

# JADE DAWSON

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## EDUCATION AND AWARDS

### Master's of Science Candidate: Biology

2019 – Present

*Laurentian University*

*Supervisors:* Dr. Brie Edwards and Dr. John Gunn

*Committee members:* Dr. Kevin McCann (University of Guelph) and Dr. Erik Emilson (Canadian Forest Service)

**2019** Tom Peters Memorial Mine Reclamation Award for Student Poster, \$100

### Honours Bachelor of Science: Wildlife Biology and Conservation

2015 – 2019

*Department of Integrative Biology, University of Guelph, Guelph, ON.*

*GPA: 82.58*

**2018-2019** Honour's Thesis in Integrative Biology

**2015-2019** Dean's Honours List

**2015** Entrance Scholarship, \$3000

## SELECTED PRESENTATIONS

### *Oral Presentations*

**Dawson, J. C.**, B. A. Edwards, and J. M. Gunn. Freshwater food web recovery responses. Latornell Conservation Symposium, Alliston, November 21, 2019.

**Dawson, J. C.**, B. A. Edwards, and J. M. Gunn. Multi-trophic recovery responses. Landscape Carbon Accumulation Through Reductions in Emissions (L-CARE) Annual General Meeting, Sudbury, June 26, 2019.

**Dawson, J. C.**, K. S. McCann, M. M. Guzzo, B. A. Edwards, and J. M. Gunn. Nearshore invertebrate responses. Cooperative Freshwater Ecology Unit (CFEU) Annual General Meeting, Sudbury, April 17, 2019.

### *Poster Presentations*

**Dawson, J. C.**, K. S. McCann, M. M. Guzzo, B. A. Edwards, and J. M. Gunn. Catchment reclamation accelerates recovery in smelter-damaged lakes. Mining and the Environment International Conference, Sudbury, June 25, 2019.

**Dawson, J. C.**, K. S. McCann, M. M. Guzzo, B. A. Edwards, and J. M. Gunn. Effects of catchment reclamation on biological recovery across heavily smelter-damaged lakes in Sudbury, Ontario. Western Student Research Conference, London, March 29, 2019.

**Dawson, J. C.**, K. S. McCann, M. M. Guzzo, B. A. Edwards, and J. M. Gunn. Legacy effects of catchment reclamation on keystone invertebrate abundance. Latornell Conservation Symposium, Alliston, November 14, 2018.

## RESEARCH EXPERIENCE

**Field Technician**, Laurentian University, Living with Lakes Centre

**2019**

- + Analyzing temporal variation in water chemistry of several ephemeral streams
- + Conducting literature review and preparing lake report summaries to integrate fisheries surveys and water chemistry monitoring
- + Performing fisheries assessments using integrated Nordic and broad-scale monitoring (BSM) netting protocols

**Honours Thesis Student**, Integrative Biology, University of Guelph

**2018 – 2019**

- + Supervisors: Dr. Kevin S. McCann and Dr. Matthew M. Guzzo
- + Manuscript title: "Effects of catchment reclamation on biological recovery across heavily smelter-damaged lakes in Sudbury, Ontario". This research investigated relationships between benthic invertebrate community metrics, algal biomass, and water chemistry and evaluated temporal and spatial variation in recovery within reclaimed and untreated stream deltas of heavily smelter-damaged lakes.

**Field Technician**, Ministry of Environment, Living with Lakes Centre

**2018**

- + Performed extensive water and zooplankton sampling using various equipment
- + Assisted with lake sediment sampling and extruding from Eckman grabs and sediment cores
- + Participated in a 3-week intensive collaborative team survey to update long-term lake recovery and carbon storage datasets for 83 lakes in the Sudbury District

**Research Assistant**, Integrative Biology, University of Guelph

**2016 – 2018**

- + Photographed and sampled pumpkinseed sunfish under specific protocol to analyze body morphology between pelagic and littoral zones
- + Utilized geographic software (ArcGIS) to digitize and create detailed bathymetry maps
- + Conducted spatial analyses to determine trends in phenotypic plasticity between distinct within-lake sunfish populations

**Aquatic Biologist**, Ministry of Natural Resources and Forestry, Algonquin Park

**2017**

- + Conducted creel survey interviews to determine fishing pressure, angler harvest, and effort
- + Set, picked, and retrieved various types of gill-nets under modified broad-scale monitoring protocol
- + Processed fish to remove aging structures, weighed and analyzed organs, measured lengths, and identified stomach contents and parasites/abnormalities

## ACKNOWLEDGEMENTS

Jarvis, W. M. C. 2018. Habitat use, movement patterns, and spatial population structure of polyphonic sunfish. Master's thesis dissertation. Integrative Biology, University of Guelph.

## RESEARCH SKILLS

- + Statistical analyses, modelling, and software (RStudio)
- + GIS and remote sensing analyses and software (ArcGIS, QGIS, IDRISI, and WhiteboxGAT)
- + Fisheries assessment techniques (Nordic, BSM, pelagic netting, and trap-netting)
- + Benthic invertebrate identification (Family level)
- + Water chemistry sampling methodologies (temperature/DO profiles, Van Dorns, and composite cans)

## **CERTIFICATIONS**

- + Ontario Benthos Biomonitoring Network Certification, Ontario Ministry of Environment Conservation and Parks
- + Canadian Aquatic Biomonitoring Network Certification, Canadian Rivers Institute
- + Remote Sensing for Freshwater Habitats, NASA
- + Effective Environmental Monitoring Practices Course, Dr. Kelly Munkittrick and Dr. John Gunn
- + Environmental Remediation Re-Greening Certification, Dr. Nadia Mykytczuk
- + Advanced Wilderness First Aid, Wilderness Medical Associates
- + ORCKA Basic Level 2 (Tandem)
- + G Driver's License
- + Pleasure Craft Operators Card
- + CPR-C First Aid Training Certificate, Canadian Lifesaving Society

## **EXTRA-CURRICULARS**

### **Canadian Federation of Students, Local 110 (Laurentian GSA)**

- + Local 110 provincial representative 2019 – Present
- + Communicating specific needs and interests of Laurentian University graduate students to the provincial CFS caucus
- + Attending meetings and workshops scheduled by CFS throughout Ontario
- + Organizing campus events and rallies for CFS campaigns

### **Graduate Student Association, Laurentian University**

- + Social convenor 2019 – Present
- + Hosting, planning, and advertising events and outreach programs for graduate students, faculty, and staff

### **Wildlife Club, University of Guelph**

- + Member 2016 – 2019
- + Participated in naturalist trips, overnight expeditions, wildlife identification workshops, and presented about fisheries research, field course opportunities, and Honours thesis research

### **Ontario Public Interest Research Group for Environmental and Social Justice, Guelph Chapter**

- + Member 2017 – 2019
- + Assisted with organizing garlic mustard pulls, student and community rallies, and drafting a Special Action Policy to the Board of Governors and presented about clean energy alternatives

## **MEMBERSHIPS**

### **Entomological Society of Ontario**

- + Member 2019 – Present

### **American Fisheries Society, Ontario Chapter**

- + Member 2019 – Present

### **Society for Ecological Restoration, University of Guelph**

- + Member 2017 – 2019
- + Attended events for tree and pollinator planting, seed harvesting, garbage clean-ups, and invasive species removal, and partook in native and edible flora workshops