

KRISTINA E. YOUNG, PhD

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EDUCATION and TRAINING

2023-present	Research Associate (post-doc) USDA-ARS Jornada Experimental Range, Las Cruces, NM
2022-2023	Adjunct Assistant Professor Wildland Resources Utah State University, Logan, UT
2021-2022	Extension Assistant Professor Utah State University Extension, Moab, UT
2017-2021	Ph.D., Ecology & Evolutionary Biology University of Texas at El Paso, El Paso, TX Graduate Research Assistant, Advisor: Anthony Darrouzet-Nardi
2017-2015	M.S., Forestry Department Northern Arizona University, Flagstaff, AZ Graduate Research Assistant, Advisor: Matthew Bowker
2006-2010	B.A., Biological Sciences, Botany University of Montana, Missoula, MT Minor in Wildland Restoration, Advisor: Ragan Callaway

PROFESSIONAL EXPERIENCE

2017-2022	Science Moab Engagement Initiative Founder & Director of a science engagement nonprofit (sciencemoab.org)
2017-2019	Grand Canyon Trust, Utah Forest Program Wyss Scholar, Supervisor: Mary O'Brien
2011-2014	U.S. Geological Survey, Southwest Biological Science Center Biological Science Technician, Supervisor: Erika Geiger
2010-2011	National Park Service, Sonoran Desert Inventory & Monitoring Network Biological Science Technician
2009	National Park Service, Grand Canyon Vegetation Department AmeriCorps Vegetation Intern

PUBLICATIONS

Summary: 13 publications (6 as lead author) Google Scholar: >330 total citations, h-index = 11, i10-index = 11

Published

- 13 **Young, K.E.**, Osborne, B., Phillips, M., Winkler D. Restoration research actions to address rapid change in drylands: insights from the Colorado Plateau. Restoration Ecology. Special Issue: Young voices and visions for the UN Decade of Restoration. doi.org/10.1111/rec.13855
- 12 Osborne, B., Bestelmeyer, B., Currier, C., Homyak, P., Throop, H., **Young, K.E.**, Reed, S.C. 2022. The consequences of climate change for dryland biogeochemistry. *New Phytologist*. doi.org/10.1111/nph.18312
- 11 Weber, B., Belnap, J., Burkhard, B., Barger, N., Chaudhary, V., Darrouzet-Nardi, A., Eldrige, D., Faist, A., Ferrenberg, S., Havrilla, C., Huber-Sannwald, E., Oumarou, M., Maestre, F., Reed, S., Rodriguez-Caballero, E., Tucker, C., **Young, K.E.**, Yuanming, Z., Yunge, Z., Xiaobing, Z. 2022. What is a biocrust? A refined, contemporary definition for a broadening research community. *Biological Reviews*. doi: 10.1111/brv.12862

