

## Mary Jane Perry

Interim Director, Ira C. Darling Center, and Professor, School of Marine Sciences  
University of Maine, perrymj@maine.edu, (207) 592 - 0317

### EDUCATION

- B.A. – 1969 College of New Rochelle, New Rochelle, New York  
Ph.D. – 1974 Scripps Institution of Oceanography, University of California, San Diego, California  
Dissertation: *Dynamics of phosphate utilization by marine phytoplankton in chemostat cultures and in oligotrophic waters of the Central North Pacific Ocean*, R.W. Eppley, Advisor

### PROFESSIONAL EMPLOYMENT

- 1974 – 1976 Research Instructor, Department of Pharmacology, Washington University Medical School, St. Louis, Missouri  
1975 Assistant Professor, Department of Zoology, University of Georgia, Athens, Georgia  
1976 – 1980 Assistant Research Professor, Department of Oceanography, University of Washington, Seattle, Washington  
1980 – 1982 Assistant Program Director, Biological Oceanography Program, National Science Foundation, Washington, D. C.  
1981 – 1982 Associate Program Director, Oceanic Biology, Program, National Science Foundation, Washington, D. C.  
1982 – 1986 Research Associate Professor, School of Oceanography, University of Washington, Seattle, Washington  
1986 – 1999 Associate Professor, School of Oceanography, University of Washington, Seattle, Washington  
1992 – 1999 Medical leave from University of Washington (full medical leave, 1992 – 1994; partial medical leave, 1994 – 1999)  
1998 – 1999 Visiting Associate Professor, Oregon State University, Corvallis, Oregon  
1999 – present Affiliate Professor, School of Oceanography, University of Washington, Seattle, Washington  
1999 – 2016 Professor, School of Marine Sciences, University of Maine, Orono, Maine  
2013 – 2015 Interim Director, Ira C. Darling Marine Center, University of Maine, Walpole, Maine  
2016 – present Emerita Professor, School of Marine Sciences, University of Maine, Orono, Maine

## HONORS AND RECOGNITION

- 2015 AGU honor – presented Rachel Carson Lecture at Fall AGU meeting
- 2014 Distinguished Maine Professor, University of Maine
- 2014 Invitation plenary speaker, *Ocean Sciences* meeting in Hawaii (audience of ~ 4,000), February 2014
- 2009 National Science Foundation *Creativity Award* for Collaborative Research: Autonomous Measurements of Carbon Fluxes in the North Atlantic Bloom
- 2010 Elected TOS Fellow – *The Oceanography Society*
- 2003 National Science Foundation *Creativity Award* for Collaborative Research: Incorporation of Sensors into Autonomous Gliders for 4-D Measurement of Bio-Optical and Chemical Parameters
- 1982 National Science Foundation *Superior Accomplishment Award*

## PROFESSIONAL ACTIVITIES – HIGH LEVEL, SINCE 2000 (\* Denotes international activity)

- National Academies of Sciences, Engineering, and Medicine’s Decadal Survey for Earth Science and Applications from Space subpanel for Ecosystems (2016)
- NASA EXPORTS (*EXport Processes in the Ocean from RemoTe Sensing*) science plan writing team member (2014 –2015) and Science Definition Team member (2015 – 2016)
- \* *Ocean Time-series Committee* (OTC, a subcommittee of *Ocean Carbon and Biogeochemistry*) 2014 – present
- \**EGU General Assembly session co-chair*, OS4.6: Advances in open ocean water column observations at fixed locations, April 2015
- \**Ocean Optics Conference*, bi-annual international meetings:
- Co-chair for October 2014 meeting in Portland, Maine  
< <http://oceanopticsconference.org/introduction>>
  - Steering Committee member for 2012 meeting in Glasgow, Scotland
- \**Gordon Conference on Marine Microbes*, “Small microbes, big data”, invited speaker, Bentley University, Waltham, Massachusetts, June 2014
- \**North Atlantic planning workshop* sponsored by NSF and the European Union, organizing committee and presenter, Arlington, Virginia, April 2014
- \* *Sensor Working Group*, Ocean Observations Research Coordination Network, 2014
- \**Irminger Sea Workshop*, participant and presenter, Boston, December 2013
- Ocean Observations Research Coordination Network*, invited Moderator for Panel on Visions for Geosciences Grand Challenges at annual meeting, San Francisco, December 2013
- EarthCube* workshop (Articulating Cyberinfrastructure Needs of the Ocean Ecosystem Dynamics Community), steering committee, October 2013 < <http://www.bco-dmo.org/events/EarthCube/EcoDyn/Description>>
- Export Processes in the Ocean from Remote Sensing (EXPORTS)*, member steering committee to develop a NASA white paper for major field campaign, 2013

*Ocean Time-Series Advisory Committee* member (subcommittee of Ocean Carbon and Biogeochemistry, <http://www.us-ocb.org>), 2012 – 2104

\**Euro-BASIN* – Provocateur on Work Package 2: Biological Carbon Pump, at their midterm review (<http://eurobasin.dtuqua.dk>), Lisbon, Portugal, November 2012

\**GODAE OceanView Science Team for Marine Ecosystem and Prediction* (GODAE is Global Ocean Data Assimilation Experiment; [www.godae.org](http://www.godae.org)), 2011 – 2014

Organized special sessions on implementation of autonomous biogeochemical observing at major international meetings: Ocean Carbon and Biogeochemistry July 2011 Workshop (<http://www.whoi.edu/workshops/ocbworkshop2011/>) and Town Hall at Ocean Sciences Meeting, Salt Lake City, Utah, February 2012

C-MORE Microbial Oceanography Course, University of Hawaii, guest lecturer, June 2010 (<http://cmore.soest.hawaii.edu/agouron/2010/faculty.htm>)

Selection Committee for prestigious *Jerlov Award* for Ocean Optics, 2009

*OCB Scientific Steering Committee* member (Ocean Carbon and Biogeochemistry), 2008 – 2011

\**EuroSITES* Oversight Committee member (<http://www.eurosites.info>), 2008 – 2011

*UNOLS Council* member (UNOLS is University National Oceanographic Laboratory System; <http://www.unols.org>), 2007 – 2009; UMaine representative to *UNOLS*, 2007 – present

*Oceanography 2025* Steering Committee member for workshop in 2009, commissioned by the National Research Council (<http://dels.nas.edu/Workshop-Summary/Oceanography-2025-Proceedings/12627?bname=osb>), 2008 – 2009

\*Scoping Workshop for *Observing Biogeochemical Cycles at Global Scales with Profiling Floats and Gliders* – Steering Committee member (<http://www.whoi.edu/sbl/liteSite.do?litesiteid=30232>), 2009

National Science Foundation *Advisory Committee* member to review the Foundation’s performance and assessment reporting (GPRA), 2009

Co-organizer of special issue of *Limnology and Oceanography* on new research by autonomous platforms (volume 53, no. 5, part 2), September 2008

*Ocean Observatory* Steering Committee member, 2005 – 2007

*The Oceanography Society*, Councilor for Biological Oceanography, 2005 – 2009

*Alliance for Coastal Technology* Fluorometry Advisory Committee member, 2005 – 2008

National Science Foundation *Committee of Visitors* co-Chair, to review the “Biocomplexity in the Environment” program, 2004

Office of Naval Research *Board of Visitors* member, to review oceanic, atmospheric, and acoustical science, 2004

Co-chair of workshop on *Autonomous and Lagrangian Platforms and Sensors* and co-editor of ALPS report ([www.geo-prose.com/ALPS/alps\\_rpt\\_12.16.03.pdf](http://www.geo-prose.com/ALPS/alps_rpt_12.16.03.pdf)), 2003

\*NATO Marine Rapid Environmental Reconnaissance, Lerici, Italy, 2003

Optical Oceanography and Spatio-Temporal Analysis of Ocean Observations summer courses, Director – 1985, 1987, 1989, 1995, 1998, 2001, 2003; co-Director – 2004, 2007, 2001, 2013

