

RACHEL E. MICHAELS, Ph.D.

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EDUCATION

Ph.D., *Environmental Sciences*

August 2012

University of Virginia, Charlottesville, Virginia

Dissertation: Interactions among flood regime, sediment type, and bioturbation within salt marsh systems in the context of sea-level rise.

M.S., *Environmental Sciences*

May 2004

University of Virginia, Charlottesville, Virginia

Thesis: The effects of *Uca pugnax* on pore water biogeochemistry of a *Spartina alterniflora* salt marsh.

B.S., *Geology and Geophysics & Environmental Studies Certificate*

May 1998

University of Wisconsin-Madison

EDITING, RESEARCH, & CONSULTING EXPERIENCE

Freelance Academic Editor

Sept 2014 – present

RachelMichaelsEdits.com - Editing in any field with specialization in the sciences

- Provide substantive editing for multiple clients in diverse fields
- Edit, review, and proofread manuscripts before submission to peer-reviewed journals
- Edit, review, and proofread book chapters, grant proposals, reports, research proposals, theses and dissertations, and conference abstracts before submission

Journal Peer-Reviewer

April 2014 – present

- *Journal of Experimental Marine Biology and Ecology*
- *Crustaceana*
- *Journal of Integrated Coastal Zone Management*
- *International Review of Hydrobiology*

Academic Editor and Researcher

Sept. 2012 – March 2015

Environmental Sciences, University of Virginia

- Provided substantive editing for multiple clients
- Edited, reviewed, prepared, and formatted manuscripts before submission to peer-reviewed journals in order to communicate new findings to the scientific community
- Relied upon by researchers in a variety of specialized fields (e.g. marine biogeochemistry, sea-grass genetics)

Researcher

Aug. 1999 – Aug. 2012

Environmental Sciences, University of Virginia

- Led and executed independent, interdisciplinary research within salt marsh ecosystems in order to examine physical and biological interactions; interpreted results in the context of sea level rise
- Developed and conducted short-term and multi-year experiments which resulted in new insights on micro-, meso-, and landscape-scale interactions within salt marshes
- Supervised, mentored, and evaluated undergraduate researchers; mentored new graduate students and helped them develop research proposals
- Presented research on sediment pore water biogeochemistry, bioturbation, and primary production within intertidal salt marshes at 11 national or international scientific conferences
- Presented seminars, by invitation, to both scientific and general audiences

Consultant

Aug. 2010 – June 2011

Research Vine, Market Research Consulting Firm

- Developed, edited, and reviewed presentations for company promotion meetings with Fortune 500 companies
- Collaborated with and advised team leader on results presented to clients
- Analyzed data collected and helped prepare documents on findings
- Managed several consulting projects simultaneously with short deadlines

Consultant

Aug. 2009 – Oct. 2009

The Nature Conservancy (TNC), Virginia Chapter

- Helped facilitate brainstorming and discussion session on effects of climate change on coastal bay ecosystems of the Virginia Coast Reserve (VCR) in a workshop with 40 other scientists
- Conducted synthesis and fact-finding, and compiled further research, to aid in answering key questions needed to inform and implement conservation and management strategies
- Created flow charts of coastal ecological processes in Microsoft Visio
- Developed novel method to collect and visualize complex ecological information for the project leader in order to determine how different bird species use this diverse ecosystem
- Key contributor to “Effects of Global Climate Change at the Virginia Coast Reserve”, a report that identified strategies for management of ecological systems of the VCR

PEER-REVIEWED PUBLICATION

Michaels, R.E. & Zieman J.C. 2013. Fiddler crab (*Uca* spp.) burrows have little effect on surrounding sediment oxygen concentrations. *Journal of Experimental Marine Biology and Ecology* 448: 104-113.

LEADERSHIP and SERVICE

Graduate Student Representative

Aug. 2000 – Jan. 2005

Virginia Coast Reserve (VCR) – Long Term Ecological Research (LTER) Program

- Facilitated communication between Principal Investigators and graduate students
- Corresponded with numerous professors from multiple partner universities in order to manage and track ever-changing graduate personnel directories at the local and national levels
- Created instructional manual to inform future representatives of their duties and responsibilities
- Represented the VCR–LTER at the Ecological Society of America’s annual national meeting

Grant Writing Working Session Participant

Feb. 2004

Long Term Ecological Research Network

- Helped to initiate and develop inaugural LTER national Graduate Student Symposium
- Generated supplemental proposal to National Science Foundation with 6 LTER colleagues
- Procured \$43,000 grant to fund a group to organize and implement Graduate Student Symposium; symposium continues to be held at the triennial LTER - All Scientists Meeting

EDUCATOR

Mentor

2000 – 2014

Environmental Sciences, University of Virginia

- Instructed undergraduate and graduate students in hands-on coastal ecology, field research, and laboratory techniques
- Assisted graduate students in developing writing and presentation skills

Tomorrow’s Professor Today Program

May 2007 – May 2010

University of Virginia

- Participated in professional development workshops in order to gain team building and leadership skills
- Learned and applied techniques for communication within small and large group settings
- Acquired project management skills for faculty positions including multitasking, classroom teaching, research, writing scholarly articles, and creating and giving professional presentations

Guest Lecturer - Estuarine Ecology

2002 – 2007

Environmental Sciences, University of Virginia

- Developed and presented lectures to advanced undergraduate and graduate classes
- Helped instructor coordinate and lead fieldtrips to Virginia coastal bays and barrier islands
- Taught students in the field to promote hands-on learning and rapid information synthesis

Teaching Assistant

Aug. 1999 – May 2001

Environmental Sciences, University of Virginia

- Oversaw other teaching assistants and served as liaison between TAs and professor
- Coordinated lab exercise revisions and approved final versions
- Taught weekly laboratory section and managed grades for section

Instructor

Aug. 2000 – Dec. 2000

Environmental Sciences, University of Virginia

- Created laboratory syllabus for advanced undergraduate course in Mineralogy/Petrology
- Determined laboratory exercises and taught weekly lab section
- Developed comprehensive practical exam and managed all grades