CURRICULUM VITAE

KATHLEEN ANN LOHSE

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EDUCATION

1995-2002	University of California, Berkeley Ph.D. Soil Science (Ecosystem Science)
1988-1993	Cornell University B.A. Urban and Regional Studies B.S. Biology, *cum laude*

PROFESSIONAL EXPERIENCES

2019-present	Professor, Department of Biological Sciences, *Idaho State University* Joint Appointment with Department of Geosciences, *Idaho State University*
2013-2019	Associate Professor, Department of Biological Sciences, *Idaho State University* Joint Appointment with Department of Geosciences, *Idaho State University*
2016-2017	Blaustein Visiting Professor, Stanford University
2010-2013	Assistant Professor, Department of Biological Sciences, *Idaho State University* Joint Appointment with Department of Geosciences, *Idaho State University*
2010-present	Adjunct Assistant Professor, School of Natural Resources and the Environment, *University of Arizona*
2007-2010	Assistant Professor, School of Natural Resources, *University of Arizona*
2007-2010	Joint faculty member, Department of Soil, Water and Environmental Sciences, *University of Arizona*
2005-2006	Postdoctoral Research Associate, *Arizona State University,* Dr. Nancy Grimm
2003-2004	Postdoctoral Fellow, *University of California, Berkeley,* Dr. Adina Merenlender
2001-2002	Graduate Researcher, *Stanford University*, Dr. Pamela Matson
1996-2002	Graduate Student Researcher*, University of California, Berkeley*, Dr. Pamela Matson
1994-1995	Research Technician, *Cornell University*, Dr. Lars Hedin
1993-1994	Research Technician, *Michigan State University*, Dr. G. Philip Robertson
1992	REU Summer Field Assistant, *Stanford University*, Dr. Peter Vitousek

ADDITIONAL PROFESSIONAL ACTIVITIES AND AFFILIATIONS

2020-	Ecosphere, Ecology in the Critical Zone track, Associate Editor-in Chief
2019-present	Vadose Zone Journal, Associate Editor
2020-2021	Chair, Critical Zone Observatories Principal Investigators
2013-present	Director, NSF Reynolds Creek Critical Zone Observatory
2010-2016	Assistant Director, Center for Ecological Research and Education, Idaho State University
2010-2016	American Geophysical Union Ecohydrology Technical Steering Committee
2009-2011	National Center for Airborne Laser Mapping (NCLAM) steering committee
2009-2014	Associate Editor, Biogeochemistry
2007-2010	Joint faculty member, Department of Soil, Water and Environmental Sciences, University of Arizona.

AWARDS AND FELLOWSHIPS

2019	Distinguished Researcher Award, Idaho State University (1 of 1)
2019	Outstanding Researcher Award, Idaho State University (1 of 5)
2016	2016 Editors' Citation for Excellence in Refereeing for *JGR-Biogeosciences*
2016-2017	Blaustein Visiting Professor Fellowship, Stanford University
2014	Outstanding Researcher Award, Department of Biological Sciences, Idaho State University
2014	Outstanding Researcher Award, Idaho State University
2009	Outstanding Scholarly Achievement Award, School of Natural Resources and the Environmental, University of Arizona
2008	Foreign Travel Grant Award, University of Arizona
2008	Athlete Hall of Fame, Menlo High School
2003-2004	EPA Star Postdoctoral Fellowship
1999-2001	James P. Bennett Agricultural Fund Fellowship, University of California, Berkeley
2000-2001	Carolyn Meek Memorial Scholarship, University of California, Berkeley
1997-1998	Soil Science Fellowship, University of California, Berkeley
1995	NSF Pre-doctoral Fellowship Honorable Mention

TEACHING EXPERIENCE

Department of Biological Sciences, Idaho State University

- BIOL/GEOL 4490/5590: Ecosystem Ecology and Global Changes (previously BIOL 4499/5599 & GEOL 4499/5599)
- GEOL 4417/5517: Soils and Critical Zone Processes (previously BIOL 4499/5599 & GEOL 4499/5599)
- BIOL 4489: Field Ecology
- BIOL 2209: General Ecology
- BIOL 4482: Senior seminar
- BIOL 6691: Advanced topics in biogeochemistry (seminar)
- GEOL 4451/5551: Field Methods in Environmental Sciences
- BIOL 6606: Scientific Writing
- BIOL 6692: Science Communication and Informal Education
- Independent Problems
- Thesis and Dissertation credits

School of Natural Resources and the Environment, University of Arizona

- UNVR 195a: Water quality and the Environment
- WSM/HWR/SWES 456/556: Watershed and Ecosystem Functions
- WSM 696a: Soil and Watershed Biogeochemistry

PUBLICATIONS/PRODUCTS [PUBLISHED, ACCEPTED OR IN REVIEW]

(Student authors are underlined, # corresponding author, in order of effort typically unless corresponding author)

In review

Flerchinger G., Chu, X. Lohse, K.A. Clark, P.E. and Seyfried, M.S. (in review) Parameter Sensitivity and Transferability for Simulating ET and GPP of Sagebrush Ecosystems across a Climate Gradient. *Agricultural and Forest Meteorology*

Schlegel, M., Souza, J.*, Murray, E., Warix, S.R., Godsey, S.E., Seyfried, M.S., Cram, Z., **Lohse, K.A.** (in review). Fate of soil CO2 in a semi-arid weathered silicate ba 1 sin with implications for carbon sequestration. *Chemical Geology*.

Lohse, K. A., Commendador, A. S., Glossner, K.L., Stalder, S.A., Macek, C. & R. MacNeille. (in press). Critical zone science informs landscape management through quantification of slow and often elusive (episodic) constraints on ecosystem services. In *Critical Zone and Ecosystem Dynamics Series*. Springer Verlag.

Sharma, H.*, Reinhardt, K., Lohse; K.A., Aho, K., Seyfried, M., Flerchinger, G. (2023). Is the ratio of respiration to photosynthesis conservative? Evidence from leaf to ecosystem scales in three sagebrush communities. *Ecosphere*.

2023

Warix, S.R.*, Godsey, S.E., Bottenberg, H.C., Chu, X.S., Flerchinger, G., Hale, R.L., Havens, S., **Lohse, K.A**., Seyfried, M. (in review). Evapotranspiration and baseflow control the timing of diel cycling of stream drying during low-flow periods. *Frontiers in Water*, *5,* doi: 10.3389/frwa.2023.1279838

Kerner*, P., Struhs, E., Mirkouei, A., Aho, K., **Lohse, K.A.,** Dungan, R.S., You, Y. (In review). Microbial responses to biochar soil amendment and influential factors: A three-level meta-analysis. *Environmental Science and Technology,* https://doi.org/10.1021/acs.est.3c04201

Lohse, K. A. (2023) Reconciling critical zone science with ecosystem and soil science- a personal-scientist perspective. *Frontiers in Water*, Women in Critical Zone Science, 5:1196465.doi: 10.3389/frwa.2023.1196465

Schlegel, M. E., Souza, J., Warix, S.R., Macneille, R., Murray, E., Radke, A., Godsey, S.E., Seyfried, M.S., Finney, B., Flerchinger, G and Lohse, K.A. 2023. Seasonality and evaporation of water resources in Reynolds Creek Experimental Watershed and Critical Zone Observatory, Southwestern Idaho, USA. *Vadose Zone Journal, e20278,* doi: 10:1002/vzj2.20278.

Stanbery, C., Z. Ghahremani, D. P. Huber, R. Will, S. G. Benner, N. Glenn, T. Hanif, L. Spaete, D. Terhaar, **K. A. Lohse,** M. Seyfried, W. Freutel and J. L. Pierce (2023). Controls on the presence and storage of soil inorganic carbon in a semi-arid watershed. *Catena* **225**: 106980.

Lohse, K.A. NR Patton, SE Godsey, BT Crosby (2023) Soil depth measurement system and method, US Patent App. 18/090,327

2022

Lohse, K. A., Pierson, D., Patton, N., Sanderman, J., Huber, D. P., Finney, B., Facer, J., Meyers, J., & Seyfried, M. S. (2022). *Dataset for Surface Soil Property and Processes Following the 2015 Soda Fire at the Reynolds Creek Critical Zone Observatory in SW Idaho*. Boise State University. https://doi.org/10.18122/reynoldscreek.28.boisestate

Pierson, D., **Lohse, K. A**., Wieder, W., Facer, J., Patton, N., Seyfried, M. S., Will, R., Flerchinger, G., & de Graaff, M.-A. (2022). *Dataset for Optimizing Process-Based Models to Predict Current and Future Soil Organic Carbon Stocks at High-Resolution*. Boise State University. https://doi.org/10.18122/reynoldscreek.26.boisestate

Lohse, K. A., D. Pierson, N. R. Patton, J. Sanderman, D. P. Huber, B. Finney, J. Facer, J. Meyers and M. S. Seyfried (2022). Multiscale responses and recovery of soils to wildfire in a sagebrush steppe ecosystem. Scientific Reports **12**(1): 22438.

Pierson, D., **Lohse, K. A**., Wieder, W. R., Patton, N. R., Facer, J., de Graaff, M.-A., Georgiou, K., Seyfried, M. S., Flerchinger, G., & Will, R. (2022). Optimizing process-based models to predict current and future soil organic carbon stocks at high-resolution. *Scientific Reports*, *12*(1), 10824. https://doi.org/10.1038/s41598-022-14224-8

Lohse, K; Schegel, M.; Souza, J.; Warix, S.; MacNeille, R.; Murray, E.; Radke, A.; Godsey, S.E.; Seyfried, M.S.; and Finney, B. (2022). *Dataset for Stable Isotopes of Precipitation, Surface Water, Spring Water, and Subsurface Waters at the Reynolds Creek Experimental Watershed and Critical Zone Observatory, Southwestern Idaho, USA* [Data set]. Retrieved from 10.18122/reynoldscreek.29.boisestate, https://doi.org/10.18122/reynoldscreek.28.boisestate

Huber, D.P.; Lohse, Kathleen A.; Aho, Ken; Seyfried, Mark; and Germino, Matthew. (2022). *Dataset for Experimental Variation in Maximum Soil Depth Controls Near-Surface Carbon and Nitrogen Cycling* [Data set]. Retrieved from https://doi.org/10.18122/reynoldscreek.27.boisestate

Glossner, K. L., **Lohse, K. A**., Appling, A. P., Cram, Z. K., Murray, E., Godsey, S. E., Van Vactor, S., McCorkle, E. P., Seyfried, M. S., & Pierson, F. B. (2022). Long-term suspended sediment and particulate organic carbon yields from the Reynolds Creek Experimental Watershed and Critical Zone Observatory. *Hydrological Processes*, *36*(2). https://doi.org/10.1002/hyp.14484

Aho, K., Parsons, S., Castro, A. J., and **Lohse, K. A**.. 2022. Mapping Socio-Ecological Systems in Idaho: Spatial Patterns and Analytical Considerations. *Ecosphere* 13(10): e4242. https://doi.org/10.1002/ecs2.4242

2021

Warix, S., Godsey, S., Flerchinger, Gerald, Bottenburg, Carrie, Xiaosheng Chu, **Kathleen Lohse**, Rebecca Hale, & Mark Seyfried. (2021). *Dataset for Riparian Evapotranspiration and NDVI: Murphy Creek, Idaho*. Boise State University ScholarWorks. 10.18122/reynoldscreek/24/boisestate

Warix, S. R., Godsey, S. E., **Lohse, K. A**., & Hale, R. L. (2021). Influence of groundwater and topography on stream drying in semi-arid headwater streams. *Hydrological Processes*, *35*(5). https://doi.org/10.1002/hyp.14185

You, Y., Aho, K., **Lohse, K. A**., Schwabedissen, S. G., Ledbetter, R. N., & Magnuson, T. S. (2021). Biological Soil Crust Bacterial Communities Vary Along Climatic and Shrub Cover Gradients Within a Sagebrush Steppe Ecosystem. *Frontiers in Microbiology*, *12*, 569791. https://doi.org/10.3389/fmicb.2021.569791

Glossner, K. A., **Lohse, K. A.,** Appling, A. P., Cram, Z. K., Murray, E., Godsey, S., Van Vactor, S., Seyfried, M. S., & Pierson, F. B. (2021). *Dataset of Observed Suspended Sediment and Particulate Organic Carbon Concentrations and Modeled Long-Term Suspended Sediment and Particulate Organic Carbon Yields (19942017) from the Reynolds Creek Experimental Watershed and Critical Zone Observatory in Southwestern Idaho, USA*. Boise State University. https://doi.org/10.18122/reynoldscreek.25.boisestate

Hall, S.J., **Lohse, K.A**. & Matson, P.A. 2021. Globalization of nitrogen deposition and ecosystem response: A 20-year perspective. *Ambio.* https://doi.org/10.1007/s13280-020-01465-y

2020

MacNeille, R. B., **Lohse, K. A**., Godsey, S. E., Perdrial, J., Baxter, C. V. 2020. Influence of drying and wildfire on longitudinal chemistry patterns and processes of intermittent streams. *Frontiers in Water,* special section Water and the Critical Zone, 2(42), **doi:** 10.3389/frwa.2020.563841

Gallo, E. L., Meixner, T., **Lohse, K.A**.#, and Nicholas, H. 2020. Estimating surface water presence and infiltration in ephemeral to intermittent streams in the southwestern US. *Frontiers in Water,* special section Water and the Critical Zone, 2(47), doi: 10.3389/frwa.2020.572950

Wlostowski, A. N., Molotch, N., Anderson, S. P., Brantley, S., Chorover, J., Dralle, D., Kumar, P., Li, L., **Lohse, K. A.**, Mallard, J. M., McIntosh, J. C., Murphy, S. F., Parrish, E., Safeeq, M., Harman, C. accepted. 2020. Signatures of Hydrologic Function and Coevolution Across the Critical Zone Observatory Network. Water Resources Research 56, e2019WR026635, doi:10.1029/2019WR026635

Lohse, K.A.#, S. Billings, DiBiase, R., Kumar, P., Berhe, A.A., Kaye, J. P. (2020) Soil signals tell of landscape disturbances, Eos, 101, https://doi.org/10.1029/2020EO148736.

Lohse, K.A.#, Gallo, E.L, Meixner, T. 2020. Influence of climate and duration of stream water presence on rates of litter decomposition and nutrient dynamics in temporary streams and surrounding environments of southwestern USA Frontiers in Water, special section Water and the Critical Zone, 2(34), doi: 10.3389/frwa.2020.571044

Dove, N., Arogyaswamy, K., Billings, S., Botthoff, J., Carey, C., Cisco, C., DeForest, J., Fairbanks, D., Fierer, N., Gallery, R., Kaye, J., **Lohse, K**., Maltz, M., Mayorga, E., Pett-Ridge, J., Yang, W., Hart, S., Aronson, E., *2020 (in press)*. Continental-scale patterns of extracellular enzyme activity in the subsoil: an overlooked reservoir of microbial activity, Environmental Research Letters, 15(10)**,** 1040a1041. doi: 10.1088/1748-9326/abb0b3.

[Dataset] Commendador, Amy S.; Lohse, Kathleen A.; Finney, Bruce P.; and Aho, Ken A.. (2020). *Dataset for Relationship Between Plant and Soil Isotopes and Climate in a Sagebrush-Steppe Ecosystem of Southern Idaho* [Data set]. Retrieved from doi:10.18122/reynoldscreek/20/boisestate

[Dataset] Huber, David P.; Aho, Ken A.; Flerchinger, Gerald; Lohse, Kathleen A.; and Seyfried, Mark S. (2019). Dataset for Methods to Model Antecedent Effects on Soil Respiration in a Cold Desert Ecosystem: Associated Soil and Environmental Data from the Reynolds Creek Critical Zone Observatory. [Data set]. Retrieved from doi: 10.18122/reynoldscreek/21/boisestate

[Dataset] Gallo, Erika L.; Meixner, Thomas; Lohse, Kathleen A.; and Nicholas, Hillary. (2020). *Dataset for Estimating Surface Water Presence and Streamflow of Ephemeral and Intermittent Streams in Southwest US* [Data set]. Retrieved from 10.18122/reynoldscreek/19/boisestate

Sharma, H., Reinhardt, K. & **Lohse, K.A**. 2020. Fundamental intra-specific differences in plant–water relations in a widespread desert shrub (*Artemisia tridentata*). *Plant Ecology 221:925–938,* doi.org/10.1007/s11258-020-01051-y

[Data set] MacNeille, Ruth B.; **Lohse, Kathleen A.**; Prediral, Julia N.; Godsey, Sarah E.; Baxter, Colden V.; and Seyfried, Mark S. 2020. *Stream Drying and Wildfire Recovery Surface Water Chemistry 2016 Dataset: Temporally Repeated High Spatial Scope Sampling for Intermittent Streams Johnston Draw Creek and Murphy Creek at Reynolds Creek Critical Zone Observatory (RC CZO)*. Retrieved from 10.18122/td/1332/boisestate/reynoldscreek/16

[Dataset] **Lohse, K.A.**, Gallo, E.L., and Meixner, T. 2020. *Dataset on soil physio-chemical properties and seasonal moisture and nutrient dynamics in temporary stream channels and contributing uplands in Arizona, USA.* Boise State University ScholarWorks. doi: 10.18122/boisestate/reynoldscreek/17.

