

Madeleine H. Abbott

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EDUCATION

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| 2024-present | MSc. Biology
University of Victoria, Victoria, BC Canada
Supervisor: Amanda Bates
Thesis: <i>Sylon Disease Ecology in BC Shrimp and Prawn</i> |
| 2017-2021 | BSc. Biology (Honours)
University of British Columbia, Vancouver, BC Canada
Supervisor: Christopher Harley, Alyssa Gehman
Thesis: <i>The distribution, prevalence, and effects on the host of externally visible hermit crab parasites</i> |

RESEARCH INTERESTS

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| • Marine Ecology | • Conservation |
| • Host-Parasite Relationships | • Ecophysiology |
| • Climate Change | • Rocky Intertidal Zone |

PUBLICATIONS

1. **Abbott, MH.**, Harley CDG., Martell, HA., Janusson, C., Lemay, MA., Gehman, ALM., Distribution and drivers of parasite abundance in the hermit crab *Pagurus hirsutiusculus*. PLOS ONE. [Revision Requested, Nov 7 2024]

FIRST AUTHOR PRESENTATIONS

1. **Abbott, MH.***, Harley CGD., Martell, HA., Janusson, C., Lemay, M., Gehman ALM. Multiple parasite species are widespread in *P. hirsutiusculus*, and *Peltogaster* sp. infection could influence host thermal response. Western Society of Naturalists. Portland, OR. 2024. [12-minute talk]
2. **Abbott, MH.***, Harley CGD., Martell, HA., Janusson, C., Lemay, M., Gehman ALM. Hermit crab parasites are H-O-T-T-O-G-O. 2024. Excellence in Graduate Research Symposium. Victoria, BC. 2024. [5-minute talk]
3. **Abbott, MH.***, Huson, V., Dhayalan, TS., Fajardo, C., Dellinger, R., Reed, K., Silbiger, N.J. Intertidal foundation species alter seawater biogeochemistry at high tide. Western Society of Naturalists, Monterey, CA USA. 2023 [poster]
4. **Abbott, MH.*** Gehman, ALM., Harley CDG. Hiding in plain sight: externally visible parasites of a common intertidal hermit crab. Pacific Ecology Evolution Conference, Online. 2021 [12-minute talk]
5. **Abbott, MH.*** Gehman, ALM., Konecny CA., Harley CDG. The distribution and prevalence of the externally visible parasites of *Pagurus hirsutiusculus* in British Columbia. Online. 2020 [poster]

CO-AUTHOR PRESENTATIONS

1. Dhayalan, TS.* **Abbott, MH.**, Silbiger, NJ. Hot to mow! Differential effects of warming and acidification on an intertidal grazer and macroalgae. Western Society of Naturalists. Portland, OR. 2024. [12-minute talk]

2. Fajardo, CL.* **Abbott, MH.**, Silbiger NJ. Assessing seasonal differences in *Lottia gigantea* growth and the indirect effects on local biodiversity. Ecological Society of America, Long Beach, CA. 2024. **[poster]**
3. Dhayalan, TS.* **Abbott MH.**, Silbiger NJ. Effects of ocean acidification and warming on California intertidal foundation species. Ecological Society of America, Long Beach, CA. 2024 **[poster]**
4. Fajardo, CL.* **Abbott, MH.** Silbiger, NJ. Assessing the direct effects of aerial and ocean temperature variability on *Lottia gigantea* grazing, growth, and metabolism and the indirect effects on local biodiversity. Western Society of Naturalists, Monterey, CA USA. 2023 **[poster]**

* indicates presenting author

RESEARCH POSITIONS

Oct 2022-June 2024	Rocky Intertidal Research Technician (FT) <i>Silbiger Lab, California State University, Northridge</i> Managed lab and field work logistics for NSF project on the California coast. Installed and troubleshooted water sampling equipment, conducted monitoring surveys. Conducted laboratory work including titrating for total alkalinity analysis. Assisted with coral recruitment research in Moorea, French Polynesia.
May 2022-Sept 2022	Seasonal PISCO Technician (FT) <i>Menge Lab, Oregon State University</i> Provided field and laboratory support for long term research projects in the intertidal zone. Set up and monitored manipulative field experiments and assisted with surveys including biodiversity surveys and abundance counts.
May 2020-Aug 2021	Undergraduate Researcher (FT paid summer + honours coursework) <i>Harley Lab, University of British Columbia</i> Two summers of USRA supported research and Honours research on a crustacean host-parasite interaction; conducted intertidal zone field surveys, laboratory metabolic work, literature review, and provided field work support

