

Dominique G. Maucieri

MSc in Biology

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Ph.D. Candidate

University of Victoria

Department of Biological Sciences



University
of Victoria



UNIVERSITY OF
CALGARY

Interests

Marine Community Ecology, Multiple Stressors, Foundational Species, Quantitative Biology, Coral Reef Biology, Animal Behavior, Geometric Morphometrics

Education

- 2021 – Present **Doctor of Philosophy** in Marine Biology, Biological Sciences, University of Victoria, BC, Canada, Senior Advisor: Dr. Amanda Bates
Thesis: *Interactive effects of large-scale disturbances as drivers of diversity and change in marine invertebrate communities.*
- 2019 – 2021 **Master of Science** in Marine Biology, Biological Sciences, University of Victoria, BC, Canada, Senior Advisor: Dr. Julia K. Baum
Thesis: *Impacts of local and global stressors on coral biodiversity.*
- 2014 – 2019 **Bachelor of Science (Honors)** in Ecology and Zoology, Biological Sciences, University of Calgary, AB, Canada, Ecology Honors Advisor: Dr. Robert M.R. Barclay, Zoology Honors Advisor: Dr. Jessica M. Theodor
Awarded First Class Honors for GPA and Research Excellence
Ecology Thesis: *Consumption of spiders by Albertan bats.*
Zoology Thesis: *Sexual dimorphism in bat wing morphology – variation among foraging styles*

Research Experience

- 2019 **South African Shark Conservancy**, Intern, tasks included: shark measuring and tagging, baited remote underwater video (BRUV) analysis, quantitative analysis.
- 2018 – 2019 **University of Calgary**, Research Assistant, Dr. Robert Barclay's Lab, tasks included: bat capture using mist nets and harp traps, morphometric measurements, fecal analysis, and training undergraduate researchers.
- 2017 **University of Calgary**, Research Assistant, Dr. Leland Jackson's Lab and Advancing Canadian Wastewater Assets (ACWA) at the Pine Creek Wastewater Treatment Plant, tasks included: chlorophyll pigment extractions and ash free dry mass analyses on biofilm collections, water and depth measures in small southern Albertan lakes, water sample analysis for total suspended solids, chlorophyll content, phosphorus content, and zooplankton density/community composition.
- 2016 **University of British Columbia**, Research Assistant, Dr. Kathy Martin's Lab, Hudson's Bay Mountain, Smithers, BC, tasks included: banding and measuring nestlings, setting up and running predation experiments, observing the bird population behavior, collected last season's geo-locators and deployed new geo-locators. The effects of predation on the nestling development of the Horned Lark (*Eremophila alpestris*).

Grants, Fellowships and Awards

PhD (\$150,390)

2024	Fisheries and Oceans Canada Aquatic Science Supplement (\$10,000)
2024	Bamfield Marine Science Center Teaching Assistant Scholarship (\$2,000)
2022 – 2025	NSERC Canada Graduate Scholarship–Doctoral (CGS D; \$105,000)
2022 – 2024	President's Research Scholarship (\$15,000)
2023	Bamfield Marine Science Center Teaching Assistant Scholarship (\$2,000)
2023	Fisheries and Oceans Canada Aquatic Science Supplement (\$10,000)
2022	Randy Baker Memorial Scholarship (\$390)
2021 – 2022	VNHS Alice M. Hay Scholarship (\$1,000)

MSc (\$40,949 + 1000 USD)

2020 – 2021	University of Victoria Fellowship (\$15000)
2019 – 2020	NSERC CGS-M (\$23,333)
2020	Advanced Dive Training Grant - Professional (\$1000 USD)
2020	The Maureen De Burgh Memorial Scholarship (\$2616)

BSc (\$35,900)

2017 & 2018	Hisao P. & Mary Needler Arai Marine Field Studies Scholarship (\$2500)
2018	PURE award (\$4500)
2018	NSERC USRA award (awarded but not accepted due to PURE also being received; \$4500)
2017	Bamfield Tuition Scholarship (\$700)
2017	Upland Birds Alberta Scholarship (\$1000)
2016 & 2017	Louise McKinney Scholarship (\$5000)
2015 & 2017	University of Calgary Undergraduate Merit Awards (\$3000)
2016	University of Calgary General Undergraduate Scholarship (\$5000)
2016	Grace LeBel Bursary (\$900)
2015	Jason Lang Scholarship (\$1000)
2015	President's Admission Scholarship (\$2000)
2014 & 2015	Gerald Roberts Mortimer and Victor Emanuel Mortimer Scholarship (\$2500)
2014	Royal Canadian Legion (Branch 288) Scholarship (\$800)
2014	Alexander Rutherford Scholarships (\$2500)

