Michael Culshaw-Maurer

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EDUCATION

UC DAVIS
PhD in Ecology
Expected 2020 | Davis, CA
Rosenheim and Schreiber Labs

ST. JOHN'S UNIVERSITY
BA in Biology
May 2015 | Collegeville, MN
Cum. GPA: 3.86 / 4.0
Graduated Magna Cum Laude with Distinction in Biology

BLAINE HIGH SCHOOL
Grad. May 2011 | Blaine, MN

ACHIEVEMENTS

- UC Davis Graduate Group in Ecology Fellowship 2015-2017
- St. John's University Honors Thesis
- CSB/SJU Regents/Trustees Scholarship (highest academic scholarship)
- Eldon Siehl Memorial Scholarship
- St. John's Undergraduate Biology Research Fellowship
- Inducted into Phi Beta Kappa
- Presented at 2014 National Council on Undergraduate Research
- Presented at 2014 Minnesota Private College Scholars At The Capitol
- Presented at 2014 CSB/SJU Trustees Dinner
- 4x Men's Collegiate Lacrosse Association Academic All-American

COURSEWORK

GRADUATE
Mathematical Modeling in Pop. Bio.
Theoretical Ecology
Bayesian Statistics in R

UNDERGRADUATE
Behavioral Ecology
General Ecology
Environmental Geography
Geographic Information Systems
Invertebrate Zoology
Organic Chemistry and Biochemistry

EXPERIENCE

UC DAVIS | BioSci 2B Teaching Assistant
Spring Quarter 2016 | Davis, CA
- Taught and graded 2 laboratory sections
- Lectured on concepts in ecology and evolution and guided laboratory exercises

MN DEPT. NATURAL RESOURCES | Stream Habitat Program Intern (2014) & Student Worker (2015)
May 2014 – Aug 2014, May 2015 – July 2015| St. Paul, MN
- As a student worker, trained new interns in field and office skills
- Field work included electroshocking and identifying fish, assessing habitat types, using geodimeter to map river cross-sections
- Analyzed historical stream gauge data for geomorphology group
- Assisted in trout stream restoration project, stream-crossing surveys, and mussel propagation project
- Taught fishing skills to inner-city students through the Fishing in the Neighborhood program

SJU OUTDOOR LEADERSHIP CENTER | Reservation & Event Coordinator
September 2011 – May 2015 | Collegeville, MN
- Coordinated outdoor gear reservations for campus groups and organizations
- Organized and led community outdoor events, including challenge courses and gear tutorials
- Acted as co-coordinator of the 2012 Fruit at the Finish triathlon and served as Timing Committee chair for 2013-2015

RESEARCH

SJU HONORS THESIS | "The Induced Heart Rate Response to Fish Kairomones in Daphnia pulex"
September 2014 – May 2015 | Collegeville, MN
I investigated the effects of predatory fish kairomones on *Daphnia pulex* heart rate across varying size classes. I utilized slow-motion videomicroscopy to measure heart rate in clonal populations to determine how size selection by predators affects anti-predator responses.

SJU UNDERGRADUATE RESEARCH FELLOW | Shallow Lakes and Wetlands Research
May 2013 – August 2013 | Collegeville, MN
I worked with Dr. William Lamberts researching several aspects of the interconnected lakes, streams, and wetlands on the St. John's campus. I measured nutrient levels, temperature gradients, water depth, and macrophyte growth over the course of a summer. This involved gear maintenance, sample collection, filtration, and spectrophotometry.

LINKS

LinkedIn:// **michaelculshawmaurer**
Twitter:// **@MCulshawMaurer**
Lab Page:// **Rosenheim Website**

SKILLS

NetLogo • R • ArcGIS
Insect Field Collection • Electrofishing
Geodimeter Use • Stream Identification

RESEARCH CONT.

UNDERGRADUATE INDEPENDENT STUDY | The Effects of Tap Size on Sap Yield in Sugar Maples
January 2013 – May 2013 | Collegeville, MN
I worked with **Dr. Stephen Saupe**, **St. John's Outdoor University**, and members of **St. John's Abbey** to determine the effects of tap size on maple sap yield in a 1500+ tap, gravity-fed system. My study utilized volunteers for data collection, and I integrated my study into the daily activities of the syrup operation. The operation continued to use my methodology for several seasons in order to inform decisions regarding full-scale shifts in tap size.