

# Jennifer L. Salerno

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## PROFESSIONAL APPOINTMENTS

- 2018 - **Assistant Professor**, George Mason University, Department of Environmental Science and Policy, Potomac Environmental Research and Education Center, Woodbridge, VA
- 2017 - 2018 **AAAS Science and Technology Policy Fellow/Foreign Affairs Officer**, Department of State, Bureau of East Asian and Pacific Affairs, Office of Economic Policy, Washington, DC  
Advisor to the Deputy Assistant Secretary and Ambassador on foreign policy concerning science and technology, women in STEM, energy, blue economy, fisheries, aquaculture, and marine conservation
- 2017 - 2018 **Affiliate Faculty**, George Mason University, Department of Environmental Science and Policy, Fairfax, VA
- 2016 - 2017 **Assistant Professor (Term)**, George Mason University, Department of Environmental Science and Policy, Fairfax, VA
- 2014 - 2016 **Postdoctoral Research Associate**, George Mason University, Department of Environmental Science and Policy, Fairfax, VA  
Advisor: Leila Hamdan, Ph.D.
- 2011 - 2012 **NOAA Sea Grant Legislative Fellow/Legislative Assistant**, Office of Congresswoman Lois Capps, U.S. House of Representatives, Washington, DC  
Advised the Congresswoman on ocean and environmental policy issues and funding priorities, drafted legislation, wrote speeches and official statements
- 2010 - 2011 **Education and Outreach Coordinator**, Hawaii Institute of Marine Biology, School of Ocean and Earth Science and Technology, University of Hawaii, Honolulu, HI  
Supervisor: Malia Rivera, Ph.D.

## EDUCATION

- Ph.D. Zoology - Ecology, Evolution, and Conservation Biology Specialization, 2013**  
University of Hawaii, Honolulu, HI  
Dissertation: Diversity, distribution, and dynamics of coral reef bacterial communities across the Hawaiian archipelago and wider Pacific  
Co-Advisors: Charles Birkeland, Ph.D. and Michael Rappé, Ph.D.
- M.A. Biology, 2003**  
College of William and Mary Williamsburg, VA  
Thesis: Transmission and nutritional contribution of dual bacterial symbionts in deep-sea mussels  
Advisor: Cindy Van Dover, Ph.D.
- B.S. Biological Sciences and Marine Sciences double major, 2001**  
Rutgers University, New Brunswick, NJ  
Honors Thesis: Role of the xanthophyll cycle in photo-protection of zooxanthellae  
Advisor: Paul Falkowski, Ph.D.
- University of Queensland, Brisbane, Australia, 1999:** semester abroad

## PUBLICATIONS

Mugge, R. L., Brock, M. L., Salerno, J. L., Damour, M., Church, R. A., Lee, J. S., & Hamdan, L. J. (2019). Deep-Sea Biofilms, Historic Shipwreck Preservation and the Deepwater Horizon Spill. *Frontiers in Marine Science*, 6. <https://doi.org/10.3389/fmars.2019.00048>

Hamdan, L.J., **Salerno, J.L.**, Joye, S.B., and Damour, M. The impact of the *Deepwater Horizon* blowout on historic shipwreck-associated sediment microbiomes in the northern Gulf of Mexico. 2018. *Scientific Reports* 8, Article number: 9057. doi: <https://doi.org/10.1038/s41598-018-27350-z>

**Salerno, J.L.**, Little, B., Lee, J., and L.J. Hamdan. Exposure to crude oil and chemical dispersant may impact marine microbial biofilm composition and steel corrosion. 2018. *Frontiers in Marine Science* 5, doi: <https://doi.org/10.3389/fmars.2018.00196>

**Salerno, J.L.**, Bowen, B.W., and M.S. Rappé. Biogeography of planktonic and coral-associated microorganisms across the Hawaiian Archipelago. 2016. *FEMS Microbial Ecology* 92(8): pii: fiww109. DOI: <http://dx.doi.org/10.1093/femsec/fiw109>.

**Salerno, J.L.**, D.R. Reineman, R.D. Gates, and M.S. Rappé. 2011. The effect of a sub lethal temperature elevation on the structure of bacterial communities associated with the coral *Porites Compressa*. *Journal of Marine Biology* Article ID 969173, 9 pages, doi: 10.1155/2011/969173.

**Salerno, J.L.**, S.A. Macko, S.J. Hallam, M. Bright, Y.J. Won, Z. McKiness, C.L. Van Dover. 2005. Characterization of symbiont populations in life-history stages of mussels from chemosynthetic environments. *Biological Bulletin* 208(2): 145-155.

Van Dover, C.L., P. Aharon, J.M. Bernhard, E. Caylor, M. Doerries, W. Flickinger, W. Gilhooly, S.K. Goffredi, K.E. Knick, S.A. Macko, S. Rapoport, E.C. Raulfs, C. Ruppel, **J.L. Salerno**, R.D. Seitz, B.K. Sen Gupta, T. Shank, M. Turnipseed, R. Vrijenhoek, E. 2003. Blake Ridge methane seeps: characterization of a soft-sediment, chemosynthetically based ecosystem. *Deep-Sea Research I* 50(2): 281-300.

## MANUSCRIPTS IN PREPARATION

Mugge, R.L., **Salerno, J.L.** and Hamdan, L.J. Metagenomic response of marine biofilms to oil spill contaminants. In prep. for submission to *ISME Journal*.

