

Kaydee Barker

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Education

University of Manchester

Ph.D. Ecology, Focus on Soil Carbon in Grasslands

Expected Sept. 2026

Manchester, UK

Colorado State University

B.S. Ecosystems Science and Sustainability, Honors, Magna Cum Laude
Minor in Soil Science

May 2022

Fort Collins, CO

3.93 (/4) GPA

Colorado Mountain College

Nurse Aid Certificate (CNA), A.A. Business

May 2012

Steamboat Springs, CO

Focus and Interests:

Climate Change Adaptation & Mitigation

Soil-Plant-Microbial Interactions

Biogeochemical Cycles

Languages:

English (Native)

Spanish (Conversational/Intermediate-Advanced)

French (Basic/Beginner)

Employment

The University of Manchester: Department of Earth and Environmental Sciences. Postgraduate Teaching Assistant.

Assisting in a field course for Geoscience, Ecology, Atmospheric Science, and Sustainability in Tenerife.

(Manchester, UK, Mar. 2023 – Apr. 2023)

The University of Manchester: Soil & Ecosystem Ecology Lab. Postgraduate (PhD) Researcher.

Developing and carrying out research focusing on the contributions of plant-fungal interactions to soil carbon sequestration.

(Manchester, UK, Sept. 2022 – Present)

Wave3 Studio. Co-Owner.

Writing and editing content, building websites, managing data, and offering technical and administrative support.

(Fort Collins, CO, Jan. 2014 – Sept. 2022)

Colorado State University: Cotrufo Soil Innovation Lab. Undergraduate Researcher.

Developing and carrying out research, analyzing samples, statistical analysis, writing grants, reports, and manuscripts.

(Fort Collins, CO, Sept. 2019 – May 2022)

Colorado State University: Soil & Crop. Undergraduate Researcher.

Developing and carrying out a specialty crop experiment to discern effects of a biostimulant on plant and soil health, soil sample processing in regenerative and conventional agriculture sites.

(Fort Collins, CO, May 2021 – May 2022)

Colorado State University: NREL/ USGS Western Mountain Initiative (WMI). Research Assistant/Lab Technician.

Assisting with sample collection and management, SiO₂ and Chlorophyll A analysis, putting together trail counters.

(Fort Collins, CO, Mar. 2020 – Apr. 2021)

Colorado State University: Warner College. Teacher Assistant for Internship & Career Prep Course.

Grading assignments, offering support and feedback to students. Connecting students with opportunities.

(Fort Collins, CO, Jan. 2021 – Mar. 2021)

Colorado State University: USDA NIFA REEU Fellow.

Professional development, developing a research project, building a database, analyzing samples, statistical analysis.

(Fort Collins, CO, May 2020 – Aug. 2020)

Colorado State University: HDNR: Internship Program. Student Support and Teaching Assistant.

Grading, creating visualizations of intern experiences and data, translating internship agreement into Spanish.

(Fort Collins, CO, Aug. 2019 – May 2020)

Colorado State University: College of Agricultural Sciences. Student Ambassador.

Accompanying visiting experts from Serbia to view water management facilities and practices in Larimer County, CO.
(Fort Collins, CO, Aug. 2019)

Casey's Pond Senior Living. Care Provider (CNA, QMAP) and Activities Coordinator.

Helping elders with activities of daily living, medications, restorative programs, and meaningful social activities.
(Steamboat Springs, CO, Oct. 2013 – Mar. 2015)

Yampa Valley Medical Center. Care Provider (CNA).

Helping elders with activities of daily living and restorative programs, participating in care plans for residents.
(Steamboat Springs, CO, Apr. 2012 – Oct. 2013)

Euzoa Bible Church. Children's Program Director.

Creating and teaching lessons and programs, managing inventory and resources, recruiting and managing volunteers.
(Steamboat Springs, CO, Aug. 2011 – Oct. 2012)

Self/Contractor, The Mac Ranch. Media Specialist and Apple Product Professional.

Teaching computer and Apple product classes, one-on-one tutoring, data input and management, video editing, marketing.
(Steamboat Springs, CO, Aug. 2009 – Apr. 2012)

Research Projects

From genes to groups: a review of the processes affecting the evolution of common mycorrhizal networks and the scales on which they operate. Collaborator.

