

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 (\$133,390)

2023	Bamfield Marine Science Center Teaching Assistant Scholarship (\$2000)
2023	Fisheries and Oceans Canada Aquatic Science Supplement (\$10,000)
2022	Randy Baker Memorial Scholarship (\$390)
2022 – 2025	NSERC Canada Graduate Scholarship–Doctoral (CGS D; \$105,000)
2022 – 2023	President's Research Scholarship (\$10000)
2021 – 2022	VNHS Alice M. Hay Scholarship (\$1000)

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. The role of temperature refugia and kelp forest cover in marine invertebrate community resilience during an unprecedented 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.*

Hansen, R.L.G., 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*.

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

2022 – Present	Ecostats 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).
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 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. <i>Impacts of multiple stressors on temperate marine invertebrate communities and the role of local refugia in community resilience</i> – 3-minute talk, Pacific Ecology and Evolution Conference (PEEC) in Victoria BC
Aug 2021	Maucieri, D.G. , Samuel Starko, and J.K. Baum. <i>Disentangling the impacts of multiple stressors on coral reef diversity</i> – 12-minute talk (Virtual), Canadian Society for Ecology and Evolution (CSEE).
July 2021	Maucieri, D.G. , Samuel Starko, and J.K. Baum. <i>Impacts of local and global stressors on the structure and beta diversity of coral communities</i> - poster presentation (Virtual), International Coral Reef Symposium (ICRS).
Nov 2020	Maucieri, D.G. <i>Impacts of heat stress on soft corals, an overlooked, but fundamental component of coral reef ecosystems</i> - 5-minute talk, Western Society of Naturalists Conference, https://youtu.be/tVeY2Er2ljk
July 2020	Maucieri, D.G. <i>Impacts of local and global stressors on the structure and diversity of coral reef communities</i> – 15-minute talk, Global Coral Reef Week, https://youtu.be/0MgfzmjCZoE
Feb 2019	Maucieri, D.G. <i>Sexual dimorphism in bat wing morphology – variation among foraging styles</i> – 12-minute talk, Prairie University Biology Symposium (PUBS) in Winnipeg, Canada.
Oct 2018	Maucieri, D.G. <i>Spider consumption by bats</i> – poster presentation, North American Symposium for Bat Research (NASBR) in Puerto Vallarta, Mexico.

Organizing Committees

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 12th 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 Oceaneer 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
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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
- Standard First Aid and CPR-C with AED (SFA) - Lifesaving Society
- 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)

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