

CURRICULUM VITAE

JAMES E. BAUER

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The Ohio State University
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EDUCATION

Ph.D., Marine Biogeochemistry, Chesapeake Biological Laboratory, University of Maryland, College Park, MD, August 1989.

M.S., Marine Microbial Ecology, Marine Sciences Research Center, State University of New York, Stony Brook, NY, August 1984.

B.A., Biology with Specialization in Marine Science, Boston University, Boston, MA, Jan. 1981.

PROFESSIONAL EXPERIENCE

2012-2018. Professor, Environmental Sciences Graduate Program, Ohio State University, Columbus, OH.

2009-present. Professor, Department of Evolution, Ecology and Organismal Biology, Ohio State University, Columbus, OH.

2009-2012. Adjunct Professor. School of Marine Science/Virginia Institute of Marine Science (VIMS), College of William & Mary.

2007-2009. Director, Initiative for Coastal Climate Change Research, School of Marine Science/VIMS, College of William & Mary.

2005-2010. Adjunct Professor, Department of Chemistry and Biochemistry, Old Dominion University, Norfolk, VA.

2003-2009. Professor, School of Marine Science/VIMS, College of William and Mary.

1998-2000. Associate Chair, Department of Physical Sciences, School of Marine Science/VIMS, College of William & Mary.

1997-2003. Associate Professor, School of Marine Science/VIMS, College of William & Mary.

1994-1997. Assistant Professor, School of Marine Science/VIMS, College of William & Mary.

1994-1997. Courtesy Assistant Professor Appointment, Department of Oceanography, Florida State University.

1991-1993. Assistant Professor, Department of Oceanography, Florida State University.

- 1989-1991. Postgraduate Research Chemist, Marine Research Division, Scripps Institution of Oceanography, University of California San Diego, La Jolla, CA,
- 1989-2000. Participating Scientist, Center for Accelerator Mass Spectrometry, University of California, Lawrence Livermore National Laboratory, Livermore, CA.
- 1988-1990. NASA Associate, NASA-Ames Research Center, Moffett Field, CA.
- 1987-1989. Graduate Fellow, Chesapeake Biological Lab., University of Maryland.
- 1985-1987. Marine Environmental Scientist, Kinnetic Laboratories, Inc., Santa Cruz, CA, and University of California, Lawrence Livermore National Laboratory, Livermore, CA.
- 1981-1984. Graduate Research Assistant, Marine Microbial Ecology, Marine Sciences Research Center, State University of New York, Stony Brook, NY.

RESEARCH INTERESTS AND EXPERIENCE

- Marine and aquatic biogeochemistry and ecosystem ecology
- Role of bacteria in elemental cycles and food webs
- Land-ocean-atmosphere and land-freshwater-atmosphere interactions
- Ocean and global carbon cycles
- Support of aquatic food webs by autochthonous and allochthonous organic matter
- Impacts of climate change on aquatic biogeochemical cycles and ecosystems

HONORS AND FELLOWSHIPS

2013. Visiting Scientist, Centre Scientifique de Monaco.
2013. Visiting Scientist, International Atomic Energy Agency Environmental Laboratories, Monaco.
2009. Visiting Scholar, Aquatic Ecology Laboratory, Department of Evolution, Ecology and Organismal Biology, Ohio State University, Columbus, OH.
2008. Distinguished Lecturer, Sigma Lecture Series, NASA-Langley Research Center and Virginia Air and Space Museum, Hampton, VA.
1999. Distinguished Visiting Scientist, University of Georgia, Department of Marine Science, Athens, GA.
1998. Best Paper Award in Organic Geochemistry, The Geochemical Society (for: Eglinton, Benitez-Nelson, McNichol, Bauer and Druffel. 1997. Variability in radiocarbon ages of individual organic compounds from marine sediments. *Science* 277: 796-799).
1997. Alumni Fellowship Award, for excellence in teaching. Society of the Alumni, College of William & Mary.
1988. NASA Planetary Biology Fellowship, NASA-Ames Research Center, Mtn. View, CA.
- 1987-89. CBL Fellowship, Chesapeake Biological Laboratory, University of Maryland.
1985. Kenneth P. Stoudte Award, for best dissertation in environmental sciences. State University of New York, Stony Brook.

PROFESSIONAL SOCIETIES

- American Geophysical Union
 American Society of Limnology and Oceanography
 Estuarine Research Federation

SCHOLARLY SERVICES

Editorial

2007-2020. Editorial Board, *Marine Chemistry*

2007-2012. Associate Editor, *Aquatic Geochemistry*

2003-2007. Associate Editor, *Journal of Geophysical Research - Oceans*

2001-2002. Guest Editor, “Carbon Cycling and Biogeochemistry in the Northwest Atlantic Shelf and Slope: Results of the Ocean Margins Program”, *Deep-Sea Research-II*, Volume 49

2000-2007. Associate Editor, *Marine Chemistry*

Panel Reviews

2012. Panel member, NSF Ocean Technology and Interdisciplinary Coordination.

2009. Panel member, NSF Experimental Program to Stimulate Competitive Research (EPSCOR).

2007. Panel member, NSF Experimental Program to Stimulate Competitive Research (EPSCOR).

2005. Panel member, NSF Chemical Oceanography Program.

2004. Panel member, NSF Chemical Oceanography Program.

2002. Chair, NSF site review panel, National Ocean Sciences Accelerator Mass Spectrometry facility, Woods Hole Oceanographic Institution, Woods Hole, MA.

2002. Chair, site review panel, Marine Geochemistry Program, Naval Research Laboratory, Washington, D.C.

2000. Reviewer, Natural Environment Research Council, United Kingdom.

1998. Site review panel member for Canadian JGOFS, National Science and Engineering Research Council of Canada, Halifax, Nova Scotia.

1995. Site review panel member, Division of Ocean Sciences, Brookhaven National Laboratory.

Professional Societies and Scientific Organizations

2016. Co-Chair, ASLO Aquatic Sciences Meeting Special Session “Use of Natural Abundance ¹⁴C in Aquatic Food Web and Ecosystem Studies”, Santa Fe, NM.

2012-2016. Steering Committee member, Biogeochemistry of the Great Lakes System (BOGLS) program.

2011. Co-Chair, ASLO Aquatic Sciences Meeting Special Session “Tropical Small Mountainous River Biogeochemistry: Terrestrial Losses, Internal Processing and Coastal Inputs”, San Juan, Puerto Rico.

2009-2011. Publications Committee, American Society of Limnology and Oceanography.

2008. Co-Chair, Ocean Sciences Meeting Special Session “Controls on Carbon Biogeochemistry and Fluxes and their Associated Scales of Variability in Ocean Margins”, Orlando.

2007-2010. Alfred C. Redfield Lifetime Achievement Award Committee, American Society of Limnology and Oceanography.

2005. Scientific Advisory Council member, North American Continental Margins Synthesis and Planning Workshop.

- 2004-2006. National Advisory and Policy Board member, National Ocean Sciences Accelerator Mass Spectrometry Facility, Woods Hole Oceanographic Institution.
- 2003-2009. NSF UNOLS Fleet Improvement Committee member.
2001. Co-Chair, ASLO Aquatic Sciences Meeting Special Session, “Carbon Cycling in Margins of Ocean and Large Lake Basins”, Albuquerque.
- 2000-2004. Steering Committee member, River-Dominated Ocean Margins (RiOMar) Program, NSF.
2000. Co-Chair, Ocean Sciences Meeting Special Session, “The Origin and Reactivity of Dissolved Organic Matter”, San Antonio.
- 1999-2000. Organizing Committee member, Ocean Sciences 2000 Meeting, San Antonio.
1999. Co-Chair, ASLO Aquatic Sciences Special Session, "Composition and Reactivity of DOC: Comparisons Across Freshwater and Marine Environments", Santa Fe.
1998. Co-Chair, Ocean Sciences Meeting Special Session, "Organic Matters: A Tribute to the Life and Work of Peter M. Williams", San Diego.
1997. Panel member, White House Conference on Global Change, College of Wm. & Mary.
1994. Chair, Ocean Sciences Meeting session, "Fate and Fluxes of Particulate Organic Matter", San Diego.
1994. Chair, American Chemical Society Symposium, "Nature and Reactivity of Dissolved Organic Matter in Natural Waters", San Diego.
1994. Chair, American Geophysical Union Special Session, "Carbon Cycling in Ocean Margins", San Francisco.
- 1993-1998. Steering Committee member, U.S. Department of Energy Ocean Margins Program.
1991. Rapporteur, NSF/NOAA/DOE Workshop: “The Measurement of Dissolved Organic Carbon and Nitrogen in Natural Waters”, University of Washington, Seattle, WA.
1991. Advisory Board member, Florida Advanced Technology Center, Palm Bay, FL.
1991. Co-Chair, Workshop on "Fate and Effects of Petroleum Hydrocarbons in Coastal Environments", University of Florida, Florida Dept. of Natural Resources, Gainesville, FL.
1989. Co-Chair, Energetics Session, Benthic Ecology Meeting, Solomons, MD.

Academic Committees

Ohio State University

- 2019-2020. Co-Chair, Seminar Committee, Department of EEOB, OSU.
- 2019-2020. Graduate Studies Committee, Department of EEOB, OSU.
- 2017-2018. Graduate Admissions Committee, Department of EEOB, OSU.
- 2015-2017. Communications Committee, Department of EEOB, OSU.
- 2015-2017. Graduate Admissions Committee, Department of EEOB, OSU.
- 2014-2016. Chair, Social Events Committee, Department of EEOB, OSU.
- 2014-2015. Aquatic Ecology Search Committee, Department of EEOB, OSU.

2013-2014. Curriculum Committee, Department of EEOB, OSU.
2013-2014. College of Arts and Sciences Promotion and Tenure Committee, OSU.
2012-2013. Departmental Advisory Committee, Department of EEOB, OSU.
2011-2013. Chair, Faculty Promotion and Tenure Committee, Department of EEOB, OSU.
2010-2011. Wetland Ecologist Search Committee, School of Environmental and Natural Resources, OSU.
2009-2010. Graduate Admissions Committee, Department of EEOB, OSU.
2009-present. Promotion and Tenure Committee, Department of EEOB, OSU.

College of William and Mary

2006-2007. Inorganic Geochemist Search Committee, School of Marine Science/
Virginia Institute of Marine Science (SMS/VIMS).
2004-2005. Aquatic Geochemist Search Committee, Department of Geology.
2004. Chair, Academic Council *ad hoc* committee to evaluate establishment of an undergraduate
minor in marine science, SMS/VIMS.
2004. Jefferson Awards Selection Committee, College of Wm. & Mary.
2002-2005. Academic Council, SMS/VIMS.
2001-2002. Chair, Inorganic Geochemist Search Committee, SMS /VIMS.
2000. Co-Chair, Admissions Committee, SMS/VIMS.
1997-2001. Faculty Status and Tenure Review Committee, SMS/VIMS.
1997. Phytoplankton Ecologist Search Committee, SMS/VIMS.
1997. Chair, Admissions Committee, SMS/VIMS.
1996. Director for Research and Advisory Services Search Committee, SMS/VIMS.
1995. Evaluation Committee, Travel Management Contract, College of Wm. & Mary.
1995-2001. Admissions Committee Member, SMS/VIMS.
1995-1997. Faculty Council, SMS/VIMS.
1995-1996. Department of Physical Sciences Advisory Committee, SMS/VIMS.
1995-2009. Analytical Services Center Advisory Committee, SMS/VIMS.
1994-2009. Radiation Safety Committee, SMS/VIMS.