[Dataset] **Lohse, K.A.,** Gallo, E.L., and Meixner, T. 2020. *Dataset on rates of in-situ litter decomposition across a range of ephemeral to seasonally- intermittent stream reaches and landscape positions in Arizona, USA* Boise State State ScholarWorks. doi: 10.18122/boisestate/reynoldscreek/18.

Flerchinger, G.N., Fellows, A. M.S. Seyfried, J. Biederman, **K.A. Lohse**. 2020. Winter CO_2 efflux from sagebrush shrublands distributed across the rain-to-snow transition zone. *JGR Biogeosciences,* 125, e2019JG005325, https://doi.org/10.1029/2019JG005325

Sharma, H., K. Reinhardt, K. A. Lohse, K. Aho. 2020 (on line Dec 27, 2019). Summer-time carbon and water fluxes in sagebrush ecosystems spanning rain-to-snow dominated precipitation regimes. Rangeland Ecology and Management 73(2), 265-275, https://doi.org/10.1016/j.rama.2019.11.002

Vega, S.P., C. J. Williams, E.S. Brooks, F. B. Pierson, E. K. Strand, P. R. Robichaud, R. E. Brown, Mark S. Seyfried, K. A. Lohse, K. Glossner, J. L. Pierce, C. Roehner. 2020. Interaction of wind and cold-season hydrologic processes on erosion from complex topography following wildfire in sagebrush steppe. *Earth Surface Processes and Landforms,* 45: 841– 861, *doi.org/10.1002/esp.4778*

Flerchinger, G. N., A. W. Fellows, M. S. Seyfried, P. E. Clark, and **K. A. Lohse**. 2020. Water and carbon fluxes along an elevational gradient in a sagebrush ecosystem. Ecosystems, **23,** 246–263, doi.org/10.1007/s10021-019-00400-x

2019

[Data set] Sharma, H., Reinhardt, K., Lohse, K. A. 2019. Data for a Comparison of Sap Flux Among Three Sagebrush Communities Spanning Rain-to Snow-Dominated Precipitation Regimes [Data set], BSU ScholarWorks, Doi: 10.18122/reynoldscreek/15/

Brewer, T.E., Aronson, E. L., Arogyaswamy, K., Billings, S. A., Botthoff, J. K., Campbell, A. N., Dove, N.C., Fairbanks, D., Gallery, R. E., Hart, S.C. Kaye, J., King, G., Logan, G., Lohse, K.A., Maltz, M. R., Mayorga, E., O'Neill, C. Owens, S. M., Packman, A., Pett-Ridge, J., Plante, A. F., Richter, D. D., Silver, W. L., Yang, W. H., Fierer, N. 2019. Ecological and Genomic Attributes of Novel Bacterial Taxa That Thrive in Subsurface Soil Horizons. *mBio 10 (5):* e01318-19 10.1128/mBio.01318-19.

Renwick, K., A. Fellows, G. Flerchinger, **K. A. Lohse**, P. E. Clark, W. K. Smith, K. Emmett, and B. Poulter. Accepted. Modeling phenological controls on carbon dynamics in dryland sagebrush ecosystems. Agricultural and Forest Meteorology 274: 15, 85-94

Patton, N. R., **K. A. Lohse**#, M. S. Seyfried, S. E. Godsey, and S. Parsons. 2019. Topographic controls on soil organic carbon on soil-mantled landscapes. Scientific Reports *9:* 6390, doi: 10.1038/s41598-019-42556-5 (*Patton and Lohse contributed equally)

Huber, D. P., **K. A. Lohse**, A. Commendador, S. Joy, B. Finney, K. Aho, and M. Germino. In press. Vegetation and precipitation shifts interact to alter organic and inorganic carbon storage in desert soils. *Ecosphere* 10(3):e02655. 10.1002/ecs2.2655

Patton, N. P., **K. A. Lohse**, M. S. Seyfried, R. Will, and S. G. Benner. 2019. Lithology and coarse fraction adjusted bulk density estimates for determining total organic carbon stocks in dryland soils. Geoderma *337:* 844-852, https://doi.org/10.1016/j.geoderma.2018.10.036

Radke, A. G., S. E. Godsey, **K. A. Lohse**, E. McCorkle, J. Perdrial, M. S. Seyfried, W. S. Holbrook. 2019. Spatiotemporal heterogeneity of water flowpaths controls dissolved organic carbon sourcing in a snow-dominated, headwater catchment. Frontiers in Ecology and Evolution, 7:46. doi: 10.3389/fevo.2019.00046

2018

Seyfried, M. S., **K. A. Lohse**, D. Marks, G. N. Flerchinger, F. Pierson. 2018. Reynolds Creek Experimental Watershed and Critical Zone Observatory. Vadoze Zone Journal Vadose Zone J. 17:180129. doi:10.2136/vzj2018.07.0129

Patton, N. R., **K. A. Lohse#**, S. E. Godsey, B. T. Crosby, and M. S. Seyfried. 2018. Predicting soil thickness on soil mantled hillslopes. Nature Communications. 9: 3329, DOI: 10.1038/s41467-01805743-y

Huang, L., H. Liao, **K. A. Lohse**, D. Larson, M. Fragkias, D. Lybecker, and C. Baxter. 2019 (published on-line Oct 2018). Land conservation can mitigate freshwater ecosystem services degradation due to climate change in a semiarid, agriculturally dominated catchment. Science of the Total Environment 65: 1796-1809 https://doi.org/10.1016/j.scitotenv.2018.09.260

Fellows, A., G. Flerchinger, M. Seyfried, **K. A. Lohse**, and N. R. Patton. 2018 (on line). Controls on gross production in an aspen-sagebrush vegetation mosaic. Ecohydrology. 12:e2046, https://doi.org/10.1002/eco.2046

Richter, D. D., S. A. Billings, P. M. Groffman, E. F. Kelly, **K. A. Lohse**, W. H. McDowell, T. S. White, S. Anderson, D. D. Baldocchi, S. Banwart, S. Brantley, J. J. Braun, Z. S. Brecheisen, H. E. Hartnett, S. E. Hobbie, J. Gaillardet, E. Jobbagy, H. F. Jungkunst, C. E. Kazanski, J. Krishnaswamy, D. Markewitz, K. O'Neill, C. S. Riebe, P. Schroeder, C. Siebe, W. L. Silver, A. Thompson, A. Verhoef, and G. Zhang. 2018. Strengthening the biogeosciences in environmental research networks. Biogeosciences Discussions, 15, 4815–4832.

Kormos, P. R., D. G. Marks, M. S. Seyfried, S. C. Havens, A. Hedrick, **K. A. Lohse**, M. Sandusky, A. Kahl, and D. Garen. 2018. Data paper: 31 Years of spatially distributed air temperature, humidity, precipitation amount and precipitation phase from Reynolds Critical Zone Observatory. ESSD **10**, 1197-1205, https://doi.org/10.5194/essd-10-1197-2018.

Fellows, A., G. Flerchinger, M. S. Seyfried, and **K. A. Lohse**. 2018 (published on-line). Rapid recovery of mesic mountain big sagebrush gross production and respiration following prescribed fire. Ecosystems, https://doi.org/10.1007/s10021-017-0218-9.

Felt, C., M. Fragkias, D. Larson, H. Liao, **K.A. Lohse**, D. Lybecker, S. Parsons. 2018 (published online). A comparative study of urban fragmentation patterns in small and mid-sized cities of Idaho. Urban Ecosystems.

Galanter, A., D. Cadol, and **K. A. Lohse**. 2018 (on-line). Geomorphic influences on the distribution and accumulation of pyrogenic carbon (PyC) following a low severity wildfire in northern New Mexico. Earth Surface Processes and Landforms **43**: 2207–2218.

Huber, D. P., **K. A. Lohse**, A. Commendador, S. Joy, B. Finney, K. Aho, and M. Germino. 2018. Dataset: Change in carbon storage for cold desert ecosystems controlled by precipitation seasonality and invasive vegetation. BSU ScholarWorks, Boise State University.

Murdock, M. D., D. P. Huber, M. S. Seyfried, N. R. Patton, and **K. A. Lohse**. 2018. Dataset for soil hydraulic parameter estimates along an elevation gradient in dryland soils. BSU ScholarWorks, Boise State University.

Patton, N. R., **K. A. Lohse**, S. E. Godsey, S. B. Parsons, and M. S. Seyfried. 2018a. Dataset for topographic controls on total soil organic carbon in semi-arid environments. BSU ScholarWorks, Boise State University.

Patton, N. R., **K. A. Lohse,** M. S. Seyfried, R. M. Will, and S. Benner. 2018b. Dataset for lithology and coarse fraction adjusted bulk density estimates for determining total organic carbon stocks in dryland soils. BSU ScholarWorks, Boise State University.

Perdrial, J., P. Brooks, T. Swetnam, **K. Lohse**, C. Rasmussen, M. Litvak, A. Harpold, X. Zapata-Rios, P. Broxton, B. Mitra, T. Meixner, K. Condon, D. Huckle, C. Stielstra, A. Vazquez-Ortega, R. Lybrand, M. Holleran, C. Orem, J. Pelletier, and J. Chorover. 2018. A net ecosystem carbon budget for snow dominated forested headwater catchments: linking water and carbon fluxes to critical zone carbon storage. Biogeochemistry **138** 225–243.

2017

Blay, E. S. (undergraduate lead paper), S. G. Schwabedissen, T. S. Magnuson, K. Aho, P. P. Sheridan, and **K. A. Lohse**. 2017. Variation in biological soil crust bacterial abundance and diversity as a function of climate in cold steppe ecosystems in the Intermountain West, USA. Microbial Ecology **74**:691–700.

Brantley, S. L., W. H. McDowell, W. E. Dietrich, T. S. White, P. Kumar, S. Anderson, J. Chorover, **K. A. Lohse**, R. C. Bales, D. Richter, G. Grant, and J. Gaillardet. 2017. Designing a network of critical zone observatories to explore the living skin of the terrestrial Earth. Earth Surf. Dynam. Discuss. **5**:841–860.

Fellows, A. W., G. N. Flerchinger, M. S. Seyfried, and **K. Lohse**. 2017. Data for partitioned carbon and energy fluxes within the Reynolds Creek Critical Zone Observatory. BSU ScholarWorks, Boise State University.

Patton, N. R., **K. A. Lohse**, S. E. Godsey, M. S. Seyfried, and B. T. Crosby. 2017a. Dataset for predicting soil thickness on soil mantled hillslopes. BSU ScholarWorks, Boise State University.

Patton, N. R., **K. A. Lohse**, M. S. Seyfried, A. G. Radke, and S. E. Godsey. 2017b. Dataset: Soil properties of Reynolds Mountain East a subcatchment of Reynolds Creek, Idaho. BSU ScholarWorks, Boise State University.

Schwabedissen, S. G., **K. A. Lohse**#, S. C. Reed, K. A. Aho, and T. S. Magnuson. 2017. Nitrogenase activity by biological soil crusts in cold sagebrush steppe ecosystems. Biogeochemistry **134**:57–76.

Stanbery, C., J. L. Pierce, S. G. Benner, and **K. Lohse**. 2017. On the rocks: quantifying storage of inorganic soil carbon on gravels and determining pedon-scale variability. Catena **157**:436-442.

Stromberg, J., D. Setaroa, E. Gallo, **K. Lohse**, and T. Meixner. 2017. Riparian vegetation of ephemeral streams. Journal of Arid Environments **138**:27-37.

Tennant, C. J., A. A. Harpold, **K. A. Lohse**, S. E. Godsey, B. T. Crosby, L. G. Larsen, P. D. Brooks, R. W. V. Kirk, and N. Glenn. 2017. Regional sensitivities of seasonal snowpack to elevation, aspect, and vegetation cover in western North America. Water Resources Research **53**:6908–6926

Will, R. M., S. Benner, N. F. Glenn, J. Pierce, **K. A. Lohse**, N. Patton, L. P. Spaete, and C. Stanbery. 2017. Reynolds Creek – A Collection of Near-Surface Soil Organic Carbon (SOC) Maps, GIS/Map Data.

2016

Beal, L. K. (undergraduate lead paper), D. P. Huber, S. E. Godsey, S. K. Nawotniak, and **K. A. Lohse#.** 2016. Controls on ecohydrologic properties in desert ecosystems: differences in soil age and volcanic morphology. Geoderma **271**:32–41.

Kormos, P. R., D. Marks, M. Seyfried, S. Havens, A. Hedrick, **K. A. Lohse**, M. Masarik, and A. N. Flores. 2016. 31 Years of spatially distributed air temperature, humidity, precipitation amount and precipitation phase from a mountain catchment in the rain-snow transition zone [Data set]. BSU ScholarWorks, Boise State University.

2015

White, T., S. Brantley, S. Banwart, J. Chorover, W. Dietrich, L. Derry, **K. Lohse**, S. Anderson, A. Aufdendkampe, R. Bales, P. Kumar, D. Richter, and B. McDowell. 2015. Chapter 2 – The Role of Critical Zone Observatories in Critical Zone Science. Pages 15–78 Developments in Earth Surface Processes.

Gallo, E. L., T. Meixner, H. Aoubid, **K. A. Lohse**, and P. D. Brooks. 2015. Combined impact of spatial scale, land cover and climate on streamflow and stream nitrogen: A global comparative analysis Global Biogeochemical Cycles **29**:1109–1121.

Guernsey, N., **K. A. Lohse**, and R. T. Bowyer. 2015. Rates of decomposition and nutrient release of herbivore inputs are driven by habitat microsite characteristics. Ecological Research **30**:951–961.

2014

Hale, R. L., L. Turnbull, S. Earl, N. Grimm, K. Riha, G. Michalski, **K. A. Lohse**, and D. Childers. 2014. Sources and transport of nitrogen in arid urban watersheds. Environmental Science & Technology **48:** 6211−6219.

Harman, C., **K. A. Lohse**, P. Troch, and M. Sivapalan. 2014. Spatial patterns of vegetation, soils, and microtopography from terrestrial laser scanning on two semiarid hillslopes of contrasting lithology. Journal of Geophysical Research-Biogeosciences **119**:163-180.

Gallo, E. L., **K. A. Lohse**, P. D. Brooks, C. Ferlin, and T. Meixner. 2014. Physical and biological controls on trace gas fluxes in semi-arid urban ephemeral waterways. Biogeochemistry **121**:189–207.

Jensen, A., **K. A. Lohse**, B. T. Crosby, and C. I. Mora. 2014. Variations in soil carbon dioxide efflux across a thaw slump chronosequence in northwestern Alaska. Environmental Research Letters **9**:025001.

Riha, K., G. Michalski, E. L. Gallo, **K. A. Lohse**, P. D. Brooks, and T. Meixner. 2014. High atmospheric nitrate inputs and nitrogen turnover in semi-arid urban catchments. Ecosystems **17:** 1309–1325.

Weber, C. F., J. S. Lockhart, E. Charaska, K. Aho, and **K. A. Lohse**. 2014. Bacterial composition of soils in ponderosa pine and mixed conifer forests exposed to different wildfire burn severity. Soil Biology and Biochemistry **69**:242-250.