**Salerno, J.L.** and Hamdan, L.J. Characterization of *Lophelia pertusa* coral microbiomes at oiled and un-impacted shipwreck sites in the Gulf of Mexico. In prep. for submission to *Coral Reefs*.

**Salerno, J.L.**, Fulmar, P., Ringeisen, B., and Hamdan, L.J. The application of biological laser-printing to map the micro-spatial distribution of microorganisms in soils. In prep. for submission to *Applied and Environmental Microbiology*.

Haley, R., **Salerno, J.L.**, and Hamdan, L.J. Wood-colonizing marine fungi at deep-sea shipwreck sites in the Gulf of Mexico. In prep. for submission to *Environmental Microbiology*.

**Salerno, J.L.** From coral reefs to Capitol Hill: Building bridges between scientists and policy makers for effective coral ecosystem management and conservation.

## GRANTS FUNDED

2016-2017 **Bureau of Ocean Energy Management (BOEM) Environmental Studies Program:** Analysis of an oil spill on the biota inhabiting Gulf of Mexico shipwrecks spanning the 18-20<sup>th</sup> centuries (\$200,000 transferred to me as PI)

2015-2016 **Defense Advanced Research Projects Agency (DARPA);** Co-PI – \$500,000 for micro-spatial mapping of soil microorganisms using biological laser-printing, culturing, and next-generation sequencing; my portion (\$73,000)

- 2009 **Achievement Awards for College Scientists (ARCS) Foundation**, Maybelle Roth Scholarship in Conservation Biology (\$5,000)
- 2007 **Seaspace Scholarship** (\$3,000)
- 2006 **University of Hawaii**, Charles H. and Margaret B. Edmondson Research Fund (\$800)
- 2005-2010 **Hawaii Institute of Marine Biology/NOAA-Northwestern Hawaiian Island Coral Reef Ecosystem Reserve Partnership**, Research Assistantship (\$117,480)
- 2002-2003 **College of William and Mary**, Minor Research Grant
- 2001-2002 **College of William and Mary**, Minor Research Grant
- 2000 **Rutgers University, NSF Research Experiences for Undergraduates (NSF-REU)**, (\$2,500)

**FELLOWSHIPS, HONORS, AND AWARDS**

- 2018 **National Oceanographic Partnership Program's (NOPP) 2017 Excellence in Partnering Award** for the "Gulf of Mexico – Shipwreck, Corrosion, Hydrocarbon Exposure, Microbiology, and Archaeology (GOM-SCHEMA) project
- 2017-2018 **American Association for the Advancement of Science (AAAS) Science and Technology Policy Fellowship** (\$81,548 plus travel, with the option to renew for a 2<sup>nd</sup> year at \$96,970)
- 2011-2012 **NOAA Knauss Marine Policy Fellowship** (\$46,000)
- 2008 **Hawaii Institute of Marine Biology/NOAA-Northwestern Hawaiian Island Coral Reef Ecosystem Reserve Partnership**, Travel Award (\$1,400)
- 2008 **University of Hawaii**, Graduate Student Organization Travel Award (\$700)
- 2008 **University of Hawaii**, Ecology, Evolution, and Conservation Biology Travel Award (\$1,200)
- 2003 **National Science Foundation**, Graduate Research Fellowship Honorable Mention
- 2003 **College of William and Mary**, Graduate Student Association Conference Fund Award
- 2002 **College of William and Mary**, Graduate Student Association Conference Fund Award
- 2002 **College of William and Mary**, Student Activities Conference Fund
- 2001 **Rutgers University**, Outstanding Senior in Marine and Coastal Sciences Award
- 2000-2001 **George H. Cook Honors Scholar**, Rutgers University (\$1,000)
- 2000-2001 **Golden Key National Honors Society Member**, Rutgers University
- 2000 **Samuel W. and Berta Thomson Brown Memorial Scholarship**, Rutgers University
- 1999 **Brigpin Study Abroad Scholarship**, Rutgers University
- 1999 **Charon and Mark Hershhorn Study Abroad Scholarship**, Rutgers University
- 1998-2001 **Alpha Zeta, National Honors and Service Co-educational Fraternity**
- 1997-2001 **Outstanding Scholars Award**, Rutgers University (\$14,000)
- 1997 **General Honors Program**, Rutgers University (\$1,000)

## TEACHING EXPERIENCE

### George Mason University

- 2019 Environmental Microbiology Essentials  
Environmental Microbiology Essentials Laboratory  
Coral Reef Ecology, Health, and Conservation  
Coral Reef Ecology, Health, and Conservation Field Experience in Curacao
- 2018 Environmental Microbiology Essentials  
Environmental Microbiology Essentials Laboratory
- 2017 The Ecosphere: An Introduction to Environmental Science I Laboratory  
**\*Recognized for being an outstanding Mason Core course** (5.00/5.00 for “overall rating of teaching” from the Student Ratings of Instruction)
- 2016 Environmental Microbiology Essentials  
Environmental Microbiology Essentials Laboratory  
Guest lecturer - Microbial Ecology  
“Introduction to bioinformatics for microbiologists”

### University of Hawaii (Hawaii Institute of Marine Biology)

- 2011 Moku o Loe (Coconut Island): The Best Kept Secret of Kaneohe Bay – a Continuing Education Course on coral reef ecology in the Hawaiian Islands (lecture and laboratory)

