

## CURRICULUM VITAE

### ROBINSON W. FULWEILER

Department of Earth & Environment

Department of Biology

Boston University

Boston, MA 02215

Phone (w): 617-358-5466 (c): 401-932-2464

Website: [www.fulweilerlab.com](http://www.fulweilerlab.com)

[rwf@bu.edu](mailto:rwf@bu.edu)

#### a. PROFESSIONAL PREPARATION

<u>Institution</u>	<u>Major</u>	<u>Degree and Year</u>
University of Vermont, Burlington, VT	International Studies	BA, 2000
University of Rhode Island, Narragansett, RI	Oceanography	MS, 2003
University of Rhode Island, Narragansett, RI	Oceanography	PhD, 2007

#### b. APPOINTMENTS

2013-present	Visiting Scientist, University of Western Australia
2012-present	Visiting Scientist, EPA, Narragansett, RI
2011-present	Assistant Professor, Joint Appointment Earth and Environment and Biology, Boston University
2010-present	Associate Director, Marine Sciences Program, Boston University
2010-present	Adjunct Faculty, Department of Oceanography and Coastal Sciences, Louisiana State University, Baton Rouge, LA
2010-present	Adjunct Faculty, Graduate School of Oceanography, University of Rhode Island
2010-present	Assistant Professor, Affiliated Appointment (non-tenure), Biology Department, Boston University
2008-present	Assistant Professor, Earth Sciences, Boston University
2007-08	Postdoctoral Research Associate, Louisiana State University, Baton Rouge, LA
2007-08	Research Assistant/Teaching Fellow, Graduate School of Oceanography, University of Rhode Island

#### c. POST GRADUATE AWARDS AND HONORS

2012-present	Sloan Research Fellow in Ocean Sciences. This fellowship is given to individuals “ <i>who show the most outstanding promise of making fundamental contributions to new knowledge.</i> ” Ocean Sciences was introduced as an award category in 2012.
2013	Cronin Award from the Coastal and Estuarine Research Federation (CERF). This award recognizes the “ <i>significant accomplishments of an estuarine scientist who is in the early stages of his/her career development and who has shown great promise with work carried out during the first six years past the Ph.D.</i> ”
2013	Outstanding Reviewer for the journal <i>Estuaries and Coasts</i>
2013	The Neu Family Award for Excellence in Teaching in the College of Arts and Sciences.

- 2013 Invited participant to the Microbial Ecology and Biogeochemistry of Oxygen-Deficient Marine Waters Symposium; Co-Chair session w/ Niels Peter Revsbech on “What are the thresholds of oxygen stress that bound aerobic and anaerobic processes?” Sponsored by the Moore Foundation and the Agouron Institute.
- 2013 Invited participant to NOAA Nitrogen Removal by Oysters Workshop. Wachapreague, VA.
- 2012-present Invited to co-Chair the Public Policy Committee of the Association for the Sciences of Limnology and Oceanography (ASLO).
- 2012-present Elected to the Board of the Association for the Sciences of Limnology and Oceanography (ASLO) Board; Member-at-Large.
- 2012 Invited participant to Earth Cube Early Career Strategic Visioning Workshop; Invitation reads, “*you have been identified by the NSF as a leading early career scholar/professional relevant to the future of EarthCube.*”
- 2012-present Editorial Board of the journal *Estuarine, Coastal, Shelf Science*.
- 2011 Invited to co-Chair session titled, “Biogeochemical silica cycling from land to ocean” at the Isotopes in Biogenic Silica (IBiS) meeting. Antwerp, Belgium.
- 2010-present Invited to Member-at-Large, New England Estuarine Research Society (NEERS).
- 2010-present Editorial Board of the *Journal of Sea Research*.
- 2008 Awarded travel and research grant from Nitrogen in Europe (NinE) Assessment of current problems and future to determine: What is Our Current State of Knowledge on N<sub>2</sub>O Production in the Baltic Sea?

#### **d. PROFESSIONAL SOCIETIES**

American Geophysical Union (AGU)  
 American Society of Limnology and Oceanography (ASLO)  
 American Society of Microbiology (ASM)  
 Coastal and Estuarine Research Federation (CERF)  
 Ecological Society of America (ESA)  
 New England Estuarine Research Society (NEERS)

#### **e. PUBLICATIONS**

*Note: Starting in 2012, my approach to co-authorship when postdoctoral associates or students from my lab are first author is to list myself as last author. ( §postdoc, \*graduate student, ¥ undergraduate student)*

#### Journal Articles in Press/Published:

31. \*Carey, J.C. & **Fulweiler, R.W.** Salt marsh tidal exchange increases residence time of silica in estuaries. (*In Press Limnology and Oceanography*).

30. \*Emery, H.E. & Fulweiler, R.W. The Impact of *Phragmites australis* on Salt Marsh Greenhouse Gas Emissions and Global Warming Potential. (*In Press Aquatic Botany*).
29. \*Vieillard, A. & Fulweiler, R.W. (In Press) Tidal pulsing alters nitrous oxide fluxes in a temperate intertidal mudflat. *Ecology*. <http://dx.doi.org/10.1890/13-1333.1>.
28. **Fulweiler, R.W.** and \*Heiss, R.W. (2014) (Nearly) A Decade of Directly Measured Sediment N<sub>2</sub> Fluxes – What Can Narragansett Bay Tell Us about the Global Ocean Nitrogen Budget? *Oceanography* 27 (1):184–195, <http://dx.doi.org/10.5670/oceanog.2014.22>. (*Invited*)
27. Cole, L.W. & **Fulweiler, R.W.** (2013) First, do no harm. *Frontiers in Ecology and the Environment* 11: 59.
26. **Fulweiler, R.W.**, Brown, S., Nixon, S.W., Jenkins, B. (2013) Denitrification and Nitrogen Fixation are Coupled in Heterotrophic Marine Sediments. *Marine Ecological Progress Series* 482: 57-68. DOI: 10.3354/meps10240.
25. \*Carey, J.C. & **Fulweiler, R.W.** (2013) Watershed Land Use Alters Riverine Silica Cycling. *Biogeochemistry* (1-3): 525-544. DOI: 10.1007/s10533-012-9784-2.
24. \*Carey, J.C. & **Fulweiler, R.W.** (2013) Nitrogen Enrichment Increases Net Si Accumulation in a Temperate Salt Marsh. *Limnology and Oceanography* 58 (1): 99-111.
23. \*Carey, J.C. & **Fulweiler, R.W.** (2012) The Terrestrial Silica Pump. *PLoS ONE* 7(12): e52932. DOI:10.1371/journal.pone.0052932.
22. \*Vieillard, A. & **Fulweiler, R.W.** (2012) Impacts of Long-term Fertilization on Salt Marsh Tidal Creek Benthic Nutrient and N<sub>2</sub> Gas Fluxes. *Marine Ecological Progress Series* 471: 11-22.
21. \*Carey, J. & **Fulweiler, R.W.** (2012) Human Activities Directly Alter Watershed Dissolved Silica Fluxes. *Biogeochemistry* 111: 125-138. DOI: 10.1007/s10533-011-9671-2. DOI: 10.3354/meps10013
20. **Fulweiler, R.W.** & Nixon, S.W. (2012) Net Sediment N<sub>2</sub> Fluxes in a Southern New England Estuary - Variations in Space and Time. *Biogeochemistry* 111:111-124. DOI: 10.1007/s10533-011-9660-5.
19. **Fulweiler, R.W.**, Rabalais, N.N., Heiskanen, A.S. (2012) The Eutrophication Commandments. *Marine Pollution Bulletin* 64: 1997-1999.
18. \*Heiss, E.M., Fields, L., & **Fulweiler, R.W.** (2012) Directly Measured Net Denitrification Rates in Offshore New England. *Continental Shelf Research* 45: 78-86.
17. Nixon, S.W. & **Fulweiler, R.W.** (2012) Environmental Footprints and Shadows in an Urban Estuary, Narragansett Bay, RI (USA). *Regional Environmental Change* 12: 381-394.
16. <sup>‡</sup> Vieillard, A., **Fulweiler, R.W.**, Hughes, Z. (2011) The Ebb and Flood of Silica: Quantifying Dissolved and Biogenic Silica Fluxes from a Temperate Salt Marsh. *Estuarine, Coastal and Shelf Science* 95 (4): 415-423.