Awards

2021	Most viewed paper for the Canadian Journal of Zoology (DOI: 10.1139/cjz-2020-0160)
2019	Honors Presentation Award Winner for Zoology
2014 – 2018	Dean's List

Publications (ORCID: 0000-0003-1849-2472)

In Prep

Maucieri, D.G., D.J. Kushner, and A.E. Bates. Enduring a major heatwave: the role of kelp forests and cold refugia in promoting marine invertebrate community resilience. *In Prep.*

Hansen, R., A. Halford, **D.G. Maucieri**, and J.K. Baum. Spatial variation in benthic community composition on a minimally disturbed coral reef after a prolonged marine heatwave. *In Prep.*

Bruce, K.A., J.H.R. Burns, **D.G. Maucieri**, K. Pascoe, J.K. Baum. Prolonged heatwave – induced mass coral mortality influences the structural complexity of reef habitats. *In Prep.*

Starko, S., G. Epstein, L. Chalifour, K. Bruce, D. Buzzoni, M. Csordas, S. Dimoff, R.L.G. Hansen, **D.G. Maucieri**, J. McHenry, K. Tietjen, B. Timmer, and J.K. Baum. Ecological responses to ocean warming: a systematic review of the 2014-2016 Northeast Pacific marine heatwave. *In Prep*.

2023

Maucieri, D.G., S. Starko, and J.K. Baum. 2023. Tipping points and interactive effects of chronic human disturbance and acute heat stress on coral diversity. *Proceedings of the Royal Society B: Biological Sciences* 290:20230209. DOI: [10.1098/rspb.2023.0209](https://doi.org/10.1098/rspb.2023.0209).

Baum, J.K., D.C. Claar, K.L. Tietjen, J.M.T. Magel, **D.G. Maucieri**, K.M. Cobb, and J.M. McDevitt-Irwin. 2023. Transformation of coral communities subjected to an unprecedented heatwave is modulated by local disturbance. *Science Advances* 9(14):1-14. DOI: [10.1126/sciadv.abq5615](https://doi.org/10.1126/sciadv.abq5615).

2022

Maucieri, D.G. 2022. quadcleanR: An R Package for the Cleanup and Visualization of Quadrat Data. *Journal of Open Source Software* 7(79): 4674. DOI: [10.21105/joss.04674](https://doi.org/10.21105/joss.04674).

2021

Maucieri, D.G., and J.K. Baum. 2021. Impacts of heat stress on soft corals, an overlooked and highly vulnerable component of coral reef ecosystems, at a central equatorial Pacific atoll. *Biological Conservation* 262: 1-10. DOI: [10.1016/j.biocon.2021.109328](https://doi.org/10.1016/j.biocon.2021.109328)

Maucieri, D.G., A.J. Ashbaugh, and J.M. Theodor. 2021. Sexual dimorphism in bat wing morphology – variation among foraging styles. *Canadian Journal of Zoology* 99(11): 953-960. DOI: [10.1139/cjz-2021-0035](https://doi.org/10.1139/cjz-2021-0035)

Maucieri, D.G., and R.M.R. Barclay. 2021. Consumption of spiders by the little brown bat (*Myotis lucifugus*) and the long-eared bat (*Myotis evotis*) in the Rocky Mountains of Alberta, Canada. *Canadian Journal of Zoology*. 99(3): 221-226. DOI: [10.1139/cjz-2020-0160](https://doi.org/10.1139/cjz-2020-0160)

Teaching and Mentorships

Teaching Experience

2024	Teaching Assistant , Bamfield Marine Sciences Center, Marine Ecology (4-week field biology course)
2024	Guest Lecturer , Marine Ecology, BMSC Summer 2024, 1 lecture (1.5 hours)
2022 – Present	Ecstats Meetings , University of Victoria, weekly tutorials teaching graduate students how to code in R and conduct statistical analyses on ecological data.
2019 – Present	Teaching Assistant , University of Victoria, BIOL 215, Intro to Ecology (3x); BIOL 230, Principle of Genetics; BIOL 466, Frontiers in Marine Biology; BIOL 330/ES 344 Study Design and Data Analysis (4x).
2024	Guest Lecturer , Marine Ecology, BIOL 319 Spring 2024, 1 lecture (50 min)
2024	Guest Lecturer , Study Design and Data Analysis, BIOL 330 Spring 2024, 1 lecture (50 min)
2023	Guest Lecturer , Survey of Invertebrates, BIOL 321 Fall 2023, 1 lecture (50 min)
2023	Teaching Assistant , Bamfield Marine Sciences Center, Marine Ecology (6-week field biology course)
2023	Guest Lecturer , Marine Ecology, BMSC Summer 2023, 1 lecture (2 hours)

