

Megan K. Nasto

Research Scientist
Working Lands Conservation
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www.workinglandsconservation.org

EDUCATION

- Ph.D. Forest and Conservation Sciences, 2017
W.A. Franke College of Forestry and Conservation, University of Montana, Missoula, MT
Dissertation: Nutrient acquisition strategies in tropical rain forests: interactions among nitrogen and phosphorus through plant-microbial mutualisms
- B.S. Environmental Science: Applied Geology, 2011
Northern Arizona University, Flagstaff, AZ
Thesis: Methane flux response in the presence of nitrogen and phosphorus fertilization across a retrogressive semiarid chronosequence

EXPERIENCE

ACADEMIC & RESEARCH

- 2021 – **Research Scientist**, Working Lands Conservation (A Project of Multiplier), Logan, UT
- 2019 – 2021 **Graduate Faculty**, S. J. & Jessie E. Quinney College of Natural Resources, Utah State University
- 2019 – 2021 **Senior Technical Analyst**, Utah Forest Institute, Department of Wildland Resources, Utah State University
- 2017 – 2019 **Postdoctoral Fellow**, Department of Biology & Ecology Center, Utah State University
- 2012 – 2017 **Graduate Research Assistant**, W. A. Franke College of Forestry & Conservation, University of Montana
- 2012 **Laboratory Technician**, Terrestrial Ecosystem Ecology Laboratory, University of Montana
- 2011 **Undergraduate Laboratory Assistant**, Sedimentary Records of Environmental Change Laboratory, Northern Arizona University
- 2011 **Undergraduate Laboratory Assistant**, Amino Acid Geochronology Laboratory, Northern Arizona University
- 2009 – 2011 **Undergraduate Research Assistant/Assistant Crew Leader**, Ecological Restoration Institute, Northern Arizona University

PROFESSIONAL

- 2011 **Forestry Technician**, Ouray Ranger District, USDA Forest Service

TEACHING

- 2017 **Guest Lecturer**, “NRS 594 Soil Ecology: Biological Nitrogen Fixation,” University of Montana
- 2017 **Guest Lecturer**, “NRS 594 Soil Ecology: Stable Isotope Ecology,” University of Montana
- 2015 **Guest Lecturer**, “NRS 210 Climate, Hydrology, & Soils: Soil Physical Properties,” University of Montana
- 2014 – 2015 **Graduate Teaching Assistant**, “NRS 210 Climate, Hydrology, & Soils,” University of Montana

2014 **Guest Lecturer**, “BIOO 433 Plant Physiology: Nutrient Acquisition Strategies,” University of Montana

ADVISING & MENTORING

Graduate Committee

Jelveh Tamjidi (M.S. Ecology, Utah State University, 2019 – 2020)

Undergraduate Research Thesis

Bayli Hanson (Utah State University, 2020)

Clayton Watts (Utah State University, 2017 – 2019)

Research Assistants

Paige Lewis (Working Lands Conservation, 2023)

Anthony Villalobos (Working Lands Conservation, 2023)

Taylor Jacobson (Working Lands Conservation, 2021 & 2023)

Jeremiah Hernandez (Working Lands Conservation, 2023)*

Garrett Flowers (Working Lands Conservation, 2023)*

Nathan Omer (Working Lands Conservation, 2021 – 2022)

Logan Ballard (Working Lands Conservation, 2021 – 2022)

Kyle Todocheene (Working Lands Conservation, 2021)

Kathryn Cunningham (Utah Forest Institute, 2021)

Angelia Klein (Utah Forest Institute, 2021)

Kylee Madsen (Utah Forest Institute, 2019 – 2021)

Hiromi Kondo (Utah Forest Institute, 2020)

Emily Liese (Utah Forest Institute, 2020)

Natalie Otto (Utah Forest Institute, 2020)

Kadin Woolever (Utah Forest Institute, 2020)

Sheven Andersen (Utah Forest Institute, 2019 – 2020)

Justine Cornwall (Utah Forest Institute, 2019 – 2020)

Jordan Hanson (Utah Forest Institute, 2019 – 2020)

Kyle McMurray (Utah Forest Institute, 2019 – 2020)

Tiana Price (Utah Forest Institute, 2019 – 2020)

Christian Eaton (Utah State University, 2017 – 2019)

Soli Velez (Utah State University, 2017 – 2019)*

Alexandra Ginter (University of Montana, 2012 – 2017)

