2018 UNOLS COUNCIL SLATE

UNOLS Elections will be held to fill Council member terms that will expire this year. UNOLS Nominating Committee members Bruce Appelgate, Elizabeth Sikes, and Kipp Shearman have assembled a slate of candidates for the UNOLS Council positions to be filled. This election will be held in accordance with the UNOLS Charter as readopted 1 December 2017.

The slate and information about the candidates is available on the following pages.

CHAIR-ELECT (2 year term) – Individual affiliated with any UNOLS Member Institution

- Neal W. Driscoll - Scripps Institution of Oceanography
- Dennis A. Hansell - University of Miami

OPERATOR REPRESENTATIVE (3 year term) – Individual affiliated with any designated UNOLS Operator Member Institution

- Elizabeth B. Kujawinski - Woods Hole Oceanographic Institution
- Anita L. Lopez - University of Hawaii

NON-OPERATOR REPRESENTATIVE (3 year term) – Individual affiliated with any designated UNOLS Non-Operator Member Institution

- Amy R. Baco-Taylor - Florida State University
- Rhian G. Waller, University of Maine

AT-LARGE REPRESENTATIVE (3 year term) – Individual affiliated with any designated UNOLS Member Institution

- Mark A. Brzezinski – University of California, Santa Barbara
- Sean M. Higgins - Lamont-Doherty Earth Observatory

AT-LARGE REPRESENTATIVE (3 year term) – Individual affiliated with any designated UNOLS Member Institution

- Seth L. Danielson - University of Alaska Fairbanks
- David C. Smith - University of Rhode Island

UNOLS Council Candidate: Chair-Elect

NEAL W. DRISCOLL - SCRIPPS INSTITUTION OF OCEANOGRAPHY

Statement of Interest

I am writing to express my interest in serving on the University-National Oceanographic Laboratory System (UNOLS) committee and to nominate myself for the Chair-Elect position.

Needless to say, the funding environment for ocean-going science over the last decade has been bleak and future funding looks flat at best. Moving forward, strong leadership at UNOLS will be essential to ensuring that University scientists have ongoing access to high quality research vessels with state-of-the-art capabilities. As a career seagoing scientist, I have experience with both the single ship and multi-ship operational models. I was a graduate student at the University of Rhode Island (R/V *Endeavor*) and a research scientist at Lamont-Doherty Earth Observatory (R/V *Conrad*, then the R/V *Ewing*, and finally the R/V *Langseth*). As a researcher at Woods Hole Oceanographic Institution and a professor at the Scripps Institution of Oceanography I have spent most of my scientific career at institutions that support and maintain multiple vessels (e.g., WHOI - R/V *Atlantis*, R/V *Oceanus*, and R/V *Knorr*; SIO - R/V *Melville*, R/V *New Horizon*, R/V *Revelle*, R/V *Sproul*, R/P *FLIP* and R/V *Sally Ride*). The models are complementary and both models have strengths, but further efficiencies need to be realized to optimize sea-going expeditions. I have vast sea-going experience, have sailed on most of the UNOLS vessels, and as a result have great respect for the people who run these marine facilities. During the many years of being a sea-going scientist (my first cruise was in 1981 on the R/V *Conrad* off the Flemish Cap), I realize the importance of building relationships and balancing limited resources. It is time to build on UNOLS' successes and continue to improve the capability of our fleet so it can continue to help scientists answer fundamental oceanographic questions.

Bottom line, why would you nominate me for the UNOLS chair-elect positon? First and foremost, I am committed to training the next generation of sea-going scientists on state-of-the-art research platforms, which is evidenced by my track record of graduating over 20 students who are experienced and well-trained sea-going scientists, often with chief scientist experience prior to graduation. Second, my concerns about future funding for seagoing research pale in comparison to my concerns about the planet. We are in a time where oceanographic, weather and fire phenomena are increasingly characterized as the "worst", "biggest", and "largest"….. as goes the ocean so goes the planet. It is time to push aggressively to preserve and improve our capacity to conduct critically important research that can only be achieved on research vessels. We cannot afford to be passive. I will speak to the need for continued and improved access to the ocean on state-of-the-art research vessels and will listen to and collaborate with our marine facility experts to make this happen.

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Geosciences Research Division
SCRIPPS INSTITUTION OF OCEANOGRAPHY

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NEAL WILLIAM DRISCOLL

Professor of Geology and Geophysics

PROFESSIONAL PREPARATION

1992 Ph.D. Marine Geology and Geophysics. Lamont-Doherty Geological Observatory of Columbia University, New York, N.Y. Thesis Title: Tectonic and Depositional Processes inferred from Stratal Relationships, 464 pgs. J.K. Weissel and N. Christie-Blick, Advisors.

1987 M.S. Geological Oceanography. Graduate School of Oceanography, University of Rhode Island, Narragansett, R.I. Thesis Title: Abyssal Circulation Influence on the Southwest Bermuda Rise, 127 pgs. G.S. Mountain and E.P. Laine, Advisors.

1981 B.S. Geology. University of New Hampshire, Durham, N.H.

APPOINTMENTS

2012 – 2017, Director of the Geosciences Program, Scripps Institution of Oceanography, University of California, San Diego

2004 – Present. Founder and President of Environmental and Marine Solutions

2001- Present. Professor of Geology and Geophysics, Scripps Institution of Oceanography, University of California, San Diego

2000 – 2001 (July). Associate Professor, Scripps Institution of Oceanography

1999 - February 2000. Associate Scientist, Woods Hole Oceanographic Institution

1995 - 1999 Assistant Scientist, Woods Hole Oceanographic Institution, *Adjunct Associate Research Scientist Lamont*-Doherty Earth Observatory/Columbia University

1994 - 1995 (September) Storke-Doherty Lecturer, Lamont-Doherty Earth Observatory/Columbia

1993 - 1994 (January). Associate Research Scientist, Lamont-Doherty Earth Observatory

1992 - 1993 (March). Post-Doctoral Research Scientist, Lamont-Doherty Earth Observatory

1987 - 1992 Graduate Research Assistant, Lamont-Doherty Geological Observatory; Columbia University Faculty Fellow

1985 - 1987 Graduate Research Assistant, Graduate School of Oceanography, University of Rhode Island; awarded Argonne National Laboratories Fellowship.

1983 - 1985 Graduate Research Assistant, Graduate School of Oceanography, University of Rhode Island; Curator of Deep-sea cores and dredges

1981 - 1983 Research Assistant, Woods Hole Oceanographic Institution, Brian Tucholke, Supervisor, Digitization and interpretation of seismic reflection data.

SELECTED PUBLICATIONS AND PRODUCTS (I have over 100 peer reviewed publications)

Driscoll, N.W., Weissel, J.K., and Goff, J., (2000). Potential for Large-Scale Submarine Slope Failure and Tsunami Generation along the Mid-Atlantic Coast, Geology, v. 28: 407-410.

blowouts along the U.S. Atlantic margin. J. Geophys. Res. 109: B09101, 1-14.
Brothers, D.S., Driscoll, N.W., Kent, G.M., Harding, A.J., Babcock, J.M., and Baskin, R.L., (2009). Tectonic evolution of the Salton Sea inferred from seismic reflection data. Nature Geoscience 2, 581-584
Le Dantec, N., Hogarth, L., Driscoll, N., Babcock, J., Barnhardt, W., and Schwab, W., (2010). Tectonic Controls on Nearshore Sediment Accumulation and Submarine Canyon Morphology Offshore La Jolla, Southern California. Marine Geology, V.268:115-128.
Driscoll, N.W. and G.D. Karner (1998). Lower crustal extension across the Northern Carnarvon Basin, Australia: Evidence for an eastward dipping detachment. Journal of Geophysical Research, v. 103: 4975-4992
Donnelly, J.P., Driscoll, N.W., Uchupi, E., Keigwin, L.D., Schwab, W.C., Thieler, E.R., and Swift, S.A., (2005). Catastrophic meltwater discharge down the Hudson Valley: A potential trigger for the Intra-Allerød cold period Geology V.33, 2: 89–92 DOI: 10.1130/G21043.1
Hogarth, L.J., Babcock, J., Driscoll, N.W., Le Dantec, N., Haas, J.K., Inman, D.L., and Masters, P.M., (2007). Long-term tectonic control on Holocene shelf sedimentation offshore La Jolla, California. Geology, V. 35, 3: 275–278 doi: 10.1130/G23234A.1
Hill, J.C. and N. W. Driscoll (2008). Paleodrainage on the Chukchi shelf reveals sea level history and meltwater discharge. Marine Geology 254: 129–151
Malloney, J.M., Noble, P.J., Driscoll, N.W., Kent, G.M., Smith, S.B., Schauder, G.C, Babcock, J.M, Baskin, R.L., Karlin, R., Kell, Seitz, G.G., Zimmerman, S., and Kleppe, J.A. (2013). Paleoseismic History of the Fallen Leaf Segment of the West Tahoe-Dollar Point Fault Reconstructed from Slide Deposits in the Lake Tahoe Basin, California-Nevada. Geosphere 26 June 2013; doi:10.1130/GES00877.1
Driscoll, N.W. and G.H. Haug (1998). A short circuit in the ocean's thermohaline circulation: A potential cause for northern hemisphere glaciation. Science, v. 282: 436-43

SYNERGISTIC ACTIVITIES

2013 US Coast Guard Arctic Service Medal
I have graduated 21 graduate students from 2000 – 2015. I have also supervised 7 post-doctoral scholars; 5 at UCSD.
2005 NSF Margins Distinguished Lecturer
2003 Scripps Institution of Oceanography Outstanding Undergraduate Teacher Award
I have over 30 years of sea-going experience and have conducted over 85 cruises from 1983 to 2015; responsibilities include vessel operation, equipment development, seismic data acquisition, designing seismic surveys, and post-cruise processing and interpretation.

