**A Planning Workshop for an International Research Program on the Coupled North Atlantic-Arctic System**

April 14-16, 2014

Arlington, VA

**BIBLIOGRAPHY**

**PAPERS**

Alkire, M.B., E. D’Asaro. C.M. Lee, M.J. Perry, A. Gray, I. Cetinic, N. Briggs, E. Kallin, J. Kaiser and A. Gonzalez-Posada (2012). Estimates of net community production and export using high-resolution, Lagrangian measurements of O2, NO3, and POC through the evolution of a spring diatom bloom in the North Atlantic. Deep-Sea Research PT 1, 64: 157-174

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, doi:10.5194/bg-8-1291-2011.

Briggs, N, M.J. Perry, I. Cetinic, C. Lee, A. M. Gray and E. Rehm (2011). High-resolution observations of aggregate flux during a sub-polar North Atlantic spring bloom Deep-Sea Research PT 1, 58: 1031-1039.

Broecker, W.S. (1997). Thermohaline circulation, the Achilles heel of our climate system: Will man-made CO2 upset the current balance? Science 278: 1582-1594.

Carmack, E., and P. Wassmann. 2006. Food webs and physical-biological coupling on pan-Arctic shelves: Unifying concepts and comprehensive perspectives. Progress in Oceanography **71:** 446-477.

Cetinić, I., Perry, M. J., Briggs, N. T., Kallin, E., D'Asaro, E. A., & Lee, C. M. (2012). Particulate organic carbon and inherent optical properties during 2008 North Atlantic Bloom Experiment. Journal of Geophysical Research: Oceans (1978–2012), 117(C6).

Cunningham, S. A., T. Kanzow, D. Rayner, M. O. Baringer, W. E. Johns, J. Marotzke, H. R. Longworth, E. M. Grant, J. J-M. Hirschi, L. M. Beal, C. S. Meinen and H. L. Bryden (2007). Temporal Variability of the Atlantic Meridional Overturning Circulation at 26.5°N. Science, 17 August 2007 312: 335-938 [DOI: 10.1126/science.1141304].

Dave, A. and M.S. Lozier (2013). [Examining the global record of interannual variability in stratification and marine productivity in the low-and mid-latitude ocean](http://onlinelibrary.wiley.com/doi/10.1002/jgrc.20224/abstract), Journal of Geophysical Research, **118**, 3114-3127.

Ducklow, H.W. & R.P. Harris (guest editors) (1993). JGOFS: The North Atlantic Bloom Experiment. Deep-Sea Research, Part II. Vol. 40, nos. 1-2.

Eglinton, G., H. Elderfield, M.Whitfield and P.J. LeB. Williams (1995). The role of the North Atlantic in the global carbon cycle. Phil. Trans. Royal Soc. London (Biological Sciences) 348: 121-264.

Giering, S. L. C. et al. (2014). Reconciliation of the carbon budget in the ocean’s twilight zone. Nature, doi:10.1038/nature13123

Glover, D.M. and P.G. Brewer (1988). Estimates of wintertime mixed layer nutrient concentrations in the North Atlantic. Deep-Sea Res., 35: 1525-1546.

Heath, M.R. et al. (2008). Comparative ecology of over-wintering Calanus finmarchicus in the northern North Atlantic and implication for life-cycle patterns. ICES Journal of Marine Science 61: 698-708.

Hoffmann, S. S., J. F. McManus, W. B. Curry, S. Brown-Leger (2013). Persistent export of 231Pa from the deep central Arctic Ocean over the past 35,000 years. Nature 497, doi:10.1038/nature12145.

Johns, W. E., M. O. Baringer, L. M. Beal, S. A. Cunningham, T. Kanzow, H. L. Bryden, J. Hirschi, J. Marotzke, C. Meinen, B. Shaw, and R. Curry (2011). Continuous, array-based estimates of Atlantic Ocean heat transport at 26.5 ºN. J. Clim., 24(10):2429-2449.