- 10 **Young, K.E.**, Ferrenberg, S., Reibold, R. Reed, S.C., Swenson, T. Northen, T. Darrouzet-Nardi, A. 2021. Vertical movement of soluble carbon and nutrients from biocrusts to subsurface mineral soils. *Geoderma*. doi.org/10.1016/j.geoderma.2021.115495
- 9 **Young, K.E.**, Reed, S.C., Ferrenberg, S., Faist, A., Winkler, D. Cort, C., Darrouzet-Nardi, A. 2020. Incorporating Biogeochemistry into Dryland Restoration. *BioScience*. doi.org/10.1093/biosci/biab043
- 8 Antoninka, A., Faist, A., Rodriguez-Caballero, E., **Young, K.E.**, Chaudhary, V.B., Condon, L.A., Pyke, D.A. 2020. Biological soil crusts in ecological restoration: emerging research and perspectives. *Restoration Ecology*. doi.org/10.1111/rec.13201
- 7 **Young, K.E.**, Bowker M.A., Reed, S.C., Duniway, M., Belnap, J. 2019. Temporal and abiotic fluctuations may be preventing successful rehabilitation of soil-stabilizing biocrust communities. *Ecological Applications*. doi:10.1002/eap.1908
- 6 Rudgers, J.A., Dettweiler-Robinson, E., Belnap J., Green, L.E., Sinsabaugh, R.L., **Young, K.E.**, Cort, C.E., Darrouzet-Nardi, A. 2018. Are fungal networks key to dryland primary production? *American Journal of Botany*. doi.org/10.1002/ajb2.1184
- 5 Winkler, D.E., Backer, D.M., Belnap, J., Bradford, J.B., Butterfield, B.J., Copeland, S.M., Duniway, M.C., Faist, A.M., Fick, S.E., Jensen, S.L., Kramer, A.T., Mann, R., Massatti, R.T., McCormick, M.L., Munson, S.M., Parr, S.D., Pfennigwerth, A.A., Pilmanis, A.M., Richardson, B.A., Samuel, E., See, K., **Young, K.E.**, Reed, S.C. 2018. Beyond traditional ecological restoration on the Colorado Plateau. *Restoration Ecology*. doi.org/10.1111/rec.12876
- 4 Wertin, T., **Young, K.E.**, Reed, S.C. 2018. Spatially explicit patterns in a dryland soil respiration and their relationships with climate, whole plant photosynthesis, fine root biomass, and soil carbon and nitrogen pools. *Oikos*. doi.org/10.1111/oik.04935
- 3 Hoover, D., Wilcox, K., **Young, K.E.** 2018. Are experimental trends and rainfall variability influencing our understanding of ecological sensitivity to drought? *Ecosphere*. doi.org/10.1002/ecs2.2088
- 2 **Young, K.E.**, Reed, S.C. 2017. Spectrally monitoring the biocrust moss *Syntrichia caninervis* response to altered precipitation regimes. *Scientific Reports*. doi.org/10.1038/srep41793
- 1 **Young, K.E.**, Grover, H.S., Bowker, M.A. 2016. Altering Biocrusts for an Altered Climate. *New Phytologist*. doi.org/10.1111/nph.13910

In review

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In preparation

- **Young, K.E.**, Reed, S.C., Tucker, C., Starbuck, M., Sala, O., Darrouzet-Nardi, A. *In preparation*. Precipitation-pulse size increases gross primary production in biocrust regardless of total amount. (*manuscript available upon request*)
- Bowker, M.A., Chaudhary, V.B., Antoninka, A., **Young, K.E.**, Ferrenberg, S., Tucker, C., Maestre, F. T., Rodriguez-Caballero, E., Barger, N., Belnap, J., Darrouzet-Nardi, A., Eldridge, D. Faist, A., Havrilla, C.A., Huber-Sannwald E., Issa, O.M., Reed, S.C., Weber, B., Zhao, Y., Zhang, Y., Zhou, X., Duniway, M.D., Miller, M.E., Van Scoyoc, M.W.V., Gaitan, J.J., Oliva, G., Massara, V., Cariac, G. *In preparation*. Biocrusts are the most influential soil surface stabilizing force in drylands. (*manuscript available upon request*)
- **Young, K.E.**, Reed, S.C., Morton, M., Bowker, M.A. *In preparation*. Edaphic conditions exert multiple controls over the structure of biocrust communities and their ecosystem functions. (*manuscript available upon request*)

TECHNICAL PUBLICATIONS

- 2022 **Young, K.E.**, Dohrenwend, K., McEttrick, M., Grover, H. Controlling Soil Erosion After Wildfire and Guiding Recovery. Utah State University Extension

- 2017 **Young, K.E.**, Bowker, M.A. Field Guide to Biological Soil Crusts of Bandelier National Monument, NM

