

**Deborah K. Steinberg**  
*Curriculum Vitae*

(updated Feb. 2020)

## CONTACT INFORMATION

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Address: Virginia Institute of Marine Science, 1375 Greete Rd., Gloucester Point, Virginia 23062, USA

## EDUCATION

**1993** Ph.D., University of California, Santa Cruz (UCSC). Department of Biological Sciences.

**1987** B.A., University of California, Santa Barbara (UCSB). Aquatic Biology (High Honors).

## ACADEMIC POSITIONS

- 2018** Chair, Dept. of Biological Sciences, and CSX Professor of Marine Science, The College of William and Mary School of Marine Science and Department of Biological Sciences, Virginia Institute of Marine Science (VIMS).
- 2014** CSX Professor of Marine Science, The College of William and Mary School of Marine Science and Department of Biological Sciences, VIMS.
- 2008** Professor, The College of William and Mary School of Marine Science and Department of Biological Sciences, VIMS.
- 2001** Associate Professor, VIMS. (College of William and Mary Class of 1964 Distinguished Associate Professor 2005-2007)
- 2001** Adjunct Faculty, Bermuda Institute of Ocean Sciences (BIOS- formerly Bermuda Biological Station for Research-BBSR)
- 1999** Associate Research Scientist, Bermuda Institute of Ocean Sciences (BIOS)
- 1995** Assistant Research Scientist, BIOS.
- 1994** Post-doctoral Research Fellow, Marine Sciences Department, UCSC. Advisor: Professor M. Silver
- 1994** Lecturer, Marine Sciences Department, UCSC.

## HONORS, PRIZES AND AWARDS

- 2015** State Council of Higher Education for Virginia (SCHEV) Outstanding Faculty Award
- 2014** CSX Eminent Scholar Professorship/ Chair
- 2014** William & Mary Plumeri Award for Faculty Excellence
- 2013** William & Mary Tack Faculty lecture
- 2012** Sverdrup Award lecture, Ocean Sciences, American Geophysical Union (AGU)
- 2011** Elected to the governing council of The Oceanography Society (TOS)
- 2007** Winner of William & Mary Raft Debate

- 2006** Dean's Prize (VIMS) for the Advancement of Women in Marine Science
- 2005** College of William and Mary Class of 1964 Distinguished Professor Award
- 2005** Elected to the Board of Trustees, Bermuda Institute of Ocean Sciences
- 2001** Elected Secretary, Ocean Sciences section, American Geophysical Union (AGU) (term was 2002-2006)
- 1987** Antarctic Service Award and Medal, U.S. Department of the Navy

## **CONTRIBUTIONS TO THE EDUCATIONAL PROGRAM**

### **Courses taught (VIMS)**

- 2020** MS 506 "Scientific Communication" (co-taught with E. Hilton, E. Rivest), 2.0 cr., Spring, 4 students
- 2019** MS 401D "Fundamentals of Marine Science-Biological Oceanography", 3.0 cr., Fall, 9 students
- 2019** MS 501D "Fundamentals of Marine Science-Biological Oceanography", 2.0 cr., Fall, 13 students
- 2018** MS 401D "Fundamentals of Marine Science-Biological Oceanography", 3.0 cr., Fall, 9 students
- 2018** MS 501D "Fundamentals of Marine Science-Biological Oceanography", 2.0 cr., Fall, 13 students
- 2017** MS 506 "Scientific Communication" (co-taught with E. Hilton), 2.0 cr., Spring, 8 students
- 2016** MS 401D "Fundamentals of Marine Science-Biological Oceanography", 3.0 cr., Fall, 7 students
- 2016** MS 501D "Fundamentals of Marine Science-Biological Oceanography", 2.0 cr., Fall, 13 students
- 2015** MS 401D "Fundamentals of Marine Science-Biological Oceanography", 3.0 cr., Fall, 8 students
- 2015** MS 501D "Fundamentals of Marine Science-Biological Oceanography", 2.0 cr., Fall, 15 students
- 2015** MS 506 "Scientific Communication" (co-taught with E. Hilton), 2.0 cr., Spring, 6 students
- 2014** MS 401D "Fundamentals of Marine Science-Biological Oceanography", 3.0 cr., Fall, 10 students
- 2014** MS 501D "Fundamentals of Marine Science-Biological Oceanography", 2.0 cr., Fall, 16 students
- 2013** MS 401D "Fundamentals of Marine Science-Biological Oceanography", 3.0 cr., Fall, 8 students
- 2013** MS 501D "Fundamentals of Marine Science-Biological Oceanography", 2.0 cr., Fall, 18 students
- 2012** MS 501D "Fundamentals of Marine Science-Biological Oceanography", 2.0 cr., Fall, 25 students
- 2011** MS 698 "Topics in Zooplankton Ecology", 1.0 cr., Summer, 6 students
- 2010** MS 501D "Fundamentals of Marine Science-Biological Oceanography", 2.0 cr., Fall, 23 students
- 2009** MS 501D "Fundamentals of Marine Science-Biological Oceanography", 2.0 cr., Fall, 21 students
- 2008** MS 501D "Fundamentals of Marine Science-Biological Oceanography", 2.0 cr., Fall, 18 students
- 2007** MS 501D "Fundamentals of Marine Science-Biological Oceanography", 1.5 cr., Fall, 20 students
- 2007** MS 660 "Zooplankton Ecology" (co-taught with K. Tang), 4 cr., Spring, 3 students

- 2006** MS 501D “Fundamentals of Marine Science-Biological Oceanography”, 1.5 cr., Fall, 17 students
- 2006** MS 698 “Respiration in aquatic ecosystems” (co-taught with E. Canuel), 1 cr., Fall, 5 students
- 2005** MS 501D “Fundamentals of Marine Science-Biological Oceanography”, 1.5 cr., Fall, 22 students
- 2005** MS 660 “Zooplankton Ecology” (co-taught with K. Tang), 4 cr., Spring, 5 students
- 2004** MS 501D “Fundamentals of Marine Science-Biological Oceanography”, 1.5 cr., Fall, 28 students
- 2003** MS 652 “Topics in Plankton Ecology” (co-taught with H. Ducklow), 3 cr., Fall, 5 students
- 2003** MS 501D “Fundamentals of Marine Science-Biological Oceanography” (co- taught with W. Smith), 1.5 cr., Fall, 21 students
- 2003** MS 698 “Dissolved Organic Matter in Aquatic Systems” (co-taught with D. Bronk), 1 cr., Spring, 4 students
- 2002** MS 660 “Zooplankton Ecology”, 4 cr., Fall, 7 students
- 2002** MS 501, MS 501L “Fundamentals of Marine Science” (guest lecturer, instructor), 7 (total) cr., Fall, 28 students
- 2001** MS 652 “Topics in Plankton Ecology” (co-taught with H. Ducklow), 3 cr., Fall, 5 students
- 2001** MS 501, MS 501L “Fundamentals of Marine Science” (guest lecturer, instructor), 7 (total) cr., Fall, 20 students

### **Courses taught (outside VIMS)**

- 2009** “Marine Microbial Ecology” visiting Distinguished Lecturer, CMORE, U. Hawaii, summer, 20 students
- 2006, 2007** “Oceans and Climate Change” visiting Distinguished Lecturer, Sea Education Association, Woods Hole, MA, Fall, 20 students
- 1997, 1998, 1999, 2000** “Biological Oceanography”, Beaufort- Bermuda program with Duke University, Bermuda Institute of Ocean Sciences, 4 cr., Spring, 8-14 students
- 1994, 1995, 1996, 1997** “Biological Oceanography”, Summer course, Bermuda Institute of Ocean Sciences, 4 cr., Summer, 8-14 students
- 1994** MS 1, “Introduction to Marine Sciences” Marine Sciences Department, University of California, Santa Cruz, 4 cr., Fall, 77 students.

### **Students mentored**

#### **Major advisor (VIMS):**

- |                    |  |                      |
|--------------------|--|----------------------|
|                    |  | (started- graduated) |
| Kristen Sharpe     | M.S.   | 2018-                |
|                    | Thesis topic: Zooplankton community composition effects on fecal pellet production the York River, Chesapeake Bay                      |                      |
| Andrew Corso       | Ph.D.  | 2017-                |
|                    | Dissertation topic: The effects of climate change on Antarctic larval fishes   |                      |
| Jack Conroy        | M.S.   | 2016-                |
|                    | Dissertation topic: Diel, seasonal, and interannual changes in coastal Antarctic zooplankton community composition and feeding ecology |                      |
| Patricia Thibodeau | Ph.D.  | 2014-2019            |
|                    | Dissertation title: Environmental controls on pteropod ecology and physiology in the Western Antarctic Peninsula                       |                      |

- Jami Ivory M.S. 2012-2015  
Thesis title: Diel, seasonal, and interannual patterns in mesozooplankton abundance in the Sargasso Sea
- Miram Gleiber M.S. 2011-2014  
Thesis title: “Long-Term Change in Copepod Community Structure in the Western Antarctic Peninsula: Linkage to Climate and Implications for Carbon Cycling”
- Brandon Conroy Ph.D. 2010-2016  
Dissertation title: Zooplankton community composition and grazing in the Amazon River Plume and western tropical North Atlantic Ocean
- Joshua Stone Ph.D. 2010-2016  
Dissertation title: Population dynamics of gelatinous zooplankton in the Chesapeake Bay and Sargasso Sea, and effects on carbon export
- Jeanna Hudson M.S. 2009-2012  
Thesis title: “Trophic Ecology of Mesopelagic Myctophids (Family Myctophidae) from the Northern Mid-Atlantic Ridge (Iceland to the Azores)”
- Kate Ruck M.S. 2009-2012  
Thesis title: “Zooplankton prey quality and feeding dynamics along the Western Antarctic Peninsula”
- Lori Price (Garzio) M.S. 2009-2012  
Thesis title: “Microzooplankton community structure and grazing impact along the Western Antarctic Peninsula”
- Bethany Eden M.S. 2005-2008  
Thesis title: “Zooplankton community structure in a cyclonic and mode-water eddy in the Sargasso Sea”
- Grace Saba Ph.D. 2003-2009  
Dissertation title: “The role of mesozooplankton and microzooplankton grazers in the production of dissolved organic and inorganic nutrients”
- Stephanie Wilson Ph.D. 2003-2008  
Dissertation title: “Mesopelagic zooplankton feeding ecology and effects on particle repackaging and carbon transport in the subtropical and subarctic North Pacific Ocean”
- Robert Condon Ph.D. 2002-2008  
Dissertation title: “Impacts of gelatinous zooplankton on dissolved organic matter cycling and bacterioplankton communities in the York River Estuary”

**Major advisor (previous to VIMS):**

- (started- graduated)  
Astrid Schnetzer Ph.D. 1998- 2001 BIOS, U. Vienna, Austria.  
Dissertation title: “Transport of particulate organic matter by zooplankton vertical migration in the Sargasso Sea”

**Post-docs mentored (VIMS):**

- Karen Stamieszkin, Ph.D. 2018-  
Kim Bernard, Ph.D. 2009-2012  
Sarah Goldthwait, Ph.D. 2004-2006

**Student committee service (VIMS):**

	<b>Degree</b>	<b>(started- graduated)</b>	<b>Major advisor/s</b>
William Goldsmith	PhD	2013- 2018	J. Graves
Lúcia Safi	PhD	2013-	R. Carnegie
Randy Jones	MS	2012-2015	W. Smith
Jenna Spackeen	PhD	2010-2017	D. Bronk
Anna Mosby	MS	2010-2013	W. Smith
Kathleen Donaldson	MS	2010-(withdrew)	W. Smith
Itchika Sivaipram	PhD	2010- 2018	L. Schaffner
April Cook	MS	2009- 2011	T. Sutton
Emily Brault	MS	2009- 2012	E. Canuel
Christopher Sweetman	MS	2008- 2012	M. Vecchione/ R. Latour
Yongjin Xiao	PhD	2008- 2013	M. Friedrichs
Stephen Baer	PhD	2007- 2013	D. Bronk
Glaucia Fragoso	MS	2007- 2009	W. Smith
Emily Yam	MS	2004 -2007	K. Tang
Lance Gardner	PhD	2003- 2012	M. Brush
Vince Saba	PhD	2002- 2007	J. Musick
Sasha Tozzi	PhD	2002- 2010	W. Smith
Sarah Muffelman	MS	2002- 2006	H. Austin
Paul Bradley	PhD	2001- 2008	D. Bronk
Kristin France	PhD	2001- 2007	E. Duffy
Joel Hoffman	PhD	2001- 2006	J. Olney/ D. Bronk
Amy Sheilds	PhD	2001- 2007	W. Smith
Amy Chiuchiolo	MS	2000- 2003	R. Dickhut./ H. Ducklow
Bob Daniels	MS	2000- 2003	H. Ducklow
Liza Delizo	MS	1999- 2003	W. Smith

**Student committee service (outside examiner):**

	<b>Degree</b>	<b>(started- graduated)</b>	<b>Major advisor</b>	<b>Institution</b>
Alex Niebergall	PhD	2018-	N. Cassar	Duke U.
Rebecca Trinh	PhD	2016-	H. Ducklow	Columbia U.
Chandler Countryman	PhD	2014-	A. Burd	U. Georgia
Philip Sontag	PhD	2014- 2018	J. Reinfelder	Rutgers U.
Karen Stamieszkin	PhD	2010- 2016	A. Pershing	U. Maine
Kelly Robinson	PhD	2007- 2012	M. Graham	U. South Alabama
Hussain Al-Mutairi	PhD	2002- 2009	J. Torres	U. South Florida
Jonathan Cohen	PhD	1999- 2004	D. Forward	Duke U.