2013

Lloyd, R. A., **K. A. Lohse**#, and T. P. A. Ferre. 2013. Influence of road reclamation techniques on forest ecosystem recovery. Frontiers in Ecology and the Environment **11**:75-81.

Gallo, E. L., P. D. Brooks, **K. A. Lohse**, and J. E. T. McLain. 2013a. Land cover controls on summer discharge and runoff solution chemistry of semi-arid urban catchments. Journal of Hydrology **485**:37–53.

Gallo, E. L., P. D. Brooks, **K. A. Lohse**, and J. E. T. McLain. 2013b. Temporal patterns and controls on runoff magnitude and solution chemistry of urban catchments in the semiarid southwestern United States. Hydrological Processes **27**:995-1010.

Lohse, K. A., J. Sanderman, and R. Amundson. 2013. Identifying sources and processes influencing nitrogen export to a small stream using dual isotopes of nitrate. Water Resources Research **49**:57155731.

Pelletier, J. D., G. A. Barron-Gafford, D. D. Breshears, P. D. Brooks, J. Chorover, M. Durcik, C. J. Harman, T. E. Huxman, **K. A. Lohse**, R. Lybrand, T. Meixner, J. C. McIntosh, S. A. Papuga, C. Rasmussen, M. Schaap, T. L. Swetnam, and P. A. Troch. 2013. Coevolution of nonlinear trends in vegetation, soils, and topography with elevation and slope aspect: A case study in the sky islands of southern Arizona. Journal of Geophysical Research-Earth Surface **118**:741-758.

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Gallo, E. L., **K. A. Lohse**, P. D. Brooks, J. E. T. McLain, J. C. McIntosh, and T. Meixner. 2012. Quantifying the effects of stream channels on storm water quality in a semi-arid urban environment. Journal of Hydrology **470–471**:98–110.

2011

Bates, B. L., J. C. McIntosh, **K. A. Lohse**, and P. D. Brooks. 2011. Influence of groundwater flowpaths, residence times and nutrients on the extent of microbial methanogenesis in coal beds: Powder River Basin, USA. Chemical Geology **284**:45-61.

Brown, K. B., J. C. McIntosh, L. K. Rademacher, and **K. A. Lohse**. 2011. Impacts of agricultural irrigation recharge on groundwater quality in a basalt aquifer system (Washington, USA): a multitracer approach. Hydrogeology Journal **19**:1039-1051.

Carlson, M. A., **K. A. Lohse**, J. C. McIntosh, and J. E. T. McLain. 2011. Impacts of urbanization on groundwater quality and recharge in a semi-arid alluvial basin. Journal of Hydrology **409**:196-211.

Chorover, J., P. A. Troch, C. Rasmussen, P. D. Brooks, J. D. Pelletier, D. D. Breshears, T. E. Huxman, S. A. Kurc, **K. A. Lohse**, J. C. McIntosh, T. Meixner, M. G. Schaap, M. E. Litvak, J. Perdrial, A. Harpold, and M. Durcik. 2011. How water, carbon, and energy drive critical zone evolution: The Jemez-Santa Catalina Critical Zone Observatory. Vadose Zone Journal **10**:884-899.

McLain, J. E. T., C. M. Rock, **K. Lohse**, and J. Walworth. 2011. False-positive identification of *Escherichia coli* in treated municipal wastewater and wastewater-irrigated soils. Canadian Journal of Microbiology **57**:775-784.

2010

Lohse, K. A., E. L. Gallo, and J. R. Kennedy. 2010. Possible tradeoffs from urbanization on groundwater recharge and water quality. Southwest Hydrology **1**:18-19; 32.

2009

Lohse, K. A., P. D. Brooks, J. C. McIntosh, T. Meixner, and T. E. Huxman. 2009. Interactions between biogeochemistry and hydrologic systems. Annual Review of Environment and Resources **34**:65–96.

Brooks, P. D., and **K. A. Lohse**. 2009. Water quality in the San Pedro River.*in* J. Stromberg and B. Tellman, editors. Ecology and Conservation of the San Pedro River. University of Arizona Press, Tucson, AZ.

Lohse, K. A., and A. M. Merenlender. 2009. Impacts of exurban development on water quality. Pages 159-179 *in* A. X. Esparza and G. McPherson, editors. Planner's Guide to Natural Resource Conservation: The Science of Land Development Beyond the Metropolitan Fringe. Springer-Verlag, New York.

Sanderman, J., **K. A. Lohse**, J. A. Baldock, and R. Amundson. 2009. Linking soils and streams: Sources and chemistry of dissolved organic matter in a small coastal watershed. Water Resources Research **45**:W03418.

2008

Lohse, K. A., D. Hope, R. Sponseller, J. O. Allen, and N. B. Grimm. 2008a. Atmospheric deposition of carbon and nutrients across an and metropolitan area. Science of the Total Environment **402**:95105.

Lohse, K. A., D. A. Newburn, J. J. Opperman, and A. M. Merenlender. 2008b. Forecasting relative impacts of land use on anadromous fish habitat to guide conservation planning. Ecological Applications **18**:467-482.

2006

Langridge, R., J. Christian-Smith, and **K. A. Lohse**. 2006. Access and resilience: Analyzing the construction of social resilience to the threat of water scarcity. Ecology and Society **11**:18.

2005

Lohse, K. A., and W. E. Dietrich. 2005. Contrasting effects of soil development on hydrological properties and flow paths Water Resources Research **41**:W12419.

Lohse, K. A., and P. A. Matson. 2005. Consequences of nitrogen additions for soil processes and soil solution losses from wet tropical forests. Ecological Applications **15:** 1629–1648.

Opperman, J. J., **K. A. Lohse**, C. Brooks, N. M. Kelly, and A. M. Merenlender. 2005. Influence of land use on fine sediment in salmonid spawning gravels within the Russian River Basin, California. Canadian Journal of Fisheries and Aquatic Sciences **62**:2740-2751.

2002

Matson, P., **K. A. Lohse**, and S. J. Hall. 2002. The globalization of nitrogen deposition: Consequences for terrestrial ecosystems. Ambio **31**:113-119.

Lohse, K. A. 2002. Hydrological and biogeochemical controls on nitrogen losses from tropical forests: responses to anthropogenic nitrogen additions. Ph.D. University of California, Berkeley, Berkeley, CA.

1995

Lohse, K. A. (as undergraduate), D. Nullet, and P. M. Vitousek. 1995. The effects of an extreme drought on the vegetation of a single lava flow on Mauna Loa, Hawaii. Pacific Science **49**:212-220.

PRODUCTS/PATENTS

Lohse, K. A., N. Patton, S. Godsey, B Crosby. Soil Depth Measuring System and Method, Provisional Patent Application, September 22, 2017, #62/561,973

GRANTS FUNDED

2007-2009 **Lohse, K. A**., P. D. Brooks, J. McIntosh, T. Meixner. Tradeoffs between enhanced urban storm recharge and water quality: The influence of urban housing age and density on nutrients, metals and organic pollutants, State of Arizona, TRIF Water Sustainability Program (WSP), $97,527.07 [Principle Investigator]

2007-2009 Brooks, P.D., **K.A. Lohse**, E. Gallo, J. McIntosh, T. Meixner, G. Woodard. Evaluating the effects of climate and land use change on runoff and recharge with high resolution measurements of the quantity, chemistry, and isotopic signature of rainfall and runoff, TRIF-WSP Center Directed Funds, $27,400 [Co-Principle Investigator]

2007-2010 **Lohse. K.A**. Possible Tradeoffs of Enhanced Urban Storm Recharge and Water Quality, University of Arizona, Agricultural Experiment Station Funds, $6000 [Principle Investigator]

2008-2009 **Lohse, K.A**. Influence of climate and increased variability of precipitation on coupled water, nutrient and carbon dynamics and losses. University of Arizona, Institute for the Study of Planet Earth, Faculty Exploratory Research Grant + B2 Match, $20,000 [Principle Investigator]

2009-2010 **Lohse, K.A**., J. McIntosh, P.D. Brooks, Transport and fate of mercury and other metals in Tucson's urban metropolitan area: Role of watershed sources versus atmospheric deposition, WRRC 104b, $10,000, Principle Investigator

2009-2010 **Lohse, K.A**., J.E.T McLain, J. Pelletier. Recovery rates of ecological and hydrological functions to active and passive restoration, UA ADVANCE, $35,000

2009-2013 **Lohse, K.A**., P. Brooks, T. Meixner. Collaborative Research: Impact of Urbanization on Nitrogen Biogeochemistry in Xeric Ecosystems, NSF DEB, Ecosystem Sciences, $875,564 [Principle Investigator]

2010 **Lohse, K**. Lochsa Road Decommissioning Contract Monitoring. ARRA Agreement (American Recovery and Reinvestment Act of 2009 (Public Law 111-5), Challenge Cost Share # 10-CS-110182B1-071, University of Arizona and United States Forest Service-Clearwater National, $12,231.12 [Principle Investigator]

2010-2011 **Lohse, K**. Lochsa Road Decommissioning Contract Monitoring Non-ARRA Agreement #10-CS-11010500-01, Challenge Cost Share, University of Arizona and United States Forest Service-Clearwater National, $15,921.33 [Principle Investigator]

2009-2013 Chorover, J., P. Troch, P. Brooks, C. Rasmussen, J. Pelletier (and others participants including K. Lohse). Transformative Behavior of Energy, Water and Carbon in the Critical Zone: An Observatory to Quantify Linkages among Ecohydrology, Biogeochemistry, and Landscape Evolution, NSF EAR Critical Zone Observatory, $4.35 million, 8.3% credit to Lohse [also see Lohse subaward]

2009-2013 Sivapalan, M., P. Kumar, **K. Lohse**, and P. Troch. Collaborative Research: Biotic alteration of soil hydrologic properties: controls on water and nitrogen availability, and prediction in an ecohydrologic optimality framework, NSF Hydrological Sciences, total $527,979, UA portion $143,735 [Co-Principle Investigator]

- Award retained at UA to support student and managed through UA via adjunct status]

2009-2014 Stromberg, J., J. Sabo, T. Meixner, and **K. Lohse**. Structure and Function of Ephemeral Streams in the Arid and Semiarid Southwest: Implications for Conservation and Management, DOD SERDP, total $850,051, UA portion $495,039 [Co-Principle Investigator, $169,810 subcontract to ISU]

2009-2010 **Lohse, K.A.,** P.D. Brooks, T. Meixner. Research support for the purposes of data generation and seed funding to evaluate the impacts of urbanization and climate drivers on arid to semi-arid ecosystems, State of Arizona, TRIF WSP, $30,000 [Principle Investigator]

2010-2011 McIntosh, J, **K. Lohse**, and A. Sorooshian. Sources and transport of nitrogen from sky-island ecosystems to groundwater basins, WRRC, $10,000 [Co-Principle Investigator]

2011-2013 **Lohse**. K. Biogeochemical Interactions along a critical zone continuum, NSF CZO EAR. UA Subaward to ISU, $77,204 [Principle Investigator]

2011-2013 **Lohse**. K. Graduate training evaluating the effects of altered precipitation seasonality and vegetation change on coupled water and biogeochemical cycles in the Snake River Basin, NSF EPSCoR Track 1 RII grant – Water Resources in a Changing Climate, $72,206 [Principle Investigator]

2011 **Lohse, K.A.** Long-term effects of vegetation change and altered precipitation treatments on soil N dynamics, NASA EPSCoR REU, $5000

2012 **Lohse, K.,** B**.** Crosby, and C. Baxter. Landscapes in Transition: Sustaining socialecological resiliency and services**.** Idaho EPSCoR Concept Paper [encouraged]

2012-2013 **Lohse, K.A.** and T. Bowyer. Evaluating the consequences of sexual segregation of moose for habitat selection and nutrient dynamics in an area slated for energy development in the Greater Yellowstone Ecosystem. Idaho State University URC proposal, $12,353.00 [Principle Investigator]

2012 **Lohse, K.A.** Long-term effects of vegetation change and altered precipitation treatments on deep soil properties, NASA EPSCoR REU, $5000

2012 **Lohse, K.A.** Effects of differential use of habitat by moose on fecal matter decomposition, NSF EPSCoR REU, $5000

2012 Germino, M. (PI), B. Richardson, N. Shaw, D. Pilliod, K. Reinhardt (K. Lohse-participant) Sagebrush ecosystems in a changing climate, NW Climate Science Center funding, $120,842, no funding to Lohse.

2013-2018 Goodwin, P., N Glenn, J. Gosz, and S. Benner. Managing Idaho's Landscapes for Ecosystem Services (MILES), EPSCoR RII proposal, total $20,000,000, Awarded June 2013

- As Assistant Professor, Lohse developed and wrote initial science component of the proposal but received no co-PI status.

Lohse, K.A. Development of soils and hydraulic properties, NSF EPSCoR REU, $5000

2013-2018 **Lohse, K.,** M. Seyfried, N. Glenn, S. Benner, and A. Flores. Reynolds Creek Carbon Critical Zone Observatory, NSF EAR, $5,000,000, funded at $2,500,000 [Principle Investigator]

2014-2015 **Lohse, K.A.,** A. Moyes, S. Godsey, K. Reinhardt. Development of continuous soil respiration measurements in snow dominated systems for a temporally intensive and spatially extensive network at Reynolds Creek Critical Zone Observatory, ISU Developing Collaborative Partnerships (DCP) Proposal, $49,600 [Principle Investigator]

2015-2017 **Lohse, K.A.,** D. Larson, C. Baxter, D. Lybecker, M. Fragkias, F. Liao. Towards ONEIdaho: An investigation of social-ecological system boundaries and domains across MILES sites, NSF Idaho EPSCoR MILES ISEED, $238,852 [Principle Investigator]

2016-2018 **Lohse, K.A**., Reynolds Creek Carbon Critical Zone Observatory, $35,000 supplement [Principle Investigator]

2016-2017 Blaustein Visting Professor Fellowship, Stanford University, $40,000 [Principle Investigator]

2017 **Lohse**, K. Critical Zone Science Innovation Working Group, MILES CERE, $7500

2017 **Lohse**, K. Repairing instrumentation, ISU CoSE internal grant, $2000

2018-2019 **Lohse, K.,** M. Seyfried, N. Glenn, S. Benner, and A. Flores. Reynolds Creek Carbon Critical Zone Observatory supplement. NSF EAR, $499,999, Sept 2018-Sept 2019 [Principle Investigator]

2018-2020	**Lohse, K.** USDA ARS Geospatial and Web Content Services, $93,506, contract [Principle Investigator]
2019-2020	You, Y., and K. Lohse. Harness the potential of poultry litter for the food-water energy nexus through litter derived biochar as a soil amendment program. ISU Collaborative Partnership with INL and USDA ARS. $49,958,
2019-2020	You, Y., and K. Lohse, ORAU Events funding, $4000 for seminar speakers
2019-2022	Lohse, KA. (PI) M. Seyfried, L. Flores, N Glenn, and S Benner. Reynolds Creek Critical Zone Observatory, $409k supplement (Oct 1 2019-Nov 30 2021)
2020-2025	Lohse, KA (Senior Personnel) University of California Riverside (Emma Aronson PI). Collaborative Research: Network Cluster: Geomicrobiology and Biogeochemistry in the Critical Zone, $483,083
2020-2024	Lohse, KA (co-I) with Godsey PI, Hale, Aho co-PIs). RII Track-2 FEC: Aquatic Intermittency effects on Microbiomes in Streams (AIMS) 5,998,875 (~$1.9M to ISU).
2021-2022	Grinath, J., K. Turner, K. Reinhardt, B. Finney, K. Lohse (co-PI) RAPID: Ecological memories and theory-guided recovery of post-firesteppe, $199,997
2021-2023	Lohse, K. NSF INTERN (DCL) supplement to Reynolds Creek CZO Cooperative Agreement, $51,222 + $48200
2021-2023	Lohse, K. NSF COVID (DCL) supplement to Reynolds Creek CZO Cooperative Agreement, $108286
2021-2023	Grinath, J., et al. including K. Lohse (Co-PI). GEM3 Seed Funding: Challenges to sagebrush establishment: Ploidylevel and reource co-limitation, competition, and ant-driven heterogeneity, EPSCoR GEM3 Internal funding $204000
2022-2024	Lohse, K. NSF GEOREP (DCL) supplement to Reynolds Creek CZO Cooperative Agreement, $27,341
Declined	Lohse, KA. (PI), S. Godsey, E. Graham, K. Son, B. Carr. Influence of temporary stream flow transport, processing, and delivery of carbon and nitrogen from uplands to perennial stream ecosystems, DOE Office of Science, $1,000,000, 9/1/2021 8/31/2024
Declined	Lohse, K. and A. Chakraborty. GEM3 Seed Funding: Mapping the seasonal dynamics of sulfur biogeochemistry and associated groundwater microbiome in Reynolds Creek Critical Zone Observatory in SW Idaho Idaho EPSCoR GEM3 Internal funding $70675
2021-2023	Lohse, K.A. (PI) Collaborative Critical Zone Experimentation. $114,228
2022-2023	Lohse, K.A. (PI, change with Hale departure), Pocatello Urban Storm runoff project, contract, ~$50,000

2023-2024 Lohse, K. Building capacity in groundwater sulfur biogeochemistry and tools with implications for drinking water, ISU internal seed grant, $20000

Summer 2023 Lohse, K. EPSCOR GEM3 SARE undergraduate support 2 students

Declined Lohse, K., Godsey, SE. Son, K, Hedricks, A., You, Y. Influence of fire on intermittent streamflow behavior and carbon and nitrogen cycling at the rain to snow transition, $1000000

2023-2025 Speer, A., K. Lohse (co-PI). MRI: Acquisition of a Laser Ablation - Inductively Coupled Plasma - Triple Quadrupole - Mass Spectrometer (LA-ICP-QQQ-MS) System For Research and Education $881597

INVITED TALKS/SEMINARS

Lohse, K. and RC CZO team. 2022. The zone underfoot: Improving prediction and understanding of soil carbon and the processes governing it at the Reynolds Creek Critical Zone Observatory, Rutgers University, Nov 16, 2022

Lohse, K., Glossner, K., MacNeille, R., Seyfried, M., Pierce, J., Patton, N., Flerchinger, G., Fellows, A., Pierson, F., Trajectories of ecosystem functions after disturbances spanning terrestrial and aquatic domains in the Intermountain West Ecological Society of America Annual Meeting, Ecological Society of America, San Diego, California, Conference, Invited August 2, 2021.

