

Juliet Wong
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julietmariewong.com

EDUCATION

- 2014 – 2019 University of California Santa Barbara, Santa Barbara, CA
Ph.D. Ecology, Evolution and Marine Biology (EEMB)
Advisor: Professor Gretchen Hofmann
Thesis: *“Investigating the Response of Sea Urchin Early Developmental Stages to Multiple Stressors Related to Climate Change”*
- 2008 – 2012 University of Miami, Coral Gables, FL
B.S. Marine and Atmospheric Science, *magna cum laude*, GPA 3.90
Majors in Marine Science, Biology, and Geology; Minor in Chemistry

PROFESSIONAL EXPERIENCE

- 2019 – present **Distinguished Postdoctoral Scholar**
Lead PI: Professor Jose Eirin-Lopez
College of Arts, Sciences and Education
Department of Biological Sciences
Florida International University, Biscayne Bay Campus, North Miami, FL, USA
- 2012 – 2014 **Research Technician & Laboratory Manager**
Lead PI: Professor Heather Bracken-Grissom
Department of Biological Sciences
Florida International University, Biscayne Bay Campus, North Miami, FL, USA
- 2012 **Laboratory Volunteer**
Lead PI: Professor Peter Glynn
Rosenstiel School of Marine and Atmospheric Science
University of Miami, Virginia Key, FL Keys, USA
- 2011 **NOAA Ernest F. Hollings Intern**
Mentor: Dr. Shallin Busch
National Oceanic and Atmospheric Administration, National Marine Fisheries Service,
Northwest Fisheries Science Center, Seattle, WA, USA

ACADEMIC HONORS & FELLOWSHIPS

- 2015 – 2019 National Science Foundation (NSF) Graduate Research Fellowship (GRFP), USA
- 2014 – 2019 UC Regent’s Special Fellowship, UC Santa Barbara, USA
- 2018 Cawthron International Travel Fellowship, Cawthron Institute, NZ
- 2018 Charles A. Storke Graduate Fellowship, UC Santa Barbara, USA (\$2500)
- 2018 Ellen Schamberg Burley Graduate Scholarship, UC Santa Barbara, to attend the Ocean Global Change Biology Gordon Research Seminar (GRS) and Gordon Research Conference (GRC), Waterville Valley, NH, USA (\$500)
- 2018 EEMB Departmental Grant Award, UC Santa Barbara, USA (\$815)
- 2017 UCSB Academic Senate Doctoral Student Travel Grant to the XIth International Larval Biology Symposium, Honolulu, HI, USA (\$900)
- 2016 EEMB Departmental Graduate Fellowship, UC Santa Barbara, USA (\$6000)
- 2016 Friday Harbor Laboratories Travel Award, University of Washington, USA (\$1645)
- 2012 Outstanding Marine Science Major Award, Rosenstiel School of Marine and Atmospheric Science, University of Miami, USA

2010 – 2012	NOAA Ernest F. Hollings Undergraduate Scholar, National Oceanic and Atmospheric Administration, USA
2008 – 2012	Isaac Bashevis Singer Scholar, University of Miami, USA (full tuition scholarship)
2008 – 2012	General Honors and Foote Fellow Honors Program, University of Miami, USA

