation alters the depth distribution of *Daphnia*. *Limnology and Oceanography* 46: 416-420.
- Leech, D.M.** and C.E. Williamson. 2000. Is tolerance to ultraviolet radiation in zooplankton related to body size, taxon, or lake transparency? *Ecological Applications* 10:1530-1540.
- Leech, D.M.** and G.A. Wyngaard. 1996. Timing of chromatin diminution in free-living, freshwater Cyclopidae (Crustacea: Copepoda). *Journal of Crustacean Biology* 16: 496-500.

INVITED BOOK CHAPTERS

- Leech, D.M.** and S. Johnsen. 2009. Light and biological receptors. *In Encyclopedia of Inland Waters*. Editor, G. Likens. Pp. 671-681.
- Leech, D.M.** and S. Johnsen. 2003. Behavioral responses: UV avoidance and vision. *In UV Effects in Aquatic Organisms and Ecosystems*. Editors, W. Helbling and H. Zagarese. Pp. 455-481.

RESEARCH GRANTS

- Leech, D.M.** and L. Bedard. 2010. Microbial Diversity of Indiana's Abandoned Quarry Ponds: Is Everything Everywhere? Indiana Academy of Science, \$2000
- Leech, D.M.** and L. Bedard. 2010. Microbial Diversity of the DePauw Nature Park Ponds. DePauw Faculty Development Funds, \$2000
- Leech, D.M.**, S. Ensign, H. Byrum, and M. Piehler. 2009. Zooplankton Assessment Project (ZAP) Year 2: Reassessing prey availability for river herring in the Chowan River and Albemarle Sound. North Carolina Sea Grant, \$32,813
- Leech, D.M.**, S. Ensign, H. Byrum, and M. Piehler. 2008. Zooplankton Assessment Project (ZAP): Reassessing prey availability for river herring in the Chowan River and Albemarle Sound. North Carolina Sea Grant, \$30,071

TEACHING EXPERIENCE

Longwood University, Farmville, VA

Assistant Professor, Fall 2013-Present, Introduction to Environmental Science,
Freshwater Ecology

DePauw University, Greencastle, IN

Assistant Professor, Fall 2009-Spring 2012, Ecology and Evolution, Aquatic Ecology,
Microbial Ecology, Research Methods, Senior Seminar

UNC Institute of Marine Sciences, Morehead City, NC

Visiting Faculty, Fall 2007, Human Impacts on Estuarine Processes

University of North Carolina at Chapel Hill, NC

Visiting Faculty, Spring 2006, Limnology/Freshwater Ecology (graduate course)

University of North Carolina at Pembroke, NC

Visiting Faculty, Fall 2005, General Biology

Lehigh University, Department of Earth and Environmental Sciences, Bethlehem, PA

Graduate Assistant, 1998-2001, Supervised undergraduates conducting independent
research as part of the Salamander Response to Climate Change Project

Adjunct Professor, Fall 1999, Plant Ecology (designed and taught both lecture and lab)

Teaching Assistant, 1997-2001, Sole laboratory instructor for Ecological Field Methods,
Introduction to Biology, Lake Ecosystems, and Plants and Plant Communities

Graduate Advisor, 1995-1997, Research Experience for Undergraduates Program
sponsored by NSF at the Lacawac Sanctuary in the Pocono Mts., PA

RESENT AND PAST UNDERGRADUATE PROJECTS

Hillary Foster, Longwood University, Fall 2013

Project: Monitoring and Assessing Wetland Restoration at Hull Springs Farm,
Westmoreland County, VA

Megan May, Ali Pistoia, and Rachel Rominger, DePauw University, Spring 2009-Present

Project: Microbial Diversity in the DePauw Nature Park Ponds:
Is Everything Everywhere?

Arianna Borello, Stephen Hesterberg, and Alicia Whitney, DePauw University, Fall 2010

Project: The effects of atrazine on aquatic community dynamics

Morgan Grant and Cody Roldan, DePauw University, Fall 2009

Project: The effects of sediment resuspension on zooplankton diversity

Whitney Kihlstrom, Institute of Marine Sciences, Fall Semester 2007

Project: Contribution of man-made canals to the organic loading of dystrophic Pungo
Lake, NC

CONFERENCE PRESENTATIONS (* indicates undergraduate coauthor)