Lohse, K. and RC CZO team. 2019. Altered Fire Regime and Climate Strongly Impact Critical Terrestrial and Hydrological Biogeochemical Processes in Dryland Ecosystems in the Western US. SSSA, San Antonio, Texas, Nov 13, 2019

Lohse, K, 2017. Improving prediction of soil carbon and fluxes at the plot to landscapes scale, Pennsylvania State University, Oct. 30.

Lohse, K. 2017. Challenges of quantifying short-term hydrobiogeochemical processes in the critical zone, SEG American Geophysical Union Hydrogeophysics Workshop: Imaging the Critical Zone, July 24-27.

Lohse, K. 2017. Challenges of boundaries and interfaces in scaling biogeochemical processes from pedon to catchment scale, Gordon Research Conference, Bates, Maine, June 24-30.

Lohse, K. 2017. Improving prediction of soil carbon and fluxes at plot to landscape scales, Department of Earth and Environmental Sciences, Stanford University, Fendorf Lab, May 31.

Lohse, K. 2017. Improving soil thickness and carbon estimates: A bottom up approach at the Reynolds Creek Critical Zone Observatory, Department of Geophysics, Stanford University, Rosemary Knight Lab, April 5.
Lohse, K. 2017. Improving soil depth and carbon predictions at the plot to watershed scale in dryland ecosystems, Department of Earth and Environmental Sciences, Stanford University, Jackson Lab, April 21.

Lohse, K. 2017. Tradeoffs of urbanization for aqueous and gas losses of nitrogen in a semi-arid environment, Department of Earth and Environmental Sciences, Stanford University, April 4.

Lohse, K. 2017. Critical zone science in landscape management, NSF Critical Zone Observatory Network All Hands Meeting, Washington, DC. June 3-6.

Lohse, K., G. Flerchinger, A. Fellows, M. Seyfried, E. McCorkle, R. Macneille. 2016. Taking the pulse of the skin of the earth: quantifying the spatial and temporal variability in soil biogeochemical cycling and stream aqueous losses, American Geophysical Union Fall Meeting, San Francisco, CA, Dec. 15.

Lohse, K. 2016. Coupling biogeochemistry and hydrology to understand and predict ecosystem to watershed responses to anthropogenic changes, Soil Resources Seminar, ETH Zurich, Switzerland, July 7-8.

Lohse, K. A., M. Seyfried, F. Pierson. 2015. Managing the critical zone to obtain and sustain multiple benefits from working landscapes: The value of partnerships between LTAR and NSF CZO networks, American Geophysical Union Fall Meeting, San Francisco, CA, Dec. 18.

Lohse, K. 2015. Linking hydrology and biogeochemistry to predict ecosystem responses to anthropogenic changes, Department of Geography, University of Utah, Jan. 28.

Lohse, K. & RC CZO research team. 2014. Significant Learning Experiences in Ecohydrology in the Critical Zone (ED44C-03), American Geophysical Union Fall Meeting, San Francisco, CA, Dec. 18.

Lohse, K.A. & RC CZO research team. 2014. What are the values and benefits of monitoring?. Our Changing Globe: The Challenges and Value of Monitoring Earth Processes, Board on Earth Sciences and Resources, National Academy of Sciences, Washington, D.C., May 8-9.

Lohse, K. & RC CZO research team. 2014. Reynolds Creek CZO update, Calhoun PI CZO meeting, North Carolina, April 15-16.

Lohse, K. A., R. A. Lloyd, J. E. T. McLain. 2013. Active road reclamation approaches accelerate recovery of soil ecosystem properties and microbial communities compared to road closure approaches, Ecological Society of America, Aug. 4-9.

Lohse, K. A., E. L. Gallo, P. D. Brooks, and T. Meixner. 2012. Production, gaseous loss and export of N in urban desert stream ecosystems (B12D-01), American Geophysical Union Fall meeting, San Francisco, CA, Dec 5.

Lohse, K. 2011. Linking soil nitrogen cycling to hydrologic nitrogen transport at plot to catchment scale, American Geophysical Union Fall meeting, San Francisco, CA, Dec 5.

Lohse, K. 2011. Impacts of urbanization on nitrogen cycling and aerosol, surface and groundwater transport in semi-arid regions, American Geophysical Union Fall Meeting, San Francisco, CA, Dec. 9.

Lohse, K. 2010. Coupling soil water, carbon and nitrogen cycles to understand and predict ecosystem responses to global changes, Utah State University, Logan, UT, April 26.

Lohse, K. 2010. Taking the Pulse of Ecosystems: Coupling soil water, carbon and nitrogen cycles to understand and predict ecosystem responses to global changes, Idaho State University, Pocatello, ID, April 1.

Lohse. K. and UA CZO Research Team. 2009. Jemez River Basin and Santa Catalina Mountain Critical Zone Observatory. A Presentation to Biosphere Advisory Board Meeting, National Academy of Sciences, NSF Directorate of Geosciences, NSF Directorate of Earth Surface Processes, NSF Program Director EAR at the National Academy of Sciences, Washington DC, Oct 29.

Lohse, K. A., E. L. Gallo, P. D. Brooks, J. E. T. McLain, J. C. McIntosh, and T. Meixner. 2009. Sustaining water resources in an arid to semi-arid urban ecosystem: Influence of wash substrate of in-stream processing and water quality, Ecological Society of America, Albuquerque, NM, Aug. 4.

Lohse, K., J. Sanderman, and R. Amundson. 2008. Coupling water, carbon and nitrogen cycles at the hillslope to catchment scale, American Geophysical Union Fall Meeting, San Francisco, CA, Dec. 16.

Lohse, K. 2008. Atmospheric deposition of nutrients and carbon and storm runoff in cities of the desert Southwest, USDA-ARS, Maricopa County, AZ, Oct 20.

Lohse, K. 2008. An integrated watershed approach to sustaining water resources for human and natural systems, Department of Agricultural and Biosystems Engineering, University of Arizona, Tucson, AZ, Feb 18.

Lohse, K. 2007. How does active storm water management influence runoff-recharge and water quality? Sustainability Forum Panelist, and Energy Nexus Issues, University of Arizona, Tucson, AZ, Oct 25.

Lohse, K. 2007. Influence of hydropedology on retention and loss of nitrogen from upland ecosystems, Department of Soil, Water and Environmental Sciences, University of Arizona, Tucson, AZ, Sept 10.

Lohse, K. 2006. Effects of soil development on hydrological properties and flow paths: consequences for nutrient losses, Department of Hydrology and Water Resources, University of Arizona, Tucson, AZ, April 28.

Lohse, K. 2006. From the plot to the landscape: Scaling watershed hydrology and biogeochemistry, Department of Environmental Sciences, UC Riverside, Riverside, CA, April 10.

Lohse, K. 2006. Sustaining water resources for human and natural systems: An integrated watershed approach. Department of Geography, Department of Planning, University of Texas, Austin, TX, Feb 28.

Lohse, K. 2006. Ecohydrologic linkages: Using hydrological flow paths to scale biogeochemical processes. Department of Integrative Biology, University of Texas, Austin, TX, Feb 23.

Lohse, K.A. 2005. Hydrological and biogeochemical controls on nitrogen transport and retention: responses to anthropogenic perturbations, Department of Aquatic, Watershed, and Earth Resources, Utah State University, Logan, Utah, March 28.

Lohse, K.A. 2005. Towards sustaining water resources and aquatic ecosystems: Forecasting watershed risks from current and future land use change. Department of Landscape Architecture and Environmental Planning, UC Berkeley, Berkeley, CA, Feb 28.

Lohse, K. 2004. Globalization of N deposition: How will tropical forest ecosystems respond? Department of Environmental Science, Policy and Management, UC Berkeley, Berkeley, CA, March 8.

Lohse, K. 2004. Globalization of N deposition: How will tropical forest ecosystems respond? Department of Renewable Resources, University of Wyoming, Laramie, WY, March 4.

Lohse, K. 2004. Sustaining water resources for human and natural systems. Department of Renewable Resources, University of Wyoming, Laramie, WY, March 5.

Lohse. K. 2003. Hydrological and biogeochemical controls on nitrogen losses from tropical forests: Responses to anthropogenic nitrogen additions, Department of Environmental Science, Policy and Management, Biogeochemistry Series, University of California, Berkeley, April 28.

Lohse, K. 2003. Hydrological and biogeochemical controls on nitrogen losses from tropical forests: Responses to anthropogenic nitrogen additions, Department of Geological and Environmental Sciences, Biogeochemistry Seminar Series, Stanford University, Stanford, CA, April 15.

CONFERENCE PRESENTATIONS AND POSTERS

(*underline indicates student advised by Lohse***)**

Flerchinger, G., Chu, X., Lohse, K., Seyfried, M.S. B15G-1210 - Parameter Sensitivity and Transferability for Simulating ET and GEP of Sagebrush Ecosystems across a Climate Gradient, AGU Fall Meeting, Dec 12, 2022.

Julia Nelson et al. [including Lohse], H12R-0895 - Triple Oxygen Isotopes in Pedogenic Carbonates Reveal the Varied Role of Evaporation in Western US Drylands, AGU Fall Meeting, Dec 12, 2022.

Lohse, K. A., Carr, B., Smith, E., Souza, J., Schlegel, M., Seyfried, M., Godsey, S., Holbrook, S., , Bottom-up weathering driven by hydrothermal influence in basalt in Reynolds Creek Critical Zone Observatory, Idaho, USA, AGU Fall Meeting, American Geophysical Union, New Orleans, LA (on-line owing to COVID), December 2021.

Souza, J.. K. A Lohse, M. E Schlegel, S. R Warix, E. M Murray, S. Godsey, Z. Cram, M. S Seyfried 2020. H090-0004 - Determining Sources and Residence Times of Groundwater and Carbon in a Semi-Arid Basin, AGU Fall Meeting, American Geophysical Union, San Francisco, CA, December 2020.

Lohse, K., M. Lohse*(presenter), and C. Lohse (*high school students). 2020. H087-0001 - A time series of leachable dissolved organic carbon and total nitrogen in response to a wildfire at the Reynolds Creek Critical Zone Observatory, Idaho, AGU Fall Meeting, American Geophysical Union, San Francisco, CA, December 2020.

Bottenberg, C., Warix, S., Godsey, S., Lohse, K. A., Macneille, R., Hale, R., 2019. Can HighResolution Vegetation Greenness Serve as an Indicator for Stream Drying, Poster, AGU Fall Meeting, American Geophysical Union, San Francisco, CA, December 2019.

Flerchinger, G., Fellows, A., Seyfried, M., Lohse, K. A. 2019. Climate Change Impacts on Water and Carbon Fluxes along an Elevational Gradient in a Sagebrush Ecosystem Oral Presentation, AGU Fall Meeting, American Geophysical Union, San Francisco, CA, December 2019.

Warix, S., Godsey, S., Lohse, K. A., Hale, R. 2019 Influence of Baseflow on Stream Drying in a Semi-Arid Watershed, Oral Presentation, AGU Fall Meeting, American Geophysical Union, San Francisco, CA, December 2019.

Seyfried, M., Lohse, K. A., Marks, D., Flerchinger, G., 2019. Reynolds Creek Experimental Watershed and Critical Zone Observatory, Oral Presentation, AGU Fall Meeting, American Geophysical Union, San Francisco, CA, December 2019.

Macneille, R., Lohse, K. (Author Only), Godsey, S. (Author Only), Derryberry, D. (Author Only), McCorkle, E. (Author Only), Parsons, S. (Author Only), Baxter, C. (Author Only), 2019. Oral Presentation, Biochemical Patterns of Intermittent Streams in Space and Time: the Impacts of Drying and Wildfire on Carbon Dynamics, Society of Freshwater Science, Salt Lake City, UT, May 2019.

Lohse, K., Glossner, K., Macneille, R., Godsey, S., Pierce, J., Roehner, C., Pierson, F., Poster, Wind and water transport of carbon and nitrogen following a wildfire at the Reynolds Creek Critical Zone Observatory, Society of Freshwater Science, Salt Lake City, UT, May 2019.

Lohse, K. Improving prediction of soil carbon and dynamics at the Reynolds Creek Critical Zone Observatory, Watershed SFA Workshop, PNNL, Richland, WA, Invited September 2019.

Huber, D., K. Aho, M. S Seyfried, G. N Flerchinger and K. A Lohse. 2018. Terrestrial Carbon Storage: Improving Estimates of Net Ecosystem Exchange using Soil Profile Measures of Carbon Dioxide (CO_2) Flux in a Cold Sage-Steppe Ecosystem. American Geophysical Union, Washington DC, December 2018.

Glossner, K., F. B. Pierson, Z. Cram, E. McCorkle, E. Murray, M. S Seyfried, S. Godsey, K. Aho, K.A Lohse. 2018. Long-term Estimates of Inland Riverine Sediment and Particulate Organic Carbon (POC) fluxes from Reynolds Creek Experimental Watershed, Idaho USA. American Geophysical Union, Washington DC, December 2018.

Seyfried, M.S, D. P Huber, K. A Lohse and K. Aho. 2018. Plant-Soil interactions under Global Warming: Learning Mechanisms from Multiyear Field Experiments and Natural Gradients. American Geophysical Union, Washington DC, December 2018.

Lohse, K.A., N. R Patton, C. Renner, A. Rozin, J. Thomas, B. Finney, R. MacNeille, K. Glossner, Z. Van Orsdel, S. Hill, J. A Facer, C. Durfee, M. S Seyfried and F. B. Pierson, 2018. Temporal variation in soil carbon cycling in response to wildfire in the ReynoldsCreek Critical Zone Observatory, Idaho, USA. American Geophysical Union, Washington DC, December 2018.

Radke, A., Godsey, S.E., **Lohse, K. A**. 2017. Spatiotemporal heterogeneity of dissolved organic carbon in waters and soils in a snow-dominated headwater catchment: Investigations at Reynolds Creek Critical Zone Observatory, Owyhee County, Idaho, American Geophysical Union Fall Meeting, Dec. 15 (Poster).

