Katherine E. Dziedzic

3110 Cordley Hall
Oregon State University
Corvallis, OR 97331
(847) 363-5653
dziedzik@oregonstate.edu

EDUCATION

University of Miami, Coral Gables, Florida **Graduated May 2013**
Undergraduate in Bachelor of Science in Marine Science and Biology

Oregon State University, Corvallis, Oregon **Graduation – June 2019**
Graduate Ph.D. in Integrative Biology
Co-advisors: Drs. Eli Meyer and Virginia Weis

Oregon State University, Corvallis, Oregon **June 2019 – December 2019**
Postdoctoral Scholar in Integrative Biology
Co-advisors: Drs. Jane Lubchenco and Kirsten Grorud-Colvert

Graduate Certificate, Marine Resource Management, College of Earth, Ocean, and Atmospheric Sciences, Oregon State University, 2016.
This 18-credit certificate is a blend of marine science and resource management-oriented courses.

EXPERIENCE

Oregon State University **September 2013 – Present**
Ph.D. Candidate

- Experience in coral and anemone experimental design, genomic analysis, quantitative genetic analysis, qPCR, RAD-seq, and RNA-seq
- Analyzing various coral reef species for molecular mechanisms that may be associated with thermal acclimation potential under the direction of Dr. Eli Meyer

Rosenstiel School for Marine and Atmospheric Science, Key Biscayne, FL **August 2010 – May 2013**
Lab Intern

- Assisted graduate student with project execution including the study of coral reef ecology
- Analyzed coral DNA using qPCR, PCR and RFLP techniques and interpret significant amounts of data using statistical programs
- Developed strong relationships with professors and other professional researchers in the field of Marine and Atmospheric Science

Blue Ventures Organization, Madagascar **June 2011 – August 2011**
Volunteer at Research Facility

- Created sustainable fishing practices, octopus enclosures and shark hunting with local organizations
- Conducted surveys on coral reef health and abundance and identified fish biodiversity

- Analyzed data gathered from surveys by populating databases and utilizing complex statistical programs
- Taught English to children at the local grade school

Shedd Aquarium, Chicago, Illinois **June 2007 – June 2009**
Volunteer and Fellowship Recipient

- Recipient of High School Marine Biology Program, conducted research on R/V Coral Reef II
- Recipient of Steve Irwin Fellowship, volunteered at the Australia Zoo and Taronga Zoo
- Assisted in daily duties such as food preparation and tank cleaning in the Fisheries and Marine Mammals Department

Study Abroad, Galapagos Islands, Ecuador **January 2012 – April 2012**

- Studied five field-oriented classes that focused on the marine science, biology and geology of the Galapagos Islands.

Oregon Museum of Science and Industry Science Communication Fellow **January 2018 – May 2018**

- Formal science-communication workshops
- Designing a hands-on activity related to coral reef ecosystems for OMSI events

GRADx Talk, Oregon State University **February 22, 2018**

- Invited to give a 10 minute Ted-like talk presentation at Oregon State University

Congressional Visits Day, Washington, D.C. **April 15 – 19, 2018**

- In association with the American Institute of Biological Sciences (AIBS), I met with congress men and women to discuss the importance of continued levels of science funding

EMPLOYMENT

Oregon State University **September 2013 – present**
Graduate Teaching Assistant

- TA for introductory biology labs, invertebrate biology labs, and human anatomy and physiology labs

Oregon State University **June 2015 – September 2015**
Graduate Research Assistant

- Performed lab experiments examining the variation in thermal tolerance in a reef-building coral and analyzed data on anemones collected along the Oregon coast.

TEACHING EXPERIENCE

Teaching Assistant: Introductory Biology Lab **Fall Term 2013 – Winter Term 2014**
Oregon State University
BI211 (1 quarter)
BI212 (1 quarter)

- Responsible for running 3 hour labs each week, assisting an additional 3 hour lab, designing quizzes and grading assignments

Teaching Assistant: Invertebrate Biology Lab **Spring Term 2014 – 2017**
Oregon State University – Instructor on Record
Z362 (3 quarters)

- Responsible for teaching two 3-hour labs each week
- Responsible for coordinating and organizing lab each week
- Responsible for ordering supplies, organizing field trips, mentoring undergraduate teaching assistants, creating exams, grading assignments and exams

Teaching Assistant: Human Anatomy and Physiology Lab **Fall 2014 – 2017 & Winter 2015 – 2018**
Oregon State University – Instructor on Record
BI241 (4 quarters)
BI242 (4 quarters)

- Responsible for organizing and running labs, designing in-class activities, creating exams, grading assignments, and teaching two labs each week

Instructor: Human Anatomy and Physiology (BI233) **Summer 2017**
Oregon State University

- Lecturer for a condensed, three week summer course
- Responsible for in-class lectures, used clickers to assess study learning, and created exams

