

# Jake Lawlor

PhD Student

## CONTACT

McGill University  
Department of Biology  
Montréal, QC, Canada

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💻 [jakelawlor.github.io](https://github.com/jakelawlor)  
🌐 [jakelawlor](https://www.jakelawlor.com)  
🐦 [jake\\_lawlor1](https://twitter.com/jake_lawlor1)

## PROGRAMMING SKILLS

### Languages

R - proficient  
MATLAB - familiar

### Data Base

SQL

### Web

ShinyApp  
HTML  
CSS  
Markdown

### Version Control

Git

## EDUCATION

- 2020- **Ph.D. Biology** McGill University  
*Effects of species traits, protective status, and environmental forces on species range shifts*  
ADVISED BY DR. JENNIFER SUNDAY
- 2017-19 **M.S. Biology** Western Washington University  
*Modeling climate-dependent larval growth rate and duration of Olympia oysters in the Salish Sea*  
ADVISED BY DR. SHAWN ARELLANO
- 2011-15 **B.Sc. Environmental Science** The University of Texas

## GRANTS AND FELLOWSHIPS

- 2021 **Quebec Doctoral Research Scholarship** FRQNT  
• \$77,000 fellowship for 3.5 years
- Dr. Lawrence Light Graduate Fellowship in Sustainability McGill U  
• \$10,000 fellowship + \$4,000 for undergraduate researcher
- 2020 **Computational Biodiversity Science and Services (BIOS<sup>2</sup>) Fellowship** NSERC CREATE  
• \$10,500 fellowship + \$2,000 mobility funds, renewable 3 years
- International Graduate Tuition Award** McGill U  
• \$13,500 international tuition award, renewable 4 years
- 2019 **Biology Student Conference Travel Grant** Western Washington U
- College of Science & Engineering Student Travel Award** Western Washington U
- Ross Travel Grant** Western Washington U
- 2018 **Visiting Internship Student Award** Hong Kong U Sci & Tech  
• 2-month internship in the Chan Quantitative Plankton Ecology Lab
- Enhancement of Graduate Research Fund Project Grant** Western Washington U
- Steve Sulkin Graduate Research Fellowship** Shannon Pt. Marine Center
- 2015 **Multicultural Initiative in Marine Science: Undergraduate Participation** NSF  
• One of eight nationally selected for 6-month NSF marine science research program

## HONOURS AND AWARDS

- 2020 **Best Poster Presentation Award** Quebec Centre for Biodiv. Sci. Conference
- Outstanding Graduate Student Award** Western Washington U. Graduate School
- Outstanding Graduate Research Award** Western Washington U Dept. Biology
- 2019 **Honorable Mention Graduate Student Presentation** PERS Conference 2019
- 2018 **"Washingtonian of the Day" Award** Awarded by Gov. Jay Inslee
- 2013 **Tanzania: Wildlife Conservation Program Scholarship** School for International Training
- 2011-13 **Undergraduate Merit-Based Scholarship** UT Jackson School of Geosciences

## PUBLICATIONS

- 2020 **Temperature and salinity, not acidification, predict near-future larval growth and larval habitat suitability of Olympia oysters in the Salish Sea.**  
*Lawlor, J. and Arellano, S. Scientific Reports 10:13787*
- 2020 **Software Package - [PNWColors](#): Color Palettes Inspired by Nature in the US Pacific Northwest**  
*Lawlor, J. PNWColors R package version 0.1.0. (>6500 downloads from CRAN)*
- in rev: **Priorities for synthesis in ecology and environmental science**  
*Halpern, B., Boettiger, C., Dietze, M., ..... Lawlor, J. .... (116 coauthors)*
- In prep: **Scaling Up Climate-Dependent Larval Growth Rates & Behaviors to Population Distributions of Oysters in a Changing Ocean**  
*Lawlor, J., Khangaonkar, T. and Arellano, S. In prep for Frontiers in Biogeography*

