

BETHANY D. JENKINS

Department of Cell and Molecular Biology and Graduate School of Oceanography
♦279 CBLS♦120 Flagg Road♦University of Rhode Island♦Kingston, RI 02881 ♦
office: 401-874-7551 ♦mobile: 831-345-0039
email: bdjenkins@uri.edu

RESEARCH INTERESTS:

My research is in the broad area of marine microbiology. I focus on ecological relationships of organisms to chemical gradients in the ocean. I'm also interested in understanding the mechanisms cells use to respond to and drive biogeochemical nutrient cycling. To understand these relationships, I combine lab and field experimentation in both the open and coastal ocean and use many genomics methodologies.

EDUCATION

University of Oregon, Eugene OR, Institute of Molecular Biology, Ph.D. Chemistry, 2000
Alice Barkan, thesis advisor.
Mount Holyoke College, South Hadley MA, B.A. with honors, Biochemistry 1990

CURRENT PROFESSIONAL EXPERIENCE

UNIVERSITY OF RHODE ISLAND

Interim Vice President for Research

04/08/2023-07/01/2024

University of Rhode Island's chief research officer reporting to provost and president. Works closely with other members of President's leadership team to integrate scholarship and research into the University's academic mission.

Professor of Cell and Molecular Biology and Oceanography

2017-present

Department of Cell and Molecular Biology College of Environment and Life Sciences
Graduate School of Oceanography

I currently advise 3 PhD students and 2 honors undergraduate students; major professor for past students: 7 Ph.D., 4 M. S., 25 undergraduates and 4 postdoctoral researchers. Former students and postdocs are faculty, work in various government agencies and non-profits. I teach graduate students and undergraduates in a variety of practicum-based courses including Practical Tools for Molecular Sequence Analysis, Advanced Microbiology lecture and lab courses.

URI Board of Trustees, Ex Officio member

2022-present

Selected by President Parlange to be the sole URI faculty member to sit on the URI board of trustees to help with the broad leadership vision of URI. I represent faculty interests on the Academic Affairs and Research Committee and Special Committee for Sponsored Research.

PAST ACADEMIC LEADERSHIP EXPERIENCE

Graduate Program Director, Biological and Environmental Sciences

2019-2022

College of Environment and Life Sciences

Led interdisciplinary graduate program with over 120 graduate students, one of the largest at URI. Led and coordinated recruiting admissions and TA allocation processes with BES specialization coordinators and CELS Dean's office. Spearheaded curricular planning and best practices in graduate education recommendations to the college. Served on URI graduate council (2019-2022) to support graduate leadership. Led curricular efforts to help graduate education prepare students for current research climate. Lead efforts for broadening participation in earth science graduate education. In 2020 was successful in leading BES with GSO to gain admittance in the AGU Bridge Program, part of the NSF Inclusive Graduate Network. In support of maximizing resources for graduate education, I served on the 2016 Teaching Assistant Task Force, a Provost's committee to examine TA allocation across URI that was chaired by Associate GSO Dean David Smith.

Graduate Program Coordinator**2014-2017**

Cell and Molecular Biology Graduate program
College of Environment and Life Sciences

Led Cell and Molecular Biology graduate specialization within BES, a program with ~30 graduate students.

PAST RESEARCH LEADERSHIP EXPERIENCE

National and International:

Chair (2018-19), Vice Chair (2016-17) and member (2014-18) of the Ocean Carbon Biogeochemistry Scientific Steering Committee (OCB SSC), an elected leadership position. The OCB SSC was created by NSF, NASA and NOAA to help identify research priorities and plan, promote and coordinate collaborative, multidisciplinary opportunities in ocean biogeochemistry research. I currently serve (from 2016) as a member of the US GEOTRACES Scientific Steering Committee (A US advisory body for the NSF Chemical Oceanography GEOTRACES program) aimed to understand trace element cycling in the ocean, The GEOTRACES SSC sets research priorities for the GEOTRACES field program and science synthesis products. I'm currently leading efforts through funded OCB workshops to intercalibrate 'omics methods to integrate microbial oceanography and chemical oceanography field programs in the future.

Other significant research leadership experience includes serving as a member (2016) of the NASA EXport Processes in the Ocean from Remote Sensing (EXPORTS) Scientific Definition Team that defined the objectives and planning for a large-scale NASA-led field campaign. I served as a Executive committee member for a NSF Funded Research Coordination Network for Ocean 'Omics, In 2010, I was invited to two working group meetings for the Canadian Institute for Advanced Research (CIFAR) on Humans Transforming the Ocean Nitrogen Cycle.

URI:

Co PI and Scientific thrust lead of the statewide 22 M NSF-EPSCoR Coastal Ecology, Assessment Innovation and Modeling grant. This 5 year award is focused on new approaches to assess, predict and respond to the impacts of climate change on coastal ecosystems and it has supported numerous GSO students, postdocs and investigators. I was directly involved in writing all RI EPSCoR awards funded to date.

Co PI and Scientific theme lead of the pending statewide NSF-EPSCoR RII Track 1: Ecological and Societal Impacts of Plastics in Coastal Ecosystems: Informing Mitigation Strategies and Materials Innovation (*EcoSIP*) Coastal Ecology, Assessment Innovation and Modeling grant. This 5 year award is focused on new approaches to comprehensively study marine plastic pollution on coastal ecosystems. This proposal will fund an interdisciplinary group of early career researchers and graduate students including at GSO.

Vice President for Research's Advisory Committee (2018-2022-when it was recently dissolved by the VPR) and with other faculty leaders provided input and advice regarding the research enterprise at URI. I sit on the URI² Steering Committee for undergraduate experiential learning (2019-present), a committee focused on supporting research endeavors of undergraduates with funds.

PAST PROFESSIONAL EXPERIENCE

Associate Professor of Cell and Molecular Biology and Oceanography	2012-2017
Department of Cell and Molecular Biology, College of Environment and Life Sciences, Graduate School of Oceanography, University of Rhode Island, Kingston RI 02881	
Assistant Professor of Cell and Molecular Biology and Oceanography	2005-2012
Department of Cell and Molecular Biology, College of Environment and Life Sciences, Graduate School of Oceanography, University of Rhode Island, Kingston RI	
Assistant Professor of Oceanography	2005-2012
Limited Joint Appointment, Graduate School of Oceanography, University of Rhode Island, Narragansett RI 02882	
Adjunct Assistant Professor of Ecology and Evolutionary Biology	2010-2011, 2013-2014
Department of Ecology and Evolutionary Biology, Brown University Providence, RI 02912	
Postdoctoral Associate	2001-2005
Department of Ocean Sciences, University of California, Santa Cruz	
Postdoctoral Associate	2000-2001
Institute of Molecular Biology, University of Oregon	