COLLABORATORS

Ken Smith, Graham Kent, Paula Noble, Steve Wesnousky; Jayne Bormann, Robert Carlin, Annie Kell, Frank Biondi, University of Nevada, Reno, William Schwab, Jane Denny, Wayn Baldwin, Walter Barbhard, Robert Baskin, Daniel Brothers, Peter Dartnell, Jarad Kleusner, Karen Luttrell, Gary Fuis, USGS; Joanne Stock, CalTech; John Hole, Virginia Tech; Eli Silver, Steven Ward, UC Santa Cruz; Paul Umhoefer, Northern Arizona University; Gordon Seitz, California Geological Survey ; Paul Gayes, Jenna Hill, Coastal Carolina University ; Lloyd Keigwin, Jeff Donnelly, Woods Hole Oceanographic Institution ; Gulsen Ucarkus, UTI; Ramon Arrowsmith, Arizona State University

Ph.D. Thesis Advisors: Nicholas Christie-Blick and Jeffrey Weissel

UNOLS Council Candidate: Chair-Elect

DENNIS A. HANSELL, UNIVERSITY OF MIAMI

Statement of Interest

I first became aware of the UNOLS Council in the early 1990's when I was a young scientist at the Bermuda Biological Station for Research (now BIOS). When our marine superintendent left the institution in Fall 1993, Director Tony Knap asked me to work with the RV *Weatherbird* II Captain Lee Black in preparing the proposals to NSF required to operate the vessel. I was happy to help because I wanted to learn the *business of science*, and the research fleet is a big part of our business. For the balance of my time in Bermuda I stayed involved, learning a great deal from Capt. Black and serving as PI on NSF grants for vessel operations, marine tech support, and ship instrumentation and equipment (totaling $11M). I also worked closely with and learned (the hard way) from the great NSF program manager Ms. Dolly Dieter. Between these two mentors, I experienced a crash course in all things *scientific marine ops*. To further the training, I attended the UNOLS Annual Meetings, with election to the Council in 1996. I served two terms, through my move to Miami, stepping off in 2002. While with the Council, I served on various subcommittees, such as office site selection (Mike Prince and MLML were the awardees in that competition) and nominating committees. I was young and inexperienced, but I did what I could to help. Over the years since, I tried to stay in touch with the office through occasional chats with Annette and Jon; this year I was pleased to serve again with the office site selection-competition committee. Peter Ortner, a recent Council chair and Miami colleague, has also kept me generally apprised of activities.

Because it has been 16 years since I served the Council, I do not have deep insights on the challenges faced by the organization now. I am pleased by the successes in construction of new vessels; some of those were in early discussion when I served, proving how long a process is fleet renewal. I do note the difficulties for the BATS and HOT programs in keeping vessels reliably available for their *time-series* work; the US has spent many millions $$ on those programs, and the science community expects that they be protected.

I am an active research scientist, teacher and mentor. I enjoy service as a balance to my other responsibilities, so I have kept busy since leaving the Council. I have served as chairman for two academic departments at RSMAS, chaired a US national science committee responsible for carbon science, and continue as a member of the Board of Trustees at BIOS. I would bring to the position of chair-elect some skills, some relevant experience, and commitment.

DENNIS A. HANSELL, PH.D.
Professor and Chair
Department of Ocean Sciences
RSMAS, University of Miami
4600 Rickenbacker Causeway
Miami, FL 33149

Biographical Sketch:

Professional Experience:

2001-pres	*Professor*, University of Miami
1992-2000	*Assistant, Associate & Senior Research Scientist*, Bermuda Inst. for Ocean Science
1991-92	*Research Associate*, School of Oceanography, University of Washington
1989-91	*Postgraduate Research Scientist*, University of California at Santa Cruz

Education:

1989	Ph.D.	University of Alaska Fairbanks	Oceanography
1980	M.S.	Auburn University	Fisheries Science
1978	B.A.	Humboldt State University	Biology

Research Interests: Ocean carbon and nitrogen biogeochemistry; open ocean and polar systems; ocean time-series and global ocean surveys

Field Research for my laboratory since 2005:

2018	Ocean Micro-gels, Gulf of Alaska (NSF)
2018	EXPORTS Project, Gulf of Alaska (NASA)
2018	Southern Ocean (CLIVAR SP4), GO-SHIP Program (NSF)
2018	Indian Ocean (CLIVAR IO7), GO-SHIP Program (NSF)
2016-17	SE Pacific Ocean (CLIVAR P18), GO-SHIP Program (NSF)
2015	Western Arctic, GO-SHIP and GEOTRACES Programs (NSF)
2015	Eq. & North Pacific (CLIVAR P16N), GO-SHIP Program (NSF)
2013-14	South Atlantic (CLIVAR A16S), Repeat Hydrography Program (NSF-OCE)
2013	Gulf of Alaska (NSF-OCE) *Chief Scientist*
2013	Ross Sea; TRACERS Study (NSF-OPP) *Chief Scientist*
2013	North Atlantic (CLIVAR A16N), Repeat Hydrography Program (NSF-OCE)
2013	Black Sea; Dutch GEOTRACES (NSF-OCE)
2012	Western North Atlantic (CLIVAR A22/20), Repeat Hydrogr. Prog. (NSF)
2011	Southern Ocean (CLIVAR SP4), Repeat Hydrography Program (NSF)
2010	South Atlantic (CLIVAR A13.5), Repeat Hydrography Program (NSF)
2009	Indian Ocean (CLIVAR I5), Repeat Hydrography Program (NSF)
2008	Barbados Atmospheric Sampling (NSF)
2008	SE Pacific Ocean (CLIVAR P18), Repeat Hydrography Program (NSF)
2008	Circumpolar Arctic, *Polarstern* (NSF)
2007	Indian Ocean (CLIVAR I8/I9), Repeat Hydrography Program (NSF)
2007	Barbados Atmospheric Sampling (NSF)
2005	Eq. & North Pacific (CLIVAR P16N), Repeat Hydrography Program (NSF)

2005 South Atlantic (CLIVAR A16S), Repeat Hydrography Program (NSF)
2005 Agulhas Current and Rings Survey (NSF; SOO)
2004 North Pacific (CLIVAR P02), Repeat Hydrography Program (NSF)
2004-05 Sargasso Sea, Mesoscale Eddy Study (NSF)

Selected Service:

International

2010-2017 International Scientific Advisory Committee, Centro De Investigación En Ecosistemas De La Patagonia (CIEP), Coyhaique, Aysén, Chile.
1998-pres *Director*, Dissolved Organic Carbon Consensus Reference Material Program
2009-2011 International Scientific Committee, ASLO Aquatic Sciences Meeting, 2011, Puerto Rico
2004-2007 IGBP/SCOR IMBER Scientific Steering Committee
2002-2003 Executive Committee, IGBP/SCOR Joint Global Ocean Flux Study

National

2018 AGU Fall Meeting Program Committee (AGU's 100th Anniversary)
2018 UNOLS Office Re-competition Committee
2015-2017 AGU Maurice Ewing Medal Committee
2013-pres Board of Trustees, Bermuda Institute of Ocean Sciences
2010-2013 *Chair*, United States Carbon Cycle Science Steering Group (member since 2008)
1996-2002 UNOLS Council
2001-2001 Program Committee, 2002 AGU/ASLO Ocean Sciences Meeting
2001 UNOLS Nominating Committee
1999 UNOLS Office Site Selection Advisory Committee
1998 *Chair*, UNOLS Nominating Committee
1996-98 Program Committee, 1998 AGU/ASLO Ocean Sciences Meeting
1996-99 US JGOFS Scientific Steering Committee

Institutional

2014-2018 *Chair,* Department of Ocean Sciences
2010-2014 University of Miami Research Council
2002-2009 *Chairman*, Division of Marine and Atmospheric Chemistry, Univ. of Miami
2008-2011 University of Miami Representative, Arctic Research Consortium of the United States
1993-2000 BIOS Representative to UNOLS
1993-2000 *Faculty Liaison*, BIOS Marine Operations Department

Publications *Books* – 2; *book chapters – 11; journal articles (peer reviewed)* >110

Website: https://people.miami.edu/profile/d.hansell@miami.edu

UNOLS Council Candidate: Operator Representation

ELIZABETH B. KUJAWINSKI – WOODS HOLE OCEANOGRAPHIC INSTITUTION

Statement of Interest

My first trip on a UNOLS vessel over 25 years ago cemented my interest and desire to be an oceanographer. Since that time, I've participated in numerous cruises in different capacities, ranging from student to chief scientist. Every time I am out on the water, I am humbled by the power of the ocean and the scope of what we still don't know about this critical piece of our planet. In my own research area, field work is a critical component of any research program that seeks to place laboratory results into an environmentally relevant context. With the decline in NSF proposal success rates and the pressures of maintaining costly ship operations, I perceive a move towards laboratory-based projects by my peers. However, this is detrimental to our knowledge in the long run and innovative solutions must be considered to support continued field-going programs.

I am interested in participating in the UNOLS council in order to facilitate and support the UNOLS capability in US-based oceanographic research. As a scientist interested in the intersection of chemistry and microbiology, I am keen to explore and support new sampling platforms that enable GEOTRACES-like sampling for large-volume biological and chemical analyses such as genomics, transcriptomics, proteomics and metabolomics. These platforms are ship-based, requiring the support of UNOLS vessels, yet are remotely-operated to reduce the need for wire time. As a concerned citizen and parent, I am eager to explore ways to expand the outreach of science cruises to K-12 and secondary education venues. During my recent cruises, I have engaged elementary school classrooms in Skype calls about my science activities as well as life at sea. These types of one-off activities are limited in their scope and thus have a very small impact on national science awareness. I would be interested in understanding the current capacity for outreach activities on UNOLS vessels and in developing more efficient and effective ways to engage the US public in our activities to understand our planet. Given my experience and interests, I hope to contribute positively to the activities of the UNOLS council and appreciate the opportunity to serve the oceanographic community in this role.