Florida State University

1992-1993. Chair, Admissions Committee, FSU Department of Oceanography.
1991-1992. Academic Curriculum Committee, FSU Department of Oceanography.

Reviewer Duties

Journal Reviewer (last 10 years):

Applied and Environmental Microbiology; Aquatic Microbial Ecology; Biogeochemistry; Continental Shelf Research; Deep-Sea Research; Earth and Planetary Science Letters; Estuarine, Coastal & Shelf Science; Geochimica et Cosmochimica Acta; Geophysical Research Letters; Global Biogeochemical Cycles; Journal of Experimental Marine Biology and Ecology; Journal of Geophysical Research - Biogeosciences; Limnology and Oceanography; Marine Biology; Marine Chemistry; Marine Ecology Progress Series; Marine Environmental Research; Nature; Nature Geoscience; Science; Soil Science.

Proposal Reviewer (last 10 years):

- NSF, Chemical and Biological Oceanography Programs; Office of Polar Programs; Environmental Geochemistry and Biogeochemistry Program; Integrated Carbon Cycle Research Program; Coastal Ocean Processes (CoOP) Program; Marine Geology and Geophysics; Atmospheric Sciences Program; EPSCOR Program.
- NOAA, Office of Global Programs; National Undersea Research Program.
- American Chemical Society, Petroleum Research Fund.
- University of California Energy Institute.

PUBLICATIONS IN PEER-REVIEWED JOURNALS AND BOOKS (*Google Scholar H-index: 50; i10-index: 93; 10,250 total citations; *indicates student or postdoctoral advisee*)

- *Kelsey, S., A.G. Grottoli, **J.E. Bauer**, K. Lorenz, R. Lal, Y. Matsui and T. M. Huey-Sanders. 2020. Effects of agricultural and tillage practices on isotopic signatures and fluxes of organic and inorganic carbon in headwater streams. *Aquatic Sciences* 82: 23, doi:10.1007/s00027-019-0691-7.
- *Bellamy, A.R., **J.E. Bauer** and A.G. Grottoli. 2019. Autochthonous, allochthonous, and aged carbon and organic matter contributions to macroinvertebrate nutrition in the Susquehanna River basin. *Freshwater Science* 38: 616-628, doi.org/10.1086/705017.
- *Evans, T.M., *A.R. Bellamy and **J.E. Bauer**. 2019. Radioisotope and stable isotope ratios ($\Delta^{14}\text{C}$, $\delta^{15}\text{N}$) suggest larval lamprey growth is dependent on both fresh and aged organic matter in streams. *Ecology of Freshwater Fish* 28: 365-375, doi 10.1111/eff.124.
- *Gougherty, S.W., **J.E. Bauer** and J.W. Pohlman. 2018. Exudation rates and $\delta^{13}\text{C}$ signatures of tree root soluble organic carbon in a riparian forest. *Biogeochemistry* 137: 235-252, doi 10.1007/s10533-017-0415-9.
- *Bellamy, A.R. and **J.E. Bauer**. 2017. Nutritional support of inland aquatic food webs by aged carbon and organic matter. *Limnology and Oceanography Letters* 2: 131-149, doi 10.1002/lol2.10044.
- *Bellamy, A.R., **J.E. Bauer** and A.G. Grottoli. 2017. Influence of land use and lithology on sources and ages of nutritional resources for stream macroinvertebrates: a multi-isotopic approach. *Aquatic Sciences* 79: 925–939, doi 10.1007/s00027-017-0542-3.

- *Weber, A.M, **J.E. Bauer** and G. T. Watters. 2017. Assessment of nutritional subsidies to freshwater mussels using a multiple natural abundance isotope approach. *Freshwater Biology* 62: 615-629, doi:10.1111/fwb.12890.
→ the authors were awarded the cover of this issue of *Freshwater Biology*, doi 10.1111/fwb.12905
- *Levas, S., A.G. Grottoli, V. Schoepf, M. Aschaffenburg, J. Baumann, **J.E. Bauer**, and M.E. Warner. 2016. Can heterotrophic uptake of dissolved organic carbon and zooplankton mitigate carbon budget deficits in annually bleached corals? *Coral Reefs* doi: 10.1007/s00338-015-1390-z.
- *Evans T.M. and **J.E. Bauer**. 2016. Identification of food and nutritional resources supporting invasive larval sea lamprey growth using multiple natural isotopes. *Journal of Great Lakes Research* 42: 99-107, doi:10.1016/j.jglr.2015.11.010.
- *Evans T.M. and **J.E. Bauer**. 2016. Using stable isotopes and C:N ratios to examine the life-history strategies and nutritional sources of larval lampreys. *Journal of Fish Biology* 88: 638-654, doi:10.1111/jfb.12858.
- *Lu, Y., L. Xiaping, R. Mesfioui, **J.E. Bauer**, R M Chambers, E.A. Canuel and P. Hatcher. 2015. Use of ESI-FTICR-MS to characterize dissolved organic matter in headwater streams draining forest-dominated and pasture-dominated watersheds. *PLoS One* doi:10.1371/journal.pone.0145639.
- *Levas, S., A.G. Grottoli, M.E. Warner, W.-J. Cai, **J.E. Bauer**, V. Schoepf, J.H. Baumann, Y. Matsui, C. Gearing, T.F. Melman, K.D. Hoadley, D.T. Pettay, X. Hu, Q. Li, H. Xu, and Y. Wang. 2015. Organic carbon fluxes mediated by corals at elevated $p\text{CO}_2$ and temperature. *Marine Ecology Progress Series* 519: 153–164, doi: 10.3354/meps11072.
- *Lu, Y., **J.E. Bauer**, E.A. Canuel, R. Chambers Y. Yamashita, R. Jaffé and A. Barrett. 2014. Effects of land use on sources and ages of inorganic and organic carbon in temperate headwater streams. *Biogeochemistry* doi 10.1007/s10533-014-9965-2.
- *Lu, Y., E.A. Canuel, **J.E. Bauer** and R. Chambers. 2014. Effects of watershed land use on sources and nutritional value of particulate organic matter in temperate headwater streams. *Aquatic Sciences* 76: doi: 10.1007/s00027-014-0344-9.
- Bauer, J.E.**, W.-J. Cai, P.A. Raymond, T.S. Bianchi, C.S. Hopkinson and P. Regnier. 2013. The changing carbon cycle of the coastal ocean. *Nature* 504: 61-70.
→ by invitation of the Editors of *Nature*
→ featured in Forum UNESCO - University and Heritage Newsletter, 30 December 2013, “The Coastal Ocean Absorbs CO₂”
- Reimers, C.E., Y. Alleau, **J.E. Bauer**, J. Delaney, P. Girguis, P. Schrader and H.A. Stecher. 2013. Redox effects on the microbial degradation of refractory organic matter in marine sediments. *Geochimica et Cosmochimica Acta* 121: 582-598.
- *Lu, Y., **J.E. Bauer**, E.A. Canuel, Y. Yamashita, R. Chambers and R. Jaffé. 2013. Photochemical and microbial alteration of dissolved organic matter in temperate headwater streams associated with different land use. *Journal of Geophysical Research-Biogeosciences* 118, doi:10.1002/jgrg.20048.
→ featured in EOS Research Spotlight, vol. 94, 14 June 2013
- *Hossler, K.A. and **J.E. Bauer**. 2013. Amounts, isotopic character and ages of carbon and organic matter exported from rivers to ocean margins: 1. Estimates of terrestrial losses and inputs to the Middle Atlantic Bight. *Global Biogeochemical Cycles* 27, doi:10.1002/gbc.20033.

- *Hossler, K.A. and **J.E. Bauer**. 2013. Amounts, isotopic character and ages of carbon and organic matter exported from rivers to ocean margins: 2. Assessment of natural and anthropogenic controls. *Global Biogeochemical Cycles* 27, doi:10.1002/gbc.20034.
- *Pohlman, J.W., M. Riedel, **J.E. Bauer**, E.A. Canuel, C. Paull, L. Lapham, K.S. Grabowski, R. B. Coffin, and G.D. Spence. 2013. Anaerobic methane oxidation in low-organic content methane seep sediments. *Geochimica et Cosmochimica Acta* doi: /10.1016/j.gca.2013.01.022.
- Jiang, L.-Q., W.-J. Cai, Y. Wang and **J.E. Bauer**. 2013. Influence of terrestrial inputs on continental shelf carbon dioxide. *Biogeosciences* 10, 839-849, doi:10.5194/bg-10-839-2013.
- Moyer, R.P., **J.E. Bauer**, and A.G. Grottoli. 2013. Carbon isotope biogeochemistry of tropical small mountainous river, estuarine, and coastal systems of Puerto Rico. *Biogeochemistry* 112, 589–612, doi 10.1007/s10533-012-9751-y.
- *Hossler, K.A. and **J.E. Bauer**. 2012. Estimation of riverine carbon source contributions with time-based isotope mixing models. *Journal of Geophysical Research – Biogeosciences* 117, G03035, doi:10.1029/2012JG001988.
- *Wozniak, A.S., **J.E. Bauer**, R.M. Dickhut, L. Xu and A.P. McNichol. 2012. Isotopic characterization of organic carbon components in eastern United States aerosol particulate matter. *Journal of Geophysical Research – Atmospheres* 117, D13303, doi:10.1029/2011JD017153.
- *Wozniak, A.S., **J.E. Bauer**, and R.M. Dickhut. 2012. Characteristics of water-soluble organic carbon associated with aerosol particles in the eastern United States. *Atmospheric Environment* 46: 181-188.
- Bauer, J.E.** and T.S. Bianchi. 2011. Dissolved Organic Carbon Cycling and Transformation. In: Wolanski, E. and McLusky, D.S. (eds.) *Treatise on Estuarine and Coastal Science, Vol. 5, Biogeochemistry*, pp. 7-67. Waltham: Academic Press.
- Bianchi, T.S. and **J.E. Bauer**. 2011. Particulate Organic Carbon Cycling and Transformation. In: Wolanski, E. and McLusky, D.S. (eds.) *Treatise on Estuarine and Coastal Science, Vol. 5, Biogeochemistry*, pp. 69–117. Waltham: Academic Press.
- *Wozniak, A.S., **J.E. Bauer**, and R.M. Dickhut. 2011. Fossil and contemporary aerosol particulate organic carbon in the eastern United States: Implications for deposition and inputs to watersheds. *Global Biogeochemical Cycles* 25: GB2013, doi:10.1029/2010GB003855.
- *Pohlman, J.W., **J.E. Bauer**, W.F. Waite, C.L. Osburn, and N.R. Chapman. 2011. Gas hydrate-bearing seeps as a source of aged dissolved organic matter to the oceans. *Nature Geoscience* 4: 37-41.
 → featured as a *Nature Geoscience* Editorial “Deep-Sea Discoveries”, vol. 4, p.1.
 → featured as a *Nature Geoscience* News and Views story, “Oceanography: Carbon Cycle at Depth” by K. Edwards, vol. 4, p. 9-11.
- Caraco, N.S., **J.E. Bauer**, J.J. Cole, P.A. Raymond and S.T. Petsch. 2010. Millennial-aged organic carbon subsidies to a modern river food web. *Ecology* 91: 2381-2389.
- *Pohlman, J.W., **J.E. Bauer**, E.A. Canuel, K. Grabowski, D. Knies, C.S. Mitchell, M.J. Whitticar and R.B. Coffin. 2009. Sources and fluxes of methane in gas hydrate cold-seep systems: evidence from radiocarbon and stable isotopic signatures. *Marine Chemistry* 115: 102-109.
 → one of the top 25 most highly cited articles in marine chemistry for 2010 by *Science Direct*.