POPULAR PRESS

ARTICLES AUTHORED

- 2019 **Young, K.E.** John Wesley Powell First Descended the Grand Canyon 150 Years Ago, Here's How It's Changed Since. Science Column, Forbes.com (forbes.com/sites/kristinayoung1)
- 2019 **Young, K.E.** What The UN Report On Biodiversity Loss Means For The World's Driest Places. Science Column, Forbes.com (forbes.com/sites/kristinayoung1)
- 2019 **Young, K.E.** Desert Grasslands Are Changing, But Is The Change All Bad? Science Column, Forbes.com (forbes.com/sites/kristinayoung1)
- 2019 **Young, K.E.** Land Restoration Should Outpace Degradation By One Third In The World's Drylands. Science Column, Forbes.com (forbes.com/sites/kristinayoung1)
- 2019 **Young, K.E.** Public Lands In The West Are Getting Dustier. Science Column, Forbes.com (forbes.com/sites/kristinayoung1)
- 2018 **Young, K.E.** Reconciling with a Drier Desert. Feature. *The Dust Magazine*
- 2018 **Young, K.E.** This Shutdown is Hurting Good Science. Commentary. *High Country News* (reprinted in *Mother Jones*)
- 2018 **Young, K.E.** Defunding science for the Colorado River has consequences. Commentary. *Salt Lake Tribune* (reprinted in the *Moab Times Independent*)
- 2017 **Young, K.E.** #MySciComm Series: Kristina Young on SciComm and founding the Science Moab radio show. *Ecological Society of America Science Communication Blog*
- 2016 **Young, K.E.**, Antoninka, A., Chuckran P.F, Grover, H.S., Doherty, K.D., Bowker, M.A. Restoring the Living Skin of the Earth: Biocrusts in Dryland Restoration. *Society for Ecological Restoration Newsletter*. 30, 3

SELECTED PRINT, RADIO INTERVIEWS

- 2023 **Article**, Moab Sun News, "[Science Moab puts down roots](#)", by Maggie McGuire. March 30
- 2022 **Article**, REI Uncommon Path, "[Camping In the Desert? Don't Bust the Crust.](#)" by Ula Chrobak. December 4
- 2022 **Article**, Engineers & Scientists Acting Locally, "[Science Moab: Building knowledge and community through local science](#)", by Robin Mays. November 24
- 2022 **Film interview**, Moab Area Travel Council, "Biological soil crust," by Findley Holiday
- 2022 **Article**, Wagner Skis, "[How to Save Spring Snow](#)", by Kimberly Beekman. October 6
- 2022 **Article**, Science Magazine, "[Climate change is killing off soil organisms critical for some of Earth's ecosystems](#)", by Elizabeth Pennisi. April 11
- 2022 **Radio interview**, Utah Public Radio. "[Biological soil crusts in Canyonlands National Park are affected by a warming climate](#)", by Caroline Long. May 11
- 2021 **Live interview**, "Morning Show" KSL Radio. Interview about post-fire landscapes. Aug 19th
- 2021 **Article**, Moab Sun News, "[Local scientist and nonprofit founder takes on new community role](#)", by Rachel Fixsen. Aug 30
- 2019 **Article**, High Country News, "[The desert gets a biocrust skin graft](#)", by Krista Langlois. April 9
- 2016 **Article**, Flagstaff Business News, "[Boosting Biocrust](#)", by Bonnie Stevens. November 15
- 2016 **Article**, Sierra, "[Restoring Arid Lands](#)", by Katie Mast. March 15

TEACHING EXPERIENCE

University Courses

- 2023 **Co-Instructor**, Course: Colorado Plateau: Desert Canyons and Cultures. EVS 395. Wild Rockies Field Institute, University of Montana. Number of students: 5

- 2023 **Guest Lecturer**, Course: Restoration Ecology. ENV 430. Stevenson University. Number of students: 13
- 2022 **Co-Instructor**, Course: Wild Rockies: Conservation Across Boundaries. NRSM 311. Wild Rockies Field Institute, University of Montana. Number of students: 11
- 2022 **Guest Lecturer**, Course: Restoration Ecology. WILD 4700. Utah State University. Number of students: 24
- 2019 **Guest Lecturer**, Course: Plant Ecology. BIOL 1103. University of Texas at El Paso. Number of students: 22
- 2016 **Guest Lecturer**, Course: Soil Ecology. FOR 507. Northern Arizona University. Number of students: 17

Curriculum Development

- 2021 **Co-Creator**, Science Moab Engagement Initiative, day-long curriculum to teach ecology, biocrust, geology, and communication principles to outdoor recreation guides
- 2018 **Co-Creator**, Canyonlands Research Center & U.S. Geological Survey, of a 2-day course on biological soil crust ecology for high school students.