15. **Fulweiler, R.W.**, \*Emery, H., \*Heiss, E.M., Berounsky, V. (2011) Assessing the Role of pH in Determining Water Column Nitrification Rates in a Coastal system. *Estuaries and Coasts* 34: 1095-1102.
14. Bargu, S., White, J.R., Chunyan, L., Czubakowski, J., **Fulweiler, R.W.** (2011) Effects of Freshwater Input on Nutrient Loading, Phytoplankton Biomass, and Cyanotoxin Production in an Oligohaline Estuarine Lake. *Hydrobiologia* 661 (1): 377-389. DOI: 10.1007/s10750-010-0545-8
13. **Fulweiler, R.W.**, Nixon, S.W., Buckley, B.A. (2010). Spatial and Temporal Variability of Benthic Oxygen Demand and Nutrient Regeneration in an Anthropogenically Impacted New England Estuary. *Estuaries and Coasts* 33 (6): 1377-1390.
12. Rivera-Monroy, Victor H., Peter Lenaker, Robert R. Twilley, Ronald D. Delaune, Charles W. Lindau, William Nuttle, Emad Habib, **Robinson W. Fulweiler**, and Edward Castañeda-Moya. Denitrification in Coastal Louisiana: A Spatial Assessment and Research Needs. *Journal of Sea Research* 63, no. 3 (2010): 157-172.
11. **Fulweiler, R.W.** Fantastic Fixers. (2009) *Science* 326: 377-378. (*Invited*).
10. White, John; **Fulweiler, Robinson**; Li, Chunyan; Bargu, Sibel; Walker, Nan; Twilley, Robert; Green, Sara. (2009). Mississippi River Flood of 2008 - Observations of a Large Freshwater Diversion on Physical, Chemical and Biological Characteristics of a Shallow, Estuarine Lake. *Environment, Science, and Technology* 43: 5599-5604.
9. **Fulweiler, R.W.** & Nixon, S.W. (2009). Responses of benthic-pelagic coupling to climate change in a temperate estuary. *Hydrobiologia* 629: 147-156. DOI: 10.1007/s10750-009-9766-0.
8. Groffman, P. M., Butterbach-Bahl, K., **Fulweiler, R.W.**, Gold, A.J., Morse, J.L., Stander, E.K., Tague, C., Tonitto, C., Vidon, P. (2009) Challenges to incorporating spatially and temporally explicit phenomena (hotspots and hot moments) in denitrification models. *Biogeochemistry* 93:1-5. DOI: 10.1007/s10533-009-9285-0
7. Fennel, K., Brady, D., DiToro, D., **Fulweiler, R.W.**, Gardner, W.S., Giblin, A., McCarthy, M.J., Rao, A., Seitzinger, S., Thouvenot-Korppoo, Tobias, C. (2009) Modeling denitrification in aquatic systems. *Biogeochemistry* 93:159-178. DOI: 10.1007/s10533-008-9270-z.
6. Nixon, S.W., **Fulweiler, R.W.**, Buckley, B.A., Granger, S.L., Nowicki, B.L., Henry, K.M. (2009). The impact of changing climate on phenology, productivity, and benthic-pelagic coupling in Narragansett Bay. *Estuarine, Coastal, and Shelf Science* 82: 1-18. (*Invited Feature*).
5. **Fulweiler, R.W.**, Nixon, S.W., Buckley, B.A., Granger, S.L. (2008). Net Sediment N<sub>2</sub> Fluxes in a Coastal Marine System – Experimental manipulations and a Conceptual Model. *Ecosystems* 11: 1168-1180.
4. **Fulweiler, R.W.**, Nixon, S.W., Buckley, B.A., Granger, S.L. (2007). Reversal of the net nitrogen flux in coastal marine sediments. *Nature* 448: 180-182.
3. **Fulweiler, R.W.** & Nixon, S.W. (2005) Terrestrial vegetation and the seasonal cycle of dissolved silica in a southern New England Coastal River. *Biogeochemistry* 74: 115-130.

2. **Fulweiler, R.W.** & Nixon, S.W. (2005) Annual export of nitrogen, phosphorus, and suspended solids from a southern New England Watershed. *Biogeochemistry* 76: 567-593.
1. **Fulweiler, R.W.**, Nixon, S.W., Buckley, B., Granger, S. (2003) Export of organic carbon from a minimally developed southern New England watershed. In: B.A. Brebbia (ed.) *River Basin Management II*, Wessex Institute of Technology. Southampton, UK.

Journal Articles in Review/Revision:

Duarte, C., **Fulweiler, R.W.**, Lovelock, C., Martinetto, P., Saunders, M., Pandolfi, J., Gelcich, S. Deconstructing Ocean Plagues. (In Review at *BioScience*)

\*Heiss, E.M. & **Fulweiler, R.W.** A tale of two processes: water column and benthic controls on marine nitrification. (In Review at *Marine Ecological Progress Series*).

Fagherazzi, S., Mariotti, G., <sup>‡</sup>Banks, A.T., Morgan, E.J., **Fulweiler, R.W.** Hydrodynamic Controls on the Spatial Distribution of Sediments and Chlorophyll in a Mesotidal Estuary. (In Review at *Estuarine, Coastal Shelf Science*).

\*Fields, L., Nixon, S.W., Oviatt, C.A., **Fulweiler, R.W.** Benthic metabolism and nutrient regeneration in hydrographically different regions on the inner continental shelf of Southern New England. (In Review at *Estuarine, Coastal Shelf Science*).

<sup>§</sup>Newell, S.E., McCarthy, M.J., Gardner, W.S., **Fulweiler, R.W.** Sediment Nitrogen Fixation: The Case for Re-evaluating the Coastal N Budget. (In Review at *PNAS*).

<sup>‡</sup>Pritchard, K.R., <sup>§</sup>Newell, S.E., \*Foster, S.Q., **Fulweiler, R.W.** Sediment *nifH* expression in a Temperate New England Estuary. (In Review at *Environmental Microbiology*).

Journal Articles in Preparation:

*Note: Papers listed here are only those in final draft form which will be submitted shortly.*

\*Foster, S.Q. & **Fulweiler, R.W.** Spatial and historic variability of benthic nitrogen cycling processes in an anthropogenically impacted estuary (In preparation for *Marine Ecological Progress Series*).

Book Chapters:

**Fulweiler, R.W.** & Bartoli, M. (2012) Variation Among Estuarine Geochemistry and Productivity, In Volume 1: Features/Classification of Estuaries and Coastal Waters. Editors: E. Wolanski and D. McLusky, Elsevier (*Invited*).