### College of William and Mary

- 2002 Invertebrate Zoology lecture and laboratory (Teaching Assistant)
- 2001 Introductory Biology Laboratory for non-majors (Teaching Assistant for 2 sections)

## INVITED PRESENTATIONS

- 2019 Invited Speaker, Microorganisms as sentinels of ecosystem health and environmental disturbance, National Park Service Center for Urban Ecology, Washington, DC, September 6.
- 2019 Invited Speaker, Margaret A. Davidson Coastal Career Development Workshop, Potomac Science Center, George Mason University, Woodbridge, VA, April 4.
- 2018 Invited Panelist at Chasing Corals Film Screening and Discussion, Society for Conservation Biology 2018 International Conservation Marketing and Engagement Congress, Arlington, VA, October 26.
- 2018 Invited Speaker on Science Diplomacy, Science Policy Course, Dr. Jessica Rosenberg, George Mason University, Fairfax, VA, Spring Semester.
- 2017 NOAA Sea Grant Legislative Fellow Alumni Panel. Silver Spring, MD, November 13.
- 2010 Salerno, J.L. and M. S. Rappé. It's a small world: Exploring the diversity of bacteria associated with reef-building corals across the Hawaiian Archipelago. Duke University Marine Laboratory/NOAA NCCOS Center for Coastal Fisheries and Habitat Research, Beaufort, NC, May 3.
- 2010 Salerno, J.L. Bacteria and coral health: It's the little things that matter. Presented to an undergraduate Marine Biology class at Kapiolani Community College, Honolulu, HI, February 3.

- 2010 Salerno, J.L. and M. S. Rappé. Developing a high-throughput method to explore the diversity of bacteria associated with corals in the Papahānaumokuākea Marine National Monument. Presented at the Hawaii Cooperative Fisheries Research Unit Annual Meeting, Honolulu, HI, January 7.
- 2009 Salerno, J.L. and M.S. Rappé. Microbes in the Monument: Using bacterial community assessments to monitor coral health. Presented at the Hawaii Conservation Conference, Honolulu, HI, July 28-30.
- 2008 Salerno, J.L. Bacteria and Coral Health: It's the little things that matter. Lecture and laboratory activity for Windward Community College Course, Hawaii Institute of Marine Biology, Kaneohe, HI, October, 14.
- 2008 Salerno, J.L. and M. S. Rappé. Assessing the biogeographical distribution of bacterial communities associated with reef water and corals of the Papahānaumokuākea Marine National Monument and greater Pacific Basin. Presented at the Hawaii Conservation Conference, Honolulu, HI, July 29-31.
- 2008 Salerno, J.L. What determines the health of coral reefs? Presented at the Hanauma Bay Marine Park education and outreach program, Honolulu, HI, July 31.

### CONFERENCE PARTICIPATION AND PRESENTATIONS

\* denotes presenter other than J.L. Salerno

- 2018 **Salerno, J.L.**, \*Mugge, R., Little, B., Lee, J. and Hamdan, L.J. Impacts of crude oil and dispersant on marine microbial biofilms: Implications for the preservation of historic Gulf of Mexico shipwrecks. Poster presentation at the Gulf of Mexico Oil Spill and Ecosystem Science (GoMOSES) Conference, New Orleans, LA February 5-8.
- 2016 **Town Hall Organizer:** From coral reefs to Capitol Hill: Building bridges between scientists and policy makers for effective coral ecosystem management and conservation. The 13<sup>th</sup> International Coral Reef Symposium, Honolulu, HI, June 19-24.
- 2016 **Salerno, J.L.** From the ivory tower to the halls of Congress: How scientific information is sourced and used in the legislative process. Oral presentation at the 13<sup>th</sup> International Coral Reef Symposium, Honolulu, HI, June 19-24.
- 2016 **Session Co-chair:** Mesophotic and deep-sea coral ecosystems: A tribute to the pioneering efforts of Dr. John Rooney. The 13<sup>th</sup> International Coral Reef Symposium, Honolulu, HI, June 19-24.
- 2016 **Session Co-organizer:** Aquatic science: Informing policy, management, and the public. ASLO Aquatic Sciences Summer Meeting Santa Fe, NM, June 5-10.
- 2016 \*Damour, M., Hamdan, **L.J.**, **Salerno, J.L.**, Church, R., and Warren, D. Gulf of Mexico Shipwreck corrosion, hydrocarbon exposure, microbiology, and archaeology (GOM-SCHEMA) project: Did the 2010 Deepwater Horizon oil spill impact historic shipwrecks? Poster presented at the Society for American Archaeology conference, Orlando, FL, April 6-10.
- 2016 **Salerno, J.L.**, Little, B., Lee, J., Ray, R., and Hamdan, L.J. Conserving archaeological sites as biological and historical resources in the Gulf of Mexico: the effects of crude oil and dispersant on the biodiversity and corrosion potential of shipwreck bacterial biofilms. Oral presentation at the ASLO Ocean Sciences Meeting, New Orleans, LA, February 21-26.
- 2016 \*Hamdan, L.J., **Salerno, J.L.**, Blackwell, C., Little, B., McGown, C., Fitzgerald, L., and Damour, M. Microbial stowaways: Addressing oil spill impacts and the artificial reef effect on deep-sea microbiomes. Poster presentation at the ASLO Ocean Sciences Meeting, New Orleans, LA, February 21-26.
- 2016 \*Damour, M., **Salerno, J.L.**, McGown, C., Blackwell, C.A., Church, R.L., Warren, D.A., Horrell, C., Jordan, B., Moore, J., Hamdan, L.J. Historic shipwrecks as ecosystem monitoring platforms in the

wake of deepwater horizon? Results of the Gulf of Mexico shipwreck corrosion, hydrocarbon exposure, microbiology, and archaeology (GOM-SCHEMA) Project. Poster presentation at the ASLO Ocean Sciences Meeting, New Orleans, LA, February 21-26.