Professional/Public Instruction

- 2021 **Instructor**, Science Moab, biological soil crust module for Science Certified outdoor recreation guide training.
- 2019 **Co-Instructor**, Bureau of Land Management, biological soil crust workshop, a 3-day workshop for BLM employees to learn about biocrust ecology and management.
- 2018 **Instructor**, Natural History Museum of Utah, a course on biological soil crust for K-12 teachers who teach in biological disciplines.
- 2017 **Co-Instructor**, Bureau of Land Management, biological soil crust workshop, a 3-day workshop for BLM employees to learn about biocrust ecology and management.
- 2015 **Instructor**, Natural History Museum of Utah, a course on biological soil crust for K-12 teachers who teach in biological disciplines.
- 2011 **Instructor**, USGS, "Biological Soil Crust 101", a course covering the biology, ecology, and taxonomy of biological soil crusts to USGS co-works, supervisors, post-Doctorates, and Bureau of Land Management employees.
- 2009 **Co-Instructor**, Student Conservation Association Alternative Spring Break Program, instructed college students on dryland restoration techniques.

MENTORSHIP

- 2022-2023 **Primary Mentor**. Chase Gunnell. EcoRestore Database Assistant (USU WILD)
- 2022-2023 **Primary Mentor**. Juliet Mathey. Outreach Programming Assistant (AmeriCorps VISTA)
- 2022-2023 **Primary Mentor**. Bradley Lawson. Ecological Restoration Intern (USU Extension Intern)
- 2022-2023 **Primary Mentor**. Luke William. Development Assistant (AmeriCorps VISTA)
- 2021-2022 **Primary Mentor**. Sophia Fisher. Outreach Programming Assistant (AmeriCorps VISTA)
- 2019 **Co-Mentor**. Meghan Starbuck. Technician (primary mentor: Dr. Sasha Reed, USGS)

GRANTS and FELLOWSHIPS

Summary: 14 Total grants as PI or Co-PI; Research grants: 5, Outreach grants: 9

- 2022-2024 **Bureau of Land Management Plant Conservation and Restoration Management Program (PCRP)**. \$66,677.34. Pollinator Habitat Improvement through Outreach, Education and Improved Seed Mixes. PI: Mindy Wheeler. Subaward: \$7,000
- 2022-2024 **Renewable Resource Extension Act**. \$50,000. EcoRestore: Online Portal and Community of Practice for ecological restoration for Southwest rangelands and forests. PI: Elise Gornish. Subaward: \$22,296.38

- 2022-2025 **Joint Fire Science Program.** \$500,000. New tools for fire management using ecological site groups, monitoring data, and machine learning. PI: Michael Duniway. Subaward: \$93,078.06
- 2022-2023 **Western Integrated Pest Management (IPM) Center.** \$30,000. EcoRestore: Creating an online portal of state-specific IPM information for Arizona & Utah. PI: Elise Gornish. Subaward: \$10,810.12
- 2021-2022 **Alfred P. Sloan Foundation.** \$7,000. A grant for the *Science on Screen*® program that enables participating organizations to host live community events that pair scientists with popular movies.
- 2021-2022 **Bjorkman Foundation.** \$4,000. A grant to develop the School to Science program, connecting Grand County High School students with scientists for job training opportunities.
- 2021-2022 **Society for Science.** \$5,000. STEM Action Grant, a grant to feature and monetarily compensate Indigenous scientists and knowledge-holders to appear on the Science Moab radio show.
- 2021-2022 **American Society for Cell Biology.** \$57,000. Public Engagement Grant, a grant for the Science Certification program that gives outdoor recreation guides trainings in place-based science.
- 2021-2022 **City of Moab.** \$2000. Community Contributions, a grant for educational materials.
- 2020-2021 **Alfred P. Sloan Foundation.** \$8,5000. A grant for the Science on Screen® program that enables participating organizations to host live community events that pair scientists with popular movies.
- 2020-2023 **Community Foundation of Utah's Social Investors Forum.** \$35,000. A grant to develop the School to Science program, connecting Grand County High School students with scientists for job training opportunities.
- 2020-2021 **Grand County Economic Development Grant.** \$2,000. A grant to develop the Science Certification program to help diversify tourist offerings in Grand County, UT.
- 2020-2021 **Bjorkman Foundation.** \$3,000. A grant to develop the School to Science program, connecting Grand County High School students with scientists for job training opportunities.