Fagherazzi S., FitzGerald D.M., **Fulweiler R.W.**, Hughes Z., Wiberg P.L., McGlathery K.J., Morris J.T., Tolhurst T.J., Deegan L.A., Johnson D.S. (2013) Ecogeomorphology of Tidal Flats, *Treatise on Geochemistry*, Volume 12 Ecogeomorphology. Editors: Butler D., Hupp C., Executive Editor: Shroder J. Elsevier.

Fagherazzi S., FitzGerald D.M., **Fulweiler R.W.**, Hughes Z., Wiberg P.L., McGlathery K.J., Morris J.T., Tolhurst T.J., Deegan L.A., Johnson D.S. (2013) Ecogeomorphology of Salt Marshes, Treatise on Geochemistry, Volume 12 Ecogeomorphology. Editors: Butler D., Hupp C., Executive Editor: Shroder J. Elsevier.

Nixon, S.W. & **Fulweiler, R.W.** (2009). Nutrient Pollution, Eutrophication, and the Degradation of Coastal Marine Ecosystems. In: C.M. Duarte, J. Culberston et al. (ed). Global Loss of Coastal Habitats: Rates, Causes, and Consequences. Bilbao: Fundacion BBVA. 184 p.

Nixon, S.W., B. A. Buckley, S.L. Granger, L. A. Harris, A.J. Oczkowski, **R.W. Fulweiler**, and L.W. Cole. (2008). Nutrient (N and P) inputs to Narragansett Bay: past, present, and future. In: B. Costa-Pierce, A. Colt, and A. Desbonnet (eds.) Science for Ecosystem-based Estuarine management: Narragansett Bay in the 21st Century. Springer Verlag, NY.

#### Theses:

**Fulweiler, R.W.** (2007) The Impact of Climate Change on Benthic-Pelagic Coupling and the Biogeochemical Cycling of Narragansett Bay, R.I. Ph.D. thesis in Oceanography, Narragansett, University of Rhode Island: p. 265.

**Fulweiler, R.W.** (2003) An assessment of carbon, nutrient, and total suspended solids export from the Wood-Pawcatuck Watershed to Little Narragansett Bay. Masters thesis in Oceanography. Narragansett, University of Rhode Island: p. 165.

#### Technical Reports:

Gawarkiewicz, G., J. Nelson, R. He, **R. W. Fulweiler**, J. Goff, T. Grothues, and E. LaBrecque, 2011: Shelf/Slope Processes: Science opportunities and issues relating to the OOI Pioneer Array. OOI/NSF Technical Report, 57 pp.

Nixon S.W., Buckley B., Granger S., Harris L., Oczkowski A., Cole L., and **Fulweiler R.** (2005) Anthropogenic Nutrient Inputs to Narragansett Bay: A Twenty-five Year Perspective. A report to the Narragansett Bay Commission and Rhode Island Sea Grant. Narragansett, RI. 30 p.

Nixon, S.W., Olsen, S.B., Buckley, E., **Fulweiler, R.** (2004) Lost to the Tide: The importance of Freshwater Flow to Estuaries. Final Report submitted to the Coastal Resources Center. Narragansett, RI: University of Rhode Island, Graduate School of Oceanography.  
[http://www.crc.uri.edu/download/2\\_LosttotheTide\\_Nixon\\_2004.pdf](http://www.crc.uri.edu/download/2_LosttotheTide_Nixon_2004.pdf).

#### Popular Press and Science Outreach:

**Fulweiler, R.W.** (2012) Nitrogen News: Nitrogen Impacts on New England Salt Marsh  
<http://www.nitrogennews.com/interactivemap/massachusetts.html>

**Fulweiler, R.W.** (2012) Big Foot: Nitrogen Part IV:  
<http://www.thenakedscientists.com/HTML/articles/article/bigfoot-the-nitrogen-problem/>

**Fulweiler, R.W.** (2012) No Smoke Detectors in the Sea: The Nitrogen Story Part III:  
<http://www.thenakedscientists.com/HTML/articles/article/no-smoke-detectors-in-the-sea/>

**Fulweiler, R.W.** (2011) Breathless: The Nitrogen Story Part II:  
<http://www.thenakedscientists.com/HTML/articles/article/breathless/>

**Fulweiler, R.W.** (2011) The Wheels on the Bus: The Nitrogen Story for the Naked Scientist:  
<http://www.thenakedscientists.com/HTML/articles/article/the-wheels-on-the-bus/>

**Fulweiler, R.W.** (2007) The Louisiana Wetlands: An Introduction; Science Tales from the Red Stick for the Naked Scientist:  
<http://www.thenakedscientists.com/HTML/articles/article/thelouisianawetlandsanintroduction/>

**Fulweiler, R.W.** (2007) Climate change and the Marine Nitrogen Cycle for the Naked Scientist:  
<http://www.thenakedscientists.com/HTML/>.

**Fulweiler, W.** (2004) The Importance of Land and Sea. Wood-Pawcatuck Watershed Report. Vol 21(1).

#### Media Coverage of Research:

Interview (8/22/10) with the Naked Scientist's Helen Scales on Gulf of Mexico spill and the Louisiana Wetlands: <http://www.thenakedscientists.com/HTML/podcasts/show/2010.08.22/>

Interview (6/13/10) with the Naked Scientist's Ben Valsler on evaluation the impact of the Gulf Horizon Oil Spill on Louisiana Wetlands.  
<http://www.thenakedscientists.com/HTML/podcasts/show/2010.06.13/>

Interview (6/9/10) with Mark Strassman from CBS news:  
<http://www.cbsnews.com/video/watch/?id=6566045n&tag=related;photovideo>

Interview (2/2/08) with the Naked Scientist's Dr. Chris Smith on the importance of wetlands in Louisiana, "Wet and Wild," <http://www.thenakedscientists.com/HTML/podcasts/show/2008.02.03/>.

Lane, Nick (2007). What's in the Rising Tide? *Nature* 449, 778-780 (2007).

Interview with Rhode Island Public Radio's Nancy Cook, "Climate change changing Narragansett Bay,"  
<http://www.wrni.org/wrninews/archive/070926-bay1.asp>.

Nature Podcast: July 12, 2007. <http://www.nature.com/nature/podcast/v448/n7150/nature-2007-07-12.mp3>.

#### **f. PRESENTATIONS**

##### Invited Seminars at Universities and Research Centers:

- 2013 Woods Hole Oceanographic Institute, Marine Chemistry and Geochemistry Seminar; Woods Hole, MA: "*Have We Underestimated the Importance of Sediment N Fixation?*"
- 2013 MIT, Microbial Systems Seminar Series; Cambridge, MA: "*Have We Underestimated the Importance of Sediment N Fixation?*"
- 2013 Mediterranean Institute for Advanced Studies (IMEDEA); Mallorca, Spain: "*Climate, Carbon, and Heterotrophic Sediment N Fixation.*"