- 2016 Hamdan, L.J., **Salerno, J.L.**, Church, R.L., Warren, D.A., Fitzgerald, L.A., \*Damour, M. Shipwrecks of opportunity: Monitoring oil spill impacts on deep reef ecosystems in the Gulf of Mexico. Gulf of Mexico Oil Spill and Ecosystem Science Conference, Tampa, FL, February 1-4.
- 2015 **Salerno, J.L.**, Little, B., Lee, J., Ray, R., and Hamdan, L.J. Effects of crude oil and dispersant on microbially-mediated shipwreck corrosion in the Gulf of Mexico. Oral presentation at the 23<sup>rd</sup> biennial Coastal and Estuarine Research Foundation (CERF) Conference, Portland, OR, November 8-12, 2015.
- 2015 \*Hamdan, L.J., **Salerno, J.L.**, Blackwell, C., Fitzgerald, L. and Damour, M. Oil spill impacts on artificial reefs: Implications for archaeology, microbial ecology, and benthic ecosystem monitoring. Oral presentation at the 23<sup>rd</sup> biennial Coastal and Estuarine Research Foundation (CERF) Conference, Portland, OR, November 8-12.
- 2015 \*Blackwell, C., **Salerno, J.L.**, and Hamdan L.J. A comparison of community composition and metabolic diversity of aqueous, sediment, and *Lophelia pertusa* microbiomes. Poster presentation at the 23<sup>rd</sup> biennial Coastal and Estuarine Research Foundation (CERF) Conference, Portland, OR, November 8-12.
- 2015 Participant, Promoting Sustainable Usage of the Oceans – Security, Collaboration, and Development Conference, hosted by The Foreign Policy Institute and The Maritime Alliance, Paul H. Nitze School of Advanced International Studies (SAIS), Johns Hopkins University, Washington, DC, October 19.
- 2015 **Salerno, J.L.**, Blackwell, K., and Hamdan, L.J.H. Deep oases of life: Exploring the biological and metabolic diversity of deep-sea coral associated microorganisms. Poster presentation at the inaugural Gordon Research Conference on Animal-Microbe Symbioses, Waterville Valley, NH, June 21-26.
- 2014 **Participant**, 2<sup>nd</sup> International Symposium on Sponge Microbiology, Baltimore, MD, October 26-29.
- 2008 **Salerno, J.L.** and M. S. Rappé. Biogeography of bacterial communities associated with reef water and corals of the Hawaiian Archipelago and Greater Pacific Basin. Poster presentation at the 12<sup>th</sup> International Symposium on Microbial Ecology, Cairns, Australia, August 17-22.
- 2008 **Salerno, J.L.** and M. S. Rappé. Biogeography of reef water and coral-associated bacterial communities across the Hawaiian Archipelago and Greater Pacific Basin. Oral presentation at the 11<sup>th</sup> International Coral Reef Symposium, Fort Lauderdale, FL, July 7-11.
- 2006 **Salerno, J.L.**, E. A. Hambleton, and M. S. Rappé. Assessing the composition of microbial communities associated with diverse coral species in the Main and Northwestern Hawaiian Islands. Oral presentation at the ASLO Ocean Sciences Meeting, Honolulu, HI, February 20-24.
- 2003 **Salerno, J.L.** and C.L. Van Dover. Contribution of dual symbiosis to nutrition during ontogenesis in deep-sea mussels. Poster presentation at the ASLO Aquatic Sciences Meeting, Salt Lake City, UT, February 9-14.
- 2002 **Salerno, J.L.** and C.L. Van Dover. Dual Symbiosis and Nutrition in Hydrothermal Vent Mussels *Bathymodiolus puteoserpentis*. Poster presentation at the 31<sup>st</sup> Annual Marine Benthic Ecology Meeting, Orlando, FL, March.

## DEPARTMENTAL PRESENTATIONS

- 2016 **Salerno, J.L.**, Little, B., Lee, J., Ray, R., and Hamdan, L.J. Shipwreck-eating microbes: the effects of crude oil and dispersant on the biodiversity and corrosion potential of microbial biofilms. George Mason University, Department of Environmental Science and Policy Lightning Talks, December 4.
- 2015 Hamdan, L.J., **Salerno, J.L.\***, McGown, C., Figan, C., Kassahun, Z., Blackwell, C., Gillevet, P., Horrell, C., and Damour, M. Comparative genomic analysis of oil spill impacts on deepwater shipwreck microbiomes in the northern Gulf of Mexico. Poster presentation, George Mason University 2015 Multidisciplinary Research Symposium, Fairfax, VA, April 27. **\*presented**
- 2015 **Salerno, J.L.** Diversity, distribution, and dynamics of coral reef bacterial communities across the Hawaiian archipelago and wider Pacific. George Mason University, Fairfax, VA, April 9.
- 2014 **Salerno, J.L.** Diversity, distribution, and dynamics of coral reef bacterial communities across the Hawaiian archipelago and wider Pacific. George Mason University, Fairfax, VA, November 14.

