

# Matthew R. Donahue

## Curriculum Vitae

Ph.D Student  
 Department of Ecology and Evolutionary Biology  
 University of Connecticut  
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### EDUCATION

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- 2023 – Pres. **Ph.D in Ecology and Evolutionary Biology** | University of Connecticut  
 Advisor: Dr. Mark Urban
- 2021 – 2022 **Master's in Environmental Science** | University College Dublin | GPA 3.88  
 Thesis: *Ecological and physiological characteristics mediate population dynamics in a diverse genus of mining bees (Andrena)*
- 2017 – 2021 **Bachelor of Science** | University of Notre Dame | GPA 3.835  
 Majors: *Biological Sciences (Ecology and Environment, Genetics and Evolution Tracks); Theology (Supplemental)*  
 Minor: *Glynn Family Honors Program*  
 Thesis: *Compensatory Mutations and Pre-Adaptation to Knockdown Resistance in Tetrodotoxin-Resistant Northern Yellowstar Caddisflies (Limnephilus flavastellus)*

### RESEARCH

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- 2023 – Pres. **Doctoral Research, Urban Lab.**
- 2021-2022 **Master's thesis.** *Ecological Traits Mediate Population Structure and Genetic Diversity of Mining Bees (Andrena) in Ireland* | Advised by Dr. Julia Jones, University College Dublin
- 2020 – 2021 **Honors thesis.** *Compensatory Mutations and Pre-Adaptation to Knockdown Resistance in Tetrodotoxin-Resistant Northern Yellowstar Caddisflies (Limnephilus flavastellus)* | Advised by Dr. Mike Pfrender, University of Notre Dame
- 2021 **Entomology Taxonomic Key Editing.** Updated key and family descriptions for the Hemiptera chapter of Bland and Jacques's *How to Know the Insects* | Advised by Dr. Ron Hellenthal, University of Notre Dame

- 2020 **Independent summer research** cancelled due to COVID-19 pandemic. *Camouflage, habitat selection, and species distribution of grasshoppers on the National Bison Range* | University of Notre Dame Environmental Research Center West
- 2019 **Independent summer research.** *No change in life history of Daphnia catawba after 7 years of DOC differences in Long Lake.* Full paper and presented poster. | University of Notre Dame Environmental Research Center East

## WORK EXPERIENCE

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- 2022 – 2023 **Cave Tour Guide** at the Cave Viðgelmir. Catered 90-minute geology tours of Iceland's largest lava tube to groups from various knowledge and geographic backgrounds, including tourists, students, journalists, influencers, scientists, spelunkers, and fraternal groups from over 50 countries and ¾ of U.S. states | Reykholt, Iceland  
*-Guest reviews mentioning me: "great tour guide", "mine of information", "handsome", "very knowledgeable and entertaining", "great", "great at explaining all the necessary information to us in a fun and educational way", "good explanations", "did an incredible job", "great guide", awesome!! Thanks to him," "awesome, highly knowledgeable, and made the tour fun", "a great guide who explained everything and made it very interesting", "very knowledgeable about the cave and the formations and just a very nice guy", "really nice, knew a lot of things and was very good at explaining and answering questions", "very knowledgeable guide with a great manner", "super knowledgeable and funny",*
- 2022 **Shellfish Safety Intern** at the Marine Institute. Wrote R Scripts to create heat maps showing shellfish toxin levels and phytoplankton concentrations for 20 years of records. Analyzed data for temporal patterns in toxicity and algal blooms | Oranmore, Co. Galway
- 2021 **Laboratory Assistant** for Belovsky Lab. Provided experimental help, cared for brine shrimp stocks, cleaned spreadsheets for use in GIS | University of Notre Dame
- 2019 – 2020 **Laboratory assistant** for Pfreder Lab. Cared for *Daphnia* stock and experimental populations | University of Notre Dame
- 2018 – 2019 **Laboratory assistant** for McLachlan Lab. Worked on PalEON project digitizing historical forest data and updating GIS maps | University of Notre Dame

