Emily Morgan Liljestrand

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East Lansing, MI 48823

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U.S. Citizen

Education

Michigan State University	Aug 2017-Present
Quantitative Fisheries Center	**Current GPA:** 4.0

Degree: PhD in Fisheries Sciences
Advisor: Dr. James Bence

University of Maryland Center for Environmental Science	Jan 2015-Aug 2017
Chesapeake Biological Laboratory	**GPA:** 4.0

Degree: M.Sc. in Fisheries Sciences
Advisor: Dr. Michael Wilberg

Rice University	Fall 2009-Spring 2013
Degree: B.S. Biochemistry and Cell Biology	**GPA:** 3.79

Degree: B.A. Ecology and Evolutionary Biology
Degree: B.A. Asian Studies

Experience

Baylor College of Medicine   Oct 2013-Jan 2015

Project Intern (paid)

P.I.: Dr. Jin Wang

- Prepared and maintained stocks of pancreatic cell lines
- Performed cell viability assays
- Trained in murine care and surgery
- Edited grant applications, personal statements, and submissions for publication

Elite Private Tutors   Oct 2013-Jan 2014

High School Tutor for Math, Science, and SAT Prep

Marine Biological Laboratory   Summers 2012, 2013

Course Assistant for Neural Systems and Behavior Graduate Course

Director: Dr. Paul Katz (2012)

Director: Dr. Hans Hofmann (2013)

- Assisted an intensive graduate level laboratory course
- Prepared solutions for use in neuroanatomy and physiology research
- Coordinated with several companies and departments to order, organize, and exchange microscopes, computers, and chemical stocks
- Managed, organized, and edited social media sites

Publications

Liljestrand EM, Wilberg MJ, Schueller, AM, Estimation of Movement and Mortality of Atlantic Menhaden during 1966-1969 Using a Bayesian Multi-State Mark-Recovery Model. 2018. Fisheries Research, 210:204-213

Liljestrand EM, Wilberg MJ, Schueller, AM, Multi-state Dead Recovery Mark-Recapture Model Performance for Estimating Movement and Mortality Rates. 2018. Fisheries Research, 210:214-223.

Presentations

Liljestrand, EM, Bence JR, Deroba JJ, Application of State Space Stock Assessment Modeling to Lake Whitefish (*Coregonus clupeaformis*). 2019. Oral Presentation. Presented at: American Fisheries Society National Meeting, September 20, 2019; Reno, NV.

Liljestrand EM, Wilberg MJ, Schueller, AM, Estimating migration and mortality of adult Atlantic menhaden with data from a large-scale mark-recapture study. Oral Presentation. Presented at: ICES/PICES Drivers of Dynamics of Small Pelagic Fish Resources, March 8, 2017; Victoria, BC, Canada.

Liljestrand EM, Wilberg MJ, Schueller, AM, Atlantic Menhaden Migration, Survival, and Exploitation Rates during 1966-1969. Oral Presentation. Presented at: American Fisheries Society National Meeting, August 25, 2016; Kansas City, MO.

Liljestrand EM, Wilberg MJ, Schueller, AM, Menhaden on the Move: A Quantitative Migration Model of Atlantic Menhaden (*Brevoortia tyrannus*) 1966-1969. Oral Presentation. Presented at: American Fisheries Society Tidewater Chapter Meeting, April 8, 2016; Edgewater, MD.

Grants and Fellowships

Maryland Sea Grant Graduate Fellowship (2015-2016)
Chesapeake Biological Laboratory Graduate Education Committee Travel Grant ($500)
University of Maryland Jacob K. Goldhaber Travel Grant ($400)
University of Maryland International Conference Student Support Award ($213)
PICES Travel Grant ($370)
William E. Ricker Distinguished Fellowship ($1,500)
NMFS-Sea Grant Fellowship in Population and Ecosystem Dynamics (2019-2022)
Graduate Student Research Enhancement Award ($350)

Awards

Best Presentation Award, ICES/PICES Drivers of Dynamics of Small Pelagic Fish Resources (2017)