National Science Foundation *Committee of Visitors* member to review ship operations and facilities, 2002  
*Ocean.US* Workshop for a US Ocean Observing System, 2002  
\**Ocean Optics Conference*, invited plenary speaker, 2002  
Shallow Water Analysis Meeting participant at the Naval Research Laboratory, 2002  
National Science Foundation *Advisory Committee for Geosciences* member, 2000 – 2003  
National Science Foundation *Advisory Committee for Environmental Research & Education*, 2000 – 2003  
*DOE Carbon Sequestration Institute*, member of Review Board, 2000  
Office of Naval Research *Board of Visitors* member, to review oceanic, atmospheric, and acoustical science, 2000  
National Science Foundation's *ad hoc* advisory group on in-situ sensors for biological and chemical oceanographic observations, 2000  
*National Research Council* Ocean Studies Board's Sixth Tactical Oceanography Symposium, Steering Committee member, 1998 – 2000  
*National Ocean Partner's Program* lead Investigator to develop 4-D autonomous optical capability for autonomous platforms, 1999 – 2004

#### **PEER-REVIEWED PUBLICATIONS – MOST RECENT FIRST**

Mousing, E. A., K. Richardson, J. Bendtsen, I. Cetinić, M. J. Perry. 2016. Evidence of small-scale spatial structuring of phytoplankton alpha- and beta-diversity in the open ocean. *Journal of Ecology*. 10.1111/1365-2745.12634

Siegel, D. A., K. O. Buesseler, M. J. Behrenfeld, C. R. Benitez-Nelson, E. Boss, M. A. Brzezinski, A. Burd, C. A. Carlson, E. A. D'Asaro, S. C. Doney, M. J. Perry, R. H. R. Stanley, D. K. Steinberg. 2016. Prediction of the Export and Fate of Global Ocean Net Primary Production: The EXPORTS Science Plan. *Frontiers in Marine Science*, section Ocean Observation, 3: article 22, 10 pp. 10.3389/fmars.2016.00022

Omand, M. M., E. A. D'Asaro, C. M. Lee, M. J. Perry, N. Briggs, I. Cetinić, A. Mahadevan. 2015. Eddy-driven subduction exports particulate organic carbon from the spring bloom. *Science* **348**: 222-225. DOI: 10.1126/science.1260062.

Cetinić, M. J. Perry, E. D'Asaro, N. Briggs, N. Poulton, M. E. Sieracki, and C. M. Lee. 2015. A simple optical index shows spatial and temporal heterogeneity in phytoplankton community composition during the 2008 North Atlantic Bloom. *Biogeosciences* **12**: 2179-2194.

Lee, Z.P., J. Marra, M. J. Perry, M. Kahru. 2014. Estimating oceanic primary productivity from ocean color remote sensing: A strategic assessment. *Journal of Marine Systems*, available online 18 Dec. 2014, ISSN 0924-7963, <http://dx.doi.org/10.1016/j.jmarsys.2014.11.015>.

Alkire, M., C. Lee, E. D'Asaro, M. J. Perry, N. Briggs, I. Cetinic, and A. Gray. 2014. Net community production and export from Seaglider measurements in the North Atlantic after the spring bloom. 2014. *Journal of Geophysical Research: Oceans* **119**: 6121–6139

- Rynearson, T. A., K. Richardson, R. S. Lampitt, M. E. Sieracki, A. J. Poulton, M. M. Lyngsgaard, and M. J. Perry. 2013. Major contribution of diatom resting spores to sinking flux in the sub-polar North Atlantic. *Deep-Sea Research I* **82**: 60-71.
- Briggs, N., W. H. Slade, E. Boss, and M. J. Perry. 2013. A method for estimating mean particle size from high-frequency fluctuations in beam attenuation or scattering measurements. In press, *Applied Optics*, *Applied Optics* **52**: 6710-6725.  
<http://dx.doi.org/10.1364/AO.52.006710>
- Mahadevan, A., E. D'Asaro, C. Lee, and M. J. Perry. 2012. Eddy-driven stratification initiates a North Atlantic Spring phytoplankton bloom. *Science* **337**: 54-58; doi: 10.1126/science.1218740.
- Cetinić, I., M. J. Perry, N. Briggs, E. Kallin, E. A. D'Asaro, C. M. Lee. 2012. Particulate organic carbon and inherent optical properties during the 2008 North Atlantic Bloom Experiment. *Journal of Geophysical Research* **117**, C06028, 18 pp. doi:10.1029/2011JC00777.
- Alkire, M. B., E. D'Asaro, C. Lee, M. J. Perry, A. Gray, I. Cetinic, N. Briggs, E. Rehm, E. Kallin, J. Kaiser, and A. González-Posada. 2012. Estimates of net community production and export using high-resolution, Lagrangian measurements of O<sub>2</sub>, NO<sub>3</sub><sup>-</sup>, and POC through the evolution of a spring diatom bloom in the North Atlantic. *Deep-Sea Research Part I* **64**: 157-174; <http://dx.doi.org/10.1016/j.dsr.2012.01.012>.
- Zhang, L., T. Bidleman, M. J. Perry, and R. Lohmann. 2012. Fate of chiral and achiral organochlorine pesticides in the North Atlantic Bloom Experiment. *Environmental Science and Technology* **46**: 8106-14. DOI: 10.1021/es3009248.
- Briggs, N., M. J. Perry, I. Cetinic, C. Lee, E. D'Asaro, A. Gray, E. Rehm. 2011. Underwater gliders observe aggregate flux event in high vertical and temporal resolution during the North Atlantic spring bloom. *Deep-Sea Research Part I* **58**: 1031-1039, 10.1016/j.dsr.2011.07.007.
- Martin, P., R. S. Lampitt, M. J. Perry, R. Sanders, C. Lee, D'Asaro. 2011. Export and mesopelagic particle flux during a North Atlantic spring diatom bloom, *Deep-Sea Research I* **58**: 338-349 doi:10.1016/j.dsr.2011.01.006.
- Bagniewski, W., K. Fennel, M. J. Perry, and E. A. D'Asaro. 2011. Optimizing models of the North Atlantic spring bloom using physical, chemical and bio-optical observations from a Lagrangian float. *Biogeosciences* **8**: 1291-1307, 2011www.biogeosciences.net/8/1291/2011/doi:10.5194/bg-8-1291-2011.
- Johnson, K. S., W. M. Berelson, E. Boss, Z. Chase, H. Claustre, S. R. Emerson, N. Gruber, A. Körtzinger, M. J. Perry, S. C. Riser. 2009. Observing biogeochemical cycles at global scales with profiling floats and gliders: prospects for a global array. *Oceanography* **22**: 216-225.
- Eriksen, C. C., and M. J. Perry. 2009. Nurturing of Seaglider. *Oceanography* **22**: 146 – 157.
- Perry, M. J., B. S. Sackmann, C. C. Eriksen, and C. M. Lee. 2008. Seaglider observations of subsurface chlorophyll maxima off the Washington coast. *Limnology and Oceanography* **53**(5, part 2): 2169-2179.

