

Department of Biological and Environmental Sciences
Chichester Science Building
Longwood University
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Farmville, VA 23909
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DINA M. LEECH

EDUCATION

Ph.D., Environmental Sciences, 2001

Department 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

POSITIONS

Department of Biological and Environmental Sciences, Longwood University

Associate Professor, May 2016 - Present

Director, Longwood Water Quality Monitoring Program, January 2016 - Present

Assistant Professor, August 2013 – May 2016

Adjunct Faculty, January 2013 – May 2013

Department of Biology, DePauw University, Greencastle, IN

Assistant Professor, August 2009 - January 2013

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

Research Associate, Summer 2007 - Summer 2009

Advisor: Dr. Michael Piehler

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

SPIRE Postdoctoral Fellow, Spring 2003 - Spring 2007

Advisor: Dr. Robert Wetzel

Duke University, Biology Department, Durham, NC

Postdoctoral Researcher, Fall 2001 - Spring 2003

Advisor: Dr. Sönke Johnsen

AWARDS AND HONORS

Association for the Sciences of Limnology and Oceanography (ASLO) Fellow, 2019

Faculty Excellence in Mentoring Award Nominee, 2018, Longwood University

Recognition of Leadership Skills, 2015, PRINCEPS student organization, Longwood University

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

Leech, D.M., T.L. Clift, J.L. Littlefield, N.R. Ravagli, and J. Spain. 2020. Indirect versus direct effects of freshwater browning on zooplankton-larval fish interactions. *Canadian Journal of Fisheries and Aquatic Sciences*, In review.

Leech, D.M., A.I. Pollard, S.G. Labou, and S.E. Hampton. 2018. Fewer blue lakes and more murky lakes in the U.S.: Implications for planktonic food webs. *Limnology and Oceanography* doi.org/10.1002/lno.10967

- One of the most downloaded *L&O* papers in 2018 & 2019
- Picked up by popular press, including Smithsonian Magazine, Atlas Obscura, and Science Daily
- Interviewed by NPR's *With Good Reason*

Pollard, A.I., S.E. Hampton, **D.M. Leech**. 2018. The promise and potential of continental-scale limnology using the U.S. Environmental Protection Agency's National Lakes Assessment. *Limnology & Oceanography Bulletin* DOI 10.1002/lob.10238.

Leech, D.M., S.H. Ensign, and M.F. Piehler. 2016. Spatiotemporal patterns in the export of dissolved organic carbon and chromophoric dissolved organic matter from a coastal, blackwater river. *Aquatic Sciences* doi:10.1007/s00027-016-0474-3

Leech, D.M., M.T. Snyder, and R.G. Wetzel. 2014. Alterations in the photomineralization of allochthonous DOM related to elevated atmospheric CO₂. *Inland Waters* 4: 147–156.

Ensign, S.H., **D.M. Leech**, M.F. Piehler. 2014. Effects of nutrients and zooplankton on an estuary's phytoplankton: Inferences from a synthesis of 30 years of data. *Ecosphere* 5:art89. <http://dx.doi.org/10.1890/ES13-00405.1>.

- 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.
- 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: e1000178.
- 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.
- 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.
- 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. 2021. Light as an ecological resource. *In* Encyclopedia of Inland Waters. 2nd Edition. Editors, K. Tockner and T. Mehner. In preparation.
- 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.

GENERAL AUDIENCE PAPERS

- Leech, D.M.** Satellites and Sensors tell us more about the Giant Ice Rings of Siberian Lakes. *Limnology & Oceanography Bulletin*. <https://doi.org/10.1002/lob.10278>
- One of the most downloaded ASLO Bulletin articles in 2018 & 2019
 - Product of participating in ASLO's Journalist for a Day program at the 2018 Victoria Meeting (selected participant)
- Labosier, C. K. Fortino, **D.M. Leech**. "Climate change is here." Farmville Herald [Farmville, VA] August 28, 2018. Print.
- Leech, D.M.** "Fresh water: help restore this precious resource." *Richmond-Times Dispatch* [Richmond, VA] April 21, 2018. Print.