## STUDENT MENTORSHIP

### Graduate students:

Kim Magalona (M.S. advisor, George Mason University), 2019 - present  
Valerie Nguyen (M.S. advisor, George Mason University), 2019 - present  
Mitra Kashani (M.S. thesis committee member, George Mason University), 2019-present  
Eric Mazur (M.S. thesis committee member, George Mason University), 2017-present  
Tiffany Allen (M.S. thesis committee member, George Mason University), 2017-present  
Kristin Reck (Ph.D. thesis committee member, George Mason University), 2016-2018  
Sarah Stanley, (M.S. thesis committee member, George Mason University) 2016-2017  
Caitlin Blackwell (M.S. thesis committee member, George Mason University), 2014-2017

### Undergraduate students:

Thomas Hutchinson (George Mason University), Summer 2019  
Omar Alami (George Mason University), Summer 2017  
Valerie Nguyen (George Mason University), 2017  
Rachel Haley (George Mason University), 2016-present  
Matthew Johnson (George Mason University), 2015-2016  
Chancy Chapman (George Mason University), 2014-2016  
Christine Figan (George Mason University), 2014-2015  
Zeima Kassahun (George Mason University), 2014-2015  
Ale'alani Chelsea Dudoit (University of Hawaii), 2006-2009  
Elizabeth Hambleton (Williams College), 2005-2007  
Hollie Putnam (University of Wisconsin - Superior), Summer 2005

## RESEARCH EXPERIENCE

2004 - 2010 **Graduate Research Assistant**, Hawaii Institute of Marine Biology, School of Ocean and Earth Science and Technology, University of Hawaii, Honolulu, HI  
Co-advisors: Charles Birkeland, Ph.D. and Michael Rappé, Ph.D.  
Developed protocols for using molecular techniques to assess bacterial communities associated with healthy and diseased corals; planned and organized field sampling in remote locations and aboard research vessels; responsible for state and federal permit application and reporting

- 2004 **Research Assistant**, Sea Turtle Conservancy, Tortuguero, Costa Rica  
Field Coordinator/Supervisor: Emma Harrison, Ph.D.  
Conducted nightly sea turtle nesting surveys; counted eggs laid, measured and tagged turtles, collected DNA tissue samples, marked and monitored nests for poaching and hatchling survival
- 2003 - 2004 **Research Assistant**, Virginia Institute of Marine Science, College of William and Mary, Gloucester Point, VA  
Supervisor: Hugh Ducklow, Ph.D.  
Conducted research on bacterial productivity at the NSF Palmer Long Term Ecosystem Research site along the Western Antarctic Peninsula
- 2002 **Visiting Researcher**, University of Vienna, Vienna, Austria  
Microscopy research collaboration with Monika Bright, Ph.D., Department of Marine Biology
- 2001 - 2003 **Graduate Research Assistant**, College of William and Mary, Williamsburg, VA  
Advisor: Cindy Van Dover, Ph.D.  
Investigated the transmission and nutritional contribution of bacterial symbionts to deep-sea mussels during early development using transmission electron microscopy and stable isotopes
- 2000 - 2001 **Undergraduate Research Assistant**, Department of Marine and Coastal Sciences, Rutgers University, New Brunswick, NJ  
Advisor: Paul Falkowski, Ph.D.  
Characterized photoprotective pigments in symbiotic zooxanthellae using a fast-repetition rate fluorometer and high performance liquid chromatography

## FIELD EXPERIENCE

- 2005 -2007 **R/V Hi'ialakai, National Oceanic and Atmospheric Administration**  
Four research cruises (4-5 weeks duration) to the Papahānaumokuākea Marine National Monument; collected coral and seawater samples for microbial diversity, population genetics, and zooxanthellae diversity studies; established permanent transects for long-term monitoring of coral health and disease
- 2006 **Field Station, Tutuila and Ofu islands, American Samoa**  
Sampled corals for bacterial community analysis around Tutuila and Ofu islands
- 2004 **R/V L.M. Gould, United States Antarctic Program, National Science Foundation**  
5-week cruise along the Western Antarctic Peninsula; collected and analyzed seawater samples for bacterial productivity and abundance, seawater chemistry
- 2003 **R/V Delaware II, National Oceanic and Atmospheric Administration**  
11-day cruise to Bear Seamount located off the New England coast; determined species abundances of deep-sea fishes and invertebrates from pelagic and benthic trawls
- 2001 **R/V Atlantis, Woods Hole Oceanographic Institution**  
Research assistant on three research cruises to the Mid-Atlantic Ridge hydrothermal vents the Blake Ridge cold seep, and the Eastern Pacific Rise; maintained sampling equipment, preserved biological samples, assisted in CTD casts; dove in the DSV Alvin at the Logatchev vent field on the Mid-Atlantic Ridge and at 11°N on the Eastern Pacific Rise
- 2000 **Point Sur Research Vessel, Moss Landing Marine Laboratory**  
12-day cruise along central CA coast; aided with CTD profiles and transects in upwelling zones along the mid- to southern California coast; completed seawater sampling and chl a analysis
- 2000 **Haskin Shellfish Research Laboratory, Bivalve, NJ**  
Two-week Aquaculture course; spawned and cultured fish and invertebrate larvae, assessed the



incidence and intensity of shellfish diseases (Dermo and MSX) in the Delaware Bay