- Sackmann, B. M. J. Perry, C. C. Eriksen, and C. M. Lee. 2008. Using Seaglider to quantify variability in mid-day fluorescence quenching off the Washington coast. *Biogeosciences Discussion* **5**, 2839-2865 <<http://www.biogeosciences-discuss.net/5/2839/2008/bgd-5-2839-2008.html>>.
- Boss, E., D. Swift, L. Taylor, P. Brickley, R. Zaneveld, S. Riser, and M.J. Perry. 2008. Robotic in-situ and satellite based observations of pigment and particle distributions in the Western North Atlantic. *Limnology and Oceanography* **53**(5, part 2): 2112-2122.
- Dickey, T. D., E. C. Itsweire, M. Moline, and M. J. Perry. 2008. Introduction to the Limnology and Oceanography Special Issue on Autonomous and Lagrangian Platforms and Sensors (ALPS). *Limnology and Oceanography* **53**(5, part 2): 2057-2061.
- Paul, J. C.; Van Den Engh, G. Van Den Engh, M. J. 2007. Situ instrumentation. *Oceanography* **20**: 70-78
- Sackmann, B., and M. J. Perry. 2006. Ocean color observations of a surface water transport event: Implications for *Pseudo-nitzschia* on the Washington coast. *Harmful Algae* **5**: 608-619.
- Daly, K.L, R.H. Byrne, A.G. Dickson, S.M. Gallager, M.J. Perry, and M.K. Tivey. 2004. Chemical and Biological Sensors for Time-Series Research; Current Status and New Directions. *Journal of the Marine Technology Society* **38**: 121-141.
- Rudnick, D.L., R.E. Davis, C.C. Eriksen, D.M. Fratantoni, and M.J. Perry. 2004. Underwater gliders for ocean research. *Journal of the Marine Technology Society* **38**: 73-84.
- Sackmann, B., L. Mack, M. Logsdon, and M. J. Perry. 2004. Seasonal and inter-annual variability of SeaWiFS-derived chlorophyll a concentrations in waters off the Washington and Vancouver Island coasts, 1998-2001. *Deep-Sea Research II* **51**: 945-965.
- Perry, M. J., and D. L. Rudnick. 2003. Observing the ocean with autonomous and Lagrangian platforms and sensors (ALPS): the role of ALPS in sustained ocean observing systems. *Oceanography* **16**: 31-36.
- Eisner, L.B., M.S. Twardowski, T.J. Cowles, and M.J. Perry. 2003. Resolving phytoplankton photoprotective: Photosynthetic carotenoid ratios on fine scales using in situ spectral absorption measurements. *Limnology and Oceanography* **48**: 632-646.
- McManus, M.A., {others}... M.J. Perry, et al. 2003. Changes in Characteristics, Distribution and Persistence of Thin Layers Over a 48-Hour Period. *Marine Ecology Progress Series* **261**: 1-19.
- Culver, M. E., and M. J. Perry. 1999. Fluorescence excitation estimates of photosynthetic absorption coefficients for phytoplankton and their response to irradiance. *Limnology and Oceanography* **44**: 24-36.
- Culver, M. E., and M. J. Perry. 1997. Calculation of solar-induced fluorescence from surface and subsurface waters. *Journal of Geophysical Research* **102**: 10,563-10,572.
- English, D. C., K. Banse, D. L. Martin, and M. J. Perry. 1996. Electronic overshoot and other bias in the CZCS global data set: comparison with ground truth from the Subarctic Pacific. *Journal of Remote Sensing* **17**: 3157-3168.

- Lee, Z. P., K. L. Carder, J. Marra, R. G. Steward, and M. J. Perry. 1996. Estimating primary production at depth from remote sensing. *Applied Optics* **35**: 463-474.
- Roesler, C., S., and M. J. Perry. 1995. Reflectance modeling: a method for determining phytoplankton absorption coefficients and fluorescence from reflectance spectra. *Journal of Geophysical Research* **100**: 13,279-13,294.
- Orellana, M. V., and M. J. Perry. 1995. Optimization of an immunofluorescent assay of the internal enzyme ribulose-1,5-bisphosphate carboxylase (Rubisco) in single phytoplankton cells. *Journal of Phycology* **31**: 785-794.
- Carder, K. L., Z. P. Lee, J. Marra, R. G. Steward, and M. J. Perry. 1995. Calculated quantum yield of photosynthesis of phytoplankton in the Marine Light-Mixed Layers (59N, 21W). *Journal of Geophysical Research* **100**: 6655-6663.
- Cleveland, J.C., and M.J. Perry. 1994. A model for partitioning particulate absorption into phytoplanktonic and detrital components. *Deep-Sea Research* **41**: 197-221.
- Martin, D. L., and M. J. Perry. 1994. Minimizing systematic errors from atmospheric multiple scattering and satellite viewing geometry in CZCS Level IIA imagery. *Journal of Geophysical Research* **99**: 7309-7322.
- Orellana, M. V., and M.J. Perry. 1992. Characterization and standardization of an immunoprobe for quantification of Rubisco concentrations and maximal photosynthetic rates of individual phytoplankton. *Limnology and Oceanography* **37**: 478-490.
- Roesler, C.S., M.J. Perry, and K.L. Carder. 1989. Modeling in situ phytoplankton absorption from total absorption spectra in productive inland marine waters. *Limnology and Oceanography* **34**: 1510-1523.
- Perry, M.J., J. Bolger, and D.C. English. 1989. Primary production in Washington coastal waters. In: Hickey, B.M., and M.R. Landry (eds.), *Coastal Oceanography in Washington and Oregon*. Elsevier Science Publishers, New York, pp. 117-138.
- Navaluna, N.A., M.J. Perry, and M.C. Talbot. 1989. The effect of chemical fixation on some optical properties of phytoplankton. *Journal of Plankton Research* **11**: 15-24.
- Cleveland, J.C., M.J. Perry, D.A. Kiefer and M.C. Talbot. 1989. Light-limited, maximal quantum yield of photosynthesis in the northwestern Sargasso Sea. *Journal of Marine Research* **47**: 869-886.
- Jumars, P. A., D. L. Penry, J.A. Baross, M. J. Perry, B. W. Frost. 1989. Closing the microbial loop: Theoretical carbon pathway to heterotrophic bacteria from incomplete digestion and absorption in animals. *Deep-Sea Research* **36**: 483-495.
- Smith, R. C., J. Marra, M. J. Perry, K. S. Baker, E. Swift, E. Buskey, and D.A. Kiefer. 1989. Estimation of a photon budget for the upper ocean in the Sargasso Sea. *Limnology and Oceanography* **34**: 1673-1693.
- Perry, M. J. and S. M. Porter. 1989. Determination of the cross-section absorption coefficient of individual phytoplankton cells by analytical flow cytometry. *Limnology and Oceanography* **34**: 1727-1738.
- Orellana, M. V., M. J. Perry, and B. A. Watson. 1988. Probes for assessing single-cell primary

- production: Antibodies against ribulose-1,5-bisphosphate carboxylase and peridinin/chlorophyll a protein. In: Yentsch, C.M., F.C. Mague and P.K. Horan, (eds.), *Immunochemical approaches to estuarine, coastal and oceanographic questions*. Springer Verlag, Lecture Notes on Coastal and Estuarine Studies, **25**: 243-262.
- Miller, C. B. and SUPER Group, including M. J. Perry. 1988. Lower trophic level production dynamics in the oceanic Subarctic Pacific Ocean. *Bulletin Ocean Research Institute, University of Tokyo* **26**: 1-26.
- Cleveland, J. S., and M. J. Perry. 1987. Quantum yield, relative specific absorption and fluorescence in nitrogen-limited *Chaetoceros gracilis*. *Marine Biology* **94**: 489-497.
- Peterson, D., M. J. Perry, K. E. Bencala, and M. C. Talbot. 1987, Phytoplankton productivity in relation to light intensity: A simple equation. *Journal of Coastal, Estuarine, and Shelf Science* **24**: 813-832.
- Perry, M.J. 1986. Assessing marine primary production from space. *BioScience* **36**: 461-467.
- Ward B. B., M. C. Talbot, and M. J. Perry. 1984. Contributions of phytoplankton and nitrifying bacteria to ammonium and nitrite dynamics in coastal waters. *Continental Shelf Research* **3**: 383-398.
- Legendre, L., Y. Collos, M. Elbrachter, M. J. R. Fasham, W. W. C. Gieskes, A. Herbland, P. M. Holligan, R. Margalef, M. J. Perry, T. Platt, E. Sakshaug, and D. F. Smith. 1984. Studies on Marine Autotrophs: Recommendations for the 1980's. pp. 629-639. In: M.J.R. Fasham (ed.), *Flows of Energy and Materials in Marine Ecosystems*, Plenum Publishing Corporation.
- Yentsch, C. M., P. H. Horan, K. Muirhead, Q. Dortch, E. Haugen, L. Legendre, L. S. Murphy, M. J. Perry, D. Phinney, S. Pomponi, R.W. Spinrad, M. Wood, C. S. Yentsch, and B. J. Zahuranec. 1983. Flow cytometry and cell sorting: A technique for analysis and sorting of aquatic particles. *Limnology and Oceanography* **28**: 1275-1280.
- Ward, B. B., R. Olson, and M. J. Perry. 1982. In situ rates of nitrification in waters off Southern California. *Deep-Sea Research* **29**: 247-255.
- Perry, M. J., M. C. Talbot, and R. S. Alberte. 1981. Photoadaptation in marine phytoplankton: Response of the photosynthetic unit. *Marine Biology* **62**: 91-101.
- Perry, M. J., and R. W. Eppley. 1981. Phosphate uptake by phytoplankton in the central North Pacific. *Deep-Sea Research* **28**: 39-49.
- Sharp, J. H., M. J. Perry, E. H. Renger, and R. W. Eppley. 1981. Phytoplankton rate processes in the oligotrophic waters of the central North Pacific Ocean. *Journal of Plankton Research* **2**: 335-353.
- Ward, B. B., and M. J. Perry. 1980. An immunofluorescent method for the in situ identification of marine nitrifying bacteria. *Applied and Environmental Microbiology* **39**: 913-918.
- Eppley, R. W., J. H. Sharp, E. H. Renger, M. J. Perry, and W. G. Harrison. 1977, Nitrogen assimilation by phytoplankton in the surface waters of the central North Pacific Ocean. *Marine Biology* **39**: 111-120.
- Perry, M. J. 1976. Phosphate utilization by an oceanic diatom in phosphorus-limited chemostat



culture and in the oligotrophic waters of the central North Pacific. *Limnology and Oceanography* **21**: 88-107.