Mentor TA: **Human Anatomy and Physiology Lab** **Fall & Winter 2015 – 2018**

- Served as a mentor for new teaching assistants
- Responsible for creating supplies for other teaching assistants, leading meetings, and teaching material to new teaching assistants

OTHER RELEVANT EXPERIENCE IN THE EDUCATION FIELD

Curriculum Redesign for Introductory Biology Lab (BI211)
Winter Term 2013

- Redesigned one lab for Oregon State University's Biology 211 course with Dr. Lori Kayes

Curriculum Redesign for Human Anatomy and Physiology Lab (BI241 & BI242)
Summer & Fall Term 2016

- Redesigned and edited the Fall 2016 and Winter 2017 lab manuals with Dr. Lindsay Biga

Curriculum Redesign for Invertebrate Biology Lab (Z362)
Spring Term 2016 – present

- Redesigning several existing labs of the current lab manual

Guest Lectures

- Introductory Biology Lecture (BI212), "Neurons and the nervous system", *March 2015*

- Marine Ecology Lab (BI352), "Coral Reef Biology and Restoration", *May 2015*
- Human Anatomy and Physiology Lecture (BI242), "Eye anatomy and physiology", *February 2016*
- Invertebrate Biology Lecture (Z361), "Introduction to molluscs", *May 2017*
- Restoration Ecology Lecture (FW 445): "Coral reef restoration", *May 2018*

MENTOR FOR UNDERGRADUATE STUDENT RESEARCH

- Kayla Bird: Summer 2014 – Spring 2015
- Heidi Meyer: Winter 2015 – Spring 2016
- Beatriz Vaca: Fall 2015 – Spring 2016
- Chelsea Eckhart: Spring 2016 – Summer 2016
- Stephanie Merhoff: Fall 2015 – Summer 2016
- Alexa Bryant: Fall 2016 – Fall 2017
- Emily Meier – Fall 2017 - Present

PROFESSIONAL SERVICE

University:

- **Student Committee for Promotion and Tenure**
  - November 2017, Oregon State University
- **Graduate Student Advisory Council**
  - 2017-2018 Academic Year, Oregon State University
  - 2018-2019 Academic Year, Oregon State University
- **Women in Science**
  - Active Member since Fall 2014
  - Graduate Student Co-President, Fall 2016 – Fall 2017
- **Women in Policy**
  - Active Member since Winter 2016

Departmental:

- **Department of Integrative Biology Graduate Student Association**
  - Treasurer and head of Fundraising Committee, 2014 – 2015
  - Graduate Student Co-President, Fall 2015 – Fall 2016
  - Head of Outreach Committee, Fall 2016 – Fall 2016

- **Department of Integrative Biology Staff Hire**
  - Assisted in the staff hiring and interview process, 2016

COMMUNITY SERVICE

University of Miami Ocean Kids **Fall Semester 2011, 2012 & 2013**

- Brought elementary school students from underserved communities in the surrounding Miami area to the University of Miami campus to teach them about the ocean and conservation using hands-on activities

Winter Wonderings, Oregon State University **Winter Term 2014 – 2018**

- Organized and led educational, activity based sessions for gifted elementary school students

STEM Program **Fall 2014 – Present**

- Developing educational and activity based sessions in Invertebrate and Vertebrate Biology for elementary school and high school students
- Designed activities for the AWSEM (Advocates for Women in Science, Engineering and Mathematics) and DSW (Discovering the Scientist Within) clubs that focused on teaching elementary and high school students about coral reef biology, ocean acidification and climate change

SMILE Program **Fall 2014 – Winter 2015**

- Developed educational and activity based lesson plans in Coral Reef Biology for elementary school and high school teachers

Integrative Biology Open House **Spring Term 2016 & 2017**

- Organized an inaugural and second annual Open House for the Department of Integrative Biology
- Coordinated participation with research and teaching labs

Dr. Katharine Hayhoe Seminar **Fall 2017**

- Coordinated Dr. Hayhoe's visit to Oregon State University and organized a public seminar in conjunction with Women in Science

"Chasing Coral" Documentary and Panel Discussion **Fall 2017**

- Organized an event that showcased the new documentary, "Chasing Coral", along with a panel discussion featuring five OSU scientists, followed by an outreach event with hands on activities and live animals

GRANTS & AWARDS

- ZoRF, Oregon State University, Integrative Biology Department, $400-500, 2014-2018
  - Department of Integrative Biology's annual graduate student award with funds for research and travel expenses

- College of Science Student Travel Award (CoSSTA), $400, Oregon State University, 2014

- Oregon Department of Fish and Wildlife Marine Reserve Scholarship, $5,000, ODFW, 2015

- OSU Center for Genome and Computational Biocomputing Illumina Sequencing Grants, $6,054, OSU CGRB, 2016

- Castor Canadensis, $200, Oregon State University Department of Integrative Biology, 2016

- Department of Integrative Biology's annual graduate student award for outstanding service to the Department

- Co-PI, Coral Reef Alliance Coral Adaptation Challenge, $18,000, Coral Reef Alliance, 2016

- Society for the Study of Evolution Travel Grant, $2,000, 2018

- Herbert F. Frolander Outstanding Graduate Teaching Award, Departmental Nominee, 2018
  - Oregon State University's award for outstanding graduate teaching assistant

PUBLICATIONS

- **Dziedzic K**, Elder H, Tavalire H, Meyer E. (2019). Heritable variation in bleaching responses and its functional genomic basis in reef-building corals (*Orbicella faveolata*). *Molecular Ecology*.