- *Loh, A.N., E.A. Canuel and **J.E. Bauer**. 2008. Lipid biomarker distributions in oceanic dissolved and particulate organic matter: source and diagenetic signatures. *Marine Chemistry* 112: 189-202.
- *Wozniak, A.S., **J.E. Bauer**, R.L. Sleighter, R.M. Dickhut and P.G. Hatcher. 2008. Molecular characterization of aerosol-derived water soluble organic carbon using ultrahigh resolution electrospray ionization Fourier transform ion cyclotron resonance mass spectrometry. *Atmospheric Chemistry and Physics* 8: 5,099-5,111.
- Druffel, E.R.M., **J.E. Bauer**, S. Griffin, S.R. Beaupré and J. Hwang. 2008. Dissolved inorganic radiocarbon in the North Pacific Ocean and Sargasso Sea. *Deep-Sea Research-I* 55: 451-459.
- Longworth, B.E., S.T. Petsch, P.A. Raymond and **J.E. Bauer**. 2007. Linking lithology and land use to sources of dissolved and particulate organic matter in headwaters of a temperate, passive-margin river system. *Geochimica et Cosmochimica Acta* 71: 4233-4250.
- Bauer, J.E.**, M. Goni and B. McKee. 2008. North American rivers and estuaries. In: B. Hales, ed. "North American Continental Margins", Oregon State University Press, 110pp.
- Bauer, J.E.** 2007. Nature Journal Club: A marine scientist marvels at connections between the cold war and mudflat worms. *Nature* 446: 351.
→ invited contribution by the editors of *Nature*.
- *McCallister, S.L., **J.E. Bauer**, H.W. Ducklow and E.A. Canuel. 2006. Sources and potential transformation of estuarine dissolved and particulate organic matter: A multi-tracer approach. *Organic Geochemistry* 37: 454-468.
- *Loh, A.N., **J.E. Bauer** and E.A. Canuel. 2006. Dissolved and particulate organic matter source-age characterization in the upper and lower Chesapeake Bay: A combined isotope and biochemical approach. *Limnology and Oceanography* 51: 1421-1431.
- Hwang, J., E.R.M. Druffel and **J.E. Bauer**. 2006. Incorporation of aged dissolved organic carbon (DOC) onto oceanic particulate organic carbon (POC): An experimental approach using carbon isotopes. *Marine Chemistry* 98: 315-322.
- *McCallister, S.L., **J.E. Bauer**, H.W. Ducklow and E.A. Canuel. 2006. Bioreactivity of estuarine dissolved organic matter: A combined geochemical and microbiological approach. *Limnology and Oceanography* 51: 94-100.
- *McCallister, S.L., **J.E. Bauer**, J. Kelly, and H.W. Ducklow. 2005. Effects of natural sunlight on decomposition of estuarine dissolved organic C, N and P and bacterial growth. *Aquatic Microbial Ecology* 40: 25-35.
- Druffel, E.R.M., **J.E. Bauer** and S. Griffin. 2005. Input of particulate organic and dissolved inorganic carbon from the Amazon to the Atlantic Ocean. *Geochemistry, Geophysics, Geosystems* 6, Q03009.
- *Raymond, P.A., **J.E. Bauer**, N. Caraco, J.J. Cole, B. Longworth and S. Petsch. 2004. Controls on the variability of organic and dissolved inorganic carbon age in northeast U.S. rivers. *Marine Chemistry* 92: 353-366.
- Hwang, J., E.R.M. Druffel, S. Griffin, K.L. Smith, Jr., R.J. Baldwin, and **J.E. Bauer**. 2004. Temporal variability of $\Delta^{14}\text{C}$ and $\delta^{13}\text{C}$ in sinking POC at a deep time-series station in the Northeast Pacific Ocean. *Global Biogeochemical Cycles* 18: GB4015, doi:10.1029/2004GB002221.

- *Loh, A.N., **J.E. Bauer**, and E.R.M. Druffel. 2004. Variable aging and storage of dissolved organic components in the open ocean. *Nature* 430: 877-881.
- *McCallister, S.L., **J.E. Bauer**, J. C. Cherrier and H.W. Ducklow. 2004. Assessing sources and ages of organic matter supporting river and estuarine bacterial production: a multiple isotope ($\Delta^{14}\text{C}$, $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$) approach. *Limnology and Oceanography* 49: 1687-1702.
→ recipient of the 2006 Raymond L. Lindeman Award (American Society of Limnology and Oceanography).
- *Cherrier, J.C. and **J.E. Bauer**. 2004. Bacterial utilization of transient plankton-derived dissolved organic carbon and nitrogen inputs in surface ocean waters. *Aquatic Microbial Ecology* 35: 229-241.
- Coale, K.H., K. S. Johnson, F. P. Chavez, K. O. Buesseler, R. T. Barber, M. A. Brzezinski, W. P. Cochlan, F. J. Millero, P. G. Falkowski, **J.E. Bauer** and others. 2004. Southern Ocean iron enrichment experiment: Carbon cycling in high- and low-Si waters. *Science* 304: 408-414.
- Druffel, E.R.M., **J.E. Bauer**, S. Griffin and J. Hwang. 2003. Penetration of anthropogenic carbon into organic particles of the deep ocean. *Geophysical Research Letters* 30: 1744, doi:10.1029/2003GL017423.
- Bauer, J.E.** 2002. Biogeochemistry and cycling of carbon in the northwest Atlantic continental margin: findings of the Ocean Margins Program. *Deep-Sea Research-II* 49: 4,271-4,272.
- Bauer, J.E.**, E.R.M. Druffel, D.M. Wolgast and S. Griffin. 2002. Temporal and spatial variability in sources and cycling of DOC and POC in the northwest Atlantic continental margin. *Deep-Sea Research-II* 49: 4,387-4,419.
- Verity, P.G., **J.E. Bauer**, C.N. Flagg, D.J. DeMaster, and D.J. Repeta. 2002. The Ocean Margins Program: an interdisciplinary study of carbon sources, transformation and sinks in a temperate continental margin system. *Deep-Sea Research-II* 49: 4,273-4,295.
- Bauer, J.E.** 2002. Carbon isotopic composition of DOM. In: D.A. Hansell and C.A. Carlson, Eds., “*Biogeochemistry of Marine Dissolved Organic Matter*”, Elsevier Science Publishers, pp. 405-453.
- Bauer, J.E.**, E.R.M. Druffel, D.M. Wolgast and S. Griffin. 2001. Cycling of dissolved and particulate organic radiocarbon in the northwest Atlantic continental margin. *Global Biogeochemical Cycles* 15(3): 615-636.
- *Raymond, P.A. and **J.E. Bauer**. 2001. DOC cycling in a temperate estuary: a mass balance approach using natural ^{14}C and ^{13}C . *Limnology and Oceanography* 46:655-667.
- Yager, P.L., T.L. Connelly, B. Mortazavi, K.E. Wommack, N. Bano, **J.E. Bauer**, S. Opsahl and J.T. Hollibaugh. 2001. Dynamic microbial response to an arctic algal bloom at sub-zero temperatures. *Limnology and Oceanography* 46:790-801.
- *Raymond, P.A. and **J.E. Bauer**. 2001. Use of ^{14}C and ^{13}C natural abundances as a tool for evaluating freshwater, estuarine and coastal organic matter sources and cycling. *Organic Geochemistry* 32: 469-485.
- *Raymond, P.A. and **J.E. Bauer**. 2001. Riverine export of aged terrestrial organic matter to the North Atlantic Ocean. *Nature* 409: 497-500.
→ featured as a *Nature* News and Views article, “Carbon cycle: The age of river carbon” by W. Ludwig.
→ featured in *Scientific American*, April 28, 2001

- *Raymond, P.A., **J.E. Bauer**, and J.J. Cole. 2000. Atmospheric CO₂ evasion, dissolved inorganic carbon production, and net heterotrophy in the York River estuary. *Limnology and Oceanography* 45: 1,707-1,717.
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- Druffel, E.R.M. and **J.E. Bauer**. 2000. Radiocarbon distributions in Southern Ocean dissolved and particulate organic matter. *Geophysical Research Letters* 47: 1,495-1,498.
→ featured as an Editor's Choice (Highlights of Recent Literature) in *Science*, vol. 268 (2000).
- *Loh, A.N. and **J.E. Bauer**. 2000. Distributions, partitioning, and fluxes of dissolved and particulate organic C, N, and P in the eastern north Pacific and Southern Oceans. *Deep-Sea Research I* 47: 2,287-2,316.
- Ducklow, H.W., G.L. Schultz, P. R. Raymond, **J.E. Bauer** and F.-K. Shiah. 2000. Bacterial and DOM dynamics in large and small estuaries. In: CR. Bell, M. Brylinsky and P. Johnson-Green, Eds., *Microbial Biosystems-New Frontiers*, Proceedings, 8th International Symposium on Microbial Ecology, pp. 105-112.
- *Cherrier, J.C., **J.E. Bauer**, E.R.M. Druffel, R. B. Coffin and J. Chanton. 1999. Radiocarbon in marine bacteria: Evidence for the ages of assimilated carbon. *Limnology and Oceanography* 44: 730-736.
→ recipient of the 2000 Raymond L. Lindeman Award (American Society of Limnology and Oceanography).
- Bauer, J.E.**, E.R.M. Druffel, P.M. Williams, D.M. Wolgast and S. Griffin. 1998. Temporal variability in dissolved organic carbon and radiocarbon in the eastern north Pacific Ocean. *Journal of Geophysical Research* 103(C2): 2867-2882.
- Druffel, E.R.M., **J.E. Bauer**, S. Griffin, X.-C. Wang and D.M. Wolgast. 1998. Distribution of particulate organic radiocarbon from the upper slope to the abyssal Northeastern Pacific Ocean. *Deep-Sea Research II* 45: 667-688.
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- Wolgast, D.M., A. Carlucci and **J.E. Bauer**. 1998. Nitrate respiration associated with detrital aggregates in aerobic bottom waters of the abyssal NE Pacific. *Deep-Sea Research II* 45: 881-892.
- Bauer, J.E.**, D.W. Wolgast, E.R.M. Druffel, S. Griffin and C.A. Masiello. 1998. Distributions of dissolved organic and inorganic carbon and radiocarbon in the eastern North Pacific continental margin. *Deep-Sea Research II* 45: 689-714.
- Bianchi, T.S., **J.E. Bauer**, E.R.M. Druffel and C.D. Lambert. 1998. Pyrophaeophorbide-*a* as a tracer of suspended particulate organic matter from the NE Pacific continental margin. *Deep-Sea Research II* 45: 715-732.
- Bauer, J.E.** and E.R.M. Druffel. 1998. Ocean margins as a significant source of organic matter to the deep open ocean. *Nature* 392: 482-485.
- Eglinton, T.E., B. Benitez-Nelson, A. McNichol, **J.E. Bauer** and E. Druffel. 1997. Variability in radiocarbon ages of individual organic compounds from marine sediments. *Science* 277: 796-799.