- 2013 University of North Carolina–Chapel Hill; Chapel Hill, NC: “*Climate, Carbon, and Heterotrophic Sediment N Fixation.*” (\*Invited for Gussenhoven Lecture)
- 2012 University of Massachusetts–Boston; Boston, MA: “*Harmful Algal Blooms and Benthic Nutrient Mineralization – A Positive Feedback Loop or a Dead End?*”
- 2012 Lund University; Lund, Sweden: Lecturer for Global Biogeochemical Cycles: “*The Global Nitrogen Cycle – Today and Tomorrow.*”
- 2012 Marine Biological Laboratory; Woods Hole, MA: “*A Different Kind of Dam: The Influence of Terrestrial Vegetation on Silica Export to Coastal Waters.*”
- 2012 Rutgers University, Marine Science Institute; Brunswick, NJ: “*Climate, Carbon, and Heterotrophic Sediment N Fixation.*”
- 2011 Graduate School of Oceanography/University of Rhode Island; Narragansett, RI: “*Climate, Carbon, and Heterotrophic Sediment N Fixation.*”
- 2011 University of Florida; Environmental Engineering; Gainesville, FL: “*Climate Induced Changes of Benthic-Pelagic Coupling and Biogeochemistry in a New England Estuary (and beyond...).*”
- 2010 University of Virginia; Department of Environmental Sciences; Charlottesville, VA: “*Sediment N<sub>2</sub> and Greenhouse Gas Fluxes from Shore to Shelf – Seasonal Patterns and Environmental Controls.*”
- 2010 California Institute of Technology, Environmental Science and Engineering Seminar; Pasadena, CA: “*Climate Change Impacts on Biogeochemical Cycling in a Temperate Estuary.*”
- 2009 Carey Institute of Ecosystem Studies; Millbrook, NY: “*Climate Induced Changes of Benthic-Pelagic Coupling and Biogeochemical Cycling in Narragansett Bay, RI.*”
- 2009 Woods Hole Oceanographic Institute, Woods Hole, MA: “*The Impact of Changing Climate on Phenology, Productivity, and Benthic-Pelagic Coupling in Narragansett Bay.*” (co-Presentation w/ Dr. Scott W. Nixon).
- 2009 Virginia Institute of Marine Science; Gloucester Point, VA: “*Climate Change Impacts on Biogeochemical Cycling in a Temperate Estuary.*”
- 2008 Massachusetts Institute of Technology; Earth, Atmospheric & Planetary Sciences; Cambridge, MA: “*Climate Induced Changes of Benthic-Pelagic Coupling in Narragansett Bay, RI.*”
- 2007 Princeton University; Ecology and Evolutionary Biology; Princeton, NJ: “*Climate Induced Changes of Benthic-Pelagic Coupling in Narragansett Bay, RI.*”
- 2007 Louisiana State University; Department of Oceanography and Coastal Science; Baton Rouge, LA: “*Climate Induced Changes of Benthic-Pelagic Coupling in Narragansett Bay, RI.*”
- 2007 Florida State University; Oceanography Department; Tallahassee, FL: “*Climate Induced Changes of Benthic-Pelagic Coupling in Narragansett Bay, RI.*”



- 2007 University of Texas at Austin Coastal Marine Lab; Port Aransas, TX: “*Climate Induced Changes of Benthic-Pelagic Coupling in Narragansett Bay, RI.*”
- 2007 University of Connecticut; Marine Science Department; Avery Point, CT: “*Climate Induced Changes of Benthic-Pelagic Coupling in Narragansett Bay, RI.*”
- 2006 Natural and anthropogenic modifications of the Si cycle along the land-ocean continuum: Worldwide Ecological, Biogeochemical and Socio-economic consequences (Si-Webs) Conference; Brest, France.

Invited Conference Lectures: (§postdoctoral associate, \*graduate student, ¥undergraduate student)

- 2013 **Fulweiler, R.W.** & \*Emery, H.E. Greenhouse Gas Fluxes in Tidal Restricted and Restored Salt Marshes. Salt Marsh Symposium: Symposium on C/N Cycling and Ecosystem Valuation of Tidal Wetlands in the Northeast. Waquoit Bay National Estuarine Research Reserve, East Falmouth, MA.
- 2013 **Fulweiler, R.W.** The Immortal Life of Nitrogen. Darwin Festival. Salem State University. Salem, MA. (*Sponsored by the Charles Albert Read Trust*).
- 2012 **Fulweiler, R.W.** “Times They Are a-Changin’ - Examining Long-term Changes and Short-term Variations in Benthic-pelagic Coupling and Sediment N Cycling in the Coastal Ocean.” 2<sup>nd</sup> International Council for the Exploration of the Seas (ICES) and the North Pacific Marine Science Organization (PICES) Conference for Early Career Scientists. Mallorca, Spain.
- 2011 **Fulweiler, R.W.**, White, J.R., Twilley, R.R. The Impact of Flood-Pulse Disturbance on Lake Ponchartrain Sediment Biogeochemistry (Invited Speaker). North American Benthological Society Annual Meeting; Linking Landscapes: Watersheds to the Ocean. Providence, Rhode Island.
- 2011 **Fulweiler, R.W.** N Fixation in Marine Sediments. (Invited Speaker, declined). International Society for Environmental Biogeochemistry – “Frontiers in Biogeochemistry”. Istanbul, Turkey.
- 2010 **Fulweiler, R.W.**, Heiskanen, A., Rabalais. Symposium Summary: We know a lot, we have more to Learn, but what more do we need to know to take action? (*Invited Plenary Talk*). EUTRO 2010 - Research and Management of Eutrophication in Coastal Ecosystems; Nyborg, Denmark.
- 2009 **Fulweiler, R.W.** & Nixon, S.W. The History and Future of Urban Water Use in Providence, RI. (*Invited Talk*). Workshop on History of Urban Ecological Imprint, CNRS/UPMC. Paris, France.

Conferences: (§postdoctoral associate, \*graduate student, ¥undergraduate student)

- 2013 Ayvazian, S., Carey, J., Hancock, B., Brown, S., **Fulweiler, R.W.** Oyster Reef Restoration and Aquaculture Impacts on Denitrification and the Benthic Community. (Poster) Coastal Estuarine Research Federation. San Diego, CA.
- 2013 Brawley, J.W., Weeks, M.V., Hare, M., **Fulweiler, R.W.**, Murphy, D., Reitsma, J. A Study on the Effects of Cultured vs. Wild Oysters (*Crassostrea Virginica*) on Nitrogen Cycling And