Stacia Hill (University of Montana, 2012 – 2017)

Burgess Munyer (University of Montana, 2012 – 2017)

Emily Prag (University of Montana, 2012 – 2015)

**High-School Students*

PUBLICATIONS

PUBLISHED OR ACCEPTED

15. **Nasto MK**, M Luce McLeod, L Bullington, Y Lekberg, JM Stark. 2022. The effect of plant invasion on soil microbial carbon-use efficiency in semiarid grasslands of the Rocky Mountain West. *Journal of Ecology* 110: 479-493.
14. Osborne BB, FM Soper, **MK Nasto**, D Bru, S Hwang, MB Machmuller, L Philippot, BW Sullivan, GP Asner, CC Cleveland, AR Townsend, S Porder. 2021. Leaf litter inputs drive patterns of soil nitrogen

- heterogeneity in a diverse tropical forest: Results from a litter manipulation experiment. *Soil Biology and Biochemistry* 158: 108247.
13. Butcher K, **MK Nasto**, JM Norton, JM Stark. 2020. Physical mechanisms for soil moisture effects on microbial carbon-use efficiency in a sandy loam soil in the western United States. *Soil Biology and Biochemistry* 150: 107969.
 12. Osborne BB, **MK Nasto**, FM Soper, GP Asner, CS Balzotti, CC Cleveland, PG Taylor, AR Townsend, S Porder. 2020. Leaf litter inputs reinforce islands of nitrogen fertility in a lowland tropical forest. *Biogeochemistry* 147: 293–306.
 11. Sullivan BW, RL Nifong, **MK Nasto**, S Alvarez-Clare, C Dencker, FM Soper, KT Shoemaker, Y Ishida, J Zaragoza-Castells, EA Davidson, CC Cleveland. 2019. Biogeochemical recuperation is common in secondary lowland tropical forest. *Ecology* 100(4): e02641.
 10. **Nasto MK**, K Winter, BL Turner, CC Cleveland. 2019. Nutrient acquisition strategies augment growth in tropical N₂ fixing trees in nutrient poor soil and under elevated CO₂. *Ecology* 100(4): e02646.
 9. Soper FM, **MK Nasto**, BB Osborne, CC Cleveland. 2018. Nitrogen fixation and foliar nitrogen do not predict phosphorus acquisition in tropical trees. *Journal of Ecology* 107(1): 118–126.
 8. Soper FM, BW Sullivan, **MK Nasto**, BB Osborne, D Bru, CS Balzotti, PG Taylor, GP Asner, AR Townsend, L Philippot, S Porder, CC Cleveland. 2018. Remotely-sensed canopy nitrogen correlates with nitrous oxide emissions in a lowland tropical rainforest. *Ecology* 99(9): 2080–2089.
 7. Winbourne J, M Harrison, BW Sullivan, S Alvarez-Clare, S Rafaela Lins, L Martinelli, **MK Nasto**, D Piotto, S Rolim, M Wong, S Porder. 2018. A framework for evaluating estimates of symbiotic nitrogen fixation in forests. *American Naturalist* 192(5).
 6. **Nasto MK**, BB Osborne, Y Lekberg, GP Asner, CS Balzotti, S Porder, PG Taylor, AR Townsend, CC Cleveland. 2017. Nutrient acquisition, soil phosphorus partitioning, and competition among trees in a lowland tropical rain forest. *New Phytologist* 214(4): 1506–1517.
 5. Osborne BB, **MK Nasto**, GP Asner, CS Balzotti, CC Cleveland, BW Sullivan, PG Taylor, AR Townsend, S Porder. 2017. Climate, topography, and canopy chemistry exert hierarchical control over soil N cycling in a Neotropical lowland forest. *Ecosystems* 25: 637–652.
 4. Balzotti CS, GP Asner, PG Taylor, CC Cleveland, R Cole, RE Martin, **MK Nasto**, BB Osborne, S Porder, AR Townsend. 2016. Environmental controls on canopy foliar N distributions in a Neotropical lowland forest. *Ecological Applications* 26(8): 2451–2464.
 3. Sullivan BW, **MK Nasto**, SC Hart, BA Hungate. 2015. Proximate controls on semiarid soil greenhouse gas fluxes across 3 million years of soil development. *Biogeochemistry* 125(3): 375–391.
 2. **Nasto MK**, S Alvarez-Clare, Y Lekberg, BW Sullivan, AR Townsend, CC Cleveland. 2014. Interactions among nitrogen fixation and soil phosphorus acquisition in lowland tropical rain forests. *Ecology Letters* 17(10): 1282–1289.
 1. Sullivan BW, WK Smith, AR Townsend, **MK Nasto**, SC Reed, R Chazdon, CC Cleveland. 2014. Spatially robust estimates of biological nitrogen (N) fixation imply substantial human alteration of the tropical N cycle. *Proceedings of the National Academy of Sciences, USA* 111(22): 8101–8106.