2023 **Guest Lecturer**, BIOL 462 Spring 2023, Community & Ecosystem Ecology, 3 lectures (2.5 Hours)

2020 **Coral Identification Training**, University of Victoria, four undergraduate students.

2019 – 2020 **Course Development**, including six tutorials and two R Assignments, BIOL466, Frontiers in Marine Biology.

2018 **Teaching Assistant**, University of Calgary, BIOL 241, Energy Flow in Biological Systems.

Mentorships

2022 – Present **Women in Science Mentor**, Faculty of Science, University of Victoria.

2022 – 2023 **Rebecca Krohman**, University of Victoria (Honours, Supervisor: Dr Amanda E. Bates).

2020 – 2021 **Rebecca Hansen**, University of Victoria (Honours, Supervisor: Dr. Julia K. Baum).

2019 – 2020 **Women in Science Mentor**, Faculty of Science, University of Victoria.

2017 – 2019 **Peer Mentor**, Undergraduate Sciences Center, University of Calgary.

2018 **Advisor**, Faculty of Science Research Nights, University of Calgary.

Workshops

Sep 2023 **Introduction to R**. Offered at the University of Victoria in collaboration with the Biology Undergraduate Society (in person).

Apr 2022 **How to create an R Package**. Offered at the University of Victoria (virtual).

Conferences

Presentations

Jun 2024 **Maucieri, D.G.**, D. Kushner, and A.E. Bates. Enduring a major heatwave: the role of kelp forests and cold refugia in promoting marine invertebrate community resilience. – 12-minute talk, North American Congress for Conservation Biology (NACCB) in Vancouver BC

Jun 2023 **Maucieri, D.G.**, and A.E. Bates*. Impacts of Multiple Stressors on Temperate Marine Invertebrate Communities and the Role of Local Refugia in Community Resilience. – 12-minute talk, Coastal Zone Canada (CZC) in Victoria BC *presenting author

Mar 2022 **Maucieri, D.G.**, and A.E. Bates. *Impacts of multiple stressors on temperate marine invertebrate communities and the role of local refugia in community resilience* – 3-minute talk, Pacific Ecology and Evolution Conference (PEEC) in Victoria BC

Aug 2021 **Maucieri, D.G.**, Samuel Starko, and J.K. Baum. *Disentangling the impacts of multiple stressors on coral reef diversity* – 12-minute talk (Virtual), Canadian Society for Ecology and Evolution (CSEE).

July 2021 **Maucieri, D.G.**, Samuel Starko, and J.K. Baum. *Impacts of local and global stressors on the structure and beta diversity of coral communities* - poster presentation (Virtual), International Coral Reef Symposium (ICRS).

Nov 2020 **Maucieri, D.G.** *Impacts of heat stress on soft corals, an overlooked, but fundamental component of coral reef ecosystems* - 5-minute talk, Western Society of Naturalists Conference, <https://youtu.be/tVeY2Er2ljk>

July 2020 **Maucieri, D.G.** *Impacts of local and global stressors on the structure and diversity of coral reef communities* – 15-minute talk, Global Coral Reef Week, <https://youtu.be/0MgfzmjCZoE>

Feb 2019 **Maucieri, D.G.** *Sexual dimorphism in bat wing morphology – variation among foraging styles* – 12-minute talk, Prairie University Biology Symposium (PUBS) in Winnipeg, Canada.

Oct 2018 **Maucieri, D.G.** *Spider consumption by bats* – poster presentation, North American Symposium for Bat Research (NASBR) in Puerto Vallarta, Mexico.