AWARDS and HONORS

- 2022 **Young Rangeland Professional of the Year, Utah Society for Range Management.** An award in recognition of my contribution to rangeland health and ecology.
- 2022 **ESA Opportunity Fund.** \$600. An award to support involvement with the Ecological Society of America based on commitment to DEI initiatives.
- 2020 **COMPASS Scientist Sentinel,** a nine-month program to support emerging leaders at the intersection of science, communication, and policy
- 2019 **BYU Redd Center for Western Studies Public Programming Award.** \$1,500. An award for increasing science access on the Colorado Plateau through the radio show Science Moab.
- 2018 **BYU Redd Center for Western Studies Public Programming Award.** \$2,000. An award for increasing science access on the Colorado Plateau through the radio show Science Moab.
- 2018 **Society of Ecological Restoration Southwest Chapter Student Registration Scholarship.** \$100. A scholarship to attend the 2018 SER SW meeting.
- 2018 **BLM UT Youth Program Award.** \$300. An award from the Utah Bureau of Land Management to attend the Colorado Plateau Native Plant Program meeting.
- 2017 **Wally Covington Travel Award.** \$800. A travel award from the Northern Arizona University School of Forestry.
- 2016 **Wyss Scholar. Conservation Leaders in the American West.** \$48,000. An academic scholarship for future conservation leaders.
- 2016 **Kay and Irene Hafen Scholarship.** \$1,500. An academic scholarship from the Northern Arizona University School of Forestry.
- 2012 **Star Award.** \$300. For outstanding work in the Department of Interior.
- 2011 **AmeriCorps Education Award.** \$1,000. For service with AmeriCorps.

- 2006 **Cal Murphy Academic Merit Scholarship.** \$1,000. Received from the University of Montana for academic achievement.
- 2006 **Davidson Honors College**, chosen for academic excellence

WORKING GROUPS

- 2021-present **Post-Fire Recovery Working Group**
 Leader: Kristina Young, USU
 Membership: 12 members from academic institutions, non-profits, state & federal agencies
- 2016-present **Completing the Dryland Puzzle**
 Leaders: Matthew Bowker, NAU, Jayne Belnap, USGS, Nicole Barger CU Boulder, Anita Antoninka, NAU
 Membership: 12 members from global academic and government institutions

MEETINGS & SESSIONS ORGANIZED

- 2022 **Co-Organizer** - Canyon Country Working Group. "RADical Restoration: Learning from Successes & Failures". Moab, UT
- 2019 **Co-Organizer** - Canyon Country Working Group. Inaugural regional meeting for >60 land managers, non-profits, and academics engaged in ecological restoration in SE Utah. Moab, UT
- 2018 **Co-Organizer & Moderator** - Ecological Society of America INSPIRE Session, "Over The Top Or Over-Reaction? The Science And Management Of Extreme Events In Dry Systems". New Orleans, LA
- 2016 **Lead Organizer & Moderator** - Ecological Society of America IGNITE Session, "The Heartbeat of Drylands: Broad scale changes to a pulse dynamic system". Fort Lauderdale, FL
- 2015 **Co-Organizer** - Biennial Conference of Science and Management on the Colorado Plateau and Southwest Region, Biological Soil Crust Special Session. Flagstaff, AZ