ACADEMIC AND PROFESSIONAL HONORS

◆ URI Research and Scholarship Excellence Award	2018
◆ Brown University Inspiring Women in Science Award	2016
◆ URI National Science Foundation ADVANCE Fellow	2005-2008
◆ National Institute of Health graduate training grant in Genetics	1994-1999

PUBLICATIONS IN SCIENTIFIC JOURNALS

- Guthold, M., Bezanilla, M., Erie, D. A., **Jenkins, B.**, Hansma, H. G. & Bustamante, C. Following the Assembly of RNA-Polymerase DNA Complexes in Aqueous-Solutions with the Scanning Force Microscope. *Proceedings of the National Academy of Sciences of the United States of America* 91, 12927-12931 (1994).
- Jenkins, B.D.**, Kulhanek, D.J. & Barkan, A. Nuclear mutations that block group II RNA splicing in maize chloroplasts reveal several intron classes with distinct requirements for splicing factors. *Plant Cell* 9, 283-296 (1997).
- Jenkins, B.D.** & Barkan, A. Recruitment of a peptidyl-tRNA hydrolase as a facilitator of group II intron splicing in chloroplasts. *EMBO Journal* 20, 872-879 (2001).

4. **Jenkins, B.D.**, Pullen, C.B. & Darimont, B.D. Novel glucocorticoid receptor coactivator effector mechanisms. *Trends in Endocrinology and Metabolism* 12, 122-126 (2001).
5. Zehr, J.P., Crumbliss, L.L., Church, M.J., Omoregie, E.O. & **Jenkins, B.D.** Nitrogenase genes in PCR and RT-PCR reagents: implications for studies of diversity of functional genes. *Biotechniques* 35, 996-+ (2003).
6. Zehr, J.P., **Jenkins, B.D.**, Short, S.M. & Steward, G.F. Nitrogenase gene diversity and microbial community structure: a cross-system comparison. *Environmental Microbiology* 5, 539-554 (2003).
7. Armbrust, E.V., Berges, J.A., Bowler, C., Green, B.R., Martinez, D., Putnam, N.H., Zhou, S.G., Allen, A.E., Apt, K.E., Bechner, M., Brzezinski, M.A., Chaal, B. K., Chiovitti, A., Davis, A.K., Demarest, M.S., Detter, J.C., Glavina, T., Goodstein, D., Hadi, M.Z., Hellsten, U., Hildebrand, M., **Jenkins, B.D.**, Jurka, J., Kapitonov, V.V., Kroger, N., Lau, W.W.Y., Lane, T.W., Larimer, F.W., Lippmeier, J.C., Lucas, S., Medina, M., Montsant, A., Obornik, M., Parker, M.S., Palenik, B., Pazour, G.J., Richardson, P. M., Rynearson, T.A., Saito, M. A., Schwartz, D.C., Thamtrakoln, K., Valentin, K., Vardi, A., Wilkerson, F.P. & Rokhsar, D.S. The genome of the diatom *Thalassiosira pseudonana*: Ecology, evolution, and metabolism. *Science* 306, 79-86 (2004).
8. **Jenkins, B.D.**, Steward, G.F., Short, S.M., Ward, B.B. & Zehr, J. P. Fingerprinting diazotroph communities in the Chesapeake Bay by using a DNA macroarray. *Applied and Environmental Microbiology* 70, 1767-1776 (2004).
9. Short, S. M., **Jenkins, B.D.** & Zehr, J.P. Spatial and temporal distribution of two diazotrophic bacteria in the Chesapeake Bay. *Applied and Environmental Microbiology* 70, 2186-2192 (2004).
10. Steward, G. F., **Jenkins, B.D.**, Ward, B.B. & Zehr, J.P. Development and testing of a DNA macroarray to assess nitrogenase (*nifH*) gene diversity. *Applied and Environmental Microbiology* 70, 1455-1465 (2004).
11. Church, M. J., **Jenkins, B.D.**, Karl, D. M. & Zehr, J. P. Vertical distributions of nitrogen-fixing phylotypes at Stn ALOHA in the oligotrophic North Pacific Ocean. *Aquatic Microbial Ecology* 38, 3-14 (2005).
12. Church, M. J., Short, C. M., **Jenkins, B.D.**, Karl, D.M. & Zehr, J. P. Temporal patterns of nitrogenase gene (*nifH*) expression in the oligotrophic North Pacific Ocean. *Applied and Environmental Microbiology* 71, 5362-5370 (2005).
13. Schwarcz, L., Takayama, S., Lib-Myagkov, M., Beyer, C., **Jenkins, B.D.**, Hostick, U. & Darimont, B. Cross-talk between beta-catenin and steroid hormone signaling. *Steroids* 70, 480-481 (2005).
14. Gibson, A. H., **Jenkins, B.D.**, Wilkerson, F. P., Short, S. M. & Zehr, J.P. Characterization of cyanobacterial *glnA* gene diversity and gene expression in marine environments. *Fems Microbiology Ecology* 55, 391-402 (2006).
15. **Jenkins, B.D.**, Zehr, J. P., Gibson, A. & Campbell, L. Cyanobacterial assimilatory nitrate reductase gene diversity in coastal and oligotrophic marine environments. *Environmental Microbiology* 8, 2083-2095 (2006).
16. Moisaner, P. H., Shiue, L., Steward, G. F., **Jenkins, B.D.**, Bebout, B.M. & Zehr, J. P. Application of a *nifH* oligonucleotide microarray for profiling diversity of N₂-fixing