- Ecosystems with Two Similar, Eutrophic Estuaries in Cape Cod, MA. (Talk) Coastal Estuarine Research Federation. San Diego, CA.
- 2013 Fields, L., Nixon, S.W., Oviatt, C., **Fulweiler, R.W.** Responses of Benthic-Pelagic Coupling to Anthropogenic and Climate-Driven Ecosystem Changes in a Temperate Estuary. (Talk) Coastal Estuarine Research Federation. San Diego, CA.
- 2013 \*Foster, S.Q. & **Fulweiler, R.W.** Trends in Sediment Nutrient Cycling Dynamics and Net Ecosystem Metabolism Over Twenty Years in Waquoit Bay, MA. (Talk) Coastal Estuarine Research Federation. San Diego, CA.
- 2013 **Fulweiler, R.W.** & Nixon, S.W. Guiding Light. (Talk) Coastal Estuarine Research Federation. San Diego, CA.
- 2013 §Newell, S., McCarthy, M.J., Gardner, W.S., **Fulweiler, R.W.** The Enigmatic Nitrogen Cycle: Disentangling Sediment N<sub>2</sub> Fluxes in a Temperate Estuary. (Talk) Coastal Estuarine Research Federation. San Diego, CA.
- 2013 **Fulweiler, R.W.** & Heiss, E.M. A Decade of Net Sediment N<sub>2</sub> Fluxes - What can Narragansett Bay tell us about the Global Ocean Nitrogen Budget? (Talk). Scott W. Nixon Symposium - Science Worth Noticing. Graduate School of Oceanography, University of Rhode Island, Narragansett Bay, RI.
- 2013 \*Carey, J.C. & **Fulweiler, R.W.** Land Use Change Directly Alters Riverine Dissolved Silica Fluxes. (Talk) Association for the Sciences of Limnology and Oceanography. New Orleans, LA.
- 2013 Cramer, C.B. & **Fulweiler, R.W.** Video Fluxes: An Interpretation for Education and Outreach. (Talk) Association for the Sciences of Limnology and Oceanography. New Orleans, LA.
- 2013 \*Emery, H.E. & **Fulweiler, R.W.** Anthropogenic Impacts on Salt Marsh Greenhouse Gas Emissions. (Talk) Association for the Sciences of Limnology and Oceanography. New Orleans, LA.
- 2013 \*Fields, L., Nixon, S.W., **Fulweiler, R.W.** Rapid Response of Benthic-Pelagic Coupling to Climate Driven Ecosystem Changes in a Temperate Estuary. (Talk) Association for the Sciences of Limnology and Oceanography. New Orleans, LA.
- 2013 \*Foster, S.Q. & **Fulweiler, R.W.** Effects of Increasing Eutrophication on Sediment N<sub>2</sub>O and N<sub>2</sub> Fluxes in a Shallow Coastal Ecosystem. (Talk) Association for the Sciences of Limnology and Oceanography. New Orleans, LA.
- 2013 \*Heiss, E.M. & **Fulweiler, R.W.** Pelagic Nitrification in Varying Environments: How Rates Change Along an Estuary-to-Shelf Gradient. (Talk) Association for the Sciences of Limnology and Oceanography. New Orleans, LA.
- 2013 \*Vieillard, A.M. & **Fulweiler, R.W.** High-resolution Nitrous Oxide Fluxes from a Temperate Intertidal Mudflat. (Talk) Association for the Sciences of Limnology and Oceanography. New Orleans, LA.

- 2013 <sup>‡</sup>Rogener, M., \*Heiss, E.M., Ireland, T., Murray, R., **Fulweiler, R.W.** Short and Long-term Temporal Variations of Manganese, Iron, and N<sub>2</sub> Fluxes Across the Sediment Water Interface in a Temperate Estuary. (Talk) Association for the Sciences of Limnology and Oceanography. New Orleans, LA.
- 2012 \*Carey, J.C. & **Fulweiler, R.W.** Land Use Change Directly Alters Dissolved Silica Export to Coastal Systems. (Talk). Coastal Estuarine Research Federation. Mar Del Plata, Argentina.
- 2012 \*Vieillard, A.M., Deegan, L.A., **Fulweiler, R.W.** Influence of Long-term fertilization on Salt Marsh Tidal Creek Nitrogen Removal. (Poster). Coastal Estuarine Research Federation. Mar Del Plata, Argentina.
- 2012 \*Carey, J.C. & **Fulweiler, R.W.** Watershed Land Use – A Major Control on Silica Export to Marine Waters. (Talk). New England Estuarine Research Society. Block Island, Rhode Island. [*\*\*won Ketchum Award for best graduate talk*]
- 2012 \*Emery, H.E. & **Fulweiler, R.W.** Decreased Salt Marsh Greenhouse Gas Emissions Associated with *Phragmites Australis*. (Talk). New England Estuarine Research Society. Block Island, Rhode Island.
- 2012 Fields, L., Nixon, S.W., Granger, S., **Fulweiler, R.W.** An Apparent Rapid Response of Benthic-Pelagic Coupling to Ecosystem Changes in Mid-Narragansett Bay, Rhode Island. (Talk). New England Estuarine Research Society. Block Island, RI.
- 2012 \*Foster, S.Q. & **Fulweiler, R.W.** Net N<sub>2</sub> Flux and Nutrient Cycling Dynamics Over a Trajectory of Increasing Eutrophication in Waquoit Bay, MA. (Talk). New England Estuarine Research Society. Block Island, RI.
- 2012 \*Heiss, E.M. & **Fulweiler, R.W.** Water Column Nitrification From Shore to Shelf. (Talk). New England Estuarine Research Society. Block Island, RI.
- 2012 <sup>‡</sup>Rogener, M.K., \*Heiss, E.M., **Fulweiler, R.W.** Metals, Mud, and the Nitrogen Cycle – The Impact of Mn and Fe on Sediment N<sub>2</sub> Fluxes in a Temperate Marine Ecosystem. (Talk). New England Estuarine Research Society. Block Island, RI. [*\*\*won Rankin Award for best undergraduate talk*]
- 2012 \*Vieillard, A.M. & **Fulweiler, R.W.** Are Tidal Flats Funny? Nitrous Oxide Fluxes and the Wetting and Drying of Tidal Flat Sediments. (Talk). New England Estuarine Research Society. Block Island, RI.
- 2011 **Fulweiler, R.W.**, Gobler, C., \*Heiss, E.M., Wall, C. Harmful Algal Blooms and Benthic Nutrient Remineralization: A Positive Feedback Loop or a Dead End? (Talk) Sixth Symposium on Harmful Algae in the U.S. Austin, Texas.
- 2011 \*Carey, J.C. & **Fulweiler, R.W.** Exploring the Role of Silica Limitation in Nutrient-Enriched Marshes. (Talk) Coastal Estuarine Research Federation: Daytona Beach, FL.
- 2011 \*Emery, H.E. & **Fulweiler, R.W.** The Effects of Phragmites Invasion, Tidal Restriction and Marsh Restoration on the Greenhouse Gas Emissions in a New England Salt Marsh System (Poster). Coastal Estuarine Research Federation: Daytona Beach, FL.