ELIZABETH B. KUJAWINSKI
Associate Scientist with Tenure
Dept. of Marine Chemistry and Geochemistry (MC&G) Telephone: (508)-289-3493
Woods Hole Oceanographic Institution (WHOI) Email: ekujawinski@whoi.edu
Woods Hole, MA 02543

PROFESSIONAL PREPARATION:

Massachusetts Institute of Technology, Chemistry, S.B., 1994
MIT/WHOI Joint Program in Oceanography, Chemical Oceanography, Ph.D., 2000
Ohio State University, Environmental Analytical Chemistry (ESI FT-ICR MS), 2000-2001
Marine Biological Laboratory, Microbial Diversity summer course, 2005

APPOINTMENTS:

Associate Scientist (tenure awarded 2013); MC&G - WHOI, Woods Hole, MA. January 2009 - present
Director, FT-MS facility; WHOI, Woods Hole, MA. October 2007 – present
Assistant Scientist; MC&G - WHOI, Woods Hole, MA. August 2004 – December 2008
Affiliate member, Department of Earth and Environmental Sciences; Columbia University, New York, NY. July 2003 – August 2004
Assistant Professor of Environmental Science; Barnard College, New York, NY; Adjunct Associate Research Scientist; Lamont-Doherty Earth Observatory (LDEO); Palisades, NY. 1/2002 – 8/2004

FIVE MOST RELEVANT PRODUCTS (*-Student co-author*)*:**

- Kujawinski, E. B., K. Longnecker, H. Alexander*, S. T. Dyhrman, C. L. Fiore, S. T. Haley and W. M. Johnson*. 2017. Phosphorus availability modulates intracellular nucleotides in marine eukaryotic phytoplankton. *L&O: Letters.* **2:** 119-129
- Johnson, W. M.*, M. C. Kido Soule, E. B. Kujawinski. 2016. Evidence for quorum sensing and differential metabolite production by a marine bacterium in response to DMSP. *ISME J.* **10**: 2304-2316
- Moran, M. A., E. B. Kujawinski, A. Stubbins, R. Fatland, L. I. Aluwihare, A. Buchan, B. C. Crump, P. C. Dorrestein, S. T. Dyhrman, N. J. Hess, B. Howe, K. Longnecker, P. M. Medeiros, J. Niggemann, I. Obernosterer, D. J. Repeta, J. R. Waldbauer. 2016. Deciphering ocean carbon in a changing world. *Proc. Nat. Acad. Sci.* **113:** 3143-3151. (co-corresponding author)
- Longnecker, K., J. Futrelle, E. Coburn, M. C. Kido Soule, E. B. Kujawinski. 2015. Environmental metabolomics: Databases and tools for data analysis. *Mar. Chem.* **177:** 366-373.
- Durham, B. P.*, S. Sharma, H. Luo, C. B. Smith, S. A. Amin, S. J. Bender, S. P. Dearth, B. A. S. Van Mooy, S. R. Campagna, E. B. Kujawinski, E. V. Armbrust, M. A. Moran. 2015. Cryptic carbon and sulfur cycling between surface ocean plankton. *Proc. Nat. Acad. Sci., USA.* **112:** 453-457.

FIVE OTHER PRODUCTS:

- Götz, F., K. Longnecker, M. C. Kido Soule, K. W. Becker, J. McNichol, E. B. Kujawinski, S. M. Sievert. 2018. Targeted metabolomics reveals proline as major osmolyte in the chemolithoautotrophic epsilonproteobacterium *Sulfurimonas denitrificans*. *MicrobiologyOpen.* **3**: e586
- Kujawinski, E. B., K. Longnecker+, K. A. Barott, R. J. M. Weber and M. C. Kido Soule. 2016. Microbial community structure affects marine dissolved organic matter composition. *Front. Mar. Sci.* **3**: 45.
- Fiore, C. L., K. Longnecker, M. C. Kido Soule, E. B. Kujawinski. 2015. Release of ecologically relevant metabolites by the cyanobacterium *Synechococcus elongatus* CCMP 1631. *Env. Microbiol.* **17:** 3949-3963
- Kido Soule, M. C., K. Longnecker, W. M. Johnson*, E. B. Kujawinski. 2015. Environmental metabolomics: Analytical strategies. *Mar. Chem*. **177**: 374-387.
- Kujawinski, E. B. 2011. The impact of microbial metabolism on marine dissolved organic matter. *Ann. Rev. Mar. Sci*. **3**: 567-599.

SYNERGISTIC ACTIVITIES (last 48 months):

Associate Editor: *Marine Chemistry* (2011-15, 2017-present)

Committee member: WHOI Joint Program Alumni Mentoring Network (MC&G chair; 2009-present); MIT/WHOI Joint Committee on Chemical Oceanography (2010-16; Chair 2013-16); NHMFL FT-ICR MS Users' Facility Steering Committee (2014-17); UNOLS Steering Council (2017-present); Steering Group Leadership Team for GoMRI synthesis project in Advanced Chemical Analyses (2018-present)

Instructor: Chemical Oceanography in 2017 School of Oceanography for post-graduate students in Ghana - delivered 2 lectures and organized one laboratory session (Aug 2017); courses in the MIT/ WHOI Joint Program in Oceanography: Marine Chemistry (Fall 2017, 2018); The Chemistry of the Ocean Microbiome (seminar series; Spring 2018); Hot Topics in Chemical Oceanography (seminar course; Spring 2015, 2017).

Outreach: Presentation and Q&A sessions via in-class presentations for Pre-Kindergarten class at Arlington Children's Center, Arlington MA (March-April 2017); Presentation on acid-base chemistry for Science Night, 2nd-4th graders, Winn Brook Elementary School, Belmont MA, April 2016; Presenting panelist for "Pathway to Professorship" workshop, MIT (Nov 2014)

Reviewer (Manuscripts): *Analytical Chemistry; Aquatic Microbial Ecology; Environmental Microbiology; Environmental Science & Technology; Environmental Science & Technology – Letters; Geochimica et Cosmochimica Acta; Geophysical Research Letters; Journal of Geophysical Research – Biogeosciences; Journal of Mass Spectrometry; Limnology & Oceanography; Limnology & Oceanography – Letters; Limnology & Oceanography – Methods; Nature Communications; Nature Ecology & Evolution; Nature Geoscience; Organic Geochemistry; PLOS One; PNAS; Science Advances*

Reviewer (Proposals): German DAAD Fellowships, NSF Arctic Natural Systems, NSF Biological Sciences, NSF Biological Oceanography, NSF Chemical Oceanography, NSF Ecosystem Studies, NSF Low Temperature Geochemistry, NSF Major Research Instrumentation (MRI), Ohio Sea Grant, National High Magnetic Field ICR Users' Facility

UNOLS Council Candidate: Operator Representation

Anita L. Lopez – University of Hawaii

Statement of Interest

Marine operators are faced daily with challenges that erode their ability to successfully meet mission objectives and customer expectations with increased operational costs, vessel maintenance, integration of new technology, and regulatory requirements. As a result, the research community has seen a steady decline in funding to meet the increasing demand for oceanographic data collected on an aging infrastructure. In order to collectively meet these challenges head on, it takes a community to work together to find opportunities to maximize the use of our platforms and leverage limited resources to benefit all. University-National Oceanographic Laboratory System (UNOLS) has and will continue to be this nucleus body to address these issues and build on increasing our data collection capacity, improve our customer service and program support, strengthen our partnerships for efficient use of available resources, establish common standards for the betterment of the community and identify innovative technology to increase the quality and value of our collective platforms.

Over the past four years, I had the privilege to serve as the operational leader of the National Oceanic and Atmospheric Administration (NOAA) fleet. This fleet was faced with the same challenges that plague our seagoing industry. During my tour as the Deputy Director of Operations, I focused on developing new partnerships, vessel and personal safety, consolidating shore side infrastructure, vessel recapitalization, vessel maintenance, and compliance with industry and regulatory standards to effect improvements in our vessel support services.

I gained valuable experience while implementing these strategic goals and with our team's efforts succeeded on many fronts. For example, improved partnerships and collaboration with UNOLS resulting in sharing of vessel scheduling information and leveraging vessel availability across the two fleets to benefit the research community as a whole. Committed to vessel safety, I developed the business case and gained support to launch the NOAA Sexual Assault and Sexual Harassment Helpline. I partnered with National Science Foundation and UNOLS to develop a new anti-harassment training video for use on all federal research vessels and instituted an anonymous vessel survey in the NOAA fleet to monitor command climate on their vessels. On my retirement from active duty service earlier this year, the NOAA fleet was successfully managed as a single codified organization, operating under a sustainable structure, rooted in performance and operational risk management concepts, and fully compliant with industry safety standards and regulations.

My interest in serving on the UNOLS Council is to provide my experience and lessons learned in improving efficiencies in scheduling and coordination of shared resources for the betterment of the whole research community. Thank you for your time and consideration.