- Grorud-Colvert K, Sullivan J, Constant V, **Dziedzic K**, Spiecker B, Rickborn A, Meunier Z, Hamilton S, Randell R, Bachhuber S, Fulton-Bennett H, Lubchenco J. (2019). High-profile international commitments for ocean protection: Empty promises or meaningful progress? *Marine Policy*.

- Snelling J, **Dziedzic K**, Guermond S, Meyer E. (Submitted to G3). Development of an integrated genomic map for a threatened Caribbean coral (*Orbicella faveolata*). bioRxiv.

- Colton MA, Bellis ES, Logan CA, Treml EA, Donner S, Meyer E, Riginos C, Baum J, Claar D, Pinsky M, Richmond R, Walsworth T, Webster M, Berger M, Blower D, Dunne J, **Dziedzic K**, Kirk NL, Matz M, Mumby P. (Submitted to Nature Climate Change). Coral Evolution Can Keep Pace with Moderate Warming

PROFESSIONAL PRESENTATIONS

- Dziedzic (2015). "Thermal Acclimation and Coral Reefs: An Association Study". Oral Presentation. Biological Graduate Student Association. Newport, OR.

- Dziedzic & Meyer (2016). "Profiling gene expression in an intertidal sea anemone (*Anthopleura elegantissima*) across habitats and symbiotic states". Oral Presentation. Society for Integrative and Comparative Biology. Portland, OR.

- Dziedzic & Meyer (2016). "Heritability and genomic basis for variation in thermal tolerance of the coral holobiont in *Orbicella faveolata*." Poster Presentation. International Coral Reef Symposium. Honolulu, HI.

- Dziedzic & Meyer (2016). "Profiling gene expression in an intertidal sea anemone (*Anthopleura elegantissima*) across habitats and symbiotic states". Oral Presentation. Western Society of Naturalists. Monterey, CA.

- Dziedzic & Meyer (2017). "Heritability and genomic basis for variation in thermal tolerance of the coral holobiont in *Orbicella faveolata*." Poster Presentation. Oregon Academy of Science. Corvallis, OR.

- Dziedzic & Meyer (2017). "Heritability and genomic basis for variation in thermal tolerance of the coral holobiont in *Orbicella faveolata*." Poster Presentation. Center for Genome and Computational Biocomputing Spring Conference. Corvallis, OR.

- Dziedzic & Meyer (2017). "Heritability and genomic basis for variation in thermal tolerance of the coral holobiont in *Orbicella faveolata*." Oral Presentation. Evolution. Portland, OR.

- Dziedzic & Meyer (2018). "Genomic and Transcriptomic Investigations of Genetic Variation in the Capacity for Thermal Tolerance in *Anthopleura elegantissima"*. Oral Presentation. Western Society of Naturalists. Tacoma, WA.

PROFESSIONAL WORKSHOPS/TUTORIALS

NIMBioS Tutorial on Evolutionary Quantitative Genetics **August 10 – 15, 2015**

- University of Tennessee, Knoxville TN
- Reviewed the basics of evolutionary quantitative genetics theory and its connections to evolution through multiple lectures and computer exercises

AiREMLf90 Quantitative Genetics Workshop **February 2016**

- Hatfield Marine Science Center, Newport OR
- Introduction to a new Quantitative Genetics Analysis

"Making your Science Matter" **Winter 2016**

- Oregon State University, Corvallis OR
- Science Communication Workshop taught by Dr. Karen McLeod and Dr. Robert Mason for students at Oregon State University

Climate Change Science, Communication, and Action **January – February 2018**

- Online seminar with Cornell University
- Reviewed the basics of climate science and climate change impacts, learned about climate change communication, and created a climate action plan relevant to our research
- Received Certificate of completion

Science-Policy Workshop **January – February 2018**

- Online seminar with the Society for the Study of Evolution (SSE)
- Introduction and discussions about science and policy, learned how to write a policy brief, and meet with policymakers
- Received Certificate of completion

SKILLS

- Trained in qPCR, PCR, RFLP, RAD-seq, and RNA-seq workflow
- PADI Scuba Divemaster
- Certified AAUS Scientific Diver
    - First Aid and CPR certified
    - Rescue Diver certified
    - Trained in species identification, underwater transect operations, and underwater data collection