

## Curriculum Vitae

### 1. Jeremy J. Rich

Assistant Professor, University of Maine, School of Marine Sciences  
Darling Marine Center, Walpole, Maine 04573 ph: 207-563-8302

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### 2. Home address

4 Pleasant Street, Newcastle, ME 04553

### 3. Academic training (year completed)

1996 BSc, Natural Sciences, University of Wisconsin, Madison  
1998 MSc, Microbiology, University of Maine, Orono  
2003 PhD, Soil Science, Oregon State University, Corvallis  
2007 Postdoc, Microbial Biology, Princeton University

### 4. Professional Appointments

1996-1998 Graduate Research Assistant, Microbiology, University of Maine, Darling Marine Center  
1998-2003 Graduate Research Assistant, Soil Science, Oregon State University  
2003-2004 Postdoctoral Research Associate, Soil Science, Oregon State University  
2004-2006 NSF Microbial Biology Postdoctoral Fellow, Geosciences, Princeton University  
2006 Instructor, Princeton Environmental Institute, Princeton University  
2006-2007 Postdoctoral Research Associate, Geosciences, Princeton University  
2007-2010 Assistant Professor (Research), Environmental Studies, Brown University  
2010-2012 Assistant Professor (Research), Biology and Environmental Studies, Brown University  
2012-2015 Assistant Professor, Ecology & Evolutionary Biology, Brown University  
2015-present Assistant Professor, School of Marine Sciences, University of Maine

### 5. Publications

#### a) refereed journal articles

- Rich, J. J., and G. M. King. 1998. Carbon monoxide oxidation by bacteria associated with the roots of freshwater macrophytes. *Appl Environ Microbiol* 64: 4939-4943.
- Rich, J. J., and G. M. King. 1999. Carbon monoxide consumption and production by wetland peats. *FEMS Microbiol Ecol* 28: 215-224.
- Rich, J. J., R. S. Heichen, P. J. Bottomley, K. Cromack, and D. D. Myrold. 2003. Community composition and functioning of denitrifying bacteria from adjacent meadow and forest soils. *Appl Environ Microbiol* 69: 5974-5982.
- Rich, J. J., and D. D. Myrold. 2004. Community composition and activities of denitrifying bacteria from adjacent agricultural soil, riparian soil, and creek sediment in Oregon, USA. *Soil Biol Biochem* 36: 1431-1441.
- Bottomley, P. J., A. E. Taylor, S. A. Boyle, S. K. McMahon, J. J. Rich, K. Cromack, and D. D. Myrold. 2004. Response of nitrification and ammonia-oxidizing bacteria to reciprocal transfers of soil between adjacent coniferous forest and meadow vegetation in the Cascade Mountains of Oregon. *Microbial Ecology* 48: 500-508.
- Boyle, S. A., J. J. Rich, P. J. Bottomley, K. Cromack, and D. D. Myrold. 2006. Reciprocal transfer effects on denitrifying community composition and activity at forest and meadow sites in the Cascade Mountains of Oregon. *Soil Biol Biochem* 38: 870-878.
- Rich J. J., O. R. Dale, B. Song, B. B. Ward. 2008. Anaerobic ammonium oxidation (anammox) in Chesapeake Bay sediments. *Microbial Ecology* 55:311-320.
- Ward B. B., C. B. Tuit, A. Jayakumar, J. J. Rich, J. Moffett, S. W. A. Naqvi. 2008. Organic carbon, and not copper, controls denitrification in oxygen minimum zones of the ocean. *Deep Sea Res Part I*. 55:1672-1683.
- Shrestha J, J. J. Rich, J. G. Ehrenfeld, P. R. Jaffe. 2009. Oxidation of ammonium to nitrite under iron-reducing conditions in wetland soils: laboratory, field demonstrations, and push-pull rate determination. *Soil Science* 174: 156-164.

