

COLLEGE OF WILLIAM AND MARY
Curriculum Vitae

PERSONAL INFORMATION

Name: Emily Bethana Rivest Date: 12 Dec, 2016
Office Address: VIMS Andrews Hall 340
Telephone: (804) 684-7838 Fax: (804) 684-7293 e-mail: ebrivest@vims.edu

Home Address: 104 Barrington Ln, Yorktown, VA 23693
Telephone: (607) 351-8901

Position: Assistant Professor, Department of Biological Sciences, Virginia Institute of Marine Science

EDUCATION

2014 Ph.D., University of California, Santa Barbara (UCSB). Department of Ecology, Evolution and Marine Biology.
2008 B.S., Cornell University. College of Agriculture and Life Sciences. Biology (Biochemistry) (*Cum Laude* with High Honors in Research).

ACADEMIC POSITIONS

2016 Assistant Professor, Department of Biological Sciences, Virginia Institute of Marine Science (VIMS)
2014 Post-doctoral Scholar, Bodega Marine Laboratory, University of California, Davis. Mentors: Tessa Hill, Brian Gaylord.
2012 Field Operations Analyst for SeaFET deployments and seawater chemistry for SBC LTER and OMEGAS groups, UCSB. Advisor: Gretchen Hofmann.
2009 Graduate Student Researcher, UCSB. Advisor: Gretchen Hofmann.

HONORS, PRIZES AND AWARDS

2014 University Award of Distinction, UCSB
2010 Antarctic Service Award and Medal, U.S. Department of the Navy

CONTRIBUTIONS TO THE EDUCATIONAL PROGRAM

Teaching Experience (outside VIMS)

2016 **Guest Lecturer**, Bodega Marine Laboratory, UC Davis. GEL 16: The Oceans. Non-majors lecture course.
2015 **Guest Lecturer**, UC Davis. GEL 16: The Oceans. Non-majors lecture course.
2015 **Guest Lecturer**, Bodega Marine Laboratory, UC Davis. ECL 290: *Marine Sensory Ecology*. Graduate seminar.
2013-2014 **Teaching Assistant**, Field Studies in Marine Ecological Physiology
UC Santa Barbara
2013 **Guest Lecturer**, INT 91: Marine Science, UC Santa Barbara
2013 **Guest Lecturer**, EEMB 55: Global Change Biology, UC Santa Barbara
2010 **Teaching Assistant**, Introductory Biology Laboratory 3
UC Santa Barbara
2008 **Teaching Assistant**, Field Marine Ecology – Belize,
State University of New York, Cortland

Students mentored (61% from under-represented groups)

Students mentored, undergraduates and high school (VIMS):

2016 Wendy Chen (UC Davis), Rachel Sniderman (UC Davis), Charna Holmes (W&M)

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

Wendy Chen (2016), Rebecca Heisey (2016), Hael Rivera (2016), Cindy Rodriguez-Batres (2016), Rachel Sniderman (2016), Walker Calhoun (2016), Marie Pinna (2015), Kai Seale (2015), Silke Bachhuber, Cailan Sugano, Evan Barba, Mark Bitter, Josh Hancock, Katrina Shao, Fiona Luong, Farallon Broughton, Yana Nebuchina, Raymond Lu, Kelly Lin, Steven Liao, Grace Ghrist

Other advisees: Aaron Ninokawa (2014-6), Laura Heidenreich (2015), Grace Ha (2015-6)

RESEARCH

Fellowships and grants

Award Term: 2016-present

Title: "California mussels as bio-indicators of the ecological consequences of global change: temperature, ocean acidification, and hypoxia"

Agency: Berkeley Energy & Climate Institute

Amount: \$50,000

PIs: B Gaylord, T Hill, E Sanford, EB Rivest

Award Term: 2014

Title: University Award of Distinction

Agency: University of California, Santa Barbara (UCSB)

Award Term: 2014

Title: Charles A. Storke Fellowship

Agency: UCSB Department of Ecology, Evolution and Marine Biology

Amount: \$2,500

Award Term: 2013-2014

Title: Broida-Hirschfelder Graduate Fellowship

Agency: UCSB Faculty Women's Club, UCSB Graduate Division

Amount: \$8,000

Award Term: 2011-2014

Title: "The energetic cost of an acidic, warm environment: changes in lipid consumption of *Pocillopora damicornis* larvae"