Literature review, writing.
(Manchester, UK, Nov. 2022 – Present)

SymbiOtic soLutions for HEalthy Agricultural Landscapes (SOIL-HEAL). Collaborator.

Literature review, collaboration with the SOIL-HEAL working group, experiment design.
(Manchester, UK, Nov. 2022 – Present)

Soil functionality in grasslands response to drought and plant community biodiversity. Collaborator.

Enzyme and biomarker analysis.
(Manchester, UK, Oct. 2022 – Present)

The contributions of arbuscular mycorrhizal fungal and associated root necromass to short and long-term soil carbon sequestration. Lead.

Literature review, biomarker analysis, experiment design.
(Manchester, UK, Sept. 2022 – Present)

Linking photosynthetic pathways to soil carbon and nitrogen in grasslands. Student Researcher/Lead.

Literature review, database design, collaboration with a global network of scientists, sample analysis, and statistical data analysis on the effect of photosynthetic pathways on the stoichiometry of soil organic matter fractions.
(Fort Collins, CO, Sept. 2020 – Present)

Evaluation of a biostimulant to enhance pepper production through improved soil health. Student Researcher.

Planting, field management, experiment development, sample and measurement collection, soil processing, microbial biomass and qPCR analysis, statistical data analysis.
(Fort Collins, CO, May 2021 – May 2022)

Effects of mycorrhizal symbionts on disease response in hybrid poplars. NSF REU Student Researcher/Co-Lead.

Literature review, design and implementation of an experiment on the impact of different mycorrhizal symbionts on response to fungal disease, writing Honors Thesis manuscript.
(Fort Collins, CO, Sept. 2019 – May 2022)

Nutrient additions reduce soil carbon persistence and storage per unit of nitrogen in globally-distributed grasslands. Student Researcher/Contributor.

Soil fractionation, statistical data analysis, contribution to manuscript.
(Fort Collins, CO, Jul. 2020 – Nov. 2021)

Linking soil health, plant health, and coffee cup quality on smallholder farms in Guatemala. Researcher.

Leaf, fruit, and soil sample collection and preparation, protocol writing, database building, statistical data analysis.
(Yepocapa, Chimaltenango, Guatemala, Dec. 2020 – May 2021)

Review of carbon inputs to soil across cropland, grassland, and forest ecosystems. Student Researcher.

Literature review, tabulation of above and belowground carbon input data for use in a chapter written by Dr. M. Francesca Cotrufo and Dr. Jocelyn M. Lavalley about soil organic matter formation in the new edition of *Advances in Agronomy*.
(Fort Collins, CO, Mar. 2021 – May 2021)

Design and collaborative implementation of pollinator habitat on the Colorado Front Range. Communication Lead.

Literature review, habitat design, volunteer coordination, leading a team, communication with community stakeholders, development of community education resources.
(Fort Collins, CO, Jan. 2021 – Apr. 2021)

Plant quality controls on soil carbon in mineral-associated and particulate organic matter fractions across grassland ecosystems. REEU Student Researcher.

Design of a project complementary to research on the effects of nutrient additions to grassland soil fertility under changing conditions, database building, soil fractionation, statistical data analysis.
(Fort Collins, CO, May – Aug. 2020)

An ethnoecological approach to studying soil fertility, plant nutrition, and farm profitability within small plot coffee farming systems of San Pedro Yepocapa, Guatemala. Research Assistant.

Human subjects research (IRB) training, translation and data management of survey and focus group results.
(Yepocapa, Chimaltenango, Guatemala, Feb. 2019 – Dec. 2019)

Funding Procurement

Barker, K. (Sept., 2020). Changes at the root: How do mycorrhizal fungi modify root traits key to stable soil organic matter formation? *Submitted to the Francis Clark Soil Biology Scholarship at Colorado State University. Funded: \$1253.*

Publications

Barker, K. S., Johnson, D., Bardgett, R. D., Robinson, C. H. Review of factors affecting the accumulation of arbuscular mycorrhizal fungi and associated root necromass. Manuscript in preparation.

