Justin E. Ossolinski
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Educational Summary

2007 M.S. University of Delaware. (*Carbon budget analysis of the branching coral Madracis mirabilis*). Thesis advisor: Jonathan H. Sharp, Ph.D.

2003 B.A. Colby College, Geology-Biology
Honors thesis in Geology (*An Investigation of the Seasonal Hydrogeochemical Dynamics of a Complex Wetland in Central Maine*). Thesis advisor: Jennifer D. Shosa, Ph. D.

Employment History

Dec. 07—Current	Research Assistant III, Woods Hole Oceanographic Institution, Department of Marine Chemistry and Geochemistry (MC&G)
Sept. 05—Dec. 05	Teaching Assistant, College of Marine and Earth Studies, University of Delaware, "Introduction to Ocean Science"
Sept. 03—Sept. 04	Oakie Fellow, College of Marine and Earth Studies, University of Delaware

Research Experience

- Expert in ship-board operations, including deployment and recovery of various equipment and instruments, rigging, and collection equipment design
- Skilled in extraction of organic compounds, including intact polar lipids (IPLs), poly-unsaturated aldehydes (PUAs), from sediments, coral tissue, and open water microbes
- Expert at underwater sample collection and species (coral/fish) identification, as well as instrument deployment/recovery using SCUBA
- Developed method for extracting and analyzing (PUAs) from environmental samples
- Designed and implemented a method for growing biofilms on multiple surfaces in a controlled environment
- Proficient at running, troubleshooting and repairing: MBARI-clone DIC analyzer, Europa CF-GC/IRMS, ASE 200 organic extractor, RapidTrace Solid Phase Extraction modules, Zymark TurboVap, Metrohm Titrino, Agilent HPLC 1050, ELSD
- Experience analyzing hydrology of wetlands, especially with use of piezometers
- Experience with analyses of soil/groundwater interactions in wetland systems
- Coral reef research at Bermuda Institute for Ocean Sciences: designed and implemented annual biological field experiments
- Biological analyses of coral systems: collecting and analyzing coral growth rate and surface area analyses, quantification of zooxanthellae and coral tissue cells, chlorophyll content analyses

- Proficient in water chemical analyses: nutrient analyses (several methods), dissolved inorganic carbon (DIC), dissolved organic carbon (DOC), mass spectrometry analyses ($^{12}C/^{13}C$, $^{14}N/^{15}N$)
- Extensive experience with ship-board sampling and sample processing
- Experience with small boat operation for sampling and recreation

Computer Skills

- Extensive experience with Microsoft Office suite, especially Word, Excel, and Powerpoint
- Extensive experience with SigmaPlot
- Experience with Adobe suite
- Proficient with Ocean Data View (ODV)

Oceanographic Cruise and Field Experience

2011	7-day research cruise in the North Atlantic on the R/V Atlantic Explorer
2011	7-day coral research trip to Vietnam (13 dives total)
2010	Certified Drysuit and Nitrox Diver under NAUI and AAUS regulations
2008—2010	Six 3-week coral research trips to the Red Sea (~155 dives total)
2010	10-day research cruise in the North Pacific on the R/V Kilo Moana
2009	Certified "Scientific Diver" (including rescue diver) by NAUI and AAUS
2008	10-day research cruise in the North Atlantic on the R/V Oceanus
2007	Certified Open Water SCUBA diver (SCUBA Schools International)
2006	Cruise in the Delaware and Chesapeake Bays, on the R/V Hugh R. Sharp
2005—2006	Total of 1.5 months spent at Bermuda Institute for Ocean Sciences (BIOS) running coral reef experiments for M.S. degree
2003—2006	Four cruises in the Delaware and Chesapeake Bays, and offshore, aboard the R/V Cape Henlopen

Supervisor/Leadership Abilities

2008—2011	Hughen Lab supervisor
2008—2011	Served a supervisory role on Van Mooy cruises in North Atlantic and North Pacific
2002 & 2003	Captained Colby College Outdoor Track and Field Team, Indoor Track and Field Team, and Golf Team

Outreach Activities

2009—2011	Coach/Manager of the WHOI MC&G softball team
2006	Taught oceanography seminars to Boy Scouts to fulfill oceanography merit badge requirements during annual Camporee©, Lewes, Delaware
2005—2006	Organizer of New Student Orientation activities for students in the College of Marine and Earth Studies, University of Delaware
2004—2006	Organizer of student sports activities at the College of Marine and Earth Studies, University of Delaware

Publications

Papers:

Vardi A., Van Mooy B. A. S., Fredricks H. F., Popendorf K. J., **Ossolinski J. E.**, Haramaty L., and Bidle K. A. (2009) Viral glycosphingolipids induce lytic infection and cell death in marine phytoplankton. *Science* 326, 861-865.

Ossolinski, J.E. (2007) Carbon Budget Analysis of the Branching Coral *Madracis mirabilis*. College of Marine and Earth Studies. University of Delaware. **M.S.**

Abstracts:

Bernstein, W., Murty, S., **Ossolinski, J.**, Kneeland, J., Davis, R., Hughen, K. (2011), *Porites lobata* Extension Rate and Red Sea Temperature on Multiple Timescales. ASLO meeting, Puerto Rico.

