

Emily M. Adamczyk

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Researching temporal and spatial variation of invertebrate and microbial diversity in eelgrass ecosystems.

EDUCATION

- University of British Columbia**, PhD student in Zoology 2015 – present
Marine Community Ecology. Advisors: Mary I. O'Connor and Laura Wegener Parfrey
- University of California, San Diego**, MSc in Biology 2014
Thesis: Effects of food web interactions and climate on $p\text{CO}_2$ in San Diego Reservoirs.
Advisor: Jonathan Shurin
- University of California, San Diego**, BS in General Biology and minor in Music 2013
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RESEARCH POSITIONS

- UBC BRITE Internship with Parks Canada**: I worked with scientists from Parks Canada, Department of Fisheries and Oceans, Florida State University, the Hakai Institute, Council of the Haida Nation, and Pacific Urchin Harvest Association on a kelp forest restoration project in Gwaii Haanas National Park Reserve, Haida Gwaii. I developed multiple experiments to determine the short and long-term ecological effects of culling sea urchins. May – Sept 2018
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FELLOWSHIPS AND AWARDS

- University of British Columbia – Zoology Graduate Fellowship 2019
Women Divers Hall of Fame – Marine Conservation Scholarship 2017
University of British Columbia – Four Year Doctoral Fellowship 2015
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PEER-REVIEWED PUBLICATIONS

- Iacarella, J. C., Adamczyk, E. M., Bowen, D., Chalifour, L., Eger, A., Heath, W., Helms, S., Hessing-Lewis, M., Hunt, B. P. V., MacInnis, A., O'Connor, M. I., Robinson, C. L. K., Yakimishyn, J., Baum, J. K. 2018. Anthropogenic disturbance homogenizes seagrass fish communities. *Global Change Biology* doi:10.1111/gcb.14090
- Adamczyk, E. M. and J. B. Shurin. 2015. Seasonal Changes in Plankton Food Web Structure and Carbon Dioxide Flux from Southern California Reservoirs. *PLoS ONE* 10(10): e0140464. doi:10.1371/journal.pone.0140464
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OTHER PUBLICATIONS

- Adamczyk, E. M. and J. B. Shurin. 2014. Effects of trophic interactions and climate on CO_2 flux from reservoirs. *UC San Diego Salzman Quarterly* 11:49.

TALKS AND PRESENTATIONS

Adamczyk, E.M. 2019. Kelp forest restoration in Gwaii Haanas, Haida Gwaii. *UBC Biodiversity Legendary Internal Seminar Series*.

Adamczyk, E. M., and M. I. O'Connor. 2018. Seasons of seagrass: Seasonal and temporal dynamics of *Zostera marina* communities. *99th Annual Meeting of the Western Society of Naturalists*.

Adamczyk, E. M., L. Wegener Parfrey, and M. I. O'Connor. 2018. Does the eelgrass microbiome prevent or facilitate eelgrass wasting disease? *Ecology and Evolution retreat*.

Adamczyk, E. M., and M. I. O'Connor. 2018. Identifying human impacts on eelgrass faunal biodiversity in British Columbia, Canada. *4th World Conference on Marine Biodiversity*.

Adamczyk, E. M., M. L. Campbell, and M. I. O'Connor. 2017. Identifying human impacts on eelgrass faunal biodiversity in Barkley Sound, Vancouver Island. *Canadian Society for Ecology & Evolution Meeting*.

Adamczyk, E. M., M. L. Campbell, and M. I. O'Connor. 2017. Does human development impact faunal diversity in eelgrass meadows? *UBC Zoology Graduate Student Association Symposium*.

Adamczyk, E. M. and M. I. O'Connor. 2016. A stitch in time: Weaving together species interactions in the Salish Sea. *UBC Zoology Graduate Student Association Symposium*.

Adamczyk, E. M. and M. I. O'Connor. 2016. A stitch in time: Weaving together species interactions in the Salish Sea. *Salish Sea Ecosystem Conference*.