Mullin, M. M., M. J. Perry, E. H. Renger, and P. M. Evans. 1975. Nutrient regeneration by oceanic zooplankton: A comparison of methods. *Marine Science Communications* **1**: 1-13.

Perry, M. J. 1972. Alkaline phosphatase activity in subtropical central North Pacific waters using a sensitive fluorometric method. *Marine Biology* **15**: 113-119.

### **BOOKS, CHAPTERS, PROCEEDINGS, OTHER PRODUCTS – MOST RECENT FIRST**

Alkire, M., M. J. Perry, E. D'Asaro, C. Lee. 2013. Using sensor-based, geochemical measurements from autonomous platforms to estimate biological production and export of carbon during the 2008 North Atlantic Spring Bloom. *Ocean Carbon and Biogeochemistry News*, Spring 2013, 6(2):1-6.

Perry, M.J., E. A. D'Asaro, and C. M. Lee. 2012. An Autonomous Study of the Subpolar North Atlantic Spring Bloom – NAB08. *Ocean Carbon and Biogeochemistry News*, Fall 2012, 5(3):1-5.

deCharon, A., C. Companion, I. Cetinić, C. Lee, A. Mahadevan, E. D'Asaro, N. Poulton, M. J. Perry. 2011. North Atlantic Bloom webinar.  
<http://cosee.umaine.edu/programs/webinars/nab/>

Fennel, K., I. Cetinić, E. D'Asaro, C. Lee, and M. J. Perry. 2011. Autonomous data describe North Atlantic spring bloom. *Eos Trans. AGU*, 92(50), 465; doi:10.1029/2011EO500002

Claustre, H., J. Bishop, E. Boss, S. Bernard, J. Berthon, C. Coatanoan, K. Johnson, A. Lotiker, O. Ulloa, M. J. Perry, F. D'ortenzio, O. Hembise Fanton D'Andon, and J. Uitz. 2010. "Bio-optical Profiling Floats as New Observational Tools for Biogeochemical and Ecosystem Studies: Potential Synergies With Ocean Color Remote Sensing." in *Proceedings of OceanObs '09: Sustained Ocean Observations and Information for Society (Vol. 2)*, Venice, Italy, 21-25 September 2009, Hall, J., Harrison, D.E. & Stammer, D., Eds. ESA Publication WPP-306, doi:10.5270/OceanObs09.cwp.17

Testor, P., G. Meyers, C. Pattiaratchi, R. Bachmayer, D. Hayes, S. Pouliquen, L. Petit de la Villeon, T. Carval, A. Ganachaud, L. Gourdeau, L. Mortier, H. Claustre, V. Taillandier, P. Lherminier, T. Terre, M. Visbeck, J. Karstensen, G. Krahnman, A. Alvarez, M. Rixen, P. Poulain, S. Osterhus, J. Tintore, S. Ruiz, B. Garau, D. Smeed, G. Griffiths, L. Merckelbach, T. Sherwin, C. Schmid, J. Barth, O. Schofield, S. Glenn, J. Kohut, M. J. Perry, C. Eriksen, U. Send, R. Davis, D. Rudnick, J. Sherman, C. Jones, C. Webb, C. Lee, and B. Owens. 2010. "Gliders as a Component of Future Observing Systems" in *Proceedings of OceanObs '09: Sustained Ocean Observations and Information for Society (Vol. 2)*, Venice, Italy, 21-25 September 2009, Hall, J., Harrison, D.E. & Stammer, D., Eds. ESA Publication WPP-306, doi:10.5270/OceanObs09.cwp.89

Boss, E., M. J. Perry, D. Swift, L. Taylor, P. Brickley, J. R. Zaneveld and S. Riser. 2008. Three years of ocean data from a bio-optical profiling float. *Eos*: 89, No. 2, 209-210.

- Segee, B., C. Carter, M. J. Perry, R. Blanchette, and S. Winchenbach. 2007. Visualization of large scientific data sets on a parallel system with a tiled display. *Proceedings of International Association of Science and Technology for Development (IASTED)*
- Rudnick, D.L., and M. J. Perry, editors. 2003. ALPS: Autonomous and Lagrangian Platforms and Sensors, [www/gep-prose.com/ALPS](http://www/gep-prose.com/ALPS), 64 pp.
- Boss, E., M. J. Perry, and M. C. Talbot. 1999. Observation of an intense deep-water intrusion in Puget Sound. *Puget Sound Research '98 Conference Proceedings*.
- Perry, M. J. 1994. Measurements of phytoplankton absorption other than per unit of chlorophyll *a*. In: Spinrad, R. W., K. L. Carder, and M. J. Perry (eds.), *Ocean Optics*. Oxford University Press, N. Y.
- Spinrad, R. W., K. L. Carder, and M. J. Perry (editors). 1994. *Ocean Optics*. Oxford University Press, N. Y.
- Culver, M. E., R. F. Davis, and M. J. Perry. 1994. Instrumental considerations for deriving spectral photosynthetic absorption coefficients from total phytoplankton absorption. In: S. Ackleson (ed.) *SPIE Ocean Optics XII*, pp. 123-133.
- Collins, D. J., K. L. Carder, M. J. Perry, H. L. Clark, J. S. Cleveland, J. Mesias, and J. Greenier. 1986. The interaction of light with phytoplankton in the marine environment. *Proceedings SPIE 637*: 42-54.
- Perry, M. J. 1982. Changing views of marine food webs. In: *National Science Foundation Program Report on Ocean Science 6*: 9-17.

### **INVITED SEMINARS AND TALKS – SINCE 2008**

- Laboratoire d'Océanographie de Villefranche-sur-Mer, Villefranche, France, January 2016 – *Synthesis of the 2008 North Atlantic Bloom Experiment*
- Bigelow Laboratory for Ocean Sciences, Boothbay, Maine, June 2015 – *2014 Marginal Ice Zone Project*
- Environmental, Earth and Ocean Sciences Department, UMass Boston, Boston, Massachusetts, May 2013 – *Mechanisms for the North Atlantic bloom*
- King Abdullah University of Science and Technology, Saudi Arabia, January 2013 – *Approaches for Understanding the Ecosystem Biology and Biogeochemistry of a Large Ocean Region*
- Technical University of Denmark, Charlottenlund, Denmark, December 2012 – *Carbon production and export during the 2008 North Atlantic Spring Bloom Experiment*
- Woods Hole Oceanographic Institution, Woods Hole, Massachusetts, May 2012 – *2008 North Atlantic Spring Bloom Experiment: Autonomous Sampling in a Lagrangian Frame*
- Marine Sciences Program, University of Connecticut, Avery Point, Connecticut, March 2011 – *The 2008 North Atlantic Spring Bloom Experiment: Autonomous Sampling in a Lagrangian Frame*
- Biological Sciences, University of Southern California, Los Angeles, California, March 2011 – *The 2008 North Atlantic Spring Bloom Experiment: Autonomous Sampling in a Lagrangian Frame*

Laboratoire d'Océanographie de Villefranche, Villefranche, France, July 2010 – *The 2008 North Atlantic Bloom Experiment: the physics, chemistry and biology of a bloom and a patch*

National Oceanographic Centre, Southampton, England, June 2010 – *2008 North Atlantic Spring Bloom Experiment: Autonomous Sampling in a Lagrangian Frame*

University of North Carolina, Chapel Hill, North Carolina, December 2009. *Autonomous measurements of carbon flux - the 2008 North Atlantic spring bloom*

