

ALYSSA CONNAUGHTON

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EDUCATION

Ph.D. Geography	2024-present
Department of Geography, Environment, and Society	
Saint Anthony Falls Laboratory	
University of Minnesota Twin Cities	
Graduate Degree Program in Ecology	2022-2023
Department of Ecosystem Science and Sustainability	
Natural Resource Ecology Laboratory	
Colorado State University	
B.S. Environmental Science and Resource Management	2016-2020
Emphasis in Resource Management	
California State University Channel Islands	
<i>Undergraduate Thesis: Virtual Visualization of Common Species in Channel Islands National Park</i>	

SKILLS

ESRI Software: ArcGIS Pro, ArcMap, Story Maps, Survey 123, ArcCollector, ESRI Field Maps
Data Analysis and Visualization: R (including ggplot2, tidyverse), HTML
Visual Art: DSLR photography, 360 photosphere photography, Adobe Creative Suite, Canva
General: Microsoft Office Suite, Google Workspace Suite
Species Identification: native bees, bumble bees, butterflies, moths, flowering plants, trees

CERTIFICATIONS

Wilderness First Responder	2025
NOLS Wilderness Medicine	
Epinephrine Auto-injector	2025
NOLS Wilderness Medicine	
Adult, Child, Infant CPR, AED, and Airway Management	2025
NOLS Wilderness Medicine	
Certified Project WET General Facilitator	2021
Water Education Foundation: Project Water Education Today	
Certified Project WET Climate Change in California Facilitator	2021
Water Education Foundation: Project Water Education Today	
Certified Peer Educator	2020
National Association of Student Personnel Administrators	
Naturalist 1	2020
Catalina Island Conservancy	
Wilderness First Aid	2018-2020
Emergency Care and Safety Institute	

RESEARCH EXPERIENCE

Inventory of beaver and other semi-aquatic furbearers to inform harvest management decisions at Apostle Islands National Lakeshore 2025

PI: Dr.Emily Fairfax

Placing game cameras in beaver wetlands to collect data on which dams are being actively maintained by beavers and to observe additional animals that live in beaver modified ecosystems to quantify biodiversity of these ecosystems.

Wyoming Beaver Dam and Vegetation Validation 2025

PI: Dr.Emily Fairfax

Led a team of undergraduate researchers to collect field data on beaver dam location, vegetation in and around the beaver modified ecosystem and quantify cattle grazing activity of beaver modified and nonbeaver modified ecosystems.

Using Beaver Dams to Conserve Salmon Spawning and Rearing Habitat in the Moose River Watershed 2025

US Fish and Wildlife Service Kenai National Wildlife Refuge

PI: Dr.Emily Fairfax

A collaboration with the US Fish and Wildlife Service Kenai National Wildlife Refuge to quantify beaver impact on the refuge. The project consists of mapping beaver dams, using the Beaver Restoration Assessment Tool (BRAT) to determine maximum beaver dam capacity of streams within the refuge and using remote sensing and GIS methods to determine environmental impacts of beaver dams on the vegetation surrounding beaver modified ecosystems. Advised on placement of water quality instruments for a project to use Beaver Dam Analogues (BDAs) to rewet burned peatlands.

Mapping Beaver Dams in the Apostle Islands 2023

PI: Dr.Emily Fairfax

Using Google Earth Engine to map beaver dams within the Apostle Islands across 30 years to measure beaver occupancy and influence on the islands.

EEAGER Validation 2023

PI: Dr.Emily Fairfax

Using Google Earth to go through the EEAGER (Earth Engine Automated Geospatial Element Recognition) outputs to select areas of output that are not beaver dams to improve model accuracy.