Biographical Sketch: Anita L. Lopez

Address
University of Hawaii Marine Center
965 N. Nimitz Hwy
Honolulu, Hawaii 96817 (808) 956-0688
Alopez8@hawaii.edu, Fax: (808) 587-8557

Professional Preparation
Graduate studies Brookings Institute, 2006-2008 in Public Leadership
University of Washington, 1998-2000 in Project Management
B.S., DeVry Institute of Technology, 1989 in Electronic Engineering Technology

Appointments

04-18-Present	Director of Research Vessel Operations, School of Ocean Earth Sciences and Engineering, University of Hawaii	
01/14-03/18	Deputy Director of Operations, Office of Marine and Aviation Operations, National Oceanic and Atmospheric Administration (NOAA)	
06/12-12/13	Commanding Officer	Marine Operations Center, Atlantic, NOAA
02/11-05/12	Executive Director	Deputy Under Secretary for Operations, NOAA
08/08-02/11	Commanding Officer	NOAA, *Ship Oscar Elton Sette*
02/06-08/08	Senior Analyst	NOAA, Office of Program Analysis and Evaluation
09/03-02/06	Executive Officer	NOAA Ship *Miller Freeman*
06/99-09/03	Assoc. Director of Ops.	National Marine Mammal Laboratory, NOAA
06/97-06/99	Operations Officer	NOAA Ship *David Starr Jordan*
01/94-06/97	Operations Manager	Pacific Marine Environmental Laboratory, NOAA
05/91-12/93	Navigation Officer	NOAA Ship *Discoverer*
01/91-04/91	Officer Candidate	NOAA Commissioned Officer Corps
01/90-01/91	Engineering Tech.	Rockwell International, Semiconductor Systems
02/89-01/90	Installation Engineer	Varian Associates

Duties as Director of Research Vessel Operations
Anita Lopez is responsible for the administration and operations of the University of Hawai'i Marine Center (UHMC), which includes the school's oceanographic research vessels, small boats, submersibles, oceanographic research instrumentation and vessel facilities. She serves as Principal Investigator (PI) or Co-Principal Investigator (Co-PI) on proposals that include operation, maintenance, or upgrade of the research vessels. She serves as a primary interface with Federal and State agencies concerning funding, scheduling, and regulation of UH marine facilities and operations. Chairs the Ship Operations Subcommittee of the SOEST Research Council, coordinating operations with the research requirements of the University of Hawai'i faculty. Manages the interface with State and local officials for vessel operational support, and ensures full compliance with State and Federal regulations. Leads the recapitalization project of UHMC infrastructure to include vessel acquisition.

Recent synergistic activities
Co-led NOAA's Unmanned Systems Oversight Board providing operational and policy directives for NOAA's emerging technology platforms for scientific data collection. Improved effectiveness of NOAA's unmanned system programs and established agency operational policies in full compliance with Presidential Executive Orders and the Federal Aviation Administration. Provided direct oversight of NOAA's operational support and products to emergency managers in the 2011 Tohuku, Japan earthquake/tsunami event and Fukushima nuclear disaster in coordination with the White House's Office of Science and Technology and Policy. Developed and standardized engineering diagrams to improve climate mooring system deployments on U.S. and foreign vessel platforms.

Field programs
Participant in more than 110 oceanographic, hydrographic, and fisheries research cruises from 1991 through 2012, in the Bering Sea, Gulf of Alaska, Pacific Ocean, Philippine Sea, Gulf of California, Caribbean Sea, and Atlantic Ocean. Installed and trained personnel in the operation of multimillion dollar semiconductor manufacturing systems in Korea and Japan.

UNOLS Council Candidate: Non-Operator Representation

AMY R. BACO-TAYLOR - FLORIDA STATE UNIVERSITY

Statement of Interest

This letter is a self-nomination for a position on the UNOLS council in the Non-Operator Institution or At-Large categories. I am currently a tenured Associate Professor in the Earth, Ocean and Atmospheric Sciences Department at Florida State University. As a part of my research focusing on the ecology and biology of deep-sea corals and chemosynthetic ecosystems, I have led or participated in oceanographic expeditions in many locations in the world including, Hawaii, Alaska, New Zealand, Antarctica, the Bahamas and the Gulf of Mexico, using human-occupied submersibles, ROVs, and AUVs.

I have been working on both UNOLS and non-UNOLS vessels as well as with deep submergence assets since the start of my graduate career in 1995, which kicked off with a research cruise to study deep-sea whale falls off San Diego, using the Navy-operated HOV *Turtle* and the ROV *ATV*. During my graduate career I participated in cruises that included the RVs *Lawrence Gould, New Horizon, Atlantis II, Sproul, Laney Chouest, KOK, Edwin Link*, and the *Western Flyer*. Since that time, I have sailed on several additional ships (including the ones currently up for refit – *Revelle* and the *Atlantis*) and served as Chief Scientist or co-Chief Scientist on cruises utilizing the *Pisces*/ ROV RCV-150, the AUV *Sentry*, and *Alvin*, as well as a cruise as co-Chief Scientist on the New Zealand ship the RV *Tangaroa*. I have also utilized the *Johnson-Sealink II*, as well as ROVs *Jason II*, ATV, *Scorpio*, *Tiburon*, and RCV-150.

The array of ships and vehicles I have worked with is unusually broad and has provided many insights I can bring to the table to make a contribution to the UNOLS committee. I am particularly interested in contributing to in two areas, support of human-occupied vehicle (HOV) assets, and development of new technologies. Over the course of my career I have seen the decline in availability of HOVs from 7 available US vehicles down to just one. Each of the lost
HOV assets occupied a key niche in US deep-sea science and most have not been replaced with ROVs or any other deep submergence assets. The loss of these vehicles has been an impediment to the deep-sea scientific community and I would like to participate in UNOLS to help advocate for additional assets, HOV or otherwise.

I am also very interested in seeing the development of new technologies for oceanographic research. AUVs have significantly broadened our horizons for study of marine communities, but still have some limitations. For example in our work with AUV Sentry in the NWHI, we were limited in areas we could survey by the angle of the seafloor slope on the seamounts we were studying. This limitation prevented us from going to several of our planned sites. Figuring out a way to make steep terrain and strong current areas accessible to more types of deep-sea vehicles will improve our ability to characterize the communities of these areas, which are often rich in both diversity and biomass. I also think that recent developments in image recognition

software could accelerate the analyses of AUV images and am interested in exploring options for incorporating image recognition software into AUVs both during the dive and for post-dive processing.

With the wonderful opportunities I have had in my career to use a variety of ships and deep-submergence assets, I would like to give back to the oceanographic community by participating in the UNOLS council. Thus I am applying for this position and would bring 20+ years of field experience across 4 oceans to benefit the position.

AMY R. BACO-TAYLOR
Department of Earth, Ocean, and Atmospheric Science
Florida State University, 117 N. Woodward Avenue
Tallahassee, FL 32306-4320

Professional Preparation

Florida Institute of Technology	Marine Biology	B.Sc., 1995, with high honors
Florida Institute of Technology	Molecular Biology	B.Sc., 1995, with high honors
University of Hawaii at Manoa	Oceanography	Ph.D., 2002
Woods Hole Oceanographic Inst.	Biology	Postdoctoral Scholar 2002-04

Appointments

2014-	**Associate Professor,** Department of Earth, Ocean, and Atmospheric Sciences, Florida State University
2008-2014	**Assistant Professor,** Department of Earth, Ocean, and Atmospheric Sciences, Florida State University
2007-2008	**Assistant Scientist,** Associated Scientists at Woods Hole
2007-2008	**Visiting Scientist,** Marine Biological Laboratory, Woods Hole
2005-2008	**Affiliate Assistant Professor**, University of Alaska Fairbanks, Juneau Center, School of Fisheries and Ocean Sciences
2004-2006	**Visiting Investigator**, Woods Hole Oceanographic Institution
2002-2004	**Postdoctoral Scholar**, Woods Hole Oceanographic Institution
2001	**Lecturer**, Oceanography Department, University of Hawaii at Manoa
1995-2002	**Graduate Research Assistant**, Oceanography Department and Center for Conservation Research and Training, University of Hawaii at Manoa.
1998	**Visiting Student**, Biochemistry, Microbiology, and Molecular Biology Department, University of Maine.
1995, 1996	**Visiting Student**, Center for Theoretical and Applied Genetics, Rutgers.
1994	**NSF Research Experience for Undergraduates**, University of Hawaii

Products (5 Most Relevant) [h-index - **26**, i10 index - **42**, per Google Scholar, August 2018]
*** denotes work in my lab by a student or postdoc author**

Baco, A.R., *N.B. Morgan, E.B. Roark, M. Silva, K. Shamberger, K. Miller. 2017. Defying dissolution, discovery of deep-sea scleractinian coral reefs in the North Pacific. *Scientific Reports*. 7: 5436 |DOI:10.1038/s41598-017-05492-w

Baco, A.R., R. Etter, P. Beerli, P. Ribeiro, S. von der Heyden, and B. Kinlan. 2016. A synthesis of genetic connectivity in deep-sea fauna and implications for marine reserve design. *Molecular Ecology* 25: 3276-3298. doi: 10.1111/mec.13689.

Levin, L.A., **A.R. Baco**, D. Bowden, A. Colaco, E. Cordes, M.R. Cunha, A. Demopoulos, J. Gobin, B. Grupe, J. Le, A. Metaxas, A. Netburn, G. Rouse, A. Thurber, V. Tunnicliffe, C. Van Dover, A. Vanreusel, and L. Watling. 2016. Hydrothermal Vents and Methane Seeps: Rethinking the Spheres of Influence. *Frontiers in Marine Science* 3:72. doi: 10.3389/fmars.2016.00072

*Long, D. and **A.R. Baco**. 2014. Rapid change with depth in megabenthic structure-forming communities in the Makapu'u deep-sea coral bed. *Deep-Sea Research*, doi:10.1016/j.dsr2.2013.05.032.

*Morgan, N.B., S. Cairns, H. Reiswig, **A.R. Baco**. 2015. Benthic megafaunal community structure of cobalt-rich manganese crusts on Necker Ridge, North Pacific Ocean. *Deep-Sea Research I.* 104: 92-105. doi: 10.1016/j.dsr.2015.07.003.

