

Erik Dean – Curriculum Vitae

erik.dean@utoronto.ca | erikdean.ca

Education

PhD 2018 – 2023 [†]	University of Toronto Scarborough Physical and Environmental Sciences Advisors: Nicholas E. Mandrak, D. Andrew R. Drake
MEnvSc 2016 – 2017	University of Toronto Scarborough Physical and Environmental Sciences
HBSc 2010 – 2015	University of Toronto St. George Ecology and Evolutionary Biology

[†] Anticipated year of completion

Research Experience

2018	Aquatic science biologist at Fisheries and Oceans Canada , Burlington ON. Great Lakes Laboratory for Fisheries and Aquatic Sciences
2017	Independent contractor for Fisheries and Oceans Canada , Burlington ON. Great Lakes Laboratory for Fisheries and Aquatic Sciences
2017	Research assistant at University of Toronto Scarborough , Toronto ON. Centre for Environmental Epigenetics and Development, Boonstra Laboratory
2017	Research assistant at University of Toronto Scarborough , Toronto ON. Mandrak Laboratory
2014	Volunteer research assistant at University of Toronto St. George , Toronto ON. Agrawal Laboratory
2012	Volunteer research assistant at University of Toronto St. George , Toronto ON. Frederickson & Weis Laboratories

Teaching Experience

Teaching assistant at University of Toronto Scarborough:

Fall 2018 – 2022	EES1111 – Freshwater Ecology and Biomonitoring Field instructor, tutorial lecturer, lab demonstrator, coursework development, office hours
Winter 2019 – 2023	EES1137 – Quantitative Applications for Data Analysis Assignment grading and feedback, tutoring by appointment

Guest Lectures:

1. Bighead Carp — Populations, invasion, and climate change
BIO 3SS3 – Population Ecology, University of McMaster
Invited by Phoebe Edwards
March 29th, 2023
2. Climate change & aquatic ecology
EES 1111 – Freshwater ecology and biomonitoring, University of Toronto
Invited by Jan Moryk
October 17th, 2022

Workshops:

1. R webseries for fisheries analysis
Jacob Burbank, Justin Hubbard, **Erik Dean**
American Fisheries Society Ontario Chapter Student Subunit, 2022
2. Student success workshop (four week introductory programming web series)
Jacob Burbank, Justin Hubbard, **Erik Dean**
American Fisheries Society Ontario Chapter Student Subunit, 2020

Publications

1. Non-linear effects on the population performance of Bighead Carp under different maturation schedules

Erik K. Dean, D. Andrew R. Drake, Nicholas E. Mandrak.

Biological Invasions, 2023

2. Assessing space use in meadow voles: the relationship to reproduction and the stress axis

Phoebe D. Edwards, **Erik K. Dean**, Rupert Palme, Rudy Boonstra.

Journal of Mammalogy, 2019

Forthcoming:

Modelling invasion potential under climate change: effects of seasonal temperatures on a critical recruitment bottleneck

Erik K. Dean, D. Andrew R. Drake, Nicholas E. Mandrak.

Awards

2023	E.J. Crossman Award for Best Student Talk
\$250 CAD	American Fisheries Society Ontario Chapter Annual General Meeting
2022	Teaching Assistant Award
\$350 CAD	University of Toronto Scarborough, Physical and Environmental Sciences
2022	Best Talk in Category, Applied Science and Technology
\$350 CAD	Doctoral Environmental Science Colloquium
2018	UTF Award (fully-funded PhD fellowship)
\$79,164 CAD	University of Toronto Scarborough
2017	Asclepias Award
\$5000 CAD	University of Toronto Scarborough

Total: \$85,114 CAD

Service, Leadership, and Professional Experience

- 2022 – 2023 **Program ambassador** — Master of Environmental Science Information Session
University of Toronto Scarborough
- 2022 – 2023 **Web designer** — Mind and Spirit Youth Leadership 2019-2022 Impact Report
Scarborough Centre for Healthy Communities
- 2022 **Aquatic ecology exhibitor** — Master of Environmental Science Program Open House
University of Toronto Scarborough
- 2020 **President** — Graduate Students Association at Scarborough
University of Toronto Scarborough
- 2020 **Mantis advisor** — Source to Sea, Great Lakes Untamed (Episode 1)
TVO Today & Smithsonian Channel
- 2019 **Sports representative** — Graduate Students Association at Scarborough
University of Toronto Scarborough
- 2019 **Member** — Athletic Advisory Committee
University of Toronto Scarborough
- 2019 **Member** — Healthy Learning and Working Environment Working Group
University of Toronto Scarborough Strategic Plan 2019
- 2018 **Electrofishing crew leader, fish taxonomy survey** — Ontario BioBlitz
- 2016 **Technical lead** — Turnkey Aquaponics
- 2013 – 2015 **Volunteer coordinator** — English Language Program
Ontario Institute for Studies in Education, University of Toronto, St. George
- 2012 – 2013 **Cultural assistant** — English Language Program
Ontario Institute for Studies in Education, University of Toronto, St. George
- 2012 – 2013 **Executive and founding member** — Feminist Engagement with Men* and Masculinities
University of Toronto, St. George

Invited Talks:

1. Ecologically conscious pickings: Foraging weeds and invasive plants
CultureLink Settlement Services - Newcomer Gardening Workshop Series
Invited by Lily Krowiak
October 6th, 2021

2. Update on Canadian Asian Carp research: Potential effects of climate change
2021 Ontario Invasive Species Virtual Forum
Hosted by Invasive Species Centre & Ontario Ministry of Natural Resources and Forestry
Invited by Rebecca Schroeder
March 3rd, 2021

3. The next step, and some tips to keep one step ahead (seminar for high school students preparing for university)
Woburn Collegiate Institute
Invited by Christina Mohan-Eustace
November 30th, 2018

Contributed Talks

1. Bighead Carp overwintering under climate change — Spawning, survival, and implications for invasion
American Fisheries Society Ontario Chapter Annual General Meeting
Severn Bridge, Ontario, Canada
March 2023

2. Out of the bottleneck: Bighead Carp spawning and overwinter survival in a warming climate
Society of Canadian Aquatic Sciences Annual Meeting
Montreal, Quebec, Canada
February 2023

3. Population performance of Bighead Carp under different ages of maturity
Joint Aquatic Sciences Meeting
Grand Rapids, Michigan, USA
May 2022

4. Bighead Carp in changing climates: Changing maturation ages and population performance
International Conference on Aquatic Invasive Species
Oostend, Belgium
April 2022

5. Exploring establishment potential of Bighead Carp in the Canadian Great Lakes under climate change
American Fisheries Society Ontario Chapter Annual General Meeting
Orillia, Ontario, Canada
February 2020

Skills and Certifications

- R
- *L^AT_EX*
- Python
- Bash / Linux shell
- Data Visualization
- Class 2 Backpack Electrofishing
- SciNet Certificate in Data Science
- Ontario Benthos Biomonitoring Network Certificate
- Royal Ontario Museum Ontario Fish Identification Workshop