Birt, H.W.G., Allen, L.P., **Barker, K.S.,** Peterson, E.L., Voller, F., Johnson, D. From Genes to Groups: A Review of the Processes Affecting the Evolution of Common Mycorrhizal Networks and the Scales on which they Operate. Manuscript in preparation.

Barker, K. S., Rocci, K.S., NutNet Scientists, Cotrufo, M. F. Linking photosynthetic pathways to soil carbon storage in grassland ecosystems. Manuscript in preparation.

Barker, K. S., Avera, B. N., Cotrufo, M. F. Fungal friends and foes: Effects of mycorrhizal inoculation on disease response in hybrid poplars. Manuscript in preparation.

Rocci, K. S., **Barker, K. S.,** Seabloom, E. W., Borer, E. T., Hobbie, S. E., Bakker, J. D., MacDougall, A. S., McCulley, R. L., Moore, J. L., Raynaud, X., Stevens, C. J., Cotrufo, M. F. (2022) Impacts of nutrient addition on soil carbon and nitrogen stoichiometry and stability in globally-distributed grasslands. *Biogeochemistry*.
<https://doi.org/10.1007/s10533-022-00932-w>

Project Reports

Contributed to: NSFDEB-NERC: Mycorrhizal drivers of soil organic matter formation and decomposition, Award 1743237, Fourth Annual Project Report. (Sept., 2021).

Contributed to: NSFDEB-NERC: Mycorrhizal drivers of soil organic matter formation and decomposition, Award 1743237, Third Annual Project Report. (Sept., 2020).

Conference Presentations

Barker, K., Avera, B., Cotrufo, M. F. (2022) Fungal friends and foes: Effects of mycorrhizal inoculation on disease response in hybrid poplars. Poster presented at the Front Range Student Ecology Symposium, 24 Feb. Best Undergraduate Poster Award.

Barker, K., Rocci, K., NutNet Scientists, Cotrufo, M. F. (2021) Linking photosynthetic pathways to soil carbon storage in grasslands. Poster B25B-1442 presented at 2021 Fall Meeting, AGU, 14 Dec.

Rocci, K., Lavalley, J. M., Stewart, C. E., **Barker, K.**, Seabloom, E. W., Borer, E. T., MacDougall, A. S., McCulley, R. L., Raynaud, X., Stevens, C., Osborne, B. B., NutNet Scientists, Cotrufo, M. F. (2021) Soil organic carbon response to global environmental change is informed by mineral-associated and particulate organic matter. Abstract B32D-06 presented at 2021 Fall Meeting, AGU, 15 Dec.

***Barker, K.**, Genuise, J., Ijaz, A., Sanford, C., Bowser, G., Green, S., Klein, J., Templar, P., Oshota, O. D., Urban, M. (2021) Catalyzing communities of future leaders: collaboration, research, and action for a better world. Panel side event presentation at UN Climate Change Conference 2021 (COP 26), 3 Nov.

*Madeline Allen, **Barker, K.**, Doktycz, C., Green, S., Ramsey, A. (2021). Voices of Optimism: The Youth Environmental Alliance in Higher Education. Panel press conference at UN Climate Change Conference 2021 (COP 26), 3 Nov.

Barker, K., Rocci, K., NutNet Scientists, Cotrufo, M. F. (2021) Soil carbon and nitrogen response to C3 and C4 plant abundances in globally distributed grasslands. Invited speaker at Gulf Coast Undergraduate Research Symposium, 16 Oct. Outstanding Presentation in Ecology and Evolutionary Biology Award.

Barker, K., Rocci, K., NutNet Scientists, Cotrufo, M. F. (2021) Plant characteristic controls on carbon in soil organic matter fractions across grassland ecosystems. Abstract presented at CSU CURC Conference, 22-26 Apr.

***Barker, K.**, Howlett, L., Jacobs, J., Reynolds, W., Uri, A. (2021) Design and Collaborative Implementation of a Pollinator Habitat on a Colorado Front Range Farm. Poster presented at CSU CURC Conference, 22-26 Apr. 2nd Place, Best Poster.