- Leech, D.M., M. May*, R. Rominger*, A. Pistoia*, A. Metternich*, K. Fortino, and L. Bedard. 2013. Aquatic Sciences Meeting, American Society of Limnology and Oceanography, New Orleans, Louisiana
- Bedard, L.M., D.M. Leech, M. May*, R. Rominger*, A. Pistoia*, E. Medlock*. 2011. Annual Meeting of the American Society for Microbiology, New Orleans, Louisiana
- Leech, D.M., L.M. Bedard, M. May*, R. Rominger*, A. Pistoia*. 2011. Annual Meeting of the Indiana Academy of Sciences, Indianapolis, Indiana
- Leech, D.M., S. Ensign, and M. Piehler. 2010. Aquatic Sciences Meeting, American Society of Limnology and Oceanography, Santa Fe, NM.
- Leech, D.M., M. Piehler, and M.N. Waters. 2008. Aquatic Sciences Meeting, American Society of Limnology and Oceanography, St. John's Newfoundland, Canada.
- Leech, D.M. and R. G. Wetzel. 2007. Societe International Limnologie Meeting, Montreal, Quebec, Canada.
- Leech, D.M. and A.T. Chow. 2006. Aquatic Sciences Meeting, American Society of Limnology and Oceanography, Victoria, British Columbia, Canada.
- Leech, D.M. and R.G. Wetzel. 2005. INTECOL/Ecological Society of America Annual Meeting, Montreal, Quebec, Canada.
- Leech, D.M. and R.G. Wetzel. 2005. Aquatic Sciences Meeting, American Society of Limnology and Oceanography, Salt Lake City, Utah.
- Leech, D.M. and R.G. Wetzel. 2004. American Society of Limnology and Oceanography Annual Meeting, Savannah, Georgia.
- Leech, D.M. 2003. DIALOG V Symposium, American Society of Limnology and Oceanography, Bermuda Biological Field Station.
- Leech, D.M., W. Boeing, C.E. Williamson. 2002. American Society of Limnology and Oceanography Annual Meeting, Victoria, British Columbia.
- Leech, D.M., A.T. Padeletti*, and C.E. Williamson. 2001. American Society of Limnology and Oceanography Annual Meeting, Albuquerque, NM.
- Padeletti*, A.T., D.M. Leech, and C.E. Williamson. 2001. American Society of Limnology and Oceanography Annual Meeting, Albuquerque, NM.
- Leech, D.M. and C.E. Williamson. 2000. Ecological Society of America Annual Meeting, Snowbird, UT.
- Leech, D.M. and C.E. Williamson. 2000. American Society of Limnology and Oceanography Annual Meeting, Copenhagen, Denmark.
- Leech, D.M. and C.E. Williamson. 1999. American Society of Limnology and Oceanography Annual Meeting, Santa Fe, NM.

INVITED WORKSHOP

American Geophysical Union, Chapman Conference, Lakes and Reservoirs as Sentinels, Integrators, and Regulators of Climate Change, Lake Tahoe, September, 2008.

INVITED PRESENTATIONS

Indiana Wildlife Federation Public Forum, April 2011

DePauw University Faculty Research Colloquium, September 2010

Department of Biology, Indiana State University, Terra Haute, IN, January 2010

National Oceanic and Atmospheric Administration, Beaufort, NC, October 2008

Department of Biology, Mount Holyoke College, July 2008

Hyde County, NC Chamber of Commerce, May 2008

Environmental Studies Program, Washington and Lee University, February 2008

Institute of Marine Sciences, UNC Chapel Hill, February 2008

Biology Department, Augusta State University, October 2005

Biosymposium Guest Speaker, Biology Department, James Madison University, April 2005

Department of Fisheries and Wildlife Sciences, New Mexico State University, March 2005

Department of Environmental Sciences and Engineering, University of North Carolina at Chapel Hill, September 2004

Department of Biological Sciences, Dartmouth College, May 2001

Department of Ecology and Evolutionary Biology, Cornell University, February 2001

UNIVERSITY SERVICE

DePauw University

Academic Advisor for 19 Biology advisees

Biology Dept. Representative, Science Research Fellows Steering Committee,
Fall 2010 to Spring 2012

Member, Committee on Sustainability, Spring 2011 to Spring 2012

PROFESSIONAL SERVICE AND ACTIVITIES

Reviewer for: *Archiv für Hydrobiologie, Biologia, Canadian Journal of Fisheries and Aquatic Sciences, Ecology, Environmental Science and Technology, Hydrobiologia, Journal of Ethnology, Journal of the North American Benthological Society, Journal of Fish Biology, Journal of Plankton Research, Lake and Reservoir Management, Limnology and Oceanography, Marine and Freshwater Research, Marine Ecology Progress Series, Marine Environmental Research, Oecologia, Oikos, Photochemistry and Photobiology, PLoS Biology, and PLoS One*

Proposal Review Panelist, Fall 2012, National Science Foundation

Proposal Reviewer, 1999 - Present, National Science Foundation

Proposal Reviewer, Spring 2010, National Sigma Delta Epsilon- Graduate Women in Science

Applicant Reviewer, Spring 2010, Tom Frost Award for best graduate student paper, Ecological Society of America, Aquatic Ecology Section

Member, Fall 2010, Science Research Fellows Steering Committee, DePauw University

Participant, Fall 2003, Felder/Brent Effective Teaching Workshop

Participant, Fall 2002, Conference on the Scholarship of Teaching and Learning at a Research University, Duke University

Selected Course Participant, Winter 1999, *Fundamentals of Ecosystem Studies*, Institute of Ecosystem Studies, Millbrook, NY

PROFESSIONAL SOCIETIES

Council on Undergraduate Research (CUR)

American Society of Limnology and Oceanography (ASLO)

Ecological Society of America (ESA)

Societe International Limnologie (SIL)

Sigma Xi