Lian Anderson (She/Her)

lianand@umich.edu | LinkedIn

(314)-813-0993

EDUCATION

University of Michigan School for Environment and Sustainability (SEAS)

(Ann Arbor, MI) 2025-2030

- **Doctoral Student**
- Advisor: Dr. Karen Alofs

University of Michigan School for Environment and Sustainability (SEAS)

(Ann Arbor, MI) 2023-2025

- **MS** in Ecosystem Science and Management, GPA: 4.000
- Thesis: A secondary upstream invasion of Round Goby in the Great Lakes Basin over 13 years following a dam removal
- Thesis Advisor: Dr. Karen Alofs

University of Michigan (U-M)

(Ann Arbor, MI) 2019-2022

- **BS** in Earth and Environmental Sciences, minor in Paleontology, GPA: 3.672
- Senior Honors Thesis: Exploring morphospace occupation by investigating underlying skeletal elements
- Thesis Advisor: Dr. Jennifer Bauer

Non-Degree Pursuing Institutions

- Indiana University - virtual field course, St. Louis Community College - Calculus II, McGill University - Undeclared Faculty of Arts student

AWARDS AND HONORS

- **NSF Graduate Research Fellowship Program Honorable Mention**, 2025
- **Rackham Travel Grant ($900)**, 2025
- **Marshall Weinberg Fellow**, Marshall Weinberg Foundation, 2024
- **U-M SEAS Master's Thesis Research Grant ($1,000)**
- **U-M Rackham Graduate Student Research Grant ($1,500)**
- **Future Leaders in Paleontology Certificate**, Paleontological Society, 2022
- **Tilly Edinger Travel Grant ($200)**, Time Scavengers, 2022
- **Scott Turner Student Research Grant Award ($500)**, U-M , 2022
- **University Honors**, U-M, 2020-2021
- **Stewart R. Wallace Scholarship Recipient ($6,250)**, U-M, 2020-2022
- **Emerson B.A. Purcell Memorial Scholarship ($10,000)**, Emerson Electric Company, 2018

PUBLICATIONS, LECTURES, and PRESENTATIONS

Publications

- **Anderson L.C.**; Bauer J.E. Geometric morphometrics as a tool for evaluating Eublastoidea morphological variation. Paleobiology. Published online 2024:1-15. doi:10.1017/pab.2024.14
- Tajika, A.; Landman, N.H.; Hiromichi, K.; Broussard, A.; **Anderson**, L.C. 2023. New discovery of rhyncholites and conchorhynchs (cephalopod jaw elements) from the Upper Cretaceous Mount Laurel Formation of Delaware (American Museum Novitates No. 3998). *American Museum of Natural History Novitates*.

Lectures

- Anderson, L.C. (2025, April 27). Oceans, fisheries, and the Great Lakes [Lecture]. ENVIRON 201: Ecological Issues, University of Michigan.

Presentations

- **Anderson**, L.C. 2025. A secondary upstream invasion of Round Goby over 13 years following a dam removal. International Association of Great Lakes Research 68th Annual Conference on Great Lakes Research.
- **Anderson**, L.C. 2025. A secondary upstream invasion of Round Goby over 13 years following a dam removal. School for Environment and Sustainability 2025 Capstone Conference.
- **Anderson**, L.C., Bauer, J.E. 2022. Exploring morphospace occupation by investigating underlying skeletal elements. Geological Society of America Connects 2022 Meeting, *Abstracts with Programs*, doi: https://doi.org/10.1130/abs/2022AM-380567.
- Vantoorenburg, H., **Anderson**, L.C., Eccles, J., Orman, S., Bauer, J.E., Sheffield, S.L. 2022. Exploring epibiont encrustation patterns: a case study with *Paraspirifer bowknockeri*. Geological Society of America Connects 2022 Meeting, *Abstracts with Programs*, doi: https://doi.org/10.1130/abs/2022AM-380320.
- **Anderson**, L.C., Bauer, J.E. 2022. Investigating blastoid morphology through 3D geometric morphometrics. Geological Society of America Joint North-Central & Southeastern Section Meeting, *Abstracts with Programs*, doi: https://doi.org/10.1130/abs/2022NC-375436.
- Vantoorenburg, H., **Anderson**, L.C., Bauer, J.E., and Sheffield, S.L. 2022. Paleoecological trends in epibiont placement on Silica Formation brachiopods. Geological Society of America Joint North-Central & Southeastern Section Meeting, *Abstracts with Programs*, doi: 10.1130/abs/2022NC-375491.
- Bauer, J.E., **Anderson**, L.C., Vantoorenburg, H., and Sheffield, S.L. 2021. Virtual collaborative research project using U-M's online repository of fossils. Geological Society of America Meeting, *Abstracts with Programs*, doi: 10.1130/abs/2021AM-368199.