## EMPLOYMENT AND INTERNSHIPS

- 2021 **Vaccine-Preventable Diseases Data Science Intern**  
*Precision Analytics | Montreal, QC*
- **Interactive Web App Developer for Exploring Species Distribution Model Outputs**  
*Fisheries and Oceans Canada - Aquatic Climate Change Adaptation Services Program | Maritimes*
- 2020 **Freelance Data Analyst / Data Visualization Specialist**  
*Clients include a California Carbon Pricing Consultancy, ACLU of Washington, and CratedWithLove food delivery service. Hosted through [upwork.com](https://www.upwork.com)*
- 2019 **Larval Biology Research Associate**  
*Shannon Point Marine Center | Anacortes, WA*
- **R/V Tiglax 14-Day Research Cruise Consultant**  
*Northern Gulf of Alaska Long Term Ecological Research Study Area | Seward, AK*
- 2018 **Chan Quantitative Plankton Ecology Lab Visiting Internship Student**  
*Hong Kong University of Science and Technology | Hong Kong SAR, China*
- 2017 **Shellfish Research Hatchery Technician**  
*University of North Carolina Wilmington CREST Research Park | Wilmington, NC*
- 2016 **Arellano Larval Lab Research Technologist**  
*Shannon Point Marine Center | Anacortes, WA*
- 2015 **Matz Coral Genomics and Adaptation Lab Undergraduate Research Assistant**  
*The University of Texas | Austin, TX*
- **National Science Foundation Undergraduate Research Fellow**  
*Shannon Point Marine Center | Anacortes, WA*
- 2014 **Phelps Social Neuroscience Lab Undergraduate Research Assistant**  
*The University of Texas | Austin, TX*
- **Vertebrate Paleontology Lab Curation and Collections Assistant**  
*The University of Texas Pickle Research Campus | Austin, TX*

## CONFERENCE PRESENTATIONS

- 2020 **Québec Centre for Biodiversity Science, Poster + Speed Talk | Virtual**  
*How have we detected range shifts? A review and synthesis*
- CO-PRESENTATION WITH UNDERGRADUATE MENTEE, BRIT VAN AMEROM
  - BEST POSTER PRESENTATION AWARD
- **Western Society of Naturalists Conference, Oral Presentation | Virtual**  
*Using interacting environmental gradients to predict larval success in future oceans*
- 2019 **Species on the Move Conference, Poster Presentation | Kruger NP, South Africa**  
*Scaling up climate-dependent larval growth rates and behaviors to population distributions of oysters in a changing ocean*
- **Pacific Estuarine Research Society (PERS) Conference, Fast Talk | Anacortes, WA**  
*Effects of interacting climate stressors on Olympia oyster larval growth rate and duration*
- GRADUATE STUDENT PRESENTATION HONORABLE MENTION
- 2017 **International Larval Biology Symposium, Poster Presentation | Honolulu, HI**  
*Effects of multiple stressors on Olympia oyster larval swimming*
- 2015 **WWU All University Scholars Week, Poster Presentation | Bellingham, WA**  
*Effects of acidification and warming on Olympia oyster larval swimming and growth*
- **Pacific Estuarine Research Society (PERS), Poster Presentation | Seattle, WA**  
*Effects of acidification and warming on Olympia oyster larval swimming and growth*
- **NOAA Alaska Fisheries Science Center, Oral Presentation | Seattle, WA**  
*Oysters in a changing ocean: effects of acidification and warming on larval swimming*
- 2014 **UT Environmental Science Institute Symposium, Poster Presentation | Austin, TX**  
*Intertidal donation in stands of *Sonneratia alba* on the shorelines of Northern Tanzania*
- **School for International Training Symposium, Oral Presentation | Arusha, Tanzania**  
*Intertidal donation in Northern Tanzanian mangrove stands*

## TEACHING

### R Workshop Instructor

|      |   |                                |
|------|---|--------------------------------|
| 2021 | Programming in R: 4-hour workshop                             | Quebec Centre for Biodiv. Sci. |
|      | Data Visualization: 4-hour workshop                           | Quebec Centre for Biodiv. Sci. |
|      | Creating Shiny Apps in R 6-hour workshop & <u>development</u> | BIOS2 Program                  |
|      | Generalized Additive Models in R                              | Quebec Centre for Biodiv. Sci. |
| 2020 | Software Carpentry: 16-hour workshop                          | BIOS2 Program                  |
|      | Data Carpentry: 16-hour workshop                              | BIOS2 Program                  |
|      | Introduction to R: 4-hour workshop                            | Quebec Centre for Biodiv. Sci. |
|      | Data Visualization: 4-hour workshop & development             | Quebec Centre for Biodiv. Sci. |