Kanzow. T., S.A. Cunningham, W.E. Johns, J. J-M. Hirschi, J. Marotzke, M. O. Baringer, C.S. Meinen, M. P. Chidichimo, C. Atkinson, L. M. Beal, H. L. Bryden, J. Collins (2010). Seasonal variability of the Atlantic meridional overturning circulation at 26.5oN. Journal of Climate, 23, doi: 10.1175/2010JCLI3389.1171.

Körtzinger, A.U. et al. (2008). The seasonal pCO2 cycle at 49°N/16.5°W in the northeastern Atlantic Ocean and what it tell us about biological productivity. J. Geophys. Res. 113: CO4020, doi:10. 1029/2007 JC004347.

Lozier, M.S. (2012). Overturning in the North Atlantic. Annual Review of Marine Science, **4**, 291-315.

Mahadevan, A., D’Asaro, E., Lee, C., & Perry, M. J. (2012). Eddy-driven stratification initiates North Atlantic spring phytoplankton blooms. Science, 337(6090), 54-58.

Martin, P., R.S. Lampitt, M.J. Perry, R. Sanders, C.M. Lee and E. D’Asaro (2011). Export and Mesopelagic Particle Flux during a North Atlantic Spring Diatom Bloom. Deep-Sea Research PT 1 58: 338-349, doi:10.1016/j.dsr.2011.01.006.

McKinley, G.A., A.R. Fay, T. Takahashi and N. Metzl (2011). Convergence of atmospheric and North Atlantic carbon dioxide trends on multidecadal timescales. Nature Geoscience, doi:10.1038/ngeo1193.

McManus, J. F., R. Francois, J.–M. Gherardi, L. D. Keigwin, S. Brown-Leger (2004). Collapse and rapid resumption of Atlantic meridional circulation linked to deglacial climate changes. Nature 428, 834-837.

Perovich, D. K. 2011. The changing Arctic sea ice cover. Oceanography **24:** 162-173.

Rynearson, T. A., Richardson, K., Lampitt, R. S., Sieracki, M. E., Poulton, A. J., Lyngsgaard, M. M., & Perry, M. J. (2013). Major contribution of diatom resting spores to vertical flux in the sub-polar North Atlantic. Deep Sea Research PT 1, 82, 60-71

Sarmiento, J.L., R.D. Slater, M.J.R. Fasham, H.W. Ducklow, J.R. Toggweiler and G.T. Evans (1993). A seasonal three-dimensional ecosystem model of nitrogen cycling in the North Atlantic euphotic zone. Global Biogeochemical Cycles, 7: 417-450.

Schmittner, A., (2005) Decline of the marine ecosystem caused by a reduction in the Atlantic overturning circulation, Nature, 434, 628-633.

Schmittner, A., E. D. Galbraith (2008) Glacial greenhouse gas fluctuations controlled by ocean circulation changes, Nature, 456, 373-376, doi:10.1038/nature07531.

Schmittner, A., Silva, T. A. M., Fraedrich, K., Kirk, E. and Lunkeit, F. (2011) Effects of Mountains and Ice Sheets on Global Ocean Circulation, J. Climate, 24, 2814–2829, doi:10.1175/2010JCLI3982.1.

Schuster, U., McKinley, G. A., Bates, N., Chevallier, F., Doney, S. C., Fay, A. R., González-Dávila, M., Gruber, N., Jones, S., Krijnen, J., Landschützer, P., Lefèvre, N., Manizza, M., Mathis, J., Metzl, N., Olsen, A., Rios, A. F., Rödenbeck, C., Santana-Casiano, J. M., Takahashi, T., Wanninkhof, R., and Watson, A. J. (2013). Atlantic and Arctic sea-air CO2 fluxes, 1990–2009. Biogeosciences 10, 607-627, doi:10.5194/bg-10-607-2013

Siegel, D.A., S.C. Doney and J.A. Yoder (2002). The North Atlantic spring bloom and Sverdrup’s critical depth hypothesis. Science 296:730-733.