PUBLICATIONS

Published, peer-reviewed articles

- Juliet M. Wong** and Gretchen E. Hofmann (In press) The effects of temperature and $p\text{CO}_2$ on the size, thermal tolerance and metabolic rate of the red sea urchin (*Mesocentrotus franciscanus*) during early development. *Marine Biology*.
- Marie E. Strader, **Juliet M. Wong**, and Gretchen E. Hofmann (In press) Ocean acidification promotes broad transcriptomic responses in marine metazoans: a literature survey. *Frontiers in Zoology*.
- Juliet M. Wong**, Juan D. Gaitán-Espitia, and Gretchen E. Hofmann (2019) Transcriptional profiles of early stage red sea urchins (*Mesocentrotus franciscanus*) reveal differential regulation of gene expression across development. *Marine Genomics*. <https://doi.org/10.1016/j.margen.2019.05.007>.
- Juliet M. Wong**, Logan C. Kozal, Terence S. Leach, Umihiko Hoshijima, and Gretchen E. Hofmann (2019) Transgenerational effects in an ecological context: Conditioning of adult sea urchins to upwelling conditions alters maternal provisioning and progeny phenotype. *Journal of Experimental Marine Biology and Ecology* 517: 65-77. <https://doi.org/10.1016/j.jembe.2019.04.006>.
- Marie E. Strader, **Juliet M. Wong**, Logan C. Kozal, Terence S. Leach, and Gretchen E. Hofmann (2019) Parental environments alter DNA methylation in offspring of the purple sea urchin, *Strongylocentrotus purpuratus*. *Journal of Experimental Marine Biology and Ecology* 517: 54-64. <https://doi.org/10.1016/j.jembe.2019.03.002>.
- Kevin M. Johnson, **Juliet M. Wong**, Umihiko Hoshijima, Cailan S. Sugano, and Gretchen E. Hofmann (2018). Seasonal transcriptomes of the Antarctic pteropod, *Limacina helicina antarctica*. *Marine Environmental Research* 143: 49-59. <https://doi.org/10.1016/j.marenvres.2018.10.006>.
- Juliet M. Wong**, Kevin M. Johnson, Morgan W. Kelly, and Gretchen E. Hofmann (2018). Transcriptomics reveal transgenerational effects in purple sea urchin embryos: Adult acclimation to upwelling conditions alters the response of their progeny to differential $p\text{CO}_2$ levels. *Molecular Ecology* 27(5): 1120-1137. <https://doi.org/10.1111/mec.14503>.
- Umihiko Hoshijima, **Juliet M. Wong**, and Gretchen E. Hofmann (2017). Additive effects of $p\text{CO}_2$ and temperature on respiration rates of the Antarctic pteropod, *Limacina helicina antarctica*. *Conservation Physiology* 5(1): cox064. <https://doi.org/10.1093/conphys/cox064>.
- Juliet M. Wong**, Jorge L. Pérez-Moreno, Tin-Yam Chan, Tamara M. Frank, and Heather D. Bracken-Grissom (2015). Phylogenetic and transcriptomic analyses reveal the evolution of bioluminescence and light detection in marine deep-sea shrimps of the family Oplophoridae (Crustacea: Decapoda). *Molecular Phylogenetics and Evolution* 83: 278-292. <https://doi.org/10.1016/j.ympev.2014.11.013>.

Manuscripts in review

- Marie E. Strader, Logan C. Kozal, Terence S. Leach, **Juliet M. Wong**, Jannine D. Chamorro, Maddie J. Housh, and Gretchen E. Hofmann. Examining the role of DNA methylation in transcriptomic plasticity early stage sea urchins: Developmental and maternal effects in a kelp forest invertebrate. In revision, *Frontiers in Marine Science*.

PRESENTATIONS

- 2018 **JM Wong**, LC Kozal, TS Leach, U Hoshijima, and GE Hofmann. Transgenerational effects in an ecological context: Conditioning of adult sea urchins to upwelling conditions alters the progeny's response to differential $p\text{CO}_2$ levels. Ocean Global Change Biology Gordon Research Conference (GRC). Waterville Valley, NH, USA. Poster, July 14 – 20.

- 2018 ME Strader, **JM Wong**, LC Kozal, and GE Hofmann. DNA methylation as a potential driver of transgenerational plasticity in the purple sea urchin (*Strongylocentrotus purpuratus*). Ocean Global Change Biology Gordon Research Conference (GRC). Waterville Valley, NH, USA. Poster, July 15 – 20.
- 2017 **JM Wong**, KM Johnson, MW Kelly, and GE Hofmann. Transcriptomics reveal transgenerational effects in purple sea urchins, *Strongylocentrotus purpuratus*, exposed to differential $p\text{CO}_2$ conditions. XIth International Larval Biology Symposium. Honolulu, HI, USA. Oral presentation, August 10 – 13.
- 2016 **JM Wong**, KM Johnson, MW Kelly, and GE Hofmann. Who's your mommy? Transcriptomics reveal transgenerational effects in purple sea urchins exposed to upwelling conditions. Western Society of Naturalists Annual Meeting. Monterey, CA, USA. Oral presentation, November 10 – 13.
- 2016 GE Hofmann, KM Johnson, U Hoshijima and **JM Wong**. Antarctic pteropods (*Limacina helicina antarctica*) as a sentinel organism for the impact of ocean acidification. 4th International Symposium on the Ocean in a High-CO₂ World. Tasmania, Australia. Oral presentation, May 3 – 6.
- 2016 GE Hofmann, KM Johnson, U Hoshijima, **JM Wong**, and CS Sugano. Pteropods, little marine snails, as an indicator of climate change. Public science lecture, NSF/United States Antarctic Program (USAP). McMurdo Station, Antarctica, November 22.
- 2014 **JM Wong**, B Thoma, DL Felder, KA Crandall, and HD Bracken-Grissom. Gene expression and stress response of the flatback mud crab *Eurypanopeus depressus* exposed to crude oil from the Deepwater Horizon oil spill. Gulf of Mexico Oil Spill & Ecosystem Science Conference. Mobile, AL, USA. Poster, January 26 – 29.
- 2013 **JM Wong** and HD Bracken-Grissom. Transcriptomics reveal genes involved in bioluminescence and vision in marine deep-sea shrimp (Oplophoridae). The Crustacean Society Summer Meeting. San José, Costa Rica. Poster, July 7 – 11.
- 2011 **JM Wong** and S Busch. The impacts of ocean acidification on the development of Puget Sound marine mollusks. NOAA Office of Education, Science and Education Symposium. Silver Spring, MD, USA. Oral presentation, August 2 – 4.