Agency: Doctoral Dissertation Improvement Funding, Office of International Science and Engineering, National Science Foundation

Amount: \$9,595

PIs: GE Hofmann, EB Rivest

Award Term: 2012 and 2013

Title: EEMB Graduate Fellowship

Agency: UCSB Department of Ecology, Evolution and Marine Biology

Amount: \$6,000 plus tuition and benefits, each

Award Term: 2012

Title: 2012-2013 Academic Senate Doctoral Student Travel Grant

Agency: UCSB

Amount: \$1,400

Award Term: 2012
Title: Ellen Schamberg Burley Graduate Scholarship
Agency: UCSB
Amount: \$800

Award Term: 2012
Title: Journal of Experimental Biology Travelling Fellowship
Agency: Journal of Experimental Biology
Amount: £1,200

Award Term: 2011-2014
Agency: Moorea Coral Reef Long-Term Ecological Research program
Amount: \$18,900
PIs: GE Hofmann, EB Rivest

Award Term: 2011
Title: "Effects of ocean acidification and elevated temperature on the oxidative state and ionic balance of larvae of the coral *Pocillopora damicornis*"
Agency: East Asia and Pacific Summer Institutes (Taiwan), National Science Foundation
Amount: \$5,700

Award Term: 2010-2012
Title: Luce *Environmental Science to Solution* Fellowship
Agency: UCSB Marine Science Institute, The Henry Luce Foundation
Amount: \$6,000

Award Term: 2009-2012
Agency: NSF Graduate Research Fellowship Program
Amount: \$90,000 plus tuition and benefits for 3 years

Award Term: 2009-2010
Title: "Ocean acidification experiments on tropical marine invertebrate larvae using a portable CO₂ system"
Agency: Minigrant, Moorea Coral Reef Long-Term Ecological Research program
Amount: \$17,000
PIs: GE Hofmann, EB Rivest

Award Term: 2008-2009
Title: "The effect of pH stress during upwelling events on *Strongylocentrotus purpuratus* gene expression"
Agency: Mildred E. Mathias Graduate Research Grant, University of California Reserve System
Amount: \$800
PIs: EB Rivest, GE Hofmann

Award Term: 2008-2009
Title: EEMB Graduate Fellowship Award
Agency: UCSB Department of Ecology, Evolution and Marine Biology
Amount: \$18,000 plus tuition and benefits

Award Term: 2007
Title: Hughes Scholars Program
Agency: Cornell University

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

Rivest, EB, M O'Brien, L Kapsenberg, CC Gotschalk, CA Blanchette, and GE Hofmann. Beyond the benchtop and the benthos: dataset management planning and design for time series of ocean carbonate chemistry associated with Durafet-based pH sensors. *Ecological Informatics*. 36: 209-220. doi: 10.1016/j.ecoinf.2016.08.005.