Learning Sustainability and Nature-Based Solutions - Youth Ambassadors for Climate Science on the Road to COP28 2023

Youth Environmental Alliance in Higher Education and the Smithsonian Institute

PI: Dr. Gillian Bowser, Dr. Susie Ho, and Smithsonian Institute

A partnership between the Youth Environmental Alliance in Higher Education and the Smithsonian Institute. Lead graduate student working with the Senior Advisor for Global Strategy, Director of Smithsonian Science Education Center, Manager of Ocean Education & Outreach, and National Outreach Manager of the Smithsonian to develop resources for students in the US and in Australia to implement sustainability and advocate for nature based solutions in their communities.

3DNaturalists: Data, Discovery, Diversity! 2023

PIs: Dr. Gillian Bowser and Dr. Phil Halliwell

Lead on communications and project revisioning. 3DNaturalists encourage student engagement with data, encouraging scientific discovery, involving students from diverse backgrounds. Created a logo, branding

guide, and project website for further developments of the project. The main project focuses on how to get diverse populations engaged in community science projects on pollinators.

Early Career Ringos

2022 - 2023

United Nations Framework Convention on Climate Change

PI: Dr. Gillian Bowser, Dr. Susie Ho, Dr. Tracy Bach, and Dr. Beth Martin

Formalized network of early career researchers within the United Nations Framework Convention on Climate Change (UNFCCC) Research and Independent Nongovernmental Organisations Constituency Group. Established a position statement with goals, deliverables, and action items for early career researchers interested in getting involved in the UNFCCC processes. Currently forming a podcast and social media channels with informative information about the UNFCCC.

National Park Service Pollinator Inventory Project

2022 - 2023

Colorado State University

PIs: Dr. Gillian Bowser, Dr. Philip Halliwell, Dr. Tracy Ziegler, National Park Service Inventory and Monitoring Division

Researcher for the National Park Service Pollinator Inventory Project. Collect bee, butterfly, climate and phenology data in seven National Parks and Monuments. Parks include: Dinosaur National Monument, Colorado National Monument, Fossil Butte National Monument, Yosemite National Park, Crater Lake National Park, Yellowstone National Park and Grand Teton National Park. Methodology focuses on noninvasive sampling methods and using citizen science to identify the species collected. Perform statistical analyses on data collected and compile reports to provide to each park at the end of each field season.

Youth Dialogues on the National Climate Assessment

2022

PIs: Dr. Gillian Bowser, Dr. Sarah Green and Dr. Pamela McElwee

Lead event planner and moderator for Youth Dialogues on the Fifth National Climate Assessment, a partnership between Youth Environmental Alliance in Higher Education and the U.S. Global Change Research Program (USGCRP). Event held to teach and encourage students to submit comments on the Fifth National Climate Assessment.

United Nations Climate Change Conference COP27

2022

Colorado State University

PIs: Dr. Gillian Bowser, Dr. Sarah Green, Dr. Susie Ho, Dr. Sarah Hautzinger, Dr. Leah Dundon, Dr. Diane Husic, Dr. Pamela Templer, Dr. Mark Urban

Lead exhibit designer for Voices and Visions: The Art and Science of Climate Action. Created an exhibit to showcase how climate action can be communicated through art and science. Collaborated with NASA, EPA, Smithsonian, NSF, and PeaceBoat US to create a collaborative exhibit. Exhibit displayed at the US Center Pavilion at United Nations Climate Change Conference of Parties (COP27) in Sharm el-Sheikh, Egypt.

Rocky Mountain Sustainability and Science Network

2022-2023

Colorado State University

PIs: Dr. Gillian Bowser and Dr. Philip Halliwell

Participated in a two week research trip to Grand Teton National Park and Yellowstone National Park collecting data on pollinators, birds, and park visitors. Led a team of undergraduate students from diverse backgrounds to assist in teaching how to develop a research question and share what it is like to do research in a National Park.

I See CI

2020

California State University Channel Islands

PIs: Dr. Emily Fairfax and Dr. Kiki Patsch

Developed a virtual reality tour of Santa Rosa Island to improve accessibility for people who cannot make it out to the island. Produced an interactive, virtual reality tour of Santa Rosa Island with embedded data visualizations and information using GoogleTour and GooglePoly.

