Dawson Fairbanks, PhD
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Education

University of Arizona (UA)	Soil, Water and Environmental Science Minor in Natural Resources Co-advised: Rachel Gallery and Virginia Rich Committee: Craig Rasmussen and Jon Chorover	PhD	December 2021
Northern Arizona University (NAU)	Biological Sciences Minor in Chemistry	BS	2012

Appointments

2021- Postdoctoral Researcher — University of Arizona, Tucson, AZ
Advised: Rachel Gallery
Lead PI DOE CSP New Investigator Award: Determining seasonal trait based microbial responses to moisture pulse events in the Jemez River Basin Critical Zone.

Skills

Programming, Version Control and Software (Novice/Intermediate/Advanced): R (Intermediate/Advanced), Github (Intermediate/Advanced), Python (Novice/Intermediate), Bash commands (Intermediate), DADA2 (Intermediate/Advanced), CyVerse (Intermediate/Advanced), Excel (Advanced), Adobe Illustrator (Intermediate/Advanced)

Sampling and Analysis: Soil, Water, and Vegetation, GPS, Developed Deep Drilling Rock Core Sample Handling Protocols for Microbial Analysis (SCM-JRB Critical Zone Observatory Deep Drilling Project).

Laboratory Methods: DNA extraction protocols, qPCR, PCR amplification, Chloroform Fumigation Biomass Assays, GC Chromatography, Fluorometric Enzyme Assays, Calorimetric Nutrient Protocols, Picarro Cavity Ring Down Spectrometer, Acetylene Nitrogen Reduction Assays, Stable Isotope Probing, Soil Organic Matter Fractionation, Soil Processing and Sample Collection, Greenhouse Experimental Design and Breakdown, Root Biomass Collection, Mycorrhizal Fungal Identification and Abundance, FISH Nano-SIMS

Certifications: CPR, Wilderness First Aid, Chainsaw and Crosscut Faller Class A equivalent (200 saw hours), Bear Safety Training, Outdoor Survival Training, Navigation Training, Back Road Vehicle Training

Field Experience: Extensive experience in backcountry environments hiking, kayaking, snowshoeing, boating and some climbing experience.

Publications

Nagy, R. C., Balch, J. K., Bissell, E. K., Cattau, M. E., Glenn, N. F., Halpern, B. S., ... & Zhu, K. (2021). Harnessing the NEON data revolution to advance open environmental science with a diverse and data-capable community. **Ecosphere**, *12*(12) https://doi.org/10.1002/ecs2.3833

Qin, Clara, Ryan Bartelme, Anny Chung, **Dawson Fairbanks**, Yang Lin, Daniel Liptzin, Chance Muscarella, Kusum Naithani, Kabir Peay, Peter Pellitier, Ayanna St. Rose, Lee Stanish, Zoey Werbin, Kai Zhu. (2021). From DNA sequences to microbial ecology: Wrangling NEON soil microbe data with the neonMicrobe R package. **Ecosphere,** *12*(11) https://doi.org/10.1002/ecs2.3842

Fairbanks, Dawson, Christopher Shepard, Margretta Murphy, Jon Chorover, Virginia Rich and Rachel Gallery (2020). Depth and topographic controls on extracellular enzyme activity post-wildfire at the Jemez River Basin Critical Zone Observatory. **Soil Biology and Biochemistry** 148:107844 doi.org/10.1016/j.soilbio.2020.107844

Dove, Nicholas, Keshav Arogyaswamy, Sharon Billings, Jon K. Bothoff, Chelsea J. Carey, Caitlin Cisco, Jared L. DeForest, **Dawson Fairbanks**, Noah Fierer, Rachel Gallery, Jason P. Kaye, Kathleen A. Lohse, Mia R. Maltz, Emilio Mayora, Jennifer Pett-Ridge, Wendy H. Yang, Stephen C. Hart, Emma L. Aronson (2020). Continental-scale patterns of extracellular enzyme activity in the subsoil: an overlooked reservoir of microbial activity. **Environmental Research Letters** 15:1040a1 doi.org/10.1088/1748-9326/abb0b3