- 2011 \*Foster, S.Q. & **Fulweiler, R.W.** Effects of Low Oxygen on Sediment Nitrous Oxide Flux in a Shallow Coastal Ecosystem. (Talk) Coastal Estuarine Research Federation: Daytona Beach, FL.
- 2011 \*Heiss, E.M. & **Fulweiler, R.W.** Directly Measured Net N<sub>2</sub> Fluxes in Offshore New England Sediments. (Talk) Coastal Estuarine Research Federation: Daytona Beach, FL.
- 2011 \*Vieillard, A.M., **Fulweiler, R.W.**, Carey, J.C., Hughes, Z.J., Fagherazzi, S., Deegan, L.A., Fitzgerald, D.M. The Ebb and Flood of Silica in a New England Salt Marsh. (Talk) Coastal Estuarine Research Federation: Daytona Beach, FL.
- 2011 \*Heiss, E.M. & **Fulweiler, R.W.** Net Sediment N<sub>2</sub> Fluxes in the Coastal New England Ocean: Evidence of Direct Denitrification (Poster). Graduate Climate Conference: Woods Hole, MA.
- 2011 \*Carey, J. & **Fulweiler, R.W.** The Impact of Nutrient Enrichment on Si Accumulation in Two Temperate Salt Marshes. (Talk). IBiS: Isotopes in Biogenic Silica, Antwerp, Belgium.
- 2011 **Fulweiler, R. W.**, \*Heiss, E. M.; Morgan, E. J. Hitting a Moving Target - Sediment Heterotrophic Activity in a Changing Coastal Ocean Ecosystem. (Talk). American Society of Limnology and Oceanography (ASLO), San Juan, Puerto Rico.
- 2010 **Fulweiler, R.W.**, \*Heiss, E.M., Morgan, E. Sediment Nitrous Oxide Fluxes from Shore to Shelf. (Talk). American Geophysical Union (AGU), San Francisco, CA.
- 2010 <sup>‡</sup>Vieillard, A.M. & **Fulweiler, R.W.**, Deegan, L., Fagherazzi, S., Fitzgerald, D. Effects of Fertilization on Benthic and Pelagic Silica Fluxes in a New England Salt Marsh. (Talk). New England Estuarine Research Society. Provincetown, MA. [*\*\*won Rankin Award for best undergraduate talk*]
- 2010 \*Carey, J. & **Fulweiler, R.W.** Dissolved Silica in Salt Marsh Porewater Profiles – Do Concentrations Vary along a Nutrient Gradient? (Talk). New England Estuarine Research Society. Provincetown, MA.
- 2010 \*Heiss, E.M. & **Fulweiler, R.W.** Sediment N<sub>2</sub> Fluxes from Estuary to Offshore Along and Anthropogenic Gradient. (Talk). New England Estuarine Research Society. Provincetown, MA.
- 2010 <sup>‡</sup>Gifford, S. & **Fulweiler, R.W.** Using nitrogen and carbon isotopes to compare wild and captive penguin colonies. (Poster). Seventh International Penguin Conference. Boston, MA.
- 2010 Brown, S. M., **Fulweiler, R. W.**, Nixon, S. W., Tahmassian, A., Fogarty, C. E., Jenkins, B. D. Elucidating Controls on Nitrogen Fixation and Denitrification in Estuarine Sediments by Coupling Gene Activity and Biogeochemical Flux Measurements. (Poster). American Society for Limnology and Oceanography. Portland, OR.
- 2009 Brown, S. M., **Fulweiler, R. W.**, Nixon, S. W., Tahmassian, A., Fogarty, C. E., Jenkins, B. D. Coupling Gene Expression and Biogeochemical Measurements to Understand Controls on Estuarine Sediment Nitrogen Cycling Processes. (Poster). EPSCoR National Conference. Washington, D.C.

- 2009 Brown, S. M., Fogarty, C. E., **Fulweiler, R. W.**, Nixon, S. W., Jenkins, B. D. Using Gene Expression and Biogeochemical Measurements to Understand Controls on Estuarine Sediment Nitrogen Cycling Processes. (Talk). American Society for Limnology and Oceanography. Nice, France.
- 2009 **Fulweiler, R.W.**, Granger, S.L., Buckley, B.A., Van Keuren, A., Nixon, S.W. Downstream Changes in Groundwater N<sub>2</sub> Concentrations of Constructed Subterranean Wetlands. (Poster). RCN Denitrification Workshop, University of Rhode Island, Narragansett, RI.
- 2008 Nixon, S.W. & Fulweiler, R.W. Oligotrophication – Coming to an estuary near you? (Talk). American Society of Limnology and Oceanography (ASLO); Orlando, FL.
- 2008 Twilley, R.R., **Fulweiler, R.W.**, Lenaker, P., Bond, D.C., Baker, J., and Rich, S. Hot Flashes in Dynamic Coastal Landscapes: Tracking the Fate of Nitrogen in Coastal Louisiana. (Poster). American Society of Limnology and Oceanography (ASLO); Orlando, FL.
- 2008 **Fulweiler, R.W.** Reversal of the net N<sub>2</sub> Flux in Narragansett Bay. (Talk). RCN Denitrification Workshop; Horn Point Laboratory, Cambridge, MD (*Invited*).
- 2007 **Fulweiler, R.W.** & Nixon, S.W. The Impact of Climate Change on Benthic Remineralization and Sediment Net N<sub>2</sub> Flux. (Talk). Estuarine Research Federation (ERF); Providence, RI.
- 2006 **Fulweiler, R.W.** & Nixon, S.W. Climate-induced Alteration of the Coastal Marine N Cycle. (Poster). RCN Denitrification Workshop; Institute for Ecosystem Studies (IES); Millbrook, NY.
- 2006 **Fulweiler, R.W.** & Nixon, S.W. Climate Induced Changes of Benthic-Pelagic Coupling in Narragansett Bay, R.I. (Talk). New England Estuarine Research Society (NEERS); Groton, CT.
- 2006 **Fulweiler, R.W.** & Nixon, S.W. Impact of Climate Induced Oligotrophication on Benthic-Pelagic Coupling in Narragansett Bay (Talk). Research and Management of Eutrophication in Coastal Ecosystems. Nyborg, Denmark.
- 2005 **Fulweiler, R.W.** & Nixon, S.W. Denitrification in organic rich coastal sediments under varying levels of hypoxia (Talk). Estuarine Research Federation (ERF); Norfolk, VA.
- 2004 **Fulweiler, R.W.** & Nixon, S.W. A Different Kind of Dam: Terrestrial Vegetation and the Annual Flux of Silica to Little Narragansett Bay. (Talk). New England Estuarine Research Society (NEERS); Block Island, RI.
- 2004 **Fulweiler, R.W.** & Nixon, S.W. Terrestrial vegetation and the seasonal cycle of dissolved silica in a southern New England coastal river. (Talk). American Society of Limnology and Oceanography (ASLO) and The Oceanography Society (TOS) Ocean Research Conference; Honolulu, HI.
- 2003 **Fulweiler, R.W.** & Nixon, S.W. Carbon, Nitrogen, and the Black Hole of New England: Examining Thirty years of C and N Export from the Wood-Pawcatuck Watershed, R.I. (Poster). Estuarine Research Federation (ERF): Estuaries on the edge, convergence of ocean, land, and culture; Seattle, WA.

- 2003 **Fulweiler, R.W.** & Nixon, S.W. Export of Organic Carbon from a Minimally Developed Southern New England Watershed (Talk). Wessex Institute of Technology: River Basin Management II; Las Palmas, Gran Canaria.
- 2002 Granger, S., Nixon, S., Harris, L., Chaves, J., **Fulweiler, R.**, Mueller, C., Sturgis, B., and Almarino, A. A preliminary assessment of seagrass health and vitality in Assateague National Seashore's coastal bays. Understanding the Role of Macroalgae in Shallow Estuaries. January 10-11, 2002. Linthicum, MD.
- 2002 **Fulweiler, R.W.**, Nixon, S.W., Buckley, B., Granger, S.L. Quantifying Nutrient Loading From the Pawcatuck Watershed to Little Narragansett Bay. (Talk). New England Estuarine Research Society (NEERS); Bar Harbor, ME.

#### g. TEACHING EXPERIENCE

- 2011 Coastal Biogeochemistry, ES/BI 558
- 2011 Advanced Topics in (Bio)Geochemical Cycles
- 2009-2014 Marine Biogeochemistry, ES/BI 423/623
- 2008-2013 Introduction to Oceanography, ES 144
- 2008, 2012 Invited Lecturer; Lund University (Lund, Sweden), Global Biogeochemical Cycles
- 2007 Invited Lecturer; Louisiana State University for Estuarine Ecology (OCE 4372).
- 2006-2007 Invited Lecturer; University of Rhode Island, Graduate School of Oceanography for Coastal Marine Ecosystems (OCG 689).
- 2005 Invited Lecturer; University of Rhode Island, Graduate School of Oceanography for Biological Oceanography (OCG 561).
- 2003-2005 Teaching Assistant at the University of Rhode Island, Graduate School of Oceanography for Biological Oceanography (OCG 561). Duties include planning and preparing field and laboratory exercises.
- 2000-2001 Teaching Assistant at the University of Rhode Island Biological Science Department: General Zoology – Fall '00 and Spring '01. Duties included planning and preparing lectures and labs.

