

# Dominique G. Maucieri

MSc in Biology

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Ph.D. Student

University of Victoria

Department of Biological Sciences



University  
of Victoria



UNIVERSITY OF  
CALGARY

## Interests

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

## Education

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- 2021 – Present     **Doctor of Philosophy** in Marine Biology, Biological Sciences, University of Victoria, BC, Canada, Senior Advisor: Dr. Amanda Bates  
Thesis: *Impacts of the timing, sequence, and intensity of multiple stressors on temperate 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 Victoria, BC, 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

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- 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

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### *PhD (\$116,000)*

2022 – 2025 NSERC Canada Graduate Scholarship–Doctoral (CGS D; \$105,000)  
2022 President’s Research Scholarship (\$5000)  
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

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2021 Most viewed paper for the Canadian Journal of Zoology (DOI: [10.1139/cjz-2020-0160](https://doi.org/10.1139/cjz-2020-0160))  
2019 Honors Presentation Award Winner for Zoology  
2014 – 2018 Dean’s List

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

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### *In the pipeline:*

Baum, J.K., D.C. Claar, K.L. Tietjen, J.M.T. Magel, **D.G. Maucieri**, K.M. Cobb, and J.M. McDevitt-Irwin.

Transformation of coral communities subjected to an unprecedented heatwave is modulated by local disturbance. *Science Advances* (In Review) DOI: [10.1101/2022.05.10.491220](https://doi.org/10.1101/2022.05.10.491220).

**Maucieri, D.G.**, S. Starko, and J.K. Baum. A framework for assessing the cumulative impacts of non-discrete anthropogenic stressors: tipping points and interactive effects. *Proceedings of the Royal Society B: Biological Sciences* (In Review).

**Maucieri, D.G.** quadcleanR: An R Package for the Cleanup and Visualization of Quadrat Data. *Journal of Open Source Software* (Submitted).

### *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

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### Teaching Experience

- 2020 **Coral Identification Training**, University of Victoria, four undergraduate students.
- 2019 – Present **Teaching Assistant**, University of Victoria, BIOL 215, Intro to Ecology (thrice); BIOL 230, Principle of Genetics; BIOL 466, Frontiers in Marine Biology; BIOL 330/ES 344 Study Design and Data Analysis (twice).
- 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

- 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

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

## Conferences

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### Presentations

- 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/tVeY2Er2Ijk>
- 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

- 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

## Software

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**Aut. & Cre.**  
quadcleanR



## Coding Languages

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R – Intermediate to advanced proficiency (>8 years of experience)

SQL – Beginner proficiency (<1 year of experience)

## Communication and Outreach

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### Media

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

2019 – Present Skype a scientist program. I connect with classes online, to teach them about sharks, corals, and our oceans (8 classes ranging from 1<sup>st</sup> grade to 12<sup>th</sup> grade)

2022 3-minute thesis competitor. Developing presentation and scientific communication skills

2021 – 2022 Judge for the 2021 and 2022 BC/Yukon Science Fair

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

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2019 – Present Shaw Center for the Salish Seas Oceaneer educating the public on the Salish Seas and the organisms that live there

2017 – Present Bamfield Marine Science Center Ambassador

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**

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- 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.

## **Professional Certifications**

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### *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)

## **Peer Review (Pubons: AAA-6115-2022)**

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- Global Ecology and Biography (2 Reviews)
- Journal of Integrative Biology (1 Review)

## **Professional Memberships**

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- Western Society of Naturalists (WSN)
- North American Society for Bat Research (NASBR)
- International Coral Reef Society (ICRS)
- Women Divers Hall of Fame (WDHOF)