INVITED CONFERENCE TALKS

- 2022 **Biennial Conference of Science & Management on the Colorado Plateau and Southwest Region.** Flagstaff, AZ, USA. "What Makes Biocrust Happy? Examining abiotic conditions that lead to carbon uptake and biomass accumulation".
- 2022 **Ecological Society of America Annual Meeting.** Montreal, Canada. "Variability as the rule: Restoring Highly Variable Landscapes".
- 2021 **Ecological Society of America Annual Meeting.** Virtual. "Using biogeochemical insights to restore drylands now and into the future".
- 2018 **Ecological Society of America Annual Meeting.** New Orleans, LA, USA. "The trouble with putting it back together: Research gaps in dryland restoration".

CONTRIBUTED PRESENTATIONS

Oral (Presenter: 13, Co-Author: 12, Undergraduate/Technician Mentee†: 1, Total: 25)

- 2023 **National Native Seeds Conference.** Washington, D.C. EcoRestore Portal: Providing stakeholders with native plant species lists to improve restoration outcomes. Presenter: Kristina Young
- 2023 **Society for Range Management.** Boise, ID. Understanding practitioner weed management practices and needs in Arizona and Utah. Presenter: Kristina Young

- 2022 **Ecological Society of America**. Montreal, Canada. Providing place-based science education and communication tools to outdoor recreation guides can increase guide's perceived ability to communicate science to clients. Presenter: Kristina Young
- 2022 **Ecological Society of America**. Montreal, Canada. Unexpected resistance of biocrust communities to altered precipitation regimes highlights other environmental factors interacting with precipitation. Presenter: Kristina Young
- 2022 **Ecological Society of America**. Montreal, Canada. What is a biocrust? A refined, contemporary definition for a broadening research community. Presenter: Matthew Bowker
- 2020 **Ecological Society of America**. Virtual. Plant, soil, and biocrust processes controlling nitrogen movement in dryland soils. Presenter: Anthony Darrouzet-Nardi
- 2020 **Ecological Society of America**, Virtual. Biocrusts are the most influential soil surface stabilizing force in drylands. Presenter: Matthew Bowker
- 2019 **Colorado Plateau Biennial Conference of Science & Management**. Flagstaff, AZ. How do plants affect soil microbial communities across drylands? Presenter: Maddison Casillas
- 2019 **Biocrust 4**. Melbourne, Australia. Examining the contribution of biological soil crusts to subsurface soil fertility. Presenter: Kristina Young
- 2019 **Ecological Society of America**. Louisville, KY. Testing the fungal loop hypothesis for nitrogen movement from biocrusts to plants in dryland ecosystems. Presenter: Anthony Darrouzet-Nardi
- 2019 **Botanical Society of America, Botany 2019**. Tucson, Arizona. Biocrust assemblages and restoration potential in Organ Pipe Cactus National Monument. Presenter: Anita Antoninka
- 2019 **Research Experiences for Undergraduates Presentation**. El Paso, TX. Nitrogen fixation in biological soil crust. Presenter: Mikaela Hoellrich†
- 2019 **Soil Ecology Society Meeting**. Toledo, OH. The fungal loop hypothesis for nitrogen movement from biocrusts to plants in dryland ecosystems. Presenter: Anthony Darrouzet-Nardi
- 2018 **Society of Ecological Restoration – Southwest Chapter**. Flagstaff AZ. Restoring With the Right Species: Testing How Species Assemblage Influences Functional. Presenter: Kristina Young
- 2018 **Society of Ecological Restoration - European Conference**. Reykjavik, Iceland. Restoring biocrusts: a general strategy and an overview of emerging results. Presenter: Matthew Bowker
- 2018 **Ecological Society of America**. New Orleans, LA. Beyond traditional ecological restoration on the Colorado Plateau. Presenter: Daniel Winkler
- 2018 **Ecological Society of America**. New Orleans, LA. Ecological responses to extreme climatic events: Linking theory, observations, and experiments. Presenter: David Hoover
- 2018 **European Geophysicist Union**. Vienna, Austria. N transfer from biocrusts to dryland plants driven by water and N availability. Presenter: Eva Dettweiler- Robinson
- 2017 **European Geophysicist Union**. Vienna, Austria. Interactions between soil texture, water, and nutrients control patterns of biocrust species assemblage. Presenter: Kristina Young
- 2017 **Colorado Plateau Native Plant Program**. Monticello, UT. Attempts to restore biological soil crust and stabilizing eroding soils in Bandelier National Monument, NM. Presenter: Kristina Young
- 2016 **Soil Science Society of America**. Phoenix, Arizona. Rehabilitating biocrusts and understanding the influence of seasonality on the actively eroding Pinyon-Juniper mesa-top soils in Bandelier National Monument, NM. Presenter: Kristina Young
- 2016 **Biocrust 3**. Moab, UT. Can and should we merge our biocrust rehabilitation efforts with the assisted migration of biocrust. Presenter: Kristina Young
- 2016 **Ecological Society of America**. Fort Lauderdale, FL. Rehabilitating biocrusts and understanding the influence of seasonality on the actively eroding Pinyon-Juniper mesa-top soils in Bandelier National Monument, NM. Presenter: Kristina Young
- 2015 **Biennial Conference of Science and Management on the Colorado Plateau and Southwest Region**. Flagstaff, AZ. Using Biological Soil Crust for Soil Stabilization and Restoration in Bandelier National Monument. Presenter: Kristina Young
- 2015 **Ecological Society of America**. Baltimore, MD. Biological soil crusts and global change: Spectrally monitoring moss responses to future climate change scenarios. Presenter: Kristina Young
- 2015 **Colorado Plateau Native Plant Program Retreat**. Rio Mesa Field Station, UT. Focusing on systems for biocrust restoration; A National Monument case study. Presenter: Kristina Young