**Students mentored, undergraduates and high school (VIMS):**

Courtney Lorey	Undergraduate Intern	2019-2020	Antarctic research cruise, laboratory intern
Joshua Sacks	Undergraduate Intern	2019	Antarctic research cruise
Maya Thomas	REU program	2018 (summer)	Copepod Community Composition Throughout the Austral Summer Near Anvers Island, Antarctica
Colleen McBride	Undergraduate Intern	2017-2018	Antarctic research cruise, laboratory intern
Kharis Schrage	Undergraduate Intern	2017	Antarctic research cruise, honors thesis committee
Andrew Corso	Undergraduate Intern	2016	Antarctic research cruise, follow-up lab work
Anjali Bhatnagar	Undergraduate Intern	2016	Antarctic research cruise
Jack Conroy	Undergraduate Intern	2015-2016	Antarctic research cruise
Anna Klompen	Undergraduate Intern	2014	Laboratory work on Bermuda zooplankton
Sornsiri Phongphattarawat	Undergraduate Intern	2013 (spring)	Intern from Thailand, York River hydromedusae
Bruce Pfirrmann	Undergraduate Intern	2013	Antarctic research cruise
Domi Paxton	Undergraduate Intern	2013	Antarctic research cruise
Domi Paxton	Undergraduate Intern	2011&2012	Palmer Station, Antarctica field research
A. Frances Armstrong	Undergraduate Intern	2011	Antarctic research cruise
Caitlin Smoot	Undergraduate Intern	2010	Antarctic research cruise
Rebecca Walker	New Horizons	2010 (summer)	Laboratory work on Antarctic zooplankton lipid

Miram Gleiber	Governor's School W&M Honors Thesis	2010	content and gut chlorophyll content Time-series of vertical flux of zooplankton fecal pellets on the continental shelf of the Western Antarctic Peninsula
Sarah Giltz	Undergraduate Intern	2009	Antarctic research cruise
Miram Gleiber	Undergraduate Intern	2008 -2009	Antarctic research cruise, follow-up lab work Honors thesis
Lori Price	Undergraduate Intern	2007 (summer)	Feeding of copepods and microzooplankton on harmful algae
Heather Nees	REU program	2005 (summer)	Feeding of gelatinous zooplankton in the York River Estuary
Rachel Fontana	REU program	2003 (summer)	Selective feeding by <i>Acartia tonsa</i> copepods on natural plankton populations in the York River Estuary
Sarah Wickman	REU program	2002 (summer)	Impacts of feeding by the ctenophore <i>Mnemiopsis leidyi</i> on mesozooplankton populations in the York River Estuary
Jenna Rowe	New Horizons Governor's School	2001-2002	Effect of physical processes on zooplankton distribution in the Chesapeake Bay

### Students mentored (BIOS):

#### *REU (Research Experience for Undergraduates) program:*

- 2000** Anne Prusak (SUNY Stonybrook) "Production of Colored Dissolved Organic Matter (CDOM) by zooplankton and its possible composition"
- 1999** Marla Ranelletti (University of California Santa Cruz) "The importance of salps (pelagic tunicates) in the flux of organic material to the deep Sargasso Sea"
- 1998** Maria Calvi (Dartmouth) "The effect of light, lunar phase, and substrate type on emergence of demersal zooplankton"
- 1997** Jessica Bohonowych (Duke University) "Chemical defenses in plankton: deterrents against feeding by the sardine *Harengula humeralis*".
- 1996** Jenny Lin (Harvard University) "Gut-content analysis and gut clearance rates of vertically migrating zooplankton in the Sargasso Sea".
- 1995** Cecelia Sheridan (University of Michigan) "The *Trichodesmium* community in the Sargasso Sea: Associated organisms and nutrient regeneration"

#### *Undergraduate Honors theses:*

- 1997** Cecelia Sheridan (University of Michigan) "The *Trichodesmium* community in the Sargasso Sea"
- 1997** Toby Jarvis (University of Wales, Swansea) "The impact of a mesoscale eddy on the community structure of zooplankton in the Sargasso Sea"

#### *Volunteer Interns:*

- 1998** Sheldon Holder (Bermuda High School), June
- 1997** Toby Jarvis (University of Wales, Swansea), July - Sept.
- 1996** Cecelia Sheridan (University of Michigan), June- Aug.
- 1996** Shannon Harris (Manitoba), Feb.- May
- 1996** Sarah Goldthwait (University of California Santa Cruz), Jan.- May

## RESEARCH

### Fellowships and grants

Award Term: 8/1/18- 7/31/23 (**current**)  
Title: “Collaborative Research: The Bermuda Atlantic Time-Series Study: Sustained Physical, Biogeochemical, Ecosystem, and Ocean Change Observations and Linkages in the Subtropical North Atlantic Ocean (Years 31-35)”  
Agency: NSF OCE-1756312  
Amount: (\$298,738 to D. Steinberg)  
PI’s: N. Bates and R. Johnson (BIOS), D. Steinberg (VIMS), M. Lomas (Bigelow Laboratory)

Award Term: 9/7/18- 9/30/19, extension until 4/1/20 (**current**)  
Title: “Influence of Plankton Community Composition and Abiotic Environmental Factors on the Dynamics of Total and Pathogenic *Vibrio parahaemolyticus* in oysters, water and sediment”  
Agency: US Department Health and Human Services Food and Drug Administration  
Amount: \$58,547 total  
PI’s: C. Audemard, K. Reece, D. Steinberg, W. Reay (VIMS)

Award Term: 9/7/17- 9/6/20 (**current**)  
Title: “Zooplankton-Mediated Export Pathways: Quantifying Fecal Pellet Export and Active Transport by Diel and Ontogenetic Vertical Migration in the North Pacific and Atlantic Oceans”  
Agency: NASA- 80NSSC17K0654  
Amount: \$ 820,450 total (\$572,150 to D. Steinberg)  
PI’s: D. Steinberg (VIMS), A. Maas (BIOS)

Award Term: 9/1/14- 8/31/20 (**current**)  
Title: “LTER Palmer, Antarctica (PAL): Land-shelf-ocean connectivity, ecosystem resilience, and transformation in a sea-ice influenced pelagic ecosystem”  
Agency: NSF PLR-1440435  
Amount: ~\$6,000,000 total (\$706,750 to D. Steinberg)  
PI’s: H. Ducklow (Columbia U/Lamont), D. Steinberg (VIMS), O. Schofield (Rutgers), D. Martinson (Columbia U/Lamont), S. Stammerjohn (UCSC), W. Fraser (Polar Research group), A. Friedlaender (OSU)

Award Term: 6/1/14- 5/31/17, extension until 5/31/18  
Title: “CSBR: Natural History: Organization and digitization of the larval fish collection at the Virginia Institute of Marine Science”  
Agency: NSF DBI-1349327  
Amount: \$499,597  
PI’s: E. Hilton, S. Huber, D. Steinberg (VIMS)

Award Term: 8/1/13- 7/31/18  
Title: “The Bermuda Atlantic Time-series Study: Sustained Biogeochemical, Ecosystem, and Ocean Change Observations and Linkages in the Subtropical North Atlantic”  
Agency: NSF OCE-1258622  
Amount: (\$152,337 to D. Steinberg)  
PI’s: N. Bates (BIOS), M. Lomas (Bigelow Laboratory), D. Steinberg (VIMS)

Award Term: 6/10/14- 6/9/16, extension until 12/9/16  
Title: “Jellyfish population dynamics in the Chesapeake Bay (Graduate Fellow - Joshua Stone)”  
Agency: NOAA, Virginia Sea Grant, NA14OAR4170093  
Amount: \$79,999  
PI’s: D. Steinberg

Award Term: 5/1/15- 4/30/16, extension until 10/31/16  
Title: “Preliminary investigation of the specific interactions between *Vibrio* spp. and zooplankton taxa in lower Chesapeake Bay”  
Agency: NOAA, Virginia Sea Grant, NA 14OAR4170093  
Amount: \$8,675 total (~\$3,500 to D. Steinberg)  
PI’s: C. Audemard, K. Reece, and D. Steinberg (VIMS)

Award Term: 9/1/08- 10/31/14, extension until 8/31/15  
Title: “Palmer, Antarctica Long Term Ecological Research: Looking Back in Time Through Marine Ecosystem Space”  
Agency: NSF OPP-0823101  
Amount: ~\$4,920,000 total (\$677,729 to D. Steinberg)

PI's: H. Ducklow (MBL), D. Steinberg (VIMS), O. Schofield (Rutgers), D. Martinson (Lamont), S. Stammerjohn (UCSC), W. Fraser (Polar Research group)

Award Term: 10/1/09- 9/30/12, extension until 9/30/13  
 Title: "Collaborative Research: Amazon iNfluence on the Atlantic: CarbOn export from Nitrogen fixation by DiAtom Symbioses (ANACONDAS)"  
 Agency: NSF OCE-0934036  
 Amount: \$3,185,217 total (\$399,581 to D. Steinberg)  
 PI's: P. Yager (UGA), D. Steinberg (VIMS), R. Hood, V. Coles (UMD), E. Carpenter (SFSU), J. Montoya (GA Tech), D. Capone, W. Berelson (USC), J. Goes (Bigelow)

Award Term: 6/1/08- 12/31/11, extension until 12/31/12  
 Title: "From Microbes to Mammals: Studying climate-induced changes in the Antarctic Marine Ecosystem with a Robotic Cluster"  
 Agency: Gordon and Betty Moore Foundation  
 Amount: \$1,347,416 total (\$251,572 to D. Steinberg)  
 PI's: O. Schofield, S. Glenn (Rutgers), D. Steinberg (VIMS), D. Martinson (Lamont-Doherty)

Award Term: 8/1/08- 7/31/13  
 Title: "Bermuda Atlantic Time-series Study (BATS): Years 21-25"  
 Agency: NSF OCE-0752366  
 Amount: (\$88,347 subcontract to D. Steinberg)  
 PI's: A. Knap, M. Lomas, N. Bates (BIOS), D. Steinberg (VIMS)

Award Term: 9/15/06- 9/14/10  
 Title: "Collaborative Research: Carbon flux through the twilight zone- new tools to measure change"  
 Agency: NSF OCE-0628444 (Carbon and Water)  
 Amount: ~\$2,250,000 total (\$271,157 to D. Steinberg)  
 PI's: K. Buesseler (WHOI), D. Steinberg (VIMS), Dave Siegel (UCSB), Mike Lomas (BIOS)

Award Term: 9/01/04- 8/31/07  
 Title: "Development of an operational model for predicting the near real time distribution and abundance of the scyphomedusa, *Chrysaora quinquecirrha*"  
 Agency: NOAA subaward No. Y-05-0011  
 Amount: \$44,217  
 PI's: D. Steinberg (subward from Yale University)

Award Term: 2/01/04- 1/31/07  
 Title: "Impacts of Eddies on Zooplankton Community Structure and Biogeochemical cycling in the Open Ocean"  
 Agency: NSF OCE-0351576  
 Amount: \$285,000  
 PI's: D. Steinberg

Award Term: 8/01/03- 7/31/06  
 Title: "Collaborative Research: VERTical Transport in the Global Ocean (VERTIGO)"  
 Agency: NSF OCE-0324402  
 Amount: \$1,926,583 total (\$280,853 to D. Steinberg)  
 PI's: K. Buesseler (WHOI), D. Steinberg (VIMS), Mary Silver (UCSC), Dave Siegel (UCSB), Tom Trull (Ant CRC), Phil Boyd (U. Otago)

Award Term: 9/15/02- 8/31/07 (extension to 8/31/08)  
 Title: "Collaborative Research: Quantification and modeling of DOC and DON release in marine systems: A study of increasing trophic complexity"  
 Agency: NSF OCE-0221825 (Biocomplexity)  
 Amount: \$1,699,795 total (\$216,515 to D. Steinberg, \$812,421 total to VIMS)  
 PI's: D. Bronk, W. Smith, D. Steinberg, D. Malmquist (VIMS), R. Hood (UMCES), C. Carlson (UCSB), D. Repeta (WHOI), E. Wommack (UDel), K. Flynn

Award Term: 2/1/01- 1/31/03 (extension to 1/31/04)  
 Title: "Collaborative Research: Diel, seasonal, and interannual patterns in zooplankton and micronekton species composition in the subtropical Atlantic"  
 Agency: NSF OCE -0004256/ NOPP



Amount: \$239,881  
PI's: D. Steinberg (VIMS), L. Madin (WHOI)

Award Term: 9/1/99- 8/31/02 (extension to 8/31/03)  
Title: "Comparative dynamics of colored dissolved organic matter in open ocean environments"  
Agency: NSF OCE -9977399, 0196305 (extension)  
Amount: \$450,529  
PI's: N. Nelson (UCSB), C. Carlson (UCSB), D. Steinberg (VIMS)

Award Term: 3/1/00- 2/28/03  
Title: "Neutrally-buoyant sediment traps for direct sampling of the upper ocean export flux"  
Agency: NSF OCE-9912044  
Amount: \$60,795  
PI's: J. Price, K. Buesseler (WHOI), subcontract to D. Steinberg (VIMS)

Award Term: 4/1/00- 3/31/03  
Title: "Open ocean and sub-tropical marine research experiences for undergraduates at the Bermuda Biological Station for Research"  
Agency: NSF OCE- 9987626  
Amount: \$219,336  
P.I.'s: H. Trapido-Rosenthal (BBSR), D. Steinberg (BBSR), N. Nelson (BBSR), and D. Malmquist (BBSR)

Award Term: 5/15/98- 4/30/01  
Title: "The Effective Use of Web-Based Scientific Resources in Teaching and Teacher Training: A Collaborative Pilot Program Using Real Data Sets to Explore Oceanography and Global Environmental Change"  
Agency: NSF DUE- 9752494  
Amount: \$207,253  
PI's: D. Malmquist (BBSR), D. Steinberg (BBSR), K. Bishop (COE), L. Martinez-Perez (FIU), A. Knap (BBSR)

Award Term: 5/1/98- 4/30/01  
Title: "The Bermuda Atlantic Time-series Study (BATS)"  
Agency: NSF OCE-9617795  
Amount: \$2,099,992  
PI's: A. Knap (BBSR), D. Steinberg (BBSR), C. Carlson (BBSR), N. Bates (BBSR)

Award Term: 7/15/97- 1/31/99  
Title: "SGER: Chemical ecology of holoplankton: implications in energy flux and mixed species assemblages"  
Agency: NSF OCE-9725041, SGER  
Amount: \$46,862  
P.I.'s: D. Steinberg (BBSR), J. McClintock (UAB), B. Baker (FIT)

Award Term: 4/1/97- 3/31/00  
Title: "Open ocean and sub-tropical marine research experiences for undergraduates at the Bermuda Biological Station for Research"  
Agency: NSF OCE- 9619718  
Amount: \$157,621  
P.I.'s: H. Trapido-Rosenthal (BBSR), D. Steinberg (BBSR), N. Nelson (BBSR), and D. Malmquist (BBSR)

**Refereed publications in journals and books** (note: underlined names are Steinberg's students or post docs)

**Total citations= 8548, h-index= 52, i10-index= 91** (as of 2/7/2020)

Source [https://scholar.google.com/citations?user=nKw\\_gY4AAAAJ&hl=en](https://scholar.google.com/citations?user=nKw_gY4AAAAJ&hl=en)

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14. **Steinberg, D.K.**, C.A. Carlson, N.R. Bates, S.A. Goldthwait, L.P. Madin, and A.F. Michaels . 2000. Zooplankton vertical migration and the active transport of dissolved organic and inorganic carbon in the Sargasso Sea. *Deep-Sea Research I* 47: 137-158.
13. Buesseler, K.O., **D.K. Steinberg**, A.F. Michaels, R.J. Johnson, J.E. Andrews, J. R. Valdes, J.F. Price. 2000. A comparison of the quantity and composition of material caught in a neutrally buoyant versus surface-tethered sediment trap. *Deep-Sea Research I* 47: 277-294.
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11. **Steinberg, D.K.** , C.H. Pilskaln , and M.W. Silver. 1998. Contribution of zooplankton associated with detritus to sediment trap “swimmer” carbon in Monterey Bay, CA. *Marine Ecology Progress Series* 164: 157-166
10. Silver M.W., Coale S.L., Pilskaln C.H., **Steinberg D.K.** 1998. Giant Aggregates: Importance as community centers and agents of material flux in the mesopelagic zone. *Limnology and Oceanography* 43 (3): 498-507.
9. **Steinberg, D.K.** , M.W. Silver, and C.H. Pilskaln. 1997. The role of mesopelagic zooplankton in the community metabolism of giant larvacean house detritus in Monterey Bay, California, USA. *Marine Ecology Progress Series* 147: 167-179.
8. McClintock, J.B., D.P. Swenson, **D.K. Steinberg**, and A.F. Michaels. 1996. Feeding deterrent properties of common oceanic holoplankton from Bermudian waters. *Limnology and Oceanography* 41(4): 798-801.
7. **Steinberg, D.K.** 1995. Diet of Copepods (*Scopalatum vorax*) associated with mesopelagic detritus in Monterey Bay, CA. *Marine Biology* 122(4): 571-585.
6. **Steinberg, D.K.**, M.W. Silver, S.L. Coale, C.H. Pilskaln, and J. Paduan. 1994. Midwater zooplankton communities on pelagic detritus (giant larvacean houses) in Monterey Bay, California. *Limnology and Oceanography* 39(7): 1606-1620.
5. Silver, M.W., S.L. Coale, **D.K. Steinberg**, and C.H. Pilskaln. 1994. Marine snow: What it is and how it affects ecosystem functioning. In: *Linking Species and Ecosystems*. C.G. Jones and J.H. Lawton (eds.). Chapman and Hall, N.Y. pp. 45-51.