Virginia Institute of Marine Sciences, Gloucester Point, Virginia, May, 2009 – *A new way to study carbon flux in the ocean: early results from autonomous studies of the 2008 North Atlantic Spring Bloom*

National Science Foundation, Division of Ocean Sciences, Arlington, Virginia, April 2009 – *Autonomous Measurements of the 2008 North Atlantic Bloom*

Princeton University, Princeton, New Jersey, March 2009 – *Gliding through the spring bloom – a new approach for studying ocean carbon flux*

Monterey Bay Aquarium Research Institute, Monterey, California, January 2009 – *Autonomous measurements of carbon flux – the 2008 North Atlantic spring bloom*

School of Marine Sciences, University of Maine, Orono, Maine, September 2008 – *A New Way to Study Carbon Flux in the Ocean: Early Results From Autonomous Studies of 2008 North Atlantic Spring Bloom*

#### **PRESENTATIONS AT INTERNATIONAL OCEANOGRAPHIC MEETINGS – SINCE 2008**

Lee, C. M. and MIZ team (including **M. J. Perry**). Upper Ocean Evolution Across the Beaufort Sea Marginal Ice Zone from Autonomous Gliders. European Geophysical Union, Vienna, Austria, April 2016.

**Perry, M.J.**, C. Lee, L. Rainville, I. Cetinic, E. J. Yang, S-H. Kang. Modeling primary productivity in the Marginal Ice Zone from glider-based measurements of chlorophyll and light during the 2014 MIZ program. Ocean Sciences, New Orleans, Louisiana, February 2016 (poster).

Lee, C. M., L. Rainville, and **M. J. Perry**. Upper Ocean Evolution Across the Beaufort Sea Marginal Ice Zone from Autonomous Gliders. Ocean Sciences, New Orleans, Louisiana, February 2016 (poster).

Cetinic, I., W. Slade, N. Poulton, and **M. J. Perry**. Multi-sensor, ecosystem-based approaches for the estimation of particulate organic carbon from space. Ocean Sciences, New Orleans, Louisiana, February 2016 (talk).

Poulton, N., I. Cetinic, W. Slade, and **M. J. Perry**. Phytoplankton biomass and composition variability within different biogeochemical regimes in the N. Atlantic during the 2014 Ship-Aircraft Bio-Optical Research (SABOR) experiment. Ocean Sciences, New Orleans, Louisiana, February 2016 (poster).

**Perry, M. J.** The Subpolar North Atlantic Spring Bloom – What Did We Learn from the NAB 2008 Autonomous Experiment? Rachel Carson Lecture, American Geophysical Union meeting, San Francisco, California, December 2015 (invited lecture).

- Perry, M. J.** The subpolar North Atlantic spring bloom – what we learned from an autonomous experiment. University of Maine, Orono, September 2015.
- Ranville, L, C. M. Lee, and **M. J. Perry**. Direct Observations of Ocean Variability Across the Arctic Marginal Ice Zone from Autonomous Gliders. Arctic Science Summit Week, Toyama, Japan, April 2015 (talk).
- Lee, C. M. and MIZ team (including **M. J. Perry**). Autonomous Investigations of Marginal Ice Zone Processes- Changing Feedbacks and Observational Challenges. Arctic Science Summit Week, Toyama, Japan, April 2015 (talk).
- Perry, M.J.**, C. Lee, E. J. Yang, I. Cetinic, S-H. Kang. Distribution of phytoplankton and particulate organic carbon in the Beaufort Sea during the 2014 Marginal Ice Zone Experiment. AGU meeting, San Francisco, California, December 2014 (poster).
- Perry, M.J.**, C. Lee, E. J. Yang, and I. Cetinic. Phytoplankton distribution measured by gliders during the Marginal Ice Zone Experiment. Ocean Optics XXII, Portland, Maine, October 2014 (poster).
- Perry, M. J.** Panel Moderation: Progresses and Challenges towards Achieving Consensus in Estimating Basinscale Primary Production with ZP. Lee, J. Marra, and P. Quay. Plenary Session, Ocean Optics XXII, Portland, Maine, October 2014.
- Cetinic, I., W. Slade, N. Poulton, and **M. J. Perry**. FRACEX: Understanding the effects of phytoplankton size on optical properties. Ocean Optics XXII, Portland, Maine, October 2014 (poster).
- Briggs, N., **M. J. Perry**, I. Cetinic, E. D'Asaro, C. Lee, and E. Rehm. Tight coupling between autonomous measurements of primary productivity, particle size, export, and sequestration flux during the North Atlantic spring bloom. Ocean Optics XXII, Portland, Maine, October 2014 (talk).
- Perry, M. J.** Application of autonomous systems to oceanographic investigations and associated challenges that the research community faces in the coming decade. Invited Plenary Speaker, 2014 Ocean Sciences Meeting, Honolulu, Hawaii, February 2014 (talk)
- Omand, M., Mahadevan, A., **M. J. Perry**, E. D'Asaro, C. Lee, N. Briggs, I. Cetinic. Submesoscale Subduction of Particulate Organic Carbon, Oxygen and Spice. Ocean Sciences Meeting, Honolulu, Hawaii, February 2014 (talk)
- Briggs, N., **M. J. Perry**, I. Cetinic, E. D'Asaro, E. Rehm, C. Lee. Diel cycles of oxygen and beam attenuation measured by a Lagrangian float yield accurate, autonomous estimates of primary productivity. Ocean Sciences Meeting, Honolulu, Hawaii, February 2014 (talk)
- Slade, W. H., Cetinic, I., **M. J. Perry**, and N. Poulton. FracEx: Understanding the Effects of Phytoplankton Size on Optical Properties. Ocean Sciences Meeting, Honolulu, Hawaii, February 2014 (poster)
- Gudmundsson, K., **M. J. Perry**, M. Alkire, N. Briggs, I. Cetinić, E. D'Asaro, C. Lee, and E. Rehm. Estimates of Net Phytoplankton Productivity (NPP) and Net Community Productivity (NCP) from a Lagrangian float. 45th Liege Colloquium on Primary Productivity, Belgium, May 2013 (poster)
- Briggs, N., **M. J. Perry**, I. Cetinić, E. D'Asaro, C. Lee, and E. Rehm. Using diel cycles in O<sub>2</sub>

- and beam attenuation to estimate primary productivity from a Lagrangian mixed-layer float during the North Atlantic bloom.* 45<sup>th</sup> Liege Colloquium on Primary Productivity, Belgium, May 2013 (talk)
- Cetinić, I., R. Weatherbee, A. G. Thomas, and **M. J. Perry**. *Evaluating estimates of remote sensing Primary Productivity in the Gulf of Maine using a Slocum Glider* 45<sup>th</sup> Liege Colloquium on Primary Productivity, Belgium, May 2013 (poster)
- Perry, M. J.** *The Biological Carbon Pump.* Euro-Basin Mid-term Review, Lisbon, Portugal, November 2012 (talk)
- Briggs, N., **M. J. Perry**, I. Cetinić, N. Poulton, M. Sieracki, C. Lee, C, and E. D'Asaro. *Inversions of backscattering and fluorescence to estimate mean particle size.* Ocean Optics XXI, October 2012, Glasgow, Scotland (talk)
- Cetinić, I.; R. Weatherbee, A. Thomas, **M. J. Perry**. *Evaluating estimates of remote sensing primary productivity in the Gulf of Maine using a Slocum glider.* Ocean Optics XXI, October 2012, Glasgow, Scotland (poster)
- Perry, M. J.**, K. Gudmundsson, M. Alkire, E. D'Asaro, I. Cetinić, E. Rehm, and C. Lee. *Estimates of net phytoplankton productivity (NPP) and net community productivity (NCP) from a Lagrangian mix-layer float.* Ocean Sciences Meeting, Salt Lake City, Utah, February 2012 (poster)
- Lee, C., N. Briggs, I. Cetinić, E. D'Asaro, and **M. J. Perry**. *Strategies for autonomous sensors.* Ocean Sciences Meeting, Salt Lake City, Utah, February 2012 (poster)
- Cetinić, I; **M. J. Perry**, N. Briggs, E. Kallin, M. Alkire, E. D'Asaro, C. Lee, N. Poulton, E. Rehm, and M. Sierack. *Relationships between the particulate organic carbon, plankton composition and optical properties during North Atlantic bloom 2008.* Ocean Sciences Meeting, Salt Lake City, Utah, February 2012 (talk)
- Alkire, M, E. D'Asaro, C. Lee, **M. J. Perry**, A. Gray, I. Cetinić, N. Briggs, E. Rehm, J. Kaiser, A. González-Posada. *Estimates of net community production and export via Lagrangian measurements of O<sub>2</sub>, NO<sub>3</sub>, and POC through the evolution of a spring bloom.* Ocean Sciences Meeting, Salt Lake City, Utah, February 2012 (talk)
- D'Asaro, E. A., **M. J. Perry**, C. Lee, I. Cetinic, M. Alkire, N. Poulton, and M. Sieracki. *The evolution of a patch during the North Atlantic bloom.* Ocean Sciences Meeting, Salt Lake City, Utah, February 2012 (talk)
- Cetinic, I.; C. Companion, A. deCharon, C. Herren, E. D'Asaro, C. Lee, A. Mahadevan, M. Omand, **M. J. Perry**, and N. Poulton. *The North Atlantic bloom 2008 webinar series.* Ocean Sciences Meeting, Salt Lake City, Utah, February 2012 ((talk))
- Johnson, K. S., G. Matsumoto, C. Scheurle, H. Claustre, **M. J. Perry**, and S. Riser. *Understanding ocean chemistry and biology using real-time data from profiling floats.* Ocean Sciences Meeting, Salt Lake City, Utah, February 2012 (talk)
- Briggs, N. T., W. H. Slade, **M. J. Perry**, E. Boss, N. Poulton, M. Sieracki, C. Lee, and E. D'Asaro. *Estimating phytoplankton size from high-frequency fluctuations in simple*

