

## **Stephanie Thurner**

Email: [sthurner@uw.edu](mailto:sthurner@uw.edu)

### **Education**

**University of Washington**, Seattle, WA, 2017-  
Anticipated M.S. School of Aquatic and Fisheries Science  
Research Advisor: Dr. Trevor Branch  
Current GPA: 4.00

**Albion College**, Albion, MI, 2013-17  
B.A. in Biology and Mathematics with honors  
*Summa cum laude* (GPA 3.98/4.0)  
Phi Beta Kappa (indicating top 10% of graduating class)

### **Research Experience**

#### **Research Strategy Analyst (Seattle, WA)**

January 2020 – June 2020

- Analyze research strategies for the aerial survey of Cook Inlet belugas (CIB) to improve population monitoring (trend and abundance)
- Working with Dr. Charlotte Boyd and Dr. André Punt, University of Washington

#### **Research Assistantship (Seattle, WA)**

August 2017- September 2019

- Research assistant to Dr. Trevor Branch, University of Washington
- Developing a multispecies mathematical model of extinction by human exploitation that identifies factors that most influence extinction risk from exploitation
- Creating and making publically available database of long-term estimates of biomass from scientific marine surveys

#### **NSF REU Research Intern (Anacortes, WA)**

June 2016 – August 2016

- Completed 9 weeks of research at Shannon Point Marine Center
- Researched the long-term population consequences of the effects of life history strategy on eelgrass
- Constructed a stage-based matrix population model parameterized by a combination of previous laboratory experiments, my own field data collection, and the literature
- Completed model, as well as the statistical analysis, in R

#### **Foundation for Undergraduate Research, Scholarship, and Creative Activity (Albion, MI)**

May 2015 – July 2015

- Completed 10 weeks of research in the White House Nature Center at Albion College
- Developed study on the effect of iButton color on parental provisioning in House Wrens (testing the sexually selected eggshell coloration hypothesis)
- Observed nest boxes to determine the amount of provisioning from each parent using GoPro cameras and scopes
- Followed the juvenile birds after leaving the nest box to determine whether the amount of provisioning determined which parent the birds followed after fledging

## Relevant Courses

### **FSH 558: Decision Analysis in Natural Resource Management**

- Instructor: André Punt, Fall 2019
- Course project: Cook Inlet Beluga aerial survey research strategy analysis

### **FSH 555: Age-Structured Models in Fisheries Stock Assessment**

- Instructor: Ray Hilborn, Spring 2019

### **FSH 559: Numerical Computing for the Natural Resources**

- Instructor: André Punt, Fall 2018
- Course project: A mixed effects qR model

### **FSH 458: Modeling and Estimation in Conservation and Resource Management**

- Instructor: Trevor Branch, Spring 2018

### **Q SCI 482: Statistical Inference in Applied Research**

- Instructor: Trevor Branch, Winter 2018

### **FSH 454: Ecological Modeling**

- Instructor: Tim Essington, Winter 2018

### **Math 331: Real Analysis**

- Instructor: Mark Bollman (Albion College), Spring 2017

### **Math 335: Abstract Algebra**

- Instructor: Mark Bollman (Albion College), Fall 2016

### **Math 360: Mathematical Modeling**

- Instructor: Darren Mason (Albion College), Spring 2016

### **Math 309: Mathematical Statistics**

- Instructor: Paul Anderson (Albion College), Fall 2015

### **Math 246: Differential Equations**

- Instructor: Darren Mason (Albion College), Spring 2015

## Publications

G. D. Adams, M. S. Kapur, K. McQuaw, **S. Thurner**, O.S. Hamel, A. Stephens & C. R. Wetzel. 2019. Stock Assessment Update: Status of Widow Rockfish (*Sebastes entomelas*) Along the U.S. West Coast in 2019. Pacific Fishery Management Council, Portland, Oregon.

IN PREP: Modeling opportunistic exploitation: increased extinction risk when targeting more than one species. **S. Thurner** and T. Branch.

IN PREP: What Works in Area-based Fisheries Management? C. Anderson et al.