- Ward B. B., A. H. Devol, J. J. Rich, B. X. Chang, S. E. Bulow, H. Naik, A. Pratihary, A. Jayakumar. 2009. Denitrification as the dominant nitrogen loss process in the Arabian Sea. *Nature* 461: 78-81.
- Bulow, S. E., J. J. Rich, H. S. Naik, A. K. Pratihary, B. B. Ward. 2010. Denitrification exceeds anammox as a nitrogen loss pathway in the Arabian Sea oxygen minimum zone. *Deep Sea Res Part I* 57: 384-393.
- Chang, B. X., J. J. Rich, A. Jayakumar, H. Naik, A. K. Pratihary, R. G. Keil, B. B. Ward, and A. H. Devol. 2014. The effect of organic carbon on fixed nitrogen loss in the eastern tropical South Pacific and Arabian Sea oxygen deficient zones. *Limnology and Oceanography* 59: 1267-1274
- Brin, L. D., A. E. Giblin, and J. J. Rich. 2014. Environmental controls on anammox and denitrification in southern New England estuarine and shelf sediments. *Limnology and Oceanography* 59: 851-860.
- Hardison, A., C. Algar, A. E. Giblin and J. J. Rich. 2015. Influence of organic carbon and nitrate loading on partitioning between dissimilatory nitrate reduction to ammonium (DNRA) and N<sub>2</sub> production. *Geochimica et Cosmochimica Acta*. 164: 146-160.
- Brin, L. D., A. E. Giblin, and J. J. Rich. 2015. Effects of experimental warming and carbon addition on nitrate reduction and respiration in coastal sediments. *Biogeochemistry*. 10.1007/s10533-015-0113-4.
- Brin, L. D., A. E. Giblin, and J. J. Rich. 2016. Similar temperature responses suggest future climate warming will not alter partitioning between denitrification and anammox in temperate marine sediments. *Global Change Biology*. 10.1111/gcb.13370.
- Luria, C. M., L. A. Amaral-Zettler, H. W. Ducklow, and J. J. Rich. In press. Seasonal succession of free-living bacterial communities in coastal waters of the Western Antarctic Peninsula. *Frontiers in Microbiology*

#### **b) journal articles in review**

#### **c) journal articles in progress**

- Hardison, A., A. E. Giblin and J. J. Rich. Whole-core rates of anammox and denitrification in coastal Rhode Island sediments. For submission to *Estuaries and Coasts*.
- Fernandez-Gonzalez, N., A. K. Hardison, C. K. Algar, A. E. Giblin, and J. J. Rich. Influence of organic carbon and nitrate loading on microbial communities in coastal sediments. For submission to *ISMEJ*.
- Luria, C., L. Amaral-Zettler, H. Ducklow, and J. J. Rich. Influence of phytoplankton exudates on bacterial community composition. For submission to *ISMEJ*.

#### **d) abstracts**

- Rich, J. J., and G. M. King. 1998. Carbon monoxide oxidation by bacteria associated with freshwater macrophytes. *General Meeting, American Society for Microbiology*, Atlanta, Georgia.
- Rich, J. J., and D. D. Myrold. 2000. Nitrous oxide reductase gene (*nosZ*) profiles of denitrifying bacteria in riparian soils. *General Meeting, American Society for Microbiology*, Los Angeles, California.
- Rich, J. J., P. J. Bottomley, K. Cromack, and D. D. Myrold. 2001. H. J. Andrews Microbial Observatory: soil nitrogen cycling processes along meadow-forest gradients. *General Meeting, Soil Science Society of America*, Charlotte, North Carolina.
- Rich, J. J., P. J. Bottomley, K. Cromack, and D. D. Myrold. 2002. Genetic diversity and functioning of denitrifying bacteria in soils. *General Meeting, Ecological Society of America*, Tucson, Arizona.
- Rich, J. J., R. S. Heichen, P. J. Bottomley, K. Cromack, and D. D. Myrold. 2003. Molecular diversity and functioning of denitrifying bacteria in soils across meadow-forest boundaries. *General Meeting, American Society for Microbiology*, Washington, D. C.