4. Ferrari, F. D., and **D.K. Steinberg**. 1993. *Scopalatum vorax* (Esterly, 1911) and *Scolecithricella lobophora* Park, 1970, calanoid copepods (Scolecitrichidae) associated with a pelagic tunicate in Monterey Bay. Proceedings of the Biological Society of Washington 106(3): 467-489.
3. Crocker, K.M., A.L. Alldredge, and **D.K. Steinberg**. 1991. Feeding rates of the doliolid, *Dolioletta gegenbauri*, on diatoms and bacteria. Journal of Plankton Research 13(1): 77-82.
2. Silver, M., C. Pilskaln, and **D. Steinberg**. 1991. The biologists' view of sediment trap collections: problems of marine snow and living organisms. In: Sediment Trap studies in the Nordic Countries, II. P. Wassman, A.S. Heiskaven, and O. Linidahl (eds.), Symposium Proceedings, pp. 76-93.
1. Prezelin, B.B., H.E. Glover, B. Ver Hoven, **D. Steinberg**, H.A. Matlick, O.Schofield, N. Nelson, M. Wyman, and L. Campbell. 1989. Blue-green light effects on light-limited rates of photosynthesis: relationship to pigmentation and productivity estimates for *Synechococcus* populations from the Sargasso Sea. Marine Ecology Progress Series 54: 121-136.

### **Manuscripts currently in review** (note: underlined names are Steinberg's students or post-docs)

Conroy, J. A., **D. K. Steinberg**, P. S. Thibodeau, O. Schofield (in review) Zooplankton diel vertical migration during Antarctic summer. Deep-Sea Res. I.

Thibodeau, P. S., **D. K. Steinberg**, and A.E. Maas (in review) Effects of temperature and food concentration on pteropod metabolism along the Western Antarctic Peninsula. Journal of Experimental Marine Biology and Ecology.

Thibodeau, P. S., **D. K. Steinberg**, C. E. McBride, J. A. Conroy, N. Keul, H.W. Ducklow (in review) Long-term trends in pteropod phenology along the Western Antarctic Peninsula. Deep-Sea Res. I.

### **Unrefereed publications in journals and books**

**2014 Steinberg, D.K.** (2014). Dr. Deborah K. Steinberg (autobiographic sketch). Special issue: Women in Oceanography: A decade later. Oceanography 27 (4, Supplement).

**2010 Steinberg, D.K.**, and D. A. Hansell (2010). Introduction to: "Ecological and biogeochemical interactions in the dark ocean". Deep-Sea Research II 57(16): 1429-1432.

**2009 Hall, J.**, D. Hansell, G. Herndl, C. Moloney, E. Murphy, M. Roman, H. Saito, and **D. Steinberg**. (2009) Three IMBER imizo workshops on ecological and biogeochemical interactions. Global Change Newsletter No. 73, P. 12-14.

**2008 Steinberg, D.K.** 2008. Long-Term Ecological Research in the Western Antarctic Peninsula. Meridian, Summer 2008, P. 16-17.

**2005 Steinberg, D.K.** 2005. Dr. Deborah K. Steinberg (autobiographic sketch). Special issue: Women in Oceanography. Oceanography 18 (1).

**2003 Steinberg, D.K.**, H.W. Ducklow, K.O. Buesseler, M.C. Bowles (2003) Assessing contributions of JGOFS; previewing studies in ocean ecology, biogeochemistry. Eos, Transactions American Geophysical Union 84 (40): 413.

**1999 Carlson, C.A.**, N.R. Bates, and **D.K. Steinberg**. 1999. Ten years of BATS data: A unique opportunity to observe the variability of biogeochemical phenomena. Earth System monitor. P. 9-10.

**1997 Carlson, C.A.**, N.R. Bates, and **D.K. Steinberg**. 1997. Time series data sets provide a valuable resource for synthesis and modeling phase of U.S. JGOFS. U.S. JGOFS News. Vol. 8 no. 3.

### **Research reports from grant or contract work**



- 2011 Steinberg, D.** (2011). Site 9: BATS (Sargasso Sea). pp. 36-37 In: O'Brien, T. D., Wiebe, P. H., and Hay, S. (Eds). 2011. ICES Zooplankton Status Report 2008/2009. ICES Cooperative Research Report No. 307. 152 pp.
- 1997 Knap, A. H., Michaels, A. F., Steinberg, D.K., Bahr, F., Bates, N., Bell, S., Countway, P., Close, A., Doyle, A., Howse, F., Gundersen, K., Johnson, R., Little, R., Orcutt, K., Parsons, R., Rathbun, C., Sanderson, M., Stone, S.,** 1997. BATS methods manual. U.S. JGOFS Planning Office, Woods Hole.

### **Invited scholarly papers and talks**

- 2020 Steinberg D.K.,** J.A. Conroy, and P.S. Thibodeau “New Insights Into Patterns of Zooplankton Abundance Along the Rapidly Changing Western Antarctic Peninsula”, Society for Integrated and Comparative Biology (SICB) Meeting, New Frontiers in Antarctic Marine Biology Symposium, Austin, TX. Jan., 2020.
- 2019 Steinberg D.K.,** K.S. Stamieszkin, and A.E. Maas “Active flux by diel and seasonal vertical migration: Some thoughts to prime the pump”, BIARRITZ Meeting, National Oceanography Centre, Southampton, UK. July, 2019.
- 2019 Steinberg D.K.** “Zooplankton and the biological carbon pump”, Workshop: Towards a better understanding of fish contribution to carbon flux, Rutgers University, NJ. March, 2019.
- 2018 Steinberg D.K.** “Zooplankton and biogeochemical cycling in the changing ecosystem of the West Antarctic Peninsula”, Old Dominion University, VA. Oct., 2018.
- 2018 Steinberg D.K.** “Zooplankton and export around the world”, University of Rhode Island, RI. Apr., 2018.
- 2017 Steinberg D.K.** “Zooplankton and export around the world”, Lamont Doherty Earth Observatory and Department of Earth and Environmental Sciences, Columbia University, Oct., 2017.
- 2017 Steinberg D.K.** “Sustained observations of zooplankton community structure and biogeochemical cycling the Western Antarctic Peninsula”. Southern Ocean Observing System (SOOS) West Antarctic Peninsula International Meeting, British Antarctic Survey, Cambridge, UK, May 2017.
- 2017 Steinberg D.K.,** P.S. Thibodeau, M. Gleiber, H. W. Ducklow, O. M. E. Schofield, and S. Stammerjohn. “Long-term changes in zooplankton and biogeochemical cycling in the West Antarctic Peninsula -mechanisms and predictions”. In Icy waters: The future of Marine biogeochemical research off the West Antarctic Peninsula Royal Society Meeting, Chicheley, UK, May, 2017.
- 2016 Steinberg D.K.** “Zooplankton and biogeochemical cycling in the changing ecosystem of the West Antarctic Peninsula”, Nicholas School of the Environment, Duke University, NC. Mar., 2016.
- 2015 Steinberg D.K.** “Zooplankton and biogeochemical cycling in the changing ecosystem of the West Antarctic Peninsula” Department of Geosciences, Princeton University, NJ. Nov., 2015.
- 2015 Steinberg D.K.** “Zooplankton community structure, grazing, and carbon export in the Amazon River plume and tropical North Atlantic”, Department of Marine and Coastal Sciences, Rutgers University, NJ. Nov., 2015.
- 2015 Steinberg D.K.** and C. Reiss “Spatial and temporal patterns of zooplankton along the Antarctic Peninsula” Domain 1 Marine Protected Area Workshop, Southwest Fisheries Science Center, National Marine Fisheries Service, La Jolla, CA. March, 2015.
- 2014 Steinberg D.K.** “The biological pump: vertical migration” Ocean Carbon and Biogeochemistry (OCB) Meeting, Woods Hole, MA. July, 2014.
- 2014 Steinberg D.K.** “Ecosystem comparison of trends in zooplankton community structure and role in<sup>[1]</sup> biogeochemical cycling” North Pacific Marine Science Organization (PICES) FUTURE Open Science Meeting, Kohala Coast, HI. April, 2014.
- 2014 Steinberg D.K.** “Zooplankton and biogeochemical cycling in the changing ecosystem of the West Antarctic Peninsula” Hampton University, VA, March, 2014.

- 2013 Steinberg D.K.** “Zooplankton and biogeochemical cycling in the changing ecosystem of the West Antarctic Peninsula” Chesapeake Biological Laboratory, U. Maryland, Dec. 2013.
- 2013 Steinberg D.K.** “Zooplankton and biogeochemical cycling in the changing ecosystem of the West Antarctic Peninsula” North Carolina State University, Nov. 2013.
- 2013 Steinberg D.K.** “Zooplankton and biogeochemical cycling in the changing ecosystem of the West Antarctic Peninsula” University of Maine, Sept. 2013.
- 2012 Steinberg D.K.** “Zooplankton and biogeochemical cycling in the changing ecosystem of the West Antarctic Peninsula” William & Mary 2012 Biology Seminar Series, Sept., 2012.
- 2012 Steinberg D.K.** “Zooplankton and biogeochemical cycling in the changing ecosystem of the West Antarctic Peninsula” Georgia Institute of Technology, Atlanta, GA, Mar., 2012.
- 2012 Steinberg D.K.** “Long-term changes in the role of zooplankton in ocean biogeochemical processes” Sverdrup Award Lecture, TOS/AGU/ASLO Ocean Sciences Meeting, Salt Lake City, UT, Feb., 2012.
- 2011 Steinberg D.K.** (joint seminar with Hugh Ducklow) “Carbon export and zooplankton dynamics in the Palmer LTER”. Alfred Wegner Institute for Polar and Marine Research, Bremerhaven, Germany, Aug., 2011.
- 2011 Steinberg D.K.** “Zooplankton and biogeochemical cycling west of the Antarctic Peninsula”. Cambridge, UK, July, 2011.
- 2011 Steinberg D.K.** “Zooplankton role in biogeochemical cycles: Progress and prospects for the future”. Plenary talk, 5th International Zooplankton Production Symposium, Pucon, Chile, Mar., 2011.
- 2011 Steinberg D.K.,** S. E. Wilson, M. R. Gleiber, H. W. Ducklow, K. O. Buesseler “Ecosystem comparison of zooplankton effects on organic matter transport to the deep ocean”. University of California, Santa Barbara, CA, Mar., 2011.
- 2010 Steinberg D.K.,** S. E. Wilson, M. R. Gleiber, H. W. Ducklow, K. O. Buesseler “Cross-system comparison of zooplankton effects on transport of organic matter to the deep sea”. AGU/ASLO/TOS Ocean Sciences Meeting, Portland, OR, Feb., 2010.
- 2010 Steinberg D.K.** “Planktonic food web controls on carbon cycling in the ocean’s ‘twilight zone’ ”. Old Dominion University, Feb. 2010.
- 2010 Steinberg D.K.** O.M. E. Schofield, W. R. Fraser, S. E. Stammerjohn, D. G. Martinson, S. C. Doney, M. Montes-Hugo, and H. W. Ducklow. “The changing ecosystem of the West Antarctic Peninsula”. Society for Integrative and Comparative Biology Meeting, Seattle WA, Jan. 2010.
- 2009 Steinberg D.K.** “Biological Controls on Flux Through the Twilight Zone: What do we Know, and What do we Need to do Next?”, Chapman Conference on the Biological Carbon Pump of the Oceans, Southampton, UK. Sept., 2009
- 2009 Steinberg D.K.** “Future plans for krill and other macrozooplankton research in the Palmer, Antarctica Long-Term Ecological Research Program (PAL LTER), 3rd International Globec Open Science Meeting, Victoria, BC, Canada. June, 2009
- 2008 Steinberg D.K.,** H. Ducklow, S. Doney “Long-term research and time-series observations: What have we learned?”, Ocean Carbon and Biogeochemistry (OCB) Meeting, Woods Hole, MA. July, 2008
- 2008 Steinberg D.K.,** Wilson, S. E., B. A. S. Van Mooy, K. O. Buesseler, P. P. Boyd, T. Kobari, D. M. Karl “Zooplankton and sinking particle dynamics in the ocean's twilight zone” University of Maryland Horn Point Laboratory. Apr., 2008.
- 2007 Steinberg D.K.,** Wilson, S. E., B. A. S. Van Mooy, K. O. Buesseler, P. P. Boyd, T. Kobari, D. M. Karl “Zooplankton community structure and sinking particle dynamics in the mesopelagic zone”, Woods Hole Oceanographic Institution, Woods Hole, MA. Oct., 2007.