1999 **Heron Island Research Station, Great Barrier Reef, Australia**  
Two-week Coral Reef Ecology field course

#### **INTERNATIONAL POLICY EXPERIENCE**

2018 **United States Delegate**, Asia-Pacific Economic Cooperation (APEC) Third Senior Officials Meeting, Port Moresby, Papua New Guinea, August  
**United States Delegate**, Asia-Pacific Economic Cooperation (APEC) Oceans and Fisheries Working Group (OFWG) workshop on Capacity Building for Marine Debris Prevention and Management in the APEC Region, Busan, Republic of Korea, June 19-22.  
**United States Delegate**, 2nd Asia-Pacific Economic Cooperation (APEC)-Policy Partnership on Science and Technology and Innovation (PPSTI) APEC Centers Cooperation Conference, Suzhou, China, June 14-15.  
**United States Delegate**, Asia-Pacific Economic Cooperation (APEC) Energy Working Group (EWG) Meeting, Hong Kong, China, May 14-18.  
**United States Delegate**, Asia-Pacific Economic Cooperation (APEC) First Senior Officials Meeting (including Oceans and Fisheries Working Group and Policy Partnership on Science, Technology, and Innovation meetings), Port Moresby, Papua New Guinea, February-March

2017 **United States Delegate**, Asia-Pacific Economic Cooperation (APEC) Energy Working Group (EWG) Meeting, Wellington, New Zealand, November 20-24.

2011 **United States Delegate**, 63<sup>rd</sup> International Whaling Commission (IWC) Annual Meeting, Jersey, United Kingdom, July 11-14.

#### **PROFESSIONAL SERVICE**

AAAS Annual Meeting Poster Judge, February 2019  
Public Policy Committee, ASLO, January 2016 - 2019  
Manuscript Reviewer: *Coral Reefs*, *Marine Ecology Progress Series*, *PeerJ*, *Biogeochemistry*, *Biofouling*, *Journal of Virology*, *Journal of Wildlife Diseases*, *FEMS Microbiology Ecology*  
Grant Reviewer: U.S. Department of State (OES) (2018), Schmidt Ocean Institute (2018), National Science Foundation (NSF) Ocean Sciences Division (external) (2019)

#### **PROFESSIONAL AFFILIATIONS**

American Association for the Advancement of Science (AAAS), American Society for Microbiology (ASM), International Society for Reef Studies (ISRS), American Society of Limnology and Oceanography (ASLO), Women's Aquatic Network (WAN), Association for Women in Science (AWIS), Coastal and Estuarine Research Federation (CERF), American Geophysical Union (AGU), American Academy of Underwater Scientists (AAUS), Divers Alert Network (DAN), 500 Women Scientists

#### **DEPARTMENTAL/UNIVERSITY SERVICE**

2018-2019 **Organizer**, Departmental Seminar Series  
2016-2017 **Supervisor**, Radiation Safety Committee, George Mason University  
2016-2017 **Representative**, University-National Oceanographic Laboratory System (UNOLS)

#### **EXTRACURRICULAR UNIVERSITY SERVICE**

2015-2016 **Co-organizer, Women in Science Luncheon Series (WISLS)**, George Mason University  
2015 **Judge for undergraduate student research**, George Mason University College of Science Undergraduate Research Colloquium, Fairfax, VA, May 1

## EDUCATION AND OUTREACH

- 2019 **McKinley Elementary School, Arlington, VA**  
Spoke to six 5<sup>th</sup> grade classes (125 students) about coral reef science and conservation, June 7
- 2019 **Jefferson Houston Elementary School, Alexandria, VA**  
Spoke to a kindergarten class of 20 students about coral reef science and conservation, June 5
- 2018 **Northwestern University's Weekend Enrichment Program at the Center for Talent Development**  
7 Minutes of Science Skype presentation to 7th, 8th, and 9th grade gifted students, May 5
- 2018 **McKinley Elementary School, Arlington, VA**  
Spoke to six 5<sup>th</sup> grade classes about coral reef science and conservation, June 7
- 2017 **Northwestern University's Weekend Enrichment Program at the Center for Talent Development**  
7 Minutes of Science Skype presentation to 7th, 8th, and 9th grade gifted students, February 25
- 2014 **Tiller School, Beaufort, NC**  
Designed and presented lesson plan to 36 kindergarteners on marine debris
- 2013 **Heroes Elementary School, Camp Lejeune, NC**  
Designed and presented a lesson plan to 2<sup>nd</sup> grade class on sources of marine debris
- 2010 **Manteo High School, Manteo, NC**  
Lectured on hydrothermal vents and coral reefs to 9<sup>th</sup> grade honors earth science students
- Mililani Mauka Elementary School**  
Marine biologist for 2<sup>nd</sup> grade field trip to Makaha Beach to learn about intertidal ecology
- 2009 **University of Hawaii Laboratory School/UH NSF IGERT Program, Honolulu, HI**  
Marine biologist for 3<sup>rd</sup> grade field trip to Sandy Beach to identify marine invertebrates
- Mililani Mauka Elementary School/UH Sea Grant Program, Mililani, HI**  
Marine biologist for 2<sup>nd</sup> grade field trip to Makaha Beach to learn about intertidal ecology
- 2008 **University of Hawaii, SOEST, Hawaii Institute of Marine Biology, Kane'ohe, HI**  
Bacteria and Coral Health: It's the little things that matter. Lecture and laboratory activity for a Windward Community College Course
- University of Hawaii, SOEST, Hawaii Institute of Marine Biology, Kaneohe, HI**  
Helped Castle High School special needs students identify invertebrates in Kane'ohe Bay
- 2006 **University of Hawaii, SOEST, Hawaii Institute of Marine Biology, Kaneohe, HI**  
Lectured to students from the Kamehameha Summer Science Institute in Molecular and Cell Biology
- University of Hawaii Laboratory High School, Honolulu, HI**  
Assisted juniors and seniors with their end-of-year presentations on human body systems
- 2004 **The Tortuguero School, Tortuguero Costa Rica**  
Educated local school children (4<sup>th</sup>- 6<sup>th</sup> grade and high school) about sea turtle conservation; organized weekly community beach clean-ups