Products (5 additional)

Baco, A.R. 2007. Exploration for deep-sea corals on North Pacific seamounts and islands. **Invited** for special volume of *Oceanography* 20(4): 58-67.

Baco, A.R. and S.D. Cairns. 2012. Comparing molecular variation to morphological species designations in the deep-sea coral genus *Narella* reveals new insights into seamount coral ranges. *PLoS ONE* 7(9): e45555. doi:10.1371/journal.pone.0045555

*Figueroa, D. and **A.R. Baco**. 2014. Octocoral mitochondrial genomes provide insights into the phylogenetic history of gene order rearrangements, order reversals, and also into the use of mitochondrial genomes for cnidarian phylogenetics. *Genome Biology and Evolution* doi:10.1093/gbe/evu286.

Parrish, F., **A.R. Baco,** C. Kelley, and H. Reiswig. 2015. State of Deep Coral and Sponge Ecosystems of the United States Pacific Islands Region. In: Hourigan TF, Etnoyer PJ, Cairns SD, Tsao C-F (eds) State of Deep-Sea Coral and Sponge Ecosystems of the United States 2015. NOAA Technical Memorandum. NOAA, Silver Spring, MD. p 7-1 to 7-38.

Yesson, C., M. Taylor, D. Tittensor, A. Davies, J. Guinotte, **A.R. Baco,** J. Black, J. Hall-Spencer, A. Rogers. 2012. Global habitat suitability of cold water octocorals. *Journal of Biogeography* 39(7): 1278-1292.

Synergistic Activities

[1] Investigation of Deep-Sea Ecosystems (INDEEP) (2010-present)
[2] Census of Marine Life, Chemosynthetic Ecosystems (ChEss) Steering Committee Member (2003-2010)
[3] Census of Marine Life, Seamounts (CenSeam) Steering Committee Member (2005-2010)
[4] Invited speaker – North Pacific Fisheries Commission/ FAO Workshop Protection of Vulnerable Marine Ecosystems in the North Pacific Fisheries Commission Area: applying global experiences to regional assessments - Yokohama, Japan, 2018
[5] Contributions to numerous web sites and articles in general-readership magazines on deep-sea corals and seamounts and on whale fall macrofauna, e.g.
http://ocean.si.edu/ocean-news/amy-baco-taylor
http://oceanexplorer.noaa.gov/edu/oceanage/04baco_taylor/welcome.html
http://oceanexplorer.noaa.gov/explorations/06newzealand/welcome.html
https://www.sciencedaily.com/releases/2017/07/170714140256.htm

Cruise Participation

Since 1995, I have participated in oceanographic cruises off Hawaii, Alaska, California, the Gulf of Mexico, the Bahamas, New Zealand, and Antarctica. I have acted as Chief Scientist or co-Chief Scientist on numerous cruises, including 134 dives on Pisces subs as PI or lead PI, and 20 Alvin dives as co-PI. I have also participated in many additional Alvin, Pisces, Turtle, Sea Cliff, and Johnson-Sea Link cruises and dives as well as ROV dives with the Jason II, ATV, Scorpio, Tiburon, and RCV-150 and AUV dives with the AUV Sentry. Not counting virtual participation, I have an accumulated ship time of ~400 days on UNOLS and non-UNOLS ships of global, intermediate, and local size classes.

UNOLS Council Candidate: Non-Operator Representation

RHIAN G. WALLER - UNIVERSITY OF MAINE

Statement of Interest

I have sat on the UNOLS Council since 2016 and have a strong interest in sitting a second term. During my career thus far I have sailed on nearly 50 research cruises, primarily on Global Class vessels (belonging both to the US and UK) and Antarctic Icebreakers, but also on Intermediate, Regional and Small Research vessels belonging to the UNOLS fleet. This also includes using NDSF vehicles, such as DSV *Alvin*, ROV *Jason* and the AUV *Abe*. During my progression from participant to Chief Scientist I have seen the vast technological changes, and challenges, that have happened over the last 18 years in ocean going science. I transitioned to a tenure track faculty position in late 2015, and thus as a soft money researcher for over 12 years, I am also keenly aware of the budgetary constraints being placed on such scientific tools, particularly those that are federally supported. This is undoubtedly a challenging time for all UNOLS assets. Proposing, participating in and leading research cruises has been, and still is, a strong part of my academic life.

My initial interest in serving on the UNOLS Council came from my keen desire to be part of the solution and to help in finding creative ways to increase users and improve the shipboard experience for all scientists, but particularly the younger generation of researchers climbing through the ranks, and that interest and desire has not changed over the course of this first term. I am a large proponent of the Early Career programs (particularly the Chief Scientist Training Cruises), as they go a long way to increasing the exposure of UNOLS and aid in the transparency of the organization, but I still think there is more to achieve in terms of reaching out to new scientists. This is particularly important right now, where we see some polar opposites occurring – science funding decreasing and ship days decreasing almost universally; yet new vessels coming online in the next few years, as well as the successful 2014 refit and coming back into service of the DSV *Alvin*.

I believe I have gained a fair amount of experience in this first term and am just finding my feet in the larger UNOLS community. As such feel like I am "just beginning" in terms of participation and would welcome a second (final) term on the Council to see through some of the ideas, large and small, and particularly to straddle the moving of the UNOLS office. I still feel it is now my time to serve and help form new programs and policies to aid in the future of the US fleet, since I have been an avid user of these facilities throughout my career.

Rhian G. Waller, Ph.D.
Associate Professor of Marine Sciences

Darling Marine Center
University of Maine
193 Clarks Cove Road
Walpole, ME 04573

Tel: 207 563 3146 (x254)
Email: rhian.waller@maine.edu

Education

Southampton Oceanography Centre — Ph.D. 2004
Thesis – Reproductive Ecology of Deep-Water Scleractinians – Prof. Paul Tyler, Prof. John Gage
University of Wales, Aberystwyth — Marine and Freshwater Biology — B.Sc.(hons) 2000
Thesis – Environmental Tolerances in the Beadlet Anemone, Actinia equina – Dr. Simon Creasey

Appointments & Positions Held (Last 5 years)

2015 – Present Associate Professor, School of Marine Sciences, University of Maine, USA
2013 - 2015 Associate Research Professor, School of Marine Sciences, University of Maine, USA
2011 - 2013 Assistant Research Professor, School of Marine Sciences, University of Maine, USA
2007 – 2010 Assistant Researcher (SOEST Young Investigator), University of Hawaii at Manoa, USA
2006 – 2007 InterRidge Coordinator, Research Associate, WHOI – MA, USA

Five Selected Publications

- Auscavitch SR & **Waller RG** (2017) Biogeographical patterns among deep sea megabenthic communities across the Drake Passage. Antarctic Science, 29(6) 531-543
- Margolin AR; Robinson LF; Burke A; **Waller, RG**; Scanlon KM; Roberts ML; Auro ME; van de Flierdt T (2014) Temporal and spatial distributions of cold-water corals in the Drake Passage: Insights from the last 35,000 years. Deep Sea Research Part II: Topical Studies in Oceanography, 99, 237-248
- **Waller, RG**; Stone RP; Johnstone J; Mondragon J (2014) Sexual Reproduction and Seasonality of the Alaskan Red Tree Coral, *Primnoa pacifica*. PLoSONE
- Auster, PJ; Kilgour M; Packer D; **Waller, RG**; Auscavitch S; Watling, L (2013) Octocoral gardens in the Gulf of Maine. Biodiversity, 14(4) 193-194
- **Waller, RG** & **Feehan K (2013) Reproductive Ecology of a Polar Deep-Sea Scleractinian *Fungiacyathus marenzelleri* (Vaughan, 1906). Deep Sea Research II, 92, 201-206

Five Selected Non-Peer Reviewed Publications

- **2018** - Morrison CL et al., 2017. Chapter 14: Scleractinian coral biodiversity and patterns of inter-canyon connectivity among four coral species. In: CSA Ocean Sciences, Inc. Ross S et al.,. 2017. Exploration and Research of Mid-Atlantic Deepwater Hard Bottom Habitats and Shipwrecks with Emphasis on Canyons and Coral Communities: Atlantci Deepwater Canyons Study. Draft Report. Sterling (VA): U.S. Dept. of the Interior, Bureau of Ocean Energy Management, Atlantic OCS Region. OCS Study BOEM 2017-060. 1,000 p.
- **2017** - Rooper C et al., (2017) Deep-sea coral research and technology program: Alaska deep-sea coral and sponge initiative final report. NOAA Technical Memorandum, NMFS-OHC-2
- **2015** – Hoy SK, Robinson LF, Scanlon KM, **Waller RG**. Introduction for Drake Passage multibeam data release via PANGEA. PANGEA
- **2015** – Hoy, S; Robinson LF; Huvenne VAI; Contributing Authors, Scanlon K & **Waller RG**. *Opportunistic Multibeam Surveying* – Hydro International (October 2015) –

- **2014** - Auster PJ et al., *Imaging Surveys of Select Areas in the Northern Gulf of Maine for Deep-sea Corals and Sponges during 2013-2014. Report to the New England Fishery Management Council - 30 October 2014.*

Invited Talks (last five)

- **2016 – Cold Water Corals.** Society for Women in Marine Science, WHOI, USA, September 2016
- **2016 – Reproductive Seasonality of the Deepwater Emerged Coral, *Primnoa pacifica*, in the Alaskan Fjords.** Tjarno Marine Laboratory, University of Gothenburg, Sweden, April 2016
- **2016 – Introducing Reproduction in Cold Water Corals.** Tjarno Marine Laboratory, University of Gothenburg, Sweden, April 2016
- **2015 - Coral Ecosystems of the Gulf of Maine.** Belfast Free Library, ME, November 2015
- **2015 - Cool Corals in Hot Water.** Palmer Station Science Night, Antarctica, October 2015

Sea Experience

Forty-eight research expeditions on European and American vessels including over a dozen as Chief Scientist or Co-PI. Expeditions took place to the NE, NW and Mid-Atlantic Ocean, Pacific Ocean, Gulf of Alaska, Gulf of Maine, Galapagos Islands and the Southern Ocean and involve the use of submersibles, ROV's, AUV's and traditional oceanographic equipment such as OTSB, Agassiz and Blake trawls, dredges, box cores and VanVean Grabs. This does not include numerous undergraduate training cruises onboard small boats and coastal SCUBA expeditions.