Adamczyk, E. M. and J. B. Shurin. 2014. Impacts of seasonal variation in trophic interactions and climate on carbon dioxide flux from San Diego reservoirs. *99th Annual Meeting of the Ecological Society of America*.

Adamczyk, E. M. and J. B. Shurin. 2014. How do seasonal changes in food web dynamics and climate affect carbon dioxide flux from San Diego reservoirs? *Annual UCSD Biology Student Research Showcase*.

INVITED WORKSHOPS AND WORKING GROUPS

- Workshop, ZEN (Zostera Experimental Network) Seagrass Phenology, Vancouver, BC, Canada** 2017
I collaborated with seven scientists from Canada, Japan, USA, and Sweden to gather for data and information to write a manuscript on *Zostera marina* community phenology based on the Plankton Ecology Group model (Sommer et al. 1986). ZEN is global network of scientists from 11 countries studying eelgrass ecosystem functioning through experiments and long-term monitoring.
- COMPASS and Data Management workshop, CHONe II Meeting, Gatineau, QC, Canada** 2017
I participated in COMPASS (Communication Partnership for Science and the Sea) training in how to communicate science to the general public and refreshed data management skills in R (tidyverse packages).
- Workshop, CHONe II / DEVOTES Indicators Workshop, Montreal, QC, Canada** 2016
I worked with other CHONe II students during DEVOTES training to better understand the effects of human activities and climate on marine ecosystems and biodiversity by assessing and selecting biological indicators.

Workshop, <i>Eelgrass Faunal Monitoring</i>, Victoria, BC, Canada	2016
I collaborated on a BC-wide eelgrass fish and invertebrate survey network between multiple universities, Parks Canada, DFO, and various NGOs to assess the impact of human activities on eelgrass communities. <i>Manuscript published in Global Change Biology.</i>	
Research Exchange, <i>Hakai Institute Research Exchange</i>, Nanaimo, BC, Canada	2016
I participated in a symposium where Hakai researchers and associate scientists presented current research on Calvert and Quadra Island, BC.	
Workshop, <i>Seagrass BC</i>, Victoria, BC, Canada	2016
I participated in a meeting with university researchers, DFO, Parks Canada, citizen scientists, and NGOs and discussed areas of collaboration between seagrass scientists throughout BC.	
Network Meeting, <i>NSERC Strategic Research Program - Canadian Healthy Oceans Network (CHONe II)</i>, Montreal, QC, Canada	2015
I participated in the first CHONe II meeting with researchers and government scientists (39 researchers from 11 Canadian universities and multiple federal research labs) and discussed various projects, collaboration opportunities, and deadlines for deliverables.	
Research Exchange, <i>Hakai Institute Research Exchange</i>, Nanaimo, BC, Canada	2015
I attended in a symposium where Hakai researchers and associate scientists presented current research taking place on Calvert Island, BC.	

SYNERGISTIC ACTIVITIES

Eelgrass nutrient indicator survey: I led a team to sample 5 intertidal eelgrass meadows throughout Vancouver Island, BC, for invertebrate biodiversity surveys, eelgrass wasting disease monitoring, and collected shoots for carbon, hydrogen, and nitrogen analysis. We will compare these data to other meadows in BC and the east coast of Canada to build a nutrient indicator model to predict areas affected by human activities as part of a CHONe II project. Vancouver Island, BC, University of British Columbia	August 2017
Comparative study between eelgrass communities of British Columbia and Japan: I worked with a team to collect eelgrass from 5 intertidal meadows in Hokkaido, Japan, to compare with eelgrass meadows in BC. We processed samples and will compare invertebrate biodiversity between the meadows. Akkeshi Marine Station, Hokkaido, Japan	August 2016

