

Emily M. Adamczyk

Biodiversity Research Centre | Department of Zoology
University of British Columbia
Vancouver, BC, Canada V6T 1Z4
adamczyk@zoology.ubc.ca
www.emilyadamczyk.com

EDUCATION

- University of British Columbia**, PhD student in Zoology 2015 – present
Marine Community Ecology. Advisors: Mary O'Connor and Laura 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 with Music Minor 2013
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FELLOWSHIPS AND AWARDS

- Women Divers Hall of Fame – Marine Conservation Scholarship (\$2,000 USD) 2017
University of British Columbia Four Year Doctoral Fellowship (\$72,800 CAD) 2015
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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. *Accepted*. Anthropogenic disturbance homogenizes seagrass fish communities. *Global Change Biology*. In press.
- 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
- Adamczyk, E. M.** and J. B. Shurin. 2014. Effects of trophic interactions and climate on CO_2 flux from reservoirs. *UC San Diego Saltman Quarterly* 11:49.
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TALKS AND PRESENTATIONS

- 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.** 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, Eelgrass Faunal Monitoring, 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. *Manuscript recently accepted in Global Change Biology.*
- Research Exchange, Hakai Institute Research Exchange, 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, Seagrass BC, 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, NSERC Strategic Research Program - Canadian Healthy Oceans Network (CHONe II), 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, Hakai Institute Research Exchange, Nanaimo, BC, Canada** 2015
I attended in a symposium where Hakai researchers and associate scientists presented current research taking place on Calvert Island, BC.
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RESEARCH EXPERIENCE

Part I: SCUBA diving experience

- Eelgrass Human Impact Surveys:** I led eelgrass surveys to build on data from invertebrate surveys in 2016. We collected eelgrass and invertebrates from 8 subtidal meadows in Barkley Sound, BC, to determine how eelgrass invertebrate biodiversity varied between impacted and nonimpacted meadows (part of my PhD thesis). We also collected eelgrass to monitor for wasting disease. I organized the field trip, led the field work and sample processing, and I am currently analyzing data and writing a manuscript for this research. August 2017
Bamfield Marine Sciences Centre, Bamfield, BC (10 dives <20m deep)

- Eelgrass Transplant Experiment & Biodiversity Surveys:** I led an eelgrass transplant experiment between 4 eelgrass meadows to monitor how eelgrass-associated microbial communities changed in different environments (part of my PhD thesis). We collected and swabbed eelgrass for microbes and transplanted the eelgrass to different meadows. I also organized and led an annual eelgrass invertebrate biodiversity survey in 6 eelgrass meadows for the O'Connor lab. I am currently learning DNA extraction and PCR techniques to sequence DNA for bacteria diversity analysis. June-July 2017
Hakai Institute, Calvert Island, BC (20 dives <20m deep)
- Eelgrass Biodiversity Surveys:** I worked with a team of Hakai and O'Connor lab divers to collect eelgrass, algae, kelp, and associated epifaunal invertebrates from 14 different sites as part of a long-term study on spatial and temporal variation of invertebrate biodiversity. June-July 2016
Hakai Institute, Calvert Island, BC (14 dives <20m deep)
- Eelgrass Human Impact & Kelp Forest Surveys:** I planned and led surveys where we collected eelgrass and associated epifaunal and infaunal invertebrates from 8 subtidal meadows in Barkley Sound, BC, for invertebrate biodiversity surveys along a human impact gradient (part of my PhD thesis). I also collected various algae and kelp from 2 sites for invertebrate biodiversity surveys. June 2016
Bamfield Marine Sciences Centre, Bamfield, BC (13 dives <20m deep)

Part II: Other research experience

- 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. August 2017
Vancouver Island, BC, University of British Columbia
- 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. August 2016
Akkeshi Marine Station, Hokkaido, Japan
- Eelgrass community phenology:** I lead a team of volunteers (including undergrads, grad students, and postdocs) to sample an intertidal eelgrass meadow for eelgrass shoots, epifaunal and infaunal invertebrates, water quality, and fish to build a community seasonality model based on trends in species abundance (part of my PhD thesis). We sample once per month at low tide (at night during winter months). I also coordinate sample processing with volunteers and identify invertebrates using microscopy. Nov 2015-present
Tsawwassen, BC
- MSc Student:** My MSc thesis focused on seasonal changes in food web interactions and climate on carbon dioxide flux from San Diego reservoirs. I weekly sampled three lakes with a kayak to collect water and invertebrate samples to analyze and identify in the lab. 2013-2014
Shurin Lab, University of California, San Diego
- Field Assistant:** I helped a PhD student sample alpine lakes to study impacts of fish predation along a temperature gradient. We backpacked throughout the Sierra Nevada mountain range to collect water and detritus samples and processed them in a lab. Summer 2013
Yosemite National Park and Inyo National Forest, Shurin Lab, UC San Diego

Undergraduate Researcher: I ran a series of grazing trial experiments to determine how grazing rates differed across various species of freshwater copepods and algae. Shurin Lab, UC San Diego	Jan-May 2013
Habitat Restoration Intern: I worked with a team to restore coastal sage scrub and salt marsh habitats. Cheadle Center for Biodiversity and Ecological Restoration, UC Santa Barbara	Jan-March 2010

SCUBA AND FIRST AID CERTIFICATIONS/QUALIFICATIONS

Certification/Qualification	Year Certified/Qualified
CAUS Level II (Qualified in Vancouver, BC) <i>Total dives >20m: 4</i> <i>Total dive hours: 2</i>	2017
Canadian Red Cross – Wilderness & Remote First Aid	2017
CAUS Level I (Qualified in Vancouver, BC) <i>Total dives <20m: 95</i> <i>Total dive hours: 69</i>	2016, renewed 2018
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

OUTREACH ACTIVITIES

UBC Zoology Graduate Student Association , President	2017–present
Social Media Co-coordinator , 2018 World Conference on Marine Biodiversity	2017–present
STEM Mentoring Event , Templeton Secondary School Vancouver, BC (4 hours)	2017
‘Way Cool’ public talk , “ <i>Seagrass meadows are way cool because...</i> ” Beaty Biodiversity Museum at UBC, Vancouver, BC	2017
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 (12 hours)	2016, 2017
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 (6 students); O'Connor Lab	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

ATHLETIC EXPERIENCE

USA Swimming Olympic Trials Competitor	2008, 2012
NCAA Division II National Champion; 200 Breaststroke	2012
Athlete of the Year, University of California, San Diego	2012
Athletic Director's Honor Roll, University of California, San Diego	2012
Capital One Academic All-District Team (CoSIDA), University of California, San Diego	2012
All-American Swimmer, University of California, San Diego	2011, 2012
NCAA Division II Intercollegiate Swimmer, UC San Diego	2010 – 2012
NCAA Division I Intercollegiate Swimmer, UC Santa Barbara	2009 – 2010