RESEARCH AND FACULTY DEVELOPMENT GRANTS

- Leech, D.M.** 2019. Longwood University Faculty Sabbatical for Fall 2020.
- Leech, D.M.**, K. Register. 2019. Virginia Department of Environmental Quality Citizen Water Quality Monitoring Grant. Water Quality of the Appomattox River Watershed. \$4,500
- Leech, D.M.** 2019. Longwood University Faculty Research and Development Grant. Brown Freshets and Water Quality: Effects of decreased salinity and increased dissolved organic matter on coastal streams of the Chesapeake Bay. \$5375
- Leech, D.M.**, K. Register. 2018. Virginia Department of Environmental Quality Citizen Water Quality Monitoring Grant. Water Quality of the Appomattox River Watershed. \$4,500

- Leech, DM.**, D. Buckalew, K. Register. 2017. Virginia Department of Environmental Quality Citizen Water Quality Monitoring Grant. Water Quality of the Appomattox River Watershed. \$4,000
- Leech, D.M.** 2016. Longwood University Faculty Research and Development Grant. Dissolved Organic Carbon Exports from Hull Springs Farm, Westmoreland County, VA, \$8,500
- Leech, D.M.**, K. Fortino, K. Gee, and C. Labosier. 2016. Cook-Cole Fund. Longwood's Environmental Observatory (LEO). \$9,865
- Leech, DM.**, D. Buckalew, K. Register. 2016. Virginia Department of Environmental Quality Citizen Water Quality Monitoring Grant. Water Quality of the Appomattox River Watershed. \$4,000
- Leech, D.M.**, K.Gee, K. Fortino. 2015. Expansion of the Longwood Environmental Observatory (LEO). Dominion Higher Education Grant. \$25,000
- Leech, D.M.** 2014. Longwood University Faculty Research and Development Grant. Dissolved Organic Carbon and Predator-Prey Interactions: A Fish Eye View of 'Brownification', \$11,600
- Leech, D.M.** and H. Foster. 2014. Student Centered Monitoring Program of the Wetland Restoration at Hull Springs Farm, Westmoreland County, VA, \$2000
- 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

Faculty, Fall 2013-Present, Biogeography, Ecology & Evolution, Freshwater Ecology, Introduction to Environmental Science, Investigations in Environmental Science, Microbial Ecology, Sophomore Seminar

DePauw University, Greencastle, IN

Faculty, 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 Faculty, 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

MASTER'S THESIS

Thesis Committee Member, Erin Mitchell Hunter, University of Western Florida, Defended March 2014

CONFERENCE PRESENTATIONS

- Bauer, K., T. DeWalt, and D.M. Leech. 2020. Aquatic Sciences Meeting, Association for the Sciences of Limnology and Oceanography, Madison, Wisconsin
- Bauer, K. and D.M. Leech. 2019. Atlantic Estuarine Research Society Annual Meeting, Woodbridge, Virginia
- Clift, T.L. and D.M. Leech. 2019. Atlantic Estuarine Research Society Annual Meeting, Woodbridge, Virginia
- Leech, D.M., A.I. Pollard, S. Labou, and S.E. Hampton. 2018. Aquatic Sciences Meeting, Association for the Sciences of Limnology and Oceanography, Victoria, British Columbia, Canada
- Dove, C.L. and D.M. Leech. 2018. Virginia Academy of Science Annual Meeting, Farmville, Virginia
- Plucinski, K.E. and D.M. Leech. 2018. Virginia Academy of Science Annual Meeting, Farmville, Virginia
- Leech, D.M. and T.L. Clift. 2017. Freshwater Sciences Meeting, Raleigh, North Carolina
- Clift, T.L. and D.M. Leech. 2017. Freshwater Sciences Meeting, Raleigh, North Carolina
- Leech, D.M. and J.E. Spain. 2016. Aquatic Sciences Meeting, Santa Fe, New Mexico
- Leech, D.M., J.L. Littlefield, N.R. Ravagli, and K.T. Ream. 2015. Ecological Society of America Annual Conference. Baltimore, Maryland