Committees

- UNOLS Council, 2016 - 2018
- Steering Committee: 6th International Deep Sea Coral Symposium – September 2016
- Peer Committee: University of Maine – 2015 – 2018
- Undergraduate curriculum Committee – University of Maine – 2016 - Present
- Woods Hole Oceanographic Institution Postdoctoral Association – Mentoring Committee - 2005
- International Council for the Exploration of the Sea (ICES) – Study Group on Cold Water Corals (SGCOR) – 2004
- ICRI Cold Water Coral Ad-Hoc Committee – 2003

Postdoctoral Fellows Advised

- **Jay Lunden** (2015 – 2016) – Climate change effects on Antarctic coral larvae – now faculty at Haverford College

Graduate Advising

- **Julia Johnstone,** Ph.D. Candidate – University of Maine – "Reproductive ultrastructure of deep sea corals." Expected Graduation May 2021
- **Elise Hartill,** M.Sc. Candidate – University of Maine – "Biogeography across a gradient of glacial retreat in Glacier Bay National Park and Preserve" Expected graduation May 2019
- **2018 - C. Tyler Fountain, M.Sc. –** University of Maine – "Cold Corals in the Gulf of Maine" - Advisor
- **2018 - Ashley Rossin, M.Sc. –** University of Maine – "Ocean Acidification Effects on Reproduction of *Primnoa pacifica*" – Advisor – Now Ph.D. Candidate, University of Alaska, Fairbanks.
- **2016 - Keri Feehan, M.Sc.**– University of Maine – "Seasonal Reproduction in a Chilean Fjord Coral, *Desmophyllum dianthus*" – Advisor – Now teaching high school
- **2014 - Steve Auscavitch M.Sc.** – University of Maine – "Biogeographic Patterns Among Deep-Sea Benthic Megafaunal Communities Across the Drake Passage (Southern Ocean)" – Advisor – Now Ph.D. Candidate, Temple University

UNOLS Council Candidate: At-Large Representation

MARK A. BRZEZINSKI – UNIVERSITY OF CALIFORNIA, SANTA BARBARA

Statement of Interest

I have served on UNOLS Council for the better part of 2 years and am seeking a second term. In my time on Council I have also served as a member and then Chair of the non-operators committee and I co-chair the MERAS (Maintaining an Environment of Respect Aboard Ships) committee. In the case of the non-operators committee the main charge is to respond to NSF's annual plan for fleet operations. Within MERAS we are tackling issues of preventing all forms of harassment and reinforcing a professional enjoyable working environment across the fleet. MERAS is relatively new and our activities and accomplishments are growing.

As a seagoing oceanographer I place extremely high value on the UNOLS fleet. I bring to council the perspective of a community member from and institution, UCSB, that does not operate a UNOLS vessel. That perspective compliments those from others involved as operators or as investigators from operating institutions providing a vital mix of perspectives for effective governance.

Biographical Sketch: MARK A. BRZEZINSKI

Professor, Department of Ecology Evolution and Marine Biology,
University of California, Santa Barbara, CA 93106

AREA OF EXPERTISE

Oceanic Silicon Cycle, **P**hytoplankton Ecology/Physiology, Diatom Silicon Metabolism

PROFESSIONAL PREPARATION

Southampton College of Long Island University, B.S. Biology/Marine Science, 1979
Oregon State University, Ph.D., Biological Oceanography, 1987
MIT/WHOI, Postdoctoral, 1987 - 1989

APPOINTMENTS

Distinguished Professor, UCSB July 2015- present, Director Marine Science Institute, UCSB, 2010 – present; Chair, Interdepartmental Graduate Program in Marine Science, UCSB, 2004 – 2009; Deputy Director of the Marine Science Institute UCSB 2001 – 2010; Professor, Ecology Evolution and Marine Biology, August 1999 – present; Associate Professor, Ecology Evolution and Marine Biology, July 1995 – July 1999; Assistant Professor, Biological Sciences, UCSB, 1989-1995; Guest Investigator, Woods Hole Oceanographic Institution, 1989; Postdoctoral Associate, Massachusetts Institute of Technology, 1988; Postdoctoral Scholar, Biology Department, Woods Hole Oceanographic Institution 1987

FIVE RECENT]PUBLICATIONS MOST CLOSELY RELATED TO PROJECT:

Grasse, P., Brzezinski, M. A., Cardinal, D., de Souza, G. F., Andersson, P., Closset, I., Cao, Z., Dai, M., Ehlert, C., Estrade, N., François, R., Frank, M., Jiang, G., Jones, J. L., Kooijman, E., Liu, Q., Lu, D., Pahnke, K., Ponzervera, E., Schmitt, M., Sun, X., Sutton, J. N., Thil, F., Weis, D., Wetzel, F., Zhang, A., Zhang, J. & Zhang, Z. 20176. GEOTRACES Intercalibration of the Stable Silicon Isotope Composition of Dissolved Silicic Acid in Seawater. *J. Anal. At. Spectrom*, in press

Varela, D.E., Brzezinski, M.A., Beucher, C.P., Jones, J.L., Giesbrecht, K.E., Lansard, B., Mucci, A., 2016. Heavy silicon isotopic composition of silicic acid and biogenic silica in Arctic waters over the Beaufort shelf and the Canada Basin. Global Biogeochemical Cycles, 30: doi: 0.1002/2015gb005277.

Brzezinski, M. A., J. W. Krause, R. M. Bundy, K. A. Barbeau, P. Franks, R. Goericke, M. R. Landry, Stukel, M. R. 2015. Enhanced silica ballasting from iron stress sustains carbon export in a frontal zone within the California Current, *Journal of Geophysical Research: Oceans*, doi: 10.1002/205JC010829.

Holzer, M., Brzezinski, M. A. 2015. Controls on the silicon isotope distribution in the ocean: New diagnostics from a data-constrained model, *Global Biogeochem. Cycles*, *29*(3), 267-287.

Hendry, K. R.,. Brzezinski, M. A. 2014. Using silicon isotopes to understand the role of the Southern Ocean in modern and ancient biogeochemistry and climate, *Quaternary Science Reviews, 89*, 13-26.

FIVE OTHER SIGNIFICANT RECENT PUBLICATIONS:

Sutton, J.N., Vareal, D.E., Brzeinski, M.A., Beucher, C.P. 2013. Species-dependent silicon isotope fractionation by marine diatoms. Geochimica et Cosmochimica Acta 104, 300-309.

Beucher, C.P., Brzezinski, M.A., Jones, J.L., 2011. Mechanisms controlling silicon isotope distribution in the eastern Equatorial Pacific. Geochimica et Cosmochimica Acta 15: 4286-4294.

Ziegler, K., O. A. Chadwick, A. F. White, and M. A. Brzezinski. 2005. δ^{30}Si systematics in a grantic saprolite, Peurto Rico, Geology 33:817-820

De La Rocha, C. L., M. A. Brzezinski, and M. J. DeNiro. 2000. A first look at the distribution of the stable isotopes of silicon in natural waters. Geochimica et Cosmochimica Acta 64: 2467-2477.

Brzezinski, M.A., Jones J.L., Beucher C.P., Demarest M.S. and H.L. Berg. 2006. Automated determination of silicon isotope natural abundance by the acid decomposition of cesium hexafluosilicate. Analytical Chemistry 78: 6109-6114.

SYNERGISTIC ACTIVITIES

Led an International Si isotope intercalibration of silicic acid in seawater – (2015-2016)

Development of a commercial source of the radioisotope silicon-32 for the research community (with Dennis Phillips, Los Alamos National Laboratory) – U.S. patents 5,525,318 and 5,346,678

Development of an automated method for determining Si isotope natural abundance by IRMS

UNOLS Fleet Improvement Committee – October 1999- 2002

UNOLS Council 2015-present.

UNOLS Council Candidate: At-Large Representation

SEAN M. HIGGINS – LAMONT-DOHERTY EARTH OBSERVATORY

Statement of Interest

My interest in serving on UNOLS Council is driven by the experience I have gained from working within and managing large ship related programs (IODP and R/V *Marcus Langseth*) for most of the last 15 years. This has provided me with a perspective as a scientist on the critical importance of oceanographic facilities in serving the needs of a very diverse science community. From participating in many different UNOLS meetings and benefitting from them over much of last decade, I would like the opportunity to serve the community further and give back.

My experience within IODP from 2004 to 2009 evolved from working and sailing on *JOIDES Resolution* to having an opportunity to serve in a management role as Associate Director of US Drilling Program and work on a variety of issues in making sure the vessel returned to service after major mid-life overhaul but also coordinate with science community on science readiness as well as variety of legacy data projects.

Since 2010, I have served as Director of Marine Operations at Lamont-Doherty Earth Observatory and been responsible for managing operations of the R/V *Marcus Langseth*. The day to day challenges faced with supporting a global class vessel around the world are significant and require flexibility, a good sense of humor, and teamwork. I can also contribute my experience on other issues ranging from supporting laboratories and equipment at sea, export control licensing, environmental permitting, and the ever changing international and ABS/USCG compliance landscape to UNOLS Council to be able to make good decisions for future planning of the Academic Research Fleet.