Brewer, Tess, Emma L. Aronson, Keshav Arogyaswamy, Sharon A. Billings, Jon K. Botthoff, Ashley N. Campbell, Nicholas C. Dove, **Dawson Fairbanks**, Rachel E. Gallery, Stephen C. Hart, Jason Kaye, Gary King, Geoffrey Logan, Kathleen A. Lohse, Mia R. Maltz, Emilio Mayorga, Caitlin O'Neill, Sarah M. Owens, Aaron Packman, Jennifer Pett-Ridge, Alain F. Plante, Daniel D. Richter, Whendee L. Silver, Wendy H. Yang, Noah Fierer (2019). Ecological and genomic attributes of novel bacterial taxa that thrive in subsurface soil horizons. **mBio** 10(5): 1-14 doi: 10.1128/mBio.01318-19

Dijkstra, Paul, Elena Salpas, **Dawson Fairbanks,** Erin Miller, Shannon B. Hagerty, Kees Jan van Groenigen, Bruce A. Hungate, Jane C. Marks, George Koch and Egbert Schwartz (2015). High carbon use efficiency in soil microbial communities is related to balanced growth, not storage compound synthesis. **Soil Biology and Biochemistry** 89:35-43 doi:10.1016/j.soilbio.2015.06.021

Manuscripts in Preparation

Fairbanks, Dawson, Chance Muscarella, Craig Rasmussen, Jon Chorover, Virginia Rich and Rachel Gallery. Trade-offs in microbial functional traits drive nitrogen flux during snowmelt in a high-elevation mixed conifer forest catchment. Target Journal Soil Biology & Biochemistry. Anticipated submission Jan 2023.

Fairbanks, Dawson, Chance Muscarella, Jon Chorover, Virginia Rich and Rachel Gallery. Metagenomic insights into soil nutrient cycling in a high elevation forested ecosystem. Target journal TBD. Anticipated submission March 2023.

Fairbanks, Dawson, Chance Muscarella, Jon Chorover, Virginia Rich and Rachel Gallery. Time since fire disturbance results in shifts in subsurface soils revealing loss of deep soil carbon and snowmelt driven weathering as ecosystem recovers. Target journal TBD. Anticipated submission Feb 2023.

Awarded Grants:

Years	Project	Sponsor	Award ($)	Title
Competitive Funding Awards (involving written proposals):				
2021	"Determining seasonal trait based microbial responses to moisture pulse events in the Jemez River Basin Critical Zone"	DOE CSP New Investigator Award	MetaG sequencing costs	PI
2020-22	"Ecological Metagenome-derived Reference Genomes and Traits (EMERGENT)."	NSF LTER Synthesis Network	$ 109,990	Participant

2019-21	"From Science to Conservation: Career Paths in Environmental Sustainability."	UA/NASA Space Grant	$ 32,000	PI
2016	"Linking genomes to biogeochemistry in the deep subsurface Critical Zone."	NSF Students Across Virtual Institutes (SAVI) Travel Award	$ 5,535	PI
2014-2016	"The fate of black carbon in forest soils: Linking microbial community structure to turnover rates."	NSF Graduate Research Fellowship Program	$ 34,000/yr	PI
2012	"Tamarisk soil legacy effects on native plant mycorrhizal colonization: a potential mechanism of exotic plant invasion."	Hooper Undergraduate Research Awards, NAU	$ 3,500	PI

Scholarships and Awards

2019	1st Place UA Earth Week Poster Award	UA EarthWeek	$ 100
2017	Geobiology Institution Travel Award	Agouron Institute	$ 2,000
2016	Department Travel Award	UA Dept. of Environmental Sci.	$ 300
2016	UA Carson Science Communication Scholarship	Biosphere 2	$ 5,000
2014	Graduate Fellowship	UA Access	$ 10,000
2014	Sloan Indigenous Graduate Partnership Fellowship	Alfred P. Sloan Foundation	$ 36,000
2014	Graduate Professional Student Council (GPSC) Travel Award	GPSC	$ 300