- 2006 Steinberg D.K.**, K. O. Buesseler, B. A. S. Van Mooy, P. P. Boyd, and S. E. Wilson “Zooplankton and carbon flux in the ocean’s twilight zone”, Sea Education Association, Woods Hole, MA. Oct., 2006.
- 2005 Steinberg D.K.** and S.E. Wilson “Zooplankton effects on ocean particle flux: Preliminary results from VERTIGO I”, NYK Maritime Museum, Yokohama, Japan, July, 2005.
- 2005 Steinberg D.K.** “Zooplankton effects on ocean particle flux”, Xiamen University, China, Apr., 2005.
- 2005 Steinberg D.K.** “Zooplankton in the ocean’s twilight zone: Effects on particle flux”, Hampton University, Mar., 2005.
- 2003 Steinberg D.K.** “Zooplankton and biogeochemical cycling in the Sargasso Sea” Bermuda Biological Station for Research, Inc. Centennial Celebration Alumni Symposium, St. Georges, Bermuda, Aug., 2003.
- 2003 Steinberg D.K.**, L. P. Madin, M. R. Landry, A. Schnetzer, and C. C. Sheridan “Zooplankton and Biogeochemical Cycling in the Subtropical Atlantic and Pacific Oceans” 3rd International Zooplankton Production Symposium: The role of zooplankton in Gobal Ecosystem Dynamics: Comparative Studies from the World Oceans. Gijon, Spain, May, 2003.
- 2002 Steinberg D.K.** “Commentary- Does biological community structure influence biogeochemical fluxes? JGOFS says Yes!” Joint Global Ocean Flux Study (JGOFS) Final International Open Science Conference. Washington, D.C, May, 2003.
- 2003 Steinberg D.K.** “The role of grazers in the production of DON” American Society of Limnology and Oceanography (ASLO) Aquatic Sciences Meeting. Salt Lake City, Utah, Feb, 2003.
- 2002 Steinberg D.K.** “Role of zooplankton in the transformation, remineralization, and export of particulate organic matter in the sea”. International JGOFS/IGBP/GAIM meeting on Global Ocean Productivity and the Fluxes of Carbon and Nutrients: Combining Observations and Models. Ispra, Italy, June, 2002.
- 2002 Steinberg D.K.** “Training and education at the time-series stations”. Shifting Paradigms: a U.S. JGOFS Ocean Time-series Summit. Vancouver, BC, Canada, April., 2002.
- 2002 Steinberg D.K.** “Zooplankton in the twilight zone: effects on particle flux and remineralization”. U.S. Joint Global Ocean flux Study (JGOFS) Synthesis and Modeling Program (SMP) workshop on midwater processes. San Antonio, TX, March., 2002.
- 2002 Steinberg D.K.** “Zooplankton community structure and its effect on vertical transport and cycling of elements in the sea”. Dauphin Island Sea Laboratory (U. Alabama) Spring seminar series. Feb., 2002.
- 2002 Steinberg, D.K.** "Toward a census of marine life: a zooplankton species time series in the Sargasso Sea" VIMS Biological Sciences Departmental Fall seminar series. Dec., 2002
- 2001 Steinberg D.K.**, and L.P. Madin. “Effect of zooplankton community structure on particle flux and nutrient cycling at the Bermuda Atlantic Time-series Study (BATS) Site”. American Geophysical Union (AGU) Fall meeting. San Francisco, CA Dec., 2001.
- 2001 L.P. Madin and D.K. Steinberg.** “Zooplankton and micronekton studies at Bermuda: An historical perspective”. American Geophysical Union (AGU) Fall meeting. San Francisco, CA Dec., 2001.
- 2001 Steinberg, D.K.** “Zooplankton and Biogeochemical cycling in the Sargasso Sea (and some plans for the Chesapeake Bay)” VIMS Biological Sciences Departmental Fall seminar series. Nov., 2001
- 2001 Steinberg, D.K.** "Zooplankton community structure and its role in vertical transport and cycling of elements in the Sargasso Sea". University of Maryland, Horn Point Environmnetal Laboratory Spring seminar series. May., 2001.
- 2001 Steinberg, D.K.** "Zooplankton community structure and its role in vertical transport and cycling of elements in the Sargasso Sea". Duke University Marine Laboratory Spring seminar series. Apr., 2001.
- 2001 Steinberg, D.K.** “Bermuda Atlantic Time-series Study (BATS) Ancillary Programs” Sargasso Sea Ocean Observatory (S2O2) workshop. Bermuda, Mar., 2001.

- 2001 Steinberg, D.K.** "Zooplankton community structure and its role in vertical transport and cycling of elements in the Sargasso Sea". University of California Santa Barbara, Marine Science Interdepartmental Colloquium. Mar., 2001.
- 2000 Steinberg, D.K.** "Zooplankton community structure and its effect on vertical transport and cycling of elements in the sea" University of South Florida, Dept. of Marine Science. Apr., 2000.
- 1999 Steinberg, D.K.** "Planktonic community structure and biogeochemical cycling at BATS". The Joint Global Ocean Flux Study (JGOFS) steering committee meeting, Honolulu, Hawaii, Oct., 1999.
- 1999 Steinberg, D.K.** "The 'Classroom BATS' distance learning program". The Joint Global Ocean Flux Study (JGOFS) steering committee meeting, Honolulu, Hawaii, Oct., 1999.
- 1998 Steinberg, D.K.** "Zooplankton vertical migration and the active transport of carbon and nitrogen in the Sargasso Sea" Monterey Bay Aquarium Research Institute, Moss Landing, CA. Oct., 1998.
- 1998 Steinberg, D.K.** "Zooplankton vertical migration and the active transport of carbon and nitrogen in the Sargasso Sea" University of Delaware Fall seminar series. Oct., 1998.
- 1998 Steinberg, D.K.** "Creatures of the Deep" and "History of Underwater Exploration" Edinburgh International Science Festival, Edinburgh, Scotland. Mar., 1998.
- 1997 Steinberg, D.K.** "Planktonic community structure and its effect on vertical transport and cycling of elements in the sea" Rutgers University Fall seminar series, NJ. Oct., 1997.
- 1997 Steinberg, D.K.** "Planktonic community structure and its effect on vertical transport and cycling of elements in the sea" University of Southern California, Oct., 1997.
- 1995 Steinberg, D.K., A.F. Michaels, and A.H. Knap.** "An overview of the Bermuda Atlantic Time-series Study (BATS) station" European Station for Time-Series in the Ocean, Canary Islands (ESTOC) meeting. Canary Islands, Oct., 1995.
- 1994 Steinberg, D.K.** "Mid-water detritus as a zooplankton habitat, food source, and remineralization center in Monterey Bay, CA". Monterey Bay Aquarium Research Institute, Pacific Grove, CA. 1994.
- 1993 Steinberg, D.K.** "Use of marine snow (giant larvacean houses) by mesopelagic zooplankton communities in Monterey Bay, CA". Bermuda Biological Station for Research, Inc. Aug., 1993.
- 1991 Steinberg, D.K.** "Use of marine snow by pelagic zooplankton communities in Monterey Bay". Monterey Bay Aquarium Research Symposium, Monterey, CA, 1991
- 1990 Steinberg, D.K.** "Midwater metazoans associated with pelagic detritus (giant larvacean houses)" Western Society of Naturalists 71st Annual meeting, Monterey, CA, 1990.

### **Contributed papers presented at professional meetings and published abstracts**

(note: underlined names are Steinberg students or post docs)

- 2020 Steinberg, D. K., K. S. Stamieszkin, A.E. Maas, C. A Durkin, U. Passow, M. L. Estapa, K. O. Buesseler, M. Roca-Marti, and M. Omand,** "Salp-Mediated Export Processes in the Northeast Subarctic Pacific Ocean", Ocean Sciences Meeting, San Diego, CA. Feb., 2020.
- 2020 Stamieszkin, K. S., D. K. Steinberg,** A.E. Maas, "The role of mesozooplankton community structure in fecal pellet carbon production in the subarctic northeast Pacific Ocean", Ocean Sciences Meeting, San Diego, CA. Feb., 2020.
- 2020 Thibodeau, P. S., D. K. Steinberg,** A.E. Maas, "Effects of warming on the ecology and physiology of the Southern Ocean pteropod, *Limacina helicina antarctica*", Ocean Sciences Meeting, San Diego, CA. Feb., 2020.
- 2020 Countryman, C. E., D. K. Steinberg,** A.E. Maas, "Development of an agent-based model to assess the role of mesozooplankton community structure and diel vertical migration in fecal pellet carbon flux", Ocean Sciences Meeting, San Diego, CA. Feb., 2020.

- 2020 Tarrant, A. M., **D. K. Steinberg**, and C. Berger, “Physiology of Lipid-storing Copepods During Summer Along the West Antarctic Peninsula”, Ocean Sciences Meeting, San Diego, CA. Feb., 2020.
- 2020 Shea, C. H., V. Evrard, N. Wallsgrove, T. Allen, J. Cope, **D. K. Steinberg**, A. E. Maas, K. Stamieszkin, H. G. Close, B. N. Popp, “Northeast Pacific mesopelagic zooplankton feed increasingly on small (0.3-53  $\mu\text{m}$ ) particles with depth at Station Papa (EXPORTS)”, Ocean Sciences Meeting, San Diego, CA. Feb., 2020.
- 2020 Doherty, S., A. E. Maas, **D. K. Steinberg**, A.E. Maas, B. N. Popp, H. G. Close, “Estimating the Contribution of Zooplankton Fecal Pellets to Marine Suspended Particle Pools”, Ocean Sciences Meeting, San Diego, CA. Feb., 2020.
- 2020 Lomas, M. W., R. J. Johnson, Nicholas R. Bates, and **D. K. Steinberg**, “Adaptive biogeochemical responses in the Sargasso Sea in response to reductions in winter mixing”, Ocean Sciences Meeting, San Diego, CA. Feb., 2020.
- 2020 Sontag-P.T., K. R. Clem, B. Raney, W. R. Fraser, **D. K. Steinberg**, B. R. Lintner, and J. R. Reinfeldt, “Bottom-Up Controls on Accumulation of Biogeochemical Tracers along the West Antarctic Peninsula: From Mercury to Models”, Ocean Sciences Meeting, San Diego, CA. Feb., 2020.
- 2020 Kim, H., Y. Luo, H. W. Ducklow, O. Schofield, **D. K. Steinberg**, and S. Doney, “Microbial control of ocean carbon and biogeochemical cycling in a changing polar ocean: Insights from ecosystem modeling of the West Antarctic Peninsula”, Ocean Sciences Meeting, San Diego, CA. Feb., 2020.
- 2020 Tarrant, A. M., C. Berger, and **D. K. Steinberg**, “Feast and Famine: Copepod metabolic condition during summer along the West Antarctic Peninsula”, Society for Integrated and Comparative Biology (SICB) Meeting, Austin, TX. Jan., 2020.
- 2019 Stamieszkin, K.S., P. Brun, A.E. Maas, D.K. Steinberg. “Using allometry to model copepod-mediated carbon flux – how well do we estimate key rates and variables?” Trait-Based Approaches to Ocean Life, Buckinghamshire, UK, Aug. 2019.
- 2019 **Steinberg, D. K.**, K. S. Stamieszkin, A. E. Maas, and Joseph S. Cope. “Mesozooplankton community structure and diel vertical migration in the subarctic N.E. Pacific Ocean, Station P”. Ocean Carbon and Biogeochemistry Meeting, Woods Hole Oceanographic Institute, Woods Hole, Massachusetts, June 2019. Also presented at EXPORTS Science Meeting, Williamsburg, VA, May, 2019.
- 2019 Thibodeau, P. S., **D. K. Steinberg**, and A. E. Maas. “Environmental controls on pteropod metabolism along the Western Antarctic Peninsula”. Ocean Carbon and Biogeochemistry Meeting, Woods Hole Oceanographic Institute, Woods Hole, Massachusetts, June 2019.
- 2019 Maas, A. M., A. Miccoli, K. S. Stamieszkin, Joseph S. Cope, and **D. K. Steinberg**. “Zooplankton metabolism, active flux, and contribution to AOU in the N.E. Pacific Ocean”. Ocean Carbon and Biogeochemistry Meeting, Woods Hole Oceanographic Institute, Woods Hole, Massachusetts, June 2019.
- 2019 Omand, M., **D. K. Steinberg**, K. S. Stamieszkin. “High Frequency Migrations by Zooplankton”. EXPORTS Science Meeting, Williamsburg, VA, May, 2019.
- 2019 Maas, A.E., J. Cope, A. Miccoli, K. Stamieszkin, **D.K. Steinberg**. “Estimating zooplankton active flux, AOU, and metabolism in the N.E. Pacific Ocean”. EXPORTS Science Meeting, Williamsburg, VA, May, 2019.
- 2019 Maas, A.E., J. Cope, A. Miccoli, K. Stamieszkin, **D.K. Steinberg**. “Characterization of Zooplankton Active Flux in the N.E. Pacific Ocean”. (February 2019) ASLO – San Juan, Puerto Rico.
- 2018 Thibodeau, P. S., **D. K. Steinberg**, and B. Song. “Pteropod feeding ecology along the Western Antarctic Peninsula”. Long-term Ecological Research (LTER) All-Scientists Meeting, Pacific Grove, CA, Sept. 2018.
- 2018 Conroy, J. A., **D. K. Steinberg**, and L.T. West. “Seasonal succession and local surface currents structure a coastal Antarctic zooplankton community.” Long-term Ecological Research (LTER) All-Scientists Meeting, Pacific Grove, CA, Sept. 2018.
- 2018 Thibodeau, P. S., **D. K. Steinberg**, C.E. McBride, and H. W. Ducklow. “Environmental controls on pteropod phenology along the Western Antarctic Peninsula”. Ocean Carbon and Biogeochemistry Meeting, Woods Hole Oceanographic Institute, Woods Hole, Massachusetts, July 2018.