- microorganisms in marine microbial mats. *Environmental Microbiology* 8, 1721-1735 (2006).
17. Zehr, J. P., Montoya, J.P., Hewson, I., Mondragon, E.A., Short, C.M., Hansen, A., **Jenkins, B.D.** & Church, M.J. Experiments linking nitrogenase gene expression to N₂ fixation in the North Pacific subtropical gyre. *Limnology and Oceanography* 52 (1) 169-183 (2007).
 18. Hewson, I., Moisaner, P H., Achilles, K.M., Carlson, C.A., **Jenkins, B. D.**, Mondragon, E. A., Morrison, A. E. & Zehr, J. P. Characteristics of diazotrophs in surface to abyssopelagic waters of the Sargasso Sea. *Aquatic Microbial Ecology* 46 (1): 15-30 (2007).
 19. Moisaner, P.H., Morrison, A.E., Ward, B.B., **Jenkins, B.D.** & Zehr, J.P. Spatial-temporal variability in diazotroph assemblages in Chesapeake Bay using an oligonucleotide nifH microarray. *Environmental Microbiology* 9 (7) 1823-1835 (2007).
 20. Bowler, C., Allen, A.E., Badger, J.H., Grimwood, J., Jabbari, K., Kuo, A., Maheswari, U., Martens, C., Maumus, F., O'tillar, R.P., Rayko, E., Salamov, A., Vandepoele, K., Beszteri, B., Gruber, A., Heijde, M., Katinka, M., Mock, T., Valentin, K., Verret, F., Berges, J.A., Brownlee, C., Cadoret, J.-P., Chiovitti, A., Choi, C.J., Coesel, S., De Martino, A., Detter, J.C., Durkin, C., Falciatore, A., Fournet, J., Haruta, M., Huysman, M.J.J., **Jenkins, B.D.**, Jiroutova, K., Jorgensen, R.E., Joubert, Y., Kaplan, A., Kroger, N., Kroth, P.G., La Roche, J., Lindquist, E., Lommer, M., Martin-Jezequel, V., Lopez, P.J., Lucas, S., Mangogna, M., McGinnis, K., Medlin, L.K., Montsant, A., Secq, M.-P.O.-L., Napoli, C., Obornik, M., Parker, M.S., Petit, J.-L., Porcel, B.M., Poulsen, N., Robison, M., Rychlewski, L., Rynearson, T.A., Schmutz, J., Shapiro, H., Saut, M., Stanley, M., Sussman, M.R., Taylor, A.R., Vardi, A., von Dassow, P., Vyverman, W., Willis, A., Wyrwicz, L.S., Rokhsar, D.S., Weissenbach, J., Armbrust, E.V., Green, B.R., Van de Peer, Y. and Grigoriev, I.V. The *Phaeodactylum* genome reveals the evolutionary history of diatom genomes. *Nature* 456 (7219): 239-234 (2008).
 21. Paerl, R.W., Foster, R.A., **Jenkins, B.D.**, Montoya, J.P. and Zehr, J.P. Phylogenetic diversity of cyanobacterial narB genes from various marine habitats. *Environ. Microbiol.* 10 (12) 3377-3387 (2008).
 22. Kudela, R.M., Howard, M.D.A., **Jenkins, B.D.**, Miller, P.E. and Smith, G.J. Using the Molecular Toolbox to Compare Harmful Algal Blooms in Upwelling Systems. *Progress in Oceanography* 55 (1-2) 108-121 (2010).
 23. Wu, Z., **Jenkins, B.D.**, Rynearson, T.A., Dyhrman, S.T., Saito, M.A., Mercier, M. & Whitney, L. P. Empirical Bayes Analysis of Sequencing-based Transcriptional Profiling. *BMC Bioinformatics* 2010 Nov 16;11(1):564.
 24. Whitney, L.P., Lins, J.J., Hughes, M.P., Wells, M.L., Chappell, P.D., and **Jenkins, B.D.** Characterization of putative iron responsive genes as species-specific indicators of iron stress in Thalassiosiroid diatoms. *Frontiers in Aquatic Microbiology* 25 November (2011). 2:234 doi: 10.3389/fmicb.2011.00234
 25. Dyhrman, S.T., **Jenkins, B.D.**, Rynearson, T.A., Saito, M.A., Mercier, M.L., Alexander, H., Whitney, L.P., Dzrewianowski, A., Bulygin, V.V., Bertrand, E.M., Benitez-Nelson, C., and Heithoff, A. The transcriptome and proteome of the diatom *Thalassiosira pseudonana* reveal a diverse phosphorus stress response. *PLOS one* (2012).
 26. Alexander, H., **Jenkins, B.D.**, Rynearson, T.A., Saito, M. A., Mercier, M.L and S. T. Dyhrman. Identifying reference genes with stable expression from high throughput sequence data. *Frontiers in Aquatic Microbiology* 3 (2012).

27. Chappell, P. D., L. Whitney, T. L. Haddock, S. Menden-Deuer, E. G. Roy, M. Wells, and **Jenkins, B.D.** Thalassiosira spp. Community Compostion Shifts in Response to Chemical and Physical Forcing in the Northeast Pacific Ocean Frontiers in Aquatic Microbiology,. 23 September, doi: 10.3389/fmicb.2013.00273 (2013)
28. Fulweiler, R. W., S. M. Brown, S. W. Nixon, and **Jenkins, B.D.** Evidence and a conceptual model for the co-occurrence of nitrogen fixation and denitrification in heterotrophic marine sediments. Marine Ecology Progress Series 482:57-68 (2013).
29. Brown, S. B. and **Jenkins, B.D.** Profiling gene expression to distinguish the likely active diazotrophs from a sea of genetic potential in marine sediments. Environmental Microbiology DOI: 10.1111/1462-2920.12403 (2014).
30. Keeling, P.J., Burki, F., Wilcox, H.M., Allam, B., Allen, E.E., Amaral-Zettler, L.A., Armbrust, E.V., Archibald, J.M., Bharti, A.K., Bell, C.J., Beszteri, B., Bidle, K.D., Cameron, C.T., Campbell, L., Caron, D.A., Cattolico, R.A., Collier, J.L., Coyne, K., Davy, S.K., Deschamps, P., Dyrman, S.T., Edvardsen, B., Gates, R.D., Gobler, C.J., Greenwood, S.J., Guida, S.M., Jacobi, J.L., Jakobsen, K.S., James, E.R., **Jenkins, B.D.**, John, U., Johnson, M.D., Juhl, A.R., Kamp, A., Katz, L.A., Kiene, R., Kudryavtsev, A., Leander, B.S., Lin, S., Lovejoy, C., Lynn, D., Marchetti, A., McManus, G., Nedelcu, A.M., Menden-Deuer, S., Miceli, C., Mock, T., Montresor, M., Moran, M.A., Murray, S., Nadathur, G., Nagai, S., Ngam, P.B., Palenik, B., Pawlowski, J., Petroni, G., Piganeau, G., Posewitz, M.C., Rengefors, K., Romano, G., Rumpho, M.E., Rynearson, T., Schilling, K.B., Schroeder, D.C., Simpson, A.G.B., Slamovits, C.H., Smith, D.R., Smith, G.J., Smith, S.R., Sosik, H.M., Stief, P., Theriot, E., Twary, S.N., Umale, P.E., Vaulot, D., Wawrik, B., Wheeler, G.L., Wilson, W.H., Xu, Y., Zingone, A., and Worden, A.Z. The Marine Microbial Eukaryote Transcriptome Sequencing Project (MMETSP): Illuminating the Functional Diversity of Eukaryotic Life in the Oceans through Transcriptome Sequencing. PLoS Biol 12, e1001889 (DOI: 10.1371/journal.pbio.1001889) (2014).
31. Gilbert, J.A., Dick, G., **Jenkins, B.**, Heidelberg, J., Allen, E., Mackey, K., and DeLong, E. Meeting report: Ocean 'omics science, technology and cyberinfrastructure : current challenges and future requirements (August 20-23, 2013). Standards in Genomic Sciences doi: 10.4056/sigs.5749944. (2014)
32. Chappell, P.D., L.P. Whitney, Wallace, J. R., A.I. Darer, S. Jean-Charles, and **Jenkins, B.D.** Genetic indicators of iron limitation from oceanic diatoms in the northeast Pacific Ocean, ISME J (9) 562-602. DOI:10.1038/ismej.2014.171 (2015).
33. Alexander, H. A., **Jenkins, B.D.**, Rynearson, T.A., and Dyrman, S.T. Metatranscriptome analyses indicate resource partitioning between diatoms in the field, PNAS 112(7). DOI: 10.1073/pnas.1421993112 (2015).
34. King, A. L., **Jenkins, B.D.**, Wallace, J. R., Liu, Y., Wikfors, G.H., Milke, L.M., Meseck, S. L. Effects of CO₂ on growth rate, C:N:P, and fatty acid composition of seven marine phytoplankton species. MEPS 537:59-69 doi:10.3354/meps11458 (2015).
35. Chappell, P.D., Vendamati, J., Selph, K.E., Cyr, H.A. **Jenkins, B.D.**, Landry, M.R. and Moffett, J.W. Preferential depletion of zinc within Costa Rica upwelling dome creates conditions for zinc co-limitation of primary production, J. Plankton Research 38 (2)244-255. doi: 10.1093/plankt/fbw018 (2016).