***Barker, K.**, Howlett, L., Jacobs, J., Reynolds, W., Uri, A. (2021) Design and Collaborative Implementation of a Pollinator Habitat on a Colorado Front Range Farm. Abstract presented at YEAH Conference, 21 Apr.

Barker, K., Rocci, K., NutNet Scientists, Cotrufo, M. F. (2020) Plant quality controls on carbon in soil organic matter fractions across grassland ecosystems. Abstract B104-07 presented at 2020 Fall Meeting, AGU, 1-17 Dec.

*Co-presented with other authors or panelists.

Additional Event Presentations

Barker, K. (2022) Fungal friends and foes: Effects of mycorrhizal inoculation on disease response in hybrid poplars. Honors Thesis Presentation, Colorado State University, 14 Apr.

***Barker, K.**, Genuise, J., Sanford, C., Twyman, M. (2022) CSU Students as Agents of Change: Perspectives on COP26, Climate Change, and the Future. Invited speaker for School of Global Environmental Sustainability (SoGES) Panel, 27 Jan.

***Barker, K.**, Barton, A., Berzaghi, F., Bowser, G., Swei, A. (2022) COP26 Debrief. Invited speaker for Ecological Society of America (ESA) Panel, 27 Jan.

***Barker, K.**, Genuise, J., Sanford, C., Twyman, M. (2021) COP26 and Climate Action. Invited speaker at Shining Mountain Waldorf School, 13 Dec.

***Barker, K.**, Machmuller, M. (2021) Evaluation of a biostimulant to enhance pepper production through improved soil health. Invited speaker at Specialty Crops Program Open House, CSU Agricultural Research, Development, and Education Center, 1 Sept.

***Barker, K.**, Machmuller, M. (2021) Evaluation of a biostimulant to enhance pepper production through improved soil health. Invited speaker at Tear Down the Wall Research Group, CSU Agricultural Research, Development, and Education Center, 17 Aug.

Barker, K., Rocci, K., NutNet Scientists, Cotrufo, M. F. (2021), Plant characteristic controls on soil carbon. Invited speaker at Soup & Science Seminar, Colorado State University Natural Resource Ecology Laboratory, 26 Mar.

Barker, K., Rocci, K., NutNet Scientists, Cotrufo, M. F. (2020), Plant quality controls on soil carbon across grassland ecosystems. Poster presented at USDA NIFA REEU Fellowship Conclusion, 29 Jul.

*Co-presented with other authors or panelists.

Professional Recognition

Fellowships

UKRI Biotechnology & Biological Sci. Research Council Doctoral Training Partnership (BBSRC DTP) Studentship (2022)

NSF Graduate Research Fellowship Program Honorable Mention (2022)

Youth Environmental Alliance in Higher Education (YEAH) Fellowship (2021)

USDA Ntl. Institute of Food & Ag. Research & Extension Experience for Undergraduates (NIFA REEU) Fellowship (2020)

Scholarships & Awards

ESS Eldor Paul Outstanding Senior Award (2022)

Best Undergraduate Poster Presentation at the Front Range Student Ecology Symposium (2022)

Outstanding Presentation in Ecology and Evolutionary Biology at Gulf Coast Undergraduate Research Symposium (2021)

Barry Goldwater National Scholarship (2021)

John Fetcher Upper Yampa Water Conservancy District Scholarship (2021-22)

Warner College of Natural Resources Undergraduate Research Award (2021)

The Philip A. Connolly Memorial Scholarship (2021)

Osher Re-Entry Award (2021)

2nd Place Service-Learning Poster at Celebrate Undergraduate Research and Creativity Conference (2021)

Francis Clark Soil Biology Scholarship (2020)

Jim and Nadine Henry Student Alumni Connection Scholarship (2020)

Osher Re-Entry Award (2020)

Honors

Honors Scholar in Ecosystems Science and Sustainability (2020 – 2022)

Xi Sigma Pi Natural Resources Honors Society (2021 – 2022)

Tau Sigma Transfer Student Honors Society (2020 – 2022)

Sigma Alpha Lambda Honors Society (2020 – 2022)

Warner College of Natural Resources Dean's List (2020 – 2022)