- *Cherrier, J.C., **J.E. Bauer** and E.R.M. Druffel. 1996. Utilization and turnover of labile dissolved organic matter by bacterial heterotrophs in eastern North Pacific surface waters. *Marine Ecology Progress Series* 139: 267-279.
- Eglinton, T.I., L.I. Aluwihare, **J.E. Bauer**, E.R.M. Druffel and A.P. McNichol. 1996. Gas chromatographic isolation of individual compounds from complex matrices for radiocarbon dating. *Analytical Chemistry* 68: 904-912.
- Druffel, E.R.M., **J.E. Bauer**, P.M. Williams, S. Griffin and D.W. Wolgast. 1996. Seasonal variability of particulate organic radiocarbon in the northeast Pacific. *Journal of Geophysical Research* 101: 20,543-20,552.
- Powell, R.T., W.M. Landing and **J.E. Bauer**. 1996. Association of trace metals with colloidal carbon and nitrogen in a southeastern U.S. estuary. *Marine Chemistry* 55: 165-176.
- Buesseler, K., **J.E. Bauer**, and others. 1996. Sampling marine colloids using cross-flow filtration: Overview and results from an intercomparison study. *Marine Chemistry* 55: 1-31.
- Bauer, J.E.**, K.C. Ruttenberg, D.M. Wolgast, E. Monaghan and M.K. Schrope. 1996. Cross-flow filtration of dissolved and colloidal nitrogen and phosphorus in seawater: Results from an intercomparison study. *Marine Chemistry* 55: 33-52.
- Bauer, J.E.**, C.E. Reimers, E.R.M. Druffel and P.M. Williams. 1995. Isotopic constraints on carbon exchanges between deep ocean sediments and seawater. *Nature* 373: 686-689.
- Montagna, P.A., **J.E. Bauer**, D. Hardin and R.B. Spies. 1995. Meiofaunal and microbial trophic interactions in a natural submarine hydrocarbon seep. *Vie et Milieu* 45: 17-25.
- Chanton, J.P., **J.E. Bauer**, and others. 1995. Radiocarbon evidence for the substrates supporting methane formation within northern Minnesota peatlands. *Geochimica et Cosmochimica Acta* 59: 3,663-3,668.
- Bebout, B.M., H.W. Paerl, **J.E. Bauer**, D.E. Canfield and D.J. DesMarais. 1994. Nitrogen cycling in microbial mat communities: the quantitative importance of N-fixation and other sources of N for primary productivity. In: L. Stal and P. Caumette (eds.), *Microbial Mats*, Springer-Verlag, Berlin. pp. 265-271.
- Bauer, J.E.**, M.L. Occelli, P.M. Williams and P.C. McCaslin. 1993. Heterogeneous catalyst structure and function: Review and implications for the analysis of dissolved organic carbon and nitrogen in natural waters. *Marine Chemistry* 41:75-89.
- Williams, P. M., **J. E. Bauer**, K. R. Robertson, D. M. Wolgast and M.L. Occelli. 1993. Report on DOC and DON measurements at Scripps Institution of Oceanography, 1988-1991. *Marine Chemistry* 41: 271-281.
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- Capone, D.G. and **J.E. Bauer**. 1992. Microbial processes in coastal pollution. In: (R. Mitchell, ed.) *Environmental Microbiology*, John Wiley and Sons, New York. pp. 191-238.
- Bauer, J.E.**, P.M. Williams and E.R.M. Druffel. 1992. Recovery of sub-milligram quantities of carbon dioxide from gas streams by molecular sieve for subsequent determination of isotopic natural abundances (^{13}C and ^{14}C). *Analytical Chemistry* 64: 824-827.

- Bauer, J.E.**, P.M. Williams and E.R.M. Druffel. 1992. ^{14}C activity of dissolved organic carbon fractions in the central North Pacific and Sargasso Sea. *Nature* 357: 667-670.
- Druffel, E.R.M., P.M. Williams, **J.E. Bauer** and J. Ertel. 1992. Cycling of dissolved and particulate organic matter in the open ocean. *Journal of Geophysical Research* 97: 15,539-15,659.
- Bauer, J.E.**, R.I. Haddad and D.J. Des Marais. 1991. Method for determining stable isotope ratios of dissolved organic carbon in interstitial and other natural marine waters. *Marine Chemistry* 33: 335-351.
- Bauer, J.E.**, R.B. Spies, J.S. Vogel, D.E. Nelson and J.R. Southon. 1990. Natural ^{14}C evidence of fossil carbon cycling in sediments of a marine hydrocarbon seep off California. *Nature* 348: 230-232.
- Spies, R.B., **J.E. Bauer** and D. Hardin. 1989. Stable isotope study of sedimentary carbon utilization by *Capitella* spp.: effects of two carbon sources and geochemical conditions during their diagenesis. *Marine Biology* 101: 69-74.
- Montagna, P.A., **J.E. Bauer**, R.B. Spies and D. Hardin. 1989. Vertical distribution of microbial and meiofaunal populations in sediments of a coastal marine petroleum seep. *Journal of Marine Research* 47: 657-680.
- Montagna, P.A. and **J.E. Bauer**. 1988. Partitioning radiolabeled thymidine uptake by bacteria and meiofauna using metabolic blocks and poisons in benthic feeding studies. *Marine Biology* 98: 101-110.
- Bauer, J.E.**, R. Kerr, M.F. Bautista, C.J. Decker and D.G. Capone. 1988. Stimulation of microbial activities and polycyclic aromatic hydrocarbon degradation in marine sediments inhabited by *Capitella capitata*. *Marine Environmental Research* 25: 63-84.
- Bauer, J.E.** and D.G. Capone. 1988. Effects of co-occurring aromatic hydrocarbons on the degradation of individual polycyclic aromatic hydrocarbons in marine sediment slurries. *Applied and Environmental Microbiology* 54: 1,649-1,655.
- Bauer, J.E.**, P.A. Montagna, R.B. Spies, D. Hardin and M.C. Prieto. 1988. Microbial biogeochemistry and heterotrophy in sediments of a marine hydrocarbon seep. *Limnology and Oceanography* 33: 1,493-1,513.
- Montagna, P.A., **J.E. Bauer**, J. Toal, D. Hardin and R.B. Spies. 1987. Temporal variability and the relationship between meiofauna and microbes of a natural petroleum seep. *Journal of Marine Research* 45: 761-789.
- Montagna, P.A., **J.E. Bauer**, M.C. Prieto, R.B. Spies and D. Hardin. 1986. Benthic metabolism at a natural California petroleum seep. *Marine Ecology Progress Series* 34: 31-40.
- Bauer, J.E.** and D.G. Capone. 1985. Effects of four aromatic organic pollutants on microbial glucose metabolism and thymidine incorporation in marine sediments. *Applied and Environmental Microbiology* 49: 828-835.
- Bauer, J.E.** and D.G. Capone. 1985. Degradation and mineralization of the polycyclic aromatic hydrocarbons anthracene and naphthalene in intertidal marine sediments. *Applied and Environmental Microbiology* 50: 81-90.

MANUSCRIPTS SUBMITTED AND IN PREPARATION (*indicates graduate student or postdoc advisee)

Bauer, J.E., L. Guo and D.W. Perkey. Ubiquity of aged carbon in major global rivers: implications for global carbon budgets. Submitted to *Nature Geoscience*.

Bauer, J.E., J.J. Cole, P.A. *Raymond, S. Petsch and N. Caraco. Intra- and inter-annual variability in organic and inorganic carbon ages in a temperate river and watershed. In preparation for *Global Biogeochemical Cycles*.

Bauer, J.E. and *C.J. Pollard. Dissolved organic C, N and P distributions in a temperate estuary: variability in inputs, internal processing, and export to the coastal ocean. In preparation for *Biogeosciences*.

*Evans, T.M and **J.E. Bauer**. Alteration of $\delta^{13}\text{C}$, $\delta^{15}\text{N}$ and $\delta^2\text{H}$ natural isotope ratios during digestion in a benthic filter feeder: implications for sedimentary isotope records. In preparation for *Biogeochemistry*.

Bauer, J.E. and D.M. Wolgast. Changes in natural radiocarbon signatures of marine organic matter during microbial degradation. In preparation for *Limnology and Oceanography*.

Bauer, J.E. and M.K. Schrope. Distributions and stoichiometry of dissolved organic C, N and P in estuarine sediment porewaters using diffusional cells (peepers). In preparation for *Marine Chemistry*.

Bauer, J.E.,*J. DeAlteris and A.G. Grottoli. Natural ^{14}C and ^{13}C isotopic composition of organic and inorganic carbon in surface waters of a marsh-impacted ocean margin (South Atlantic Bight, USA). In preparation for *Journal of Geophysical Research – Oceans*.

Bauer, J.E. Photochemical and bacterial alteration of $\Delta^{14}\text{C}$ and $\delta^{13}\text{C}$ in dissolved organic matter during estuarine transport: implications for land to ocean carbon exports. In preparation for *Estuarine, Coastal and Shelf Science*.

REPORTS

Hebert, D., **J.E. Bauer**, R. Benner, D. Checkley, J. Cochran, M. Conte, N. Garfield, A. Hine, C. Reimers, N. Slowey, A. Suchy, T. Whitley, and M. Willis. 2009. UNOLS Fleet Improvement Plan 2009. The UNOLS Academic Research Fleet: Continued Access to the Sea. University National Oceanographic Laboratory System. 99 pp.

DISSERTATIONS

1989. Bauer, J.E. *Organic and carbon isotope biogeochemistry of California coastal sediments*. Ph.D. dissertation, Chesapeake Biological Laboratory, University of Maryland, College Park, MD. 225 pp.

1984. Bauer, J.E. *Interactions between four model organic pollutants and the microbiota of coastal marine sediment systems*. M.S. thesis, Marine Sciences Research Center, State University of New York at Stony Brook, NY. 151 pp.

GRANTS AND AWARDS

2017. National Oceanic and Atmospheric Administration, National Sea Grant Program John A. Knauss Fellowship, \$56,500, PI (for support of Dr. Amber Bellamy).