Workshops and Conferences

ICES Workshop on the Review and Future of State Space Stock Assessment Models (WKRFSAM), Copenhagen, DK (2020)
CAPAM Workshop on Next Generation Stock Assessment Models, Wellington, NZ (2019)
AFS National Conference, Reno, NV (2019)
Women in Nature Network National Meeting, Guwahati, Assam, India (2019)
International Association for Great Lakes Research Conference, Scarborough, ON (2018)

Certification in College Teaching Institute Workshop, East Lansing, MI (2018)
ICES/PICES Drivers of Dynamics of Small Pelagic Fish Resources, Victoria, BC (2017)
AFS National Conference, Kansas City, MO (2016)
AFS Tidewater Chapter Meeting, Edgewater, MD (2016)
ICES Annual Science Conference, Copenhagen, DK (2015)
AFS National Conference, Portland, OR (2015)
Program MARK intermediate level workshop, Fort Collins, CO (2015)
AFS Tidewater Chapter Meeting, Pine Knoll Shores, NC (2015)
Marine Resources and Population Dynamics Workshop, Long Key, FL (2014)

Professional Organizations

American Fisheries Society
American Fisheries Society Michigan Chapter
American Institute of Fishery Research Biologists
International Association for Great Lakes Research
Women in Nature Network
Graduate Women in Science

Leadership Roles

Michigan State University Fisheries and Wildlife Graduate Student Treasurer (2019)
Michigan State University Fisheries and Wildlife Graduate Student Social Chairman (2018)
AFS Tidewater University of Maryland Student Subunit President (2016)
University of Maryland Center for Environmental Science Student Representative (2016)
Marine Estuarine Environmental Sciences Student Representative (2016)
Maryland Higher Education Council Student Representative (2016)

Outreach

Michigan State University Girls Math and Science Day Activity Leader (2019, 2020)
Volunteer Editor for MSU Fisheries and Wildlife Spotlight Magazine (2017-Present)
Volunteer Docent at Chesapeake Biological Laboratory Visitors Center (2015-2017)

Blogging

Personal Fisheries Blog, "Fishery Fanatic" (https://fishmodeler.blogspot.com/)
AFS Tidewater University of Maryland Student Subunit Blog (http://afs-umd.blogspot.com/)
Maryland Sea Grant Fellowship Blog (http://www.mdsg.umd.edu/fellowship-experiences)

Skills and Certificates

Open Water Diver Certified
PADI Diver No. 11050X2301
Coral Reef Conservation specialty
Project Aware specialty

Computer Programs
R, including packages ggplot, BUGS, JAGS, STAN, TMB
AD Model Builder, OpenBUGS, STELLA, MARK
Microsoft Office Suite: Word, Excel, Powerpoint, Access

Languages
Spanish (Excellent)
Japanese (Conversational)

Graduate Level Courses

Statistics
Environmental Statistics I and II
Modern Statistical Models in Ecology
Applied Bayesian Statistics
Bayesian Inference Monte Carlo
Resampling Design

Fisheries and Wildlife
Advanced Population Dynamics and Assessment
Fish Ecology
Fisheries Science and Management
Principles and Perspectives in Fisheries and Wildlife
Global Issues in Fisheries
Uncertainty in Natural Resource Management
Limnology

Communication
Scientific Writing and Communication
Fisheries and Wildlife Outreach and Engagement
Certification in College Teaching Program

Other
Masters Thesis Research
Doctoral Dissertation Research

Professional References

James R. Bence
Quantitative Fisheries Center
Department of Fisheries and Wildlife
Michigan State University
375 Wilson Rd., 101 UPLA Building
bence@msu.edu
Phone (517) 355-0003
Relationship to Reference: Current Graduate Adviser

Michael J. Wilberg
Chesapeake Biological Lab
PO Box 38
Solomons, MD 20688
wilberg@umces.edu
Phone (410) 326-7273

Fax (410) 326-7302
Relationship to Reference: Former Graduate Adviser