36. Nunn, S. Chappell, P.D., Gomes, K., Bonderenko, A., **Jenkins, B.D.** and Nunn, B.L. Phytoplankton plastid proteomics: Cracking open diatoms to understand plastid biochemistry under iron limitation. *Journal of Emerging Investigators* (19 Feb 2017).
37. Alderkamp, A.C., van Dijken, G.L., Lowry, K.E., Lewis, K.M., Joy-Warren, H.L., van de Poll, W., Laan, P., Gerringa, L., Delmont, T.O., **Jenkins B.D.**, Arrigo, K.R. (2019) Effects of iron and light availability on phytoplankton photosynthetic properties in the Ross Sea. *Marine Ecology Progress Series* 621:33-50 DOI: <https://doi.org/10.3354/meps13000> (2019).
38. Chappell, P.D., Armbrust, E.V., Barbeau, K.A., Bundy, R.M., Moffett, J.W., Vedamati, J. **Jenkins, B.D.** Patterns of diatom diversity correlate with dissolved trace metal concentrations and longitudinal position in the northeast Pacific coastal-offshore transition zone. *Marine Ecology Progress Series* 609:69-86 DOI: <https://doi.org/10.3354/meps12810> (2019).
39. Spinette, R.F., Brown, S.M., Ehrlich, A.L., Puggioni, G., Deacutis, C., **Jenkins, B.D.** Diazotroph activity in surface Narragansett Bay sediments in summer is stimulated by hypoxia and organic matter delivery. *Marine Ecology Progress Series* 614:35-50 DOI: <https://doi.org/10.3354/meps12901> (2019).
40. Spisla, C., Taucher, J., Bach, L.T., Haunost, M., Boxhammer, T., King, A.L., **Jenkins, B.D.**, Wallace, J.R., Ludwig, A., Meyer, J., Strange, P., Mintolo, F., Lohbeck, K.T., Kalter, V., Lischka, S., Swat, M., Dörner, I., Ismar-Rebritz, S.M.H., Aberle, N., Yong, J.-C., Boquet, J.M., Lechtenböcker, A.K., Kohnert, P., Krudewig, M., Riebesell, U. Extreme levels of ocean acidification restructure the plankton community and biogeochemistry of a temperate coastal ecosystem: a mesocosm study. *Frontiers in Marine Science*, *Front. Mar. Sci.*, 25 January 2021 | <https://doi.org/10.3389/fmars.2020.611157>.
41. McDermith, E. J., Sterling, A. R., Bertin, M. J., Jenkins, B. D., Draft Genome Sequence of *Salegentibacter sp.* Strain BDJ18, a Plankton-Associated Bacterium in the Northeast Atlantic Ocean. *Microbiology Resource Announcements* **10**, e00628-00621 (2021).doi:10.1128/MRA.00628-21
42. Siegel, D. A., Cetinić, I., Graff, J. R., Lee, C. M., Nelson, N., Perry, M. J., Ramos, I. S., Steinberg, D. K., Buesseler, K., Hamme, R., Fassbender, A. J., Nicholson, D., Omand, M. M., Robert, M., Thompson, A., Amaral, V., Behrenfeld, M., Benitez-Nelson, C., Bisson, K., Boss, E., Boyd, P. W., Brzezinski, M., Buck, K., Burd, A., Burns, S., Caprara, S., Carlson, C., Cassar, N., Close, H., D'Asaro, E., Durkin, C., Erickson, Z., Estapa, M. L., Fields, E., Fox, J., Freeman, S., Gifford, S., Gong, W., Gray, D., Guidi, L., Haëntjens, N., Halsey, K., Huot, Y., Hansell, D., Jenkins, B., Karp-Boss, L., Kramer, S., Lam, P., Lee, J.-M., Maas, A., Marchal, O., Marchetti, A., McDonnell, A., McNair, H., Menden-Deuer, S., Morison, F., Niebergall, A. K., Passow, U., Popp, B., Potvin, G., Resplandy, L., Roca-Martí, M., Roesler, C., Rynearson, T., Traylor, S., Santoro, A., Seraphin, K. D., Sosik, H. M., Stamieszkin, K., Stephens, B., Tang, W., Van Mooy, B., Xiong, Y., Zhang, X., An operational overview of the EXPORT Processes in the Ocean from RemoTe Sensing (EXPORTS) Northeast Pacific field deployment. *Elementa: Science of the Anthropocene* **9** (2021).doi: 10.1525/elementa.2020.00107
43. Brzezinski, M. A., Varela, D. E., Jenkins, B. D., Buck, K. N., Kafrissen, S. M., Jones, J. L., The upper ocean silicon cycle of the subarctic Pacific during the EXPORTS field campaign. *Elementa: Science of the Anthropocene* **10** (2022).doi: 10.1525/elementa.2021.00087
44. Roche, K. M., Sterling, A. R., Rynearson, T. A., Bertin, M. J., Jenkins, B. D., A Decade of Time Series Sampling Reveals Thermal Variation and Shifts in Pseudo-nitzschia Species

Composition That Contribute to Harmful Algal Blooms in an Eastern US Estuary. *Frontiers in Marine Science* **9** (2022).doi: 10.3389/fmars.2022.889840

45. Sterling, A. R., Kirk, R. D., Bertin, M. J., Rynearson, T. A., Borkman, D. G., Caponi, M. C., Carney, J., Hubbard, K. A., King, M. A., Maranda, L., McDermith, E. J., Santos, N. R., Strock, J. P., Tully, E. M., Vaverka, S. B., Wilson, P. D., Jenkins, B. D., Emerging harmful algal blooms caused by distinct seasonal assemblages of a toxic diatom. *Limnology and Oceanography* **67**, 2341-2359 (2022).<https://doi.org/10.1002/lno.12189>
46. Burns, S. M., Bundy, R. M., Abbott, W., Abdala, Z., Sterling, A. R., Chappell, P. D., Jenkins, B. D., buck, K. N., Interactions of bioactive trace metals in shipboard Southern Ocean incubation experiments. *Limnology and Oceanography* doi: 10.1002/lno.12290 (in press).doi: 10.1002/lno.12290
47. Sterling, A. R., Holland, L. Z., Bundy, R. M., Burns, S. M., Buck, K. N., Chappell, P. D., Jenkins, B. D., Potential interactions between diatoms and bacteria are shaped by trace element gradients in the Southern Ocean. *Frontiers in Marine Science* doi: 10.3389/fmars.2022.876830 (in press).doi: 10.3389/fmars.2022.876830