Research and Professional Training Experience

Sept 2014 – Dec 2021	**Catalina-Jemez Critical Zone Observatory Network,** *Graduate Research Assistant*, The University of Arizona, Tucson, AZ, Co-advised: Drs. Rachel Gallery and Virginia Rich
July 7 - 21, 2018	**International Critical Zone Summer Field Course,** *Student Participant* Gran Paradiso, Italy
June 8 - July 21, 2017	**International Geobiology Course,** *Student Participant*, Caltech and the USC Wrigley Institute, Pasadena and Catalina Island, CA
June 8 - 12, 2014	**Summer Soil Institute,** *Student Participant*, Colorado State University, Fort Collins, CO
Jan 2012 - July 2013	**Center for Ecosystem Science and Society,** *Undergraduate Research Assistant*, Northern Arizona University, Flagstaff, AZ Advised: Dr. Paul Dijkstra
Aug 2011 - Jul 2013	**Department of Biological Sciences**, *Undergraduate Research Assistant*, Northern Arizona University, Flagstaff, AZ, Advised: Dr. Catherine Gehring
May - Aug 2011	**USDA Forest Service,** *Biological Science Technician,* Wrangell, AK

Teaching

Lecture Experience

Aug - Dec 2019	**GEOG 304: Water, Environment and Society,** University of Arizona *Primary Instructor*
Dec 2018	**Rx-310: Introduction to Fire Effects Course,** University of Arizona *Co-Instructor,* Other Instructors: Donald Falk, Ann Lynch, Jay Gatlin, Carrie Dennett, Perry Grisom
Aug - Dec 2018	**ENVS 170A: Introduction to Environmental Science,** University of Arizona, *Instructional Manager,* Primary Instructor: Jacqueline Maximillian

Computational Informatics Teaching Experience

Nov 7 - 8, 2020	**CyVerse Data Carpentry Workshop in R and Github**, *Instructor*

May 30 - 31, 2019 **CyVerse Data Carpentry Genomics Workshop**, *Helper*
Feb 23 - 24, 2019 **CyVerse Data Carpentry Automating Tasks in Shell and Python Workshop**, *Instructor*
Oct 27 - 29, 2018 **CyVerse Data Carpentry Workshop in R and Github,** *Helper*

Undergraduate Mentorship

- Chance M. Muscarella, (2017-2019), Currently PhD Student, Department of Environmental Science, University of Aberdeen advised by Ashish Malik
- Kathleen Bernard, (2018-2019), Currently PhD Student, Microbiology Department, Ohio State University
- Marci Caballero-Reynolds, (2017-2018), BS School of Natural Resources and the Environment (2020), Currently Restoration Specialist, USGS
- Katlyn Green, (2016), B.S. Soil, Water and Environmental Science (2016), University of Arizona
- Margretta Murphy, (2014-2015), Master's Student (2015), University of Arizona, Currently working in the Chemical and Laboratory Safety Division, University of Arizona