- Kwiatowski, L, B Gaylord, T Hill, J Hoffelt, KJ Kroeker, Y Nebuchina, A Ninokawa, A Russell, **EB Rivest**, M Sesboüé, K Caldeira. 2016. Nighttime dissolution in a temperate coastal ocean ecosystem increases under acidification. *Scientific Reports*. 6: 22984. doi: 10.1038/srep22984.
- Rivest, EB** and GE Hofmann. 2015. Effects of high pCO₂ and temperature on lipid use and biological parameters of larvae of *Pocillopora damicornis*. *Journal of Experimental Marine Biology and Ecology*. 473: 43-52. doi: 10.1016/j.jembe.2015.07.015.
- Rivest, EB** and TC Gouhier. 2015. Complex environmental forcing and the stability of coral populations across their biogeographic range. *PLoS ONE*. 10(3): e0121742. doi: 10.1371/journal.pone.0121742.
- Rivest, EB** and GE Hofmann. 2014. Responses of the metabolism of the larvae of *Pocillopora damicornis* to ocean acidification and warming. *PLoS ONE* 9(4): e96172. doi: 10.1371/journal.pone.0096172.
- Gaitán-Espitia, JD, JR Hancock, JL Padilla-Gamiño, **EB Rivest**, CA Blanchette, DC Reed, GE Hofmann. 2014. Interactive effects of elevated temperature and pCO₂ on early-life-history stages of the giant kelp *Macrocystis pyrifera*. *Journal of Experimental Marine Biology and Ecology* 457: 51-58. doi: 10.1016/j.jembe.2014.03.018.
- Hofmann, GE, CA Blanchette, **EB Rivest**, and L Kapsenberg. 2013. Taking the pulse of marine ecosystems: the importance of coupling long-term physical and biological observations in the context of global change biology. *Oceanography* 26(3): 140–148.
- Prather, CM, S Pellini, A Laws, **EB Rivest**, et al. 2012. Invertebrates, ecosystem services and climate change. *Biological Reviews Cambridge Philosophical Society* 88: 327-348. doi: 10.1111/brv.12002.
- Yu, PC, MA Sewell, PG Matson, **EB Rivest**, L Kapsenberg, and GE Hofmann. 2013. Growth attenuation with developmental schedule progression in embryos and early larvae of *Sterechinus neumayeri* raised under elevated pCO₂. *PLoS ONE* 8(1): e52448. doi:10.1371/journal.pone.0052448.
- Hofmann, GE, JE Smith, KS Johnson, U Send, LA Levin, F Micheli, A Paytan, NN Price, B Peterson, Y Takeshita, PG Matson, ED Crook, KJ Kroeker, MC Gambi, **EB Rivest**, CA Frieder, PC Yu, and TR Martz. 2011. High-frequency dynamics of ocean pH: a multi-ecosystem comparison. *PLoS ONE* 6(12): e28983. doi: 10.1371/journal.pone.0028983.
- Rivest, EB**, DM Baker, KL Rypien, and CD Harvell. 2010. Nitrogen source preference of *Aspergillus sydowii*, the causative agent of aspergillosis in sea fan corals. *Limnology and Oceanography* 55(1): 386-392. doi: 10.4319/lo.2010.55.1.0386.

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

- Davis, CV, **EB Rivest**, B Gaylord, AD Russell, E Sanford, TM Hill. Ocean acidification compromises a planktic calcifier with implications for global carbon cycling. *Scientific Reports*. In revision.

Invited scholarly papers and talks

- 2016 **Rivest, EB**. "Physiological ecology in an era of global ocean change: insights from cells, shells, and sensors," Smithsonian Environmental Research Center, Edgewater, MD. Nov 2016.
- 2016 **Rivest, EB**. "Responses to Environmental Change: Vignettes from a Temperate Coastal Ecosystem," Bodega Marine Laboratory, University of California Davis, Bodega Bay, CA. Sept 2016.
- 2016 **Rivest, EB**. "Marine Ecological Physiology in the Anthropocene," US State Department International Ocean Ambassadors visit, Bodega Marine Laboratory, University of California, Davis, Bodega Bay, CA. Sept 2016.
- 2016 **Rivest, EB**. "Biological consequences of anthropogenic change in coastal ecosystems: Insights from cells, shells, and sensors," Department of Coastal Sciences, University of Southern Mississippi, Ocean Springs, MS. Mar 2016.
- 2016 **Rivest, EB**. "Carry-over effects of larval exposure to upwelling and relaxation regimes: eco-physiology and shell geochemistry of California mussels," Ocean Sciences Seminar Series, University of California, Santa Cruz, Santa Cruz, CA. Mar 2016.
- 2016 **Rivest, EB**. "Biological consequences of anthropogenic change in coastal ecosystems: Insights from cells, shells, and sensors," Virginia Institute of Marine Science, College of William and Mary, Gloucester Point, VA. Feb 2016.
- 2016 **Rivest, EB**. "Biological consequences of anthropogenic change in coastal ecosystems: Insights from cells, shells, and sensors," Florida State University Coastal and Marine Laboratory, St. Teresa, FL. Jan 2016.
- 2016 **Rivest, EB**. "Biological consequences of anthropogenic change in coastal ecosystems: Insights from cells, shells, and sensors," Eckerd College, St. Petersburg, FL. Dec 2015.
- 2015 **Rivest, EB**. "Biological consequences of anthropogenic change in coastal ecosystems: Insights from cells, shells, and sensors," Haverford College, Haverford, PA. Nov 2015.
- 2015 **Rivest, EB**. "Better together: merging geology and ecological physiology to better anticipate the consequences of global ocean change," Geology Club seminar, San Jose State University, San Jose, CA. Nov 2015.