- 2018 Corso, A.D., **D. K. Steinberg**, S. K. Huber, J. Cope, and E.J. Hilton. “A time-series analysis of the larval fish assemblage of the Western Antarctic Peninsula”. American Fisheries Society 42<sup>nd</sup> Annual Larval Fish Conference, Victoria, British Columbia, Canada, June 2018.
- 2018 **Steinberg, D. K.**, J. A. Conroy, and P. S. Thibodeau “Active Flux by Diel Vertically Migrating Zooplankton Along the Western Antarctic Peninsula”. Ocean Sciences Meeting, Portland, OR, Feb 2018.
- 2018 Countryman, C. E., **D. K. Steinberg**, and A. Burd “Modeling active organic carbon flux by vertically migrating zooplankton using an agent-based model”. Ocean Sciences Meeting, Portland, OR, Feb 2018.
- 2018 Schofield, O.M., D.G. Martinson, W. Fraser, **D.K. Steinberg**, A.S. Friedlaender, S.C. Doney, D.W. Johnston, S.L. Stammerjohn, D. Nowacek, and H.W. Ducklow. “Decadal dynamics in the ecosystems along the rapidly Warming West Antarctic Peninsula”. Ocean Sciences Meeting, Portland, OR, Feb 2018.
- 2016 **Steinberg, D. K.**, P. S. Thibodeau, and S. E. Stammerjohn “Long-term and regional effects of sea ice on zooplankton along the Western Antarctic Peninsula”. Sixth International Zooplankton Production Symposium, Bergen, Norway, May 2016.
- 2016 Conroy, B. J. and **D. K. Steinberg** “Macrozooplankton community composition in the Amazon River plume and western tropical North Atlantic Ocean”. Sixth International Zooplankton Production Symposium, Bergen, Norway, May 2016.
- 2016 Stone, J. P. , **D. K. Steinberg**, and M. C. Fabrizio “Time series of gelatinous zooplankton in Chesapeake Bay, USA: Environmental controls and interspecific interactions”. Sixth International Zooplankton Production Symposium, Bergen, Norway, May 2016.
- 2016 Thibodeau, P. S., **D. K. Steinberg**, C. Hauri, and H.W. Ducklow “Environmental controls on temporal and spatial patterns in pteropod (*Limacina helicina*) abundance along the Western Antarctic Peninsula”. Sixth International Zooplankton Production Symposium, Bergen, Norway, May 2016.
- 2016 Atkinson, A., S. Hill, S. Saille, J. Bruun, V. Siegel, E. Pakhomov, **D. Steinberg**, K. Schmidt, C. Reiss, and S. Kawaguchi “Impacts of rapid regional climate change on the population dynamics of Antarctic krill”. Sixth International Zooplankton Production Symposium, Bergen, Norway, May 2016.
- 2016 Loick-Wilde, N., S. C. Weber, B. J. Conroy, D. G. Capone, V. J. Coles, P. M. Medeiros, **D. K. Steinberg**, and J. P. Montoya “Zooplankton net growth efficiency in the Amazon plume”. Sixth International Zooplankton Production Symposium, Bergen, Norway, May 2016.
- 2016 **Steinberg, D. K.**, K. E. Ruck, and J. S. Cope “Long-term patterns in production and export of fecal pellets by krill and salps along the western Antarctic Peninsula”. TOS/AGU/ASLO Ocean Sciences Meeting, New Orleans, LA, Feb 2016.
- 2016 Ivory, J. A., **D. K. Steinberg**, and R. J. Latour “Diel, seasonal, and interannual variability in abundance of major mesozooplankton taxa in the Sargasso Sea as related to changing environmental parameters”. TOS/AGU/ASLO Ocean Sciences Meeting, New Orleans, LA, Feb 2016.
- 2016 Stone, J. P., **D. K. Steinberg** “Influence of top-down control in the plankton food web on vertical carbon flux: a mesocosm study in the Chesapeake Bay”. TOS/AGU/ASLO Ocean Sciences Meeting, New Orleans, LA, Feb 2016.
- 2016 Conroy, B. J., **D. K. Steinberg**, B. Song, and R. A. Foster. “Grazing by zooplankton on diazotrophs in the Amazon River plume and western tropical North Atlantic”. TOS/AGU/ASLO Ocean Sciences Meeting, New Orleans, LA, Feb 2016.
- 2016 Cope, J. S., **D. K. Steinberg**, and S. Thanassekos “Environmental Factors Influencing Antarctic Krill Recruitment along the Western Antarctic Peninsula”. TOS/AGU/ASLO Ocean Sciences Meeting, New Orleans, LA, Feb 2016.
- 2016 Sontag, P. T., **D. K. Steinberg**, and J. R. Reinfelder “Spatial and developmental effects on the accumulation of mercury in Antarctic krill (*E. superba*) along the West Antarctic Peninsula (WAP)”. TOS/AGU/ASLO Ocean Sciences Meeting, New Orleans, LA, Feb 2016.

- 2016 Bernard, K.S., M. A. Cimino, W. Fraser, J. T. Kohut, M. J. Oliver, D. Patterson-Fraser, D. Paxton, S. Raycroft, H. Statscewich, **D. K. Steinberg**, and P. Winsor “Antarctic krill cohort determines dominant aggregation structure”. TOS/AGU/ASLO Ocean Sciences Meeting, New Orleans, LA, Feb 2016.
- 2015 Thibodeau, P. S., J. A. Conroy, and D.K. Steinberg. “Diel Vertical Distribution Patterns of Zooplankton along the Western Antarctic Peninsula”. Long-Term Ecological Research (LTER) All Scientists Meeting, Estes Park, CO, Aug. 2015.
- 2015 Ducklow, H. W., J.E. Conners, S.C. Doney, W.R. Fraser, A.S. Friedlaender, D.G. Martinson, J.D. McDonnell, O.M. Schofield, S.L. Stammerjohn, D.K. Steinberg. “Palmer LTER: Land-Shelf-Ocean Connectivity, Ecosystem Resilience and Transformation in a Sea-Ice Influenced Pelagic Ecosystem”. Long-Term Ecological Research (LTER) All Scientists Meeting, Estes Park, CO, Aug. 2015.
- 2015 Huber, S.K., Konstantinidis, P., Hilton, E. J., and **D. K. Steinberg**. “Organization, expansion, and digitization of the larval fish collection at the Virginia Institute of Marine Science”. American Society of Ichthyologists and Herpetologists (ASIH) Meeting, Reno, NV, July 2015.
- 2015 Konstantinidis, P., Hilton, E. J., Huber, S.K., and **D.K. Steinberg**. “Antarctic Ichthyoplankton in the Virginia Institute of Marine Science Nunnally Ichthyology Collection”. American Society of Ichthyologists and Herpetologists (ASIH) Meeting, Reno, NV, July 2015.
- 2015 Thibodeau, P. S., and D.K. Steinberg. “Environmental controls on pteropod abundance and biogeography along the Western Antarctic Peninsula”. Response of pteropods to ocean acidification and climate change workshop, Cambridge, UK, June 2015.
- 2015 Huber, S.K., Konstantinidis, P., Hilton, E. J., and **D.K. Steinberg**. “Organization, expansion, and digitization of the larval fish collection at the Virginia Institute of Marine Science”. Society for the Preservation of Natural History Collections (SPNHC) Meeting, Gainesville, FL, May 2015.
- 2015 Stone, J. P. and D.K. Steinberg. “Salp contribution to carbon export in the Sargasso Sea”. ASLO Aquatic Science Meeting, Granada, Spain, Feb. 2015.
- 2015 Gleiber, M. R., D.K. Steinberg, and O. Schofield. “Copepod grazing impact and carbon export along the Western Antarctic Peninsula”. ASLO Aquatic Science Meeting, Granada, Spain, Feb. 2015.
- 2014 **Steinberg, D.K.**, H. W. Ducklow, and C.M. Luria. “Production of dissolved organic matter by Antarctic zooplankton and its effect on bacteria production”. TOS/AGU/ASLO Ocean Sciences Meeting, Honolulu, HI, Feb., 2014.
- 2014 Conroy, B. J., Steinberg, D.K.: Zooplankton grazing in the Amazon River plume and western tropical North Atlantic”. TOS/AGU/ASLO Ocean Sciences Meeting, Honolulu, HI, Feb., 2014.
- 2014 Gleiber, M. R., Steinberg, D. K “Copepod community structure and climate warming along the Western Antarctic Peninsula”. TOS/AGU/ASLO Ocean Sciences Meeting, Honolulu, HI, Feb., 2014.
- 2013 Stone, J. P. and D.K. Steinberg “A long-term time-series study of salp population dynamics in the Sargasso Sea”, 4<sup>th</sup> International Jellyfish Bloom Symposium, June 2013, Hiroshima, Japan.
- 2013 **Steinberg, D. K.**, M. R Gleiber, B. J. Conroy, and W.M. Berelson. “Contribution of zooplankton fecal pellets to carbon flux in the Amazon River plume and western tropical North Atlantic Ocean”. ASLO Aquatic Science Meeting, New Orleans, LA, Feb 2013.
- 2013 Loick-Wilde, N., Gehre, M., Miltner, A., Conroy, B. O., Steinberg, D. K., Montoya, J.P. “Diurnal variation in amino acid concentrations and nitrogen stable isotopes reveal trophic structure and nitrogen dynamics in epi- and mesopelagic zooplankton”. ASLO Aquatic Science Meeting, New Orleans, LA, Feb 2013.
- 2012 Saba, G. K., O. Schofield, and **D. K. Steinberg**. “Increased feeding and nutrient excretion of adult Antarctic krill, *Euphausia superba*, exposed to enhanced carbon dioxide (CO<sub>2</sub>)” Scientific Committee on Antarctic Research (SCAR) Open Science Conference, Portland, OR, June, 2012.
- 2012 Price, L. M., Steinberg, D. K., Ducklow, H. W. “Microzooplankton community structure and grazing impact along the Western Antarctic Peninsula”. TOS/AGU/ASLO Ocean Sciences Meeting, Salt Lake City, UT, Feb., 2012.

- 2012 Gleiber, M. R., Steinberg, D. K., Ducklow, H. W. “Time series of vertical flux of zooplankton fecal pellets on the continental shelf of the Western Antarctic Peninsula”. TOS/AGU/ASLO Ocean Sciences Meeting, Salt Lake City, UT, Feb., 2012.
- 2012 Bernard, K. S., Steinberg, D. K., Fraser, W. R. “Krill distribution and Adelie penguin diet at Anvers and Avian islands, Western Antarctic Peninsula”. TOS/AGU/ASLO Ocean Sciences Meeting, Salt Lake City, UT, Feb., 2012.
- 2012 Ruck, K. E., Steinberg, D. K.; Canuel, E. A. “Krill lipid dynamics along the Western Antarctic Peninsula”. TOS/AGU/ASLO Ocean Sciences Meeting, Salt Lake City, UT, Feb., 2012.
- 2012 Owens, S. A., Buesseler, K. O., Lamborg, C. H., Valdes, J., Lomas, M.W., Johnson, R. J., **Steinberg, D. K.**, Siegel, D. A. “A new record of particle flux at the Bermuda Atlantic Time-series site from neutrally buoyant sediment traps”. TOS/AGU/ASLO Ocean Sciences Meeting, Salt Lake City, UT, Feb., 2012.
- 2012 Conroy, B. J., Steinberg, D. K.: Zooplankton community composition in the Amazon River plume and western tropical North Atlantic”. TOS/AGU/ASLO Ocean Sciences Meeting, Salt Lake City, UT, Feb., 2012.
- 2012 <sup>[1]</sup>Hudson, J. M., Steinberg, D. K., Sutton, T. T., Graves, J. E. “Feeding ecology and carbon transport of diel vertically migrating myctophids from the northern Mid-Atlantic Ridge”. TOS/AGU/ASLO Ocean Sciences Meeting, Salt Lake City, UT, Feb., 2012. (received a Best Student Talk award)
- 2011 Coles, V., Yager, P., Berelson, W., Capone, E., Carpenter, E., Goes, J., Hood, R., Montoya, J., **Steinberg, D. K.**, and others. “Amazon influence on the Atlantic: CarbOn export from Nitrogen fixation by DiAtom Symbioses (ANACONDAS)”. Ocean Carbon and Biogeochemistry (OCB) Meeting, Woods Hole, MA. July, 2011.
- 2010 Bernard, K.S., Steinberg D. K., Schofield O.M.E. “Summer grazing impact of the dominant macrozooplankton in the Western Antarctic Peninsula”. Scientific Committee on Antarctic Research (SCAR) Open Science Conference, Buenos Aires, Argentina, Aug., 2010.
- 2010 Montes-Hugo M.A., Gould R.W., Arnone R.A., Ducklow H., **Steinberg D.**, Schofield O. “Day-night patterns of particle dynamics of Antarctic waters based on glider-derived observations”. Ocean Optics Meeting, Anchorage, AL, Sept., 2010.
- 2010 Saba, G.K., D. K. Steinberg, D. A. Bronk, and A. R. Place. “The effects of harmful algal species and food concentration on zooplankton grazer production of dissolved organic and inorganic nutrients”. AGU/ASLO/TOS Ocean Sciences Meeting, Portland, OR, Feb., 2010.
- 2010 Schofield, O., H. W. Ducklow, M. Arrott, K. Gorman, A. Kahl, D. Martinson, **D. K. Steinberg**, W. Fraser. “Bathymetric structuring of biological hotspots in the West Antarctic Peninsula”. AGU/ASLO/TOS Ocean Sciences Meeting, Portland, OR, Feb., 2010.
- 2009 **D. K. Steinberg**, D.K., K. E. Ruck, L. M. Price, M. R. Gleiber, J. S. Cope, H. W. Ducklow. Zooplankton Export of Organic Matter in the West Antarctic Peninsula. Long-Term Ecological Research (LTER) All Scientists Meeting, Estes Park, CO, Sept. 2009.
- 2009 Fraser, W.M., K. Gorman, R. Smaniotta, D. Martinson, D. Patterson-Fraser, O. Schofield, **D. Steinberg**, and H. Ducklow. Back to the Cold, a Discovery Cruise to Charcot Island, Western Antarctic Peninsula. Long-Term Ecological Research (LTER) All Scientists Meeting, Estes Park, CO, Sept. 2009.
- 2009 Lomas, M.W., **D. K. Steinberg**, T. Dickey, C.A. Carlson, N.B. Nelson, R. H. Condon, and N.R. Bates (2009). “A multi-year increase in shallow POC export is countered by enhanced mesopelagic POC attenuation in the Sargasso Sea”. Chapman Conference on the Biological Carbon Pump of the Oceans, Southampton, UK, Sept. 2009.
- 2009 Owens, S. A., K. O. Buesseler, C. H. Lamborg, J. R. Valdez, M. W. Lomas, R. J. Johnson, D. A. Siegel, **D. K. Steinberg**. “A New Record of Particle Flux at the Bermuda Atlantic Time-Series Site From Neutrally Buoyant Sediment Traps”. Chapman Conference on the Biological Carbon Pump of the Oceans, Southampton, UK, Sept. 2009.
- 2009 Quetin, L., R. Ross, M. Vernet, W. Kozlowski, L. Yarmey, A. Lowe, M. Amsler, C. Fritsen, O. M.E. Schofield, and **D. Steinberg**. Grazing by larval Antarctic krill and phytoplankton dynamics during the fall west of the Antarctic Peninsula. 3rd GLOBEC Open Science meeting, Victoria, BC, Canada. June, 2009