Service and Outreach

Local/State Service and Outreach

- **Outreach Organizer,** (2020), UA/NASA Space Grant partnership with UA Flandrau Science Center delivering Spring Science Café Series, "From Science to Stewardship: Earth Science in Action"
- **Speaker,** (2020), UA College of Science "Science Café" series, "Putting Microbes to Work: Managing the Unseen World"
- **Career Panelist,** (2018), Women in in Science, Engineering & Technology (WISE), "Expanding Your Horizons Conference"
- **Judge,** (2017), Tucson Magnet High School Science Fair Judge
- **Invited Speaker**, (2017), Tucson Magnet High School, "Careers in Environmental Science"
- **Workshop Leader,** (periodically 2014, 2015, 2016, 2017, 2018), Women in Science, Engineering & Technology (WISE), "Expanding your Horizons Conference"
- **Curriculum Coordinator,** (Spring and Fall Semester 2016), Critical Zone Discovery Program, University of Arizona
- **Invited Speaker**, (2016), UA College of Science "Science Café" Fall 2016 Series, "Life after the Burn: How microbes help forests recover"
- **Award Judge,** (2014- Present) Graduate Professional Student Council (GPSC), University of Arizona
- **Graduate Student Representative**, (2014-2015), Department of Soil, Water and Environmental Science, University of Arizona
- **Volunteer,** (2014), UA- iSTEM Project, University of Arizona
- **Curriculum Developer** (2016), GALS Program, University of Arizona
- **Faculty Search Graduate Committee Coordinator**, (2016), Department of Soil, Water and Environmental Science, University of Arizona
- **Americorps Service Volunteer**, (2013), Coconino Rural Environment Corps, Flagstaff, Arizona (1700 hours volunteer work conducting ecological restoration in the southwestern United States)

National/International Service

Organization of Sessions and Symposia at National and International Scientific Meetings

- **Lead Convener,** "Session: Microbes in Terrestrial Biogeochemical Cycles: Linking Processes to Ecosystem Function and Environmental Change I, II, III" American Geophysical Union **(AGU)** Fall Meeting, Chicago, IL (December 2022)
- **Co-Convener,** "Session: Microbes in Terrestrial Biogeochemical Cycles: Linking Processes to Ecosystem Function and Environmental Change I, II" American Geophysical Union **(AGU)** Fall Meeting, New Orleans, LA (December 2021)
- **Co-Convener,** "Session: Microbes in Terrestrial Biogeochemical Cycles: Linking Processes to Ecosystem Function and Environmental Change I, II" American Geophysical Union **(AGU)** Fall Meeting, San Francisco, CA (December 2020)
- **Co-Convener,** "Session: Controls, Dynamics and Responses of Deep-Soil Carbon to Land Use and Climate Change." American Geophysical Union **(AGU)** Fall Meeting, San Francisco, CA (December 2019)
- **Co-Convener,** "Session: Microbes in Terrestrial Biogeochemical Cycles: Linking Processes to Ecosystem Function and Environmental Change I, II." American Geophysical Union **(AGU)** Fall Meeting, San Francisco, CA (December 2019)
- **Lead Convener***,* "Session: Microbial Controls of Biogeochemical Cycling I, II." American Geophysical Union **(AGU)** Fall Meeting, Washington D.C. (December 2018)
- **Co-Convener***,* "Session: Microbial Controls of Biogeochemical Cycling I, II." American Geophysical Union **(AGU)** Fall Meeting, New Orleans, LA. (December 2017)
- **Co- Convener***,* "Session: Microbial Controls of Biogeochemical Cycling I, II." American Geophysical Union **(AGU)** Fall Meeting, San Francisco, CA. (December 2016)