- optical measurements.* Ocean Sciences Meeting, Salt Lake City, Utah, February 2012 (talk)
- Rynearson, T. A., K. Richardson, R. S. Lampitt, M. Sieracki, A. Poulton, and **M. J. Perry.** *What you see is not what you get: Relating diatom species composition in surface waters to carbon flux during a spring bloom in the North Atlantic.* Ocean Sciences Meeting, Salt Lake City, Utah, February 2012 (talk)
- Cetinic, I., and **M. J. Perry.** *Challenges to validating satellite POC products.* NASA Ocean Color Research Team Meeting, Alexandria, Virginia, October 2011 (talk)
- N. Briggs, **M. J. Perry**, I. Cetinic, C. Lee, E. D'Asaro, M. Sieracki, A. Gray, and E. Rehm. *Aggregate Formation And Distribution During And Following The 2008 North Atlantic Bloom.* Ocean Optics XX, Anchorage, Alaska, September 2010 (talk)
- Cetinic, I., R. Weatherbee, A. Thomas, and **M. J. Perry.** Reducing uncertainty in the primary productivity assessment by coupling satellite and in-water robotic measurements. Ocean Optics XX, Anchorage, Alaska, September 2010 (talk)
- Perry, M. J.,** N. Briggs, I. Cetinic, E. Kalling, E. D'Asaro, C. Lee, E. Rehm, M. Sieracki, N. Poulton, and B. Thompson. *The  $C / Chl$  ratio in the ocean: Do changes in  $C / Chl$  ratio reflect changes in physiology? community structure? or both?* Ocean Optics XX, Anchorage, Alaska, September 2010 (talk)
- Cetinic, I., **M. J. Perry**, R. Weatherbee, and A. Thomas. *Challenges and solutions: calibration strategies for biogeochemical sensors on autonomous platforms.* NASA Ocean Color Research Team Meeting, New Orleans, Louisiana, May 2010 (talk)  
Ocean Optics XX, Anchorage, Alaska, September 2010 (talk)
- Perry, M. J.,** P. Martin, R. Lampitt, N. Briggs, E. D'Asaro, and C. Lee. *Phytoplankton carbon flux following the Subpolar North Atlantic spring bloom: measurements from ocean color satellites, autonomous Seagliders, and PELAGRA sediment trap and satellite observations for improved marine carbon export estimates.* University of Bergen, Bergen, Norway, EU Coordination Action Carbon Observation System, June 2010 (talk)
- Perry, M. J.,** E. D'Asaro, C. Lee, N. Briggs, I. Cetinic, B. Sackman, M. Sieracki, K. Gudmundsson, E. Kallin, and E. Rehm. *Coupling Phytoplankton Carbon Flux At Submeso- And Meso-scales During The Subpolar North Atlantic Spring Bloom.* Ocean Sciences Meeting, Portland, Oregon February 2010 (talk)
- Lee, C., E. D'Asaro, **M. J. Perry**, K. Fennel, N. Briggs, I. Cetinic, A. Gray, K. Gudmundsson, E. Kallin, R. Lampitt, P. Martin, N. Poulton, E. Rehm, T. Rynearson, B. Sackmann, M. Sieracki, W. Bagniewski. *The 2008 North Atlantic Spring Bloom Experiment: Autonomous Sampling in a Lagrangian Frame.* Ocean Sciences Meeting, Portland, Oregon February 2010 (talk)
- Sieracki, M. E., N. Poulton, N., E. Kallin, B. Thompson, E. D'Asaro, C. Lee, and **M. J. Perry.** *Plankton Succession and Biomass during the 2008 North Atlantic Spring Bloom.* Ocean Sciences Meeting, Portland, Oregon February 2010 (talk)

- Martin, P., R. Lampitt, R. Sanders, and **M. J. Perry**. *Export Flux and its Transfer Efficiency During the North Atlantic Spring Bloom*. Ocean Sciences Meeting, Portland, Oregon February 2010 (poster)
- Gray, A., C. Lee, E. D'Asaro, **M. J. Perry**, N. Briggs, I. Cetinic, E. Kallin, N. Poulton, E. Rehm, B. Sackmann, M. Sieracki, B. Thompson. *The 2008 North Atlantic Spring Bloom Experiment: Autonomous Platform Observations of an Anticyclonic Eddy and the Development of an Associated 10-km Patch of Phytoplankton*. Ocean Sciences Meeting, Portland, Oregon February 2010 (poster)
- Briggs, N., **M. J. Perry**, I. Cetinic, E. D'Asaro, C. Lee, M. Sieracki, A. Gray, and E. Rehm. *Aggregate Formation And Distribution During And Following The 2008 North Atlantic Bloom*. Ocean Sciences Meeting, Portland, Oregon February 2010 (poster)
- Bagniewski, W., K. Fennel, **M. J. Perry**, E. D'Asaro, N. Briggs, and E. Rehm. *Diatom-driven carbon export during the North Atlantic Spring Bloom: coupled physical-biological modelling and variational data assimilation*. Ocean Sciences Meeting, Portland, Oregon February 2010 (poster)
- Perry, M. J.**, and A. deCharon. *Using Concept Maps To Teach Biological Oceanography*. Ocean Sciences Meeting, Portland, Oregon February 2010 (talk)
- Sackmann, B., **M. J. Perry**, E. D'Asaro, and C. Lee. *Tools and Methods for Integrating Data: Combining Disparate Datasets to Visualize the North Atlantic Spring Bloom*. Ocean Sciences Meeting, Portland, Oregon February 2010 (talk)
- J. Pearlman, D. Rudnick, **M. J. Perry**, R. Holman, and D. Glickson. *What Does the Future Hold? - Thoughts from the 2009 "Oceanography in 2025" Workshop*. Ocean Sciences Meeting, Portland, Oregon February 2010 (poster)
- Cetinic, I., N. Briggs, E. Kallin, A. Gray, M. Sauer, B. Thompson, N. Poulton, E. Rehm, M. Sieracki, E. D'Asaro, C. Lee, and **M. J. Perry**. *Optical proxies vs. the real phytoplankton: case of North Atlantic Bloom*. Ocean Sciences Meeting, Portland, Oregon February 2010 (talk)
- Rehm, E., E. D'Asaro, **M. J. Perry**, N. Briggs, E. Kallin, N. Poulton, M. Sieracki, B. Thompson, and C. Mobley. *Optical Determination of Phytoplankton Size Structure From Water-following Radiometry During The 2008 North Atlantic Spring Bloom Experiment*. Ocean Sciences Meeting, Portland, Oregon February 2010 (poster)
- Thompson, B. P., E. Kallin, and **M. J. Perry**. *Monitoring phytoplankton biomass in the Damariscotta River Estuary, Maine, U.S.A.* Gulf of Maine Symposium, St. Andrew's by the Sea, October 2009 (poster)
- Briggs, N., **M. J. Perry**, C. Lee, E. D'Asaro, A. Gray, E. Rehm, and E. Kallin. *Can Optical Sensors "See" Sinking Particles? - Interpreting in-Situ Spikes in Fluorescence, Backscatter and Attenuation as Sinking Aggregates*. American Geophysical Union Chapman Conference on the Biological Carbon Pump of the Oceans, Brockenhurst, England, September 2009 (talk)