News Coverage

Giordano, J. (2022). Outstanding Grad: Kaydee Barker, Warner College of Natural Resources. [web] *SOURCE – News from CSU*. <https://warnercnr.source.colostate.edu/outstanding-grad-kaydee-barker-warner-college-of-natural-resources/>

Giordano, J. (2022). Outstanding Grads: Spring 2022. [web] *SOURCE – News from CSU*. <https://source.colostate.edu/colorado-state-university-graduation-spring-2022/>

Giordano, J. (2022). Profiles in Courage: Members of the class of 2022 describe difficulties that molded them. [web] *SOURCE – News from CSU*. <https://source.colostate.edu/profiles-in-courage-members-of-the-class-of-2022-describe-difficulties-that-molded-them/#1651782170250-cf32b48a-02dd>

Giordano, J. (2022). CSU students named NSF Graduate Research Fellows. [web] *SOURCE – News from CSU*. <https://source.colostate.edu/csu-students-named-nsf-graduate-research-fellows/>

Martinez, N. (2022) Celebrating recipients of the WCNR All College Awards 2021-2022. [web] *SOURCE – News from CSU*. <https://warnercnr.source.colostate.edu/celebrating-recipients-of-the-wcnr-all-college-awards-2021-2022/>

Charlton, C. (2021) 'Action leads to optimism': CSU students return from COP26 inspired to make change. [web] *NREL EcoPress*. <https://www.nrel.colostate.edu/action-leads-to-optimism-csu-students-return-from-cop26-inspired-to-make-change/>

Sybrandy, H. (2021). Students and youth activists frustrated, optimistic after COP26 closing. [TV/video] *CGTN America*. <https://america.cgtn.com/2021/11/15/students-and-youth-activists-frustrated-optimistic-after-cop26-closing>

Romig, S. (2021). Youth express mix of optimism, frustration at UN Climate Change Conference. [web/print] *Steamboat Pilot & Today*. <https://www.steamboatpilot.com/news/youth-express-mix-of-optimism-frustration-at-un-climate-change-conference/>

Bergum, S. (2021). Interview with Kaydee Barker at UN COP26 Conference on 5pm News. [TV] *9News*.

- 9News (2021). Colorado students speak at world climate conference in Scotland. [TV/video] *Next 9News*.
<https://www.9news.com/video/news/local/next/colorado-students-speak-at-world-climate-conference-in-scotland/73-8ad50a72-8a63-4d9b-a1b7-baa93c39c415>
- Brasch, S. (2021). College students from Colorado speak their minds at global climate conference. [radio/audio] *Colorado Public Radio: Colorado Matters*. <https://www.cpr.org/show-segment/college-students-from-colorado-speak-their-minds-at-global-climate-conference/>
- Finley, B. (2021). Colorado students combat climate warming, join UN COP26 summit in Scotland. [web] *The Denver Post*. <https://www.denverpost.com/2021/11/03/colorado-students-climate-summit-warming-cop26/>
- Albrecht, A. (2021). Upper Yampa Water Conservancy District Announces 2021-2022 John Fetcher Scholarship Recipients. [web] *SOURCE – News from CSU*. <https://engagement.source.colostate.edu/upper-yampa-water-conservancy-district-announces-2021-2022-john-fetcher-scholarship-recipients/>
- Giordano, J. (2021). Two CSU undergraduates named 2021 Goldwater Scholars. [web] *SOURCE – News from CSU*. <https://source.colostate.edu/two-csu-undergraduates-named-2021-goldwater-scholars/>

Research Skills Acquired

Project Development and Work with Data

Literature review
Writing protocols
Creating research budgets
Writing research grant proposals
Collecting data from publications (incl. extraction from figures) and public databases
Building databases
Interpreting qualitative survey data
Ecosystem modeling in STELLA and Simile
Agricultural greenhouse gas accounting in COMET Farm
Data analysis with R Studio (inc. Markdown & Git), JMP, MATLAB, Excel, and ArcGIS