Lamont-Doherty Earth Observatory
COLUMBIA UNIVERSITY | EARTH INSTITUTE

Sean M. Higgins

Mailing Address:
L-DEO /Columbia University
Office of Marine Operations
61 Rt. 9W, Palisades, NY 10964

E-Mail: sean@ldeo.columbia.edu

Phone: (W) 845-365-8528

Professional Preparation:

Beloit College, Beloit WI,	Geology	1981-1984
University of Nebraska-Omaha, Omaha, NE	Geology	B.S. 1986
University of Maine, Orono, ME	Geology	M.S. 1993
Columbia University, New York, NY	Geochemistry/Climate Studies	Ph.D. 2002
Massachusetts Institute of Technology, Boston, MA-		
Postdoctoral Fellowship---	Geochemistry	2001-2004

Professional Appointments:

2012-Present	LDEO/Columbia University: Sr. Research Scientist/ Director, Office Of Marine Operations
2010-2012:	LDEO/Columbia University: Research Scientist/Director, Office of Marine Operations
2007- 2010:	Consortium for Ocean Leadership: (Washington DC) Associate Director, U.S. Ocean Drilling Programs & L-DEO Adjunct Associate Research Scientist
2004-2007:	L-DEO/Columbia University: Associate Research Scientist/IODP Logging Staff Scientist
2001-2004:	MIT- Postdoctoral Research Scientist: (Supervisor: Dr. Ed Boyle)
1997-2000:	Columbia University: NASA Global Change Fellow
1994-1995:	Columbia University: NOAA Climate Consortium Graduate Research Fellow

Selected Publications (Peer-reviewed):

B.D.A. Naafs, A. Martínez-García, J. Grützner, **S. Higgins**, Comment on "The transition on North America from the warm humid Pliocene to the glaciated Quaternary traced by eolian dust deposition at a benchmark North Atlantic Ocean drill site, by David Lang et al. Quaternary Science Reviews 93: 125-141", Quaternary Science Reviews, Volume 103, 2014, Pages 175-179.

Gruetzner, J. and **Higgins, S.M. (2010),** Threshold behavior of millennial scale variability in deep water hydrography inferred from a 1.1 Ma long record of sediment provenance at the southern Gardar Drift, Paleoceanography (doi:10.1029/2009PA001873).

Harris, R.N. and **Higgins, S.M. (2008),** A permeability estimate in 56 Ma crust at ODP Hole 642E, Vøring Plateau Norwegian Sea, *EPSL, 267, 378-385.*

Higgins, S.M. , Anderson, R.F., Stute, M., Schlosser, P. and Marcantonio, F. (2002) Sediment focusing creates 100 ka cycles in interplanetary dust accumulation on the Ontong Java, *EPSL*, 203, 383-397.

Hemming, S.R., Hall, C.M, Biscaye, P.E., **Higgins, S.M.,** McManus, J.F., Barber, D.C., Andrews, J.T., and Broecker, W.S.(2002) $^{40}Ar/^{39}Ar$ ages and $^{40}Ar^*$ concentrations of fine-grained sediment fractions from North Atlantic Heinrich layers ,*Chemical Geology*, 182, 583-603.

Additional Publications:

Delaney, P. and **Higgins, S.** "Core on Deck": The End of SODV and the Return of the JOIDES Resolution as the IODP Riserless Vessel, *Scientific Drilling*, No. 8, Sept. 2009, pp.38-41.

Myers, G. ….**Higgins,S**. Cutting Costs Down Deep. *Oilfield Technology*, April, 2009

Corewall Consortium and Steering Committee Workshop Report for JOI-USSSP, 2006.

Corewall Steering Committee, The JOI-USSSP sponsored Corewall Workshop Summary , Scientific Drilling, Sept., 2006.

Expedition 303/306 Scientists, Proceedings of the IODP, Volume 303/306 Expedition Reports: North Atlantic Climate, 2006.

Synergistic Activities:

2010- Present: LDEO representative to UNOLS Management Meetings (Council, FIC, RVOC) for the R/V *MG Langseth* that is the National Facility for Marine Seismic Research in the US

2005- 2010: USIO (US Implementing Organization) Liaison to IODP Scientific Technology Panel, Engineering Task Force, Engineering Development Panel, and Data Management Coordination Group,

2009- Assembled and Led Science Readiness Assessment Team on 6 week Sea Trial of IODP vessel, JOIDES Resolution, from Singapore - Hawaii to assess overall ability of ship to perform science operations after $130M midlife refit.

2005- 2007: USIO Member of Science Conceptual Design Team for SODV (Scientific Ocean Drilling Vessel) Project that involved prioritizing equipment, evaluating science projects, and designing new science labs.

2006- Present: PI on Collaborative Proposal for the Corewall Project - Integrated Environment for Interpretation of Geoscientific Data from Sediment and Crystalline Cores. This project has created a collaborative and open source software platform for data visualization and stratigraphic correlation that is now in use by ANDRILL, IODP, ICDP, and many individual users and other organizations around the world. 4 graduate students have participated in this project (A. Rao, J.Lee, Y.Chen, and H. Hur- U. Illinois –Chicago)

UNOLS Council Candidate: At-Large Representation

SETH L. DANIELSON – UNIVERSITY OF ALASKA FAIRBANKS

Statement of Interest

I am writing this letter to express my desire for becoming a member of the UNOLS Council. Interest in serving stems from a deep appreciation for the people and infrastructure that maintain the UNOLS consortium and an aspiration to give back to this community on a national level. UNOLS vessels have long enabled my research with the purpose, professionalism, and standards that foster successful field data collections. I would like to help ensure that the next generation of sea-going oceanographers have the safe, utilitarian, and cutting-edge platforms needed to make the in situ observations that will lead to new scientific understandings and in turn help guide policy and management decisions.

Beginning in October 1997 with the NE Pacific GLOBEC program's first Seward Line cruise, I have sailed on UNOLS vessels in the Gulf of Alaska, Bering, Chukchi, and Beaufort seas. My time in the field includes over 200 days at NSF facilities in Antarctica and Greenland over 1993-1997 and 45 research cruises totaling almost 400 days at sea. Nearly half of this time at sea has been spent as Chief Scientist, leading both integrated ecosystem research expeditions and disciplinary-specific process studies. I work from Regional class and Global class vessels as well as small and very small coastal vessels, studying the broad and shallow Arctic shelves, the Canadian Arctic Archipelago, and the deep Gulf of Alaska shelf and slope. My field-based research focuses on shelf dynamics and multi-disciplinary ecosystem studies, including the recently commissioned Long-Term Ecological Research (LTER) site in the Northern Gulf of Alaska and a network of moored observatories spanning Alaska's Arctic and sub-Arctic large marine ecosystems.

My activities extend far beyond the realm of academic journals. I interface closely with Alaskan Native tribes, co-management groups, and coastal communities, disseminating results and ensuring that research activities do not interfere with subsistence hunts. I provide private industry and federal and state agencies with data and perspectives that inform marine permit applications, emergency response plans, and regulatory management decisions. Beyond research, I have been active in helping UAF's
Seward Marine Center (SMC) grow from being the home of R/V *Alpha Helix* into the home of R/V *Sikuliaq*. This includes oversee UAF's oceanographic mooring shop on the SMC campus, providing technical input to multiple generations of the Alaska Region Research Vessel (ARRV) conceptual design, serving on the search committee for the SMC Marine Superintendent who oversaw ARRV/*Sikuliaq* construction, and most recently spearheading the replacement of SMC's small coastal research vessel, R/V *Little Dipper*.

Challenges facing study of the oceans are daunting: many interesting portions of the oceans are remote; logistics are expensive and difficult; competing geopolitical and industrial interests overlap; and human societies, cultures, and infrastructure are facing unprecedented change. Understanding ocean dynamics and geochemical processes are key to humankind's ability to transition smoothly from today's warming climate into tomorrow's new status quo. I believe that my background and active ship work are particularly well-suited to helping advance UNOLS in its mission with the Nation's fleet and facilities.

CURRICULUM VITAE

Seth Lombard Danielson, Ph.D

Institute of Marine Science
College of Fisheries and Ocean Sciences
University of Alaska Fairbanks
905 N. Koyukuk Dr., Rm. 112 O'Neill Building
Fairbanks, AK, 99775; (907) 474-7834; sldanielson@alaska.edu

Professional Preparation

University of Alaska Fairbanks, Ph.D. Oceanography, 2012
University of Alaska Fairbanks, M.S. Oceanography, 1996
Lehigh University, B.S. Electrical Engineering, 1990, with honors

Appointments

Research Associate Professor of Oceanography, IMS-UAF, Fairbanks, AK, 2016-present
Research Assistant Professor of Oceanography, IMS-UAF, Fairbanks, AK, 2013-2016
Research Professional, IMS-UAF, Fairbanks, AK, 1997–2013
Driller, Polar Ice Coring Office, University of Lincoln, Nebraska, Lincoln, NB, 1996-1997
Research Assistant, IMS-UAF, Fairbanks, AK, 1994–1996
Driller, Polar Ice Coring Office, IMS-UAF, Fairbanks, AK, 1993-1994
Junior Engineer, Allen Organ Company, Macungie, PA, 1990-1992

Select Peer-Reviewed Publications (10)

Walsh, J.E., R.L. Thoman, U.S. Bhatt, P.A. Bieniek, B. Brettschneider, M. Brubaker, **S.L. Danielson**, R. Lader, F. Fetterer, K. Holderied, K. Iken, A. Mahoney, M. McCammon, and J. Partain (2018). The High Latitude Marine Heat Wave of 2016 and Its Impacts on Alaska. *Bull. Amer. Meteor. Soc*., 99, S39–S43, https://doi.org/10.1175/BAMS-D-17-0105.1

Danielson, S.L., L. Eisner, C. Ladd, C. Mordy, L. Sousa, and T.J. Weingartner (2017). A comparison between late summer 2012 and 2013 water masses, macronutrients, and phytoplankton standing crops in the northern Bering and Chukchi seas. *Deep-Sea Res. II*, doi:10.1016/j.dsr2.2016.05.024

Danielson, S.L., E. L. Dobbins, M. Jackobsson, M. J. Johnson, T. J. Weingartner, W. J. Williams, and Y. Zarayskaya (2016). Sounding the Northern Seas: A New Western Arctic and North Pacific Digital Elevation Model, *Eos*, 96, doi:10.1029/2015EO040975.