- 2015 Rivest, EB**, TM Hill, B Gaylord, E Sanford, G Cherr. “Data availability and monitoring programs for ocean acidification and related research at Bodega Marine Laboratory,” 2015 meeting of Western Association of Marine Laboratories, Redondo Beach, CA. July 2015.
- 2015 Rivest, EB**, SE Moffitt, and TM Hill. “Ocean temperature, hypoxia, and acidification: detecting the fingerprint of climate change in California’s coastal ocean,” Indicators of Climate Change in California workshop, Office of Environmental Health Hazard Assessment, California Environmental Protection Agency, Sacramento, CA. June 2015.
- 2015 Rivest, EB**. “Biological impacts of ocean acidification: Insight from studies at Bodega Marine Laboratory,” Carbon Networks Workshop, The Exploratorium, San Francisco, CA. Apr 2015.
- 2015 Rivest, EB**. “Responses of ‘non-vertebrates’ to environmental stress: insight from studies on ocean acidification at Bodega Marine Laboratory,” Workshop for the Center for Mechanisms for Animal Responses to Environmental Stress, UC Davis, Bodega Marine Laboratory, Bodega Bay, CA. Mar 2015.
- 2015 Rivest, EB**. “Effects of a changing ocean: characteristic patterns in tropical coral larvae vary throughout the lunar cycle,” 2nd meeting of the Consortium for the Study of Ocean Change, UABC, Ensenada, Mexico. June 2013.
- 2012 Rivest, EB**, C-S Chen, T-Y Fan, H-H Li, PJ Edmunds, and GE Hofmann. “Energetic consequences of ocean acidification and warming for coral larvae,” National Museum of Marine Biology and Aquarium, Checheng, Taiwan. Aug 2012.
- 2012 Rivest, EB**. “What’s a larva to do?: Physiological mechanisms for tolerating a changing ocean,” Centre de Recherches Insulaires et Observatoire de l’Environnement, Moorea, French Polynesia. Mar 2012.
- 2011 Rivest, EB**, CS Chen, TY Fan, LH Wang, PJ Edmunds, and GE Hofmann. “Effects of ocean acidification and elevated temperature on ion balance and oxidative state in the larvae of the coral *Pocillopora damicornis*,” National Museum of Marine Biology and Aquarium, Checheng, Taiwan. Aug 2011.

Contributed papers presented at professional meetings and published abstracts

- 2016 Rivest, EB**, TM Hill, B Gaylord, E Sanford, JS Fehrenbacher, AD Russell. “Coupling eco-physiology and shell geochemistry of California mussels: carry-over effects of larval exposure to upwelling and relaxation regimes,” 2016 Ocean Global Change Biology Gordon Research Conference, Waterville Valley, NH. July 2016. (poster)
- 2016 Davis, CV, EB Rivest, JH Fehrenbacher, AD Russell, B Gaylord, J Jahncke, TM Hill**. “Response of upwelling region planktic foraminifera to future global change: inferences from seasonal abundances in central California and laboratory culture,” 2016 Ocean Global Change Biology Gordon Research Seminar, Waterville Valley, NH. July 2016. (talk)
- 2016 Rivest, EB**, TM Hill, B Gaylord, E Sanford, JS Fehrenbacher, AD Russell. “Coupling eco-physiology and shell geochemistry of California mussels: carry-over effects of larval exposure to upwelling and relaxation regimes,” 2016 Ocean Global Change Biology Gordon Research Seminar, Waterville Valley, NH. July 2016. (poster)
- 2016 Rivest, EB**, C-S Chen, J Hancock, L Mydlarz, GE Hofmann. “Antioxidant defense and acid-base regulation: physiological tolerance and acclimatization to ocean acidification and warming in *Pocillopora damicornis*,” 13th International Coral Reef Symposium, Honolulu, HI. June 2016. (talk)
- 2016 Rivest, EB**, TM Hill, B Gaylord, E Sanford, JS Fehrenbacher, BE Davis. “Coupling eco-physiology and shell geochemistry of California mussels: carry-over effects of larval exposure to upwelling and relaxation regimes,” AAAS Pacific Division, 97th Annual Meeting, San Diego, CA. June 2016. (talk)
- 2016 Rivest, EB**. “Coupling eco-physiology and shell geochemistry of California mussels: carry-over effects of larval exposure to upwelling and relaxation regimes,” 2016 Ocean Sciences Meeting (ASLO, AGU, and TOS), New Orleans, LA. Feb 2016. (poster)
- 2016 Davis, CV, EB Rivest, AD Russell, H Spero, B Gaylord, E Sanford, TM Hill**. “The influence of seawater pH on respiration, calcification, and Mg/Ca in the cultured foraminifer *Globigerina bulloides*,” 2016 Ocean Sciences Meeting (ASLO, AGU, and TOS), New Orleans, LA. Feb 2016. (poster)
- 2015 Rivest, EB**, TM Hill, B Gaylord, E Sanford. “Eco-physiology of juvenile California mussels: carry-over effects of larval exposure to upwelling and relaxation regimes,” 96th Annual Meeting of the Western Society of Naturalists, Sacramento, CA. Nov 2015. (talk)
- 2015 Rivest, EB** and CV Davis. “Climate change in past and modern ecosystems: biogeochemistry, species assemblages, and ocean change,” UC Davis Coastal Marine Sciences Institute Symposium, Davis, CA. Mar 2015. (talk)
- 2015 Rivest, EB**, C-S Chen, T-Y Fan, H-H Lee, and GE Hofmann. “Effects of multiple stressors on lipid consumption and fitness characteristics of coral larvae are linked to local environmental variability and release date,” 2014 Ocean Sciences Meeting (ASLO, AGU, and TOS), Honolulu, HI. Feb 2014. (poster)
- 2013 Rivest, EB**, GE Hofmann, CA Blanchette, and L Kapsenberg. “Keeping a finger on the pulse of marine ecosystems: the investment of coupled long-term physical and biological observations to understand the consequences of a changing environment,” 94th Annual Meeting of the Western Society of Naturalists, Oxnard, CA. Nov 2013. (talk)