Seyfried, M. S., D. Marks, F. Pierson, **K. Lohse**, and G. Flerchinger. 2017. Benefits of long-term catchment/observatory research: Reynolds Creek Case, American Geophysical Union Fall Meeting, Dec. 15 (Oral Presentation).

Lohse, K. A., A. Fellows, G. Flerchinger, M. S., Seyfried. 2017. Carbon dioxide effluxes and their environmental controls in sagebrush steppe ecosystems along an elevation gradient in the Reynolds Creek Critical Zone Observatory, American Geophysical Union Fall Meeting, Dec. 12 (Poster).

Macneille, R., **Lohse, K. A.,** Godsey, S., McCorkle, E., Parsons, S., Baxter, C. 2017. Stream structure at low flow: biogeochemical patterns in intermittent streams over space and time, American Geophysical Union Fall Meeting, Dec. 12 (Poster).

Lohse, K. 2017. Reynolds Creek Critical Zone Observatory Introduction and Research Highlights, USGS Menlo Park, CA, March 31 (Oral Presentation).

Renwick, K. M., K. D. Emmett, **K.A. Lohse**, G. Flerchinger, A. Fellows, P.B. Adler and B. Poulter. 2017. Modeling vegetation dynamics in sagebrush ecosystems: The importance of phenology, Ecological Society of America, Aug. 10 (Oral Presentation).

Sharma, H., K. Reinhardt, **K. A. Lohse**. 2017. Diel and seasonal carbon fluxes at leaf and ecosystem scales in sagebrush ecosystems, Ecological Society of America, Portland, OR, Conference, Aug. 8 (Oral Presentation).

Sharma, H., K. Reinhardt, and **K. Lohse.** 2017. Variation in plant water use and environmental drivers of sap flow in sagebrush communities spanning rain-to snow-dominated elevation zones, Graduate Research Symposium, Idaho State University, Pocatello, ID, March 31 (Poster).

Sharma, H., K. Reinhardt, and **K. Lohse**. 2017. Diel and seasonal carbon fluxes from leaf to ecosystem scales in sagebrush steppe ecosystem, Graduate Research Symposium, Idaho State University, Pocatello, ID, April 1 (Oral Presentation).

2016

Lohse, K. 2016. Reynolds Creek Critical Zone Observatory Key Research Findings, Reynolds Creek CZO PI Meeting, Sept. 19 (Oral Presentation).

Sharma, H., K. Reinhardt, **K. A. Lohse**. 2017. Variation in carbon and water fluxes in sagebrush steppe communities along an elevation gradient spanning rain-to snow-dominated precipitation regimes, NSF CZO Network All Hands Meeting, Washington, DC, Conference, International, June 5 (Poster).

Patton, N., **K. A. Lohse**, M. S. Seyfried, S. Godsey, S., B. Crosby, Predicting soil thickness and total organic carbon on soil mantled hillslopes, NSF CZO All Hands Network, Washington DC, June 4 (Poster).

MacNeille, R., **K. A. Lohse**, E. McCorkle, S. Parsons, C. Baxter. 2016. Biogeochemical patterns of intermittent streams over space and time as surface flows decrease, American Geophysical Union, San Francisco, CA, Dec. 15 (Poster).

Sharma, H., K. Reinhardt, **K. Lohse**. 2016. Variation in plant water use and environmental drivers of sap flow in sagebrush communities spanning rain- to snow-dominated, Ecological Society of America, Ft. Lauderdale, FL, Aug. 9 (Poster).

Lohse, K. 2016. Reynolds Creek CZO Highlights, NSF Reverse Site Visit for the CZO Network, National Science Foundation, Washington, D.C., Nov. 14 (Oral Presentation).

Lohse, K. A. 2016. Reynolds Creek CZO Outreach and Education Highlights, Reynolds Creek CZO PI Meeting, Boise, Idaho, Sept. 19 (Oral Presentation).

2015

Godsey, S., D. M. Larson, C. A. Ohr, S. E. Kobs-Nawotniak, **K. A. Lohse**, D. Lybecker, R. L. Hale. 2015. Integration of social perceptions, behaviors, and economic valuations of groundwater quality as an ecosystem service following exurban development (H43N-05), American Geophysical Union Fall Meeting, San Francisco, CA, Dec. 17 (Oral Presentation).

Tennant, C., A. Harpold, B. Crosby, S. Godsey, **K. Lohse**. 2015. Lidar illuminates the influence of elevation, aspect, and vegetation on seasonal snowpack: case studies from four western Critical Zone Observatories (C33C-0826), American Geophysical Union Fall Meeting, San Francisco, CA, Dec. 16 (Oral Presentation).

Patton, N., **K. Lohse**, M. Seyfried, B. Crosby, S. Godsey, 2015. Determining total soil carbon storage in the critical zone using topography and lithology (H21C-1381), American Geophysical Union Fall Meeting, San Francisco, CA, Dec. 15 (Poster).

Sharma, H., K. Reinhardt, and **K. Lohse**, Diurnal and seasonal variation in sap flow among different sagebrush species and subspecies along an elevation gradient in a semi-arid ecosystem (H21C-1389), American Geophysical Union Fall Meeting, San Francisco, CA, Dec. 15 (Poster).

Blay, E. S., S. G. Scwabedissen, S. C. Reed, T. S. Magnuson, P. P. Sheridan, **K. A. Lohse**. 2015. Variation in Biological Soil Crust Bacterial Diversity with a Changing Climate Idaho conference on undergraduate research, Boise, ID, July 24 (Poster).

Stanbery, C., R. M. Will, S. G. Benner, A. Flores, M. Seyfried, **K. A. Lohse**, J. L. Pierce. 2015. Soil inorganic carbon thresholds and formation: What are the controls in a transitional, semi-arid watershed? American Geophysical Union Fall Meeting, San Francisco, CA. Dec. 15 (Poster).

Sharma, H., K. Reinhardt, **K. Lohse**, M. Seyfried, E. DeLucia, T. Mies. 2015. Diurnal and seasonal variation in tree stem circumference using automated dendrometer bands, Ecological Society of America, Baltimore, MD, Aug. 12 (Poster).

Lohse, K. and W. Silver. 2015. Ecology in the Critical Zone, Ecological Society of America, Baltimore, MD, Aug. 11 (Session Convener, Chair).

*Session featured on: https://www.esa.org/esa/ecology-from-treetop-to-bedrock-humaninfluence-in-earths-critical-zone/

Lohse, K. and RC CZO Science Team. 2015. Improving prediction of soil carbon and dynamics at the Reynolds Creek Critical Zone Observatory, European Geophysical Union General Assembly, Vienna, Austria, April 17 (Oral Presentation).

Ohr, C. A., S. Godsey, J. A. Welhan, D. M. Larson, **K. A. Lohse**, B. Finney and D. Derryberry. 2015. Complex controls on groundwater quality in growing mid-sized cities: A case study focused on nitrate and emerging contaminants (H21J-1533), American Geophysical Union Fall Meeting, San Francisco, CA, Dec. 15 (Poster).

Lohse, K. and S. Papuga. 2015. Ecohydrology in the Critical Zone II (H23J), American Geophysical Union Fall Meeting, San Francisco, CA, Dec. 15 (Session Conveners, Chair).

2014

Schwabedissen, S. G., S. Reed, T. Magnuson, and **K. Lohse**. 2014. Climatic and grazing controls on biological soil crust nitrogen fixation in semi-arid ecosystems, American Geophysical Union Fall Meeting. San Francisco, CA, Dec. 16 (Poster).

Seyfried, M., T. Link, Z. Klos, N. Patton, and **K. A. Lohse**. 2014. Ecohydrological implications of contrasting slope and aspect in complex terrain, American Geophysical Union Fall Meeting. San Francisco, CA, Dec. 19 (Poster).

Patton, N., M. Seyfried, T. Link, and **K. A. Lohse**. 2014. Controls of parent material and topography on soil carbon storage in the critical zone, American Geophysical Union Fall Meeting, San Francisco, CA, Dec. 19 (Poster).

Galanter, A., D. Cadol, **K. A. Lohse**. 2014. Distribution, transport, and accumulation of pyrogenic black carbon in post-wildfire watersheds, American Geophysical Union Fall Meeting, San Francisco, CA, Dec. 19 (Poster).

Stanbery, C., R. M. Will, M. S. Seyfried, S .G. Benner, A. N. Flores, J. Guilinger, **K. A. Lohse**, A. Good, C. Black and J. L. Pierce. 2014. Soil inorganic carbon formation: Can parent material overcome climate, American Geophysical Union Fall Meeting, San Francisco, CA, Dec. 16 (Poster).

Lohse, K. A., S. G. Schwabedissen, E. L. Gallo and T. Meixner. 2014. Interactions of landscape position, stream flow, and litter quality on litter decomposition in intermittent to ephemeral streams in the American Southwest (B22C-06), American Geophysical Union Fall Meeting, San Francisco, CA, Dec. 16 (Poster).

Lohse, K. A. and S. Papuga. 2014. Ecohydrology in the Critical Zone II (H53K), American Geophysical Union Fall Meeting, San Francisco, CA, (Session Convener).

2013

Beal, L. (undergraduate), D. Huber, S. E. Godsey, **K. A. Lohse**, S. E. Kobs 2013. Influence of age and parent material on soil hydrologic properties, American Geophysical Union Fall Meeting, San Francisco, CA, Dec 9-13 (Poster).

Meixner, T., G. Michalski, N. Dejwahk, K. Riha, **K. Lohse**, E. Gallo, J. McIntosh, P. Brooks, 2013. Insights on biogeochemistry from the triple isotope system of nitrate, American Geophysical Union Fall Meeting San Francisco, CA, Dec. 13 (Oral Presentation)

Perdrial, J., P. D. Brooks, T. Swetnam, **K. Lohse**, C. Rasmussen, A. Harpold, M. Litvak, P. Broxton, B. Mitra, D. M., Huckle, D. M., Lybrand, R., Vazquez, A., Holleran, H., Orem, C., Meixner, T., Chorover, J. 2013. Do fire disturbances account for missing C in snow dominated headwater catchments in NM? American Geophysical Union Fall Meeting, San Francisco, CA, Dec. 11 (Poster).

Lohse, K. A., E. L. Gallo, P. B. Brooks, T. Meixner. 2013. Tradeoffs of modifications of storm water managements systems for nitrogen loss pathways in semi-arid ecosystems, American Geophysical Union Fall Meeting, San Francisco, CA, Dec. 11 (Oral Presentation).

Lohse, K. A. and D. L. Lybecker. 2013. EPSCoR Conceptual models for MILES –SE Idaho, EPSCoR MILES Conceptual Modeling Workshop, Boise, ID, Nov. 15 (Oral Presentation).

Lohse, K. A., M. Seyfried, S. Benner, N. Glenn, A. Flores, C. Baxter, B. Crosby, M-A. deGraaff, K.

Feris, B. Finney, G. Flerchinger, S. Godsey, J. McNamara, D. Marks, J. Pierce, K. Reinhardt. 2013. Reynolds Creek Carbon Critical Zone Observatory, American Geophysical Union, Chapman Conference on Soil-mediated Drivers of Coupled Biogeochemical and Hydrological Processes, Tucson, AZ, Oct. 22 (Poster).

Huber, D. P., **K. A. Lohse**, S. Joy, M. Germino. 2013. Effects of Soil Water Storage Capacity on Nitrogen Partitioning, American Geophysical Union, Chapman Conference on Soil-mediated Drivers of Coupled Biogeochemical and Hydrological Processes, Tucson, AZ, Oct. 22 (Poster).

Lohse, K. A., and L. Alessa 2013. Sustaining our resources under scenarios of regional growth and climate change in Idaho, Idaho American Planning Association, Idaho Falls, Oct. 10 (Oral Presentation).

Huber, D. P., **K. A. Lohse**, S. J. Hall. 2013. Climate Controls the Fate of Anthropogenic Nitrogen Additions in Desert Ecosystems, National Atmospheric Deposition Program Annual Meeting, Park City, UT, Oct. 9 (Poster).

Beal, L., S. E. Godsey, **K. A. Lohse**, D. Huber, S. E. Kobs. 2013. Analyses of controls on soil hydraulic properties along soil chronosequences on volcanic parent material, Idaho EPSCoR Annual Meeting, McCall, ID, Oct. 8 (Poster).

Lohse, K. A. 2013. Reynolds Creek Critical Zone Observatory, NSF CZO PI Meeting National Science Foundation, Washington, DC, Oct. 1 (Oral Presentation)

Lohse, K. A., E. Charaska, P. Brooks, J. Chorover 2013. Influence of burn intensity and vegetation type on recovery of soil nitrogen cycling, Ecological Society of America, Minneapolis, MN, Aug. 9 (Poster).

Lohse, K. A., R. Lloyd, J. McLain. 2013. Active road reclamation approaches accelerate recovery of soil ecosystem properties and microbial communities compared to road closure approaches. Ecological Society of America Annual Meeting, Minneapolis, MN, Aug. 7 (Invited Ignite Talk).

Gallo, E. L., **K. A. Lohse**, P. D. Brooks, T. Meixner, M. Pavao-Zuckerman. 2013. Inorganic nitrogen cycling in ephemeral urban waterways of the semi-arid Southwest, Ecological Society of America Annual Meeting, Minneapolis, MN, Aug. 7 (Oral Presentation).

Lohse, K. A. 2013. Idaho EPSCoR: Managing Idaho's Landscapes and Ecosystem Services, Ecological Society of America Annual Meeting, Minneapolis, MN, Aug. 5 (Poster, Coordinator/Organizer).

Huber, D. P., **K. A. Lohse**, V. Pabedinkskas, R. Sponseller, S. J. Hall. 2013. Climate Controls the Fate of Anthropogenic Nitrogen Additions in Desert Ecosystems, Central Arizona-Phoenix LongTerm Ecological Research site All Scientist Meeting, Scottsdale, AZ, Jan. 10 (Poster).

2012

Gallo, E. L., **K. A. Lohse**, P. D. Brooks, T. Meixner, M. Pavao-Zuckerman 2012. Inorganic nitrogen cycling in ephemeral urban waterways of the semi-arid Southwest (B43-0515), American Geophysical Union, Fall Meeting (Poster).

Harman, C.J., **K.A. Lohse**, P.A. Troch, M Sivapalan. 2012. Connections between transport in events and transport structuring timescales (H52E-04), American Geophysical Union, Fall Meeting (Oral Presentation)

Joy, S. L. D. Huber, **K. A. Lohse**, M. J. Germino, M.A. deGraaf, K. Feris. 2012. Shifts and timing and magnitude of precipitation modulate soil carbon pools in semi-arid ecosystems (GC23B-106B), American Geophysical Union, Fall Meeting (Poster).

McLain, J. E. T., **K. A. Lohse**, C. J. Harman. 2012. Soil microbial activity elucidates unique soil carbon transport patterns within resource islands on semi-arid hillslopes (B21F-07), American Geophysical Union Fall Meeting (Oral Presentation).

Jensen, A., B. Crosby, C. I. Mora, **K. A. Lohse**. 2012. Carbon flux and isotope character of soil and soil gas in stabilized and active thaw slumps in Northwest Alaska (B21D-0399), American Geophysical Union Fall Meeting (Poster).

Lohse, K., E. Gallo, H. Nicholas, T. Meixner. 2012. Carbon and nutrient cycling in ephemeral streams in the Amercican Southwest (B33-0527), American Geophysical Union Fall Meeting (Poster).

Huber, D. **K. Lohse**, M. Germino, and K. Reinhardt. 2012. Effects of long-term climate shifts and plant community transformations on carbon and nitrogen cycling in semi-arid rangelands, AAAS Pacific Division Conference, Boise, ID, June 24-27 (Invited Talk).

Guernsey, N. C., **K. A. Lohse**, M. J. Kauffman, J. R. Goheen, G. Fralick, S. G. Smith, and R. T. Bowyer. 2012. Sexual Segregation of Shiras Moose in Wyoming: Habitat Selection and Ecosystem Dynamics. American Society of Mammologists, Reno, Nevada, June 22-26 (Poster).

Stromberg, J., J. Sabo, T. Meixner, and **K. Lohse**. 2012. Structure and function of ephemeral streams in the arid and semiarid Southwest: Implications for conservation and management. DOD SERDP Annual Spring In-Progress Review, Tucson, AZ, May 15-16 (Oral Presentation).