- Rich, J. J., and D. D. Myrold. 2004. Community composition and activity of denitrifying bacteria in adjacent agricultural soil, riparian soil, and creek sediment. *General Meeting, Ecological Society of America*, Portland, Oregon.
- Tuit, C. B., J. Moffett, A. Jayakumar, J. J. Rich, S. W. Naqvi, and B. B. Ward. 2005. Copper and denitrification in the Eastern Tropical North Pacific and Arabian Sea. *Summer Meeting, ASLO: Association for the Sciences of Limnology and Oceanography*, Santiago de Compostela, Spain.
- Rich, J. J., J. Cornwell, and B. B. Ward. 2005. Anaerobic ammonium oxidation (anammox) activity in Chesapeake Bay Sediments. *Summer Meeting, ASLO: Association for the Sciences of Limnology and Oceanography*, Santiago de Compostela, Spain.
- Rich, J. J., and B. B. Ward. 2005. Anaerobic ammonium oxidation (anammox) activity in Chesapeake Bay sediments. *General Meeting, American Society for Microbiology*, Atlanta, Georgia.
- Rich, J. J., and B. B. Ward. 2007. Anaerobic ammonium oxidation (anammox) activity in the water column of the Peru upwelling system. *Aquatic Sciences Meeting, ASLO: Association for the Sciences of Limnology and Oceanography*, Santa Fe, New Mexico.
- Rich, J. J., B. Chang, A. Devol, and B. B. Ward. 2007. Anaerobic ammonium oxidation (anammox) activity in Peru margin sediments. *General Meeting, American Society for Microbiology*, Toronto, Canada.
- Jayakumar, A, J. J. Rich, and B. B. Ward. 2009. Relative abundance of *nirS*-denitrifier and anammox genes at oxygen deficient zone depths where anammox rates are high. *Aquatic Sciences Meeting, ASLO: Association for the Sciences of Limnology and Oceanography*, Nice, France.
- Bulow, S. E., J. J. Rich, and B. B. Ward. 2009. Denitrification and Anammox in the Arabian Sea oxygen minimum zone. *General Meeting, American Society for Microbiology*, Philadelphia, Pennsylvania.
- Rich, J. J., Z. Cardon, and J. Huber. 2009. Linking microbial community structure to ecosystem functioning. *General Meeting, Ecological Society of America*, Albuquerque, New Mexico.
- Arevalo, P. and J. J. Rich. 2011. Microdiversity of anammox bacteria along environmental gradients in Peru margin sediments. *Aquatic Sciences Meeting, ASLO: Association for the Sciences of Limnology and Oceanography*. San Juan, Puerto Rico.
- Brin, L. D., J. J. Rich, A. E. Giblin. 2011. Nitrogen loss pathways in coastal and shelf sediments: Beginning to define controls in New England as a model system. *Aquatic Sciences Meeting, ASLO: Association for the Sciences of Limnology and Oceanography*. San Juan, Puerto Rico
- Hardison, A. K., J. J. Rich, J. Tucker, A. E. Giblin, E. Hopman, J. S. Damsté. 2011. Anammox in coastal sediments: Linking microbial activity and abundance. *Biennial Conference of the Coastal and Estuarine Research Federation*, Daytona Beach, Florida.
- Rich, J. J., L. D. Brin., A. K. Hardison, M. Nelson, J. Tucker, A. E. Giblin. 2012. Resolving the aquatic nitrogen cycle: Benthic anaerobic ammonium oxidation (anammox) in coastal Rhode Island. *General Meeting, Ecological Society of America*, Portland, Oregon.
- Brin, L. D., A. E. Giblin, J. J. Rich. 2012. Physiological shifts in the temperature response of denitrifying and anammox bacterial communities in coastal sediments. *14<sup>th</sup> International Symposium on Microbial Ecology*, Copenhagen, Denmark
- Hardison, A. K., E. Hopmans, A. E. Giblin, J. J. Rich. 2012. Dynamics of anoxic nitrogen cycling pathways and anammox-specific biomarkers in an experimental marine sediment system. *14<sup>th</sup> International Symposium on Microbial Ecology*, Copenhagen, Denmark.
- Luria, C. L. Amaral-Zettler, H. Ducklow, D. Repeta, J. J. Rich. 2012. Dissolved organic matter and sea ice dynamics may explain changes in microbial community structure along the Western Antarctic Peninsula. *14<sup>th</sup> International Symposium on Microbial Ecology*, Copenhagen, Denmark.
- Brin, L. D., A. E. Giblin, J. J. Rich. 2013. Denitrification and anammox have similar temperature optima in coastal Rhode Island sediments. *Aquatic Sciences Meeting, ASLO: Association for the Sciences of Limnology and Oceanography*. New Orleans
- Hardison, A. K., C. Algar, A. E. Giblin, J. J. Rich. 2013. Environmental controls on anoxic nitrogen cycling pathways in marine sediments. *Aquatic Sciences Meeting, ASLO: Association for the Sciences of Limnology and Oceanography*. New Orleans
- Hardison, A. K., C. Algar, A. E. Giblin, J. J. Rich. 2013. Organic matter and nitrate influence anoxic nitrogen cycling pathways in marine sediments. *Coastal and Estuarine Research Federation (CERF) Meeting*. San Diego, CA.