GRANTS, FELLOWSHIPS, SCHOLARSHIPS, & AWARDS

RESEARCH GRANTS

2023	National Fish and Wildlife Foundation – Southern Plains Grassland Program (Collaborator & Sub-Contractor). <i>“Enhancing Ecosystem Services and Habitat Resiliency of the Southern Plains through Data-Informed Adaptive Grazing and Restoration – Eastern NM”</i> .	\$44,499
2023	USDA Partnerships for Climate-Smart Commodities (Collaborator & Sub-Awardee). <i>“Northern New Mexico Hub of the Western Working Lands Climate-Smart Network”</i> .	\$978,963
2023	USDA Partnerships for Climate-Smart Commodities (Collaborator & Sub-Awardee). <i>“Southwest Hub of the Western Working Lands Climate-Smart Network”</i> .	\$978,963
2023	USDA Partnerships for Climate-Smart Commodities (Collaborator & Sub-Awardee). <i>“Colorado Hub of the Western Working Lands Climate-Smart Network”</i> .	\$978,963
2023	USDA Western SARE Research and Education (PI). <i>“Can soil carbon help fund rangeland management?”</i> .	\$349,975
2021	National Fish and Wildlife Foundation – Southern Plains Grassland Program (Collaborator & Sub-Contractor). <i>“Enhancing Lesser Prairie Chicken and Pronghorn Grassland Habitat through Data-Informed Adaptive Grazing and Restoration (Eastern NM)”</i> .	\$50,431
2021	USDA National Institute of Food and Agriculture, Agriculture and Food Research Initiative (Co-author & Collaborator). <i>“Managing Grazing to Benefit Soil and Riparian Ecosystem Services in Semi-arid Rangelands”</i> .	\$649,810
2016	NSF Doctoral Dissertation Improvement Grant (PI). <i>“Interactions among nitrogen and phosphorus through plant-microbial mutualisms in tropical rain forests”</i> .	\$18,850
FELLOWSHIPS		
2016	Smithsonian Tropical Research Institute Short-Term Fellowship	\$3,000
2010	Northern Arizona University Hooper Undergraduate Research Fellowship	\$2,880
SCHOLARSHIPS		
2016	George E. Bright Memorial Scholarship, University of Montana	\$2,100
2015	Bertha Morton Scholarship, University of Montana	\$3,000
2015	George E. Bright Memorial Scholarship, University of Montana	\$2,125
2014	George E. Bright Memorial Scholarship, University of Montana	\$2,700
2013	Danny On Memorial Scholarship, University of Montana	\$500
AWARDS		
2016	INTERFACE Department of Energy Travel Award	\$896
2014	Winner of the University of Montana 13 th Annual Graduate Student Research Conference	

