

Lauryn N. Howlett

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ECOSYSTEM SCIENCE AND SUSTAINABLE FOOD SYSTEMS PROFILE

Dedicated to understanding and finding solutions to sustainability issues in the agricultural sector. I am passionate about helping communities connect to nature and improving conservation efforts. My core competencies include:

- Communication and coordination between multiple stakeholders
- Ecological research, data collection, and analysis
- Data analysis and visualization using R and Excel
- Understanding of current sustainability and climate change-related issues

EDUCATION

Colorado State University (CSU), Fort Collins, CO Expected Fall 2024
Professional Science Master's, **Ecosystem Science and Sustainability, Sustainable Food Systems**

Colorado State University (CSU), Fort Collins, CO May 2021
Bachelor of Science, **Ecosystem Science and Sustainability** **3.84 GPA**
Minor in **Sustainable Energy**
Honors program Cum Laude

CONSERVATION, HORTICULTURE, AND LAB EXPERIENCE

Student Research Assistant, Colorado State University, Fort Collins, CO May 2024 – Present

- Assist in water sampler installation and collection
- Assist in water quality data analysis
- Assist in using technology, such as 3D printers and drones, to conduct research

Graduate Teaching Assistant, Colorado State University, Fort Collins, CO January 2024 – May 2024

- Assist in handling the ESS 312 - Sustainability Science course at CSU
- Grade assignments, manage the grade book, and attendance
- Answer questions from students

Gulley Greenhouse and Garden Center, Fort Collins, CO December 2022 – January 2024

- Identify and collect plants for wholesale from greenhouses in a 45-acre facility
- Prepare and package plants for shipment to nurseries in the United States and Canada
- Improved plant identification skills

Land Stewardship Intern, Colorado Open Lands, Lakewood, CO June 2021 - December 2021

- Monitored 264 properties across the state of Colorado via on the ground and using satellite imagery, totaling 117,232 acres
- Edited and created new maps using ArcMap
- Gained proficiency in Lens, an online satellite mapping application and used vegetation health analysis
- Learned how to interpret the language of a conservation easement
- Communicated and scheduled meetings with landowners regarding their conservation easements

Lab Assistant, Natural Resource Ecology Laboratory, EcoCore, Fort Collins, CO August 2019 – May 2021

- Received and prepared NEON water samples for analysis
- Assisted in DOC, DIC, and TOC analysis
- Refurbished bottles and wash other laboratory dishes

- Assisted with other laboratory practices and machine maintenance

Research Fellow, USDA NIFA REEU, CSU, Fort Collins, CO

June 2019 – July 2019

- Performed soil moisture data analysis from an existing tillage dataset in R
- Field research experience assisting a PhD student collect biomass for grassland study
- Analyzed soil health in relation to water holding capacity and different tillage practices
- Participated in professional development workshops
- Presented the results to CSU faculty

COLLABORATIVE RESEARCH AND LEADERSHIP EXPERIENCE

Honors Senior Thesis, Colorado State University

August 2020 – May 2021

- Mentored by Dr. Jill Baron and committee member Dr. Daniela Cusack
- Analyzed long term silica trends in the Loch Vale watershed in Rocky Mountain National Park (RMNP), Colorado
- Assisted in water sample collection at Loch Vale and Sky Pond
- Conducted a literature review on the importance of silica and similar trends
- Presented my thesis presentation in front of advisors and other faculty members

Senior Capstone Project, Colorado State University

January 2021 - May 2021

- “Design and Collaborative Implementation of a Pollinator Habitat on a Colorado Front Range Farm”
- Coordinated with Wildlands Restoration to design and execute a volunteer project where we planted seeds and bushes to create a pollinator habitat within a crop field
- Presented research at the Youth Environmental Alliance in Higher Education (YEAH) Conference at Colorado State University

RELEVANT COURSEWORK

Environmental Data Science Applications, CSU, Fort Collins, CO

Fall 2023

- Introduction to R programming
- Learned how to import and manipulate open-source datasets
- Improved data analysis skills and linear modeling skills
- Created a personal website using quarto

Earth Systems Ecology

Spring 2021

- Connected ecosystem principles to global systems and how they interact
- Completed writing an NSF grant proposal

Introduction to Geographic Information Systems, CSU, Fort Collins, CO

Spring 2020

- Introduction to the history and importance of GIS
- Used ESRI ArcGIS to complete different spatial analyses

Remote sensing and Image Interpretation, CSU, Fort Collins, CO

Fall 2020

- Learned the fundamentals of remote sensing and various applications to the natural resource field
- Improved skills on how to manage and organize data sets
- Learned about different spatial analysis techniques and tools within ArcMap

TECHNICAL AND ANALYTICAL SKILLS

- Proficiency in Microsoft Office 365, including Excel and Word processing systems
- Experience using R Studio for data analysis and visualization
- Ability to conduct fieldwork and follow proper protocol
- Ability to navigate in remote areas using GPS software and compass
- Ability to create professional written reports and present orally