

Juliet Wong

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EDUCATION

- 2014 – present University of California Santa Barbara, Santa Barbara, CA
Ph.D. Candidate
Department of 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
Bachelor of Science in Marine and Atmospheric Science, *magna cum laude*, GPA 3.90
Majors in Marine Science, Biology, and Geology
Minor in Chemistry
- 2011 Cardiff University, Cardiff, Wales
Study Abroad Program, January – June 2011
- 2008 University of Hawaii at Hilo, Hilo, HI
Undergraduate Marine Science Summer Program, June – July 2008

PROFESSIONAL EXPERIENCE

- 2014 – present **Graduate Student Researcher**
Advisor: Professor Gretchen Hofmann
Department of Ecology, Evolution and Marine Biology, University of California Santa Barbara, Santa Barbara, CA, USA
- 2013 – 2014 **Teaching Aid & Guest Lecturer**
Genetics and Invertebrate Zoology, Florida International University, Biscayne Bay Campus, North Miami, FL, USA
- 2012 – 2014 **Research Technician & Laboratory Manager**
Dr. Heather Bracken-Grissom, Department of Biological Sciences, Florida International University, Biscayne Bay Campus, North Miami, FL, USA
- 2012 **Laboratory Volunteer**
Dr. Peter Glynn, University of Miami, Rosenstiel School of Marine and Atmospheric Science 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 – present **National Science Foundation (NSF) Graduate Research Fellowship (GRFP)**, USA
(received 2015)
- 2014 – present **UC Regent’s Special Fellowship**, UC Santa Barbara, USA (received 2014)
- 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
- 2011 – 2012 **Sigma Gamma Epsilon**, earth sciences honor society, University of Miami, USA
- 2010 – 2012 **NOAA Ernest F. Hollings Undergraduate Scholar**, National Oceanic and Atmospheric Administration, USA (received 2010)
- 2010 – 2012 **Rho Rho Rho**, marine and atmospheric science honor society, University of Miami, USA
- 2008 – 2012 **Isaac Bashevis Singer Scholar**, University of Miami, USA (full tuition scholarship)
- 2008 – 2012 **General Honors Program**, University of Miami, USA
- 2008 – 2012 **Footo Fellow Honors Program**, University of Miami, USA

PUBLICATIONS

Published, peer-reviewed articles

- Kevin Johnson, **Juliet Wong**, Umihiko Hoshijima, Cailan Sugano, and Gretchen Hofmann (2018). Seasonal transcriptomes of the Antarctic pteropod, *Limacina helicina antarctica*. *Marine Environmental Research*. <https://doi.org/10.1016/j.marenvres.2018.10.006>.
- Juliet Wong**, Kevin Johnson, Morgan Kelly, and Gretchen 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* 00:1-18. <https://doi.org/10.1111/mec.14503>.
- Umihiko Hoshijima, **Juliet Wong**, and Gretchen 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.
- Juliet Wong**, Jorge Pérez-Moreno, Tin-Yam Chan, Tamara Frank, and Heather 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.

Manuscripts in review

- Juliet Wong**, Logan Kozal, Terence Leach, Umihiko Hoshijima, and Gretchen Hofmann. 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*. In revision.
- Marie Strader, **Juliet Wong**, Logan Kozal, Terence Leach, and Gretchen Hofmann. Parental environments alter DNA methylation in offspring of the purple sea urchin, *Strongylocentrotus purpuratus*. *Journal of Experimental Marine Biology and Ecology*. In revision.

Marie Strader, **Juliet Wong**, and Gretchen Hofmann. Ocean acidification promotes diverse transcriptomic responses in marine metazoans: A literature survey. Submitted to *Frontiers in Zoology*. Invited review.

Manuscripts in advanced state of preparation

Juliet Wong, Juan Diego Gaitán-Espitia, and Gretchen Hofmann. A developmental transcriptome of the red sea urchin, *Mesocentrotus franciscanus*. In preparation.

SCHOLARLY POSTERS AND PRESENTATIONS

- 2018 **Juliet Wong***, Logan Kozal, Terence Leach, Umihiko Hoshijima, and Gretchen 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 presentation, July 14 – 20. *Presenting author
- 2018 Marie Strader, **Juliet Wong**, Logan Kozal, and Gretchen 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 presentation, July 15 – 20.
- 2017 **Juliet Wong***, Kevin Johnson, Morgan Kelly, and Gretchen 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. *Presenting author
- 2016 **Juliet Wong***, Kevin Johnson, Morgan Kelly, and Gretchen 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. *Presenting author
- 2016 Gretchen Hofmann, Kevin Johnson, Umihiko Hoshijima and **Juliet 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 Hernán Vázquez Miranda, Brent Thoma, **Juliet Wong**, Darryl Felder, Keith Crandall, and Heather Bracken-Grissom. Dispersant exposure causes generalized shutdown at the gene-level in crabs. Gulf of Mexico Oil Spill & Ecosystem Science Conference. Tampa, FL, USA. Poster presentation, February 1 – 4.
- 2014 **Juliet Wong**, Brent Thoma, Darryl Felder, Keith Crandall, and Heather 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 presentation, January 26 – 29.
- 2013 **Juliet Wong*** and Heather 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 presentation, July 7 – 11. *Presenting author
- 2011 **Juliet Wong*** and Shallin 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. *Presenting author

INVITED LECTURES

2016 Public science lecture, NSF/United States Antarctic Program (USAP) "*Pteropods, little marine snails, as indicators of global change*" McMurdo Station, Antarctica, November 22

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

2012 **Field Study of Reef Systems Through Time**, University of Miami, Texas and New Mexico, USA. March 10 – 18

2010 **Geological Field Course**, University of Miami, Newfoundland and Labrador, Canada. July 5 – 30

FIELD WORK AND COLLECTION TRIPS

2015 **Field Team Member**, NSF/United States Antarctic Program (USAP). McMurdo Station, Antarctica. Lead PI: Gretchen Hofmann. 11 weeks

2014 **Specimen Collection Assistant**, Florida International University and Louisiana Universities Marine Consortium. Chauvin, LA, USA. 5 days

2014 **Specimen Collection Assistant**, Florida International University. Ten Thousand Islands, FL, USA. Lead PI: Heather Bracken-Grissom. 2 days

2013 **Specimen Collection Assistant**, Florida International University and University of Louisiana Lafayette. Lead PI's: Heather Bracken-Grissom and Darryl Felder. Florida Keys, FL, USA. May 2013. 5 days

LEADERSHIP EXPERIENCE AND OUTREACH

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

2014 – present **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

2016 **Guest Lecturer**, Exciting Developments in Biology Research (INT 94 ES) undergraduate biology course, UC Santa Barbara, Santa Barbara, CA, USA

- 2010, 2011 **Science communicator**, Ocean Kids elementary school education program, University of Miami, Coral Gables, FL, USA
- 2009 – 2010 **Student Academic Advisor**, Office of Academic Enhancement, University of Miami, Coral Gables, FL, USA

MENTORSHIP

- 2016 – present **Maddie Housh**, Undergraduate researcher (2016 – 2017) and research technician (2017 – present), University of California Santa Barbara
- 2013 – 2014 **Shaina Lear**, Research technician, Florida International University, 12 months
- 2013 **Ahmed Alnahhas**, Undergraduate researcher, Florida International University, 9 months
- 2013 **Carmen Ekert**, Undergraduate researcher, Florida International University, 3 months