PRESENTATIONS

SCIENTIFIC CONFERENCES

47. **Invited: Nasto MK**, B Riley. 2024. Data-informed adaptive management of wildlife and cow habitat in eastern NM. Society for Range Management, Sparks, NV.
46. **Nasto MK**, K Hulvey, B Owens, J Juen. 2024. Measuring soil organic carbon as a means for promoting land stewardship by cattle rancher and state and Federal agencies in the southern great plain grasslands of eastern New Mexico. Society for Range Management, Sparks, NV.
45. **Invited: Nasto MK**. 2024. Eastern New Mexico Adaptive Management Partnership: Measuring soil organic carbon to promote collaborative land stewardship. NM Section Meeting of the Society for Range Management, Alamogordo, NM
44. **Invited: Nasto MK**, K Hulvey, K. Siesel, T Payne. 2023. The effects of livestock grazing on soil health & organic carbon in semi-arid rangelands: A case study from northern Utah. UT Section Meeting of the Society for Range Management, Richfield, UT.
43. **Nasto MK**, K Hulvey, J Danninger, T Payne. 2023. The effects of livestock grazing duration and timing on soil health and organic carbon sequestration in a semi-arid rangeland of the western U.S. Ecological Society of America, Portland, OR.
42. **Invited: Nasto MK**, K Hulvey, J Danninger, T Payne. 2023. The effects of livestock grazing on soil organic carbon in semi-arid rangelands: A case study from northern Utah. Society for Range Management, Boise, ID.
41. Hulvey K, J Danninger, **MK Nasto**, T Payne. 2023. How do we manage for stacked ecosystem services in semi-arid rangelands? Examples from the Three Creeks Grazing Project. Society for Range Management, Boise, ID.
40. **Nasto MK**, K Hulvey, J Danninger, T Payne. 2022. The effects of livestock grazing on soil health and carbon in semi-arid rangelands. A Community on Ecosystem Services, Washington D.C.
39. Hulvey K, J Danninger, **MK Nasto**, T Payne. 2022. Managing for multiple ecosystem services in semi-arid rangelands. A Community on Ecosystem Services, Washington D.C.
38. **Nasto MK**, K Hulvey, J Danninger, T Payne. 2022. The effects of livestock grazing duration and timing on soil health and carbon. Society for Range Management, Albuquerque, NM.
37. Hulvey K, J Danninger, **MK Nasto**, T Payne. 2022. Managing cattle grazing timing and duration to support multiple ecosystem services in semi-arid rangelands. Society for Range Management, Albuquerque, NM.
36. Danninger J, K Hulvey, **MK Nasto**, T Payne. 2022. Balancing livestock grazing, plant diversity, and Greater sage-grouse habitat on semi-arid rangelands of northeastern UT. Society for Range Management, Albuquerque, NM
35. **Invited: Nasto MK**, EM Blomdahl, JA Lutz. 2020. Utah Fire Atlas: Quantifying wildfire size, severity, and frequency in the Beehive State. Ecological Society of America, Virtual Meeting.
34. Luce McLeod M, **MK Nasto**, L Bullington, Y Lekberg, JM Stark. 2020. Exotic plant invasions are associated with decreased soil microbial carbon-use efficiency in semiarid grasslands. Ecological Society of America, Virtual Meeting.
33. **Nasto MK**, EM Blomdahl, JA Lutz. 2020. Utah Forest Institute: Fire and Forest Health in the Beehive State. SWERI Cross-Boundary Landscape Restoration Workshop, Alburquerque, NM.
32. **Invited: Nasto MK**, M Luce McLeod, Y Lekberg, JM Stark. 2019. Invasion, ecosystem function, and carbon-use efficiency in grasslands. MPG Ranch Conference, Missoula, MT.