PROFESSIONAL EXPERIENCE

Jan- April 2022	Environmental Monitor (FT) <i>Ondine Ocean Farm, Nelson Island, BC</i> Developed and implemented environmental monitoring protocols, assisted with oyster farm operations
Jan-April 2021	Undergraduate Teaching Assistant (PT) <i>BIOL 326 Experimental Biology of Invertebrates, University of British Columbia</i> Assisted with an upper-level marine invertebrate laboratory course through experiment set up and marking
Sept-April 2019	Animal Care Technician (PT) <i>Haas Lab, University of British Columbia</i> Laboratory animal care (frogs), administering injections and preparing solutions to maintain appropriate freshwater tank conditions

ADDITIONAL RESEARCH EXPERIENCE

Copepod trait database entry participant, TRAITORS	2024-present
"The Traitors projects (2023-2026) aims to collaborate with	

knowledge holders, scientists, and managers to build a trait-based database for the species inhabiting the Canadian Offshore Pacific Bioregion.”

AWARDS

NSERC CGS-M (\$27,000) Offered based on academic record and research potential	2025
UVic President’s Research Scholarship (\$5000) Offered to Tri-agency funding winners	2025
British Columbia Graduate Scholarship (\$17,500) made on recommendation from the Department of Biology	2024
NSERC Undergraduate Student Research Award (\$6,000) Offered based on academic record and research aptitude	2021
NSERC Undergraduate Student Research Award (\$4,500) Offered based on academic record and research aptitude	2020
Guy Chance Scholarship in Conservation Biology (\$1,500) Made on the recommendation of the Faculty of Science for students in a major or honours program in conservation biology	2020
J Fred Muir Memorial Scholarship in Science (\$220) Offered to students in the Faculty of Science on the recommendation of the faculty	2020
BMSC Summer Course Scholarship (\$500)	2019
UBC Trek Excellence Scholarship (\$1,500) Offered to the top 5% of undergraduate domestic students at UBC Vancouver	2017
BC Dean of Science Scholarship (\$425) Offered to undergraduate students in science and made upon the recommendation of the faculty	2017

MENTORSHIP

As a UVic MSc student, supervised undergraduate one undergraduate volunteer in local shore based shrimp field work. Provided general advice about careers in science and grad school.

As rocky intertidal research technician, supervised four undergraduate research assistants in both the field and lab for the Silbiger Lab’s intertidal community biogeochemistry NSF project. Trained students in titrating, field installation, field surveys, acid washing, and water chemistry measurements. Provided general advice about careers in science and grad school.

SERVICE/VOLUNTEERING

Tech Committee co-chair for Grad Student Symposium Audio and visual setup for student presentations	2025
Volunteer for Western Society of Naturalists Conference Assisted with conference setup and registration	2024

SKILLS and CERTIFICATIONS

Field Skills

- Water collection and filtration for nutrient, fluorescent dissolved organic matter, and total alkalinity samples
- Intertidal field installation of cages, water samplers, and data loggers
- West coast rocky intertidal invert ID
- YSI measurements
- Snorkel
- Northeast Pacific benthic fish and invert ID

Lab

- Saltwater aquarium and mesocosm maintenance
- Invertebrate husbandry
- Respirometry
- Titration for total alkalinity analysis

Field Certifications

- PADI Open Water Diver
- Transport Canada: Small Vessel Operator's Proficiency
- Transport Canada: Small Domestic Vessel Basic Safety
- Radio Operator's Certificate (Maritime)
- BC Driver's license

Computer

- QGIS (beginner)
- R coding (intermediate)
- Github (beginner)

NOTABLE FIELD EXPEDITIONS

Offshore Northeast Pacific, 2025

assisted with the DFO small mesh ecosystem survey, 11 days at sea

Moorea, French Polynesia 2024

two weeks at Gump Research Station conducting coral recruitment research in field and lab

Santa Cruz Island, California, USA 2023

two weeks camping in remote setting conducting intertidal water sampling

California Coast, USA 2022

Two week long trips, camping, intertidal monitoring for PISCO from Point Conception to Cape Mendocino

Bamfield, British Columbia, CA 2019-2021

various field work trips and coursework, intertidal

Calvert Island, British Columbia, CA 2020

one week at the Hakai institute's remote field station conducting intertidal monitoring monitoring research

PROFESSIONAL MEMBERSHIPS

Wildlife Disease Association

2025