Organizing Committees

2024	Abstract Committee Chair for the University of Victoria Graduate Student Symposium
2021 – 2022	Registration and Communications Chair for the Pacific Ecology and Evolution Conference 2022. https://peec2022.wordpress.com/
2022	Social Committee member for the University of Victoria Graduate Student Symposium
2019	Abstract Committee member for the University of Victoria Graduate Student Symposium

Software

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Coding Languages

R – Intermediate to advanced proficiency (>8 years of experience)
SQL – Beginner proficiency (<1 year of experience)
HTML – Beginner proficiency (~1 year of experience)
Python – Beginner proficiency (<1 year of experience)

Communication and Outreach

Media

2023	Interviewed for Oceanbites Out Loud Podcast. https://oceanbitesorg.podbean.com/e/an-interview-with-dominique-maucieri/
2021	Interviewed on Impostor Syndrome for the Graduate Matters blog at University Affairs. https://www.universityaffairs.ca/career-advice/graduate-matters/you-arent-the-only-one-suffering-from-imposter-syndrome/

Outreach Activities

2022 – Present	Graphic Designer and Webmaster with UVic Women in Science
2022 – Present	Scientist with Letters To A Pre-Scientist. I am part of their pen-pal program, discussing with students to discuss what it is like to be a woman in STEM and inspire these students to pursue a career in STEM.
2019 – Present	Skype a scientist program. I connect with classes online, to teach them about sharks, corals, and our oceans (11 classes ranging from kindergarten to 12 th grade)
2022	School Talks. Spoke at École Georges P. Vanier (Gr 9) and Bert Church High School (Gr 12)
2022	3-minute thesis competitor. Developing presentation and scientific communication skills
2021 – 2023	Judge for the 2021, 2022 and 2023 BC/Yukon Science Fairs (2 virtual, 1 in person)
2021	Elementary school outreach teaching children about marine invertebrates
2019	Shark outreach talks with the South African Shark Conservancy, educating the public about shark biology and conservation.
2019	Bat expert with the Alberta Community Bat Program, leading tours and educating about

bats.
2018 – 2019 Elementary school presentations on the diversity and biology of bats.

Volunteer

2023 – Present Animal Care Committee Graduate Student Representative at the University of Victoria.
2023 – Present Graduate Student Society co-representative for Biology at the University of Victoria.
2023 – Present Graduate Student Society Finance Committee member at the University of Victoria.
2017 – Present Bamfield Marine Science Center Ambassador
2019 – 2022 Shaw Center for the Salish Seas Oceanographer educating the public on the Salish Seas and the organisms that live there
2022 Get Growing Victoria Volunteer, helping to distribute seedlings to Victoria residents who have barriers to growing their own food.
2021 – 2022 Organizing lab meetings for the Bates lab, including coordinating topics and speakers each week
2018 Researcher for the Alberta Community Bat Program Bat Blitz in Castle Provincial Park
2016 – 2018 Special Olympics Swimming Coach
2017 – 2018 Sustainability Ambassador with the Sustainability Resource Center
2016 – 2017 Volunteer with the Calgary Wildlife Rehabilitation Society
2015 – 2017 VP of Events in the Students for Special Olympics club at the University of Calgary

Employment History

2023 **Contract Coder for the United Nations Population Fund** producing small area estimation models for family planning indicators of countries in Sub-Saharan Africa and producing heatmaps aggregated to administration level 2 for visualization.
2013 – 2019 **Shift Leader, Lifeguard and Swim Instructor** with the City of Airdrie.
2015 **Kananaskin Camp Counsellor** with the YMCA Camp Chief Hector, leading 5-day backpacking trips throughout Banff National Park for 13-year-olds campers.

Training

2022 PICES Summer School – Big Ocean Data with the Ocean Networks Canada

Professional Certifications

Currently:

- Canadian Association for Underwater Science Scientific Diver (CAUS Level I)
- PADI Rescue Diver and Dry Suit Diver
 - Nitrox & Peak Performance Buoyancy specialties
- Dive Accident Management (DAM)
- DAN Oxygen Provider
- Marine Basic First Aid – Canadian Red Cross
- Remote First Aid – Canadian Red Cross
- Pleasure Craft Operators Card (PCOC)
- Small Vessel Operator Proficiency (SVOP)
- Small Domestic Vessel Basic Safety (SDV-BS)
- Restricted Operator Certificate – Maritime (ROC-M)

Previously:

- Standard First Aid and CPR Instructor - Lifesaving Society
- National Lifeguard certification (NL)
- Water Safety Instructor certification (WSI)
- Lifesaving Instructor Certification (LSI)

Peer Review (Publons/Web of Science ResearcherID: AAA-6115-2022)

- Global Ecology and Biography (2 Reviews)
- Journal of Integrative Biology (3 Reviews)
- Biological Conservation (1 Review)
- Oecologia (2 Reviews)
- Conservation Biology (1 Review)