- Hardison, A. K., A. E. Giblin, J. J. Rich. 2014. Environmental controls on anoxic nitrate reduction pathways in temperate coastal sediments. *Ocean Sciences Meeting, ASLO: Association for the Sciences of Limnology and Oceanography*. Honolulu
- Hardison, A. K., L. D. Brin, E. Heiss, R. W. Fulweiler, J. J. Rich, A. E. Giblin. 2014. Sediment N<sub>2</sub> production from shore to shelf—A methods comparison. *Joint Aquatic Sciences Meeting ASLO: Association for the Sciences of Limnology and Oceanography*. Portland, OR.
- Giblin, A. E., J. Tucker, A. K. Hardison, L. D. Brin, J. J. Rich. 2014. How does the importance of dissimilatory nitrate reduction to ammonium (DNRA) change with depth, carbon loading, and latitude? *Joint Aquatic Sciences Meeting ASLO: Association for the Sciences of Limnology and Oceanography*. Portland, OR.
- Fernandez-Gonzalez, N., A. K. Hardison, C. K. Algar, A. E. Giblin, and J. J. Rich. 2014. Effects of organic carbon and nitrate loading on microbial communities of coastal sediments. *International Symposium on Microbial Ecology (ISME)*. Seoul, South Korea.
- Rich, J. J., L. D. Brin, A. K. Hardison, C. Algar, J. Vallino, N. Fernandez-Gonzalez, A. Giblin. 2014. Environmental controls on microbial nitrate reduction in coastal marine sediments: anaerobic ammonium oxidation (anammox), denitrification, and dissimilatory nitrate reduction to ammonium (DNRA). *International Symposium on Microbial Ecology (ISME)*. Seoul, South Korea.
- Fernandez-Gonzalez, N., A. K. Hardison, C. K. Algar, A. E. Giblin, and J. J. Rich. 2015. Effects of organic carbon and nitrate loading on microbial communities of coastal sediments. *Aquatic Sciences Meeting ASLO: Association for the Sciences of Limnology and Oceanography*. Granada, Spain.
- Rich, J. J. and N. Fernandez-Gonzalez. 2016. Control of diversity and distribution of abundant and rare bacteria in marine sediments. *International Symposium on Microbial Ecology (ISME)*. Montreal, Canada.