## TEACHING

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- 2023 – Pres. **Graduate Teaching Assistant** | University of Connecticut  
  - Principles of Biology II Lab (*Fall 2023*)
- 2020, 2021 **Undergraduate teaching assistant** | University of Notre Dame  
  - Introduction to Genetics Laboratory (*Spring 2021*)
  - Biostatistics (*Spring 2021*)
  - Introductory Biology Lab (*Spring 2020*)

**2013 – 2020**     **Religious education catechist** for elementary and middle school. Planned and taught weekly lessons | St. Adalbert’s Catholic Church (2018 – 2020), Christ the King Catholic Church (2017 – 2018), Holy Family Catholic Church (2013-2017)

**2018**             **Small Group Mentor, Notre Dame Vision.** Planned and led discussions and activities in addition to mentoring and supervising participants in high-school youth conferences.

## **LEADERSHIP ROLES**

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**2019 – 2021**     **Senior Leadership Committee**, Department of Biological Sciences. Coordinated career events for undergraduates and served as a representative to the Department faculty on matters including curriculum change | University of Notre Dame

**2019 – 2021**     **Band Ambassador Coordinator**, Notre Dame Band. With two other students, led 200+ “Band Ambassadors” in our outreach to prospective students each year. Created a series of mixers for first-year students to foster community | University of Notre Dame

**2020 – 2021**     **CORE Band**, Notre Dame Band. Responsible for teaching audition routine and all band techniques to auditioning members. Served as a year-round instructor and mentor within the band | University of Notre Dame

**2018 – 2019**     **Membership Director**, Notre Dame Knights of Columbus. Managed membership applications, transfers, and withdrawals for 950+ member charitable fraternity | University of Notre Dame

## **PRESENTATIONS AND POSTERS**

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**2021**             **College of Science Joint Annual Meeting** (Oral Presentation). *Pre-Adaptation to Permethrin Resistance in Tetrodotoxin-Resistant Caddisflies*

**2020**             **College of Science Fall Undergraduate Research Festival** (Presentation). *Is tetrodotoxin resistance in Limnephilid caddisflies associated with pesticide resistance?*

**2019**             **College of Science Fall Undergraduate Research Festival** (Poster). *No change in life history of Daphnia catawba after 7 years of DOC differences in Long Lake*

## **GRANTS AND AWARDS**

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**2021-2022**     **Naughton Fellowship** for Master’s in Ireland

**2020**             **Glynn Family Honors Program Summer Thesis Grant.** \$1100 (Funds not distributed due to COVID-19 restrictions)

**2018-2010**     **Dean’s list.** Spring 2018, Spring 2019, Fall 2019, Spring 2020, Fall 2020, Spring 2021

**2015**             **Eagle Scout** | BSA Troop 86, Brentwood, TN

## OTHER EXPERIENCE

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- Classwork* Bachelor's: Practicum in Field Biology, Biostatistics\*, Biocomputing\*, Entomology\*, Aquatic Ecology\*, Herpetology, Ecology\*, Vertebrate Biology, Evolution, Physiology, Classical and Molecular Genetics\*, Cell Biology\* (\* denotes laboratory component)
- Master's: Applied Ecotoxicology, Marine Community Ecology, Environmental Geology\*, Soil Ecology, Analyses for Environmental Investigations\*, Freshwater Resources Assessment\*, Wildlife Conservation, GIS for Environmental Analyses\*, Vegetation Ecology, Global Change Ecology, Water Resources Engineering, Quantitative Tools for the Life Sciences
- Doctoral: Population genetics\*, Urban Evolution
- Skills* Teaching, field biology (aquatic and terrestrial), field work planning and management, R and Linux, GIS, statistics, digital archives, genetic lab work, zooplankton husbandry, Word and Excel, insect identification, biomonitoring, writing, presenting, cross-cultural exchange, tourism

2015-2018, 2020 **Customer Service Representative** | Papa John's Pizza, Brentwood, TN