- 2009 Wilson, S. E., **D. K. Steinberg**. “Autotrophic pico- and nanoplankton in zooplankton guts: evidence of aggregate feeding in the mesopelagic zone and export of small phytoplankton”. ASLO Aquatic Science Meeting, Nice , France, Jan 2009.
- 2009 Lomas, M. W., **D.K. Steinberg**, N.B. Nelson, R.H. Condon, N.R. Bates. A multi-year increase in shallow POC export is countered by enhanced mesopelagic POC attenuation in the Sargasso Sea. ASLO Aquatic Science Meeting, Nice, France, Jan 2009.
- 2008 Condon, R. H., **D. K. Steinberg**, P. A. del Giorgio, D.A. Bronk, T.C. Bouvier, H.W. Ducklow. “The jelly carbon pump: Jellyfish blooms result in a major respiratory sink of carbon in marine systems”. Ocean Carbon Biogeochemistry Meeting, Woods Hole, MA, July 2008.
- 2008 **Steinberg, D. K.**, M. W. Lomas, and L.P. Madin. “A long-term, significant increase in zooplankton biomass at the Bermuda Atlantic Time-series Study (BATS) site in the Sargasso Sea”. AGU/ASLO/TOS Ocean Sciences Meeting, Orlando, FL, March, 2008.
- 2008 Saba, G. K., **D. K. Steinberg**, and D. A. Bronk. “Grazing and nutrient release from *Acartia tonsa* copepods feeding on toxin-producing *Karlodinium venificum*: Interactions of top-down and bottom-up control”. AGU/ASLO/TOS Ocean Sciences Meeting, Orlando, FL, March, 2008.
- 2008 Wilson, S. E., **D. K. Steinberg**, F. L. Chu, J. K. B. Bishop, and K. O. Buesseler. “Characterization of zooplankton diet and particle feeding in the mesopelagic zone using fatty acid lipid biomarkers”. AGU/ASLO/TOS Ocean Sciences Meeting, Orlando, FL, March, 2008.
- 2008 Price, L., G. K. Saba, and **D. K. Steinberg**. “Zooplankton grazing on two ecologically important harmful algal species in the Chesapeake Bay”. AGU/ASLO/TOS Ocean Sciences Meeting, Orlando, FL, March, 2008.
- 2008 Buesseler, K. O., S. Owens, J. Valdes, M. Lomas, R. Johnson, **D. K. Steinberg**, and D. Siegel. “Carbon flux through the twilight zone – new tools to measure change”. AGU/ASLO/TOS Ocean Sciences Meeting, Orlando, FL, March, 2008.
- 2007 Ueda, A., T. Kobari, and **D. K. Steinberg** “Body allometry and chemical composition of interzonally migrating copepods in the subarctic Pacific Ocean”. PICES 16th Annual Meeting, North Pacific Marine Science Organization, Victoria (Canada), Oct., 2007.
- 2007 Kobari, T., A. Ueda, **D. K. Steinberg**, M. Kitamura, and A. Tsuda “Development of ontogenetically migrating copepods in the Western Subarctic Gyre.” PICES 16th Annual Meeting, North Pacific Marine Science Organization, Victoria (Canada), Oct., 2007.
- 2007 **Steinberg, D.K.**, B. A. S. Van Mooy, K. O. Buesseler, S.E. Wilson, P. P. Boyd, T. Kobari, and D. M. Karl “Biotic control of sinking particle flux in the ocean’s twilight zone”. Ocean Carbon and Biogeochemistry Meeting. Woods Hole, MA, July, 2007.
- 2007 **Steinberg, D.K.**, S.E. Wilson, T. Kobari, and K. O. Buesseler “Zooplankton processing of sinking particle flux in the mesopelagic zone”. Fourth International Zooplankton Production Symposium. Hiroshima, Japan, June, 2007.
- 2007 Condon, R. H., **D. K. Steinberg** “Development, biological regulation, and fate of *Mnemiopsis leidyi* blooms in the York River estuary, USA”. Second International Jellyfish Blooms Symposium. Coolangata, Australia, June 2007.
- 2007 Condon, R. H., **D. K. Steinberg**, T.C. Bouvier, P.A. del Giorgio “Links between dissolved organic matter excretion by gelatinous zooplankton and bacterial metabolism”. Second International Jellyfish Blooms Symposium. Coolangata, Australia, June 2007.
- 2007 **Steinberg, D.K.**, B. A. S. Van Mooy, K. O. Buesseler, P. P. Boyd, T. Kobari, and D. M. Karl “Microbial vs. zooplankton control of sinking particle flux in the ocean’s twilight zone”. American Society of Limnology and Oceanography (ASLO) Aquatic Sciences Meeting. Santa Fe, NM, Feb, 2007.
- 2007 Eden, B.R., **D.K. Steinberg**, S.A. Goldthwait, and D. McGillicuddy “The effect of mesoscale eddies on zooplankton community structure in the Sargasso Sea”. American Society of Limnology and Oceanography (ASLO) Aquatic Sciences Meeting. Santa Fe, NM, Feb, 2007.

- 2007 Henderson, G.K., and **D.K. Steinberg** “The impacts of carnivorous feeding by *Acartia tonsa* copepods on dissolved organic matter (DOM)”. American Society of Limnology and Oceanography (ASLO) Aquatic Sciences Meeting. Santa Fe, NM, Feb, 2007.
- 2006 **Steinberg, D.K.** and K.O. Buesseler “Zooplankton Community Metabolic Requirements and the Effect on Particle Flux and Remineralization in the Ocean's Twilight Zone”. AGU/ASLO/TOS Ocean Sciences Meeting, Honolulu, Hawaii, Feb, 2006.
- 2006 Condon, R.H., and **D.K. Steinberg** “Impact of Dissolved Organic Matter Excretion by Gelatinous and Crustacean Zooplankton on Bacterial Production in the York River Estuary, Virginia, USA”. AGU/ASLO/TOS Ocean Sciences Meeting, Honolulu, Hawaii, Feb, 2006.
- 2006 Cope, J.S., **D.K. Steinberg**, and E. L. Markhaseva “Taxonomic Analysis of a Zooplankton Time Series in the Sargasso Sea: Patterns of Biodiversity and Relationships with Environmental Parameters”. AGU/ASLO/TOS Ocean Sciences Meeting, Honolulu, Hawaii, Feb, 2006.
- 2006 Wilson, S.E., **D.K. Steinberg**, and K.O. Buesseler “Changes in fecal pellet characteristics with depth as indicators of zooplankton repackaging of particles in the mesopelagic zone”. AGU/ASLO/TOS Ocean Sciences Meeting, Honolulu, Hawaii, Feb, 2006.
- 2006 Henderson, G.K., **D.K. Steinberg**, and D. A. Bronk “Dissolved Organic Matter (DOM) Composition and Release Rates from Meso- and Micro-Zooplankton Grazers in the Chesapeake Bay: Implications of Prey Type”. AGU/ASLO/TOS Ocean Sciences Meeting, Honolulu, Hawaii, Feb, 2006.
- 2006 Goldthwait, S. A., **D.K. Steinberg**, and D. McGillicuddy “Elevated Biomass of Mesozooplankton and Enhanced Fecal Pellet Flux in Cold-Core and Mode-Water Eddies in the Sargasso Sea”. AGU/ASLO/TOS Ocean Sciences Meeting, Honolulu, Hawaii, Feb, 2006.
- 2006 Bronk, D. A., Smith, W. O., Roberts, Q., Carlson, C., Henderson, G., **Steinberg, D.**, Sanderson, M , Wommack, E, Repeta, D, Bronk, W “Influence of Grazing and Viral Infection on the Production of Dissolved Organic Matter”. AGU/ASLO/TOS Ocean Sciences Meeting, Honolulu, Hawaii, Feb, 2006.
- 2006 Shields, A R, Henderson, G K, Dreyer, J C,: Smith, W O, **Steinberg, D. K.** “Influence of Grazing and Viral Infection on the Production of Dissolved Organic Matter”. AGU/ASLO/TOS Ocean Sciences Meeting, Honolulu, Hawaii, Feb, 2006.
- 2006 Kobari, T , **Steinberg, D K**, Wilson, S, Buesseler, K, Tsuda, A , Kitamura, M “Vertical distribution of ontogenetically migrating copepods in the Western Subarctic Gyre”. AGU/ASLO/TOS Ocean Sciences Meeting, Honolulu, Hawaii, Feb, 2006.
- 2006 Andrews, J E,Lamborg, C H, Pike, S , **Steinberg, D** , Wilson, S , Valdes, J , Buesseler, K O “An Examination of Sediment Trap Accuracy Issues During VERTIGO”. AGU/ASLO/TOS Ocean Sciences Meeting, Honolulu, Hawaii, Feb, 2006.
- 2006 Buesseler, K , Bishop, J ,: Boyd, P , Casciotti, K , Dehairs, F , Lamborg, C , Siegel, D, Silver, M , **Steinberg, D** , Saito, S , Trull, T , Valdes, J , Van Mooy, B “What We Know From VERTIGO”. AGU/ASLO/TOS Ocean Sciences Meeting, Honolulu, Hawaii, Feb, 2006.
- 2006 McGillicuddy, D J, Bates, N, Bibby, T , Buesseler, K O, Carlson, C , Davis, C S, Falkowski, P , Goldthwait, S , Hansell, D A, Jenkins, W , Johnson, R , Ledwell, J , Li, Q , Siegel, D , **Steinberg, D** “Impacts of Eddies and Mixing on Plankton Community Structure and Biogeochemical Cycling in the Sargasso Sea”. AGU/ASLO/TOS Ocean Sciences Meeting, Honolulu, Hawaii, Feb, 2006.
- 2005 **Steinberg, D.K.** and M.J. Brush “Seasonal cycles of mesozooplankton in the York River tributary of Chesapeake Bay, Virginia, USA”. Estuarine Research Federation (ERF) Conference. Norfolk, Virginia, Oct., 2005.
- 2005 Condon, R.H., and **D.K. Steinberg** “Effects of ctenophores on dissolved organic matter cycling in the York River estuary, Virginia, USA”. Estuarine Research Federation (ERF) Conference. Norfolk, Virginia, Oct., 2005.
- 2005 Henderson, G.K., **D.K. Steinberg**, and D.A. Bronk “The Role of Mesozooplankton and Microzooplankton Grazers in the Production of Dissolved Organic Matter (DOM)”. Estuarine Research Federation (ERF) Conference. Norfolk, Virginia, Oct., 2005.

- 2005** Bronk, D., **D. Steinberg**, W. Smith, C. Carlson, E. Wommack, D. Repeta, R. Hood, G. Henderson, A. Cano, and Q. Roberts “Quantification and modeling of DOC and DON release in marine systems: a study of increasing trophic complexity”. Biocomplexity in the Environment Meeting. Arlington, Virginia, Mar., 2005.
- 2004** Condon, R.H., and **D.K. Steinberg** “Effects of ctenophores on organic and inorganic nutrient cycling in the York River estuary, Virginia, USA”. American Society of Limnology and Oceanography (ASLO) Aquatic Sciences Meeting. Savannah, Georgia, June, 2004.
- 2004** Buesseler, K. O., Andrews, J. E., Bishop, J. K., Boyd, P. W., Dehairs, F., Matear, R., Sarin, M. M., Siegel, D. A., Silver, M. W., **Steinberg, D. K.**, Trull, T. W., Valdes, J. R. “Vertigo here we go”. American Society of Limnology and Oceanography (ASLO)/ The Oceanography Society (TOS) Ocean Research Conference. Honolulu, Hawaii, Feb, 2004.
- 2003** Brush, M.J., R.J. Latour, R.L. Wetzel, and **D.K. Steinberg** “Analysis of a 17-year database for plankton in Chesapeake Bay”. Estuarine Research Federation Conference. Seattle, Washington, September, 2003.
- 2003** **Steinberg D.K.**, L.P. Madin, and A. Schnetzer “Zooplankton Community Structure and Biogeochemical Cycling at the Bermuda Atlantic Time-series Study (BATS)”. Joint Global Ocean Flux Study (JGOFS) Final International Open Science Conference. Washington, D.C, May, 2003.
- 2003** Schnetzer, A., and **D.K. Steinberg** “The Impact of diel vertical migration on surface export of particulate organic matter and cycling of energy in the mesopelagic zone”. Joint Global Ocean Flux Study (JGOFS) Final International Open Science Conference. Washington, D.C, May, 2003.
- 2003** Siegel, D.A., N.B. Nelson, S. Maritorena, C.A. Carlson, A.F. Michaels, D.A. Hansell, and **D.K. Steinberg** “Distribution, Dynamics and Biogeochemical Implications of Colored Dissolved Organic Materials in the Open Ocean: Discoveries Made During the JGOFS Era”. Joint Global Ocean Flux Study (JGOFS) Final International Open Science Conference. Washington, D.C, May, 2003.
- 2003** **Steinberg D.K.**, E. Markhaseva, J.S. Cope, S.E. Wilson, and L.P Madin “Diel, seasonal, and interannual patterns in zooplankton species composition in the subtropical Atlantic: A census of marine life”. American Society of Limnology and Oceanography (ASLO) Aquatic Sciences Meeting. Salt Lake City, Utah, Feb, 2003.
- 2003** Nelson, N.B, C.A. Carlson, and **D.K. Steinberg** “Distribution and dynamics of CDOM in the Sargasso Sea”. American Society of Limnology and Oceanography (ASLO) Aquatic Sciences Meeting. Salt Lake City, Utah, Feb, 2003.
- 2003** Carlson, C.A., S.J. Goldberg, N.B. Nelson, and **D.K. Steinberg** “Spatial variability of DOC quality and quantity in the Sargasso Sea”. American Society of Limnology and Oceanography (ASLO) Aquatic Sciences Meeting. Salt Lake City, Utah, Feb, 2003.
- 2002** **Steinberg D.K.**, and L.P Madin “Zooplankton and Biogeochemical cycling at BATS”. Shifting Paradigms: a U.S. JGOFS Ocean Time-series Summit. Vancouver, BC, April., 2002.
- 2002** Schnetzer, A. and **D.K Steinberg**. “Natural Diets of Vertically Migrating Zooplankton in the Sargasso Sea”. American Society of Limnology and Oceanography (ASLO) /American Geophysical Union (AGU) Ocean Sciences meeting. Honolulu, HI, Feb., 2002.
- 2002** Stanley, R.H.R., K.O. Buesseler, **D. K. Steinberg**, J.E. Andrews, S.J. Manganini, J.R. Valdes, J.F. Price “Understanding Upper Ocean Particle Flux: Neutrally Buoyant Sediment Traps and Standard Surface-Tethered Traps”. American Society of Limnology and Oceanography (ASLO) /American Geophysical Union (AGU) Ocean Sciences meeting. Honolulu, HI, Feb., 2002.
- 2001** L.P. Madin and **D.K. Steinberg**. “Zooplankton and micronekton studies at Bermuda: An historical perspective”. American Geophysical Union (AGU) Fall meeting. San Francisco, CA Dec., 2001.
- 2001** **Steinberg D.K.**, N.B. Nelson, and C.A. Carlson. “Zooplankton production of colored dissolved organic matter (CDOM) in the open ocean”. American Society of Limnology and Oceanography (ASLO) meeting. Albuquerque, New Mexico. Feb. 2001.