#### e) invited lectures or talks

- 2003 Nitrogen Cycling in Soil Ecosystems; Workshop on Alternative Pathways of N Transformations, *Göteborg University*, Kristineberg Marine Research Station, Fiskebäckskil, Sweden
- 2003 Community Composition and Functioning of Denitrifying Bacteria in Soils; *American Society for Microbiology*, Regional Meeting, Vancouver, British Columbia, Canada
- 2003 Sampling Strategies: The Challenge of Commonness and Rarity; *National Science Foundation*, Microbial Observatories Workshop, Washington D.C.
- 2004 Community Composition and Activity of Denitrifying Bacteria in Soils; Dept. of Microbiology, *Århus University*, Århus, Denmark; Institute of Biology, *University of Southern Denmark*, Odense, Denmark; School of Biological Sciences, *Queen Mary University of London*, London, England
- 2004 Community Composition and Functioning of Denitrifying Bacteria in Soils, Dept. of Geosciences, *Princeton University*, New Jersey
- 2005 Insights into Nitrogen Removal Processes: Microbial Communities in Soils and Anammox in Sediments; Dept. of Natural Resources and Dept. of Microbiology, *University of New Hampshire*
- 2005 Insights into Nitrogen Removal Processes: Microbial Communities in Soils and Anammox in Sediments; Institute for Marine and Coastal Studies, *The State University of New Jersey, Rutgers*
- 2005 Insights into the Nitrogen Cycle: Microbial Communities in Soils and Anammox in Sediments; Dept. of Biological Sciences, *Kent State University*
- 2006 Denitrifying Bacteria in Soils and Anaerobic Ammonium Oxidation (Anammox) in Sediments; Dept. of Biological Sciences, *University of South Carolina*
- 2006 Denitrifying Bacteria in Soils and Anaerobic Ammonium Oxidation (Anammox) in Sediments; Departments of Molecular Biosciences and Ecology & Evolutionary Biology, *University of Kansas*
- 2006 Anaerobic Ammonium Oxidation (Anammox) Activity in Estuarine and Marine Sediments, *Woods Hole Oceanographic Institution*, Woods Hole, Massachusetts
- 2007 Anaerobic Ammonium Oxidation (Anammox) in Estuarine and Marine Sediments, Dept. of Ecology and Evolutionary Biology, *Brown University*, Providence, Rhode Island
- 2007 Anaerobic Ammonium Oxidation (Anammox) in Estuarine and Marine Sediments, Dept. of Geosciences, *Princeton University*, New Jersey
- 2007 Anaerobic Ammonium Oxidation (Anammox) in Marine Sediments, Center for Bioinorganic Chemistry, *Princeton University*, New Jersey
- 2007 Role of Microbial Diversity in the Global Nitrogen Cycle, Center for Environmental Studies, *Brown University*, Providence, Rhode Island

- 2007 Anaerobic Ammonium Oxidation (Anammox) in Estuarine and Marine Sediments, Ecosystems Center, *Marine Biological Laboratory*, Woods Hole, Massachusetts
- 2008 Anaerobic Ammonium Oxidation (Anammox) in Estuarine and Marine Sediments, The Graduate School of Oceanography, *University of Rhode Island*
- 2009 Anaerobic Ammonium Oxidation (Anammox) in Estuarine and Marine Sediments, Dept. of Biology, *Northeastern University*, Boston, Massachusetts
- 2010 Anaerobic Ammonium Oxidation (Anammox) and Denitrification in Marine Ecosystems, Dept. of Biological Sciences, University of Massachusetts, Dartmouth
- 2010 Anaerobic Ammonium Oxidation (Anammox) and Denitrification in Marine Environments, Dept. of Earth Sciences, Boston University
- 2010 Anaerobic Ammonium Oxidation (Anammox) and Denitrification in Marine Environments, Dept of Marine Chemistry and Geochemistry, Woods Hole Oceanographic Institution
- 2010 Anaerobic Ammonium Oxidation (Anammox) and Denitrification in Marine Environments, American Geophysical Union, Fall Meeting, San Francisco, CA
- 2011 Anaerobic Ammonium Oxidation (Anammox) and Denitrification in Marine Environments, IMARPE, Lima, Peru
- 2011 Resolving Microbial Processes in the Nitrogen Cycle, Ecosystems Seminar Series, Marine Biological Laboratory, Woods Hole.
- 2012 Anaerobic Ammonium Oxidation (Anammox) in Coastal Rhode Island Sediments, Coastal State Lecture Series, Rhode Island Sea Grant, University of Rhode Island, Kingston, Rhode Island
- 2013 Seasonal Succession in Microbial Communities, Palmer Station, Antarctica
- 2015 Microbial Processes and the Marine Nitrogen Cycle, School of Marine Sciences, University of Maine, Orono.