## PRESENTATIONS AT PROFESSIONAL MEETINGS

- 2017 **Salerno, J.L.** Presentation of research at the *Astrangia poculata* Research Workshop, Roger Williams University, Bristol, RI, August 1-2.

- 2010 **Salerno, J.L.** and M. S. Rappé. Developing a high-throughput method to explore the diversity of bacteria associated with corals in the Papahānaumokuākea Marine National Monument. Presented at the Northwestern Hawaiian Islands Joint Science Symposium, East-West Center, Honolulu, HI, January.
- 2009 **Salerno, J.L.**, M. Huggett, A. M. Apprill, and M. S. Rappé. Microbes in the Monument: Characterizing bacterial communities associated with reef-building corals. Presented at the HIMB/NOAA Northwestern Hawaiian Islands Research Partnership Semi-Annual Meeting, HIMB, Honolulu, HI, May.
- 2008 **Salerno, J.L.**, M. Huggett, A. M. Apprill, and M. S. Rappé. Microbes in the Monument: Assessing the diversity and distribution of bacteria associated with reef-building corals across the Hawaiian Archipelago and Greater Pacific. Presented at the HIMB/NOAA Northwestern Hawaiian Islands Research Partnership Semi-Annual Meeting, Windward Community College, Honolulu, HI, November.
- 2008 **Salerno, J.L.**, M. Huggett, A. M. Apprill, and M. S. Rappé. Assessing the diversity of microbes associated with healthy and health-compromised corals. Presented at the HIMB/NOAA Northwestern Hawaiian Islands Research Partnership Semi-Annual Meeting, NOAA Monument Office, Honolulu, HI, April.
- 2007 **Salerno, J.L.**, and M. S. Rappé. Assessing microbial diversity in the Papahānaumokuākea Marine National Monument. Presented at the HIMB/NOAA Northwestern Hawaiian Islands Research Partnership Semi-Annual Meeting, NOAA Monument Office, Honolulu, HI, November.
- 2007 **Salerno, J.L.**, A. M. Apprill, E. A. Hambleton, and M. S. Rappé. Assessing the diversity of microbes associated with healthy and health-compromised corals. Presented at the Northwestern Hawaiian Islands Joint Science Symposium, NOAA Monument Office, Honolulu, HI, February.
- 2006 **Salerno, J.L.**, A. M. Apprill, E. A. Hambleton, and M. S. Rappé. Assessing the composition of microbial communities associated with corals in the Hawaiian Islands. Presented at the HIMB/NOAA Northwestern Hawaiian Islands Research Partnership Quarterly Meeting, NOAA Monument Office, Honolulu, HI, August.
- 2006 **Salerno, J.L.**, A. M. Apprill, E. A. Hambleton, and M. S. Rappé. Assessing the composition of microbial communities associated with corals in the Northwestern Hawaiian Islands. Presented at the HIMB/NOAA Northwestern Hawaiian Islands Research Partnership Quarterly Meeting, NOAA Monument Office, Honolulu, HI, March.
- 2005 **Salerno, J.L.**, A. M. Apprill, E. A. Hambleton, and M. S. Rappé. Microorganisms associated with healthy and health-compromised corals in the Northwestern Hawaiian Islands. Presented at the HIMB/NOAA Northwestern Hawaiian Islands Research Partnership Quarterly Meeting, NOAA Monument Office, Honolulu, HI, December.

## PROFESSIONAL DEVELOPMENT

- 2018 Women's Aquatic Network (WAN) Speed Mentoring, Washington, DC, October 18.
- 2018 Stand Up to Harassment training, 500 Women Scientists DC, Washington, DC, January 18.
- 2017 Workplace Negotiation Skills Workshop, AAAS Washington, DC, November 13.
- 2017 *Astrangia poculata* Research Workshop, Roger Williams University, Bristol, RI, August 1-2.
- 2015 Strategies and Techniques for Analyzing Microbial Population Structures, Marine Biological Laboratory, Woods Hole, MA, August 5-15.
- 2014 Bioinformatics workshop, 2<sup>nd</sup> International Symposium on Sponge Microbiology, Baltimore, MD, October 29.
- 2013 Epidemics – the Dynamics of Infectious Diseases, Statement of Accomplishment, Coursera, October.
- 2010 Discussion group leader, HIMB-Northwestern Hawaiian Islands Research Partnership Brainstorming and Directions Meeting, NOAA Monument Office, Honolulu, HI, August 25, 2010.