Publications in peer reviewed book chapters:

1. Armbrust, E. V., Rynearson, T. A. & **Jenkins, B.D.** in Genomic Insights into Diatom Evolution and Metabolism *In*. Genomics and Evolution of Microbial Eukaryotes (eds. Katz, L. A. & Bhattacharaya, D.) 201-213 (Oxford University Press, Oxford, U.K., 2006).
2. **Jenkins, B.D.** and Zehr, J.P., (2008). Molecular Approaches to the Nitrogen Cycle. *In*. Nitrogen in the Marine Environment, Capone, D.G., Bronk, D.A., Mulholland, M.R. and Carpenter, E.J. (Editors). Elsevier, Oxford, UK.

SUMMARY OF FUNDED RESEARCH

CURRENT AWARDS

Project title	Source of funding	Duration	Award amount funded to Jenkins	Total award amount	Investigators
Collaborative Research: Diatoms, Food Webs and Carbon Export- Leveraging NASA EXPORTS to Test the Role of Diatom Physiology in the Biological Carbon Pump	NSF Bio OCE	3/1/18-2/28/24	\$724,796	\$1,618,844	B. Jenkins lead, M.Brzezinski (UCSB), K. Buck (USF)
Determining biotic and abiotic drivers of domoic acid production by	RI Sea Grant	2/1/20-1/31/23	\$125,000	\$249,989	M. Bertin (URI) lead, B. Jenkins

Project title	Source of funding	Duration	Award amount funded to Jenkins	Total award amount	Investigators
<i>Pseudo-nitzschia</i> strains in Narragansett Bay					
Does hypoxia create unanticipated feedbacks in the nutrient biogeochemistry of estuaries?	RI Sea Grant	2/1/20-1/31/23		\$295,670	R. Robinson (URI) lead, B. Jenkins
Identifying Harmful Algal Bloom Species and Triggers for Toxin Production	RI Sea Grant	2/1/22-1/31/24	\$125,000	\$249,998	M. Bertin (URI) lead, B. Jenkins
RII Track I Rhode Island Consortium for Coastal Ecology Assessment, Innovation, and Modeling	NSF	9/1/17-8/31/22		\$22,000,000	G.Bothun (URI-lead), B. Jenkins, L.Rothstein (URI), J. Morgan (Brown), J. Bissonette (RISD)

PAST AWARDS

Project title	Source of funding	Duration	Award amount funded to Jenkins	Total award amount	Investigators
The Role of Copper in High Affinity Iron Uptake Systems of Eukaryotic Marine Phytoplankton	NSF-CHEM OCE	8/05-7/10	\$298,927	\$683,108	Jenkins URI M. Wells, U. Maine (lead)
Linking the Distribution and Expression of Nitrogen Assimilation Genes to the Ecological Partitioning of Marine Cyanobacteria	URI council for research	2006-2007	\$9,415	\$9,415	B. Jenkins

Project title	Source of funding	Duration	Award amount funded to Jenkins	Total award amount	Investigators
An Examination Of Phytoplankton Biodiversity, Physiology and Optical Characteristics From Coastal to Open Ocean Ecosystems: Implications to Remote Sensing, Biogeochemical Cycles and Environmental Change	RI Endeavor Program	2007	\$128,000	\$128,000	All URI: B. Jenkins T. Ryneerson (lead), J. Sullivan
EN-GEN Transcriptional and Proteomic Analyses of Multiple Environmental Stressors in Marine Diatoms (TP-AMES)	NSF	9/07-8/11	\$439,500	\$999,500	B. Jenkins, T. Ryneerson (URI) S. Dyhrman (lead-WHOI), M. Saito (WHOI)
Marine Genomics Lab Upgrade	URI research office	2010	\$50,928	\$50, 928	B. Jenkins
Transcriptome Profiling for Understanding Global Metabolic Responses of an Ecologically Important Diatom, <i>Thalassiosira rotula</i> , to nutrient limitation	Joint Genome Institute	2008-2011	No direct funding	~\$500,000 of sequencing services	B. Jenkins lead, T. Ryneerson (URI), S. Dyhrman (WHOI), M. Saito (WHOI)
Molecular Basis of Changes in Nitrogen Transformations in Narragansett Bay	URI council for research	2007-2008	\$7,500	\$7,500	B. Jenkins
Diseases of Marine Organisms Graduate Training Program	USDA	2008-2011	\$229,500	\$229,500	All URI: B. Jenkins, M. Gomez-Chiarri (lead) T. Ryneerson, D. Rowley
Understanding Climate Change and the Nitrogen Cycle in Narragansett Bay: A Biogeochemical and Molecular Approach	RI Sea Grant	01/08-2/10	\$190,004	\$190,004	Jenkins lead S. Nixon (URI), R. Fulweiler (BU)

Project title	Source of funding	Duration	Award amount funded to Jenkins	Total award amount	Investigators
Collaborative Research: Using Biogeochemical and Genetic Tools to Unravel the Environmental Controls of Nitrogen Fixation and Denitrification in Heterotrophic Marine Sediments	NSF-CHEM OCE	9/09-8/12	\$563,373	\$1,065,203	Jenkins-URI lead S. Nixon (URI), A. Giblin (MBL), R. Fulweiler (BU)
Tools to Study the Ecology of Environmental Change in Narragansett Bay: Isolation and Laboratory Studies of Important Microbes that Fix Nitrogen	URI council for research	2011	\$9,793	\$9,793	B. Jenkins
Genomic and Transcriptomic Comparison of Iron and Light Physiology in Coastal and Oceanic Diatoms	NSF-BIO OCE	05/10-4/13	\$700,000	\$700,000	B. Jenkins
Marine Microbial Eukaryote Transcriptome Sequencing Project: <i>Thalassiosira oceanica</i> (4), <i>Thalassiosira weissflogii</i> (4), <i>Thalassiosira rotula</i> (2), <i>Pseudo-nitzschia fradulenta</i> (4)	Gordon and Betty Moore Foundation	2011-2012	none	~\$100K in sequencing costs	B. Jenkins-lead S. Dyhrman (WHOI), D. Hutchins (USC), T. Ryneerson (URI)
Mining the Code of Life for Agricultural and Environmental Research: Genomics Research Computing Core at URI	2011 CELS cares equipment	2011	\$57,965	\$57,965	B. Jenkins J. Amador, M.G.-Chiarri, C. Lane, D. Nelson, A. Roberts, T. Ryneerson, B. Sartini (lead) and D. Udway

