

# Dilan Sunthareswaran

Vancouver, BC

MSc Student Pelagic Ecosystems Laboratory

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## SKILLS AND QUALIFICATIONS

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**Software Analysis & Misc. Software:** R Studio, MATLAB, Excel

**Emphasis Coursework:** Biological Oceanography, Chemical Oceanography and Marine Geochemistry, Methods in Oceanography, Marine Pollution, Aquatic Ecosystems and Fish in Forested Watersheds

**License and Certificates:** Class 5 BC Drivers' License, Standard First Aid – CPR Level C, WHIMIS (UBC), Introduction to Laboratory Safety (UBC), Chemical Safety (UBC), Workplace Violence Prevention (UBC), Preventing and Addressing Workplace Bullying and Harassment (UBC)

## EDUCATION

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The University of British Columbia

Graduated November 2022

*Bachelor of Science – Combined Honours of Biology and Oceanography*

The University of British Columbia

Expected Graduation September 2024

*Masters of Oceanography – Supervised by Brian Hunt (b.hunt@oceans.ubc.ca)*

## RESEARCH EXPERIENCE

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**Using Marine Fatty Acid Data to Estimate The Nutritional Quality of Micronektonic Organisms in the B.C Coastal Ocean, UBC**

*Lead Author - Honours Thesis Project supervised by Brian Hunt*

2021

*To be submitted to a journal for publication*

- Conducted sample processing which included selecting appropriate samples for analysis, dissecting, weighing and freeze drying muscle tissue for fatty acid analysis
- Utilized R Studio and Excel to create figures (including boxplots and PCA plots), tables and conduct statistical tests
- Wrote a full manuscript on the project including descriptions of the methods and the nutritional variability across species and regions in the B.C coastal ocean.
- Created a poster that summarized the project and defended the thesis with a poster presentation

**The Effect of pH and Salt Stress on the growth of *Saccharomyces cerevisiae* gvp36 mutant, UBC**

*Co-Author – Final project for Introductory Molecular Biology Laboratory (BIOL 340) supervised by Maryam*

*Moussavi (moussavi@zoology.ubc.ca)*

2022

*Invited for publication in the **Student Journal of Cell and Molecular Biology***

- Created a research question and collaborated with a team to organize a research plan for sample processing
- Processed samples using different molecular biology techniques including vacuole & cell wall staining and mass spectrometry
- Utilized R Studio and Excel to create figures (including growth curves and boxplots), tables and conduct statistical tests
- Wrote a full manuscript on the project including descriptions of the methods and the differences of cell growth rate between various pH and salt treatments
- Presented the project - including details of the background, methods, results and implications - to the BIOL 340 class

## WORKSHOPS AND CONFERENCE PRESENTATIONS

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### Salish Sea Ecosystem Conference

April 2022

Created a snapshot video ([link](#)) presentation on my project *Using Marine Fatty Acid Data to Estimate the Nutritional Quality of Micronektonic Organisms in the B.C Coastal Ocean*.

### WCVI Chinook Marine Risk Assessment Workshop

May 2022

Co-presented with Jacob Lerner ([j.lerner@oceans.ubc.ca](mailto:j.lerner@oceans.ubc.ca))

Presented the results from my project *Using Marine Fatty Acid Data to Estimate the Nutritional Quality of Micronektonic Organisms in the B.C Coastal Ocean*. This workshop focused on nutrition and changes in prey quality, availability, timing and competition affecting west coast Vancouver Island Chinook.

## GRANTS AND AWARDS

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### NSERC URSA

May 2022 – August 2022

- 16-week work-term (35 hours per week) working on a research project investigating the nutritional variability of micronektonic organisms in the Gulf of Alaska
- Conducted sample processing which included selecting appropriate samples for analysis, dissecting, weighing and freeze drying muscle tissue for fatty acid analysis
- Performed fatty acid extraction using a one-step FA methyl ester (FAME) method

## EXTRACURRICULARS

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### Biology Undergraduate Diversity In Research (BUDR) Mentorship

October 2022 – Present

The BUDR program aims to provide opportunities for undergraduates belonging to underrepresented groups. As a BUDR mentor, I mentored three undergraduate students and meet with them once a week to provide guidance and insights on career and academic development. Specifically, I have helped students with graduate school applications, finding student research opportunities, and provided advice with coursework.

## REFERENCES

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Available upon request