

# Megan L. Fork

Duke University – Nicholas School of Environment  
9 Circuit Dr. / Box 90328  
Durham, NC 27708  
megan.fork@duke.edu  
www.meganfork.weebly.com

## Education

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### **Ph.D. Environmental Science and Policy** (expected 2017)

Duke University

Dissertation title: “Stormwater and organic matter in the urban stream continuum”

Advisor: Dr. James Heffernan

### **M.S. Biology** (2012)

Florida International University

Thesis title: “Direct and indirect effects of organic matter sources on denitrification in Florida Rivers”

Major Professors: Dr. James Fourqurean & Dr. James Heffernan

### **B.S. Zoology; Biological Aspects of Conservation; Theatre & Drama** (2008)

University of Wisconsin – Madison

Research title: “Mountain Pine Beetle host preference in Lodgepole vs. Whitebark Pine”

Faculty Mentor: Dr. Kenneth Raffa

## Publications

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Bernhardt, E.S., J.R. Blaszczak, C. Ficken, **M.L. Fork**, K.K. Kaiser, E. Seybold (all authors contributed equally). 2017. Control points in ecosystems: Moving beyond the hot spot hot moment concept. *Ecosystems*. DOI: 10.1007/s10021-016-0103-y

Solomon, C.T., S.E. Jones, B.C. Weidel, I. Buffam, **M.L. Fork**, J. Karlsson, S. Larsen, J.T. Lennon, J.S. Read, S. Sadro, and J.E. Saros. 2015. Ecosystem consequences of changing inputs of terrestrial dissolved organic matter to lakes: Current knowledge and future challenges. *Ecosystems* 18: 376-389. DOI: 10.1007/s10021-015-9848-y

Ficken, C., **M.L. Fork**, and M.R. Fuller. 2015. Patterns and process in landscape ecology: Physical template, biotic interactions and disturbance regime. *Teaching Issues and Experiments in Ecology* Vol. 10: Figure Set #1 [online]. [http://tiee.esa.org/vol/v10/issues/figure\\_sets/ficken/abstract.html](http://tiee.esa.org/vol/v10/issues/figure_sets/ficken/abstract.html)

**Fork, M.L.** and J.B. Heffernan. 2014. Direct and indirect effects of organic matter source and concentration on denitrification in Florida rivers. *Ecosystems* 17:14-28. DOI: 10.1007/s10021-013-9705-9

Heffernan, J.B., A.R. Albertin, **M.L. Fork**, B.G. Katz, and M.J. Cohen. 2012. Denitrification and inference of nitrogen sources in the karstic Floridan Aquifer. *Biogeosciences* 9:1671-1690. DOI: 10.5194/bg-9-1671-2012

## Publications in preparation

**Fork, M.L.**, J.R. Blaszczak, and J.B. Heffernan. Organic matter budgets in the built intermittent headwaters of urban stream networks.

**Fork, M.L.**, and J.B. Heffernan. Patterns in riverine DOM concentration and flux throughout the continental United States from 2000-2010.

**Fork, M.L.**, and J.B. Heffernan. Sources and processing of organic matter in the urban stream continuum.

**Fork, M.L.**, R. McManamay, and J.B. Heffernan. Water column disturbances by urban stormwater at the transition from urban streams to reservoirs.

## Grants & Awards

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Bass Instructor of Record Fellowship – Duke Graduate School; \$11,456 (2017)  
Summer Research Fellowship – Duke Graduate School; \$5500 (2015)  
Dissertation Travel Award – Duke Graduate School; \$2000 (2015)  
GO! Program Fellowship – Oak Ridge National Laboratory; \$40,000 (2015)  
James B. Duke Fellowship – Duke Graduate School; \$20,000 (2012)  
Sigma Xi – Grants-In-Aid of Research; \$300 (2011)  
Best Poster – FL International University 13th Annual Biology Research Symposium (2010)  
Hilldale Research Fellowship – UW-Madison; \$4000 (2007)

