

Diana R. Nemergut

Educational Background

B.S., 1997	University of New Orleans	Biological Sciences
Ph.D., 2004	University of Colorado	Ecology and Evol. Biology
Postdoctoral, 2004-2005	Rutgers University	Marine and Coastal Sciences

Academic Employment History

2012-present	Program Director, Organisms and Ecosystems, Antarctic Sciences, National Science Foundation
2012-present	Associate Professor, Dept. of Environmental Studies and INSTAAR fellow, University of Colorado, Boulder
2006- present	Assistant Professor, Dept. of Environmental Studies and INSTAAR, University of Colorado, Boulder
2004-2005	Postdoctoral Fellow, Institute for Marine and Coastal Sciences, Rutgers University
2000-2004	Research Assistant, Dept. of EPO Biology, University of Colorado
1999-2000	Teaching Assistant, Dept. of EPO Biology, University of Colorado
1998-1999	Technician, Dept. of Biochemistry, Tulane Medical School
1997-1998	Technician, Cell Molecular Biology, Tulane University

Grants/Honors/Awards

NSF, Ecosystems, Collaborative Research: Relative Controls of Niche vs. Neutral Microbial Community Assembly Processes Over Ecosystem Function Post-Disturbance, \$791,547, Lead PI

NSF, Africa, Near East and South Asia Program: International Planning Visit: Investigating the Interactions Between Dissolved Organic Matter, Microbial Communities, and Arsenic Biogeochemistry in Groundwater of a Pristine Delta, \$19,943, Co PI (PI Mladenov)

NSF, Ecosystems, Collaborative Research: MSB: Links Between Soil Biogeochemistry and Microbial Community Dynamics Along Recently Deglaciated Chronosequences, \$566,955, Lead PI

NSF, Antarctic Biology and Medicine, Collaborative Research: Stream Ecosystem "Harshness" and Microbial Endemism in the McMurdo Dry Valleys, \$495,000, Lead PI

NSF, EAR, Collaborative Research: Humics and Iron Redox Reactions in Bangladesh Aquifer, \$388,063, CU lead (PI Zheng)

NSF, DEB, Prying Open the Black Box: Does Microbial Community Composition Regulate Respiration in Tropical Rain Forest Soil?, \$495,000, CU lead (PI Cleveland)

CU UROP 2010, \$1000, sent students to New Orleans for service work as part of "Rethinking Hurricane Katrina" course

CU ASCI 2010, \$1000, used to fund lab manager, Chris Washenberger, in teaching a course on Environmental Science

Dean's Award for Excellence, 2009, \$1000, sent students to New Orleans for service work as part of "Rethinking Hurricane Katrina" course

CU UROP 2007, \$1000, sent students to New Orleans for service work as part of "Rethinking Hurricane Katrina" course

CU Graduate School, Grant in Aid, Resolving Integron Integrase Gene Phylogenies
Using Environmental Gene Surveys, \$7000
Institute for Marine and Coastal Sciences postdoctoral fellowship, 2004

Research/Creative Works

Peer-Reviewed Publications

Cleveland, C.C., S.C. Reed, A.B. Keller*, D.R. Nemergut, S.P. O'Neill*, R. Ostertag and P.M. Vitousek. Litter quality versus microbial community controls over decomposition: A quantitative analysis. *Oecologia* (In Revision)

Graham*, E.B., W.R. Wieder, J.W. Leff*, S.R. Weintraub*, A.R. Townsend, C.C. Cleveland, L. Philippot and D.R. Nemergut. Do we need to understand microbial communities to predict ecosystem function? A comparison of statistical models of nitrogen cycling processes. *Soil Biology and Biochemistry* (In Revision)

Simone*, B. E., D. M. McKnight, T. Legg*, N. Mladenov, J. Ebert*, P. J. Hernes, D. R. Nemergut and Y Zheng. Chemical characteristics of humic dissolved organic matter from a surface water and arsenic-enriched groundwater in the Arahaizar Region of Bangladesh: Influences of source and sorption processes. *J of Hydrology* (In Revision).