## 6. Research Grants

### a) current grants

- 2016-2019 *National Science Foundation (NSF)*, Chemical Oceanography. Collaborative Research: Predicting controls of partitioning between dissimilatory nitrate reduction to ammonium (DNRA) and dinitrogen production in marine sediments (Lead PI with Co-PIs Anne Giblin at MBL and Chris Algar at Dalhousie University). Project budget \$849,959; UMaine budget \$479,780.
- 2016-2019 *National Science Foundation (NSF)*, Biological Oceanography. Collaborative Research: Environmental Drivers of Chemoautotrophic Carbon Production at Deep-Sea Hydrothermal Vents – Comparative Roles of Oxygen and Nitrate. (co-PI with Lead PIs Stefan Sievert and Craig Taylor, WHOI). Project budget \$986,287; UMaine budget \$207,423.

### b) completed grants

- 2010-2012 *National Oceanic and Atmospheric Administration (NOAA) – Rhode Island Sea Grant*. Impacts of Anaerobic Ammonium Oxidation (Anammox) in Rhode Island Coastal Waters (Lead PI). Project and Brown budget \$173,058.
- 2010-2012 *Brown-MBL seed*. Molecular Indicators of Anammox and Denitrification in Marine Sediments – Linking Processes with Communities (Lead PI with co-PIs Joe Vallino and Anne Giblin, MBL). Project and Brown budget \$25,000.
- 2009-2012 *National Science Foundation (NSF)*, Chemical Oceanography. Collaborative Research: Environmental Controls on Anaerobic Ammonium Oxidation (Anammox) and Denitrification in Marine and Estuarine Sediments (Lead PI with co-PIs Joe Vallino and Anne Giblin, MBL). Project budget \$928,616; Brown budget \$446,472.
- 2013-2015 *Rhode Island Research Alliance STAC*. Electric Microcable Bacteria in Narragansett Bay Sediments (Lead PI with co-PI Bethany Jenkins, URI). Project budget \$199,974; Brown budget \$100,000.
- 2011-2015 *National Science Foundation (NSF)*, Ocean Technology and Interdisciplinary Coordination. Collaborative Research: In Situ Measurement of Rates of Chemoautotrophic Carbon Production at Deep-Sea Hydrothermal Vents (co-PI with Lead PIs Stefan Sievert and Craig Taylor, WHOI). Project budget \$837,616; Brown budget \$154,649.
- 2012-2016 *National Science Foundation (NSF)*, Office of Polar Programs. Collaborative Research: Microbial Community Assembly in Coastal Waters of the Western Antarctic Peninsula (co-Lead PI with Linda Amaral-Zettler, MBL). Project budget \$502,459; Brown budget \$304,459.

2015-2016 Joint Genome Institute (JGI). Metagenomic sequencing of an uncultivated bacterial phylum in marine sediments amended with organic carbon and nitrate (Lead PI with postdoctoral researcher Nuria Fernandez Gonzalez and Co-PI Ying Zhang, URI). Project budget: in kind metagenomic sequencing and data processing.