- 2013** **Bachhuber, SM, CS Sugano, MW Kelly, EB Rivest, and GE Hofmann.** “Effects of elevated pCO₂ conditions on larval development of red abalone, *Haliotis rufescens*,” 94th Annual Meeting of the Western Society of Naturalists. Nov 2013. (poster)
- 2013 Rivest, EB, X Han, and S Davis.** “Identifying alternative indicators for the detection of abrupt transitions in ecosystems,” Moorea Coral Reef Long Term Ecological Research All Investigators Meeting, Santa Barbara, CA. Oct 2013.
- 2013 Rivest, EB and co-authors.** “Identifying alternative indicators for the detection of abrupt transitions in ecosystems: multivariate analyses and cross-site comparisons,” MCR LTER site review, Moorea, French Polynesia. July 2013. (poster)
- 2013 Rivest, EB and GE Hofmann.** “Coupling environmental history with physiological performance: a new direction for ocean acidification research,” Moorea Coral Reef Long Term Ecological Research site review, Moorea, French Polynesia. July 2013. (poster)
- 2013 Rivest, EB and GE Hofmann.** “Coupling environmental history with physiological performance: a new direction for ocean acidification research,” Marine Science Graduate Research Showcase, UC Santa Barbara, Santa Barbara, CA. Apr 2013. (poster)
- 2013 Rivest, EB and GE Hofmann.** “Coupling environmental history with physiological performance: a new direction for ocean acidification research,” UCSB Graduate Research Showcase, Santa Barbara, CA. Apr 2013. (poster)
- 2013 Rivest, EB.** “Astrology of a tropical reef coral: characteristic physiological patterns in larvae,” LTER Student Symposium: CCE-SBC-MCR. University of California, San Diego, Scripps Institution of Oceanography, San Diego, CA. Mar 2013. (talk)
- 2013 Rivest, EB.** Astrology of a tropical reef coral: characteristic physiological patterns in larvae,” 9th Annual EEMB Graduate Student Symposium. UC Santa Barbara, Santa Barbara, CA. Feb 2013. (talk)
- 2013 Rivest, EB, C-S Chen, T-Y Fan, H-H Li, PJ Edmunds, and GE Hofmann.** “Energetic consequences of ocean acidification and warming for coral larvae,” The Society for Integrative and Comparative Biology 2013 meeting, San Francisco, CA. Jan 2013. (poster)
- 2012 Rivest, EB and GE Hofmann.** “Coupling environmental history with physiological performance: a new direction for ocean acidification research,” Long Term Ecological Research Network All Scientists Meeting, Estes Park, CO. Sept 2012. (poster)
- 2012 Rivest, EB and GE Hofmann.** “Metabolic plasticity in coral larvae under ocean acidification and warming,” 12th International Coral Reef Symposium, Cairns, Australia. July 2012. (talk)
- 2011 Rivest, EB, CS Chen, TY Fan, LH Wang, PJ Edmunds, and GE Hofmann.** “Effects of ocean acidification and elevated temperature on ion balance and oxidative state in the larvae of the coral *Pocillopora damicornis*,” NSF EAPSI Symposium, Hsinchu, Taiwan. Aug 2011. (poster)
- 2011 Rivest, EB and GE Hofmann.** “Live from Moorea: At Sea and In The Lab,” Long Term Ecological Research Graduate Symposium (MCR, SBC, CCE), Santa Barbara, CA. Feb 2011. (poster)
- 2009 Rivest, EB and GE Hofmann.** “Potential effects of ocean acidification on three tropical invertebrates, the coral *Pocillopora damicornis*, the sea urchin *Echinometra mathaei*, and the crown-of-thorns starfish *Acanthaster planci*,” Moorea Coral Reef Long Term Ecological Research All Investigators Meeting, Santa Barbara, CA. Nov 2009. (poster)
- 2009 Rivest, EB and GE Hofmann.** “The effect of pH stress during upwelling events on the gene expression of *Strongylocentrotus purpuratus*, the purple sea urchin,” 90th Annual Meeting of the Western Society of Naturalists, Monterey, CA. Nov 2009. (poster)
- 2009 Rivest, EB and GE Hofmann.** “Potential effects of ocean acidification on three tropical invertebrates, the coral *Pocillopora damicornis*, the sea urchin *Echinometra mathaei*, and the crown-of-thorns starfish *Acanthaster planci*,” The US Long Term Ecological Research Network All Scientists Meeting, Estes Park, CO. Sept 2009. (poster)