Project title	Source of funding	Duration	Award amount funded to Jenkins	Total award amount	Investigators
Effects of ocean acidification on phytoplankton physiology and nutrition for fishery-based food webs	NOAA	1/12-12/14	none-direct to NOAA	\$162,000	A.L. King, S. Meseck, L. Milke, B. Jenkins, G. Wikfors
Response of Nitrogen Cycling Consortia to Changes in Nutrients and Dissolved Oxygen in Narragansett Bay	RI Sea Grant	2/12-1/14	\$199,209	\$199,209	Jenkins lead-C. Oviatt (URI), C. Deacutis RI DEM
Characterization of Novel Anaerobic Nitrogen-Fixing Bacterial Isolated from Narragansett Bay Sediments that Respond to Human-Induced Climate Change	RI STAC	5/12-10/13	\$167,000	\$167,000	Jenkins lead-R. Spinette (URI), C. Deacutis RI DEM
Electric Microcable Bacteria in Narragansett Bay Sediments	RI STAC	5/13-4/14	\$99,000	\$199,000	Jenkins, J. Rich (lead-(Brown))
Investigating iron-binding ligands in Southern Ocean diatom communities: the role of diatom-bacteria associations	NSF Polar Programs	7/15-6/18	\$400,430	\$1,247,560	Jenkins lead_K. Buck (USF), P.D. Chappell (ODU)
Defining the biogeochemical drivers of diatom physiological ecology in the North Atlantic	NSF Bio OCE	9/16-8/19	\$399,755	\$1,075,422	Rynearson (URI) lead, B. Jenkins (URI), S. Dyhrman (Columbia)
Evaluating linkages between Pseudo-nitzschia species composition and the contribution of partner bacteria to domoic acid production in Narragansett Bay	RI Sea Grant	2/1/18-1/31/21		\$199,270	M. Bertin (URI) lead, B. Jenkins

MAJOR PROFESSOR FOR THE FOLLOWING STUDENTS

Student	Degree	Completion Date	Funding
Caitlin Fogarty	M.S.	Completed 8/08	RI Sea Grant
Traci Haddock	Ph.D.	Completed 5/11	URI Council for Research
LeAnn Pritchard	Ph.D.	Completed 12/12	NSF
Shelley Brown	Ph.D.	Completed 10/13	RI Sea Grant, NSF
Andraya Ehrlich	M.S.	Completed 5/14	RI Sea Grant
Annaliese Jones	M.S.	Completed 1/15	RI STAC
Joselynn Wallace	Ph.D.	Completed 8/18	NSF
Laura Filliger	Ph.D.	Completed 8/20	NSF GRFP
Kristofer Gomes	Ph.D.	Completed 8/20	NSF, NASA Space Grant
Alexa Sterling	MMAF, Ph.D.	Expected 2021	NSF, NASA Space Grant, RI Sea Grant
Andrew Presley	M.S.	Expected 2021	NSF, NASA Space Grant
Katherine Bell	M.S.	Expected 2021	NSF, RI Sea Grant
Katherine Roche	Ph.D.	Expected 2025	RI Sea Grant
Bryan Plankenhorn	M.S.	Expected 2023	URI Grad School Diversity
Julie Maurer	Ph.D.	Expected 2026	USDA

POSTDOCTORAL ASSOCIATE MENTOR

2009-2013 Dr. P. Dreux Chappell, Current Position, Associate Professor, Old Dominion

2010-2015 Dr. Rodrigue Spinette, PhD Johns Hopkins University

2017-2018 Dr. Eric Salomaki, PhD University of Rhode Island

2019-2021 Dr. Sarah Lerch, PhD University of California, San Diego

RESEARCH AWARDS EARNED BY MY STUDENTS

2008 Ms. Caitlin Fogarty, Ketchum Prize for best student presentation at the New England Estuarine Research Society meeting in Portsmouth N.H.

2009 Ms. LeAnn Whitney, Senator George J. Mitchell Scholarship Research Institute Alumni Council Award

2010 Ms. Shelley Brown, Early Career Researcher Poster Award from the International Society for Microbial Ecology.

2012 Ms. Shelley Brown, Ketchum Prize for best student presentation at the New England Estuarine Research Society meeting in Portsmouth N.H.

2012 Mr. Adam Darer, American Society of Limnology and Oceanography, Best student presentation award.

2013 Ms. Joselynn Wallace, American Society of Limnology and Oceanography Early Career Award

UNDERGRADUATE RESEARCH MENTOR

Nicole Verrier (2006). URI undergraduate, URI research award
 Ethan Freman (2006-2007). URI, Coastal Fellow
 Olubukola Babalola (2008). URI
 Jolene Octavious (2008-2009). URI RI EPSCoR SURF fellow
 Timothy Robinson (2008-2010). URI
 Armine Tahmassian (2008-2010). URI RI Sea Grant fellow, Honors Thesis
 Samua-Jean Charles (2010-2011) URI - manuscript co-author
 Adam Darer (2011) GSO/NSF funded SURFO fellow, Oberlin College, manuscript co-author
 Annaliesa Jones (2010-2012) URI, RI EPSCoR SURF fellow, Honors Thesis
 Samatha Maness (2012) GSO/NSF funded SURFO fellow, from Pfeiffer College
 Cassandra Doucet (2012-2014) URI
 Aislinn Crank (2013) GSO/NSF funded SURFO fellow, from Barnard College
 Shelby Hillman (2014) URI
 Emily Keller (2014-2015) URI
 Nikitas Fanaritis (2014-2015) URI
 Ryan Garvey (2015-2016) URI
 Jack Girard (2015-2016) URI
 Emily Baranowski (2017-2018) URI
 Samantha Vavarenka (2018) GSO/NSF funded SURFO fellow from University of Iowa
 Joshua Luce (2018) URI
 Erin Tully (2017-2019) URI, RI ESPCoR SURF Fellow
 Marissa Caponi (2019-2020) URI
 Meagan King (2019-2020) URI
 Emily McDermith (2017-2020) URI, RI ESPCoR Fellow, Honors Thesis, manuscript co-author
 Isabella Church (2021-present), URI, RI ESPCoR SURF Fellow, Honors Thesis

