

EMILY LAUREN MENSCH

Davis, CA

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EDUCATION

Ph.D., Ecology

September 2022 – Present

University of California, Davis, CA

Current GPA: 4.0

M.S., Fisheries and Wildlife

August 2019 – May 2022

Michigan State University, East Lansing, MI

GPA: 4.0

B.S., Biological Sciences

August 2012 – May 2016

Concentration: Ecology, Minor: Conservation Biology

Colorado State University, Fort Collins, CO

GPA: 3.4

RESEARCH EXPERIENCE

Graduate Student Researcher

September 2022 – Present

Advisors: Dr. Daniel Karp and Dr. Andrew Rypel

University of California, Davis, CA

Focus: Cascading effects of fish and waterbirds on biodiversity, ecosystem services, climate mitigation, and crop yields in California rice fields

Scientist: Protection of Ecosystem Services

June 2022 – September 2022

Radmantis, Toledo, OH

Focus: Adapting uncrewed aquaculture management to control sea lamprey (*Petromyzon marinus*) & protect wild Salmonid fisheries in the Great Lakes

Graduate Research Assistant

June 2019 – May 2022

Advisor: Dr. Michael Wagner

Michigan State University, East Lansing, MI

Focus: Behaviorally guided chemical characterization of a natural sea lamprey (*Petromyzon marinus*) deterrent

Research Experience for Undergraduate Students

May 2015 – May 2016

Advisors: Dr. Lisa Angeloni and Dr. Chris Funk

Colorado State University, Fort Collins, CO

Focus: Effects of divergent immigrants on mating behavior and reproductive success of small Trinidadian guppy (*Poecilia reticulata*) populations

Honors Undergraduate Research Scholar

May 2012 – May 2016

Advisor: Dr. Shane Kanatous

Colorado State University, Fort Collins, CO

Focus: Extreme physiology and dive response in marine mammals

PUBLICATIONS

Mensch EL, Dissanayake AA, Nair MG, Wagner CM (2022) The effect of putrescine on space use and activity in sea lamprey. *Scientific Reports*, 12:17400, <https://doi.org/10.1038/s41598-022-22143-x>

Mensch EL, Dissanayake AA, Nair MG, Wagner CM (2022) Sea lamprey alarm cue comprises water- and chloroform- soluble components. *Journal of Chemical Ecology*, 48(9), 704-717.

Mensch EL, Kronenberger JA, Broder ED, Fitzpatrick SW, Funk WC, Angeloni LM. (2019) A potential role for immigrant reproductive behavior in the outcome of population augmentations. *Animal Conservation*, 22(5), 463-471.

PRESENTATIONS

Mensch EL, Wagner CM, Nair MG, Dissanayake AA (2023). Using fear to build an effective repellent for invasive sea lamprey. UC Davis's *Ecology Graduate Student Association Symposium*.

Mensch EL, Wagner CM, Nair MG, Dissanayake AA (2022). Progress towards chemical identification of the sea lamprey alarm cue. Invited oral presentation at UC Davis's *Wildlife, Fisheries and Conservation Biology Seminar Series*.

Mensch EL, Wagner CM, Nair MG, Dissanayake AA (2021). Bottling fear: novel methods for invasive species management and conservation of fishes. Oral presentation at American Fisheries Society's *151st Annual Meeting*.

Mensch EL, Wagner CM, Nair MG, Dissanayake AA (2021). Chemical characterization of the sea lamprey alarm cue. Invited oral presentation for USGS Great Lakes Science Center's *Science Seminar Series*.

Mensch EL, Wagner CM, Nair MG, Dissanayake AA (2020). Crying wolf in sheep's clothing: can we bottle "fear" to trick invasive species and achieve conservation outcomes? Oral presentation at Michigan State University's *Fisheries and Wildlife Graduate Student Organization Symposium*.

Mensch EL, Kronenberger JA, Broder ED, Funk WC, Angeloni LM (2016). The effects of immigration on mating behavior in Trinidadian guppies. Poster presentation at Colorado State University's *Celebrate Undergraduate Research and Creativity Showcase*.

Mensch EL, Kronenberger JA, Broder ED, Funk WC, Angeloni LM (2016). The effects of immigration on mating behavior in Trinidadian guppies. Poster presentation at Colorado State University's *Front Range Student Ecology Symposium*.