#### h. RESEARCH GRANTS

##### Pending:

- Coastal SEES: Hypoxia in Coastal Ecosystems: A Cross-System Comparison of Drivers, Dynamics, and Consequences. (Lead PI w/ Co-PIs: Lindsey Fields and Samantha Joye at the University of Georgia and Nathaniel Weston at Villanova University)
 

Source of Support	NSF- Ocean Sciences & Environmental Biology
Total Award Amount	\$TBD
Award Dates	07/01/14-6/30/18
- IOS Preliminary Proposal: The Raphidophytes-NO connection: Dissecting Molecular and Biochemical Responses of Marine Raphidophytes to Biogenically-Produced Nitric Oxide. (Co-PI w/ Kathy Coyne (Lead PI) and Joanna York (Co-PI) at the University of Delaware)
 

Source of Support	NSF- Integrative Organismal Systems/Integrative Ecological Physiology
Total Award Amount	\$TBD
Award Dates	TBD

3. Collaborative Research: Development of an *In Situ* Porewater Sampler Coupled to an Underwater Mass Spectrometer for High-Resolution Biogenic Gas Measurements in Permeable Sediments. (Lead PI w/ Co-PIs William Savidge at Skidaway Institute of Oceanography and Tim Short and Andreas Cardenas at SRI).

Source of Support NSF-Ocean Sciences/Ocean Technology and Interdisciplinary Coordination  
Total Award Amount \$488,855  
Award Dates \$09/01/2014-08/31/2017

Current:

1. Sentinels of Change – Are Salt Marshes in Long Island Sound Keeping Pace with Sea Level Rise? (PI)

Source of Support EPA (distributed through NEIWPC)  
Total Award Amount \$145,740  
Award Dates 01/01/14-07/31/2015

2. N Cycling Processes Across an Oyster Aquaculture Chronosequence (PI)

Source of Support RI Sea Grant  
Total Award Amount \$160,178  
Award Dates 2/1/2014-1/31/2016

3. Examining Significant Changes to the Nitrogen Cycle in Waquoit Bay (PI)

Source of Support WHOI Sea Grant  
Total Award Amount \$109,487  
Award Dates 2/1/2014-1/31/2016

4. Quantifying the Impact of Low Oxygen Conditions on Sediment Methane Fluxes in Waquoit Bay (PI)

Source of Support WHOI Sea Grant  
Total Award Amount \$107,935  
Award Dates 02/1/2012-01/31/2015 (1 year no cost extension)

5. ETBC: Coupling Biogeochemical Cycles and Sediment Fluxes in the Intertidal Zone: Erosion, Deposition and Landform Evolution (co-PI at BU w/ Fagherazzi, FitzGerald and w/ Bruce Peterson, Marine Biological Laboratory)

Source of Support NSF (0924287)- Ocean Sciences/Marine Geology & Geophysics  
Total Award Amount \$897,134.00 (Fulweiler: \$300,000)  
Award Dates 9/1/2009-8/31/2014 (2 year no cost extension)

6. Assessing the Impact of Hypoxia/Anoxia on Sediment Denitrification and the Production of Nitrous Oxide in Waquoit Bay (PI)

Source of Support WHOI Sea Grant  
Total Award Amount \$113,037  
Award Dates 02/1/2010-01/31/2013 (1 year no costs extension)

Past:

1. Quantifying the Impact of Reduced Wastewater Nitrogen Loading on Benthic-Pelagic Coupling in Narragansett Bay (PI)

Source of Support: RI Sea Grant Development Funds  
Total Award Amount: \$25,000  
Award Dates: 01/1/2013-12/31/2013

2. Collaborative Research: Using Biogeochemical and Genetic Tools to Unravel the Environmental Controls of Nitrogen Fixation and Denitrification in Heterotrophic Marine (PI at BU w/ Anne Giblin, Marine Biological Laboratory & Bethany Jenkins/Scott Nixon, University of Rhode Island)

Source of Support NSF (0926859)- Ocean Sciences/Chemical Oceanography  
Total Award Amount \$239,272 (Fulweiler)  
Award Dates 9/15/2009-8/31/2013 (1 year no cost extension)

3. Assessing the Impact of Hypoxia/Anoxia on Sediment Denitrification and the Production of Nitrous Oxide in Waquoit Bay (PI)

Source of Support WHOI Sea Grant  
Total Award Amount \$113,037  
Award Dates 02/1/2010-01/31/2013 (1 year no cost extension)

4. Evaluating Climate Change Impacts on Nitrogen Cycling Along a Gradient of Anthropogenic Impact – From Narragansett Bay to Rhode Island Sound and Block Island Sound (PI)

Source of Support RI Sea Grant  
Total Award Amount \$112,306  
Award Dates 02/1/2010-01/31/2012

5. No More Black Box: Linking the Microbial Community to Biogeochemical Processes in Coastal Wetlands (PI)

Source of Support Boston University Mary Erskine Catalyst Award  
Total Award Amount \$20,000  
Award Dates 2010-2011

6. Grants for Undergraduate Teaching and Research: Aimless Wanderers: Phytoplankton Biomass and Composition Along an Environmental Gradient from the Charles River to Boston Harbor. (PI)

Source of Support Boston University  
Total Award Amount \$1600  
Award Dates Fall 2010

7. Grants for Undergraduate Teaching and Research: The Impact of Acidification on Water Column Nitrification Rates. (PI)

Source of Support Boston University  
Total Award Amount \$2000  
Award Dates Fall 2011

8. Mississippi River Flood of 2008: Flood-Pulsed Experiments of Coastal Ecosystem Dynamics. (Co-PI w/ John White (Lead PI), Sarah Green, Sibel Bargu, and Chunyan LI (Co-PIs) at Louisiana State University.

Source of Support NSF (0833225) - Environmental Biology/Ecosystem Studies  
Total Award Amount \$99,885  
Award Dates 04/15/08-03/31/09

9. Understanding Climate Change and the Nitrogen Cycle in Narragansett Bay: A Biogeochemical and Molecular Approach (co PI w/ B. Jenkins (URI) and Scott Nixon (GSO/URI).



Source of Support	RI Sea Grant
Total Amount	\$190,000
Award Dates	02/1/2008-01/31/2010

**i. UNIVERSITY AND PROFESSIONAL SERVICE**

- 2014 Co-organized a special session for the Aquatic Sciences Meeting (ASM) (May meeting) w/ A. Marcelli, T. Scott, and J. Welter entitled: We have a Nitrogen Fixation.
- 2014 Co-organized a special session for the Association for the Sciences of Limnology and Oceanography (ASLO) (February meeting) w/ P.J. Treguer, J.C. Carey, M.A. Brzezinski, C. De La Rocha, and M. Maldonada entitled: Advancing the Frontiers of the Si cycle in Terrestrial, Coastal, and Open Ocean Ecosystems.
- 2013-present Boston University Trustees Scholarship Committee
- 2013-present Boston University Department of Earth and Environment Curriculum Redevelopment Committee
- 2013-present Boston University Department of Earth and Environment Search Committee for Social Scientist specializing in Global Climate Change
- 2013 Co-organized a special session for the Coastal Estuarine Research Federation (CERF) (November meeting) w/ L. Fields, M. Brush, and K. Henry entitled: Synthesis Research in Estuarine and Coastal Science: A Session in Honor of Scott W. Nixon.
- 2013- present Appointed as co-Chair of the Public Policy Committee of the Association for the Sciences of Limnology and Oceanography (ASLO).
- 2013 Boston University Graduate Student Orientation Talk – How to be a good Teaching Fellow. (*Invited*)
- 2013 Louisiana Sea Grant (NOAA) Proposal Review Panel
- 2013 Co-organized a special session for the ASLO (February meeting) w/ K. Fennel, J. Lehrter, and R. Maranger entitled: Biological and Biogeochemical Responses to Human Impacts at the Sediment-Water Interface. New Orleans, LA.
- 2012-2013 Boston University Biology Department Search Committee for Microbiology Faculty position
- 2012-present Voted to the ASLO Board as Member at Large.
- 2012-present Editor for *Estuarine, Coastal, and Shelf Science*.
- 2012 Reviewer for National Fellowships Committee for Sigma Delta Epsilon, Graduate Women in Science.
- 2012 Boston University Volunteer Judge for Scholars Day

2012 Boston University Earth Sciences and Geography and the Environment Merging Space Committee

2011, 2013 Geosciences Congressional Visits Day.