REMOTE FIELD RESEARCH

- 2020 - present Field Team Member, NSF Understanding the Rules of Life (URoL): Epigenetics program. Gump Station, Mo'orea, French Polynesia. Lead PIs: Jose Eirin-Lopez, Hollie Putnam, Steven Roberts, Holly Moeller, and Ross Cunning.
- 2015 Field Team Member, NSF/United States Antarctic Program (USAP). McMurdo Station, Antarctica (11 weeks). Lead PI: Gretchen Hofmann.
- 2013 – 2014 Specimen Collection Assistant, Florida International University. Chauvin, LA (5 days); Ten Thousand Islands and the Florida Keys, FL (7 days). Lead PI: Heather Bracken-Grissom.

SPECIAL COURSES AND PROFESSIONAL WORKSHOPS ATTENDED

- 2017 Environmental Genomics, Mount Desert Island Biological Laboratory, Salisbury Cove, ME, USA. July 8 – 15
- 2016 Evolutionary Responses to Climate Change in the Sea, Friday Harbor Laboratories, University of Washington, San Juan Island, WA, USA. June 13 – July 15
- 2016 NERC-MDIBL Environmental Genomics and Metabolomics, University of Birmingham, Birmingham, UK. March 6 – 11
- 2015 Comparative Invertebrate Embryology, Friday Harbor Laboratories, University of Washington, San Juan Island, WA, USA. June 15 – July 17

2013 The Art of Gene Expression Analysis RNA-seq workshop, University of Texas at Austin.
Mote Tropical Research Lab, Summerland Key, FL Keys, USA. June 12 – 21

TEACHING

2019 Teaching assistant, Introductory Biology Laboratory 3, Spring Quarter, University of California Santa Barbara, USA

2018 Teaching assistant, Introductory Biology Laboratory 3, Spring Quarter, University of California Santa Barbara, USA

2016 Guest lecturer, Exciting Developments in Biology Research, University of California Santa Barbara, USA

2014 Teaching aid and guest lecturer, Genetics, Spring Semester, Florida International University, USA

2013 Teaching aid and guest lecturer, Invertebrate Zoology, Fall Semester, Florida International University, USA

2013 Teaching aid and guest lecturer, Genetics, Spring Semester, Florida International University, USA

MENTORSHIP

2016 – 2019 Maddie Housh, Undergraduate researcher (2016 – 2017) and research technician (2017 – 2019), University of California Santa Barbara

2013 – 2014 Shaina Lear, Research technician, Florida International University

2013 Ahmed Alnahhas, Undergraduate researcher, Florida International University

2013 Carmen Ekert, Undergraduate researcher, Florida International University

OUTREACH

2016 – 2019 Science communicator, World Oceans Day Festival, Santa Barbara Museum of Natural History Sea Center, Santa Barbara, CA, USA

2014 – 2019 Science communicator, Family Ultimate Science Exploration (FUSE) junior high school science education program, Center for Science and Engineering Partnerships, UC Santa Barbara, Santa Barbara, CA, USA

2017 Science communicator, On Thin Ice: Exploring global change biology in the Antarctic with art and science, Spring Seminar Series, Sierra Nevada Aquatic Research Laboratory (SNARL), Mammoth Lakes, CA, USA

2010, 2011 Science communicator, Ocean Kids elementary school education program, University of Miami, Coral Gables, FL, USA

PROFESSIONAL AFFILIATIONS

2019 – present The Research Coordinated Network for Evolution in Changing Seas (RCN-ECS)

2014 – 2019 Santa Barbara Coastal Long Term Ecological Research (SBC LTER) Network