Charaska, E., **K. A. Lohse**, C. Weber, P. Brooks, and J. Chorover. 2012. Nitrogen cycling in post-fire soils across a burn intensity gradient. Rocky Mountain Geological Society of America, Alburqueque, NM, May 7-10 (Poster).

Lohse, K. A., E. Charaska, P. Brooks, C. Rassmussen, and J. Chorover. 2012. Soil carbon and nitrogen cycling in the Valles Caldera, NM: Initial responses to the Las Conchas fire. Tri-State EPSCoR Annual Meeting, Sun Valley, ID, April 2-6 (Poster).

2011

Gallo, E. L, **K. A. Lohse**, P. D. Brooks, T. Meixner, M. Pavao-Zuckerman, and G. M. Michalski. 2011. Patterns and controls of inorganic nitrogen cycling in ephemeral urban waterways of the semiarid Southwest. American Geophysical Union Fall Meeting, Abstract H51J-1334, San Francisco, CA, Dec 4-9 (Poster).

Nicholas, H. D., T. Meixner, and **K.A. Lohse.** 2011. Estimating infiltration rates for intermittent streams in the semiarid southwest: implications for ecosystem processes. American Geophysical Union Fall Meeting, Abstract H51J-1336, San Francisco, CA, Dec 4-9 (Poster).

Zapata, X., J. C. McIntosh, A. Sorooshian, **K. A. Lohse,** P. D. Brooks, P. A. Troch, J. Chorover, and I. Heidbuechel. 2011. Sources and amounts of nitrogen deposited in sky-island ecosystems. American Geophysical Union Fall Meeting, Abstract B13G-0652, San Francisco, CA, Dec 4-9 (Poster).

Huber, D.P., S. Hardenbrook, **K.A. Lohse,** M.J. Germino, and K. Reinhardt. 2011. Climate shifts and plant-community transformations affect nitrogen cycling in semi-arid rangelands American Geophysical Union Fall Meeting, Abstract B21G-0346, San Francisco, CA, Dec 4-9 (Poster).

Feris, K.P., C. Jilek, D.P. Huber, K. Reinhardt, M.A. de Graaf, **K. Lohse**, and M. Germino. 2011. Influence of precipitation regime on microbial decomposition patterns in semi-arid ecosystems. American Geophysical Union Fall Meeting, Abstract B33F-0529, San Francisco, CA, Dec 4-9 (Poster).

Stielstra, C., P.D. Brooks, J. Chorover, and **K. Lohse**. 2011. Monitoring carbon fluxes from shallow surface soils in the critical zone. American Geophysical Union Fall Meeting, Abstract B33G-0556San Francisco, CA, Dec 4-9 (Poster).

Harman, C.J., P.A. Troch, **K.A. Lohse**, M. Sivapalan 2011. Co-evolution of vegetation, sediment transport, and infiltration on semi-arid hillslopes. American Geophysical Union Fall Meeting, Abstract B33G-0555, San Francisco, CA, Dec 4-9 (Poster).

Dannemann, F.K., X. Zapata, J.C. McIntosh, J.N. Perdrial, P.D. Brooks, J. Chorover, **K.A. Lohse**, H.C. Fricke. 2011. Temporal and spatial dynamics of carbon and nitrogen in headwater snowdominated catchments, Jemez Mountains, New Mexico. American Geophysical Union Fall Meeting, Abstract B33G-0557, San Francisco, CA, Dec 4-9 (Poster).

Chorover, J., P.A. Troch, J.D. Pelletier, C. Rasmussen, P.D. Brooks, J.C. McIntosh, D.D. Breshears, T.E. Huxman, S.A. Papuga, **K.A. Lohse**, T. Meixner, M.G. Schaap, M.E. Litvak, A.A. Harpold, J.N. Perdrial, M. Durcik. 2011. Carbon, water and weathering limitations in the semi-arid critical zone. American Geophysical Union Fall Meeting, Abstract B41H-05, San Francisco, CA, Dec 4-9 (Oral Presentation).

Charaska, E., **K. Lohse**, C. Strielstra, P. Brooks, and J. Chorover. 2011. Controls of EEMT on DOC and nutrient losses from the Jemez River Basin. NSF CZO All Hands Meeting. Biosphere 2, Oracle, AZ, May 8-10 (Poster).

Harman, C., **K. Lohse,** P. Troch, and M. Sivapalan. 2011. Vegetation controls on soil hydraulic properties and co-evolution in semi-arid hillslopes: fieldwork and modeling. European Geophysical Union, EGU 2011-3932, Vienna, Austria, April 8 (Poster).

Gallo, E.L., **K.A. Lohse**, P.D. Brooks, J.C. McIntosh and T. Meixner. 2011. Effect of channel substrate type on storage and transport of solutes in urban storm runoff of the semi-arid Southwest. El Dia de Agua, University of Arizona, Tucson, AZ (Poster).

2010

Witte, B. (Undergraduate), C. Ferlin (Undergraduate), E.L. Gallo, **K.A. Lohse**, T. Meixner, P.D. Brooks, and T.P.A. Ferre. 2010. Air permeability and infiltration differences associated with grass and gravel streambeds in an urban environment. American Geophysical Union Fall Meeting, Abstract H51D-0921, San Francisco, CA, Dec 13-17 (Poster).

Riha, K.M., G.M. Michalski, **K.A. Lohse**, E.L. Gallo, P.D. Brooks, and T. Meixner. 2010. Geochemical and isotopic composition of aerosols in Tucson. American Geophysical Union Fall Meeting, Abstract B51H-0457, San Francisco, CA, Dec 13-17 (Poster).

Peterson, A.M., E.L. Gallo, **K.A. Lohse**, P.D. Brooks, and T. Meixner. 2010. Quantifying spatial variability in runoff quality in semiarid urban catchments. American Geophysical Union Fall Meeting, Abstract B43A-0449, San Francisco, CA, Dec 13-17 (Poster).

Lloyd, R., **K.A. Lohse**, and T.P.A. Ferre. 2010. Evaluating recovery of hydrologic function following road restoration treatments. American Geophysical Union Fall Meeting, Abstract H33E-1187, San Francisco, CA, Dec 13-17 (Poster).

Harman, C.J., **K.A. Lohse**, P.A. Troch, and M. Sivapalan. 2010. Vegetation controls on soil hydraulic properties and implications for the hydrologic variability of soils: observations and modeling. American Geophysical Union Fall Meeting, Abstract H33E-1191, San Francisco, CA, Dec 13-17 (Poster).

Lohse, K.A., J.E. McLain, C.J. Harman, M. Sivapalan and P.A. Troch. 2010. Role of vegetation and edaphic factors in controlling diversity and use of different carbon sources in semi-arid ecosystems. American Geophysical Union Fall Meeting, Abstract H33B-1128, San Francisco, CA, Dec 13-17 (Poster).

Ferlin, C. (undergraduate), E.L. Gallo, A.M. Peterson, **K.A. Lohse**, and P.D. Brooks. 2010. Gaseous losses of carbon and nitrogen from grass and gravel lined urban waterways in a semi-arid region. American Geophysical Union Fall Meeting, Abstract B21E-0351, San Francisco, CA, Dec 13-17 (Poster).

Lohse, K.A. 2010. Soil processes and climate change: Current and future research. Idaho EPSCOR Annual Meeting, Boise, ID, Aug 31-Sep 2 (Poster).

Lloyd, R.A., **K.A. Lohse** and J.E.T. McLain. 2010. Evaluating Soil microbial community structure and diversity as measures of success for road restoration. Ecological Society of America, Pittsburg, PA, Aug 1-6 (Poster).

Lohse, K.A. and J.E.T. McLain. 2010. Controls on soil bacteria and fungi in the Southwestern US may provide insight into community shifts under future climate change. Ecological Society of America, Pittsburg, PA, Aug 1-6 (Oral presentation).

Gallo, E.L., P.D. Brooks, and **K.A. Lohse**. 2010. Controls on monsoonal storm runoff magnitude and quality of urban catchments in the Tucson Basin. El Dia de Agua, University of Arizona, Tucson, AZ, March 31 [First place Oral Presentation].

2009

Gallo, E.L., P. Brooks, and **K.A. Lohse.** 2009. Controls on stormwater runoff quality and quantity in semi-arid, urban catchments. American Geophysical Union Fall Meeting, Abstract H12D-05, Dec 14-18 (Oral Presentation).

Carlson, M., E.L. Gallo, **K. A. Lohse**, J. McLain, and J. McIntosh. 2009. Impacts of urbanization on groundwater recharge and quality in the Tucson Basin. SAHRA Annual Meeting, Tucson, AZ, October 23-24 (Poster).

Gallo, E.L., P. Brooks, and **K.A. Lohse**. 2009. Controls on stormwater runoff quantity and quality of urban catchments in southern Arizona. SAHRA Annual Meeting, Tucson, AZ, Oct 23-24 (Poster, 1st place).

Clark, S.(undergraduate), E.L Gallo, **K.A. Lohse**, and P. Brooks. 2009. Using citizen science to gain knowledge of the chemistry and spatial variability of monsoonal precipitation within the Tucson Basin, SAHRA Annual Meeting, Tucson, AZ, Oct 23-24 (Poster).

Moravec, B., J.E.T. McLain, and **K.A. Lohse**. 2009. Unlocking the biogeochemical black box: What drives microbial response to climate forcing in semi-arid soils? SAHRA Annual Meeting, Tucson, AZ, Oct 23-24 (Poster).

Gallo, E.L., P. Brooks, **K.A. Lohse**. 2009. Spatial and temporal variability in runoff chemistry across an arid urban ecosystem gradient. Ecological Society of America, Albuquerque, NM, Aug 3-7 (Oral Presentation).

Lloyd, R.A. and **K.A. Lohse**. 2009. Influence of active versus passive forest road restoration on ecohydrologic structure and function in the Clearwater National Forest, Idaho. Ecological Society of America, Albuquerque, NM, Aug 3-7 (Oral Presentation).

2008

Gallo, E. L., P. Brooks, **K. A. Lohse**, J. McLain, J. McIntosh, and T. Meixner. 2008. Solute sourcing and hydrologic response to monsoon precipitation along a gradient of urban land use. American Geophysical Union Fall Meeting, Abstract H131-04, Dec 14-18 (Oral Presentation).

Brown, K. B., J. McIntosh, L. Rademacher, **K. Lohse**, and D. Gosch. 2008. A multi-tracer approach to determine the impactiosn of agricultural irrigation recharge on groundwater sustainability in the Columbia Plateau Basalt Aquifers, Central Washington, USA. American Geophysical Union Fall Meeting, Abstract H11G-0854, Dec 14-18 (Poster).

Carlson, M., D. Wisheropp, E. Gallo, N. Dejwakh, **K. A. Lohse**, J. McLain, J. McIntosh, P. Brooks, and T. Meixner. 2008. Impacts of Urbanization on Groundwater Quality in the Tucson Basin. SAHRA Annual Meeting, Tucson, AZ, Oct 16-17 (Poster).

Clark, S. (undergraduate), M. Snyder, E. Gallo, N. Dejwakh, **K. A. Lohse**, J. McIntosh, and P. Brooks. 2008. Engaging citizen scientists to address critical knowledge gaps: Quantifying variability in monsoon storm precipitation. SAHRA Annual Meeting, Tucson, Arizona, Oct 16-17 (Poster).

Wisheropp, D. (undergraduate), E. Gallo, N.R. Dejwakh, M. Carlson, **K. A. Lohse,** J. E. T. McLain, J. McIntosh, and P. Brooks. 2008. Effects of Urban Runoff on Soil Solute Concentrations in Ephemeral Washes. SAHRA Annual Meeting, Tucson, Arizona, Oct 16-17 (Poster).

Gallo, E. L., P. Brooks, **K. Lohse**, J. McIntosh, J. McLain, and T. Meixner. 2008. Hydrologic and biogeochemical controls on patterns of storm runoff quality in urbanizing watersheds in the Southwest. SAHRA Annual Meeting, Tucson, Arizona, Oct 16-17 (Poster).

Lohse, K. A., M. Snyder, E. Gallo, N Dejwkahl, P. Brooks, J. McLain, J. McIntosh, and T. Meixner.. 2008. The influence of in-stream processing and wash substrate on water quality of urban storm runoff. SAHRA Annual Meeting, Tucson, Arizona, Oct 16-17 (Poster).

McLain, J.E.T., C.M. Rock, J.C. McIntosh, **K.A. Lohse**, T. Meixner, and P.D. Brooks. 2008. Microbial water quality indicators in groundwater wells along a rural- to urban-gradient in the semiarid Southwest, Geological Society of America, Abstract 296-2, Oct 8.

Lohse, K., M.A. Snyder, E. L. Gallo, N. R. Dejwakh, P. D. Brooks, J. E. T. McLain, J. McIntosh, and T. Meixner. 2008. Best management practices of urban storm runoff: Investigating water quality of urban runoff with respect to channel type. Soil Water Conservation Society, Tucson, Arizona, July 29-31 (Poster).

Gallo, E. L., M. A. Snyder, N. R. Dejwakh, **K. A. Lohse**, P. D. Brooks, J. E. T. McLain, J. McIntosh, T. Meixner. 2008. Spatial and temporal patterns of summer monsoon storm runoff. Water Conservation Society, Tucson, Arizona, July 29-31 (Oral Presentation).

Lohse, K., J. Sanderman, R. Amundson. 2008. Influence of hydrological flow paths on carbon and nitrogen transformations and loss pathways in a small Mediterranean catchment. European Geophysical Union. Geophysical Research Abstracts, Vol.10, EGU2008-A-05846, Vienna, Austria, April 13-18 (Poster).

2007

Gallo, E. L., M. A. Snyder, N. R. Dejwakh, **K. A. Lohse**, P. D. Brooks, J. E. T. McLain, J. McIntosh, and T. Meixner T. 2007. Quantifying land use and land cover effects on urban runoff water quality. American Geophysical Union Fall Meeting, Abstract H43D-1619, San Francisco, CA, Dec 13 (Oral Presentation).

Gallo, E. L., **K. A. Lohse**, and P. D. Brooks. 2007. Land use impacts on water chemistry of monsoonal storm runoff in the Tucson Basin. Water and Energy Forum, University of Arizona, Tucson, AZ (1st place Graduate Student Poster).

Gallo, E. L., M. Snyder, N. Dejwakh*, **K. A. Lohse**, P. D. Brooks, J. McIntosh, and T. Meixner. 2007. Land use impacts on water chemistry of monsoonal storm runoff in the Tucson Basin. ISPE Fest, University of Arizona, Tucson, AZ (1st place Graduate Student Poster).

Lohse. K. A. 2007. Fluxes and fates of different forms of N in surface soils of wet tropical forests varying in nutrient status and substrate age in Hawaii. Ecological Society of America, San Jose, CA, Aug 9 (Oral Presentation).

Merenlender, A., **K.A. Lohse**, M. Deitch, and D. Newburn. 2007. Quantifying and forecasting impacts of vineyard expansion on Mediterranean-climate watersheds to guide management and land conservation. Society of Conservation Biology (Oral Presentation).

2006

Lohse, K. A., D. Hope, R. A. Sponseller, and J. O. Allen. 2006. Spatial and temporal patterns of wet and dry deposition of nutrients in a desert city. All Scientists Meeting, Estes Park, CO, Sept 20-24.
Lohse, K. A., D. Hope, R. A. Sponseller, and N. B. Grimm. 2006. Atmospheric deposition of nutrients in a desert city: Spatial patterns of wet deposition, throughfall, and runoff. Ecological Society of America, Aug 6-11.

2005

Lohse, K. A., J. Sanderman, and R. Amundson. 2005. Influence of hydrological flowpaths on rates and forms of nitrogen losses from mediterranean watersheds. American Geophysical Union Fall Meeting, EOS Trans. 86 (52), Fall Meet. Suppl., Abstract H23D-1448, San Francisco, CA (Poster).

Sanderman, J., **K. A. Lohse**, and R. Amundson. 2005. Linking soils and streams: Hydrological controls on organic and inorganic solute transport in two mediterranean catchments. American Geophysical Union Fall Meeting, EOS Trans. American Geophysical Union, 86 (52), Fall Meet. Suppl., Abstract H23D-1449, San Francisco, CA (Poster).