Lu, K., T. J. Weingartner, **S.L. Danielson**, P. Winsor, E. Dobbins, K. Martini, and H. Statscewich (2015). Lateral mixing across ice meltwater fronts of the Chukchi Sea shelf, *Geophys. Res. Lett*., 42, 6754–6761, doi:10.1002/2015GL064967.

Danielson, S.L., T. W. Weingartner, K. Hedstrom, K. Aagaard, R. Woodgate, E. Curchitser, and P. Stabeno, (2014). Coupled wind-forced controls of the Bering–Chukchi shelf circulation and the Bering Strait through-flow: Ekman transport, continental shelf waves, and variations of the Pacific–Arctic sea surface height gradient. *Prog. Oceanogr*. http://dx.doi.org/ 10.1016/j.pocean.2014.04.006

Danielson, S., K. Hedstrom, K. Aagaard, T. Weingartner, and E. Curchitser (2012). Wind-induced reorganization of the Bering shelf circulation, *Geophys. Res. Lett*., 39, L08601, doi:10.1029/2012GL051231.

CURRICULUM VITAE

Seth Lombard Danielson, Ph.D

Sigler, M.F., M. Renner, **S.L. Danielson**, L.B. Eisner, R.R. Lauth, K.J. Kuletz, E.A. Logerwell, and G.L. Hunt Jr., 2011. Fluxes, fins, and feathers: Relationships among the Bering, Chukchi, and Beaufort Seas in a time of climate change. *Oceanography* 24(3): 250–265, http://dx.doi. org/10.5670/oceanog.2011.77.

Statscewich, H., T. Weingartner, **S. Danielson**, B. Grunau, G. Egan, and J. Timm (2011) A High-Latitude Modular Autonomous Power, Control, and Communication System for Application to High-Frequency Surface Current Mapping Radars, *Mar. Tech. Soc. J.,* 45:3, pp 59-68

Danielson, S., K. Aagaard, T. Weingartner, S. Martin, P. Winsor, G. Gawarkiewicz, and D. Quadfasel (2006), The St. Lawrence polynya and the Bering shelf circulation: New observations and a model comparison, *J. Geophys. Res.,* 111, C09023, doi:10.1029/2005JC003268.

Weingartner, T. J**., S.L. Danielson**, T. C. Royer (2005), Fresh Water Variability in the Gulf of Alaska: Seasonal, Interannual and Decadal Variability, *Deep-Sea Res. II*, 52 (1-2): 169-191.

Synergistic Activities (10)

2018-present Alaska SeaLife Center Science Advisory Board

2018 Chair, Scientific Conference Session: *Linkages Between Environmental Drivers and Structure of Arctic Ecosystems,* Ocean Sciences Meeting, Portland, OR, February 2018

2017 CFOS Dean's Committee on drafting a UAF Science Technology Center white paper

2016-present NPRB Arctic Integrated Ecosystem Research Program Science Steering Committee

2016-present UAF-CFOS Coastal Research Vessel Replacement Committee

2014-2016 Committee to develop UA Center for Salmon and Society

2014 Co-convener, ICES Annual Meeting Special Session: *Physical and biological consequences of North Atlantic circulation patterns*, A Coruña, Spain

2013 Kawerak Corporation's workshop *Indigenous Knowledge and Use of Bering Strait Region Ocean Currents*, Nome, AK.

2013-2014 UAF Chapman Chair workshop organizing committee *Fostering Yukon Chinook Resilience*

2008 NSF panelist for the technical final design review (FDR) for the NSF-funded Ocean Observatories Initiative (OOI)

UNOLS Council Candidate: At-Large Representation

DAVID C. SMITH – UNIVERSITY OF RHODE ISLAND

Statement of Interest

I wish to be considered for the open At Large Position on the UNOLS Council. I have been an active sea-going scientist for nearly 30 years and I am keenly interested in the future of the academic research fleet. Despite the advances in remote sensing, unmanned vehicles, modeling and telepresence, I feel strongly that there will always be a need for seagoing scientists. Therefore, I feel that it is imperative that we not only maintain and improve our research fleet, but use it to train future generations of seagoing oceanographers. It is critical that we, as an oceanographic community, work aggressively to ensure that our research fleet is capable of supporting the ever evolving technological demands of ocean science.

As a co-PI on the recently successful proposal from URI's Graduate School of Oceanography to operate the second of the RCRVs, I am extremely proud to have played a part in ensuring GSO's seagoing tradition. During the process of writing the proposal, it was necessary to become more knowledgeable about aspects of research vessels that are not necessary when sailing as a scientist. This experience has provided me with a background that should be useful to UNOLS.

In my twelve years of service as the Associate Dean at the Graduate School of Oceanography, I have developed some administrative skills that should prove also useful to the UNOLS Council. In addition, I feel that my experiences at sea (>750 days at sea on 20 different research vessels, six as chief scientist) will allow me to be a productive member of this important committee if selected.

David C. Smith
Graduate School of Oceanography dcsmith@gso.uri.edu
University of Rhode Island! +1.401.874.6172
Narragansett, RI 02881 www.gso.uri.edu/~dcsmith

Education

California State University, Long Beach	BS	1984
University of California, San Diego Scripps Institution of Oceanography	PhD	1994
University of California, San Diego Scripps Institution of Oceanography	Post-Doctoral Researcher 1994 - 1996	

Professional Appointments

(all at the Graduate School of Oceanography, University of Rhode Island)

2008 - present	Professor
2006 - present	Associate Dean
2003 - 2008	Associate Professor
1997 - 2003	Assistant Professor

Selected Publications

Walsh EA, Smith DC, Sogin M, D'Hondt, S. 2015. Bacterial and archaeal biogeography of the deep chlorophyll maximum in the South Pacific Gyre. Aquat. Microb. Ecol. 75: 1-13.

Walsh EA, Kirkpatrick JB, Rutherford SD, Smith DC, Sogin M, D'Hondt, S. 2015. Bacterial diversity and community composition from seasurface to subseafloor. ISME J 10.1038/ismej.2015.175

Maranda L, Cox AM, Campbell RG, Smith DC. 2013. Chlorine dioxide as a treatment for ballast water to control invasive species: Shipboard testing. Mar. Poll. Bull. 75: 76-89.

Prieto-Davó, A, Villarreal-Gómez, LJ, Forschner-Dancause, S, Bull, AT, Stach, JEM, Smith, DC, Rowley, DC, and Jensen, PR. 2013. Targeted search for novel actinomycetes from near-shore and deep-sea marine sediments. FEMS Microbiol. Ecol. doi: 10.1111/1574-6941.12082

Kallmeyer, J, Pockalny, R, Adhikari, RR, Smith, DC, and D'Hondt, S 2012 Global distribution of microbial abundance and biomass in subseafloor sediment. Proc. Nat. Acad. Sci. 10.1073/pnas.1203849109

Forschner-Dancause, S, LaPlante, K, Smith, DC, and Rowley, DC. 2012. Going deep for drug discovery: An ocean to bedside approach to explore sub-seafloor microbes for the next generation of antibiotics. 2012. Med. Health, Rhode Island. 95: 292-293.

D'Hondt, S, Spivack, A, Pockalny, R, Fischer, J, Kallmeyer, J, Ferdelman, T, Abrams, L, Smith, DC, Graham, D, Hasiuk, F, Schrum, H, and Stancin, S 2009 Subseafloor sedimentary life in the South Pacific Gyre. Proc. Nat. Acad. Sci.106: 11651-11656.

Kallmeyer, J, and Smith, D 2009 An improved electroelution method for separation of DNA from humic substances in marine sediment DNA extracts. FEMS Microbiol. Ecol. 69: 125-131.

Soffientino, B, Spivack, AJ, Smith, DC, and D'Hondt, S 2009 Hydrogenase activity in deeply buried sediments of the Arctic and North Atlantic Oceans. Geomicrobiol. J.26: 537 - 545.

Forschner, S, Sheffer, RG, Rowley, DC, and Smith, DC 2008 Microbial diversity in Cenozoic sediments recovered from the Lomonosov Ridge in the Central Arctic Basin. Environ. Microbiol. 11: 630-639.

Editorial and Committee Service:

Associate Editor, Estuaries, 2002 – 2008
Review Editor, Aquatic Microbial Ecology, 1995 – 2006
Ocean Sciences Meeting Planning Committee, 2010
Ocean Drilling Program:

- Science Measurements Panel 2000 – 2003
- Scientific Ocean Drilling Vessel - lab design committee 2005 - 2006
- Proposal Evaluation Panel 2012 - 2013
- Science Evaluation Panel 2013 - 2014
- Curatorial Advisory Board, 2008 – 2015
- Science Planning Committee Member, 2011 - 2014

Joint Oceanographic Institutions:

- U.S. Science Advisory Committee - Distinguished Lecturer, 2002 – 2003
- U.S. Science Advisory Committee 2003 – 2006

National Ocean Science Bowl, Moderator/Science Judge 1988 - present