2012. NSF, ENG Environmental Sustainability Program. “A comprehensive analysis of petroleum hydrocarbons in storm water: application of natural carbon isotopes to evaluate the efficacy of bioretention systems”, \$320,446, 4 years, co-PI.
2012. Ohio Agricultural Research and Development Center. “Tracking petroleum hydrocarbons in storm water: use of carbon isotopes to analyze the efficacy of bioretention systems”, \$100,000, 4 years, co-PI.
2014. Hudson River Foundation, Graduate Research Award, \$16,000, 1 year, PI.
2010. NSF, Chemical Oceanography Program. “Collaborative Research: Constraining the sources, ages and alteration of dissolved and particulate lipids in estuarine and coastal organic matter”, \$349,240, 5 years, PI.
2009. NOAA Office of Ocean and Coastal Resource Management. “Sources of watershed dissolved organic matter and its reactivity in the York River Estuary”, \$60,000, 3 years, PI.
2007. NSF, Chemical Oceanography Program. “Toward an improved understanding of air-sea exchange of gaseous organic carbon and its role in ocean carbon fluxes”, \$347,592, 4 years, co-PI.
2008. Andrew W. Mellon Foundation. “Watershed sources of organic matter to the York River Estuary, Virginia: Novel insights from application of organic biomarkers and isotopic tracers”, \$210,000 for support of a postdoctoral scholar in aquatic biogeochemistry, 2 years, PI.
2004. NSF, Integrated Carbon Cycle Research Program. “Collaborative Research: Assessing the variability and modification of age, character and reactivity of organic carbon delivered by rivers and estuaries to the coastal ocean”, \$1,234,495, 6 years, PI.
2004. NSF, Chemical Oceanography Program. “Collaborative Research: Impact of DOM source and photo-oxidation on carbon cycling in estuaries”, \$926,898, 4 years, PI.
2003. NSF, DEB Ecosystems Program. “Collaborative Research: Delivery and fate of old terrestrial organic carbon in a riverine ecosystem”, \$847,742 (\$322,731 Bauer component), 4 years, PI.
2001. DOE, Ocean Carbon Sequestration Program. “The role of dissolved organic carbon in sequestering carbon under conditions of oceanic iron fertilization”, \$199,797, 2 yrs, Co-PI.
2001. VIMS/ Commonwealth of Virginia Initiative Research Funds, “*Pfisteria* Initiative Ecology Study (PIES) – Year 4”, \$41,533, 1 year, PI
2000. VIMS/ Commonwealth of Virginia Initiative Research Funds, “*Pfisteria* Initiative Ecology Study (PIES) – Year 3”, \$41,533, 1 year, PI.
1999. NSF, Chemical Oceanography Program. “Budgets of biogenic elements in the NW Atlantic Ocean margin: a synthesis and modelling project”, \$500,000 total among 8 P.I.s, 2 years, Co-PI.
1999. VIMS/ Commonwealth of Virginia Initiative Research Funds, “*Pfisteria* Initiative Ecology Study (PIES) – Year 2”, \$76,745, 1 year, PI.
1999. NSF, DEB Ecosystems Program. “Input and metabolism of ancient terrestrial organic C in a large river: Importance to the food web and net ecosystem metabolism”, \$20,000 (Bauer component), 1 year, PI.

1998. NSF, SGER (Small Grants for Exploratory Research) Program, "Carbon isotopes in particulate and dissolved organic carbon in the NE Pacific during the ENSO event of 1997-1998", \$50,000, 1 year, PI.
1998. DOE, Livermore National Laboratory, Center for AMS, "Sources and radiocarbon signatures of refractory and labile dissolved and particulate organic carbon in the York River Estuary", \$23,700, 1 year, PI.
1998. VIMS/Commonwealth of Virginia Initiative Research Funds, "*Pfisteria* Initiative Ecology Study (PIES) – Year 1", \$95,968, 1 year, PI.
1998. NSF, Chemical Oceanography Program. "Penetration of the bomb ^{14}C transient in the dissolved and particulate organic carbon pools in two mid-ocean gyres", \$394,276, 3 years, PI.
1995. DOE, Ocean Margins Program. "Sources and turnover times of dissolved, colloidal and particulate organic carbon in the Middle Atlantic Bight and Chesapeake Bay", \$372,243, 3 years, PI.
1994. NSF, Chemical Oceanography Program. "Radiocarbon investigations of dissolved and particulate organic carbon cycling in the north Pacific and Antarctic Oceans", \$559,948, 3 years, PI.
1993. American Chemical Society, Petroleum Research Fund. "Request for support for foreign speakers at ACS symposium 'Measurement and reactivity of organic materials in natural waters'", \$2,000, PI.
1992. DOE, Ocean Margins Program. "Transformation rates and fate of dissolved, colloidal and particulate organic carbon in ocean margins", \$271,533, 3 years, PI.
1992. NSF, Academic Research Infrastructure Program. "Request for an isotope ratio mass spectrometer at Florida State University", \$175,240, 2 years, Co-PI.
1991. Florida State University, Faculty Development Grant. "Determination of diffusion coefficients of dissolved organic matter in natural marine waters", \$10,000, 3 months, PI.
1991. NSF, Chemical Oceanography Program. "Radiocarbon studies of dissolved and particulate organic carbon in the eastern north Pacific and Amazon plume regions", \$271,662, 3 years, PI.
1991. NSF, Chemical Oceanography Program. "Sources and properties of colloidal trace metals in the ocean". \$111,951, 2 years, Co-PI.
1987. DOE, Lawrence Livermore National Laboratory. "Use of accelerator mass spectrometry in marine ecological studies". \$34,800, 2 years, Co-PI.
1985. DOI, Minerals Management Service. "Adaptation of marine organisms to chronic hydrocarbon exposure". \$961,738, 3 years, Co-PI.
1983. Grant-in-Aid, Sigma-Xi Society, New Haven, CT.
1981. Graduate Fellowship, Woman's Seaman's Friend Society, New Haven, CT, 2 yrs.
1981. Graduate Fellowship, Slocum-Lunz Foundation, Charleston, SC, 1 yr.

INVITED PRESENTATIONS (*indicates student or postdoctoral advisee)

- *Bellamy, A. and J.E. Bauer. 2016. Use of natural abundance ^{14}C in aquatic food web and ecosystem studies – a tutorial synthesis. Association of the Societies of Limnology and Oceanography Summer Meeting, Santa Fe, NM.
- Bauer, J.E. 2016. Constraining the biogeochemical drivers of carbon cycle changes in diverse estuarine and coastal ecosystems. Keynote address, Estuarine and Coastal Sciences Association (ECSA) Meeting, Bremen, Germany.
- Bauer, J.E. and *K. Hossler. 2014. Aged carbon in major global rivers: implications for global carbon budgets. Joint Aquatic Sciences Meeting, Portland, OR.
- Cai, W.-J., J.E. Bauer, P.A. Raymond, T.S. Bianchi, C.S. Hopkinson, and P.A.G. Regnier. 2014. The changing carbon cycle of the coastal ocean based on the Nature Insight paper by Bauer and coworkers. The First Xiamen Symposium on Marine Environmental Science. 9-11 January 2014, Xiamen, China.
- Bauer, J.E. 2012. Assessment of riverine carbon sources, transformations and fluxes to ocean margins using isotopic and biogeochemical approaches. Departments of Geology and Geography, University of Cincinnati, Cincinnati, OH.
- Bauer, J.E. 2012. Constraining continent-to-ocean carbon fluxes and transformations using isotopic and biogeochemical approaches. Department of Geology, Wayne State University, Detroit, MI.
- Bauer, J.E. 2008. Sources and dynamics of organic matter supporting aquatic ecosystems: new findings on bottom-up controls using novel biogeochemical approaches. Ohio State University, Department of Evolution, Ecology and Organismal Biology, Columbus, OH.
- Bauer, J.E. 2008. Impacts of climate change on coastal Virginia and Chesapeake Bay: Physical, chemical and ecological processes. Sigma Lecture Series, Virginia Air and Space Museum, Hampton, VA.
- Bauer, J.E. 2008. Impacts of climate change on coastal Virginia and Chesapeake Bay: Physical, geological and biogeochemical processes. Governor's Commission on Climate Change, College of William and Mary, Williamsburg, VA.
- Bauer, J.E. 2008. Impacts of climate change on coastal Virginia and Chesapeake Bay: Physical, chemical and ecological processes. NASA-Langley Research Center, Hampton, VA.
- Bauer, J.E. 2007. Variability in the ages and reactivity of river and estuarine organic matter exported to the coastal ocean. Department of Oceanography, Texas A&M University, College Station, TX.
- Bauer, J.E. 2005. North American Rivers. North American Continental Margins Synthesis and Planning Workshop, Boulder, CO.
- Bauer, J.E. 2005. Assessing variability in the character and reactivity of DOM and POM delivered to the oceans by rivers and estuaries. Plenary Lecture, Gordon Research Conference on Chemical Oceanography, Meredith, NH.
- Bauer, J.E. 2005. Organic matter sources and transformations in river, estuarine, and marine environments: application of natural carbon isotopes (^{14}C and ^{13}C). Department of Biology, Center for Environmental Studies, Virginia Commonwealth University, Richmond, VA.

- Bauer, J.E. 2005. Application of natural carbon isotopes (^{14}C and ^{13}C) for evaluating organic matter sources and transformations in aquatic environments. Department of Chemistry, University of Maryland, College Park, MD.
- Bauer, J.E. 2004. Organic matter sources, ages and transformations in rivers and estuaries: implications for continent-to-ocean carbon fluxes. School of Ocean and Earth Science and Technology, University of Hawaii, Honolulu, HI.
- Bauer, J.E. 2004. Sources of organic matter supporting net heterotrophy in river and estuarine ecosystems. Department of Biology, University of Pennsylvania, Philadelphia, PA.
- Bauer, J.E. 2004. Sources and geochemical transformations of organic matter in rivers and estuaries: Implications for continent-to-ocean carbon fluxes. Department of Geology, Ohio State University, Columbus, OH.
- Bauer, J.E. 2003. Sources and transformations of organic matter in rivers and estuaries: Implications for continent to ocean carbon fluxes. Department of Earth and Environmental Science, University of Pennsylvania, Philadelphia, PA.
- Bauer, J.E. 2002. Carbon inputs, ages, and transformations along the river-estuary-ocean margin continuum: evidence from natural ^{14}C and ^{13}C . Institute for Earth, Oceans and Space, University of New Hampshire, Durham, NH.
- Bauer, J.E. 2001. Evaluating sources, ages, and cycling times of organic matter in rivers, estuaries and the coastal ocean using natural ^{14}C and ^{13}C . Louisiana Universities Marine Consortium (LUMCON), Chauvin, LA.
- Bauer, J.E. 2001. Evaluating sources, ages, and cycling times of organic matter in rivers, estuaries and the coastal ocean using natural ^{14}C and ^{13}C . Department of Chemistry, Old Dominion University, Norfolk, VA.
- Bauer, J.E. 2000. Inputs, distributions and transformations of organic matter in the coastal zone: natural ^{14}C and ^{13}C evidence. Institute for Ecosystem Studies, Millbrook, NY.
- Bauer, J.E. 1999. Input, distribution and transformation of organic radiocarbon in the coastal ocean. Marine Sciences Research Center, SUNY, Stony Brook, NY.
- Bauer, J.E. 1999. Organic radiocarbon in rivers, estuaries and the coastal ocean. Program in Marine Science, University of South Carolina, Columbia, SC.
- Bauer, J.E. 1999. Evaluation of organic carbon transport and fate in coastal waters of the NW Atlantic Ocean using natural ^{14}C and ^{13}C . Department of Oceanography, Old Dominion University, Norfolk, VA.
- Bauer, J.E. 1999. Inputs and transformations of organic matter in the coastal ocean: evidence from natural ^{14}C and ^{13}C distributions. Department of Marine Science, University of Georgia, Athens, GA.
- Ducklow, H., J. Bauer, G. Schultz and P. Raymond. 1998. Bacterial and DOM dynamics in large and small estuaries. 8th International Symposium on Microbial Ecology, Halifax, NS.
- Bauer, J.E. 1998. Use of natural carbon isotopes for studies of ocean carbon cycling. Tulane University, New Orleans.
- Druffel, E.R.M. and J.E. Bauer. 1997. Nearly conservative cycling of dissolved organic carbon in the abyssal world oceans. Symposium on "Organic Perspectives on Geochemical Processes". Geological Society of America Annual Meeting, Salt Lake City, Utah.