- Perry, M. J.** *The ocean below: reducing uncertainty in satellite ocean color products with measurements made from gliders and floats.* NASA Ocean Color Research Team Meeting, New York City, New York, May 2009 (talk)
- Lampitt, R. S., P. Martin, **M. J. Perry**, N. Poulton, K. Richardson, T. A. Ryneerson, and M. E. Sieracki. *Direct measurement of episodic particle export during a spring phytoplankton bloom in the North Atlantic.* American Society of Limnology and Oceanography Meeting, Nice, France, January 2009 (talk)
- Perry, M. J.**, E. E'Asaro, C. Lee, A. Gray, E. Rehm, N. Briggs, E. Kallin, M. Sieracki, N. Poulton, R. Lampitt, P. Martin, K. Gudmundsson, and K. Fennel. *The 2008 North Atlantic Spring Bloom Experiment III: Bloom dynamics.* American Geophysical Union Meeting, San Francisco, California, December 2008 (poster)
- Eriksen, C., C. Lee, and **M. J. Perry.** *Seasonal and Interannual Variability in the California Current System over the Washington Continental Slope observed with Seagliders.* American Geophysical Union Meeting, San Francisco, California, December 2008 (talk)
- D'Asaro, E., C. Lee, **M. J. Perry**, K. Fennel, E. Rehm, A. Gray, N. Briggs, and K. Gudmundsson. *The 2008 North Atlantic Spring Bloom Experiment I: Overview & Strategy.* American Geophysical Union Meeting, San Francisco, California, December 2008 (talk)
- Kallin, E., **M. J. Perry**, E. D'Asaro, and E. Rehm. *Nutrient drawdown during the North Atlantic Spring Bloom.* American Geophysical Union Meeting, San Francisco, California, December 2008 (poster)
- Briggs, N., **M. J. Perry**, C. Lee, A. Gray, E. D'Asaro, and E. Rehm. *Spikes in Subsurface Optical Measurements During the North Atlantic Bloom.* American Geophysical Union Meeting, San Francisco, California, December 2008 (poster)
- Martin, P., R. Lampitt, and **M. J. Perry.** *Direct Measurements of Particulate Organic Carbon Flux Through the Twilight Zone During the North Atlantic Bloom Using Neutrally Buoyant Sediment Traps.* American Geophysical Union Meeting, San Francisco, California, December 2008 (poster)
- Rehm, E., E. D'Asaro, **M. J. Perry**, C. Lee, A. Gray, E. Kallin, N. Briggs, M. Sieracki, N. Poulton, and K. Gudmundsson. *The 2008 North Atlantic Spring Bloom Experiment: Radiometric Measurements and Inversions.* American Geophysical Union Meeting, San Francisco, California, December 2008 (poster)
- Lee, C., E. D'Asaro, **M. J. Perry**, A. Gray, E. Rehm, N. Briggs, B. Sackmann, and K. Gudmunsson. *The 2008 North Atlantic Spring Bloom Experiment II: Autonomous Platforms and Mixed Layer Evolution.* American Geophysical Union Meeting, San Francisco, California, December 2008 (poster)
- Sieracki, M., N. Poulton, **M. J. Perry**, E. Kallin, L. Dinsmore, and A. Drzewianowski. AUG meeting, San Francisco CA, December 2008 – *Carbon Biomass Budgets for the*



- 2008 North Atlantic Spring Bloom Microplankton*. American Geophysical Union Meeting, San Francisco, California, December 2008 (poster)
- Gray, A., C. Lee, E. D'Asaro, **M. J. Perry**, K. Fennel, N. Briggs, E. Rehm, B. Sackmann, M. Sieracki, N. Poulton, and K. Gudmundsson. *The 2008 North Atlantic Spring Bloom Experiment: Observations of a Stationary Eddy on the Eastern Flank of the Reykjanes Ridge*. American Geophysical Union Meeting, San Francisco, California, December 2008 (poster)
- Rynearson, T., R. Lampitt, N. Poulton, K. Richardson, M. Sieracki, and **M. J. Perry**. *Return from the depths: examination of diatom resting cysts from the 2008 North Atlantic Bloom Experiment*. American Geophysical Union Meeting, San Francisco, California, December 2008 (poster)
- Sauer, M., C.S. Roesler, and **M.J. Perry**. *Response of phytoplankton biomass and primary production to changes in community size structure during the 2008 North Atlantic Spring Bloom*. American Geophysical Union Meeting, San Francisco, California, December 2008 (poster)
- Perry, M. J.**, N. Briggs, A. Gray, C. Lee, E. Rehm, E. D'Asaro, K. Gudmundsson, E. Kallin, R. Lampitt, N. Poulton, T. Rynearson, and M. Sieracki. *Optical observations of large diatoms and sinking particles during the North Atlantic Spring Bloom made from Seagliders, floats, and a ship*. Ocean Optics XIX, Barga, Italy, October 2008 (talk)
- Perry, M. J.**, B. Sackmann, C. Eriksen, and C. Lee. *Multiyear Seaglider observations of Northern California Current Ecosystem: variability in phytoplankton annual cycle in deep waters of the Washington slope*. Ocean Sciences Meeting, Orlando Florida, March 2008 (talk)

## **PRESENTATIONS AT WORKSHOPS – SINCE 2008**

- Ocean Carbon and Biogeochemistry summer workshop, *EXPORTS – Processes in the euphotic zone*, Woods Hole, Massachusetts, July 2016
- Ocean Carbon and Biogeochemistry summer workshop, *How do autonomous assets expand the temporal and spatial footprint of a shipboard process study?* Woods Hole, Massachusetts, July 2015
- Irminger Sea Workshop, *Lessons learned from 2008 North Atlantic Bloom Experiment*, Boston, December 2013
- NASA planning workshop on Controls on Open Ocean Productivity and Export, *Combining ships, autonomous platforms, satellites and models* (talk)
- Ocean Carbon and Biogeochemistry Workshop, Woods Hole, Massachusetts, July 2012 – *Strategies for Autonomous Sensors AND New Views of the Subpolar North Atlantic Spring Bloom, from NAB 2008* (two posters)
- NASA and Ocean Observatories Initiative workshop on Sensor Quality Control, Walpole ME, June 2012 – *Strategies for Autonomous Sensors: lessons learned from the 2008*

*autonomous North Atlantic bloom experiment for the Ocean Observatories Initiative* (talk)  
 Town Hall at Ocean Sciences Meeting, Salt Lake City, Utah, February 2012 – *Current Progress towards Development of a Global Ocean Biogeochemical Observing System* (co-organizer and speaker)  
 Ocean Carbon and Biogeochemistry Workshop, Woods Hole, Massachusetts, July 2011 – Organized and lead special session on *Toward the Implementation of a Global Autonomous Biogeochemical Observing System*  
 BASIN workshop, Boston, Massachusetts, October 2010 – *North Atlantic annual cycles* (talk)  
 Subpolar North Atlantic Workshop, Duke University, Durham, North Carolina, April 2010 – *Biogeochemical Observing in the Subpolar North Atlantic*  
 National Research Council Committee on Ocean Infrastructure for US Oceanography, San Diego, California, July 2010 – *Integrating Autonomous Platforms, Ships, Satellites and Models in Process Studies: Highlights and Insights from the 2008 North Atlantic Bloom Experiment* (talk)  
 Workshop on Observing Biogeochemical Cycles at Global Scales with Profiling Floats and Gliders, Monterey, California, April 2009 – *Overview on North Atlantic Bloom Experiment & Lessons Learned* (talk)  
 International Ocean Optics Meeting OXIX, Italy, October 2008 – *Short Course: What is fluorescence? measurement, instrument calibration, and data interpretation* (talk)  
 Ocean Carbon and Biogeochemistry Workshop, Woods Hole, Massachusetts, July 2008 – *Autonomous Measurements of the subpolar North Atlantic spring bloom: early results from the NAB08 experiment* (talk)