Sanderman, J., **K. A. Lohse**, and R. Amundson. 2005. The Importance of hydrologic flow path in determining the retention or loss of dissolved solutes from upland ecosystems. NSF Sponsored Workshop**:** Frontiers in Exploration of the Critical Zone, University of Delaware, Newark, DE, October 24-26 (Poster).

Lohse, K.A., D. Newburn, J.J. Opperman, C. Brooks, A. Merelender. 2005. Towards sustaining water resources and aquatic ecosystems: forecasting watershed risks to current and future land use change.
American Geophysical Union Summer Meeting, EOS Trans. American Geophysical Union, 86(18), Jt. Assem. Suppl, Abstract NB21F-01, New Orleans, LA, May 23-27 (Poster).

2004

Lohse, K. A. 2004. Consequences of nitrogen additions for base cation losses and aluminum mobility in tropical forests of contrasting soil age. Ecological Society of America, Portland, OR, Aug 1-6 (Oral Presentation).

2003

Lohse, K. A. 2003. Declines in soil pH due to anthropogenic nitrogen inputs alter buffering and exchange reactions in tropical forest soils. American Geological Union Fall Meeting, San Francisco, CA, Dec. 8-12 (Poster).

2002

Lohse, K. A and W.E. Dietrich. 2002. Hydrological properties and flow paths change with 4.1 million years of soil development. American Geological Union Fall Meeting, San Francisco, CA, Dec. 6-12 (Poster).

Lohse, K. A. 2002. Effects of 4.1 million years of soil development on hydrological properties and flow paths in the Hawaiian Islands. Ecological Society of America Meetings, Tucson, AZ, Aug. 4-10.

2001

Lohse, K. A. and P. Matson. 2001. Fate of 15N nitrate additions in Hawaiian wet tropical forest soils. Ecological Society of America Meetings, Madison, WI, Aug. 5-10.

Lohse, K. A. 2001. The effects of experimental nitrogen additions on soil solution losses from Hawaiian tropical rain forests of different nutrient status: Patterns and Regulation. UC Berkeley graduate forum, Berkeley, CA.

2000

Lohse, K. A., H. Farrington, J. Moen, P.A. Matson, and G. Asner. 2000. Relative importance of hydrological and biotic processes in regulating nitrate retention in wet tropical forests: comparisons using dual isotope tracers. American Geological Union Fall Meeting, San Francisco, CA, Dec. 15-19.

Lohse, K. A., H. Farrington, J. Moen, P. A. Matson, and G. Asner. 2000. Interactions of soil hydrologic and biotic processes in regulating nitrate retention in wet tropical forests: comparisons using isotope tracers. Ecological Society of America, Snowbird, Utah, Aug. 5-10.

1999

Lohse, K.A., P. A. Matson, and G.P. Asner. 1999. Effects of experimental nitrogen additions on nitrate soil solution losses from tropical forests of different nutrient status in the Hawaiian Islands. American Geological Union Fall Meeting, San Francisco, CA, Dec. 13-17.

Lohse, K. A., P. Matson, and J. Moen. 1999. Effects of experimental nitrogen additions on nitrate leaching losses from Hawaiian tropical forests of different fertility. Ecological Society of America Meetings, Spokane, Washington, Aug. 8-12.

SERVICE AND OUTREACH

Department

Promotion Committee for Dr. Keith Reinhardt, Department of Biological Sciences, ISU, 2021

- Reviewed Dr. Reinhardt's accomplishments in research

Library Liason, Biology Department, 2022-present

- Aligned biology library journals with faculty, cut 60k in unused journals and added equivalent in new journals
- Negotiated to add Primal Pictures to serve >400 students in 3D learning

P &T Committee for Dr. Rebecca Hale, Department of Biological Sciences, ISU, 2023

- Reviewed Dr. Hales's accomplishments in research

Biology Research Committee, 2017-present, Co-Chair 2018-2021, Chair, 2022-2023

- Identify possible structural changes in departmental and/or CoSE IDCs to enhance incentives to faculty to write more grants
- Survey faculty on research interests and barriers to research
-

Biology Awards Committee, 2014-2022

- Evaluate and rank outstanding undergraduate, graduate and teaching assistants
- Determine biology scholarships based on ranking

Critical Zone Observatory (CZO) Graduate Teaching Assistantships (GTAs)

- Negotiated 20 semesters of GTA's for Biological Sciences and Geosciences over 5 years as part of the Reynolds Creek Critical Zone Observatory that contributed to ability of departments to serve courses to students.

Search committee for Cell Biologist, 2017

- Served on committee for cell biologist for Department of Biological Sciences, Idaho State University
- Review and rank applications (45), video interview and rank applicants (11), and conduct on-campus interview

P &T Committee for Dr. Keith Reinhardt

- Review Dr. Reinhardt's accomplishments in research, education and service

Biology Graduate Steering Committee, 2015-2017

- Developed policy and procedures graduate programin Department of Biological Sciences, Idaho State University

Search committee for Plant Physiological Ecologist, 2011-2012

- Served on committee for plant physiological ecologist for Department of Biological Sciences, Idaho State University
- Resulted in successful hire of Dr. Keith Reinhardt

Search committee for Spatial Hydrologist, 2011

- Served on committee for Spatial Hydrologist for Department of Geosciences, Idaho State University
- Resulted in successful hire of Dr. Sarah Godsey

Ad-hoc committee, Curriculum development for Earth and Environmental Science major, 2011-present

- Participated on curriculum development and redesign for Earth and Environmental Science major

Curriculum rotations for Ecology and Conservation Biology major, 2011-present

- Participated in weekly to biweekly discussions with Ecology and Conservation Biology faculty with regards to aligning curriculum and rotations

Faculty meetings and retreats

- Attended weekly to bi-weekly faculty meeting for Department of Biological Sciences, Idaho State University
- Attended weekly to bi-weekly faculty meeting for Department of Geosciences, Idaho State University
- Attended yearly retreat for Department of Biological Sciences, Idaho State University
- Attended yearly retreat for Department of Geosciences
- Attended faculty meeting and retreats for School of Natural Resources and the Environment, University of Arizona

Academic Program Review Self Study Committee, 2008

- Reviewed and refined Watershed Management and Ecohydrology Program definition and goals and described faculty research interests School of Natural Resources (SNR), University of Arizona

Futures Task Force Committee, 2007-2009

- Identified future strategic areas of research focus for School of Natural Resources (SNR), University of Arizona

Ad-hoc Search committee for Director of Synthesis Center Proposal, University of Arizona, 2009

- Interviewed target hire, Russ Monson for School of Natural Resources and the Environment

Professional development

- Participated in UC Davis/UC Berkeley summer soil pedology course for two weeks in California with Dr. Ronald Amundson at UC Berkeley during the summer 2011 to review, retrain, and gain more experience with soil description and pedology

University

Library Committee, 2017-present

- Committee member on University Library committee
- Meets monthly to advocate for the library interests of faculty, students, and staff at Idaho State University.

Idaho EPSCoR

- Co-lead MILES program at Idaho State University (2013-2016), participate in GEM3 via SARE mentoring
- Lead author of science plan for successful RI proposal, no PI credit
- IdahoONE EPSCoR RII concept proposal meetings, February 10, 2012

Center for Ecological Research and Education -enhancement, engagement and redevelopment, 2010-2016

- Purchased and installed new instruments and laboratory as part of EPSCoR start-up that provides new/improved analytical capabilities to Department and University
- Lab re-plumbed, re-developed method, and calibrated CERE Fizon Elemental Analyzer.
- Attended and participated in Center Director meetings at University level as Interim Assistant Director of ISU Center for Ecological Research and Education (CERE)
- Engaged faculty in re-envisioning and engagement in CERE
- Co-supervised CERE technician
- Redesigned and cleaned CERE laboratory and Plant Sciences

Participant

- NSF EAR CZO proposal writing activities and weekly meetings as part of UA CZO, 20092012
- U of Arizona Sustainability of semi-Arid Hydrology and Riparian Areas (SAHRA) annual meetings, 2007-2010
- Presented CZO activities to B2 Advisory Board Meeting in Washington, DC
- Development of professional Masters in Environmental Management (MEM) at the University of Arizona, 2009
- Development of Phoenix Arizona Social Survey (PASS) for the Phoenix Area, 2006-2007

Member

- Graduate Faculty Member, Idaho State University, 2010-present
- GIDP Global Change faculty member, University of Arizona, 2007-2010
- Institute of the Environment member, University of Arizona, 2007-2010

Judge

- Poster judge for ISPE Fest, University of Arizona
- Poster judge for El Dia De Agua (EDDA), University of Arizona

Organizer

- Central Arizona Phoenix (CAP) All Scientist Meeting and Symposium, Jan 2006

Regional

**Get the dirt -an introduction to soils by Amy Commendador and Kathleen Lohse*

- Produced a 53-page pamphlet with 7 educational modules focused on soils and oriented to middle school content and Idaho state standards

Soil Forensics Consultation, 2018-present

- Consulting on soil forensics associated with cold cases in SE Idaho
- Providing soil expertise and basic soil analyses to link cases to locations.

Pocatello Glass Recycling, 2017-2018

- Spearheaded initiative for glass recycling and initiated correspondence with Momentum Recycling and organized meeting of city and county on Nov 9, 2017
- Met with Idaho State University to foster glass recycling program
- Glass recycling program initiated June 4, 2018

Outreach Activities, 2007-pressent

- Capstone week at Reynolds Creek (15-20 8th graders) at Reynolds Creek to learn about the critical zone and other earth sciences, work with McCall Outdoor Science School (MOSS) to facilitate, 2014-2022
- Environmental Science Fair, 2013-present, Reynolds Creek education module (edible aquifer, soil forensics, soil games, sap flux tree demonstration)
- ISU Community STEM day, 2013-present, Reynolds Creek education module (edible aquifer, soil forensics, soil games, sap flux tree demonstration)
- Portneuf Watershed Partnership, Pocatello, ID
- Participant and speaker at Biosphere 2, Science Saturday, November 8, 2008
- Master Watershed Steward participant and speaker, 2007, Tucson, AZ
- Homeowner Association talk, Urban Runoff, May 2007
- Watershed Management Group participant, 2008

Public engagement in discussion of science and management issues in Idaho, 2015-present

- Supported director in production of *Voices of Fire* (Sindelar produced and directed). *Voices of Fire is* a documentary that presents the different perspectives of the Soda Fire, a 200,000-acre fire that swept through the RC CZO, and presents different perspectives of management of public lands and the Reynolds Creek Watershed prior to and after the burn. It was produced and directed by a Montana State University science film student (RJ Sindelar) as his 2nd yr film project and partially supported by RC CZO. It competed in the Boise Film Festival in September 2016 and won best student film. On August 10 and 30th 2017, *Voices of Fire*, premiered on Montana Public Television and then Idaho Public Television. We have also embedded this film into the criticalzone.org site (http://criticalzone.org/reynolds/education-outreach/) to make it publically available.
- As another science education/outreach element, Reynolds Creek Virtual Watershed Tour was developed (http://reynoldscreekczo.org/wordpress/). Videos were collected and interviews conducted during the summer of 2016 at RC CZO and resulted in the production of fourteen 2-4 minute videos as part of a Virtual Watershed Tour on subwatershed research topics. This project was as part of a SAVI/RC CZO funded outreach/education effort. Sindelar, who produced these videos for the virtual tour, is going to continue to revamp these videos as part of his final thesis in yr 5 and incorporate animations to explain concepts discussed in the videos.

Stormwater Groundwater Infiltration Technical Committee, Pocatello, Idaho, 2013-2014

- Biweekly technical committee meetings to review existing data and guide us in the creation of groundwater protection map (related to stormwater).

City Creek Management Area (CCMA) Resource Management Plan meetings, 2014

- Participated in City of Pocatello meeting with respect to master plan for City Creek Watershed, Idaho
- Wrote EPA proposal with matching funds and in partnership with Idaho Department of Environmental Quality and City of Pocatello to determine sources of nitrate in the Lower Portneuf River basin.

Panelist and reviewer, 2007

- Water and Energy Forum panelist, University of Arizona
- Reviewed 6 proposals for the Water Sustainability Program Panel, TRIF, March 2008
- Reviewed the EPA Region 9 Ephemeral Wash review paper prepared by USDA-ARS, August 2008

Middle and Junior High School Science Fair Judge, 2008 - 2009 St
Peter and Paul Catholic School *Citizen Science*
Engagement on Water Quality in Arizona, 2007-2012

- Developed citizen science program, interviewed ~100 people on phone and email, implemented, trained 10 citizens in citizen science to quantify rainfall with rainfall gauges across Tucson, AZ,
- Developed citizen science program to engage 8-10 participants in citizen science to collect rain water for chemical analyses, Tucson, AZ, 2007-2012
- Engaged 10-20 citizens in citizen science to quantify rainfall with rainfall gauges across Tucson, AZ
- Engaged 8-10 participants in citizen science to collect rain water for chemical analyses, Tucson, AZ

National/International

Associate Editor-in-Chief, *Ecosphere, Ecology in Critical Zones, 2021-present*

Associate Editor, *Vadose Zone Journal*, 2021-present

Site review, LTER McMurdo Dry Valleys, Antarctica, January-February 2020

- Reviewed 20 papers, review application, posters, and other documentation prior to trip (80 hrs)
- Trained for deployment to Antarctica for site review (40 hrs)
- 3 day trip to Antarctica via NZ, 5 days visit, and 3 day trip back to Pocatello, ID and wrote review of site visit while in Antarctica

Leader, Reynolds Creek Critical Zone Observatory

- Lead the development of a NSF funded Critical Zone Observatory (CZO) in Idaho (one of 9 CZO's in nation)
- Coordination and reporting on actvities of 50-60 participants on CZO

- Participation in monthly to bi-monthly meetings to coordinate network activities
- Participation in 2-3 national meetings/yr (Network reverse site visit, All Hands, Site Visits, Reynolds Creek CZO All Hands Meeting)

Editorial board, Biogeochemistry (2009-2014, on leave from duties owing to administrative duties of CZO)

- Handled 20 manuscripts to decision and final disposition as Associate Editor for

Steering Board

- American Geophysical Union Ecohydrology Technical Steering committee *(2010-present)*
  - o Participated and provided strategic directions for the field of Ecohydrology at annual meetings in San Francisco, CA

- National Center for Airborne Laser Mapping (NCLAM) steering committee (2009-2011) o Reviewed 28-30 Graduate Student Seed Proposals per year for NCALM (~90 total) o Participated and provided feedback in 1-3 day biannual meetings, June and December

Scientific Review Panelist

- DOE proposal review, 2023
- NSF Hydrologic Sciences Panel, 2017
  - o Reviewed 10 proposals
  - o Led discussion of 5 proposals
- NSF Hydrologic Sciences Panel, 2014
  - o Reviewed 21 proposals
  - o Led discussion of 7 proposals
- NSF Ecosystem Science Panel, Oct 2009 o Reviewed 15 proposals for NSF Ecosystem Review Panel, Washington, DC o Led discussion of 7 proposals
- EPA Review Panel, Sept 2008 o Reviewed 9 EPA Proposals on EPA, Consequences of Global Changes on Water Quality, Washington, DC
- NSF Ecosystem Science Panel, Oct 2007 o Reviewed 18 proposals for NSF Ecosystem Science Panel, Washington, DC o Led discussion of 7-9 proposals
- NSF IGERT, June 2007 o Reviewed 15 proposals in NSF IGERT Review Panel, Washington, DC o Led discussion of 7 proposals

Participant

- NCLAM Workshop, Houston, Dec 9, 2017
- Geophysics Workshop, Stanford University, July 2017
- CZO Network Strategic Planning Meeting, Feb 2-5, 2016
- Discussion leader for Sentinels for the Future at Sentinels of Global Change: Catchment Science: Interactions of Hydrology, Biology and Geochemistry, a Gordon Research conference, Bates College, Maine, July 9-15, 2011
- National Hydrologic Synthesis Team, 2008-2011, National Center for Atmospheric Research, CO, Oct 7-8, 2008
- UA B2 Hillslope Design, a 2 day brainstorming session to design experimental hillslopes, Biosphere 2, Oracle, AZ, March 13-14, 2008