PROFESSIONAL SERVICE AND SCIENTIFIC LEADERSHIP

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

2016-present Review Editor, Frontiers in Marine Science

Scientific Leadership

2016 **Member of organizing committee, discussion leader,** Seagrasses & Ocean Acidification workshop (Can seagrasses locally ameliorate ocean acidification?), Bodega Marine Laboratory, Bodega Bay, CA

- 2016** **Journal Article Reviewer**, Delaware Sea Grant, Antarctic Science, PLOS ONE, Ecology, Earth-Science Reviews
- 2014-present** **Primary chair**, Gordon Research Seminar in conjunction with the 2016 Ocean Global Change Biology Gordon Research Conference, Waterville Valley, NH
- 2014-present** **Contributor/Co-author**, “Indicators of Climate Change in California,” Office of Environmental Health Hazard Assessment, California Environmental Protection Agency.
- 2015** **Primary chair**, “Utilizing biogeochemistry to understand the biological consequences of global ocean change,” 2016 ASLO/AGU/TOS Ocean Sciences meeting, New Orleans, CA. Accepted but canceled by the conference.
- 2012-2014** **Lead organizer**, Identifying alternative indicators for the detection of abrupt transitions in ecosystems: a consideration of time scale and community parameters. Sponsored by the US Long Term Ecological Research Network. Hosted by the Andrews Forest LTER site. 10 participants.
- 2013** **Ambassador of UCSB graduate research**, 2013 Graduate Research Advocacy Day, *Hosted by UC Office of the President, Sacramento, CA*
- 2013** **Co-organizer**, 9th Annual Graduate Student Symposium
UC Santa Barbara, Dept. EEMB
- 2012-2015** **Journal Article Reviewer**, *Coral Reefs, Marine Ecology Progress Series, PLoS ONE, ICES Journal of Marine Science, Geophysical Research Letters*
- 2011-2014** **Chair of professional development committee and active member**, Graduate Student Advisory Council, *UC Santa Barbara, Dept. EEMB*
- 2010-2012** **Participant**, Testing for the fingerprint of climate change in the phenology of marine organisms. Sponsored by the UC Santa Barbara and the Henry Luce Foundation. 4 participants.
- 2009-2012** **Participant**, Invertebrate effects on ecosystem services under climate change. Sponsored by the US Long Term Ecological Research Network. Hosted by the Harvard Forest LTER site. 12 participants.