- 2001 Ranelletti, M. and **D.K. Steinberg** “Frequency and ecological impact of salp blooms at the Bermuda Atlantic Time-series Study (BATS) site in the Sargasso Sea”. American Society of Limnology and Oceanography (ASLO) meeting. Alburquerque, New Mexico. Feb. 2001.
- 2001 Fraser, P.J., A.G. Macdonald, and **D.K. Steinberg** “Hydrostatic pressure drives neural responses in shallow and deep crustacea”. Royal Institute of Navigation (RIN) meeting. Oxford, England. Apr. 2001.
- 2000 **Steinberg D.K.**, L.P. Madin “Influence of Zooplankton Community Structure on Export Processes at the Bermuda Atlantic Time-series Study (BATS) Site”. JGOFS Open Science Conference. Bergen, Norway. 2000.
- 2000 N. R. Bates, C. A. Carlson, D. A. Hansell, R. J. Johnson, **D.K. Steinberg**, Anthony H. Knap . “A Decade of Ocean Physical and Biogeochemical Observations at the U.S. JGOFS Bermuda Atlantic Time-series (BATS)” JGOFS Open Science Conference. Bergen, Norway. 2000.
- 2000 Carlson C.A., N.R. Bates, **D.K Steinberg**, D.A. Hansell, R.J. Johnson, A.H. Knap, A.F. Michaels. An overview of biogeochemical variability at the U.S. JGOFS Bermuda Atlantic Time-series Study (BATS) site. JGOFS Open Science Conference. Bergen, Norway. 2000.
- 2000 **Steinberg D.K.**, M. Raneletti, L.P. Madin, “Influence of a dense salp bloom on particle export at the Bermuda Atlantic Time-series Study (BATS) site”. American Society of Limnology and Oceanography (ASLO) /American Geophysical Union (AGU) Ocean Sciences meeting. San Antonio, TX. 2000.
- 2000 Schnetzer, A. and **D. K. Steinberg** “Active Transport of Particulate Organic Carbon (POC) by Vertically Migrating Zooplankton in the Sargasso Sea” (ASLO) /American Geophysical Union (AGU) Ocean Sciences meeting. San Antonio, TX. 2000.
- 2000 M. Roman, M. Landry, L. Madin, **D. Steinberg**, X. Zhang “Estimates of Oceanic Copepod Production: A Comparison Using the Bermuda and Hawaii Time Series Data” (ASLO) /American Geophysical Union (AGU) Ocean Sciences meeting. San Antonio, TX. 2000.
- 2000 G. Kim, L.Y. Alleman, T.M. Church, M.H. Conte, **D.K. Steinberg**, and K.M. Orcutt Atmospheric wet deposition of iron fuels biogeochemical fluxes in the oligotrophic Sargasso Sea (ASLO) /American Geophysical Union (AGU) Ocean Sciences meeting. San Antonio, TX. 2000.
- 2000 Goldberg, S.J., Carlson, C.A., **Steinberg, D.K.**, Wheeler, B.R. “Bacterioplankton Utilization of Zooplankton Derived DOM and Differential Utilization of Neutral Sugars” (ASLO) /American Geophysical Union (AGU) Ocean Sciences meeting. San Antonio, TX. 2000.
- 2000 K O. Buesseler, J. F. Price, J. R. Valdes , **D.K. Steinberg** , A. F. Michaels “Can we directly and reliably measure particle export in the upper ocean?” (ASLO) /American Geophysical Union (AGU) Ocean Sciences meeting. San Antonio, TX. 2000.
- 2000 D. L. Malmquist, **D. K. Steinberg**, K. O. Bishop, P. Tuddenham, L. A. Martínez-Pérez “Classroom BATS: Motivating and Facilitating Inquiry-based exploration of real oceanographic data” (ASLO) /American Geophysical Union (AGU) Ocean Sciences meeting. San Antonio, TX. 2000.
- 2000 Neuer, S., R. Davenport, T. Freudenthal, G. Wefer, O. Llinas, M. Rueda, **D. K. Steinberg**, M.H. Conte, D. M. Karl “A comparison of the biogeochemistry of the European time series station ESTOC with BATS and HOT”. JGOFS conference. Bremen, Germany, Sept. 2000.
- 1999 Bates, N.R., A.H. Knap, A.F. Michaels, **D.K. Steinberg**, C.A. Carlson, D.A. Hansell, R.J. Johnson, and S. Bell.. Ocean variability at the U.S. JGOFS Bermuda Atlantic Time-series Study (BATS) site. International JGOFS Symposium, Oban, Scotland, May, 1999.
- 1999 Carlson C.A., N.R. Bates, **D.K. Steinberg**, D.A. Hansell, R.J. Johnson, A.H. Knap, and A.F. Michaels 1999. An overview of biogeochemical variability at the U.S. JGOFS Bermuda Atlantic Time-series Study (BATS) and Hydrostation S site in the northwestern Sargasso Sea. JGOFS North Pacific Workshop and SEATS planning meeting, Taipei Taiwan. March 1999; Pg 10.
- 1999 Carlson, C., **D. Steinberg**, N. Bates, D. Hansell, and R. Johnson. 1999. Using trends observed in the BATS data set to gain insight into potential effect of climate change on upper ocean biogeochemistry. US JGOFS SMP (Synthesis and Modeling Project) Ocean Biogeochemical Response to Climate Change. Workshop Report, July 13-17, 1998, Durham, NH. US JGOFS Planning Report Number 22. p. 43.

- 1998 D. Steinberg**, C. Carlson, N. Bates, S. Goldthwait, L. Madin, and A. Michaels. 1998. Zooplankton vertical migration and the active transport of dissolved organic and inorganic carbon in the Sargasso Sea. US JGOFS SMP (Synthesis and Modeling Project) Time-series stations and modeling. US JGOFS Planning Report Number 21, April, 1998, p. 81.
- 1998 Steinberg D.K.**, D.A. Hansell. 1998. Excretion and Active Transport of Ammonia and Dissolved Organic Nitrogen by Vertically Migrating Zooplankton in the Sargasso Sea. ASLO (American Society of Limnology and Oceanography)/AGU (American Geophysical Union) meeting San Diego, CA. (session chair, poster)
- 1998 Malmquist, D.L., D.K. Steinberg**, K.O. Bishop, P.Tuddenham, L.A. Martinez-Perez. 1998. BATS in the classroom: Using real oceanographic data for inquiry-based learning. AGU fall meeting, San Francisco, CA. (talk)
- 1998 Bates, N. R. , R. J. Johnson, C. A. Carlson, A. H. Knap, A. F. Michaels, D. K. Steinberg**. 1998. Interannual Ocean Variability at the U.S. JGOFS Bermuda Atlantic Time-series Study (BATS) and Hydrostation S site. European Geophysical Society XXIII General Assembly, Nice. (talk)
- 1997 D. Steinberg**, C. Carlson, N. Bates, and A. Michaels. 1997. Zooplankton vertical migrations and the active transport of dissolved organic and inorganic carbon in the Sargasso Sea. ASLO Santa Fe, New Mexico. (talk)
- 1997 D. Steinberg**, C. Carlson, N. Bates, S. Goldthwait, L. Madin, and A. Michaels. 1997. "Zooplankton vertical migrations and the active transport of dissolved organic and inorganic carbon in the Sargasso Sea" JGOFS Synthesis and Modeling meeting, Snowbird, UT. (poster)
- 1997 D. Steinberg**, N. Nelson. D. Malmquist. 1997. Open ocean and sub-tropical marine research experiences for undergraduates at the Bermuda Biological Station for Research. ASLO, Santa Fe, New Mexico. (talk)
- 1997 N. Bates, A. Knap, A. Michaels, D. Steinberg**, C. Carlson, D. Hansell, R. Johnson, S. Bell Ocean variability at the U.S. JGOFS Bermuda Atlantic Time-series Study (BATS) site. 1997. International JGOFS symposium, Oban, Scotland. (talk)
- 1997 S. Goldthwait, D. Steinberg**, L. Madin, E. Horgan, and A. Michaels. 1997. Diurnal, Seasonal, and Annual Changes in the Abundance of Common Vertically Migrating Copepods and Euphausiids at the Bermuda Atlantic Time-series Station. TOS (The Oceanography Society) meeting, Seattle WA. (poster)
- 1996 D. Steinberg**, M. Silver, and C. Pilskaln. 1996. Contribution of zooplankton associated with detritus to sediment trap swimmer carbon in Monterey Bay, CA. ASLO/AGU meeting in San Diego, CA. (poster)
- 1996 Silver, M.W., S.L. Coale, C.H. Pilskaln, and D.K. Steinberg**. 1996. Sediment traps: Potential biases in collecting uncommon particles. ASLO/AGU San Diego, CA. (poster)
- 1994 D. Steinberg**, Silver, M.W., Pilskaln, C.H. 1994. Community metabolism on mid-water detritus (giant larvacean houses) in Monterey Bay, CA: The role of metazoans vs. the microbial community". ASLO meeting, San Diego, CA. (talk)
- 1994 Silver, M.W., Coale, S.L., Steinberg, D.K., Pilskaln, C.H.** 1994. The role of "Macro-snow" as microbial centers and vertical redistribution agents in mesopelagic communities. ASLO meeting, San Diego, CA. (talk)
- 1992 Steinberg, D.K., Silver, M.W., Pilskaln, C.H.** 1992. Use of Pelagic detritus (giant larvacean houses) by midwater metazoans". ASLO meeting, Santa Fe, New Mexico. (talk)
- 1992 Silver, M.W., Pilskaln, C.H., Coale, S.L., Steinberg, D.K.** 1992. Microorganism communities of giant larvacean houses in the midwater zone of Monterey Bay. ASLO meeting, Santa Fe, New Mexico. (talk)

## PROFESSIONAL SERVICE AND SCIENTIFIC LEADERSHIP

### VIMS and W&M Governance

**2020-present** Steering Committee, W&M Institute for Integrative Conservation. Jan. 2020- present.

**2018-present** Chair, Dept. of Biological Sciences. July 2018- present.

**2015-present** School of Marine Science Ombuds team faculty rep. June 2015- present.

**2013-present** Marine Science Minor Advisory committee (member). Oct. 2013-present.

**2018-2019** Member, Phytoplankton Ecologist Search committee. Aug. 2018- present.

**2015-2018** SCHEV Outstanding Faculty Award nomination selection committee.

**2012-2018** Planning Steering Committee for new research vessel at VIMS (member). June 2012-Apr. 2018.

**2016-2017** Marine Science Minor (interim co-Chair)

**2016** Chaired Professorship award committee (Chair)

**2015-2016** Biological Sciences Department Search committee- Marine Physiological Ecologist. Mar. 2015-2016.

**2015-2016** W&M Jefferson award selection committee.

**2014-2015** W&M Tack lecture selection committee.

**2013-2017** Faculty Status & Tenure Review committee (Chair). July 2013-July 2017.

**2013-2015** Commonwealth Center for Energy & Environment (CCEE) Steering Committee (member). Dec. 2013-2015.

**2013-2015** Post-doctoral Program Advisory Committee (member). Dec. 2013-July 2015.

**2013-2015** SMS Graduate Admissions committee (alternate). July 2013- July 2015.

**2014** Associate Dean of Academic Studies Business Manager Search committee (member). Jan-Apr. 2014.

**2014** Three-Minute Thesis Faculty Advisor. Sept.-Oct. 2014.

**2013-2014** Biological Sciences Department Search committee-Global Change Marine Biologist-2 new faculty hires (member). Sept. 2013-Dec. 2014.

**2013-2014** Academic Council (alternate). July 2013- Dec. 2014.

**2012-2013** Physical Sciences Department Search committee-Marine Chemist-2 new faculty hires (member). Sept. 2012-2013.

**2008-2013** School of Marine Science (SMS) Graduate Admissions committee (Chair). Dec. 2008 – Aug. 2011; Sept. 2012-July 2013.

**2008-2013** SMS Faculty Status & Tenure Review committee (member). Aug. 2008 – Aug. 2011; Sept. 2012-July 2013.

**2008-2009** W&M Biology Department Invertebrate Biologist Search committee (member). Dec. 2008 - 2009.

**2006-2007** Advisory Committee for Review of Dean and Director J. Wells (member). Dec. 2006 - Apr. 2007.

**2006-2007** Fisheries Science Department Search committee- 2 new faculty hires (member). Nov. 2006 – Sept 2007.

**2005** Biological Sciences Department Ecosystem Modeler Search committee (member). Jan. 2005 –Jan. 2006.

**2005- 2009** Qualifying exam moderator. Jan. 2005 –Sept 2009.

**2005** Advisory Committee for Review of SMS Dean of Graduate Studies (member). Jan. - Feb. 2005.

- 2004** Education Retreat (participant). April 21, 2004.
- 2004-2005** SMS Educational Policy committee (member). Sept. 2004- 2005.
- 2003-2005** SMS Academic Status and Degrees committee (member). Jan. 2003- 2005.
- 2002-2008** SMS Graduate Admissions committee (member). Sept. 2002- 2008.
- 2002-2005** Biological Sciences Department representative, and co-chair for VIMS Institutional seminar series committee. 2002-2005.
- 2003** Banner 'Web for faculty' module reviewer, Feb. 2003
- 2001-2002** SMS Graduate Admissions committee (alternate). June 2001 - Aug. 2002.

## **Editorial board services, Program reviews, National or international research programs & societies**

- 2020** Co-convenor for session, Quantifying Carbon Export Pathways in the Global Ocean, Ocean Sciences Meeting, San Diego, CA
- 2018-present** member, Working Group: Towards a better understanding of fish contribution to carbon flux, Ocean Carbon and Biogeochemistry Program
- 2018-present** Past-Chair, University-National Oceanographic Laboratory System (UNOLS)
- 2016-2018** Chair, University-National Oceanographic Laboratory System (UNOLS)
- 2014-2018** Editorial Committee Member, Annual Review of Marine Science
- 2018** Chair and invited Discussion Leader, Deep Ocean session, Ocean Biogeochemistry Gordon Research Conference, Hong Kong University of Science and Technology, China
- 2017** Co-Chair, special session on Ecological Stoichiometry in Higher Trophic Levels, Ocean Carbon & Biogeochemistry program Summer Meeting, Woods Hole Oceanographic Institution
- 2015-2017** Ocean Carbon & Biogeochemistry Program Scientific Steering Committee
- 2015** The Oceanography Society (TOS) Fellows selection committee
- 2013-2015** Association for the Sciences of Limnology and Oceanography Hutchinson Award Committee
- 2012-2015** The Oceanography Society (TOS) Council member
- 2010-2016** University-National Oceanographic Laboratory System (UNOLS) Council member (Chair-elect, Oct. 2014-Oct 2016)
- 2009** Group leader for national Cutting Edge Early Career Geoscience faculty workshop on proposal review and panels. (June 17, @William and Mary).
- 2008-2010** Guest Editor, Special Issue of Deep-Sea Research II, "Ecological and Biogeochemical Interactions in the Dark Ocean".
- 2007-2008** Chair, scientific program organizing committee for the Integrated Marine Biogeochemistry and Ecosystem Research (IMBER) workshop "Ecological and Biogeochemical Interactions in the Mesopelagic Zone" in Fall 2008, (Miami, FL).
- 2006-2008** American Geophysical Union (AGU) Ocean Sciences Section Executive Committee member
- 2005-2006** Co-chair, scientific program organizing committee for the American Geophysical Union (AGU) American Society of Limnology and Oceanography (ASLO) Ocean Sciences meeting in February 2006, Honolulu, HI.