31. Butcher K, JM Stark, J MacAdam, **MK Nasto**. 2019. Mechanisms for soil moisture effects on microbial carbon-use efficiency. Intermountain Branch of the American Society of Microbiology, Provo, UT.
30. Cleveland CC, **MK Nasto**, SC Reed, AN Shaw, FM Soper. 2018. Overcoming nutrient limitation: will phosphorus availability constrain global plant production under elevated CO₂. American Geophysical Union, Washington D.C.
29. **Nasto MK**, JM Stark. 2018. The effects of soil moisture on microbial carbon-use efficiency across soil textures. Ecological Society of America, New Orleans, LA.
28. Soper FM, **MK Nasto**, BB Osborne, CC Cleveland. 2018. Nitrogen status does not predict phosphorus acquisition strategies in tropical trees. Ecological Society of America, New Orleans, LA.
27. Watts CG, **MK Nasto**, JM Stark. 2018. A test of a new extraction method for measuring soil microbial biomass carbon. Utah State University Undergraduate Research Symposium, Logan, UT.
26. **Invited: Nasto MK**. 2018. Microbial life in dry soils: effects of drought on processes and communities. Interdisciplinary Research Forum, Climate Adaptation Science & Ecology Center, Utah State University, Logan, UT.
25. **Invited: Nasto MK**, JM Stark. 2017. Microbial carbon-use efficiency in agroecosystems: the effects of drought and N availability on soil microbial production and respiration. USDA-NIFA AFRI Bioeconomy Agroecosystems Annual Project Director Meeting, Tampa, FL.
24. **Nasto MK**, K Winter, BL Turner, CC Cleveland. 2017. Nutrient acquisition strategies promote high growth in tropical nitrogen fixing trees under elevated CO₂. Ecological Society of America, Portland, OR.
23. Cleveland CC, **MK Nasto**, BL Turner, N Fierer, AN Shaw. 2017. How do diverse ecosystems overcome low soil phosphorus? Mechanisms, implications, and meditations. Ecological Society of America, Portland, OR.
22. Osborne BB, **MK Nasto**, GP Asner, CS Balzotti, CC Cleveland, PG Taylor, AR Townsend, S Porder. 2017. Canopy nitrogen is correlated with litter and soil nitrogen in a lowland tropical forest. Ecological Society of America, Portland, OR.
21. Soper FM, **MK Nasto**, BW Sullivan, BB Osborne, S Porder, CC Cleveland. 2017. Canopy nitrogen heterogeneity influences denitrification rates in a lowland tropical forest. Ecological Society of American, Portland, OR.
20. **Invited: Nasto MK**. 2017. Nutrient acquisition strategies in tropical rain forests: interactions among nitrogen and phosphorus through plant-microbial mutualisms. Ecology Center, Utah State University, Logan, UT.
19. Osborne BB, **MK Nasto**, GP Asner, CS Balzotti, CC Cleveland, BW Sullivan, PG Taylor, AR Townsend, S Porder. 2016. Canopy tree species drive local heterogeneity in soil nitrogen availability. American Geophysical Union, San Francisco, CA.
18. **Nasto MK**, BB Osborne, M Lopez Morales, Y Lekberg, CC Cleveland. 2016. Soil phosphorus partitioning reduces competition among nitrogen fixing and non-nitrogen fixing trees in tropical rain forests. INTERFACE Workshop: Phosphorus Cycling in Terrestrial Ecosystems, Townsend, TN.
17. **Invited: Nasto MK**, S Alvarez-Clare, Y Lekberg, BW Sullivan, AR Townsend, CC Cleveland. 2016. Nutrient acquisition strategies in tropical rain forests: interactions among nitrogen and phosphorus through plant-microbial mutualisms. Symposium: The Carbon Sequestration Potential of Restoration, Piro Biological Station, Osa Conservation, Costa Rica.

16. **Invited: Nasto MK**, S Alvarez-Clare, Y Lekberg, BW Sullivan, AR Townsend, CC Cleveland. 2016. Nutrient acquisition strategies in tropical rain forests: interactions among nitrogen and phosphorus through plant-microbial mutualisms. Piro Biological Station, Osa Conservation, Costa Rica.
15. Sullivan BW, **MK Nasto**, S Alvarez-Clare, RJ Cole, SC Reed, R Chazdon, EA Davidson, CC Cleveland. 2015. Trends in nitrogen and phosphorus cycling are consistent and constrained during tropical secondary forest succession: is secondary forest young primary forest from a nutrient perspective? American Geophysical Union, San Francisco, CA.
14. Castle SC, BW Sullivan, R Jones, **MK Nasto**, A Ballantyne, A Hursh, CC Cleveland. 2015. Land-use determines soil microbial community resistance and resilience to climate change in the lowland tropics. Ecological Society of America, Baltimore, MD.
13. Marklein AR, **MK Nasto**, BW Sullivan, CC Cleveland. 2015. Interactions among plants, symbiotic N-fixing bacteria, and arbuscular mycorrhizal fungi in tropical rain forest: Results from a theoretical model. Ecological Society of America, Baltimore, MD.
12. Osborne BB, **MK Nasto**, GP Asner, CC Cleveland, BW Sullivan, PG Taylor, AR Townsend, S Porder. 2015. Geomorphology and canopy chemistry influence soil nitrogen availability on variable time scales in a lowland tropical forest. Ecological Society of America, Baltimore, MD.
11. Sullivan BW, **MK Nasto**, S Alvarez-Clare, SC Reed, CC Cleveland. 2015. Nitrogen and phosphorus fertilization alter biological nitrogen fixation in lowland tropical rainforest. Ecological Society of America, Baltimore, MD.
10. Townsend AR, CC Cleveland, GP Asner, PG Taylor, BB Osborne, **MK Nasto**, WR Wieder, BW Sullivan. 2015. One size does not fit all: Multi-scale heterogeneity in the lowland tropical N cycle. Ecological Society of America, Baltimore, MD.
9. **Nasto MK**, S Alvarez-Clare, Y Lekberg, BW Sullivan, AR Townsend, CC Cleveland. 2014. Symbiotic dinitrogen fixation enhances soil phosphorus acquisition strategies in tropical forests. Soil Ecology Society, Colorado Springs, CO.
8. **Nasto MK**, S Alvarez-Clare, Y Lekberg, BW Sullivan, AR Townsend, CC Cleveland. 2014. Interactions among nitrogen fixation and soil phosphorus acquisition in lowland tropical rain forests. Ecological Society of America, Sacramento, CA.
7. **Nasto MK**, S Alvarez-Clare, Y Lekberg, BW Sullivan, AR Townsend, CC Cleveland. 2014. Symbiotic dinitrogen fixation enhances phosphorus acquisition in lowland tropical rain forests. University of Montana Graduate Research Symposium, Missoula, MT.
*Winner of the University of Montana 13th Annual Graduate Student Research Conference
6. Sullivan BW, **MK Nasto**, SC Reed, RL Chazdon, CC Cleveland. 2013. Patterns and rates of biological nitrogen fixation during secondary succession in a lowland tropical rain forest. Ecological Society of America, Minneapolis, MN.
5. Sullivan BW, **MK Nasto**, SC Reed, E Ortis, B Vilchez, R Chazdon, CC Cleveland. 2013. Rates and patterns of biological nitrogen fixation during secondary succession in a lowland tropical rain forest. Association for Tropical Biology and Conservation, San Jose, Costa Rica.
4. **Nasto MK**, BW Sullivan, CC Cleveland. 2013. Does biological nitrogen fixation enhance phosphorus acquisition in lowland tropical rainforests? University of Montana Graduate Research Symposium, Missoula, MT.