ADVISORY SERVICE ACTIVITY

Outreach and Public Service

- 2016** Professional development instructor, “Science Communication Pop-Up Training,” VIMS (Gloucester Point, VA)
- 2016** News article, “Bacteria Needed to Save Coral Reef,” Rebekah Kells, The Munich Eye; August 2, 2016, <http://themunicheye.com/news/Bacteria-Needed-to-Save-Coral-Reef-3354>
- 2016** Instructor, professional development seminar, “Landing an Academic Job,” Bodega Marine Laboratory (Bodega Bay, CA)
- 2016** News article, “Could microbes be ‘sentinels’ for protecting coral reefs?,” Eva Botkin-Kowacki, The Christian Science Monitor, June 25, 2016, <http://www.csmonitor.com/Science/2016/0625/Could-microbes-be-sentinels-for-protecting-coral-reefs>
- 2015** Invited roundtable speaker, “Linking Science & Policy: Practical skills for early career scientists,” Western Society of Naturalists 2015 Student Workshop (Sacramento, CA)
- 2015** Invited panelist and science expert on ocean acidification, “Big Blue,” **KQED Newsroom**, KQED Public Media for Northern CA, Aired August 28, 2015 8:00 pm, <https://www.youtube.com/watch?v=YTfdrQQZ28g>
- 2015** Instructor, Ocean Acidification – UC Davis Field Trip for Tremont Elementary 5th and 6th grade classes (UC Davis, Davis, CA)
- 2015** Presenter, Science Uncorked, Gourmet Au Bay Wine Bar (Bodega Bay, CA)
- 2015** TV episode, “Lethal Seas,” **NOVA**. 13 May, <http://video.pbssocal.org/video/2365486784/>
- 2014** Presenter, Showcase of UC Davis Coastal Marine Sciences Institute research (Exploratorium, San Francisco, CA)
- 2013** Panel facilitator, EEMB Graduate Student Panel, EEMB 510: Professional Development (UC Santa Barbara, Santa Barbara, CA)
- 2013** Instructor, Science Communication Workshop for Graduate Students, Moorea Coral Reef Long Term Ecological Research All Investigators Meeting (Santa Barbara, CA)
- 2013** Instructor, 2nd workshop for the Consortium for the Study of Ocean Change (UABC, Ensenada, Mexico)
- 2013** Newspaper article, “Estudian cambios en el oceano,” El Mexicano Grad Diario Regional Ensenada ; June 19, 2013

- 2013 UC web article, “Legislators tap grad students for expertise: grad students are driving force behind research,” Nicole Freeling, [http://uc4ca.org/advocacy/Grad%20Research%20Content_page.html]
- 2013 **NOVA: Acid Ocean, 360 Degree Films**
- 2013 Documentary on climate change in the ocean, Smith College
- 2012 Instructor, A Day with Coral Biologists (National Museum of Marine Biology and Aquarium, Taiwan)
- 2012 Cover story, “Oceans of change,” Catherine Newell, **Convergence**. 19 Sept, <http://www.convergence.ucsb.edu/article/oceans-change>
- 2012 Press release, “Major study of ocean acidification helps scientists evaluate effects of atmospheric carbon dioxide on marine life,” Gail Gallessich, UC Santa Barbara, 23 Jan, <http://www.ia.ucsb.edu/pa/display.aspx?pkey=2618>
- 2012 Research group featured on a segment for a science TV show on Taiwanese television
- 2011 Volunteer, MCR LTER Education and Outreach booth, Earth Day Festival (Santa Barbara, CA)
- 2011 Presentation, “The ocean is changing: climate change and its effects on marine organisms.” MCR LTER Outreach (UC Santa Barbara)
- 2011 Presentation of research activities to French Polynesian science teachers, MCR LTER Outreach (UC Berkeley Gump Station)
- 2011 Ocean Acidification. **NBC Learn**. 4 March, <http://www.nbclearn.com/climate/cuecard/52423>
- 2010 Volunteer, MCR LTER Education and Outreach booth, Earth Day Festival (Santa Barbara, CA)
- 2010 Presentation, “The ocean is changing: climate change and its effects on marine organisms.” MCR LTER Outreach (UC Santa Barbara)
- 2009 Big Seas, Big Trouble? Scientists Rush to Understand the Perils of Ocean Acidification. Ethan Stewart. **Santa Barbara Independent**. 22 April, <http://www.independent.com/news/2010/apr/22/big-seas-big-trouble/>
- 2008 – 2012 Instructor, Family Ultimate Science Experience Workshop (UC Santa Barbara)
- 2007 – 2008 Mentor, Expanding Your Horizons Workshop (Cornell University)