- J.L. Littlefield, N.R. Ravagli, K.T. Ream, and D.M. Leech. 2015. Association of Southeastern Biologists conference. Chattanooga, Tennessee
- Leech, D.M., S.H. Ensign, and M.F. Piehler. 2014. Joint Aquatic Sciences Meeting, Portland, Oregon
- Leech, D.M., M. May, R. Rominger, A. Pistoia, A. Metternich, K. Fortino, and L.M. Bedard. 2013. Aquatic Sciences Meeting, Association for the Sciences 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, New Mexico
- 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, New Mexico
- Padeletti, A.T., D.M. Leech, and C.E. Williamson. 2001. American Society of Limnology and Oceanography Annual Meeting, Albuquerque, New Mexico
- Leech, D.M. and C.E. Williamson. 2000. Ecological Society of America Annual Meeting, Snowbird, Utah
- 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, New Mexico

INVITED WORKSHOPS

Panelist, Writing in the Disciplines, Hosted by English Faculty, Longwood University, May 2019

Panelist, Seeding Postdoctoral Innovators in Research and Education Alumni Panel, Life as a Faculty Member at a Primarily Undergraduate Institution, May 2019

Journalist for a Day, Association for the Sciences of Limnology and Oceanography, Annual Meeting in Victoria, B.C., Canada, June 2018

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

INVITED PRESENTATIONS

Virginia Water Monitoring Council Annual Meeting	April 2019
Blackwell Seminar Speaker, Longwood University	March 2018
UNC Chapel Hill, Ecology Program	September 2017
Virginia Institute of Marine Sciences	September 2014
Virginia Tech, Department of Biology	March 2014
University of Richmond, Department of Biology	March 2014
Blackwell Seminar Speaker, Longwood University	February 2014
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, UNC Chapel Hill	September 2004
Department of Biological Sciences, Dartmouth College	May 2001

Department of Ecology and Evolutionary Biology, Cornell University
UNIVERSITY SERVICE
Longwood University

February 2001

August 2013 – Present

Advisor to ~20 Biology and Environmental Science majors
 Faculty Advisor, Women in STEM club
 Mentor, NSF-funded LIFE STEM Program for undergraduates
 Member, Promotion and Tenure Committee
 Member, Departmental Curriculum Committee
 Member, Search Committee for Lecturer in Biology
 Member, Search Committee for two Assistant Professors of Physiology
 Steering Committee Member, Longwood Environmental Observatory
 Member, Title IX Hearing and Appeals Board
 Reviewer, *Incite* Journal of Undergraduate Research
 Member, Hull Springs Farm Leadership Team
 Member, Integrated Environmental Sciences Curriculum Committee
 Member, Biology Curriculum Development Committee
 Member, Department Student Awards Committee
 Member, Grade Appeals Committee
 Recruiter, Perspective and Admitted Student Events
 Chair, Departmental Social Committee

PROFESSIONAL SERVICE AND ACTIVITIES

Reviewer for: *Aquatic Microbial Ecology, Archiv für Hydrobiologie, Biologia, Canadian Journal of Fisheries and Aquatic Sciences, Ecology, Estuarine, Coastal, and Shelf Science, Environmental Science and Technology, Freshwater Biology, Global Change Biology, 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*

Awards Committee, Association for the Sciences of Limnology and Oceanography (ASLO), Chair Hutchison Award Subcommittee	Fall 2019 - Present
Panel Reviewer, Biology Directorate, National Science Foundation	Fall 2016
Panel Reviewer, Biology Directorate, National Science Foundation	Fall 2012

Proposal Reviewer, National Science Foundation	1999 - Present
Proposal Reviewer, National Sigma Delta Epsilon- Graduate Women in Science	Spring 2010
Applicant Reviewer, Tom Frost Award for best graduate student paper, Ecological Society of America, Aquatic Ecology Section	Spring 2010
Participant, Felder/Brent Effective Teaching Workshop	Fall 2003
Participant, Conference on the Scholarship of Teaching and Learning at a Research University, Duke University	Fall 2002
Selected Course Participant, <i>Fundamentals of Ecosystem Studies</i> , Institute of Ecosystem Studies, Millbrook, NY	Winter 1999

PROFESSIONAL SOCIETIES

American Society of Limnology and Oceanography (ASLO)

Ecological Society of America (ESA)

Sigma Xi