- 2009 "Analysis of microbial sequence data using ARB" workshop, University of Hawaii, August 13-14.  
2008 Media training, NOAA Monument Office, Honolulu, HI.

## CERTIFICATIONS

Radiation Safety certification, AAUS Scientific Diver, NAUI Master Diver, NAUI NITROX Diver, NAUI Rescue Diver, PADI Rescue Diver, Red Cross CPR and First Aid, DAN Oxygen Administration, USCG small boat license

## COMMUNITY OUTREACH / VOLUNTEER WORK

- 2019 **Volunteer Science Fair Judge** for Microbiology, Fairfax High School, Fairfax, VA, February 2
- 2018 **Consultant for First Lego League (FLL) team** (Flaming WizBots) from Floris Elementary, Fairfax, VA (6 students in 6<sup>th</sup> grade worked on a method to culture algae in space), October-December
- 2018 **Meet the Scientist Volunteer**, USA Science and Engineering Festival, Washington, DC, April 7
- 2017 **Virginia delegation organizer** for the Blue Vision Summit Healthy Oceans Hill Day, Washington, DC, May 10
- 2017 **Volunteer Science Fair Judge** for Microbiology, Fairfax High School, Fairfax, VA, February 4
- 2016 **Consultant for First Lego League (FLL) team** from Greenbriar West Elementary, Fairfax, VA (7 students in 5<sup>th</sup> and 6<sup>th</sup> grade designed a robot to clean up oil spills in the ocean), September-November
- 2015 **Student poster and oral presentation judge** at the 23<sup>rd</sup> biennial Coastal and Estuarine Research Foundation (CERF) Conference, Portland, OR, November 8-12
- 2015 **Participated in the 8<sup>th</sup> Annual Geosciences Congressional Visits Day** (GEO-CVD) to speak to members of U.S. House of Representatives, U.S. Senate, and Congressional Committees about the importance of biogeoscience research, Washington, DC, September 29-30
- 2015 **Interview**, Spoke to middle school student Madelyn Letendre about ocean science research, marine biology careers, and scientific writing for her English class, McLean, VA, February
- 2013-2014 **Executive Committee**, Surfrider Foundation Bogue Banks Chapter, Emerald Isle, NC
- 2012-2014 **Member**, Surfrider Foundation Bogue Banks Chapter, Emerald Isle, NC
- 2012-2014 **Volunteer**, North Carolina Coastal Federation, oyster reef restoration and marine debris removal
- 2012-2014 **Volunteer**, Emerald Isle Sea Turtle Protection Program, patrolled beaches for nesting females
- 2008-2011 **Volunteer**, Hawaii Public Radio, participated in fundraisers on air and spoke about research
- 2009 **Volunteer Science Fair Judge**, Hawaii State Science and Engineering Fair, Honolulu, HI, April
- 2010 **Volunteer Science Fair Judge**, Hawaii State Science and Engineering Fair, Honolulu, HI, April 6
- 2009 **Volunteer**, HIMB/NOAA Northwestern Hawaiian Island Research Partnership Information Booth, Hawai'i Ocean Expo, Honolulu, HI, March
- 2010 **Volunteer**, HIMB/NOAA Northwestern Hawaiian Island Research Partnership Information Booth, Hawai'i Ocean Expo, Honolulu, HI, March
- 2004-2007 **Volunteer Diver**, Aohe Limue - Alien Algae Cleanup Efforts, Waikiki Beach, HI

## **MEDIA COVERAGE OF RESEARCH**

["Oil spills are bad for shipwrecks." October 18, 2018. Hakai Magazine](#)  
["Gulf oil spills could destroy shipwrecks faster." March 9, 2016. ScienceNews for Students](#)  
["Shipwrecks may crumble faster after oil spills." March 1, 2016. Science Magazine](#)  
["Deepwater Horizon Spill Altered Shipwreck Ecosystems." March 1, 2016. Scientific American](#)  
["BP's Deepwater Horizon Oil spill changed sea life near shipwrecks." February 24, 2016. Newsweek](#)  
["Amazing new video shows deepwater shipwrecks corroded by BP oil spill." February 23, 2016. Washington Post](#)  
["BP oil spill altered coral, shipwrecks in gulf, scientists say." February 23, 2016. The Times-Picayune](#)  
["Gulf oil spill could hasten corrosion of shipwrecks." February 23, 2016. ScienceNews](#)  
["Video shows deepwater shipwrecks corroded by BP oil spill." February 23, 2016. Chicago Tribune](#)  
["BP Spill Impacted Marine Life On Underwater Shipwrecks." February 23, 2016. New Orleans Public Radio](#)  
["Gulf of Mexico historic shipwrecks help scientists unlock mysteries of deep-sea ecosystems." February 22, 2016. ScienceDaily](#)  
["Gulf of Mexico historic shipwrecks help scientists unlock mysteries of deep-sea ecosystems." February 22, 2016. AGU](#)  
["Coral reef ecosystems: it's the little things that can make a big difference." March 14, 2011. MO-BIO: The Culture Dish](#)  
["Scientists swap own tales of sea." May 21, 2006. Honolulu Advertiser](#)  
["Scientists to dive for answers at sea." May 19, 2006. Honolulu Advertiser](#)