- Bauer, J.E. 1997. Carbon isotopes (^{14}C and ^{13}C) in DOM of ocean margins: Implications for open ocean carbon cycling. Plenary lecture, Gordon Conference on Chemical Oceanography, Meredith, NH.
- Bauer, J.E. 1997. Carbon isotopes as tools for studying open ocean carbon cycling. School of Oceanography, Oregon State University, Corvallis, OR.
- Bauer, J.E., K.C. Ruttenberg, K.O. Buesseler, D.M. Wolgast, E. Monaghan and M.K. Schrope. 1996. Dissolved and colloidal N and P isolated from seawater by cross-flow filtration: An intercomparison study. Ocean Sciences Meeting (AGU/ASLO), San Diego, CA.
- Bauer, J.E. 1992. Radiocarbon signatures of dissolved organic carbon in the Atlantic and Pacific Oceans. Workshop on Cycling of Organic Matter in Marine and Freshwater Environments. Georgia Institute of Technology, Atlanta, GA.
- Bauer, J.E. 1992. Radiocarbon in dissolved organic fractions in the open ocean: Implications for long-term cycling. Plenary lecture, Gordon Research Conference on Organic Geochemistry. Plymouth, NH.
- Bauer, J.E. 1991. Dissolved organic carbon in the ocean: Current perspectives from past and recent findings. Plenary lecture, The Oceanography Society 2nd Annual Meeting, St. Petersburg, FL.
- Bauer, J.E., M.L. Occelli and P.M. Williams. 1991. Some general aspects of heterogeneous catalyst structure and function: Implications for the analysis of dissolved organic carbon in natural waters. Plenary lecture, NSF/NOAA/DOE Workshop: The Measurement of Dissolved Organic Carbon and Nitrogen in Natural Waters, Seattle, WA.
- Bauer, J.E. 1991. Biogeochemistry of organic contaminants in estuarine environments. Plenary lecture, Estuarine Research Federation Annual Meeting, San Francisco, CA.
- Bauer, J.E. 1986. Benthic ecology of a natural coastal petroleum seep. California State University at Hayward, Hayward, CA.
- Montagna, P.A. and J.E. Bauer. 1986. Meiofaunal and microbial ecology of a California oil seep. University of Rhode Island Graduate School of Oceanography, Narragansett, RI.
- Bauer, J.E. and P.A. Montagna. 1985. Microbiology and meiofauna of Santa Barbara oil seeps. Tiburon Center for Environmental Studies, San Francisco State University, Tiburon, CA.
- Bauer, J.E. and D.G. Capone. 1984. Effects of four model organic pollutants on microbial activities of aerobic and anaerobic salt marsh sediments. American Geophysical Union. Brooklyn College Symposium: Health-Threatening Toxins in Water, Brooklyn College, City University of New York, Brooklyn, NY.
- Bauer, J.E. and D.G. Capone. 1984. Mineralization of model organic pollutants by the microbiota of shallow marine sediment systems. New York Water Pollution Control Association Annual Meeting, New York, NY.
- Bauer, J.E. 1984. Some aspects of the interactions between four model organic pollutants and the microbiota of coastal marine sediments. University of Georgia Marine Institute, Sapelo Island, GA.

MEETING ABSTRACTS (*indicates graduate student or postdoctoral advisee)

- King, W.M and J.E. Bauer. 2018. Impacts of microplastics on benthic invertebrate feeding ecology and nutrition. Society of Environmental Toxicology and Chemistry (SETAC) regional meeting, Columbus, OH.
- Bellamy, A.R., J.E. Bauer and A.G. Grottoli. 2017. Source and ages of carbon and organic matter supporting macroinvertebrate production in temperate streams. Ecological Society of America Annual Meeting, Portland, OR.
- Bauer, J.E., E.A. Canuel, *A. Weber, H. McIntosh, E. Ferer, and *K. Hossler. 2016. Distributions, transformation, and reactivity of dissolved and particulate lipids in a large temperate estuary using natural abundance ^{14}C and ^{13}C . Association of the Societies of Limnology and Oceanography Summer Meeting, Santa Fe, NM.
- *Tamkin, A., J. Martin, J.E. Bauer, Y.-P. Chin and A. Ward. 2016. Measuring hydrocarbons with carbon isotopes. American Ecological Engineering Society Annual Meeting. Knoxville, TN.
- *Tamkin, A., J. Martin, J.E. Bauer, Y.-P. Chin and A. Ward. 2016. Measuring hydrocarbons in storm water with carbon isotopes. Water Management Association of Ohio Conference and Symposium. Columbus, OH.
- *Gougherty, S., J.E. Bauer and J. Pohlman. 2015. Variability in root exudate $\delta^{13}\text{C}$ and fluxes in relation to environmental conditions and plant characteristics in a bottomland temperate forest. American Geophysical Union Fall Meeting, San Francisco.
- *Kelsey, S.A., J.E. Bauer, A.G. Grottoli, Yohei Matsui and T.M. Huey. 2015. Evaluation of land use impacts on watershed organic and inorganic carbon $\delta^{13}\text{C}$ and $\Delta^{14}\text{C}$ and export fluxes. American Geophysical Union Fall Meeting, San Francisco.
- *Tamkin, A., J. Martin, J. Bauer and Y.-P. Chin. 2015. Reduction of hydrocarbons by bioretention, as measured by carbon isotopes. American Society of Agricultural and Biological Engineers, New Orleans, LA.
- Bauer, J.E., E.A. Canuel, H. McIntosh, *A. Barrett, E. Ferer and *K. Hossler. 2015. Distributions and transformations of natural abundance ^{14}C and ^{13}C in dissolved and particulate lipids in a major temperate estuary. American Geophysical Union Fall Meeting, San Francisco.
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- Druffel, E.R.M., S. Griffin, J.E. Bauer, P.M. Williams, D.M. Wolgast and C. Lee. 1994. Radiocarbon studies of particulate organic carbon in the eastern North Pacific Ocean. International Radiocarbon Conference, Glasgow, Scotland.
- Powell, R.T., W.M. Landing and J.E. Bauer. 1994. Colloidal trace metals and DOC/DON in an organic-rich estuary: size distribution and reactivity. ASLO Annual Meeting, Miami, FL.

- Bauer, J.E., E.R.M. Druffel, D.M. Wolgast, S. Griffin and P.M. Williams. 1994. Isotopic (^{13}C and ^{14}C) signatures of dissolved organic carbon on the northeast US continental shelf. AGU Fall Meeting, San Francisco, CA.
- *Cherrier, J.C., J.E. Bauer, W.C. Tai, E.R.M. Druffel, D.M. Wolgast and P.M. Williams. 1993. Microheterotrophic utilization of dissolved organic matter in the eastern North Pacific. The Oceanography Society 3rd Annual Meeting, Seattle, WA.
- Bauer, J.E., E.R.M. Druffel, C.E. Reimers, W.J. Cai and P.M. Williams. 1993. Fine-scale carbon isotopic (^{13}C and ^{14}C) composition of marine porewaters and sediments: estimates of organic carbon utilization and mobilization during diagenesis. The Oceanography Society 3rd Annual Meeting, Seattle, WA.
- Chanton, J.P., J.E. Bauer, P. Glaser, D. Siegel, S. Tyler, C.A. Kelley, A. Lazrus and J. Southon. 1993. ^{14}C and ^{13}C isotopic composition of methane dissolved in porewaters and groundwaters and emitted from Red Lake Minnesota peatlands. AGU Winter Meeting, San Francisco, CA.
- Powell, R.T., W.M. Landing and J.E. Bauer. 1992. Use of tangential flow ultrafiltration for the determination of colloidal trace metals and organics. Ocean Sciences Meeting (AGU), New Orleans, LA.
- Bauer, J.E., C.E. Reimers, P.M. Williams and W.-J. Cai. 1991. Dissolved organic carbon and nitrogen in marine sediments: distributions and potential exchanges with the oceanic water column. Gordon Research Conference in Chemical Oceanography, Meredith Academy, Meredith, NH.
- Bauer, J.E., P.M. Williams, E.R.M. Druffel and Y. Suzuki. 1990. Deep profiles of dissolved organic carbon in the Sargasso Sea south of Bermuda. Ocean Sciences Meeting (ASLO/AGU), New Orleans, LA.
- Bauer, J.E. and *L.O. Lopes. 1989. Microbial and meiofaunal population and trophic dynamics in sediments of a San Francisco Bay salt-marsh slough. Benthic Ecology Meetings, Solomons, MD.
- Spies, R.B. and J.E. Bauer. 1988. Evidence for carbon isotope fractionation in benthic food webs: the effect of geochemical conditions in sediments. Ocean Sciences Meeting (ASLO/AGU), New Orleans, LA.
- Bauer, J.E., P.A. Montagna, R.B. Spies and M.C. Prieto. 1988. Spatial and temporal biogeochemical patterns in sediments of a marine petroleum seep: responses to inverted organic carbon flux. Ocean Sciences Meeting (ASLO/AGU), New Orleans, LA.
- Spies, R.B. and J.E. Bauer. 1988. Use of natural isotope ratios for determining carbon flow in benthic ecosystems: Experimental manipulation of carbon sources and comparison to a field situation. Benthic Ecology Meetings, Portland, ME.
- Bauer, J.E. and R.B. Spies. 1988. Use of natural isotope ratios for determining carbon flow in benthic ecosystems: Radiocarbon in inorganic, organic and faunal carbon components of marine sediments. Benthic Ecology Meetings, Portland, ME.
- Montagna, P.A. and J.E. Bauer. 1988. Meiofaunal grazing rates on benthic bacteria and microalgae in four regions. Benthic Ecology Meetings, Portland, ME.
- Bauer, J.E., R.I. Haddad, D.J. DesMarais and M. Nguyen. 1988. Stable carbon isotope measurements of dissolved organic carbon in pore waters. ASLO/AGU Winter Meeting, San Francisco, CA.