TEACHING EXPERIENCE

Instructor | UC Davis- Graduate Group in Ecology

Fall 2023

ECL 290: Data Visualization and Science Communication

Teaching Assistant | UC Davis- Department of Wildlife, Fish, and Conservation Biology

Spring 2023

WFC 10: Wildlife Ecology & Conservation

AWARDS

"Best Prospective Research Talk", MSU Fisheries and Wildlife Graduate Student Organization Symposium (2020)

"High Honors" (Top 10% of undergraduate research presentations), CSU Celebrate Undergraduate Research and Creativity Showcase (2016)

GRANTS AND FELLOWSHIPS

UC Davis Henry A. Jastro Student Research Fellowship, 2023 (\$3,000)

Selma Herr Fund for Ornithological Research, 2023 (\$3,645)

Michigan Chapter of American Fisheries Society Annual Meeting Travel Grant, 2021 (\$500)

Michigan Sea Grant-MSU Extension Graduate Fellowship, 2020 (\$500)

SERVICE AND LEADERSHIP ACTIVITIES

Webmaster | American Fisheries Society California-Nevada Chapter–

Sacramento/Davis Student Subunit

June 2023 – Present

EGSA Co-Chair | UC Davis – Ecology Graduate Student Association

May 2023 – Present

Brickyard Magazine Editor and Designer UC Davis – Ecology Graduate Student Association	February 2023 – Present
WFCB Seminar Series Committee UC Davis – Department of Wildlife, Fish, and Conservation Biology	January 2023 – Present
Mentor for Undergraduate Students UC Davis – oSTEM (Out in Science, Technology, Engineering and Mathematics)	October 2022 – Present
Outreach and Engagement Committee MSU – Fisheries and Wildlife Graduate Student Organization	January 2020 – May 2022
GSO Symposium Co-Chair MSU – Fisheries and Wildlife Graduate Student Organization	August 2020 – February 2021
Spotlight Magazine Design Committee MSU – Fisheries and Wildlife Graduate Student Organization	August 2019 – March 2020
Programs and Invitations Committee: GSO Symposium MSU – Fisheries and Wildlife Graduate Student Organization	August 2019 – February 2020

OUTREACH AND COMMUNICATION ACTIVITIES

Pen pal: Letters to a Pre-Scientist	August 2022 – May 2023
Guest speaker: Skype-a-Scientist, Greenwood Elementary School	January 2022
Podcast interview: Journeys of Scientists	February 2021
Magazine article: Spotlight Magazine, “Sea Lamprey: Monsters or Misunderstood?”	January 2021
Podcast interview: The Sci-Files – Impact 89 FM	November 2020
Guest speaker: Bloomingdale Middle School	March 2020

PROFESSIONAL ORGANIZATIONS

Society for Freshwater Science
Society for Freshwater Science, California Chapter
American Fisheries Society
American Fisheries Society Davis Sacramento Subunit
Women in Nature Network

ADDITIONAL PROFESSIONAL EXPERIENCE

Classroom Assistant Austin Montessori School, Austin, TX Assisted teaching Montessori preschool class and led a middle school afterschool program	August 2018 – June 2019
Disaster Response Team Member Texas Conservation Corps, Austin, TX Completed year-long AmeriCorps term involving conservations projects across the state of Texas and responding to state and federal disasters.	September 2017 – August 2018
Associate Instructional Specialist 4-H CAPITAL, Austin, TX Completed year-long AmeriCorps term serving youth through hands-on science engagement.	October 2016 – August 2017
Bird Rehabilitation Intern Greenwood Wildlife Rehabilitation Center, Boulder, CO Assisted wildlife rehabbers and veterinary technicians in feeding, diagnosing, and treating wild birds and waterfowl <ul style="list-style-type: none"> Administered medications and subcutaneous injections Performed necropsies to determine causes of death and aided in euthanasia procedures 	May 2016 – August 2016

CERTIFICATIONS AND ADDITIONAL QUALIFICATIONS

- **Red Cross Certifications:** Wilderness First Aid, CPR/AED, Bloodborne Pathogens
- **Field-relevant Certifications:** PADI Open Water SCUBA, UTV/ATV Operator
- **Field-relevant Experience:** Chainsaw tree felling, herbicide application
- **Laboratory Software/Programming:** Microsoft Office, R, SAS, and ImageJ