### Guest Lecturer

|      |   |                             |
|------|---|-----------------------------|
| 2021 | Introduction to Graduate Studies in Biology<br><i>"Data Visualization as a Professional Skill:"</i>   | McGill Biology Grad Studies |
|      | Summer NSF REU R Workshop Series<br><i>"101 Things You Can Do in RStats"</i>                          | Shannon Point Marine Center |
| 2020 | BIOL 407: Marine Ecology<br><i>Guest lecture in marine biogeography and proposal writing</i>          | WWU Marine & Coastal Sci.   |
|      | BIOL 399: Intro Experimental Design and Statistics<br><i>Guest lecture in statistical programming</i> | Oregon Inst. of Marine Biol |

### Teaching Assistant

|      |  |                                 |
|------|--|---------------------------------|
| 2021 | ATOC 184: The Science of Storms                          | McGill Atmospheric & Ocean Sci. |
| 2020 | ATOC 185: Natural Disasters                              | McGill Atmospheric & Ocean Sci. |
|      | ATOC 184: The Science of Storms                          | McGill Atmospheric & Ocean Sci. |
| 2018 | BIOL 465: Algae  | WWU Biology                     |
|      | BIOL 405: Marine Ecology                                 | WWU Biology                     |
| 2017 | BIOL 101: Introductory Biology   six sections            | WWU Biology                     |
| 2015 | UGS 302: Austin Area Environmental Issues (undergrad TA) | U. Texas Env. Sci.              |

## CAMPUS AND COMMUNITY SERVICE

|         |  |  |
|---------|--|--|
| 2021    | Peer Reviewer<br><i>Ecology Letters</i>  |  |
|         | Data Analyst<br><i>McGill Biology Graduate Student Association   Montreal, QC</i>  |  |
|         | BIPOC Undergraduate Research Award Selection Committee Member - Grad. Representative<br><i>McGill Department of Biology   Montreal, QC</i>   |  |
|         | New Faculty Student Search Committee Member - Spousal Hire Search<br><i>McGill Department of Biology   Montreal, QC</i>  |  |
| 2020    | Pro Bono Data Scientist for Quebec Nonprofit Organizations<br><i>Data for Good Montreal   Montreal, QC</i>   |  |
| 2019    | New Faculty Student Search Committee Member - Professor and Marine Lab Director Searches<br><i>Western Washington University Marine and Coastal Science Program   Bellingham, WA</i> |  |
| 2018    | Graduate Student Advisory Council - Marine Center Representative<br><i>Shannon Point Marine Center &amp; Western Washington University   Bellingham, WA</i>                          |  |
| 2014    | Vice President<br><i>Texas Geological Energy and Environmental Leadership Organization (GEELO)   Austin, TX</i>  |  |
| 2011-14 | Volunteer Science Tutor for Standardized Test Preparation<br><i>Neighborhood Longhorn Program   Austin, TX</i>   |  |

## WORKSHOPS & SPECIAL COURSES

|      |   |                                  |
|------|---|----------------------------------|
| 2021 | Coastal Oceans Working Group              | NSERC-CREATE Living Data Project |
|      | Data Science x Design Creators Conference | DSxD                             |
|      | Future of Synthesis in Science Workshop   | NCEAS                            |

## SCIENCE COMMUNICATION

2018-19 Instagram Manager, Shannon Point Marine Center — @wwushannonpoint

2018 Science Journalist, University of Washington Puget Sound Institute  
*The Puget Sound Coastal Storm Modeling System*  
Published Aug. 2018 in Encyclopedia of Puget Sound

## OUTDOOR EDUCATION AND OUTREACH

Summers Sea Kayak Guide / Naturalist on one-to-five-day Kayak Trips

2015-19 *Anacortes Kayak Tours | Anacortes, WA*

2019 Monthly "Outdoor Friday" Program Leader

*Fiddlehead Montessori School | Anacortes, WA*

2019 Outdoor School Substitute Teacher

*Fidalgo Nature School | Anacortes, WA*

2017 International Trip Guide for High School Students - Thailand

*Adventures Cross Country | Mill Valley, CA & Bangkok, Thailand*

2016 Marine Ecology Outdoor School Instructor for 3-day Programs

*Academic Adventures | Anacortes, WA*

2015 Marine Science Elementary Teacher for 2nd Grade Classrooms

*Anacortes School District | Anacortes, WA*

Summers Summer Camp Environmental Stewardship Director

2012-14 *John Knox Ranch | Fischer, TX*

2014 After-School Outdoor Education Program Leader

*Camp Fire USA | Austin, TX*