Poster (Lead Author: 2, Co-Author: 4, Undergraduate/Technician Mentee†: 2, Total: 6)

- 2023 **Society for Range Management**. Boise, ID. New tools for fire management using ecological site groups, monitoring data, and machine learning. Presenter: Tara Bishop
- 2019 **American Geophysicists Union**. San Francisco, CA. Expanding the Mission of Rural Science: The role of the 500 Women Science Pod in Southeast Utah. Presenter: Kristina Young
- 2019 **American Geophysicists Union**. San Francisco, CA. Determining the contribution of surface soil organisms to subsurface soil fertility and CO₂ efflux in a semi-arid desert. Presenter: Kristina Young
- 2019 **SER2019: 8th World Conference on Ecological Restoration**. Cape Town, South Africa. Opportunities for success: the future of ecological restoration on the Colorado Plateau. Presenter: Daniel Winkler
- 2019 **Colorado Plateau Biennial Conference of Science & Management**. Flagstaff, AZ. Biocrust optimization of net carbon to varied precipitation pulses. Presenter: Megan Starbuck[†]
- 2017 **Northern Arizona University Undergraduate Symposium**. Flagstaff, AZ. Maximizing cyanobacterial filament depth for biocrust cultivation. Presenter: Michael Morton[†]

PROFESSIONAL/PUBLIC PRESENTATIONS

- 2022 **Presenter**, Grand County Small Scale Workshop, Extension Highlights
- 2022 **Presenter**, Soil Regen Summit, “Understanding the Desert’s Living Skin”
- 2022 **Presenter**, USU Integrated Pest Management Workshop, Noxious Weeds of Grand County
- 2021 **Presenter**, USU Forestry Extension, Pack Creek Fire Workshop, Recovery Post-Fire
- 2021 **Presenter**, Arches National Park Leave No Trace Hotspot, Science Behind Off-Trail Travel.
- 2020 **Presenter**, Natural History Museum of Utah, Research Quest Live Q & A.
- 2019 **Presenter**, Grand Staircase Escalante Partnership Community Lecture Series, Dryland Research in southern Utah.
- 2019 **Presenter**, Youth Garden Project Grand County High School, careers in science.
- 2018 **Presenter**, USU’s Utah Master Naturalist Program, Biocrust Ecology & Natural History.
- 2018 **Presenter**, Moab Bureau of Land Management Field Office, Brown Bag Lecture Series.
- 2017 **Presenter**, Mushroom Cultivation & Application Course, Biological soil crust rehabilitation.
- 2016 **Co-Presenter**, Society of Ecological Restoration Restoring, The Living Skin of the Earth: Biocrusts in Dryland Restoration at Northern Arizona University.
- 2015 **Presenter**, New Mexico State Office Bureau of Land Management, Brown Bag Lecture Series.

WORKSHOPS ORGANIZED

- 2021 **Co-Organizer** – USU Forestry Extension. Pack Creek Fire Workshop. Moab, UT

AFFILIATIONS

- 2023 - present **New Mexico State University**, Plant and Environmental Science Department
- 2021 - present **Utah State University**, Ecology Center