- Haddad, R.I., D.J. DesMarais, J.E. Bauer and M. Nguyen. 1988. Carbon isotopic cycling in a recent microbial mat. ASLO/AGU Winter Meeting, San Francisco, CA.
- Bauer, J.E. 1987. Relationships between compound specificity, oxygenase induction and subsequent metabolism of polycyclic aromatic hydrocarbons (PAH) by the microbiota of coastal marine sediments. Eleventh International Symposium on Polynuclear Aromatic Hydrocarbons, National Bureau of Standards, Gaithersburg, MD.
- Bauer, J.E., R. Kerr, M.F. Bautista and D.G. Capone. 1987. Interactive effects of *Capitella* colonization and chronic hydrocarbon exposure on sediment microbial activities in marine microcosms. Benthic Ecology Meetings, North Carolina State University, Raleigh, NC.
- Bauer, J.E. and P.A. Montagna. 1986. Microbial ecology and trophic enrichment at a natural oil seep. Benthic Ecology Meetings, University of Massachusetts, Boston, MA.
- Montagna, P.A. and J.E. Bauer. 1986. The use of tritiated thymidine and proper controls in radioisotope food-chain experiments. Benthic Ecology Meetings, University of Massachusetts, Boston, MA.
- Bauer, J.E., P.A. Montagna, D. Hardin and R.B. Spies. 1986. Meiofaunal and microbial interactions at a California oil seep. Sixth International Meiofauna Conference, University of South Florida, Tampa, FL.
- Montagna, P.A., J.E. Bauer, D. Hardin and R.B. Spies. 1986. Microbial production and its utilization by meiofauna. Sixth International Meiofauna Conference, University of South Florida, Tampa, FL.
- Bauer, J.E., P.A. Montagna, M.C. Prieto, R.B. Spies and D. Hardin. 1986. Biogeochemistry of sediments from a natural coastal petroleum seep. ASLO/AGU Winter Meeting, San Francisco.

COURSES TAUGHT

Department of Evolution, Ecology and Organismal Biology, Ohio State University

- Fall 2019. Ecology of Inland Waters (4 credits w/ lab; advanced undergraduate and graduate, 10 students)
- Spring 2018. Ecology (4 credits w/lab; undergraduate, 146 students)
- Fall 2017. Ecology of Inland Waters (4 credits w/ lab; advanced undergraduate and graduate, 14 students)
- Spring 2016. Ecology (4 credits w/lab; undergraduate, 143 students)
- Fall 2016. Ecology of Inland Waters (4 credits w/ lab; advanced undergraduate and graduate, 14 students)
- Spring 2015. Ecology (4 credits w/lab; undergraduate, 146 students)
- Fall 2014. Ecology of Inland Waters (4 credits w/ lab; advanced undergraduate and graduate, 21 students)
- Spring 2014. Ecology (4 credits w/lab; undergraduate, 138 students)
- Fall 2013. Ecology of Inland Waters (2 credits w/ lab; advanced undergraduate and graduate, 20 students)
- Spring 2013. Community and Ecosystem Ecology (3 credits; graduate and advanced undergraduate, 22 students)
- Fall 2012. Global Change Ecology (2 credits, 12 graduate students)
- Spring 2012. Ecology Laboratory (1 credit; undergraduate, 80 students)
- Fall 2011. Limnology (5 credits w/ lab; advanced undergraduate and graduate, 8 students)

- Spring 2011. Community and Ecosystem Ecology (5 credits; graduate and advanced undergraduate, 9 students)
- Fall 2010. Limnology (5 credits w/ lab; advanced undergraduate and graduate, 16 students)

School of Marine Science, College of William & Mary

- Fall 2009. Advanced Principles of Chemical Oceanography (3 credits, graduate, 7 students)
- Spring 2008. Rivers: Processes and Management (3 credits, graduate, 8 students)
- Fall 2007. Effects of Global Change on Modern Marine Systems (3 credits, graduate, 10 students)
- Fall 2006. Introduction to Oceanography (3 credits, undergraduate, 23 students)
- Spring 2006. Advanced Principles of Chemical Oceanography (3 credits, graduate, 3 students)
- Fall 2005. Fundamentals of Marine Science, Chemical Oceanography component (1.5 credits, graduate, 22 students)
- Spring 2005. Effects of Global Change on Modern Marine Systems (1.5 credits, graduate, 8 students)
- Fall 2004. Fundamentals of Marine Science, course coordinator (6 credits, graduate, 28 students)
- Spring 2004. Organic Geochemistry (3 credits, graduate, 9 students).
- Spring 2004. Introduction to Oceanography (3 credits, undergraduate, 27 students)
- Fall 2003. Fundamentals of Marine Science, course coordinator (6 credits, graduate, 27 students)
- Spring 2003. Advanced Principles of Chemical Oceanography (3 credits, graduate, 4 students)
- Fall 2002. Fundamentals of Marine Science, course coordinator (6 credits, graduate, 30 students)
- Fall 2001. Fundamentals of Marine Science (6 credits, graduate, 24 students)
- Spring 2001. Introduction to Oceanography (3 credits, undergraduate, 95 students)
- Fall 2000. Fundamentals of Marine Science (6 credits, graduate, 21 students)
- Spring 2000. Organic Geochemistry (3 credits, graduate, 5 students)
- Spring 2000. Special Topics (1 credit, graduate, 1 student)
- Spring 1999. Advanced Principles of Chemical Oceanography (3 credits, graduate, 7 students)
- Fall 1998. Fundamentals of Marine Science (6 credits, graduate, 29 students)
- Spring 1998. Introduction to Oceanography (3 credits, undergraduate, 70 students)
- Spring 1998. Organic Geochemistry (3 credits, graduate, 4 students)
- Fall 1997. Fundamentals of Marine Science (6 credits, graduate, 25 students)
- Fall 1997. Advanced Principles of Chemical Oceanography (3 credits, graduate, 6 students)
- Spring 1997. Biogeochemistry Seminar (2 credits, graduate, 18 students)
- Fall 1996. Fundamentals of Marine Science (6 credits, graduate, 35 students)
- Spring 1996. Organic Geochemistry (3 credits, graduate, 7 students)
- Spring 1996. Advanced Principles of Chemical Oceanography (3 credits, graduate, 8 students)
- Fall 1995. Fundamentals of Marine Science (6 credits, graduate, 28 students)
- Spring 1995. Advanced Principles of Chemical Oceanography (3 credits, graduate, 3 students)

Department of Oceanography, Florida State University

- Fall 1993. Chemical Oceanography (3 credits, graduate, 8 students)
- Spring 1993. Principles of Oceanography (3 credits, honors undergraduate, 10 students)
- Fall 1992. Introductory Oceanography (3 credits, undergraduate, 280 students)
- Spring 1992. Marine Microbial Ecology (3 credits, graduate, 5 students)
- Fall 1991. Biogeochemistry of Marine Food Webs (2 credits, graduate, 12 students)

STUDENTS AND POSTDOCS MENTORED

•Major Advisor

Department of Evolution, Ecology and Organismal Biology, Ohio State University

2017. King, Whitney, M.S. student (transferred to work with Dr. Jim Hood in 2018)

2015. Jones, Parker, undergraduate research assistant

→ Currently Peace Corps Worker, Senegal

2014-2015. Myers, Jordan, undergraduate research assistant

→ Currently M.S. Student, Ball State University

2013-2016. Kelsey, Scott, M.S. student, w/minor in Statistics

→ 2012: Recipient of Ohio State University Graduate Fellowship

→ 2016-2018: Laboratory Manager for Dr. Katie Hossler, Dept. of Biology, Wright State University

→ 2018-present: Laboratory Manager for Dr. Alison Bennett, Dept. of Ecology, Evolution and Organismal Biology, Ohio State University

2012-2013. Levas, Stephen, Postdoctoral Researcher

→ 2013-2016: Postdoctoral Fellow, Department of Geology and the Environment, Villanova University

→ 2016-present: Assistant Professor, Dept. of Biological Sciences, University of Wisconsin-Whitewater

2012-2015. Gougherty, Steven, M.S. Student

→ 2015-2018: Project and Laboratory Manager, Department of Plant, Soil and Microbial Sciences, Michigan State University

→ 2018-present: PhD student, Dept. of Biology, Boston University (w/ Dr. Adrien Finzi)

2012-2014. Weber (Barrett), Amy, M.S. Student

→ 2010-2016: Lab Manager, Aquatic Biogeochemistry Lab, OSU (w/Jim Bauer)

→ 2016-2019: Program Administrator, U.S. Department of Agriculture

→ 2019-present: Lab Manager, Center for Aquatic and Watershed Sciences, Miami University (w/Mike Vanni)

2011-2012. Muehleisen, Andrew. Honors undergraduate research assistant

→ Currently Ph.D. student, Dept. of Forestry and Environmental Science, Yale University

2010- 2013. Hossler, Kathleen, Postdoctoral Researcher

→ 2013-2015. Postdoctoral associate, School of Environment and Natural Resources, OSU

→ 2015-present. Assistant Professor, Department of Biology, Wright State University

2010-2016. Bellamy, Amber, Ph.D. Student

→ 2010: Recipient of Ohio State University Graduate Fellowship

→ 2016: Invitee to Ecological Dissertations in the Aquatic Sciences XII (Eco-DAS XII) Symposium, Honolulu, HI

→ 2017-2018: John A. Knauss Fellow, National Oceanic and Atmospheric Administration, National Sea Grant Program

→ 2018-present: Fish and Wildlife Biologist, U.S. Fish and Wildlife Service, Midwest Regional Office, Bloomington, MN

2010-2012. Everson, Kathryn, undergraduate research assistant

2010-2011. Loeffler, Steven, undergraduate research assistant

2010-2011. McCoy, Sam, undergraduate research and teaching assistant

2009-2012. Evans, Thomas, M.S. Student

→ 2009: Recipient of Ohio State University Graduate Fellowship

→ 2012-2017: Ph.D. student, State University of New York, College of Environmental Science and Forestry

→ 2017-2019: Postdoctoral Fellow, Cornell University, Dept. of Ecology and Evolutionary Biology

→ 2019-present: Visiting Assistant Professor, St. Mary's College of Maryland, Environmental Studies Program

School of Marine Science, College of William and Mary

2008-2010. Lu, Yuehan, Mellon Postdoctoral Fellow.

→ 2010-2016: Assistant Professor, Department of Geology, University of Alabama

→ 2016-present: Associate Professor, Department of Geology, University of Alabama

2007-2011. Schillawski, Sarah, Ph.D. Student.