3. Invited: Cleveland CC, BW Sullivan, **MK Nasto**. 2013. Nutrient constraints on carbon cycling in tropical forests. Department of Integrative Biology, University of Texas, Austin, TX.
2. Sullivan BW, **MK Nasto**, SC Hart, BA Hungate, RA Parnell. 2011. Soil fluxes of CO₂, CH₄, and N₂O after fertilization across a three million year old soil age gradient. Ecological Society of America, Austin, TX.
1. **Nasto MK**, BW Sullivan. 2011. Methane flux response in the presence of nitrogen and phosphorus fertilization across a retrogressive semiarid chronosequence. Northern Arizona University Undergraduate Research Symposium, Flagstaff, AZ.

OUTREACH MEETINGS

- 2024 National Fish & Wildlife Foundation Project Stakeholder Meeting. Visited with Federal agency stakeholders from the BLM Roswell, NM Field Office to discuss how livestock grazing, mesquite treatment, and prescribed fire can be used as tools to improve rangeland health in eastern NM. Virtual.
- 2023 Stakeholder Meeting. Visited with a Western Landowners Alliance Board of Directors member to discuss how the Three Creeks Grazing Project is working within the voluntary carbon marketplace space. Virtual.
- 2023 National Fish & Wildlife Foundation Project Field Tour / Stakeholder Meeting. Visited with private landowners, non-profit organizations, and state and federal agency stakeholders to discuss how livestock grazing can be used as a tool to improve rangeland health in eastern NM. Roswell, NM.
- 2023 Natural Resources Conservation Services Soil Health Cadre Meeting. Visited with federal agency stakeholders to discuss the effects of livestock grazing on soil health and carbon on the Three Creeks Grazing Project. Virtual.
- 2023 Colorado State University's Soil Carbon Solutions Center: Systems-level transformations to enable soil-based climate solutions at scale. Visited with private landowners, non-profit organizations, for-profit companies, academic researchers, and state and federal agency stakeholders to discuss the effects of livestock grazing on soil carbon on the Three Creeks Grazing Project. Denver, CO.
- 2023 Three Creeks Grazing Project Field Tour. Visited with Western Landowners Alliance Board of Directors and Staff to discuss the Three Creeks Grazing Project.
- 2023 Utah State University Ag Teacher Range Camp. Visited with high school ag teachers from across UT, and worked with them to incorporate soil health testing in their curriculum. Randolph, UT.
- 2023 National Fish & Wildlife Foundation Project Field Tour / Stakeholder Meeting. Visited with private landowners, non-profit organizations, and state and federal agency stakeholders to discuss how livestock grazing can be used as a tool to improve rangeland health in eastern NM. Roswell, NM.
- 2023 Rich High School Demonstration. Visited with high school students to discuss how livestock grazing can improve rangeland health on the Three Creeks Grazing Project. Randolph, UT.
- 2023 West Box Elder Coordinated Resource Management Meeting. Visited with private landowners, and state and federal agency stakeholders to discuss the effects of livestock grazing on soil health and carbon on the Three Creeks Grazing Project. Park Valley, UT
- 2021 – 2023 Three Creeks Grazing, LLC Meeting. Visited with ranchers to discuss the effects of livestock grazing on soil and carbon on the Three Creeks Grazing Project. Randolph, UT.