Lab Skills and Techniques

Instruments: autoclave, spectrophotometer, fluorometer, root scanner, light microscopes
Preparing growth media and fertilizers for plants and fungi
Growing ectomycorrhizal fungal species on plates and in liquid culture
Testing and adjusting solution pH
Plant fungal pathogen identification
Staining roots and assessing fungal association through a microscope
Scanning roots and analyzing morphology with Winrhizo software
Physically separating soils into particulate organic matter and mineral-associated organic matter fractions
Sieving soils at 8mm and 2mm thresholds
Soil texture analysis via hydrometer or feel
Water silica and chlorophyll measurement
Streaking and isolating soil bacteria on petri dishes
Weighing out samples for analysis
Soil incubation gas sampling and CO₂ measurement on an infrared gas analyzer
DNA extraction, qPCR analysis of soil samples
Extraction of lignin oxidases with L-3,4-dihydroxyphenylalanine (DOPA) substrate
Organic, inorganic, and total soil nitrogen measurement
Amino sugars measurement via gas chromatography (GC)
Phospholipid fatty acids (PLFA) and neutral lipid fatty acids (NLFA) measurement via gas chromatography (GC)

Field and Greenhouse Techniques

Conducting surveys and group discussions
Plant care/drip irrigation/experiment setup
Building field measurement equipment (trail counters, atmospheric nitrogen deposition funnels)
Assembly of Arduino sensor board, coding Arduino
Tree breast height diameter measurement
Plant height, stem diameter measurement
Dissolved organic carbon collection via lysimeter
Soil core sampling
Fruit, whole plant, and root harvest
Pedology analysis in field (texture by feel, color, structure, classification etc.)

Soil CO₂ respiration measurement with an infrared gas analyzer
Soil temperature, moisture, and pH measurement

Communication

Collaboration with international research teams
Participation in paper discussions and lab group meetings
Writing and editing abstracts, an honors thesis, project reports, and manuscripts
Poster presentations, oral presentations, and panel presentations
Public communication via podcast, blog, and social media
Interviews with news and media

Professional Certifications and Trainings

Winter Technical Mountain Skills Training (2023)
Compressed Gases Safety UK (2022)
United Nations Development Program (UNDP) Introduction to Ecological Restoration (2022)
Gene Expression University: RT-qPCR by Bio-Rad Academy (2022)
Project Learning Tree “Explore Your Environment” K-8 Certificate (2022)
Bystander Intervention Training (2021)
Viewshed Analysis, Regression Analysis in ESRI ArcGIS Pro (2020, 2021)
Green Infrastructure Planning in ESRI ArcGIS Online (2020)
Collaborative Institutional Training Initiative (CITI) Human Research IRB Certification (2019)
Professional Association of Diving Instructors (PADI) Advanced Open Water Diver (2018)
Pilates Mat I Instructor Certification (2016 – 2020, renewed every 2 years)
Wilderness First Responder (WFR) Certification (2014)
Qualified Medication Administration Person (QMAP) Certification (2013)
Certified Eden Associate (2013)
Certified Nurse Assistant (CNA) (2011 – 2021, renewed every 2 years)
Wilderness First Aid (WFA) Certification (2011)
CPR for Healthcare Providers Certification (2011 – 2015, renewed every 2 years)
Applied Suicide Intervention Skills Training (ASIST) (2009)

University Service/ Leadership

The University of Manchester Organizations

R Users Group – Member (2023 – Present)
International Society – Member (2022 – Present)

The University of Manchester Volunteer Projects

ScienceX Event – Engaging children and parents to learn about soil ecology at the Manchester Central Library (Oct. 2022)

Colorado State University Student Organizations

Strategies for Ecology Education, Diversity and Sustainability (SEEDS) – Vice President (2021-22), Member (2019-21)
Society of Women Environmental Professionals (SWEP) – Vice President (2021-22), Presentation Coordinator (2020-21)
Xi Sigma Pi Natural Resources Honor Society – Officer (2021-22), Member (2021)
Additionally, member of these organizations: *Society for Ecological Restoration (SER)*, *The Wildlife Society*, *Zero Waste Team*, *Minorities in Agriculture, Natural Resources and Related Sciences (MANRRS)*