## Teaching

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### **Certificate in College Teaching** (expected 2017)

Duke University

### **Teaching Assistant** (2012-17)

Duke University – Nicholas School of Environment

Courses: Ecology and Conservation of Rivers and Streams; Water in a Changing World; Urban Ecology; Landscape Ecology

### **Teaching Assistant** (2010)

Florida International University – Dept. of Biological Sciences

Course: General Biology I Lab

## Presentations

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### **Oral Presentations**

**Fork, M.L.** 2016. Organic matter and stormwater in an urban stream continuum. Tennessee Stormwater Association - East Chapter, Quarterly Meeting, September 9. Oak Ridge, TN. (invited)

**Fork, M.L.**, J.B. Heffernan, and R.A. McManamay. 2016. Pulses of stormwater disrupt reservoir physical and chemical structure across land uses. Association for the Sciences of Limnology and Oceanography Summer Meeting, June 5-10, Santa Fe, NM.

**Fork, M.L.**, J.R. Blaszczak, and J.B. Heffernan. 2016. Dissolved organic matter in urban ephemeral headwaters. Society for Freshwater Science Annual Meeting, May 21-26, Sacramento, CA.

**Fork, M.L.**, E.S. Bernhardt, J.B. Heffernan, and D.L. Urban. 2015. Patterns of dissolved organic matter concentration, composition, and timing in three small urban streams. Society of Freshwater Science Annual Meeting, May 17-21, Milwaukee, WI.

**Fork, M.L.** and J.B. Heffernan. 2012. Direct and indirect effects of organic matter sources on denitrification in Florida rivers. Ecological Society of America meeting, August 5-10, Portland, OR.

### **Posters**

**Fork, M.L.**, J.R. Blaszczak, E.S. Bernhardt, J.B. Heffernan, D.L. Urban and J.M. Delesantro. 2015. Composition of dissolved organic matter in urban runoff depends on source and landscape position. Ecological Society of America Annual Meeting, August 9-14, Baltimore, MD.

**Fork, M.L.** and J.B. Heffernan. 2014. Long-term trends in organic matter concentration and flux across US Rivers. Joint Aquatic Sciences Meeting, May 19-23, Portland, OR.

**Fork, M.L.** and J.B. Heffernan. 2014. Long-term changes in dissolved organic matter concentration in North Carolina surface waters. Water Resources Research Institute Conference, March 19-20, Raleigh, NC.

**Fork, M.L.**, A. Albertin, J.B. Heffernan, B. Katz, M.J. Cohen. 2010. Denitrification in the karstic Floridan Aquifer. American Geophysical Union Fall Meeting, December 13-17, San Francisco, CA.

## Other Research Experience

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### Research Technician (2009-10)

Florida International University – Stream, River, and Wetland Ecology Lab

Supervisor: Dr. Jim Heffernan

### Research Assistant (2008-09)

University of Canterbury – Freshwater Ecology Research Group

Supervisors: Dr. Angus McIntosh and Dr. Michelle Greenwood

### Lab Assistant (2007-08)

University of Wisconsin-Madison – Turner Landscape Ecology Lab

Supervisors: Dr. Jake Griffin and Dr. Martin Simard

## Outreach & Service

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Contributor: NC DENR Street Sweeping & Storm Drain Cleaning - Nutrient Crediting Framework (2016)

Manuscript reviewer: *Biogeochemistry*; *J. Geophysical Research – Biogeosciences*; *Water* (2013-present)

Coordinator: Duke Nicholas School of Environment Graduate Afternoon Seminar series (2013-14)

Program representative and co-chair: Nicholas PhD Advocacy Council (2015-16)

Society for Freshwater Science Student Resource Council (2015-present)

## Professional Memberships

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Ecological Society of America

American Geophysical Union

Association for the Sciences of Limnology and Oceanography

Society for Freshwater Science