JOSHUA DYER

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EDUCATION

Master of Science – Forestry Expected Graduation: May 2026
The University of British Columbia, Vancouver, BC

Thesis topics: conservation biology, climate change, coastal communities
Supervisor: Dr. Alexandria Moore

Bachelor of Science – Honours in Environmental Sciences 2019 – 2024
The University of British Columbia, Vancouver, BC

Thesis title: "Divergence and convergence of competitive differences via character displacement."
Supervisor: Dr. Rachel Germain

ACADEMIC AND PROFESSIONAL AWARDS

Science Undergraduate Research Experience (SURE) Award, UBC: $3,000 CAD	2024
Canon Canada Scholarship in Environmental Sciences, UBC: $500 CAD	2024
NSERC Undergraduate Student Research Award (USRA), UBC: $6,000 CAD	2023
Dean of Science Scholarship, UBC: $270 CAD	2023
Thesis Research Support Scholarship, UBC: $100 CAD	2023

ACHIEVEMENTS AND HONOURS

Graduation with Distinction (B.Sc.), UBC	2024
Science Scholar Dean's Honour List, UBC	2022
Dean's Honour List (x2), UBC	2019 – 2021

RESEARCH EXPERIENCE

Research Assistant – PhyloEcology March 2024 – Present
Jonathan Davies Lab, Biodiversity Research Centre,
The University of British Columbia, Vancouver, BC

- Collating and organizing a database (in R Studio) of species-level traits, distributions, IUCN Red Listings, and phylogenies for an independent research project that investigates relationships between extinction intensity and functional/phylogenetic diversity.

Research Assistant – Ecology (NSERC USRA, Co-op) May 2023 – Present
Germain Lab, Biodiversity Research Centre,
The University of British Columbia, Vancouver, BC

- Initiated research for honours thesis by utilizing modern coexistence theory to investigate whether the outcome of interspecific competition depends on pre-existing competitive differences.
- Assisted doctoral and undergraduate students with research relating to species coexistence, evolution in ecological communities, invasive species, and biodiversity change.
- Reconducted a temporal block of a previous thesis project by precisely adhering to standard protocols for organism preparation, experimental assembly, and routine data collection.

Research Assistant – IUCN Red Listing September 2023 – April 2024
Project Seahorse, Institute for Oceans and Fisheries,
The University of British Columbia, Vancouver, BC

- Systematically collate information on syngnathid species, expand the existing reference database (in EndNote and Zotero), and consult with syngnathid researchers to obtain comprehensive datasets and ensure accurate assessments of each species' global extinction risk.
- Collaborate with the IUCN SSC Seahorse, Pipefish, and Seadragon Specialist Group to actively participate in the preparation of global IUCN Red List Assessments for syngnathid fishes by applying all available information against the IUCN Red List Categories and Criteria.

Research Assistant – Molecular Biology (Co-op) January – April 2023
Pacific Biological Station,
Fisheries and Oceans Canada, Nanaimo, BC

- Assisted in large-scale genetics and genomics research on wild salmon, with the goal to identify conditional states and infectious diseases of fish within hatcheries and farms.
- Managed and executed thousands of eRNA/eDNA extractions from water samples collected from hatcheries/farms for pathogen monitoring and to determine impacts on wild salmon.

Priority Species GIS Analyst (Co-op) May – December 2022
Canadian Wildlife Service,
Environment and Climate Change Canada, Vancouver, BC

- Contributed to recovery planning and conservation of Tier 1 Priority Species through GIS and biological data analysis in ArcGIS Pro, R Studio, and Microsoft Excel Software.
- Conducted an independent research project that temporally explored the range retraction of Woodland Caribou in British Columbia through an extensive literature analysis.

PROFESSIONAL EXPERIENCE

Teaching Assistant, Grader September – December 2021
Department of Earth, Ocean, and Atmospheric Sciences,
The University of British Columbia, Vancouver, BC

- Constructed answer keys, graded, and provided precise feedback for weekly homework assignments for a course (ATSC 201) of over 115 students.

Environmental Consultant Intern May - August 2021
Jacobs Engineering Group Inc., Vancouver, BC

- Completed various environmental assessments for clients through data analysis, fieldwork, online research, networking, and use of Microsoft Office programs.
- Met provincial wildlife regulations for large scale projects by executing avian nest sweeps, amphibian salvages, relocations, and wildlife monitoring in northern British Columbia.
- Established a mitigation plan for riprap installation in critical habitat for Lewis's Woodpecker under the Species at Risk Act (SARA) through considerable research of project implications and specific species requirements.

VOLUNTEER EXPERIENCE

Social Media Manager January 2024 – Present
CHANS Lab (CoSphere),
The University of British Columbia, Vancouver, BC

- Effectively manage social media accounts (Facebook, Instagram, Twitter, LinkedIn), ensuring the accurate and engaging presentation of information related to sustainability and transformative change, to foster an interactive online community.

- Heighten online presence by creating visually captivating social marketing material based on CoSphere's initiatives and values, while adhering consistently to the established aesthetic.

Sustainability Coordinator September 2021 – April 2022
Science Undergraduate Society of UBC

- Enhanced the implementation and integration of sustainable practices throughout UBC by regularly consulting with executives of various campus organizations.
- Reinforced sustainability by organizing eco-friendly student events and ocean-side clean ups.

MEMBERSHIPS

Student Biologist 2023 – Present
College of Applied Biologists

PEER REVIEW SERVICES

Ecology (x1) 2023

CERTIFICATIONS

Red List Global and Regional Assessor 2023
International Union for Conservation of Nature (IUCN)

TECHNICAL SKILLS

- Data analysis and management using R, Python, SQL, and Microsoft Excel
- Spatial analysis using ArcGIS Pro and R
- Scientific research and communication
- Species identifications and dissections
- Molecular, chemical, and ecological laboratory techniques
- eRNA/eDNA extractions
- Wildlife monitoring
- Recording of geospatial data (points, lines, and polygons)
- Field sampling (e.g., pH, dissolved oxygen, conductivity, temperature)

LICENSES AND TRAINING

- Full Class 5 Driver's License
- UBC Laboratory Safety
- WHMIS

COURSE PROJECTS

GEOS 370 – Advanced Geographic Information Science

- Designed and executed a journal-style final project exploring the predicted climate-related habitat loss for American pika (*Ochotona princeps*) in Alberta's Rockies through literature and data analysis using ArcGIS Pro.
  - Click here to view.

BIOL 140 – Laboratory Investigations in Life Science

- Designed and constructed a laboratory experiment to test the response of *Porcellio scaber* to differing light wavelengths, measured by the percent of time each organism (n = 40) spent in a particular site (i.e., exposed to blue or red light).