OUTREACH ACTIVITIES

(Invited) YEET! Youth Innofest (Youth Exploration and Experimentation in Technology) , “ <i>Community Ecology: Food webs and stable isotopes</i> ” (2.5 hours)	2019
(Invited) Open Science Network public talk , “ <i>Diving into seagrass: Exploring BC’s coastal marine biodiversity</i> ”	2019
(Invited) Nature Vancouver – Marine Biology Section public talk , “ <i>Seagrass ecosystems: Exploring marine biodiversity along BC’s coast</i> ”	2018
Open Science Network - STEM Mentoring Cafe , UBC Faculty of Pharmaceutical Sciences (4 hours)	2018
(Invited) Wonders of the Salish Sea public talk , “ <i>Seagrass ecosystems in the Salish Sea</i> ”	2018
UBC Zoology Graduate Student Association , President	2017–2018

Social Media Co-coordinator , 2018 World Conference on Marine Biodiversity	2017–2018
Open Science Network - STEM Mentoring Event , Templeton Secondary School Vancouver, BC (8 hours)	2017, 2018
‘Way Cool’ public talk , “ <i>Seagrass meadows are way cool because...</i> ” Beaty Biodiversity Museum at UBC, Vancouver, BC	2017
(Invited) Eelgrass Citizen Science Workshop , Friends of Semiahmoo Bay White Rock, BC (4 hours)	2017
Public Outreach Volunteer , Canadian Society for Ecology & Evolution (CSEE) Victoria, BC (4 hours)	2017
Science Fair Judge , Greater Vancouver Regional Science Fair University of British Columbia (21 hours)	2016, 2017, 2018
Whale Watching Volunteer , Birch Aquarium at Scripps Institution of Oceanography, University of California, San Diego (40 hours)	2014
Discovery Lab Assistant , Birch Aquarium at Scripps Institution of Oceanography University of California, San Diego (30 hours)	2014 – 2015
Aquarist Assistant , Birch Aquarium at Scripps Institution of Oceanography University of California, San Diego (250 hours)	2013 – 2015
Exhibitor , San Diego Festival of Science and Engineering University of California, San Diego SCUBA club (SeaDeucers) (8 hours)	2013
Tide Pool Interpreter , Birch Aquarium at Scripps Institution of Oceanography University of California, San Diego (30 hours)	2012 – 2013
Snowy Plover Docent , Coal Oil Point Reserve University of California, Santa Barbara (30 hours)	2010
Student Naturalist , Eaton Canyon Nature Center Department of Parks and Recreation, County of Los Angeles (300 hours)	2005 – 2008

TEACHING AND MENTORING EXPERIENCE

Teaching Assistant

UBC , BIOL 402, Aquatic Ecology	Fall 2016, 2017
UCSD , BIEB 176, Conservation and the Human Predicament	Spring 2014
UCSD , BILD 3, Organismic and Evolutionary Biology	Winter 2014
UCSD , BIEB 102, Introductory Ecology – Organisms and Habitat	Fall 2013

Mentor

UBC Undergraduate Research Assistants (9 students); O’Connor and Parfrey labs	2016 – present
UCSD Preuss School high school student	2014 – 2017
UCSD Undergraduate Research Assistants (5 students); Shurin Lab	2014
UCSD BSc Environmental Systems senior intern (Co-advised by Dr. Jonathan Shurin)	2013-2014

SCUBA CERTIFICATES AND QUALIFICATIONS

CAUS Level II (Qualified in Vancouver, BC)	2017
<i>Total dives >20m: 4</i>	
<i>Total dive hours: 2</i>	
Canadian Red Cross – Wilderness & Remote First Aid	2017
CAUS Level I (Qualified in Vancouver, BC)	2016, renewed 2018
<i>Total dives <20m: 144</i>	
<i>Total dive hours: 105</i>	
Dive Accident Management	2016, renewed 2018
Divers Alert Network– CPR/First Aid/AED/Emergency Oxygen	2016, renewed 2018
PADI Rescue (Certified in San Diego, CA)	2013
PADI Enriched Air (Certified in San Diego, CA)	2012
PADI Advanced (Certified in Los Angeles, CA)	2010
PADI Open Water (Certified in Los Angeles, CA)	2009