## Scientific Presentations

### **Fisheries Think Tank 2020 (Seattle, WA)**

- Invited to present Cook Inlet beluga research strategy analysis

### **Cook Inlet Beluga Workshop 2020 (Anchorage, AK)**

- Presented project goals and solicited feedback from Cook Inlet Beluga experts and stakeholders

### **Alaska Marine Science Symposium 2020 (Anchorage, AK)**

- Accepted to present poster titled: Evaluating aerial survey methods for estimating abundance and distribution of Cook Inlet belugas

### **Joint Mathematics Meeting 2017 (Atlanta, GA)**

- Presented eelgrass life history research
- Received biology REU travel grant from NSF (\$1000)
- Received travel grant from Albion College Foundation for Undergraduate Research, Scholarship, and Creative Activity (\$600)

### **Elkin Isaac Research Symposium 2016 and 2017 (Albion, MI)**

- Honors excellent student research, scholarship, and creative activity
- Participants are nominated by faculty sponsors after participating in independent research that results in significant synthesis of new knowledge
- House Wren research presented in 2016, Eelgrass life history research presented in 2017

## **Workshops**

### **Introduction to decision analysis and Bayesian analysis, 2019**

- André Punt
- Friday Harbor Labs, WA

### **Intensive Stock Synthesis Workshop, 2019**

- Ray Hilborn, Allan Hicks, Chantel Wetzel
- Seattle, WA

### **TMB Workshop, 2018**

- André Punt
- Friday Harbor Labs, WA

### **CAPAM Spatio-temporal modelling Mini-Workshop, 2018**

- Sponsored by NOAA, IATTC, and ISSF
- La Jolla, CA

### **CAPAM Recruitment Workshop, 2017**

- Good practices in stock assessment modeling program for improving fisheries stock assessment
- Sponsored by NOAA and the University of Miami
- Miami, FL

## **Leadership, Service, and Synergistic Activities**

### **Students Explore Aquatic Sciences, 2017-present**

- Created a week long science curriculum for Jane Addams Middle School with 3 other graduate students
  - Based off a single phenomenon and incorporates Next Generation Science Standards
  - Included hypothesis development, lab work, and data analysis using R
  - Generated a Shiny App for data visualization and scientific inference (collaborated with NANOOS)— See our app here: <https://sthurner.shinyapps.io/oav1/>
- Developed two activities to increase the accessibility of quantitative ecology for K-12 students
  - First activity was geared towards surveys and catchability
  - Second activity provided exposure to coding

### **Fisheries Interdisciplinary Network of Students: Merchandise Coordinator 2017-2019**

- Design, order, and sell merchandise to raise funds for graduate student travel

### **Quantitative Seminar Organizer, Fall 2018-Spring 2019**

- Responsible for scheduling speakers for every Friday of the academic year
- Dog Gone Seattle: Auction Support Lead and Dog Foster, 2018-present**
- Support the mission of Dog Gone Seattle to save homeless dogs in high kill shelters through rescue, foster, and adoption by opening my home to dogs previously on euthanasia lists in Southern California shelters.
  - Solicited over \$5,000 dollars in donations for auction
  - Auction responsibilities included assisting with check-in and check-out, inventory management, and assisting the auction lead.
  - Have fostered 6 dogs since August 2018, have had current foster 6+ weeks.

**Albion College Varsity Volleyball Team, 2013-2017**

- Demonstrated strong work ethic by maintaining a high GPA while remaining a dedicated athlete
- Focused on goal setting and achieving through individual leadership and teamwork
- Member of team leadership committee
- Elected to the Academic All-District team by the College Sports Information Directors of America
- Placed on the Michigan Intercollegiate Athletic Association's Academic Honor Roll 3 times
- 2014 team MVP

**Awards, Memberships, and Accomplishments**

- Albion College Mortar Board, Treasurer, 2016-2017
- Sigma Xi, The Scientific Research Society, 2016-2017
- Phi Beta Kappa, 2016-2017 (Nation's oldest honor society, indicates top 10% of graduating class)
- Ewell and Barbara Stowell Scholarship (Biology Departmental Award), 2015-17
- Albion College Fellow, 2014-2017
- Prentiss M. Brown Honor's College Albion College, 2013- 2017
- Albion College Dean's List 2013-2017
- Michigan Intercollegiate Athletic Association's Academic Honor Roll, 2013-2017
- Trustee Scholarship 2013-2017
- Elected to the Academic All-District team by the College Sports Information Directors of America in 2015 and 2016
- Louis and Mary Bragg Scholarship (Math Department Award) 2015-16
- College Sports Information Directors of America Academic All-District volleyball, 2015 and 2016
- James W. Hyde Endowed Student Research Fellowship, 2015
- Morley Fraser Leadership Award, 2014

**Skills**

R, Stock Synthesis (ADMB), Template Model Builder, JAGS, LaTeX, MARSS, Shiny

**Additional Work Experience**

**Teaching Assistant (Seattle, WA)**

September 2019-December 2019

- Faculty supervisor: Trevor Branch
- Course: QSCI 482 – Statistical Inference in Hypothesis Testing
- Organized weekly office hours' and provided individualized support for students
- Taught weekly lab session that covered hypothesis testing in R

- Scored assignments, maintained grading records

**Reader/Grader (Seattle, WA)**

January 2019-June 2019

- Faculty supervisor: Trevor Branch
- Courses: QSCI 482, FSH 458
- Scored assignments/exams
- Maintained grading records