

MICHAEL CULSHAW-MAURER

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EDUCATION

University of California, Davis

Predicted 2020

PhD in Ecology

Advanced to Candidacy June 2017

Rosenheim and Schreiber Labs

Saint John's University

2015

BA in Biology, 3.86 GPA

Graduated Magna Cum Laude with Distinction in Biology

EXPERIENCE

UC Davis

Spring 16, Winter/Fall 17

BIS 2B Teaching Assistant

Davis, CA

- Taught and graded laboratory sections
- Lectured on concepts in ecology and evolution and guided laboratory exercises
- Received a mean 4.7.5/5 rating from end-of-quarter student evaluation

MN Dept. Natural Resources Stream Habitat Program

May-August 2014, May-July 2015

Intern 2014, Student Worker 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

September 2011 - May 2015

WReservation & Event Coordinator

Collegetown, 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

COMPLETED RESEARCH

Graduate Field Study

2015-2017

"Cannibalism Expression and Population Collapses of Geocoris pallens in California's Central Valley"

Davis, CA

- I collected field data from 35 fields from 2015-17 and conducted behavioral assays of over 3000 individual insects, along with other members of the lab team. Our first manuscript for this project is currently in prep.

SJU Honors Thesis

September 2014 - May 2015

"The Induced Heart Rate Response to Fish Kairomones in Daphnia pulex"

Collegetown, 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

May 2013 August 2013

"Shallow Lakes and Wetlands Research"

Collegetown, 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.

Undergraduate Independent Study

January 2013 May 2013

"The Effects of Tap Size on Sap Yield in Sugar Maples"

Collegetown, 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.

HONORS AND AWARDS

Robert and Peggy van den Bosch Scholarship, Center for Biological Control, UC Berkeley 2017

UC Davis Graduate Group in Ecology Fellowship 2015-2018

UC Davis Graduate Group in Ecology Endowment Award 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

4x Men's Collegiate Lacrosse Assoc. Academic All-American

RELEVANT COURSEWORK

Graduate Level

- Ecology Graduate Group Core
- Ecology and Evolution of Biological Control
- Mathematical Modeling in Population Biology
- Computational Methods in Population Biology
- Theoretical Ecology
- Bayesian Statistics in R
- Modern Data Management

Undergraduate Level

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