Invited Participant/Speaker in Technical Workshops

**Virtual attendance due to COVID-19*

- **Invited Participant,** NSF LTER Synthesis Working Group "EMERGENT Data Management, harmonization and workflows workshop", National Center for Ecological Analysis and Synthesis **(NCEAS),** Online**,** (December 7, 2020) *
- **Participant,** CyVerse "Foundational Open Science Skills (FOSS) workshop", CyVerse, University of Arizona, Tucson, AZ (March 17-21, 2020)
- **Invited Participant,** 4th pre-AGU International CZO workshop, NSF "International Critical Zone Observatory Network Workshop", San Francisco, CA (Dec 9, 2019)
- **Invited Participant**, "NEON Science Summit", NEON headquarters, CU Boulder, CO (Oct 15-17 2019)
- **Invited Participant,** EarthCube Data Science Workshop, NSF Critical Zone Observatory (**CZO**), "Critical Zone Integrative Microbial Ecology Activity (CZIMEA) Toolkit Workshop", UC Riverside, CA (April 3-5, 2019)
- **Invited Participant,** 4th pre-AGU International CZO workshop, NSF (**CZO**), "Building an International Network of Critical Zone Observatories", Washington, D.C. (Dec 9, 2018)
- **Invited Speaker,** NSF Critical Zone Observatory (**CZO**) All- Hands Meeting, "Microbial Biogeochemistry in the Catalina-Jemez Critical Zone Observatory Network", NSF Headquarters, Arlington, VA (July 12, 2017)
- **Participan**t, Joint Genome Institute (JGI), "Metagenomic Institute Training", **JGI** Headquarters, Walnut Creek, CA (2016)
- **Invited Participant**, NSF Science Across Virtual Institutes (**SAVI**), **Critical Zone Observatory (CZO) Network Biogeochemistry Workshop,** UC Riverside, CA (Sept 28-29, 2015)
- **Invited Participant**, **NSF Critical Zone Observatory (CZO) All- Hands Meeting**, Yosemite N.P and UC Merced, CA (November 16-17, 2014)

Technical Working Group Membership and Data Synthesis Efforts

2021 - Present **National Ecological Observatory Network (NEON) Microbial Technical Working Group,** *Worked with NEON data science team to establish best practices for 30-year efforts in collecting continental scale microbial data sets.*

2020 - Present **Ecological and Metagenome-derived Reference Genomes and Traits (EMERGENT) NSF (LTER) Synthesis Group,** *Collaborated with international group of scientists to establish common bioinformatic workflows and synthesize network data collected in order to build data tools and resources to advance metagenomic research.*

2019 - 2020 **NEON microbe technical working group** *Co-developed neonMicrobe R package to analyze microbial data developed by NEON for use in synthesis and large-scale ecological analyses.*

2015 - Present **Critical Zone Integrative Microbial Ecology (CZIMEA) X-CZO synthesis group**, *Developed cross-continental research project with network of CZOs resulting in two independent scientific research publications and insight into soil microbial subsurface interactions.*

Peer reviewer for Journals

PloS One, Functional Ecology, Nature Ecology and Evolution, Ecosphere, Soil Biology & Biochemistry, Geoderma

Conference Proceedings

*****denotes presenter, __ denotes mentee

2022 **Dawson Fairbanks,** Chance Muscarella, Jon Chorover, Virginia Rich, Rachel Gallery. Biogeochemical consequences of snowmelt and seasonally-driven microbial trade-offs in an alpine forest. AGU Fall Meeting. December 2022, Chicago, IL.

2022 **Dawson Fairbanks,** Chance Muscarella, Jon Chorover, Virginia Rich, Rachel Gallery. Seasonal controls on microbial nutrient cycling in a high-elevation mixed conifer forest in the western United States. August 2022, Lausanne, Switzerland.

2022 **Dawson Fairbanks,** Chance Muscarella, Jon Chorover, Virginia Rich, Rachel Gallery. Microbial and soil biogeochemical responses to snowmelt in deeper soil layers. AGU Fall Meeting. December 2021, New Orleans, LA.

2021 **Dawson Fairbanks,** Chance Muscarella, Jon Chorover, Virginia Rich, Rachel Gallery. Snowmelt and seasonality influence trade-offs of microbial functional traits in forest soils. **Invited Speaker.** Ecological Society of America. August 2021

2019 **Dawson Fairbanks***, Shipherd Reed. "From Science to Conservation: Using Community Outreach and Video Storytelling to Explore Career Paths in Environmental Sustainability," IGNITE e-poster presentation at AGU. December 2019, San Francisco, CA.

2019 Chance Muscarella*, **Dawson Fairbanks**, Rachel Gallery, Virginia Rich, Jon Chorover. Poster Presentation at the Soil Ecological Society Meeting. June 2019, Columbus Ohio.