D. R. Nemergut, S. K. Schmidt, T. Fukami, S. P. O'Neill*, T. M. Legg*, L. Stanish*, J. Knelman*, J. L. Darcy*, R. Lynch*, P. Wickey** and S. Ferrenberg*. Microbial Community Assembly: Patterns and Processes. *Microbiology and Molecular Biology Reviews* (In Press).

S. Ferrenberg*, S. P. O'Neill*, J. E. Knelman, B. Todd**, S. Duggan**, D. Bradley**, T. Robinson**, S. K. Schmidt, A. R. Townsend, M. W. Williams, C. C. Cleveland, B. A. Melbourne, L. Jiang and D. R. Nemergut (2013). Changes in assembly processes in soil bacterial communities following a wildfire disturbance. *ISME J*, 7:1102-11.

W. R. Wieder, C. C. Cleveland, P. G. Taylor, D. R. Nemergut, E-L Hinckley, L. Philippot, D. Bru, S. R. Weintraub*, M. Martin* and A. R. Townsend (2013). Experimental removal and addition of leaf litter inputs reduces nitrate production and loss in a lowland tropical forest. *Biogeochemistry*, 1-3: 629-642.

L. F. Stanish*, S. P. O'Neill*, A. Gonzalez*, T. M. Legg*, J. Knelman*, D. McKnight, S. Spaulding, D. R. Nemergut (2013). Bacteria and diatom co-occurrence patterns in microbial mats from polar desert streams. *Environmental Microbiology*, 15: 1115-1131.

S. K. Schmidt, D. R. Nemergut, B. Todd**, R. C. Lynch*, J. L. Darcy*, C. C. Cleveland and A. J. King (2012). A simple method for determining limiting nutrients for photosynthetic crusts. *Plant Ecology and Diversity*, 5: 513-519.

J. W. Leff*, W. R. Wieder, P. G. Taylor, A. R. Townsend, D. R. Nemergut, A. S. Grandy and C. C. Cleveland (2012). Experimental litterfall manipulation drives large and rapid

changes in soil carbon cycling in a wet tropical rainforest. *Global Change Biology* 18: 2969-2979.

L. F. Stanish*, T. J. Kohler*, R. M. Esposito*, B. L. Simmons*, U. N. Nielsen, D. H. Wall, D. R. Nemergut, D. M. McKnight (2012). Extreme streams: flow intermittency as a control on diatom communities in meltwater streams in the McMurdo Dry Valleys, Antarctica. *Canadian Journal of Fisheries and Aquatic Sciences* 69: 1405-1419.

T. M. Legg*, Y. Zheng, B. Simone*, K. A. Radloff, N. Mladenov, A. Gonzalez*, D. Knights*, H. C. Siu**, M. Rahman, K. Matin Ahmed, D. M. McKnight, D. R. Nemergut (2012). Carbon, metals and grain size correlate with bacterial community structure in sediments of a high arsenic aquifer. *Frontiers in Terrestrial Microbiology* 3: 82.

J. E. Knelman*, T. M. Legg*, S. P. O'Neill*, C. L. Washenberger, A. Gonzalez*, C. C. Cleveland* and D. R. Nemergut* (2012). Bacterial community structure and function change in association with colonizer plants during early primary succession in a glacier forefield. *Soil Biology & Biochemistry* 46: 172-180

J. W. Leff*, D. R. Nemergut, A. S. Grandy, S. P. O'Neill*, K. Wickings, A. R. Townsend, C. C. Cleveland (2012). The effects of soil bacterial community structure on decomposition in a tropical rain forest. *Ecosystems* 15: 284-298.

Hydrologic Processes Influence Diatom Community Composition in Dry Valley Stream Microbial Mats, L. Stanish*, D. Nemergut, D. McKnight, *Journal of the North American Benthological Society* (2011), 30, 1057-1073.