Siegel, D. A., K. O. Buesseler, S. C. Doney, S. F. Sailley, M. J. Behrenfeld, and P. W. Boyd, 2014: Global assessment of ocean carbon export by combining satellite observations and food-web models, Global Biogeochem. Cycles, **28**, doi:10.1002/2013GB004743.

Slagstad, D., I. H. Ellingsen, and P. Wassmann. 2011. Evaluating primary and secondary production in an Arctic Ocean void of summer sea ice: An experimental simulation approach. Progress in Oceanography 90: 117-131.

Smeed, D. A., McCarthy, G. D., Cunningham, S. A., Frajka-Williams, E., Rayner, D., Johns, W. E., Meinen, C. S., Baringer, M. O., Moat, B. I., Duchez, A., and Bryden, H. L. (2014). Observed decline of the Atlantic meridional overturning circulation 2004-­2012, Ocean Sci., 10, 29-38, doi:10.5194/os-10-29-2014.

Srokosz, M., M. Baringer, H. Bryden, S. Cunningham, T. Delworth, S. Lozier, J. Marotzke and R. Sutton (2012). Past, present and future change in the Atlantic meridional overturning circulation. Bull. Am. Met. Soc., doi: 10.1175/BAMS-D-11-00151.1, Nov 2012.

Steele, M., W. Ermold, and J. Zhang. 2008. Arctic Ocean surface warming trends over the past 100 years. Geophys. Res. Lett. **35:** doi:10.1029/2007GL031651.

Straneo, F.S. and P. Heimbach (2013). [North Atlantic warming and the retreat of Greenland's outlet glaciers](http://www.nature.com/nature/journal/v504/n7478/full/nature12854.html). Nature, 504,36–43.

Vernet M, PA Matrai, and I Andreassen. 1998. Synthesis of particulate and extracellular carbon by phytoplankton at the marginal ice zone in the Barents Sea. J. Geoph. Res. 103:1023-1037.

The Changing Arctic Ocean: Special Issue on the International Polar Year (2007–2009). Oceanography. 24(3), 2011 <http://tos.org/oceanography/archive/24-3.html>

Tremblay, J. E., and J. Gagnon. 2009. The effects of irradiance and nutrient supply on the productivity of Arctic waters: a perspective on climate change, p. 73-94. In J. C. J. Nihoul and A. G. Kostianoy [eds.], Influence of climate change in the changing Arctic and sub-Arctic conditions. NATO Science for Peace and Security Series – C: Environmental security. Springer.

Wassmann, P. 2011. Arctic marine ecosystems in an era of rapid climate change. Progress in Oceanography 90: 1-17.

**REPORTS AND SCIENTIFIC PLANNING DOCUMENTS**

* Ducklow, H., C. Goyet, J. Marra (1997). [JGOFS North Atlantic Ocean Process Study Planning Workshop Report](http://www.us-ocb.org/publications/North%20Atlantic%20Planning%20Report.pdf) (5-8 April 1994), U.S. JGOFS Planning Report Number 20.
* EXPORTS, 2014: Draft of the EXport Processes in the Ocean from RemoTe Sensing (EXPORTS) NASA Field Campaign Science Plan. Draft plan available for public comment until April 25, 2014 - <http://exports.oceancolor.ucsb.edu>.
* [Galway Statement on Atlantic Ocean Cooperation](http://ec.europa.eu/research/iscp/pdf/galway_statement_atlantic_ocean_cooperation.pdf): Launching a European Union-Canada-United States of America Research Alliance (2013)
* [Report of the Scientific Workshop The Atlantic – Shared Resource](http://ec.europa.eu/research/iscp/pdf/galway_2013_scientific_workshop_report.pdf), Galway, Ireland, May 2013 (2013)
* Michalak, A., R. Jackson, G. Marland, C. Sabine and members of the Carbon Cycle Science Steering Group (2011). [A U.S. Carbon Cycle Science Plan](http://www.carboncyclescience.gov/).