**2005** Participant, SCOR (international council of scientific unions Scientific Committee on Ocean Research) workshop on sediment trap methods, Xiamen, China, Apr., 2005.

**2004-2015** Associate Editor, Deep-Sea Research I.

**2004** Program mentor, DIALOG (Dissertations Initiative for the Advancement of Limnology and Oceanography)

**2002-2006** Secretary (elected office), American Geophysical Union (AGU), Ocean Sciences Section, Biological Oceanography. (and Ocean Sciences Section Executive committee member)

**2003-2004** Chair, scientific program organizing committee for the American Geophysical Union (AGU) Ocean Sciences meeting in January 2004, Portland, OR.

**2003** Participant, SCOR (international council of scientific unions Scientific Committee on Ocean Research) workshop on sediment trap methods, Catalina Island, CA, Nov., 2003.

**2003** Participant, Census of Marine Life (CoML) Public launch and All Program workshop, Washington, DC, Oct., 2003.

**2003** Meeting organizer for MARECO (Mid-Atlantic Ridge Ecosystems) U.S. program initiative. VIMS, July, 2003.

**2002-2003** Member, program organizing committee for the American Society of Limnology and Oceanography Aquatic Sciences meeting in February 2003.

**2001-2003** Chair, scientific steering and planning committee, 3<sup>rd</sup> International JGOFS (Joint Global Ocean Flux Study) Open Science Conference in May 2003.

**2002** Participant, Census of Marine Life (CoML) and Ocean Biogeographical Information System (OBIS) status and planning workshop for North American researchers, Washington, DC, Sept. 2002.

**2002** Participant, American Geophysical Union (AGU) Leadership conference. Leesburg, VA, May 2002.

**2002** Participant, Chesapeake Bay Program Scientific and Technical Advisory Committee Workshop: "Suspension feeders: A workshop to assess what we know, don't know, and need to know to determine their effects on water quality", Baltimore, MD, Mar. 2002.

**2001** Member, SCOR (international council of scientific unions Scientific Committee on Ocean Research) panel for Sediment trap and Th-234 methods for particulate organic carbon export in the upper ocean, planning workshop, Amsterdam, Netherlands July, 2001

**2000** Member, Census of Marine Life (CoML) and Ocean Biogeographical Information System (OBIS) planning workshop, Durham, NH, Sept. 2000.

**1999** Participant, The Joint Global Ocean Flux Study (JGOFS) steering committee meeting, Honolulu, Hawaii, Oct., 1999.

**1998** Participant, The Joint Global Ocean Flux Study (JGOFS) steering committee meeting, Woods Hole, MA, Oct., 1998.

**1998** Member, The Joint Global Ocean Flux Study (JGOFS) Synthesis and Modeling Project (SMP) planning workshop on ocean biogeochemical response to climate change. Durham, NH, July, 1998.

**1997** Participant, JASON Project curriculum planning meeting for "JASON IX: Oceans of the Earth and Beyond" Milwaukee, WI, Sept., 1997.

**1997** Member, The Joint Global Ocean Flux Study (JGOFS) Synthesis and Modeling Project (SMP) planning workshop on Time-series stations and modeling, Snowbird, Utah, July, 1997.

**1997** Committee member and mentor for DIALOG II, Dissertations Initiative for the Advancement of Limnology and Oceanography. (a program for recent Ph.D. recipients) Oct.1997.

**1996** Panel member, West coast National Undersea Research Council (NURC) Monterey Bay Initiative. Panel to write RFP (request for proposals), and structure program. May, 1996



## **Advisory Service to State or Federal Government, and to International Programs**

- 2016** Panelist, National Science Foundation, Divisions of Ocean Sciences and Environmental Biology. May 12-14, 2016.
- 2015-2016** Participant, invited NASA EXport Processes in the Ocean from RemoTe Sensing (EXPORTS) field campaign Science Definition Team (SDT) Oct. 2015-Oct 2016.
- 2015-2016** Participant, invited NSF Biology of the Biological Pump Workshop organizing Committee member, Oct. 2015-June 2016.
- 2015** Participant, invited workshop to establish Marine Protected Area in the Antarctic Peninsula, NOAA Southwest Fisheries Science Center, National Marine Fisheries Service, La Jolla, CA. March, 2015.
- 2011** Panelist, National Science Foundation, Division of Ocean Sciences, Biological Oceanography Program. May 23-27, 2011.
- 2010** Participant, Evolution and Climate Change in the Oceans (ECCO) invited workshop sponsored by National Science Foundation. Catalina Island, CA, May, 2010.
- 2004** Panelist, MIT Sea Grant, Boston, MA, Oct., 2004.
- 2003** Panelist, National Science Foundation, Division of Environmental Biology, Biodiversity Surveys & Inventories Program. Mar. 2003
- 2003** Participant/ Advisor, Chesapeake Bay Tidal Monitoring and Analysis Workgroup Workshop, La Plata, MD, June, 2003.
- 2001-2005** Member, SCOR (international council of scientific unions Scientific Committee on Ocean Research) panel for Sediment trap and Th-234 methods for particulate organic carbon export in the upper ocean
- 2001** Panelist, National Science Foundation, Division of Ocean Sciences, Research for Undergraduates Program. Nov. 2001
- 2001** Member, Sargasso Sea Ocean Observatory (S2O2) workshop. Bermuda, Mar., 2001.
- 2000** Member, Ocean Carbon Transformations, Exchanges, and Transports (OCTET) (new NSF initiative) planning workshop. VA, Mar., 2000
- 1998** Member, Census of Marine Life (CoML) planning workshop. Southampton, England Apr., 1998

## **Public Outreach**

- 2019** Guest speaker, “Bioluminescence”, 3<sup>rd</sup> graders, Amelia Earhart Elementary School, Alameda, CA, Dec. 12, 2019
- 2018** Plenary speaker, Mid-Atlantic Marine Education Association, 40<sup>th</sup> Annual Conference, Norfolk, VA, Nov. 10, 2018
- 2018** Guest speaker, Science National Honor Society Induction Ceremony, Tabb High, Yorktown, VA, Oct. 17, 2018
- 2018** Marine Science Day at VIMS, Zooplankton Ecology Laboratory Exhibit and Demonstrations, May 18, 2018
- 2017** Career Day presenter at Queens Lake Middle School, Williamsburg, VA, June 9, 2017
- 2017** Marine Science Day at VIMS, Zooplankton Ecology Laboratory Exhibit and Demonstrations, May 20, 2017
- 2017** Plenary speaker, Chesapeake Bay Governor’s School for Marine & Environmental Science, 14<sup>th</sup> Annual Science Symposium, Virginia Commonwealth University, Richmond, VA, Mar. 11, 2017
- 2016** Science Fair Judge at Queens Lake Middle School, Williamsburg, VA, Nov. 16, 2016
- 2016** Career Day presenter at Magruder Elementary, Williamsburg, VA, May 10, 2016
- 2016** Marine Science Day at VIMS, Zooplankton Ecology Laboratory Exhibit and Demonstrations, May 21, 2016
- 2016** Presentation to VIMS Industry Partnership, incl. screening of film ‘Antarctic Edge, 70° S’, March 18, 2016
- 2015** Screening of film ‘Antarctica, Beyond the Ice’ VIMS After Hours Public Lecture Series, Sept 24, 2015
- 2015** Marine Science Day at VIMS, Zooplankton Ecology Laboratory Exhibit and Demonstrations, May 30, 2015
- 2015** National Public Radio interview, “For Good Reason”– about my research, May 21 (aired June 25), 2015
- 2014** Talk/ demo –deep sea for 5<sup>th</sup> graders, Magruder Elementary, Williamsburg, VA, Nov 24, 2014
- 2014** Marine Science Day at VIMS, Zooplankton Ecology Laboratory Exhibit and Demonstrations, May 17, 2014
- 2014** Talk/ demo -marine food webs for 4<sup>th</sup> graders, Magruder Elementary, Williamsburg, VA, May, 2014

**2014** Discussion Panelist for film documentary “Chasing Ice”, VIMS After Hours Public Lecture Series, March 27, 2014  
**2013** William and Mary Tack Public Lecture Series for Faculty Excellence, “From Plankton to Planet”, Kimball Theatre, Williamsburg, VA, October 29, 2013  
**2013** “Science Under Sail”, at sea public talk on Jellyfish and plankton, aboard the schooner *Alliance*, May 29, 2013  
**2013** Marine Science Day at VIMS, Zooplankton Ecology Laboratory Exhibit and Demonstrations, May 18, 2013  
**2013** Career Day presenter at Magruder Elementary, Williamsburg, VA, May 10, 2013  
**2013** Talk/ demo -marine organism adaptations for 3<sup>rd</sup> graders, Magruder Elementary, Williamsburg, VA, March 21, 2013  
**2012** Talk/ demonstration on zooplankton for 7<sup>th</sup> graders, Queens Lake Middle School, Williamsburg, VA, June 11, 2012  
**2012** Career Day presenter at Magruder Elementary, Williamsburg, VA, June 1, 2012  
**2012** Marine Science Day at VIMS, Zooplankton Ecology Laboratory Exhibit and Demonstrations, May 19, 2012  
**2011** “Science Under Sail”, at sea public talk on Jellyfish and plankton, aboard the schooner *Alliance*, July 6, 2011  
**2011** VIMS/CBNEERS Discovery Lab for the public, “Antarctica: Penguins, plankton, and more”, June 28, 2011  
**2011** Talk/ demonstration on zooplankton for 1<sup>st</sup> graders, Margruder Elementary School, Williamsburg, VA, June 9, 2011  
**2011** Marine Science Day at VIMS, Zooplankton Ecology Laboratory Exhibit and Demonstrations, May 21, 2011  
**2010** Career Day presenter at Magruder Elementary, Williamsburg, VA, March 26, 2010  
**2010** Mathews Maritime Foundation, “A River in the Ocean: How Currents Affect Ocean Biology” Jan. 21, 2010  
**2009** VIMS Chefs’ Seafood Symposium, “Plankton: Seafood for seafood” Oct. 13, 2009  
**2009** VIMS After Hours Public Lecture Series, “Winter in July: Antarctic Research at VIMS” July 30, 2009  
**2009** James City County Library public lecture, “A River in the Ocean: How Currents Affect Ocean Biology” June 4, 2009  
**2009** Marine Science Day at VIMS, Zooplankton Ecology Laboratory Exhibit and Demonstrations, May 30, 2009  
**2008** Talk/ demonstration on zooplankton for “Fabulous Friday” Rawls Byrd Elementary, May 30, 2008  
**2008** Marine Science Day at VIMS, Zooplankton Ecology Laboratory Exhibit and Demonstrations, May 17, 2008  
**2007** Aquarius Habitat outreach program, Magruder Elementary, Nov. 15, 2007  
**2007** Marine Science Day at VIMS, Zooplankton Ecology Laboratory Exhibit and Demonstrations, May 19, 2007  
**2006** Christopher Newport University, “Sink or swim: Animal drifters and the carbon cycle”, Sept 20, 2006  
**2006** VIMS Eastern Shore Laboratory Public Lecture Series, Jellyfish in the Chesapeake Bay and Beyond”, Sept 6, 2006  
**2006** Talk/ demonstration on zooplankton for “Fabulous Friday” Rawls Byrd Elementary, June 2, 2006  
**2006** Marine Science Day at VIMS, Zooplankton Ecology Laboratory Exhibit and Demonstrations, May 20, 2006  
**2006** Career Day presenter at Magruder Elementary, Williamsburg, VA, May 17, 2006  
**2005** Career Day panelist and presenter at Walsingham Academy, Williamsburg, VA, May 16, 2005  
**2005** Williamsburg Library public lecture, “Sink or swim: Animal drifters and the carbon cycle”, May 19, 2005  
**2005** Marine Science Day at VIMS, Zooplankton Ecology Laboratory Exhibit and Demonstrations, May 21, 2005  
**2004** Radio interview for program “Our Ocean World”, July 15, 2004  
**2004** Marine Science Day at VIMS, Zooplankton Ecology Laboratory Exhibit and Demonstrations, May 22, 2004  
**2004** Talk/ demonstration on zooplankton to VIMS tour groups and school groups (~1 per month)  
**2003** “Global Change and You” VIMS mini-school of Marine Science instructor, Oct 4, 2003  
**2003** Science Museum of Virginia, “Sink or swim: Animal drifters and the carbon cycle”, Sept. 17, 2003  
**2003** VIMS After Hours Public Lecture Series, “Jellyfish in the Chesapeake Bay and Beyond”, July 31, 2003  
**2003** Marine Science Day at VIMS, Zooplankton Ecology Laboratory Exhibit and Demonstrations, May 17, 2003  
**2003** Blue Crab Bowl, judge/grader, Feb 22, 2003  
**2003** Talk/ demonstration on zooplankton to VIMS tour groups and school groups (~1 per month)  
**2002** Marine Science Day at VIMS, Zooplankton Ecology Laboratory Exhibit and Demonstrations, May 18, 2002  
**2002** Featured speaker, York County Science Fair, Bruton High School, “Deep-Sea Creatures” Jan 30, 2002  
**2002** Talk/ demonstration on zooplankton to VIMS tour groups and school groups (~1 per month)  
**2001** Lecture/ demonstration on zooplankton to high school students in VA state University summer environmental science program, June, 2001  
**1995-2000** Elderhostel presentations. July, 1995 – Dec., 2000. “Introduction to Oceanography” ~ 4 lectures per year  
**1998** Lecture to English Speaking Union, Hamilton, Bermuda “Creatures of the Deep” June 17, 1998  
**1997-1998** JASON project. Jan. 1997- Apr. 1998. Host researcher, curriculum consultant  
**1997** JASON teacher training workshop (plankton) Nov. 14, 1997  
**1997** Marine Science Day public lecture: “Life in the Deep Sea” Sept. 6, 1997  
**1997** Lecture to teacher training group (College of Exploration) “Oceanography and plankton ecology” Aug. 18, 1997  
**1997** Lecture to Conestoga High School: “Oceanography and plankton ecology” June 30, 1997  
**1997** Lecture to Tolland High School: “Life in the Deep Sea” Apr. 24, 1997  
**1996** Hamilton, Bermuda Rotary Club: “Drifters of the Sea- Plankton from A-Z”. Broadcast live on the radio, with accompanying Royal Gazette article. Nov. 26, 1996  
**1996** Lecture to Sunderman group- “Making a living in the deep sea” June 12, 1996  
**1996** Presentation to Annual Fund committee: “Drifters of the sea: Plankton from A to Z” Apr. 2, 1996