THESIS COMMITTEE MEMBER

Dr. Marek Kirs, URI Biological Sciences, Ph.D 2005
 Mr. Jeremy Lins, URI Cell and Molecular Biology, M.S. 2007
 Dr. Heather Saffert, URI Graduate School of Oceanography, Ph.D. 2007
 Ms. Haley Brew, URI Graduate School of Oceanography, M.S. 2008
 Ms. Swati Banerjee, URI Cell and Molecular Biology, M.S. M.S. 2009
 Ms. Julie Fliedler, URI Graduate School of Oceanography, M.S. 2009
 Dr. Ryan Paerl, University of California Santa Cruz, Ocean Sciences, Ph.D. 2011
 Dr. Jason Graff, URI Graduate School of Oceanography, Ph.D. 2011
 Dr. Annie Cox, URI Graduate School of Oceanography, Ph.D. 2011
 Ms. Melissa Mercier, URI Graduate School of Oceanography, M.S. 2011
 Ms. Lillian Hancock, URI Biological Sciences, M.S. 2011
 Mr. Henry Wladkowski, URI Graduate School of Oceanography, M.S. 2011
 Mr. Matt Iandoli, URI Cell and Molecular Biology, M.S. 2012
 Ms. Kelley McElroy, URI Cell and Molecular Biology, M.S. 2012
 Ms. Megan O'Brian, URI Biological Sciences, M.S. 2012
 Mr. Brad LeFoley, URI Cell and Molecular Biology, M. S. 2013
 Ms. Anne Hartwell, URI Graduate School of Oceanography, M.S. 2013
 Dr. Ian Misner, URI Biological and Environmental Sciences, Ph.D. 2013
 Dr. Kerry Whittaker, URI Graduate School of Oceanography, Ph.D. 2014
 Dr. Mikkel Benzon Tilia, University of Copenhagen, Denmark Ph.D 2014
 Dr. Harriet Alexander, Woods Hole Oceanographic Institution, Ph.D 2015

Dr. Thea Popolizio, URI Biological and Environmental Sciences, Ph.D. 2015
Dr. Françoise Morrison, URI Graduate School of Oceanography, Ph.D. 2016
Mr. Sean Anderson, URI Graduate School of Oceanography, M.S. 2016
Dr. Jennifer Cooper, URI Biological and Environmental Sciences, Ph.D. 2016
Ms. Sarah Flickinger, URI Graduate School of Oceanography, M.S. 2016
Dr. Françoise Morrison, URI Graduate School of Oceanography M.S. 2014, Ph.D. 2016
Dr. Elizabeth Brannon, URI Biological and Environmental Sciences, Ph.D. 2016
Ms. Sylvia Kim, URI Graduate School of Oceanography, M.S. 2017
Dr. Edward Spinard, URI Biological and Environmental Sciences, Ph.D. 2017
Ms. Abigail Johnson, URI Biological and Environmental Sciences, M.S. 2017
Ms. Julia Johnstone, URI Biological and Environmental Sciences, M.S. 2017
Mr. Markus Stenegrens, Stockholm University, M.S. 2017
Dr. Jillian Freese, URI Biological and Environmental Sciences, Ph.D. 2019
Dr. Rebecca Stevick, URI Biological and Environmental Sciences, Ph.D. 2019
Dr. Theresa Mako, URI Chemistry, Ph.D. 2019
Dr. Sara Wigginton, URI Biological and Environmental Sciences, M.S. 2015, Ph.D. 2019
Dr. Bianca Ross, URI Biological and Environmental Sciences, Ph.D. 2020
Dr. Alissa Cox, URI Biological and Environmental Sciences, Ph.D. 2020
Dr. Stephanie Anderson, URI Graduate School of Oceanography, Ph.D. 2021

URI TEACHING EXPERIENCE

Introductory Microbiology (CMB -120 student course), Advanced Microbiology (CMB 414-30 student course), Advanced Microbiology lab (CMB 416 30 student course), Practical Tools for Advanced Sequence Analysis (BPS, CMB 450/550, 30 student course), Data Analysis and Communication in Oceanography (OCG 593, 20 student course), URI 101 Traditions and Transformations (20 student course), Special Topics in Genomics (BCH 523, 524 20 student course), Advanced Evolution (BIO 472, 20 student course), University College Advisor for microbiology majors.

RECENT INVITED PRESENTATIONS (LAST 6 YEARS)

- 2021 October "Diatom metabolism across biogeochemical landscapes: Insights from metatranscriptome profiling" University of Hawaii, Department of Oceanography
- 2017 October "Comprehensive efforts to fill data gaps" Toward Comprehensive Monitoring of Narragansett Bay, University of Rhode Island
- 2017 October Panelist, State of Narragansett Bay and Its Watershed, Save the Bay Center, Providence, RI
- 2017 May "Following diatom transcription in the environment, expressed genes as in situ indicators of nutrient status" University of California Santa Barbara, Department of Ecology, Evolution and Marine Biology
- 2017 May "Following diatom transcription in the environment, expressed genes as in situ indicators of nutrient status" Department of Ecology, Evolution and Plant Sciences, Stockholm University
- 2017 March "Following diatom transcription in the environment, expressed genes as in situ indicators of nutrient status" Clark University, Department of Ecology, Evolution and Marine Biology

2016 January "Diatoms as in situ indicators of iron availability in the surface ocean" EMBO Symposia: A new Age of Discovery for Aquatic Microeukaryotes, Heidelberg, Germany

SERVICE TO THE UNIVERSITY OF RHODE ISLAND

-
- | | |
|---------------|--|
| 2020 | Lead on AGU-URI BES-GSO Bridge Partnership for broadening participation in Graduate Education |
| 2019-present | URI Graduate Council |
| 2019-present | URI ² Steering Committee for undergraduate experiential learning |
| 2019 | member GSO Dean's Search Committee |
| 2018-2022 | Vice Provost for Research Advisory Committee |
| 2017-present | Scientific Thrust Lead, RI EPSCoR C-AIM, C-AIM Co-PI |
| 2017 | Member RI EPSCoR Scientific Writing Team that wrote the current EPSCoR grant |
| 2016 | Teaching Assistant Task Force, Provost's committee to examine TA allocation |
| 2014- present | Graduate Program Coordinator, Biological and Environmental Science Graduate Specialization in Cell and Molecular Biology |
| 2013 | Chair, Search Committee for CELS Marine Informatics Position |
| 2012-2013 | URI Council for Research Member (1 year term serving for sabbatical replacement) |
| 2009-2011 | URI Faculty Senate member |
| 2011 | member, search committee RI EPSCoR academy director |
| 2011 | member, search committee in Natural Resources Sciences for a faculty position in wetland ecology. |
| 2011 | member, search committee in Natural Resources Sciences for a faculty position in wetland ecology. |
| 2010-present | GSO and CELS Dean's Committee on Marine/Ocean/Coastal Education |
| 2010-present: | RI EPSCoR Research Leader |

- Provide guidance to EPSCoR to make sure aspects of science plan are fulfilled.
Participate in annual reporting and AAAS site visits.
- 2010: Member RI EPSCoR WritingTeam .This 6 person team wrote the science portion of the successful RI EPSCoR
- 2008-2013 Freshman University College Advisor for microbiology majors
- 2008: committee to propose URI Honors Colloquium on global change. Member of a successful planning team lead by Dr. Steven D'Hondt.
- 2007-2008: member, search committee in Biological Sciences for a faculty position in marine genomics.
- 2005-present: Graduate Education Committee, Department of Cell and Molecular Biology and BES program in Cell and Molecular Biology.