2011 NSF Chemical Oceanography Proposal Review Panel.

2011 NSF Workshop on Ocean Observatory Initiative (*Invited*).

2011 MIT Sea Grant (NOAA) Proposal Review Panel.

2010-present Editorial Board for the *Journal of Sea Research*.

2010-present Member at Large, New England Estuarine Research Society.

2010-2012 Editor for the Journal *CLEAN- Soil, Air, Water*.

2010 Co-organized a special session for the Association for the Sciences of Limnology and Oceanography (ASLO) (February meeting) w/ R. Maranger and M. McCarthy entitled: Can nitrogen fixation in aquatic systems reverse nitrogen limitation?

2010-2011 Earth System Forum Steering Committee - helped plan and schedule forum; presented at forum on behalf of the BU Marine Program (BUMP)

2010-2012 Dive Safety Committee - help monitor and approve diving projects associated with BU research or educational activity.

2009-2012 UROP Science Presentation Judge

2010-present Associate Director of the BU Marine Program (BUMP)

2009-2012 Volunteer Judge for Science and Engineering Day

2009-2010 Earth Sciences Graduate Student Admissions Committee

2009 SEP Career Panel – University of Vermont (*Invited*)

2009 BU Geological Society (BUGS) Graduate School Advise Panel

2008-2009 Geography and the Environment Faculty Search Committee

2008-2009 Boston University Department Biology Search Committee for Marine Biologist

2008 Co-organized a special session Association for the Sciences of Limnology and Oceanography (ASLO) (June meeting): Special Session w/ R. Twilley entitled: The Response of Coastal Marine Ecosystems to Pulsing Events.

2007 Co-organized a special session (Coastal) Estuarine Research Federation (CERF) (November meeting) w/ S. Nixon for session entitled: The Impact of Climate change on Biogeochemical Cycles.

- 2005-present *Journal Reviews*: Aquatic Microbial Ecology; Aquatic Sciences, Biogeochemistry; Biogeosciences, Chemical Ecology; Chemosphere; CLEAN-Soil, Air, Water; Continental Shelf Research, Deep Sea Research, Ecological Modeling; Ecosystems; Environmental Microbiology; Earth Science Reviews; Environmental Microbiology; Environmental Science and Technology; Estuaries and Coasts; Estuarine, Coastal, and Shelf Science; Frontiers in Aquatic Microbiology; Geophysical Research Letters; Global Change Biology; Global Biogeochemical Cycles; Journal of Vegetation Science; Journal of Environmental Quality; Limnology and Oceanography; Marine Ecology Progress Series; Marine Pollution Bulletin; Nature; Plant and Soil; Proceedings of the National Academy of Sciences (PNAS); Silicon; Science; Water Research; Wetlands.
- 2008-present *Proposal Reviews*: NSF: Biological Oceanography, Chemical Oceanography, OPUS, Arctic Programs; Sea Grant: Louisiana, Maryland, MIT, North Carolina, Virginia; National Institute for Climate Change Research (NICCR).

## j. COLLABORATORS AND OTHER AFFILIATIONS

**Collaborators and Co-Editors**: **Sibel Bargu-Ates**, Louisiana State University; **Andreas Cardenas**, SRI; **Joanna Carey**, EPA **Daniel Conley**, Lund University; **Kathy Coyne**, University of Delaware; **Linda Deegan**, Marine Biological Laboratory; **Al Devol**, University of Washington; **Lindsey Fields**, University of Georgia, **Duncan Fitzgerald**, Boston University; **Glen Gawarkiewicz**, Woods Hole Oceanographic Institute; **Anne Giblin**, Marine Biological Laboratory; **Christopher Gobler**, Stony Brook University; **Art Gold**, University of Rhode Island; **Peter Groffman**, Institute for Ecosystem Studies; **Bethany Jenkins**, University of Rhode Island; **Samantha Joye**, University of Georgia, **Alex Kolker**, Tulane University; **Karen McGlathery**, University of Virginia, Scott W. Nixon, Graduate School of Oceanography/ University of Rhode Island; **Autumn Oczkowski**, EPA; **Candace Oviatt**, Graduate School of Oceanography/ University of Rhode Island; **William Savidge**, Skidaway Institute of Oceanography, **Thad Scott**, University of Arkansas; **Timothy Short**, SRI; **Robert Twilley**, Louisiana State University; **Joanna York**, University of Delaware; **Nathanial Weston**, Villanova University; **Steven Wilhelm**, University of Tennessee, **John White**, Louisiana State University.

### Graduate Advisor and Post-doctoral Sponsor

Ph.D.: Dr. Scott Nixon, Graduate School of Oceanography, URI (deceased)  
 Postdoc: Dr. Robert Twilley, Louisiana State University

### Thesis Advisor and Postgraduate-Scholar Sponsor

Total Postdoctoral Associates (including 1 current): 1  
 Current Postdoctoral Associates: **Silvia Newell** (2012-present)

Total Ph.D. Students (including 5 current students): 7  
 PhD Students: **Joanna Carey** (2009-2013), **Lindsey Fields** (co-advised w/ C. Oviatt at GSO/URI, 2012-2013), **Elise Heiss** (2009-present); **Sarah Foster** (2012-present); **Hollie Emery** (2010-present); **Sarabeth Buckley** (2013-present); **Timothy Maguire** (2013-present).

Total MS Students (including 0 current students): 2

MS Students: **Sarah Foster** (2010-2012); **Amanda Vieillard** (2011-2013).

**Undergraduate and High School Research Mentor** (past six years)

Undergraduate Research Opportunity Program (UROP): Primary mentor for 9 student projects

Undergraduate Directed Studies: 4 students

Undergraduate Senior Thesis: Primary Mentor (4); Committee Member (6)

Undergraduate Laboratory Volunteers: 22

High School Internships: 3

**k. References:**

*Note- more names can be provided upon request*

1. Dr. Daniel Conley  
Professor  
Lund University  
T: +46462220449  
Email: [Daniel.Conley@geol.lu.se](mailto:Daniel.Conley@geol.lu.se)
  
2. Dr. Anne Giblin  
Senior Scientist  
Marine Biological Laboratory  
T: 508-289-7488  
Email: [agiblin@mbl.edu](mailto:agiblin@mbl.edu)
  
3. Dr. Robert Twilley  
Professor  
Louisiana State University  
T: (225) 578-6445  
Email: [rtwilley@lsu.edu](mailto:rtwilley@lsu.edu)