Convener

- American Geophysical Union, Making the world better through biogeochemistry (honor Thomas Meixner, friend and colleague killed in shooting at UA), 2023
- American Geophysical Union, Deep soil carbon in the critical Zone, 2019
- American Geophysical Union, Plants as Plumbers of the Critical Zone, 2017
- American Geophysical Union, Ecohydrology in the Critical Zone (adopted as main session for Ecohydrology), 2014, 2015
- Ecological Society of America, Ecology in the Critical Zone, Baltimore MD 2015
- American Geophysical Union Symposium oral session titled "Riparian and Stream Network Processes Across Hydrologic Regimes" and associated posters, American Geophysical Union Fall Meeting 2011

American Geophysical Union Symposium oral session titled " Controls on Geochemical and Biogeochemical Processes in the Critical Zone", American Geophysical Union Fall Meeting 2007

Judge

- Ecological Society of America 2006, 2007, 2009
- American Geophysical Union Fall Meeting 2006, 2007, 2009, 2010, 2011, 2013, 2014, 2016, 2017

External P &T Committee Member Reviewed promotion and tenure case as external reviewer Reviewer

Journal of Geophysical Research Biogeosciences, Biogeochemistry, Ecological Applications, Oecologia, Biotropica, Journal of Environmental Management, Ecosystems, CRC Press, Soil Biology and Fertility, Vadose Zone Journal, Water Resources Research, Soil Science Society of America Journal

Member

- American Geological Union, 1999-present
- Ecological Society of America, 1995-present

POSTDOCTORAL, GRADUATE AND UNDERGRADUATE STUDENTS

Postdoctoral/Research Specialist/Staff

- *Christopher Forshee,* Research Technician, Department of Biological Sciences, Idaho State University, 2023-present, working on NSF Geomicro and urban runoff project (60/40)
- *Veronica Porter,* Reynolds Creek Science and Outreach Coordinator, Department of Biological Sciences, Idaho State University, 2022-present, funding 2/3 on USDA ARS contract and 1/3 external funds (RC CZO, Geomicro, AIMS)
- *Melissa Schlegel, Adjunct Research Scientist,* Department of Geosciences, Idaho State University, hourly, 2019-present
- *Patricia Kerner, Research Specialist (1yr), Project Manager (3 months),* Department of Biological Sciences, Idaho State University, May 2021-Nov 2022
    - *Managed multiple projects including the Rapid Barton Fire grant, AIMS, and Geomicro projects*
- *Derek Pierson,* Postdoctoral Associate, Department of Biological Sciences, Idaho State University, 2021-2022, now USDA FS in Boise, ID.
- *Kayla Glossner,* Research Specialist, Department of Biological Sciences, Idaho State University, 2019-2020, DEQ, now PA DEQ
- *Nicholas Patton,* Research Specialist, Department of Biological Sciences, Idaho State University, 2016-2017, PhD, The University of Queensland, 2022, now DRI in Reno, NV
- *Emma McCorkle,* Research Specialist, Department of Biological Sciences, Idaho State University, 2014-2018
- *Sue Parsons,* Research Database Analyst, Department of Biological Sciences, Idaho State University, 2014-2021
- *Erika Gallo*, Postdoctoral Associate, Department of Biological Sciences, Idaho State University, 2011-2014; August 2012-2014, half time ISU, half time UA
- *Elizabeth Hatton*, Research Biologist and CERE lab manager, Idaho State University, cosupervised with Baxter, 2011-2012

- *Jason Silvertooth*, Lab Technician, University of Arizona, 2011
- *Allison Peterson*, Lab Technician and Manager, University of Arizona, 2009-2012

Doctoral Advisor

- *David Huber*, Ph.D. Biology, Department of Biological Sciences, Idaho State University, 2011-2017, Postdoctoral Fellow USDA ARS, 207-2019, CSIRO postdoctoral fellow
- *Ruth MacNeille,* D.A. student, Department of Biological Sciences, Idaho State University, 2016-2020, defended Nov 5, 2020.
- *Erika Gallo*, Ph.D. Hydrology, Department of Hydrology and Water Resources, University of Arizona, co-advised with Dr. Paul Brooks (main advisor) [2006-2011, Graduated 2011]

Thesis Advisor:

- *Jennings Leavell,* MS Student, Department of Geosciences, Idaho State University, 2023-present
- *Michelle Sclafani*, MS Student, Department of Geosciences, Idaho State University, 2022-present
- *Evan Bilbrey,* M.S. Student, Department of Biological Sciences, Idaho State University, 2021-present
- *Riley Lanfear,* M.S. Student, Department of Biological Sciences, Idaho State University, advised by Hale but then took on advising with Hale departure, 2021-present
- *Patricia Kerner, Department of Biological Sciences, Idaho State University, Advised by You, but then took on advising with You departure, 2019-2021*
- *Jennifer Souza,* Department of Geosciences, Idaho State University, Thesis Chair, 2019-2021
- *Kayla Glossner,* M.S. student, Department of Biological Sciences, Idaho State University, Thesis Chair, 2017-2019
- *Stephen Joy,* M.S. Student, Department of Geosciences, Idaho State University, Thesis Chair, co-advised Donna Lybecker, 2015-present (not completed owing to health issues)
- *Nicholas Patton,* M.S. Geology, Department of Geosciences, Idaho State University, Thesis Chair 2014-2016, PhD 2022, The University of Cantebury, NZ.
- *Stacy Schwabedissen,* M.S. Biology, Department of Biological Sciences, Idaho State University, Thesis Chair, co-advisor Tim Magnuson, 2014-2016, deceased
- *Noelle Guernsey*, M.S. Biology, Department of Biological Sciences, Idaho State University, Thesis Chair, 2012-2014,
- *Emily Charaska*, M.S. Education, Department of Geosciences, Idaho State University, Thesis Chair, 2011- 2012; Transferred into Education and NMS Biology]
- *Mark Carlson*, M.S. Natural Resources, School of Natural Resources and the Environment, University of Arizona, Thesis Chair, 2008-2010
- *Jamie Massart*, M.S. Natural Resources, School of Natural Resources and the Environment, University of Arizona, 2008-2010, co-advised with Dr. Phil Guertin

Undergraduates

- *Bree Jenkins,* Earth and Environmental Sciences major, Idaho State University, 2022-present
- *Rylee Mathison,* Biology major, Idaho State University, Summer 2023-present
- *Nina Keck,* Biology major, Idaho State University, Fall 2023- present

- *Tiffaney Jeske, Biology major,* Idaho State University, Fall 2022-Spring 2023, Post-bacc summer position
- *Christopher Forshee,* Biology major, Idaho State University, Fall 2022, independent problems
- *Jared Meyers,* Biology major, Idaho State University, Fall 2019-Spring 2020, wrote Senior Thesis and contributed data and co-author on Lohse et al. (2022)
- *Tej Pandey,* Biology major, Idaho State University, Fall 2019-present, independent problems
- *Jeremy Facer,* Earth and Environmental Sciences major, Idaho State University, SU 2018-Dec 2018, contributed data and co-author on Lohse et al. (2022)
- *Cody Durfee,* Earth and Environmental Sciences major, Idaho State University, Spring 2018May 2018
- *Callan Norby,* Geology major, Idaho State University, Fall 2017
- *Riley Williams,* Freshman Career Path Intern, Idaho State University, Fall-Spring 206-2017 (on-sabbatical, primary supervision, Emma McCorkle)
- *Caleb Renner,* Geology major, MURI, Idaho State University, summer 2017 (on-sabbatical, primary supervision by Patton)
- *Brett Schwabedissen,* Biology major, Idaho State University, Fall 2016-2017
- *Remington King,* Mechanical Engineering major, Idaho State University, 2014-2016
- *Erika Blay,* Microbiology major, Idaho State University, 2014-2016
- *Lakin Beal,* Geology major, Idaho State University, Fall 2012-2014
- *Nathan English,* Earth and Environmental Sciences major, Idaho State University, Fall 2014
- *Stephen Joy*, Earth and Environmental Sciences major, Idaho State University, NSF EPSCoR REU, Summer 2012; BIOL 4481: Independent Problems, 2 credits, Fall 2012, Presenting results from REU at American Geophysical Union 2012
- *Simon Prestigiacomo*, Earth and Environmental Sciences major, Idaho State University, NASA EPSCoR REU, Summer 2012, BIOL 4481: Independent Problems, 2 credits, Fall 2012
- *Shleace Hardenbrook*, Biology major, Idaho State University, Career Path Internship, Idaho State University, Fall 2010-Spring 2011, Summer REU Idaho EPSCoR,
- *Brenda Alleman*, Biology major, BIOL 4481: Independent Problems, Idaho State University, 2 credits, Fall 2011
- *Stacy Schwabedissen*, Microbiology major, Idaho State University, Career development internship, Fall 2011-Spring 2012, Undergraduate research assistant, Fall 2012
- *Emily Charaska*, Earth and Environmental Sciences major, Idaho State University, BIOL 4482: Independent Problems, 2 credits, Spring 2011
  Chris Ferlin, Soil Water and Environmental Science major, University of Arizona, starting working in lab and field as freshman until graduation, 2007-2012, REU undergraduate student for summer 2010, American Geophysical Union poster 2010
- *Becky Witte*, Engineering major, University of Arizona, assisted summer field work 2010, American Geophysical Union poster 2010, received American Geophysical Union travel award, WISE travel award, graduated 2011
- *Maria Lucero*, Biology major, assisted with lab and field work from 2007-2011
- *Curtis Miles*, Engineering major, assisted field work from 2010- 2011
- *Shane Clark*, WSM undergraduate, assisted with lab and field work from 2008-2012, presented citizen science research at SAHRA annual meeting, graduated 2012
- *Daniel Wisheropp*, REU undergraduate, presented research at SAHRA annual meeting, graduated Dec 2008

- *Allison Peterson*, undergraduate, graduated Dec 2008, worked as technician/lab manager starting 2009-2012
- *Claressa Martinez*, undergraduate, graduated May 2008

Committee Member

- *Lauren Tucker,* Ph.D. student, Department of Biological Sciences, Idaho State University, Dissertation committee member, 2021-present
- *Sara Warix,* M.S. Geosciences, Department of Geosciences, Idaho State University, Thesis committee member, 2018-2020, now PhD student Colorado School of Mines
- *Harmandeep Sharma,* Ph.D. student, Department of Biological Sciences, Idaho State University, Dissertation committee member, 2014-2018
- *Amy Commendador-Dudgeon*, PhD candidate in Biology, Dissertation thesis committee, October 2013 - Present.
- *Anna Radke,* M.S. Geosciences, Department of Geosciences, Idaho State University, Thesis committee member, 2016-2018
- *Cailtin Rushlow,* Ph.D. Geosciences, Department of Geosciences, Idaho State University, Dissertation committee member, 2013-2018
- *Courtney Ohr,* M.S. Geology, Department of Geosciences, Idaho State University, Thesis committee member, 2014-2016
- *Alex Boehm*, M.S. Geosciences, Department of Geosciences, Boise State University, Thesis committee member, 2013-2015
- *Chris Tennant,* Ph.D. Geosciences, Department of Geosciences, Idaho State University, Dissertation committee member, 2013-2016
- *Johanna Thalmann.* M.S. Biology, Idaho State University, Thesis committee member, 20132015
- *Kate McAbee*, M.S. Biology, Idaho State University, Thesis committee member, 2013 - 2015
- *Amy Jensen*, M.S. Geosciences, Department of Geosciences, Idaho State University, Thesis committee member, 2011-2013
- *Jennifer Cornell*, M.S. Biology, Department of Biological Sciences, Idaho State University, Thesis committee member, 2010-2012
- *Hillary Nicholas*, M.S. Hydrology, Department of Hydrology and Water Resources, University of Arizona, Thesis committee member, 2010-2012
- *Jutta Elguindi*, Ph.D. Soil and Water Science, Department of Soil, Water and Environmental Sciences, University of Arizona, Minor Natural Resources, University of Arizona, Dissertation committee member, 2009-2011
- *Ciaran Harman*, Ph.D. Environmental Engineering, Department of Civil and Environmental Engineering, University of Illinois Urbana Champagne, Dissertation committee member [Conducted dissertation research in lab at University of Arizona, Graduated May 2011 Postdoctoral Fellow at University of Arizona, Assistant Professor at John Hopkins University Fall 2012]

  Elizabeth Larson, Ph.D. Biology, Arizona State University [Graduated Dec 2010]
- *Brittany Bates*, M.S. Hydrology, Department of Hydrology and Water Resources, University of Arizona [Graduated May 2010]
- *Kyle Brown*, M.S. Hydrology, Department of Hydrology and Water Resources, University of Arizona [Graduated Dec 2009]
- *Phyllis Berger*, M.S. Soil and Water Science, Department of Soil, Water and Environmental

Sciences, University of Arizona, [Graduated Dec 2009]

Idaho State University Graduate Faculty Representative (GFR)

- *Michael Wigle, School of Nursing, Idaho State University, 2012*
- *Shannan Osterhout*, Department of Geoscience, Idaho State University, April 2011
- *Timothy Diedesch*, Department of Geoscience, Idaho State University, May 2011

FELLOWSHIPS AND AWARDS TO UNDERGRADUATE AND GRADUATE STUDENTS UNDER SUPERVISION

- 2023 CERE award, Evan Bilbrey
- 2023 BSRC award, Riley Lanfear, Evan Bilbrey (declined)
- 2023 Geslin Award, Michelle Sclafani
- 2023 NCALM seed grant, Michelle Sclafani
- 2021 Geslin award, Jenn Souza
- 2018 SAVI grant, Kayla Glossner
- 2016 New Phytologist Poster award, Ecological Society of America, Harmandeep Sharma
- 2015 GSA Student Research Award, Stacy Schwabedissen
- 2014 MRCF Student Research Award, Stacy Schwabedissen
- 2014 ISU Combined Scholarship, Stacy Schwabedissen
- 2013 University of Utah Research in residence award, David Huber
- 2012 ISU Barry Keller Scholarship, Noelle Guernsey
- 2012 ISU Combined Scholarship, Stacy Schwabedissen
- 2012 ISU MRCF student seed grant, Emily Charaska
- 2012 ISU URC student research grant, David Huber
- 2012 Rocky Mountain GSA travel award, Emily Charaska
- 2012 GSA Research Grant, David Huber
- 2012 GSA Research Grant, Noelle Guernsey, Awarded top 20 ranked proposal
- 2012 GSA Research Grant, Emily Charaska
- 2012 University of Utah Stable Isotope Camp Scholarship, Dave Huber
- 2012 ISU Travel award, Emily Charaska
- 2012 ISU Travel award, Noelle Guernsey
- 2012 ISU Travel award, David Huber
- 2011 American Geophysical Union Travel Award, Dave Huber
- 2011 EPA Star Fellowship, Rebecca Lloyd
- 2011 GSA Research Grant, Rebecca Lloyd
- 2010 1st place, Erika Gallo, El Dia de Agua, Oral Presentation
- 2009 1st place, Erika Gallo, SAHRA Annual Meeting
- 2009 IE Travel Grant, Erika Gallo
- 2009 AZ Water Scholarship, Mark Carlson
- 2009 Biosphere 2 Science and Society Fellows, Bryan Moravec
- 2009 Biosphere 2 Science and Society Fellows, Rebecca Lloyd
- 2009 GSA Research Grant, Mark Carlson
- 2009 GSA Research Grant, Erika Gallo
- 2009 GSA Research Grant, Bryan Moravec
- 2009 2nd Place Poster, Erika Gallo, El Dia
- 2009 NCALM Graduate Seed Project, Rebecca Lloyd

- 2008 Outstanding Student Paper Award (Hydrology Section), AGU Fall Meeting 2008, Kyle Brown (collaborator on project)
- 2008-2010 Science Foundation of Arizona Graduate Fellowship, 2 yrs, Bryan Moravec
- 2008-2010 Peace Corp Fellowship, 2 yr, Mark Carlson
- 2008 WISE Travel Grant, Erika Gallo
- 2007-2009 USDA Ecohydrology Fellowship, 2 yr, Rebecca Lloyd
- 2007 Best Poster, Erika Gallo, Water and Energy Forum
- 2007 Best Poster, Erika Gallo, ISPE Fest.