SERVICE TO THE EXTRAMURAL COMMUNITY

- **Panel member for grant reviewing the following agencies**

- 2020 NSF Understanding the Rules of Life
2019 NSF Biological Oceanography
2017 NSF Antarctic Organisms and Ecosystems
2012 NSF Biological Oceanography
2008 New York Sea Grant
2008 NSF Antarctic Organisms and Ecosystems

- **Genome annotation consortia participant:**

- 2011 *Paulinella* Genome Symposium, Portland Me.
2006 Oceanic Diazotrophic Cyanobacteria Genome Comparison, University of California Santa Cruz, Santa Cruz, CA
2005 The Diatom (*Phaeodactylum Tricornutum*) Genome Jamboree, DOE Joint Genome Institute Walnut Creek, CA.
2002 The Diatom (*Thalassiosira pseudonana*) Genome Jamboree, DOE Joint Genome Institute Walnut Creek, CA.

- **Involved with the following national and international working groups**

- 2016- Present US GEOTRACES (An International group aimed to understand trace element cycling in the ocean) Scientific Steering Committee, member
- 2014-2029 Ocean Carbon Biogeochemistry Steering Committee, Chair, Vice Chair, member
- 2016 Member, NASA EXPORTS Scientific Definition Team
- 2013-2016 Ocean 'Omics Research Coordination Network Steering Committee
- 2013 NSF EARTH Cubed workshop Ocean 'Omics
- 2011 Feb. Led Town Hall meeting at the American Society for Limnology and Oceanography (ASLO) as a follow up to the Nov 2010 OCB workshop
- 2010 Nov. Canadian Institute for Advanced Research (CIFAR) workshop "Humans Transforming the Ocean Nitrogen Cycle
- 2010 May Canadian Institute for Advanced Research (CIFAR) workshop "Humans Transforming the Ocean Nitrogen Cycle

2010 Oct. Microbiological Targets for Ocean Observing Laboratories (Micro-TOOLSII) 2010 Workshop, Gordon and Betty Moore Foundation, Palo Alto, CA

2010 Jan. Microbiological Targets for Ocean Observing Laboratories (Micro-TOOLS) 2010 Workshop, Gordon and Betty Moore Foundation, Palo Alto, CA

2010-Appointed by Governor Carcieri to Scientific Advisory Committee of RI Bays, Rivers and Watersheds Coordination Team

•**Topical session organizer for the following national and international meetings:**

02/2020 Association for the Science of Limnology and Oceanography Ocean Sciences meeting, San Diego, CA "Structure, Function and Biogeochemical Role of Plankton Communities in the Nutrient Limited Open Ocean"

05/2010 American Society for Microbiology General Meeting, San Diego, CA. "New Processes and Players in the Marine Microbial Nitrogen Cycle".

01/2009 Association for the Science of Limnology and Oceanography Aquatic Sciences meeting, Nice, France. "Probing the nutrient physiology of phytoplankton: from molecular mechanisms to ecosystem impacts."

02/2005 Association for the Science of Limnology and Oceanography Aquatic Sciences Meeting, Salt Lake City, UT "Advances in Microbial Ecology: New Culturing Techniques and Culture-independent Approaches".

02/2004 Association for the Science Limnology and Oceanography Ocean Research Conference, Honolulu, HI "Ecology and Physiology of Marine Organisms: Insights from genes, genomes and proteomes".

•**Editorial boards**

2017 Associate editor *Frontiers in Aquatic Microbiology*

2016 Editor *mSystems*

2010-present reviewing editor for *Frontiers in Aquatic Microbiology*

• **Manuscript reviewer for journals and proposal reviewer for funding agencies**

2015-present *Science*

2014-present Schmidt Foundation

2007-present *Comparative and Functional Genomics*

2007-present NSF CAREER

2007-present NSF Antarctic Organisms and Ecosystems

2007-present *Environmental Microbiology*

2006-present NSF Chemical Oceanography

2006-present *Eukaryotic Cell*

2005-present *Aquatic and Environmental Microbiology*

2005-present NSF International Research Fellowship Program

2005-present NSF Ecological Biology, Population and Evolutionary Processes

2004-present NSF Biological Oceanography

2003-present *Journal of Phycology*

2002-present *Limnology and Oceanography*

2002-present *Applied and Environmental Microbiology*

•**Professional Society Memberships**

2016-present AAAS
 2007-present Estuarine Research Foundation
 2004-present International Society for the Study of Harmful Algae
 2002-present American Society of Limnology and Oceanography
 2002-present American Society of Microbiology
 2002-present American Geophysical Union

PUBLISHED ABSTRACTS AND PUBLIC SERVICE AT THIS [LINK](#)

FIELD EXPERIENCE

- NSF/NASA EXPORTS May-June 2021
 RRS Discovery, South Hampton UK, North Atlantic
- NSF/NASA EXPORTS August -Sept 2018
 R/V Revelle, North Pacific
- Diatom and Nutrient Ecology May 2018
 R/V Atlantic Explorer, North Atlantic
- Diatom and Nutrient Ecology May 2017
 R/V Armstrong, North Atlantic
- Diatom and Bacterial Ecology Sept 2016-Oct 2016
 R/V Palmer, Antarctic Peninsula, Chief Scientist
- Phaeocystis Antarctica and Diatom Ecology Nov 2013-Jan 2014
 R/V Palmer, Drake Passage, Ross Sea, Antarctic Circumpolar Current
- Krill and Phytoplankton Ecology May-June 2013
 R/V Palmer, Antarctic Peninsula
- Diatoms and Trace metal limitation May-June 2007
 R/V Thompson, Coastal B.C., Alaska, Ocean Station PAPA
- Phytoplankton Biodiversity Cruise March 2007
 R/V Endeavor Narragansett to Sargasso Sea
- Costa Rica upwelling dome cruise July-August 2005
 R/V Knorr, Eastern Pacific
- Bermuda Biological Station for Research June 2005
- Trace metals and cyanobacteria February 2002
 R/V Kilo Moana, North Pacific subtropical gyre (23°N-8°N, 158°W)
- University of Hawaii, cocoanut island laboratory, biannually 2002-2004
- Photoheterotrophy cruise December 2002
 R/V Kilo Moana, station ALOHA, University of Hawaii HOT program
- Mono Lake Microbial Observatory April-September 2002
 Sierra Nevada aquatic research laboratory, Mammoth lakes, CA
- MBARI core sampling program November 2001
 R/V Pt. Sur, Monterey Bay, CA
- Plant Genetics research, 3 months annually, 1994-2000
 University of Oregon, Experimental field, Eugene OR
- Coastal Ecology research, rocky intertidal estuaries June-August 1989
 University of Maine, Darling Marine Center, Dr. Steve Gaines, advisor
- SEA biological oceanography December 1988-February 1989