Virtual Visualization of Common Species on Santa Rosa Island

2019-2020

California State University Channel Islands

PIs: Dr. Dan Reineman, Russell Bradley and Dr. Emily Fairfax

Identified and photographed common plant species found along three main trails on Santa Rosa Island. Collected data to create an online interactive ESRI Story Map field guide. Created individual species maps using ArcPro.

Natural and Cultural History Research in Costa Rica

2019

California State University Channel Islands

PIs: Dr. Don Rodriguez and Dr. Allison Alvarado

Project in collaboration with California State University Channel Islands, the Great Basin Institute, Marino Las Baulas National Park, and the National University of Costa Rica. Conducted multiple projects including mangrove monitoring, migratory birds in the surrounding wetlands, and microplastics in fish and sand crabs. Assessed change in vegetation cover surrounding previous turtle nesting sites along the Playa Grande Beach in Marino Las Baulas National Park, Costa Rica .

The Global Rise of Illegal Sand Mining

2019

California State University Channel Islands

PI: Dr. Kiki Patsch

GIS analysis of environmental and socioeconomic impacts of illegal sand mining across the world. Created a 3D interactive map using ArcPro and ArcGIS Online of all known locations of sand mining. Compiled all information into two Story Maps: The Global Rise of Illegal Sand Mining and Eroding the Future.

Wetland Restoration in New Orleans, Louisiana

2018

California State University Channel Islands

PI: Dr. Sean Anderson

Project in collaboration with California State University Channel Islands, Oregon State University, UCLA, and the Louisiana Woodlands Conservancy. Collected data on invasive species management and wetland health post-Hurricane Katrina. Methods included species identification, percent cover, leaf litter, diameter and height along 100-meter transects throughout the study area.

PUBLISHED COMMENTARY

Bowser, G., Templer, P. H., Ho, S. S., Green, S. A., Hautzinger, S., Zhu-Maguire, I.,

Connaughton, A., Dundon, L., Husic, D., Urban, M. (2023). The fierce urgency of now: integrating the youth voice at COP. *Frontiers in Ecology and the Environment*, 21(4), 164–165. <https://doi.org/10.1002/fee.2627>

PEER REVIEWED PUBLICATIONS

Moravek, J. A., Andruss, M., **Connaughton, A.**, Miller, J., Garrity, M., Kirksey, K., & Fairfax, E. (2025). Using beaver capacity models: the importance of local knowledge. *Restoration Ecology*, e70135.

GRADUATE TEACHING ASSISTANT EXPERIENCE

University of Minnesota

GEOG 1403 : Biogeography of the Global Garden

Fall 2024, Spring 2025, Fall 2025

Colorado State University

NR 322: Introduction to Geographic Information Systems

Spring 2023

ESS 365: Global Environmental Justice

Fall 2022

INVITED SPEAKING

“Beavers, Vegetation, and Scale: the (in)consistency across biomes dissertation proposal” , Saint Anthony Falls Laboratory Tiny Talk, November 2025

“Beavers and Bees” Saint Anthony Falls Laboratory, University of Minnesota, Speaker, October 2025

“The Importance of Youth Engagement in Climate Research”, Climate Leadership Summit, Colorado State University, Panelist, April 2023

“Park Pollinators: Coming to a National Park Near You!” , CSUCI Bee Club, California State University Channel Islands, Speaker, April 2023

“Parks, Pollinators, and Policy”. ESRM Speaker Series, California State University Channel Islands, Speaker, March 2023

“Safeguarding the future, CSU Perspectives on COP27 Global Climate Negotiations”, Colorado State University School of Global Sustainability, Panelist, February 2023

“Propagation workshop”, San Francisco State University Earth Week Series, Lead Workshop Organizer, April 2021

