**Brenna Friday**

Detroit, Michigan

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(412) 779-0169

**Education**

**Wayne State University Detroit, MI**

*Doctor of Philosophy in Biology and Urban Sustainability Anticipated Aug 2023*

* Thesis: Uncovering the impacts of cyanotoxins on larval amphibian ontogeny
* Committee: Dr. Donna Kashian (chair), Dr. Glen Hood, Dr. Thomas Dowling, Dr. Michael Fraker

**University of Maryland**  **College Park, MD**

*Bachelor of Science in Biology: Ecology and Evolution Aug 2015 - May 2019*

* Minors in Sustainability Studies and Geographical Information Sciences
* Highest Honors in Biology
* Thesis: Plethodontid salamander responses to native and novel chytridpathogens

**The University of Queensland Brisbane, QLD, Australia**

*Semester Abroad* *Feb - Jun 2017*

**publications**

1. **Friday B.**, Holzheuser C., Lips K.R., Longo A.V. Preparing for invasion: assessing risk of infection

by chytrid fungi in southeastern plethodontid salamanders. *Journal Experimental Zoology*, 2020;1–12

**RESEARCH EXPERIENCE**

**Dr. Donna Kashian Aquatic Ecology Lab Detroit, MI**

*Graduate Researcher Aug 2019 - Present*

* Survey biogeochemical conditions in several Northern MI streams
* Independently develop models and figures using R, ArcGIS to expose long term trends in stream health

**Transformative Research In Urban Sustainability Training (T-RUST) Detroit, MI**

*Graduate Research Fellow Aug 2019 - Present*

* Conduct interdisciplinary research alongside students from Urban Planning and Economics departments
* Develop climate and system dynamics models related to vulnerability in the local food systems
* Lead community workshops and surveys alongside Detroit Food Policy Council to gather data

**Cooperative Institute of Great Lakes Research Ann Arbor, MI**

*Summer Graduate Research Fellow May - Aug 2020*

* Collaborate virtually through the Great Lakes Environmental Research Laboratory (
* Analyze 12 years of ecological and environmental data from a community of ponds in southern MI
* Develop models using gradientForest to identify vulnerable species and inform management decisions
* Present findings virtually (link [here](https://www.youtube.com/watch?v=_efAkvqUtOU&list=PLKF8ou9yUPhMMGSG2aql0mgg5PG16_7zz&index=5&ab_channel=CIGLRum)) to government and academic audience

**University of Maryland Biology Honors Research Program College Park, MD**

*Undergraduate Researcher Aug 2017 – May 2019*

* Develop independent research proposal under the mentorship of Dr. Karen Lips and Dr. Ana Longo
* Feed and maintain ~60 salamanders while preventing spread of lethal chytrid fungi between animals
* Perform DNA extractions, DNA dilutions, and qPCR analysis and train undergraduates in protocols for each
* Dissect and preserve specimens following museum preservation
* Schedule and lead project analyzing 2,800+ amphibian skin swab samples for presence of multiple chytrids
* Analyze data in R to create representative statistics and figures illustrating significant findings

**Shoals Marine Laboratory Appledore Island, ME**

*Intertidal Ecology Intern*  *July – Aug 2018*

* Gather field data through survey, transect, and quadrat analysis about intertidal community composition
* Analyze 37 years of data from past student surveys in R to identify trends in three algal species’ abundance
* Create a team poster detailing patterns of the replacement of a foundation species in the lower intertidal

**Honors, Grants, And Scholarships**

Transformative Research in Urban Sustainability Training Fellowship *Aug 2020 – Present*

Midwest Partners in Amphibian Research and Conservation Travel Award *March 2021*

Society of Freshwater Science Graduate Student Conservation Research Award *April 2021*

NSF GRFP Fellowship Honorable Mention *Apr 2020*

Howard Hughes Medical Institute Research Fellowship Recipient  *Mar 2018 - May 2019*

University of Maryland Presidential Scholarship Recipient *Aug 2015 – May 2019*

University of Maryland Dean’s List *Fall 2015, Spring 2016, Fall 2017, Spring - Fall 2018, Spring 2019*

Alpha Lambda Delta/Phi Eta Sigma Honors Society Maintaining the Flame Award *May 2018*

University of Maryland BioSci Day First Prize Poster in Ecology & Evolution *Nov 2018*

**Scientific presentations**

**Oral Presentations**

1. **Friday, B.,** Imam, K., Osborn, S., Criss, D. “Identifying Climate Change Vulnerabilities to Build Resilience in the Southeast Michigan Food System” *Environmental Design Research Association 2021.*
2. Criss, D., **Friday, B.,** Imam, K., Osborn, S. “Interdisciplinary Approach to Identifying Climate Change Vulnerabilities” *Michigan Good Food Summit 2020.*
3. Kuras, A., Gamalski, C., Osborn, S., **Friday, B.** “Planning for Food Security During Emergencies” *Detroit Food Policy Council Michigan Good Food Summit 2020*.

**Poster Presentations**

1. **Friday, B**., Wielgomas, J., Kashian, D. “Long-term analysis of stream macroinvertebrate communities using gradientForest analysis” *Society of Freshwater Science 2021*
2. Carter, H., **Friday, B.,** Hoyer, P., Owens, S. “Replacement of a Foundation Species in the Lower Intertidal” *University of Maryland BioScience Day* *2018.*
3. Carter, H., **Friday, B.**, Hoyer, P., Owens, S. “Replacement of a Foundation Species in the Lower Intertidal” *Regional Association for Research in the Gulf of Maine* *2018*.
4. **Friday, B.** *“*Analyzing Construction Waste on Volunteer Build Trips to Preston County, WV” *College Park Scholars Academic Showcase 2018.*

**Teaching ExperiencE**

Wayne State College of Liberal Arts and Sciences Detroit, MI

*Graduate Teaching Assistant Sept 2019 – May 2020*

* Course: Basic Life Diversity

UMD College of Computer, Mathematic and Natural Sciences College Park, MD

*Undergraduate Laboratory Teaching Assistant Spring 2018, Spring 2019*

* Course: World of Biology

**Leadership & OUTREACH**

## Wayne State University Biological Sciences Graduate Student Association Secretary *Jun 2021 – Present*

## ComSciCon-MI Planning Committee Applications Manager *Jan 2021 – Present*

## Society of Freshwater Science Undergraduate Affairs Committee Member *Aug 2020 – Present*

## University of Maryland Guided Study Sessions Leader *Aug 2016 – May 2019*

## University of Maryland Guided Study Sessions Mentor *Aug 2016 – May 2019*

University of Maryland Study Abroad Ambassador  *Aug 2017 – May 2017*

University of Maryland College Park Scholars Peer Mentor *Aug 2016 – May 2017*