Murty, S. A., Bernstein, W. N., **Ossolinski, J. E.**, Davis, R. S., Hughen, K. A. (2011), Multi-century Records of SST and NAO Variability from Sr/Ca in Red Sea Corals, Abstract PP43B-1679 presented at 2010 Fall Meeting, AGU, San Francisco, Calif., 13-17 Dec.

W N Bernstein, K A Hughen, **J Ossolinski** (2010)**,** Natural and Anthropogenic Stress Impacts on Extension Rates in Red Sea Corals**,** *Eos Trans. AGU, 91*(26), Ocean Sci. Meet. Suppl., Abstract IT14E-07**.**

Presentations

Ossolinski, J.E., (2010) *Novel Indicators of Environmental Stress and Coral Health*, Talk to KAUST representatives on Hughen Lab Red Sea research

Ossolinski, J.E.; Sharp, J.H.; Warner, M.E. (2006) An analysis of the Carbon Budget in Corals: Apportioning Dissolved Inorganic Carbon Uptake Among Symbiotic Zooxanthellae, Coral Host, Skeleton, and Dissolved Organic Carbon Loss. Presentation at the ASLO Aquatic Sciences Meeting, Honolulu, HI

Ossolinski, J.E.; Curless, S.E.; Sharp, J.H. (2005) A Carbon Budget Study of Symbiosis Between Zooxanthellae and Coral Animal. Presentation at the ASLO Aquatic Sciences Meeting, Salt Lake City, UT

Ossolinski, J.E.; Burrows, A.M.; Shosa, J.D. (2003) An Investigation of the Seasonal Hydrogeochemical Dynamics of a Forested Peatland in Central Maine. Presentation at the Maine Water Conference, Augusta, ME, 16 April 03

Allen, J.P.; Lansdale, A.L.; Bierwirth, M.S.; Dushman, B.E.; Kaferle, A.M.; Nesbeda, R.; **Ossolinski, J.E.**; Selover, R.W.; Gastaldo, R.A. (2003) Sediment Characteristics of Messalonskee Lake, Belgrade Lakes Region, Central Maine. Presentation at GSA Northeastern Section Meeting, Halifax, Nova Scotia

Ossolinski, J.E.; Burrows, A.M.; Shosa, J.D. (2002), An investigation of the hydrogeochemical dymanics of a forested peatland in central Maine. Presentation at GSA Annual Meeting, Denver, CO

Acknowledged in:

Bellinger, B. J. and Van Mooy, B. A. S. (in press) Non-phosphorus lipids in periphyton reflect available nutrients in the Florida Everglades, U.S.A. *J. Phycol.*

Kimberly J. Popendorf, Michael W. Lomas, Benjamin A.S. Van Mooy, Microbial sources of intact polar diacylglycerolipids in the Western North Atlantic, Organic Geochemistry, 42 (2011) 803-811.

Kimberly J. Popendorf, Michael W. Lomas, Benjamin A. S. Van Mooy, Microbial sources of intact polar diacylglycerolipids in the Western North Atlantic, Gordon Research Conference in Chemical Oceanography, August 2011, Proctor Academy, Andover, New Hampshire.

Longnecker, K., Lomas, M. W. and Van Mooy, B. A. S. (2010), Abundance and diversity of heterotrophic bacterial cells assimilating phosphate in the subtropical North Atlantic Ocean. Environmental Microbiology, 12: 2773–2782.

Vardi, A., Van Mooy, B., Fredricks, H., Haramaty, L., and Bidle, K. (2010) Chemical Arms Race at Sea: The role of sphingolipids in regulating host-virus interactions in the marine coccolithophore Emiliania huxleyi. /Ocean Sciences Meeting, /Portland, OR.

K Furby, K A Hughen, J M Kneeland, J Cervino, B Hauff (2010), Lipid Biomarker Signatures of Disease and Environmental Stress in Red Sea Corals, *Eos Trans. AGU, 91*(26), Ocean Sci. Meet. Suppl., Abstract IT14E-03.

K A Hughen, J M Kneeland, K Furby, J Cervino, E Bartels (2010), Lipid Biomarkers In Cultured Coral Fragments As Indicators Of Thermal And Disease Stress, *Eos Trans. AGU, 91*(26), Ocean Sci. Meet. Suppl., Abstract IT14E-02.

Van Mooy, B.A.S., Boyd, P., Carlson, C., White, S. (2009) Assessing Bacterial Carbon Demand (and other Processes) in the Twilight Zone: Results from VERTIGO and Future Approaches. /AGU Chapman Conference – Biological Pump/. Southampton, UK.

Van Mooy, B.A.S. (2009) Microbial lipids as indicators of microbial processes and novel anti-fouling strategies in natural ship-hull biofilms./ ONR Coatings/Biofouling Program Review./ Portland, OR.