ORGANIZED SESSIONS, PANELS, AND WORKSHOPS

Connaughton, A. and Peterson, K., (2025) “Coffee Hour Special Blend: Brewing Up The Lore Behind Your Research”, Geography Environment and Society Coffee Hour, University of Minnesota, Lead Workshop Organizer

Connaughton, A., Bailey, N., Morales, M., Dominguez-Vasquez, C., Briggs, D., Hardin, A. (2023) “Voices and Visions: The Art and Science of Climate Action, CSU at COP27”, Colorado State University International Symposium, Lead Organizer and Panelist

Connaughton, A., Budnicki, B., Morales, M., Smith, A., (2023) ‘How Citizen Science Can Help You’, Colorado State University Front Range Student Ecology Symposium, Workshop Lead and Panelist

Connaughton, A., Bowser, G., (2023). “Youth Dialogues on The Fifth National Climate Assessment”, National Climate Assessment and Youth Environmental Alliance in Higher Education, Event Organizer and Moderator

Connaughton, A (2022). Voices and Visions: The Art and Science of Climate Action, United Nations Climate Change Conference COP27, Lead Exhibit Designer and Presenter, Sharm el-Sheikh, Egypt, November 2022

Hautzinger, S., Jackson, M., Roe, G., Timberg, C., Zhu-Maguire, I., **Connaughton, A.**, (2022). “Storytelling-Dialogues for Engaging Youth in Higher Ed – Continuing to Talanoa Across COPs”, United Nations Climate Change Conference COP27, Panelist, Sharm el-Sheikh, Egypt

CONFERENCE PRESENTATIONS

Osorio, B., Miller, J., Hirahara, A., Kirksey, K., **Connaughton, A.**, Perez, N., Segnitz, J. and Fairfax, E., (2023). 30-Years of Beaver Damming on Lake Superior's Islands: A Remote Sensing Perspective. In *AGU Fall Meeting Abstracts* (Vol. 2023, pp. H33F-02).

POSTER PRESENTATIONS

Connaughton, A. and Fairfax, E., (2025). Beavers and phenology: A case study in the Kenai National Wildlife Refuge, Alaska, International Beaver Symposium, Inverness, Scotland

Connaughton, A., Bailey, N., (2022). Pollinator Hotshots: Addressing Management Priorities for Understanding Pollinator Status Across Eight Different National Parks, 32nd Annual Meeting of the High Country Lepidopterists, Fort Collins, CO

Connaughton, A., (2020). Virtual Visualization of Common Species on Santa Rosa Island, California State University Channel Islands Sage Student Research Conference, Camarillo, CA

Connaughton, A., Hoberg, A., Orsborn, E., (2020). I See CI, California State University Channel Islands Summer Undergraduate Research Fellowship, Virtual

Connaughton, A., Walker, S., Greene, X., Remedios, E., Alvarado, A., Rodriguez, D., (2019) Analyzing Turtle Nesting Sites in Marino Las Baulas National Park, Costa Rica, California State University Channel Islands ESRM Service Learning Showcase, Camarillo, CA

Rodriguez, D., Alvarado, A., **Connaughton, A.**, (2019). Ecosystem Monitoring in Marino Las Baulas National Park, Costa Rica, California State University Channel Islands Center for Community Engagement Best Practices in Service-Learning Award Ceremony, Camarillo, CA

Connaughton, A., (2018). The Culture of New Orleans, Louisiana, California State University Channel Islands ESRM Service Learning Showcase, Camarillo, CA

MEDIA COVERAGE

PBS News Tipping Point - The Mighty Mississippi, A PBS News Special	2025
PBS Newshour, Why engineers are turning to beavers for insights into managing water resources	2025

PROFESSIONAL EXPERIENCE

After School Abloom Co-Director

August 2023 - May 2024

Riversong Waldorf School, Fort Collins, CO

Co-director for nature based after school program. Main responsibilities include planning after school locations, planning field trips to local natural spaces and developing science lessons for ages six through ten. Ensure safety of all children, manage confidential information, and work with local schools to boost school age engagement in natural spaces in Fort Collins.