2018 **Dawson Fairbanks*,** Chance Muscarella, Jon Chorover, Rachel Gallery, Virginia Rich. Temperature sensitivities of soil enzymes in a high elevation mixed conifer forest. Oral Presentation at the American Geophysical Union Fall Meeting. December 2018, Washington D.C.

2017 **Dawson Fairbanks*,** Alex Phillips, Michael B. Wells, Bao Rui, Katherine M. Fullerton, Geobiology 2017, Alex Sessions, Blake Stamps, Hope Johnson, Daan Speth, Laurence Miller. "Microbial ecology of soda lakes: investigating sulfur and nitrogen cycling in Mono Lake, CA, USA". Poster Presentation at AGU. December 2017, New Orleans, LA.

2017 **Dawson Fairbanks*,** Christopher Shepard, Jon Chorover, Craig Rasmussen, Rachel Gallery, Virginia Rich. Landscape position controls on soil microbial activity at the Jemez River Basin Critical Zone Observatory. Invited Oral Presentation. CZO All-Hands Meeting. Arlington, VA. NSF HQ.

2017 **Dawson Fairbanks*,** Chance Muscarella, Marci Caballero-Reynolds, Jon Chorover, Rachel Gallery, Virginia Rich. Assessing seasonal, aspect, and spatial dynamics of microbial community composition and function in response to pulse precipitation inputs in two adjacent, high-alpine catchments in northern New Mexico. Oral Presentation at SWESx. Tucson, AZ.

2016 Moravec, Bryan*, Alissa White, Ben Paras, Andres Sanches, **Dawson Fairbanks**, Jennifer McIntosh, Jon Pelletier, Rachel Gallery, Craig Rasmussen, Jon Chorover. Coring the deep Critical Zone in the Jemez River Basin Critical Zone Observatory, Valles Caldera National Preserve, Northern New Mexico. Oral Presentation at the American Geophysical Union Fall Meeting. San Francisco, CA.

2016 **Fairbanks Dawson*,** Chelsea Cook, Jon Chorover, Virginia Rich, Rachel Gallery. Microbial community recovery post-fire in a high elevation mixed conifer catchment in response to varied precipitation regime. Poster presentation at the American Geophysical Union Fall meeting. San Francisco, CA

2016 **Fairbanks Dawson*,** Christopher Shepard, Margretta Murphy, Craig Rasmussen, Jon Chorover, Virginia Rich, Rachel Gallery. Microbial biogeochemistry at the Jemez River Basin Critical Zone Observatory. Oral presentation at the Aqua Diva CZO. Jena, Germany.

2016 **Fairbanks, Dawson*** Christopher Shepard, Margretta Murphy, Craig Rasmussen, Jon Chorover, Virginia Rich, Rachel Gallery. Microbial ecology at the Jemez River Basin CZO. Oral presentation at SWESx. Tucson, Arizona.

2015 **Fairbanks, Dawson***, Katlyn Green, Margretta Murphy, Christopher Shepard, Jon Chorover, Rachel Gallery, Virginia Rich. Effects of redox fluctuations on microbial community ecology post-wildfire in a high elevation mixed-conifer catchment in northern New Mexico. Poster Presentation at the American Geophysical Union. San Francisco, CA

2015 Gallery, Rachel*, **Dawson Fairbanks**, Virginia Rich, Margretta Murphy, Rebecca Lybrand, Nicole Trahan, David Moore. Microbial ecology in the high elevation, mixed conifer critical zone. Oral Presentation at the Ecological Society of America. Baltimore, MD

2015 **Fairbanks, Dawson***, Margretta Murphy, Gayle Frost, Christopher Shepard, Craig Rasmussen, Jon Chorover, Virginia Rich, and Rachel Gallery. Topographic Controls On Soil Microbial Enzyme Activity Post-Fire in the Jemez River Basin Critical Zone Observatory. Poster Presentation at the Soil Ecology Society Biannual Meeting. Colorado Springs, CO.