**c) pending proposals**

none

**7. Service**

i) To the University:

2007-2010, Center for Environmental Studies Fall Seminar Series (I was the organizer)

2007, Ad-hoc committee – Policy for Affiliated Faculty in Environmental Studies (member)

2008, Environmental Change Initiative (ECI) activities:

a) Working group on Social Ecological Drivers in Coastal Zones (co-organized)

b) National Science Foundation Math and Science Partnership proposal, PRISM: Partnership for Rhode Island Science Mastery (contributed to proposal development)

2009-2015, Brown-MBL MicroEco discussion group (regular participant)

2010, 2013 Graduate Admissions Committee, Dept. of Ecol & Evol Biology

2010, Capstone Requirements Committee, Center for Env. Studies (Chair)

2013, Participated in and gave presentation for AAAS advisor panel site visit for EPSCoR program.

ii) To the profession:

Journal articles reviewed:

2009, Applied and Environmental Microbiology, Global Change Biology

2010, Applied and Environmental Microbiology (appointment to Editorial Board – declined)

2011, Applied and Environmental Microbiology, Environmental Microbiology, Limnology and Oceanography

2012, Applied and Environmental Microbiology, Microbial Ecology, FEMS Microbiology Ecology

2013, Environmental Microbiology

2014, Nature Geosciences, Proceedings of the National Academy of Sciences (PNAS)

2015, FEMS Microbiology Ecology, Aquatic Microbial Ecology

Book chapters reviewed:

2009, American Society for Microbiology

Proposals reviewed:

2009, National Science Foundation (Ecosystems), National Science Foundation (Systematic Biology and Biodiversity Inventories), Swiss National Science Foundation

2010, National Science Foundation (Ecosystems)

2011, National Science Foundation (Ecosystems), Netherlands Organization for Scientific Research

2012, National Science Foundation (Dimensions of Biodiversity, Office of Polar Programs, Biological Oceanography)

2013, National Science Foundation (Biological Oceanography)

2014, National Science Foundation (Office of Polar Programs, Marine Geology and Geochemistry)

**8. Academic honors**

2004-2006 National Science Foundation, Postdoctoral Fellowship in Microbial Biology

**9. Teaching (last three years)**

i) Courses:

2013 spring, BIOL0415 (writing intensive), *Microbes in the Environment* (Instructor, 16 students, limited to sophomores)

2013 fall, GEOL1950 *Geomicrobiology* (co-instructor with Linda Amaral-Zettler, MBL; 8 students)

2014, spring, BIOL0415 (writing intensive), *Microbes in the Environment* (Instructor, 14 students, limited to sophomores)

2015, spring, BIOL0415 (writing intensive), *Microbes in the Environment* (Instructor, 9 students, limited to sophomores)

ii) Undergraduate advising:

First-year advising:

2011-2012, 5 students - Natasha Blackadar, Shyam Desai, Sally Luu, Krissia Rivera, and James Stomber  
(all Brown '15)

Sophomore advising:

2012-2013, 2 students: Shyam Desai and James Stomber (both Brown '15)

Concentration advising:

2010-2011, 4 students – Maggie Goter '12 (Env. Sci), Jeffrey Martin '11 (Env Sci transferred to human  
biology), Shae Selix '12 (Env Sci), Clay Thibodeaux '12 (Env Sci)

2011-2012 3 students – Maggie Goter '12 (Env. Sci), Shae Selix '12 (Env Sci), Clay Thibodeaux '12 (Env  
Sci)

Thesis advising:

2010-2011 3 students – Phil Arevalo '11 (Appl Math Bio), Michaeline Nelson '11 (GeoBio), Ben Peipert  
'13 (Human Bio)

iii) Graduate advising:

Graduate Committee Member:

2013-present, Maya Alveraz (PhD candidate, EEB, Brown)

2013-2014, Andraya Ehrlich (MSc, University of Rhode Island)

2015, Maswazi Sihlabela (MSc, Brown, Engineering)

Advisor:

2008-2013, Lindsay Brin (PhD, EEB, Brown-MBL)

2010-present, Catherine Luria (PhD candidate, EEB, Brown-MBL)