EcoPress Editor

May 2023- August 2023

Natural Resource Ecology Laboratory, Colorado State University, Fort Collins, CO

Editor for the Natural Resource Ecology Laboratory EcoPress website and social media channels. Work with students, research associates, post-docs and professors to put out articles and interviews on their research.

Earthwatch Institute Riggs Emerging Scientist Fellow

May 2023 - August 2023

Earthwatch Institute

Fellow for Earthwatch Institute Following Forest Owls Expedition. Fellowship consists of evaluating the Earthwatch community science model, which is having anyone from the general public engage in a week of immersive scientific research. Participated in one week of research on the Western Screech Owl, Elf Owl, Whiskered Screech Owl and Flammulated Owl in the Chiricahua Mountains with Hawkwatch International, Earthwatch, and University of Idaho with a team of six research assistants with no previous research experience. Observed owl banding, participated in tree cavity monitoring, and catching owls using mist nets.

YEAH Lead Fellow

September 2022 - July 2023

Youth Environmental Alliance in Higher Education

Lead graduate student fellow for Youth Environmental Alliance in Higher Education, a network of universities around the world of students involved in United Nations Framework Convention on Climate Change. Organize workshops, events, meetings, and provide instruction on creating position statements for UNFCCC topics to college students. Led a group of students on a project at the US Center for COP27 and working on projects, side panels, and events for COP28.

Graduate Research Assistant

May 2022 - July 2023

Colorado State University, Fort Collins, CO

Graduate Research Assistant for the Bowser/Halliwell lab on a variety of projects including National Park Service Pollinator Inventory, Youth Environmental Alliance in Higher Education, Learning Sustainability and Nature-Based Solutions - Youth Ambassadors for Climate Science on the Road to COP28, Rocky Mountain Sustainability and Science Network, and various other research projects. Lead on lab communications through lab website and lab Twitter.

Pollinator Hotshot Crew Lead

May 2022 - July 2023

National Park Service Inventory and Monitoring Division and Colorado State University, CO

Crew Lead for the National Park Service Pollinator Inventory Project. Lead crews of undergraduate students, National Park Service employees, and interns from various organizations through National Parks to collect data on bees and butterflies. Lead training on how to collect insects, field safety, and on how to use GPS equipment.

External Affairs Intern

June 2021 - May 2022

Inland Empire Utilities Agency Municipal Water District, Chino, CA

Intern for the Inland Empire Utilities Agency's Chino Creek Wetlands and Educational Park. Develop lesson plans and activities for the Water Discovery Program and the Park's virtual programs. Ensure all lessons are in correspondence with NGSS and Common Core standards. Lead tours of the Chino Creek Wetlands and Educational Park and the Carbon Canyon Regional Water Recycling Plant. Provide virtual Water Discovery field trips to local K-12 students. Monitor and create educational posts for the park's social media pages. Oversee community science projects and monitor the park's iNaturalist project. Participate in Water Education Today Project WET Facilitator training and Climate Change in California training.

Interpretive Park Aide

Dec 2021 - April 2022

Chino Hills State Park, California State Parks, Brea, CA

Interpretive Park Aide at Chino Hills State Park. Oversee daily operations of the Visitor Center, interact with visitors, and provide information about the park. Develop and lead virtual and in-person school programs through California State Parks PORTS (Parks Online Resources for Teachers and Students) to K-12 students throughout California. Create lesson plans on biodiversity, environmental surveys, and California history. Ensure all lessons are in correspondence with NGSS and California Common Core standards. Implement and oversee community science projects on Ebird and iNaturalist. Manage park social media pages, create educational videos, and lead community outreach programs.