→ 2009: Recipient of NOAA National Estuarine Research Reserve Graduate Fellowship

→ 2009: Recipient of Garden Club of America Graduate Fellowship Award in Coastal Wetland Studies

2007. Franson, Dominique. NSF Research Experience for Undergraduates (REU) intern
- 2004-2009. Wozniak, Andrew, Ph.D. Candidate
- 2006: Recipient of Hudson River Foundation Graduate Fellowship
 - 2007: Recipient of National Ocean Sciences AMS Facility Internship, Woods Hole, MA
 - 2008: Recipient of Sun Trust Graduate Fellowship, VIMS
 - 2009-2016: Postdoctoral Associate with Dr. Patrick Hatcher, Department of Chemistry, Old Dominion University, Norfolk, VA
 - 2010: Invitee to Dissertations in Chemical Oceanography (DISCO) Symposium, Honolulu, HI
 - 2017-present: Assistant Professor, College of Earth, Ocean and Environment, University of Delaware
- 2004-2007. DeAlteris (Larkum), Jennifer, M.S.
- 2007-2009: Research Associate with Dr. Leigh McCallister, Department of Biology, Center for Environmental Studies, Virginia Commonwealth University
 - 2009-present: Research Associate with Dr. Mark Altabet, School for Marine Science and Technology, University of Massachusetts-Dartmouth.
- 2001-2006. Pohlman, John W., Ph.D.
- 2002: Watson Award for academic achievement, School of Marine Science, College of Wm. & Mary
 - 2005: Outstanding Student Paper Award, Fall AGU Meeting, San Francisco, CA
 - 2007: Invitee to 2007 DIALOG/DISCRS Symposium, Honolulu, HI
 - 2006-2008. Mendenhall Post-Doctoral Fellow, US Geological Survey, Woods Hole, MA
 - 2008-2011: Staff Scientist, US Geological Survey, Woods Hole, MA
 - 2011-present: Research Geochemist, US Geological Survey, Woods Hole, MA
- 2001-2002. Pollack, Melissa, undergraduate research assistant
2001. Reese, Stanley Q., B.S. Student (College of Wm. & Mary Interdisciplinary Studies) 1998-
2002. Pollard, Carol, M.S.
- Currently Director, Analytical Services Center, VIMS
- 1998-2002. Loh, Ai Ning, Ph.D.
- 2003: Invitee to Dissertations in Chemical Oceanography (DISCO) Symposium, Honolulu, HI
 - 2008-2013: Associate Professor, Dept. of Marine Science, Florida Gulf Coast University, Fort Meyers, FL
 - 2013-present. Associate Professor, Dept. of Geology and Geography, University of North Carolina Wilmington, Wilmington, NC
1997. Moore, Tondra. NSF Research Experience for Undergraduates (REU) intern
1997. Jestel, Alex. NSF Research Experience for Undergraduates (REU) intern
- 1997-1998. Geesey, Michael. Undergraduate lab assistant (College of Wm. & Mary Biology Dept.)
- 1999-present: Nuclear and Environmental Chemist, Surry Nuclear Power Facility, Surry, VA
- 1996-2002. McCallister, Leigh, Ph.D.
- 2000: Recipient of NSF Doctoral Dissertation Improvement Grant
 - 2000: Recipient of Hudson River Foundation Graduate Fellowship
 - 2003-2005: Post-Doctoral Fellow, Universite de Quebec a Montreal, w/ Paul del Giorgio
 - 2005: Best Student Paper Award (VIMS) for: McCallister, S.L., J.E. Bauer, J. Cherrier and H.W. Ducklow. 2004. Assessing sources and ages of organic matter supporting river and estuarine bacterial production: a multiple isotope ($\Delta^{14}\text{C}$, $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$) approach. *Limnology and Oceanography* 49: 1687-1702
 - 2005-2006: Post-Doctoral Fellow, Institute of Marine Science, Rutgers University, w/ Sybil Seitzinger
 - 2006: Raymond L. Lindemann Award (American Society of Limnology and Oceanography) for best publication by a young scientist for: McCallister, S.L., J.E. Bauer, J. Cherrier and H.W. Ducklow. 2004. Assessing sources and ages of organic matter supporting river and estuarine bacterial production: a multiple isotope ($\Delta^{14}\text{C}$, $\delta^{13}\text{C}$ and $\delta^{15}\text{N}$) approach. *Limnology and Oceanography* 49: 1687-1702
 - 2006-present: Associate Professor, Department of Biology, Center for Environmental Studies, Virginia Commonwealth University
- 1996-2000. Venkatraman, Padma, Ph.D.
- 2001-present: Acclaimed novelist and children's book author (<https://padmavenkatraman.com/>)
- 1996-1999. Bohlen (Raymond), Megan, M.S.
- 2004-present: Senior Ecologist for William Kenny Associates, Fairfield CT

1995-1999. Raymond, Peter, Ph.D.

- 1999-2002. Post-Doctoral Fellow, Marine Biological Laboratory (w/ John Hobbie and Chuck Hopkinson) and Woods Hole Oceanographic Institution (w/ Wade McGillis)
- 2005: Cronin Award, Estuarine Research Federation
- 2002-2007: Associate Professor, Department of Forestry and Environmental Science, Yale University
- 2007-2009: Associate Professor, Department of Forestry and Environmental Science, Yale University
- 2009-present: Professor, Department of Forestry and Environmental Science, Yale University

1995-1997. Loh, Ai Ning, M.S.

Department of Oceanography, Florida State University

1992-1994. Schultz, Gary, M.S.

- 2008-2014: Assistant Professor, Department of Biology, Marshall University
- 2004-present: Associate Professor, Department of Biology, Marshall University

1992-1993. Gibson, John, Ph.D. Student (transferred to University of Hobart, Australia)

1992-1997. Cherrier, Jennifer, Ph.D.

- 1996: Fisher Award for best peer-reviewed publication by a Florida State University graduate student for: Cherrier, J.C., J.E. Bauer and E.R.M. Druffel. 1996. Utilization and turnover of labile dissolved organic matter by bacterial heterotrophs in eastern North Pacific surface waters. *Marine Ecology Progress Series* 139: 267-279.
- 2001: Raymond L. Lindemann Award (American Society of Limnology and Oceanography) for best publication by a young scientist for: Cherrier, J., J.E. Bauer, E.R.M. Druffel, R. B. Coffin and J. Chanton. 1999. Radiocarbon in marine bacteria: Evidence for the ages of assimilated carbon. *Limnology and Oceanography* 44:730-736.
- 1998-2005: Assistant Professor, Environmental Sciences Institute, Florida A&M University
- 2005-2017: Associate Professor, Environmental Sciences Institute, Florida A&M University
- 2017-present: Associate Professor and Chair, Dept. of Earth and Environmental Science, Brooklyn College

•Student Committee Service

Ohio State University

2020. Chen, Zhaozhe. M.S. student, School of Earth Sciences.

2020. Nguyen, Elton. B.S. student (senior thesis committee), School of Earth Sciences.

2019. Collis, Lyndsie. Ph.D. student, Department of EEOB.

2016. Frevola, Danielle. M.S. student, Department of EEOB.

2016. Collis, Lyndsie. M.S. student, Department of EEOB.

2016. Wittman, Jacob. B.S. student (senior thesis committee), School of Environment and Natural Resources.

2013. Tamkin, Abigail. Ph.D. student, Department of Food, Agriculture and Biological Engineering.

2013. Fotis, Alexander. Ph.D. student, Department of EEOB.

2013. Briland, Ruth. Ph.D. student, Department of EEOB.

2012. Baumann, Justin. M.S. student, School of Earth Science.

2012. Kautza, Adam. Ph.D. student, School of Environmental and Natural Resources.

2012. Villa-Betancur, Jorge, Ph.D. student, Environmental Sciences Graduate Program.

2011. Huey, Teresa B.S. student (senior thesis committee), School of Earth Science.

2011. Eckland, Brie. B.S. student (senior thesis committee), School of Environment and Natural Resources.

2010. Ziegelgruber, Kate. M.S. student, School of Earth Science.

2010. Hardiman, Brady. Ph.D. student, Department of EEOB.

2009. Gaedhart-Nietz, Jennifer. M.S. student, Department of EEOB.

2008. Levas, Stephen. Ph.D. student, School of Earth Science.

2005. Moyer, Ryan. Ph.D., School of Earth Science.

School of Marine Science, College of William and Mary

2006. Wadman, Heidi, Ph.D.
2000. Pilon, Vicki. Ph.D.
1999. Church, Matthew. Ph.D.
1999. Morgan, Jessica. Ph.D.
1999. Van Hilst, Christine. M.S.
1998. Nestlerode, Janet. Ph.D.
1997. Church, Matthew. M.S.
1997. Countway, Peter. M.S.
1996. Rose, Wendy. M.S.
1996. Neubauer, Scott. Ph.D.
1996. Murray, Krisa. Ph.D.
1996. Rudders, David. M.S.
1995. Zimmerman, Andrew. Ph.D.
1995. Kimbrough, Kimani. Ph.D.
1994. Mitra, Sid. Ph.D.
1994. Ciacetti, Giancarlo. Ph.D.

Florida State University

1993. Harden, Harmon. M.S.
1993. Happell, James. Ph.D.
1992. Young, Jaye. Ph.D.
1992. Wonacott, Anne. M.S.
1992. Schrope, Mark. M.S.
1991. Cherrier, Jennifer. M.S.
1991. Powell, Rodney. Ph.D.

External Committees

2008. Levas, Stephen. Ph.D.–School of Earth Science, OSU.
2008. Sleighter, Rachel. Ph.D. –Department of Chemistry, Old Dominion University.
2006. Moyer, Ryan. Ph.D. – School of Earth Science, OSU.

ACADEMIC ADVISORS

M.S. and Ph.D. - Dr. Douglas G. Capone, Institute of Marine Science, USC.
Post-Doctoral - Dr. Peter M. Williams, Scripps Institution of Oceanography, University of California, San Diego.

OTHER ACTIVITIES

VIMS:

2007-2009. Established and directed VIMS Initiative for Coastal Climate Change Research, an initiative to promote VIMS as the lead State of Virginia climate change research and advisory body and to enhance state, federal and private investment in VIMS research, education and advisory activities in the areas of climate and global change.

Oceanographic Research Cruises:

1987-present. Chief Scientist, Co-Chief Scientist, or researcher on over 35 major oceanographic research cruises.

Public Outreach:

2017. Grottoli, A.G., C.K. Shum, M. Durand, L. Thompson, P.S. Curtis, B. Mark, E. Mosley-Thompson, J. Cervenec, J. E. Bauer, and A. Wilson. "Climate Change". March for Science-Columbus white paper (<http://marchforscience-columbus.webflow.io/all-stories/climate-change-c>).

2008. Invited participant, round-table on climate change in Hampton Roads, Virginia. WVEC-TV, Norfolk, VA.

2008. Author of VIMS contribution to the United Nations "Response to Climate Change (RTCC) 2009".

2008. "Impacts of Climate Change on Coastal Virginia and Chesapeake Bay: Current Observations and Future Predictions", invited speaker, VIMS Council spring meeting, Virginia Institute of Marine Science, Gloucester Point, VA.

2008. "Impacts of Climate Change on Coastal Virginia and Chesapeake Bay: Current Observations and Future Predictions" Earthfest climate change symposium and public forum, invited speaker, NASA-Langley and Christopher Newport University, Newport News, VA.

2008. "Focus the Nation" global climate change symposium, invited speaker and panelist, College of William and Mary, Williamsburg, VA.

2007. Co-author of VIMS contribution to the United Nations "Response to Climate Change (RTCC) 2008".

2007. "The Scientific Basis for Climate Change", invited speaker, Great Decisions Lecture Series, Williamsburg Unitarian-Universalist Church, Williamsburg, VA.

2007. "The Earth's Carbon Cycle and Global Change: Where are we at and where are we Headed?", invited speaker, Eastern Shore Laboratory Public Seminar Series, Wachapreague, VA.

2002. Participant in national environmental science video series (Enviro-Tacklebox) for middle school students for Louisiana Public Television on the global carbon cycle, funded by U.S. Department of Education)

2001-2005. Presentation of lectures and seminars in the Chesapeake Bay Governor's School, a Commonwealth of Virginia program for advanced high school seniors.

1998-2000. Presentation of public lectures in the VIMS Mini-School of Marine in various local communities.