## **MAJOR OCEANOGRAPHIC EXPEDITIONS – SINCE 2005**

July – August 2014: Korean ice breaker *R/V Araon*, studies of marginal ice zone in Arctic Ocean  
 March – May 2009: Autonomous glider deployments in Gulf of Maine  
 <<http://seasurface.umaine.edu/glider2009.htm>>  
 September 2008: Autonomous glider deployments in Gulf of Maine  
 April 2008: *R/V Bjarni Sæmundsson*, operating SW of Iceland, Chief Scientist  
 May 2008: *R/V Knorr*, operating SW of Iceland, Chief Scientist  
 June 2008: *R/V Bjarni Sæmundsson*, operating SW of Iceland, Chief Scientist  
 June – July 2008: *R/V Bjarni Sæmundsson*, operating SW of Iceland, Chief Scientist  
 May 2008: Autonomous glider deployments in Gulf of Maine  
 June – July 2007: Autonomous glider deployments in Gulf of Maine  
 June – July 2006: *R/V Cape Hatteras*, operating in Gulf of Maine, Chief Scientist  
 June – July 2005: *R/V Cape Hatteras*, operating in Gulf of Maine, Chief Scientist

## **TEACHING AND OTHER EDUCATIONAL ACTIVITIES – EMPHASIS ON RECENT**

### **Courses taught (last five years)**

SMS 204      204 Integrated Marine Science II: Physics and Chemistry of Marine Systems

SMS 303	Introduction to Field Oceanography
SMS 350	Semester by the Sea Seminar
SMS 404	Capstone seminar
SMS 482	Human Impacts on the
SMS 501	Biological Oceanography
SMS 516	Phytoplankton Ecology
SMS 598	Graduate Seminar, special topics – in last four topics include time series, pigments, and methods for primary productivity
SMS 598	Optical Oceanography (summer 2011, 2013, 2015)

## **MENTORING**

### **Graduated Doctoral Students**

- Bess B. Ward, 1982, William J. Sinclair Professor of Geosciences, Department of Geosciences, Princeton University
- Joan S. Cleveland, 1988, deputy director for the Ocean Sensing and Systems Applications Division, Office of Naval Research, Arlington, Virginia
- Monica Orellana, 1990, currently Senior Research Scientist at the Institute for Biological Systems and Principal Oceanographer at the Applied Physics Laboratory, University of Washington, Seattle, Washington
- David L. Martin, 1992, Director of Strategy and Special Programs, Applied Physics Laboratory, University of Washington, Seattle, Washington
- Collin S. Roesler, 1992, Chair of Earth and Oceanographic Science Department, Bowdoin College, Brunswick, Maine
- Mary E. Culver, 1996, Coastal Learning Services Program Manager, NOAA Coastal Services Center, Charleston, South Carolina
- Brandon S. Sackmann, 2007, Senior Scientist, Integral Consulting Inc., Olympia, Washington
- Michael Sauer, 2011 (co-chair), Adjunct Faculty, Florida Gulf Coast University, Department of Marine & Ecological Sciences
- Sheri Floge, 2014 (co-chair), post doctoral fellow, Ecology and Evolutionary Biology, University of Arizona
- Jeremy Werdell, 2014 (co-chair), Research Oceanographer, Ocean Ecology Laboratory, NASA Goddard Space Flight Center
- Nathan Briggs, 2014, NSF post doctoral fellow, Laboratoire d'Océanographie de Villefranche

### **Graduated Masters Students at the University of Maine**

- Nathan Briggs, now at Laboratoire d'Océanographie de Villefranche
- Andrea Drzewianowski, now at University of Rhode Island
- Brian Thompson, now Single Cell Genomics lab manager, Bigelow Laboratory, Maine
- Witold Bagniewski, now working on his Ph.D. in Australia

### **Service on Graduate Student Committees at other institutions (last five years)**

Amada Gray, M.S., University of Washington  
Eric Rehm, Ph.D., University of Washington  
Kay Roche, Maine's Interdisciplinary Ph.D. program

### **Undergraduates mentored in research and teaching (last five years)**

Abigail Andrews, research on the Damariscotta River Estuary  
Michelle Brodeur, undergraduate TA in SMS 204  
Caitlin Cameron, undergraduate TA in SMS 204  
Adam Casey, undergraduate TA in SMS 204  
Virginia Biede, research on the Damariscotta River Estuary  
Nicole Brisson, research on the Damariscotta River Estuary, undergraduate TA in SMS 204, and summer research on phytoplankton pigments  
Ryan Cope, research on the Damariscotta River Estuary and undergraduate TA in SMS 204  
Lindsay Dinsmore, participation in subpolar North Atlantic bloom expedition  
Jennifer Fortier, participation in subpolar North Atlantic bloom expedition  
Carlie Herring, research on the Damariscotta River Estuary and undergraduate TA in SMS 204  
Katelyn Hunt, research on the Damariscotta River Estuary  
Mahima Jaini, research on the Damariscotta River Estuary and undergraduate TA in SMS 204 (I continued to mentor Mahima when she became a Masters student and TA)  
Alex Jensen, research on the Damariscotta River Estuary  
Caroline Lawrence, research on the Damariscotta River Estuary  
Thomas Leeuw, undergraduate TA in SMS 204  
Xiaoyan Liu, capstone  
Christopher Malcosky, research on the Damariscotta River Estuary  
Michael Matzinger, capstone and participation in Gulf of Maine cruise  
Briana Patton, summer research on phytoplankton pigments  
Janessa Plummer, research on the Damariscotta River Estuary  
Hillary Scannell, research on the Damariscotta River Estuary  
Alyssa Stephenson, research on the Damariscotta River Estuary  
Erin Wilkerson, research on the Damariscotta River Estuary; undergraduate TA in SMS 204; and cruise preparations

### **OTHER EDUCATIONAL AND OUTREACH ACTIVITIES – LAST FIVE YEARS**

Engagement and training of upper level SMS students as "undergraduate TAs" for SMS 204, all years  
Mentoring an Associate Professor to enhance numbers of women professors at UMaine, through the ADVANCE Rising Tide Center, 2014  
Diversity – as a member of the Steering Committee for the 2012 *Ocean Optics Conference*, I made sure that at least half of session chairs were women. Young women scientists who

attend conferences notice when women do (or do not) serve in positions of prominence. If I hadn't acted, the representation would have been less than 10%.

Guest lecturer in Bigelow Laboratory's professional Algal Culturing Techniques Course, June 2011

Major collaboration with UMaine's Centers for Ocean Sciences Education Excellence (COSEE) to produce a series of five webinars on the North Atlantic Bloom experiment bloom. These webinars and associated excel data sheets were designed primarily for K-12 educators and are archived at <http://cosee.umaine.edu/programs/webinars/nab/>.

Guest lecturer in the prestigious C-MORE Microbial Oceanography Course at the University of Hawaii, June 2010 (<http://cmore.soest.hawaii.edu/agouron/2010/faculty.htm>)

Presenter at Waynflete's Sustainable Oceans program for high school students, July 2010 and July 2012

Presenter at Darling Marine Center's Dive-In program for high school students, August 2011 and August 2012

Presenter at 'Marine Science Careers Night' for high school students, May 2010

Frequent participation, with my laboratory, in various K-12 visiting programs at the Darling Marine Center, all years

#### **SERVICE TO THE PROFESSION – RECENT**

NASA EXPORTS Science Definition Team, 2015 – present

Review panels for *NSF* Oceanography and Polar Programs, as well as special review panels on LTER, Interdisciplinary activities, Marine Lab, etc. (when ever they need a panelist who crosses boundaries and thinks outside the box); average 1 panel/yr Review panel for NASA Ocean Productivity program; NOAA arctic panel

Mail reviewer for proposals sent to National Science Foundation, NASA, and NOAA

Mail reviewer for manuscripts sent to various oceanographic journals