Disability Accommodations Support Services Administrative Assistant

Jan 2021 - April 2021

California State University Channel Islands, Camarillo, CA

Area head of Note Taking Services, one of the largest accommodations offered by the department, for the Spring 2021 semester. Communicated and worked with outside vendors to provide academic accommodations to college students and ensured vendors were paid. Supervised two student assistants, hired student note takers, and made sure all students in the program are receiving their accommodations.

Disability Accommodations Support Services Student Assistant

Aug 2018 - Dec 2020

California State University Channel Islands, Camarillo, CA

Proctored exams, explained the rules of student integrity and provided technical assistance to students and staff. Assisted professional staff with data management, developed protocols for department procedures and trained new student assistants. Served as lead student assistant for a semester to a team of three student assistants for the Note Taking Department. Led presentations and created outreach materials to promote the department and advocate for students in the program.

Student Undergraduate Research Fellow

June 2020 - July 2020

California State University Channel Islands, Camarillo, CA

Worked with Dr. Emily Fairfax and Dr. Kiki Patsch to produce an interactive, virtual reality tour of Santa Rosa Island with embedded data visualizations and information using GoogleTour and GooglePoly. Developed a guide for the tour showing users where they are geographically and identified safety conditions to be aware of. Created maps using ESRI ArcPro demonstrating points from the tour to locate the users.

Microbiology Research Intern

Feb 2019 - Aug 2019

Southern California Coastal Water Research Project, Costa Mesa, CA

Microbiology Research Intern for the SCCWRP BITE Regional 18 Project in collaboration with Ventura Waters, Ventura Public Health Department and CSU Channel Islands. Processed water samples from local beaches using single layer agar and double-layer agar assays to assess coliphage and fecal contamination. Compiled data to create weekly reports for the SCCWRP BITE Regional 18 large scale report.

AWARDED GRANTS AND RESEARCH SCHOLARSHIPS

Saint Anthony Falls Laboratory Frank and Julie Tsai Travel Award (\$500)	2025
University of Minnesota Department of Geography, Environment, and Society Research Award (\$1500)	2024
University of Minnesota Beverly & Richard Fink First-Year Fellowship Award (\$6000)	2024
Colorado State University Graduate Degree Program in Ecology Travel Grant (\$300)	2022
California State University COAST Research Scholarship (\$457.28)	2020

PROFESSIONAL SOCIETY MEMBERSHIP

American Geophysical Union	2024-present
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SERVICE

Tabling for the Fairfax Beaver Lab at the Minnesota State Fair	2025
Community Outreach Interpretive Talk at the Steele County Fair	2025
Tabling for the Fairfax Beaver Lab at the Carleton Beaverfest	2025
Tabling for the Geography Department at UMN President Rebecca Cunningham's Inauguration	2024

UNIVERSITY INVOLVEMENT

University of Minnesota

Geography Graduate Education and Policy Committee Member	2025- present
Geography Department Coffee Hour Committee Member	2024 - present

Colorado State University

Graduate Degree Program in Ecology Peer Mentor	2023
CSU Front Range Student Ecology Symposium Outreach Committee Member	2022 - 2023

California State University Channel Islands

CSUCI Club Wellness Member	2020
Justice and Equity with an Environmental Lens Cofounder and Vice President	2020
Green Generation Member	2016-2020
Surfrider Foundation of CI Member	2016-2019

UNDERGRADUATE RESEARCH ASSISTANTS SUPERVISED

Pollinator Hotshot Team Research Assistants

Amanda Carlson, Colorado State University (2022-2023)
Chloé Recouvreur, University of Dijon (2022)
Iveta Nikantrovite, University of Derby (2022)
Bella Tamplin, University of Derby (2022)

Rocky Mountain Science and Sustainability Network

Ashley Herick, Moravian University (2023)
Amanda Carlson, Colorado State University (2023)
Kerrigan Cooney, Colorado Mountain College (2023)

VOLUNTEER EXPERIENCE

Ventura County Surfrider Beach Clean Up Volunteer
Chino Hills State Park Education Volunteer

2016-2019
2020-2021