Colorado State University Volunteer Projects

YEAH Network – Fellow, creating resources, moderating conferences, presenting talks (Jul. 2021 – May 2022)
Environmental Learning Center (ELC) – Garden and trail work (2019 – 2021)
CSU Growing Food Security Project – Harvesting specialty crops for food banks and community initiatives (Jul.-Oct. 2021)
Shepherdson Elementary School – Engaging students and parents to learn more about wildlife (2019, 2021)
Colorado Wolf Debate – Directing a student-led scientific communication project (2019-2020)
Front Range Student Ecology Symposium – Directing visitors (2020)
SER/Boulder County Parks and Open Space – Collecting native plant seeds (2019)

Community Volunteer Service and Outreach

Ecological Society of America (ESA) – Council Representative, Applied Ecology Section (Jan. 2022 – Present)
Livable Future Podcast – Co-Creator, Creative Director (Feb. 2021 – Present)
Del Fuego Project – Volunteer Researcher (San Pedro Yepocapa, Guatemala/Remote, Oct. 2020 – Present)
Pravasana, Inc. – Co-Founder, Vice President (Clark, CO, Jan. 2015 – Present)
Letters to a Pre-Scientist – STEM Pen Pal (Aug. 2021 – May 2022)
Goldwater Diversity & Inclusion Committee – Scholar Mentor (Apr. 2021 – Ar. 2022)
500 Women Scientists and SACNAS – Volunteer Wikipedia Editor (Remote, Jul. 2020)
United Way of Larimer County – Community Volunteer (Fort Collins, CO, Oct. 2019 – Jul. 2022)
Wildlands Restoration Volunteers – Volunteer, Crew Leader (Mar. 2021 – Aug. 2021)
Friends of the Yampa – Yampa River Cleanup Volunteer (Steamboat Springs, CO, Aug. 2018)
El Colegio Berea – Volunteer Physical Education and English Teacher (Yepocapa, Guatemala, Jan. – Mar. 2017)
Reaching Everyone Preventing Suicide – Community Volunteer (Steamboat Springs, CO, Jan. 2009 – Oct. 2014)
Steamboat Mental Health/Mind Springs Health – Student Volunteer (Steamboat Springs, CO, May 2008 – May 2009)

Professional Development Activities, Seminars, and Conferences

Virtual ongoing seminars: MicroSeminar, International Forum on Advanced Env. Sci. & Tech. (iFAST)
 Department of Earth & Environmental Science Seminar Series
 Manchester, UK, ongoing
 Ecological Society of America (ESA) & Canadian Society for Ecology & Evolution (CSEE) Joint Meeting – Co-organizer
 for Special Session titled “Ecologists’ perspective at COP26: conference take-aways, nature-based solutions, and
 where are we now?”
 Montreal, CA, August 15, 2022
 5th Global Youth Environmental Alliance in Higher Education (YEAH) Conference – Moderator for Closing Plenary Panel
 Virtual, April 21, 2022
 Front Range Student Ecology Symposium
 Fort Collins, CO, USA, February 23-24, 2022
 American Geophysical Union (AGU) Fall Meeting
 Virtual/Hybrid, December 13-17, 2021
 4th Global Youth Environmental Alliance in Higher Education (YEAH) Conference: Summit on COP26 – Moderator for
 Opening Plenary Panel
 Virtual, December 1, 2021
 UN COP26 Climate Conference
 Glasgow, UK, October 31-November 12, 2021
 Gulf Coast Undergraduate Research Symposium (GCURS) at Rice University
 Houston, TX, October 15-16, 2021
 Soup & Science Seminar Series by Natural Resource Ecology Laboratory (NREL) at Colorado State University (CSU)
 Fort Collins, CO/Virtual, Fall 2019- Spring 2021
 Youth Environmental Alliance in Higher Education (YEAH) 3rd Annual Conference – Moderator for Closing Plenary
 Virtual, April 21, 2021
 ESS Seminar Series by the Department of Ecosystems Science and Sustainability at Colorado State University (CSU)
 Fort Collins, CO/Virtual, January 26-April 6, 2021
 American Geophysical Union (AGU) Fall Meeting
 Virtual, December 7-17, 2020
 USDA NIFA REEU Fellowship Professional Development Activities
 Virtual, June 8-July 29, 2020

Professional Memberships

Ecological Society of America (ESA)
 American Geophysical Union (AGU)
 Society for Ecological Restoration (SER)