2015 **Fairbanks, Dawson***, Margretta Murphy, Gayle Frost, Christopher Shepard, Craig Rasmussen, Jon Chorover, Virginia Rich, and Rachel Gallery. Measuring and Modeling Soil Microbial Enzyme Activity Post-Fire in the Jemez River Basin Critical Zone Observatory. Poster Presentation at SWESx. Tucson, AZ

2014 Gallery, Rachel*, Emily Dynes, **Dawson Fairbanks**, Nicole Trahan, David J.P. Moore. Short- and long-term responses of soil microbe communities to fire and mountain pine beetle disturbance. Poster Presentation at the Critical Zone Observatory All-Hands Meeting. September 21-24, Yosemite N.P., CA.

2014 **Fairbanks, Dawson***, Margretta Murphy, Gayle Frost, Jon Chorover, Virginia Rich, and Rachel Gallery. Impact of fire, landscape position and soil depth on extracellular enzyme activities at the Jemez River Basin Critical Zone Observatory. Poster presentation at the American Geophysical Union (AGU), December 14-19, San Francisco, CA

2013 **Fairbanks, Dawson**, Erin Miller, Elena Salpas, Shannon Hagerty, Bruce Hungate, Jane Marks, George Koch, Egbert Schwartz, Scott Thomas, Brian Hedlund and Paul Dijkstra*. Measuring and

modeling activities of central carbon metabolic processes using position-specific ^{13}C-labeled metabolic tracers in soil and hot spring microbial communities. Poster presentation at the China-US Collaborative Research Symposium on Life in Terrestrial Geothermal Springs, June 26-28 in Kunming, China.

2013 **Fairbanks, Dawson***, Ashley Craig, Catherine Ghering. Alterations in soil microbial communities in Tamarisk impacted soil: effects on growth and competition between exotic Russian olive and native Fremont Cottonwoods. Poster presentation at Northern Arizona University Undergraduate Research Symposium, Flagstaff, Arizona.

2012 Dijkstra, Paul*, Kes-Jan van Groenigen, Shannon Hagerty, Elena Salpas, **Dawson Fairbanks**, Bruce Hungate, George Koch, Egbert Schwartz. Metabolic Flux Analysis of Microbial Communities in Soils, Litter, and Hot Spring Sediments. Oral Presentation at the 4th Annual Argonne Soil Metagenomics Meeting, Chicago, Illinois.

2012 Dijkstra, Paul*, Kees-Jan van Groenigen, Shannon Hagerty, Elena Salpas, **Dawson Fairbanks,** Bruce Hungate, George Koch, and Egbert Schwartz. Measuring and modeling C flux rates through the central carbon metabolic pathways in microbial communities using position-specific ^{13}C-labeled tracers. Oral presentation at the American Geophysical Union December Meeting, San Francisco, California.

2012 **Fairbanks, Dawson***, Bruce Hungate, George Koch, Egbert Schwartz, Scott Thomas, Brian Hedlund, and Paul Dijkstra. Measuring and modeling activities of the central carbon metabolic pathways using position-specific ^{13}C-labeled glucose in soil and hot spring microbial communities. Poster presentation at the American Geophysical Union December Meeting, San Francisco, California.

Other Professional Experience

2013 **Americorps Corpsmember**, Coconino Rural Environment Corps, Flagstaff, Arizona

2012 **Retail Associate**, Four Seasons Gear Outlet, Flagstaff, Arizona

2011 **Biological Science Technician (GS-4 Temporary Position)**, USDA Forest Service, Anan Bear Observatory, Wrangell, Alaska

2010 **Information Receptionist (GS-3 Temporary Position)**, USDA Forest Service, Wrangell Ranger District, Wrangell, Alaska

2010 **Sea Kayak and River Guide**, Alaska Vistas Outdoor Adventure Service, Wrangell, Alaska

2007-2009 **Laborer**, Sea Level Seafood, Wrangell, Alaska