- 2017 - 2019 **US Geological Survey**, Southwest Biological Science Center

PROFESSIONAL SERVICE

Reviewer/Editor

- 2021-present **Review Editor**, *Frontiers in Environmental Science | Drylands*
- 2017-present **Reviewer**: *Ecology, Biogeosciences, New Phytologist, Geoderma, Plant and Soil, Remote Sensing of Environment, Ecosphere, European Journal of Soil Science,*

Ecological Solutions and Evidence, Science of Total Environment, Aeolian Research, PeerJ, Kansas Academy of Science

Membership/Committees

2023-2024 **Council Representative**, Ecological Society of American SW Chapter
2022-2023 **Chair**, Ecological Society of American SW Chapter
2021-2022 **Vice-Chair**, Ecological Society of American SW Chapter
2021-present **Utah Representative**, Society of Ecological Restoration SW Chapter
2017-present **Member**: Ecological Society of America, Society for Ecological Restoration, Association of Natural Resource Extension Professionals, Society for Range Management, Utah Native Plant Society

OUTREACH & SYNERGISTIC ACTIVITIES

2023 **Board Member**, Honor Water, an Indigenous-led organization that works to increase access to clean drinking water on the Navajo Nation
2023 **Board Chair**, Science Moab Engagement Initiative, a place-based nonprofit decided to science accessibility
2019 **Contractor**, Inclusive Community Consulting, a team that educates and advocates for equity in organizations.
2019 **Lead Organizer & Moderator**, Science for Guides, an event with informal science talks aimed at informing recreation guides in Moab, UT about science relevant to guiding professions.
2019 **Co-Lead**, Union of Concerned Scientists Local Leaders Program, a leadership development initiative focused on strengthening science advocacy skills.
2018 **Creator & Organizer**, Science Moab on Tap, informal science communication and outreach events held at a local bar in Moab, UT. Aimed at engaging those often not involved with science.
2018 **Co-Founder**, 500 Women Scientists Moab Pod, a chapter of a national organization that promotes science literacy, outreach, and women's roles in STEM.
2017 **Co-Founder**, Use-Rs Group, a group that meets to discuss current topics and techniques in statistics and the statistical software R.
2017 **Creator, Producer & Host**, KZMU's Science Moab, a weekly science outreach radio show exploring research and management occurring on the Colorado Plateau.
2016 **Co-Organizer**, Moab Festival of Science, a festival celebrating science and engaging the community with science in Moab, Utah.
2013 **Volunteer**, Utah Division of Wildlife Moab Field Office, endangered fish monitoring trips.
2013 **Volunteer**, Beacon After School Program, teaching elementary school children about biological soil crust.
2012 **Volunteer**, Grand Canyon National Park, revegetating native plants & removing invasive tamarisk.