WORK EXPERIENCE

Research

United States Geological Survey - Great Lakes Science Center, Research Assistant I
(Ann Arbor, MI) 2024-2025

- Transcribed historical and contemporary larval bloater data from Lake Michigan
- Ran statistical analyses to compare historical and contemporary datasets; comparing larval size and abundance

Friends of the Rouge, Marshall Weinberg Fellow
(Plymouth, MI) 2024

- Independently designed summer fellowship and secured funding through the Marshall Weinberg Foundation
- Assisted in the surveying of fish communities in the Rouge River watershed
- Cataloged and identified macroinvertebrates to the family level for data analysis
- Managed community science databases for frog, toad, fish, and macroinvertebrate communities

Alofs Lab at U-M SEAS, Lab Technician
(Ann Arbor, MI) May 2024-2025

- Conducts research for the EAGER project in Dr. Karen Alofs' lab, focusing on the impacts of climate change on freshwater fish body size
- Collects and ages fish scales, spines, and rays from museum collections and historical archives for data analysis
- Aids in the supervision of undergraduate research assistants, ensuring the accuracy and efficiency of the project

U-M Herbarium, Museum Technician
(Ann Arbor, MI) 2023

- Assisted in digitizing the Pteridophyte and Bryophyte collections, processed thousands of specimens weekly

The American Museum of Natural History/The Richard Gilder Graduate School, Biology Research Experience for Undergraduates (REU) Intern
(New York City, NY) 2021

- Supervised by Dr. Amane Tajika and Dr. Neil Landman on the project, Learning from the mouthparts: morphology, paleobiology and phylogeny of "living fossils" nautiloids

U-M Museum of Paleontology, Museum Collections Assistant Senior
(Ann Arbor, MI) 2019-2022

- Assisted in training and supervision of student employees
- Handled, cataloged, and rehoused invertebrate fossils in a collection of over 2 million
- Gained computer and organizational skills through data entry, cataloging, and creating 3D models of invertebrates for online publication (UMORF)

Teaching

U-M Program in the Environment, Graduate Student Instructor (GSI)
(Ann Arbor, MI) August 2024-Present

- Assists in the teaching of ~200 students for ENVIRON 201: Ecological Issues
- Leads discussions on ecological case studies, evaluates and grades student assignments and exams

U-M Earth and Environmental Sciences Department, GSI
(Ann Arbor, MI) August 2023-April 2024

- Assisted in the teaching of ~100 students for EARTH 218/219: Intro to Environmental Science
- Led discussions on environmental issues, evaluates and grades student laboratories and quizzes
- Developed weekly quizzes to assess students' comprehension of readings and lecture material
- Designed and integrated new course content focused on environmental justice, enriching the curriculum with current societal and ecological issues

COMMUNITY ENGAGEMENT

Friends of the Rouge 501 (C)(3) Non Profit
(Plymouth, MI) 2023-Present

- Active member of the Monitoring Committee; assists in advising monitoring programs at Friends of the Rouge
- Assists in public outreach and fundraising events

- Leads and supervises groups of community scientists for macroinvertebrate surveys

Time Scavengers 501(C)(3) Non Profit
(Virtual) 2022

- Produced two posts for the Time Scavengers blog describing work as a collections assistant in addition to experiences at a national conference

GeoClub, Undergraduate Representative
(Ann Arbor, MI) 2021-2022

- Represented all Earth and Environmental Science major and minor students, organized meetings and events, served as a voice for undergraduates to graduate students and faculty in the Earth and Environmental science department

SKILLS AND ABILITIES

Software: 3D Slicer, Adobe Illustrator, Adobe Photoshop, Blender, DigiCamControl, Google Drive Suite, Google Earth Pro, ImageJ (Fiji), Meshlab, Microsoft Office Suite, Rstudio, Specify (relational SQL-based database), TPSDig232, TPSUtil32
Hardware and equipment: Epson Scanners, Genie Lifts, Hanna Instruments multiparameter, LR-24 Electrofisher, Nikon D810, Nikon Z-series II, YSI ProDSS multiparameter water quality meter
Field skills: cataloging specimens, water quality measurement collection, seining, backpack electrofishing, fish identification
Fisheries skills: Aging modern and museum collection fish using scales, spines, and ray structures