- 2021 – 2023 Rich County Coordinated Resource Management Meeting. Visited with a private landowner, and state and federal agency stakeholders to discuss the effects of livestock grazing on soil health and carbon on the Three Creeks Grazing Project. Randolph, UT
- 2022 National Fish & Wildlife Foundation Project Stakeholder Meeting. Visited with private landowners, non-profit organizations, and state and federal agency stakeholders to discuss the eastern NM project. Roswell, NM.
- 2021 – 2022 Deseret Land & Livestock Stakeholder Meeting. Visited with private landowners to discuss the effects of livestock grazing on soil health and carbon on the Three Creeks Grazing Project. Woodruff, UT.
- 2022 Three Creeks Grazing Project Field Tour. Visited with the UT Geological Survey to discuss coordinated research on the Three Creeks Grazing Project. Randolph, UT.
- 2022 UT Grazing Improvement Program Meeting. Visited with private landowners, and state and federal agency stakeholders to discuss the Three Creeks Grazing Project. Randolph, UT.
- 2021 Three Creeks Grazing Project Field Tour. Visited with private landowner, and state and federal agency stakeholders to discuss the Three Creeks Grazing Project. Randolph, UT

Media

Podcasts

- 2023 Decode 6, “Can Rangelands Store Carbon?”
<https://decode6.org/podcasts/can-rangelands-store-soil-carbon/>

SERVICE

JOURNAL REFEREE

- | | |
|---|------------------------------|
| <i>Biogeochemistry</i> | <i>Ecology</i> |
| <i>Ecology Letters</i> | <i>Ecosystems</i> |
| <i>Frontiers in Plant Science</i> | <i>Global Change Biology</i> |
| <i>Nutrient Cycling in Agroecosystems</i> | <i>Oecologia</i> |
| <i>Plant and Soil</i> | |

PROFESSIONAL SERVICE

- 2023 Session Co-Organizer, “Beyond Meat – Livestock, soil carbon, and ecosystem service markets in the U.S. West: Generating complementary funding for rangeland and rural community stewardship,” Society for Range Management, Boise, ID
- 2017 – 2019 Webmaster, Ecological Society of America Biogeosciences section
- 2016 Symposium Co-Organizer, “The Carbon Sequestration Potential of Restoration,” Piro Biological Station, Osa Conservation, Costa Rica

INSTITUTIONAL SERVICE

- 2014 – 2017 Executive Board Member, Interdisciplinary Collaborative Network, University of Montana | www.montanaicn.com
- 2014 – 2016 Senator, Graduate and Professional Student Association, University of Montana
- 2013 – 2016 Organizer, W.A. Franke College of Forestry & Conservation Graduate Student Seminar, University of Montana

EDUCATIONAL SERVICE

- 2022 – Blogger, Working Lands Conservation | www.workinglandsconservation.org
- 2018 – Scientist, Skype a Scientist | www.skypeascientist.com
- 2014 – 2017 Blogger, Interdisciplinary Collaborative Network, University of Montana
- 2014 – 2017 Science Educator, spectrUM Discovery Area, University of Montana
- 2013 – 2017 Judge, Montana State Science Fair

COMMUNITY SERVICE

- 2020 – Wilderness First Responder
- 2021 – 2023 Co-Chair, Lewiston City Library

PROFESSIONAL SOCIETIES

- | | |
|---------------------------------------|---------------------------------|
| 500 Women Scientists | American Geophysical Union |
| Association for Women Soil Scientists | Earth Science Women’s Network |
| Ecological Society of America | Society for Range Management |
| Soil Ecology Society | Soil Science Society of America |