Phylogenetic Limiting Similarity and Competitive Exclusion, C. Violle, D.R. Nemergut, Z. Pu*, and L. Jiang (2011), *Ecology Letters*, 14, 782-787.

S.K. Schmidt, C.C. Cleveland, D.R. Nemergut, S.C. Reed, A.J. King*, P. Sowell (2011). Estimating Phosphorus Availability for Microbial Growth in an Emerging Landscape. *Geoderma* 163, 135-140.

P. Yilmaz et al. (total of 94 authors, 2011). Minimum information about a marker gene sequence (MIMARKS) and minimum information about any sequence (x) sequence (MlXS) specifications. *Nature Biotechnology* 29, 415-420.

D. R. Nemergut, E. K. Costello, M. Hamady, C. Lozupone, L. Jiang, S. K. Schmidt, N. Fierer, A. R. Townsend, C. C. Cleveland, L. Stanish*, R. Knight (2011). Global Patterns in the Biogeography of Bacterial Taxa. *Environ. Microbiol.* 13:135-144.

S. C. Reed, A. R. Townsend, C. C. Cleveland, and D. R. Nemergut (2010). Microbial Community Shifts Influence Patterns in Tropical Forest Nitrogen Fixation. *Oecologia*, 164: 521-531.

D. R. Nemergut, C. C. Cleveland, W. R. Wieder*, C. L. Washenberger and A. R. Townsend (2010). Plot-scale manipulations in organic matter inputs to soils correlate with shifts in microbial community composition in a lowland tropical rainforest soil. *Soil Biology and Biochemistry*, 42: 2153-2160.

N. Fierer, D. R. Nemergut, R. Knight, J. M. Craine (2010). Changes through time: integrating microorganisms into the field of succession. *Research in Microbiology*. 161: 635-642.

N. Mladenov, Y. Zheng, M. P. Miller, D. R. Nemergut, T. Legg*, B. Simone*, C. Hageman*, M. M. Rahman, K. M. Ahmed, D. M. McKnight. Dissolved organic matter sources and consequences for iron and arsenic mobilization in Bangladesh Aquifers (2010). *Environmental Science and Technology* 44 (123-128).

S. R. Sattin*, C. C. Cleveland, E. Hood, S. C. Reed, A. J. King*, S. K. Schmidt, M. S. Robeson*, N. Ascarrunz and D. R. Nemergut (2009). Functional shifts in unvegetated, perhumid, recently deglaciated soils do not correlate with shifts in soil bacterial community composition. *The Journal of Microbiology*, 47: 673-681.

S. K. Schmidt, D. R. Nemergut, A. E. Miller, K. R. Freeman*, A. J. King*, and A. Seimon (2009). Microbial activity and diversity during extreme freeze-thaw cycles in periglacial soils, 5400 m elevation, Cordillera Vilcanota, Perú. *Extremophiles* 13: 807-816.

D. R. Nemergut, A. R. Townsend, S. R. Sattin*, K. R. Freeman*, N. Fierer, J. C. Neff, W. D. Bowman, C. S. Schadt, M. N. Weintraub, and S. K. Schmidt (2008). The effects of chronic nitrogen fertilization on alpine tundra soil microbial communities: implications for carbon and nitrogen cycling. *Environmental Microbiology* 11:3093-3105.

S. K. Schmidt, S. C. Reed, D. R. Nemergut, A. S. Grandy, C. C. Cleveland, M. N. Weintraub, A. W. Hill*, E. K. Costello, A. F. Meyer, and J. C. Neff (2008). The earliest stages of ecosystem succession in high-elevation (5000 metres above sea level), recently deglaciated soils. *Proceedings of the Royal Society B*. 275: 2793-2802.

D. R. Nemergut, M. S. Robeson*, R. F. Kysela*, A. P. Martin, S. K. Schmidt, and R. Knight (2008). Insights and inferences about integron evolution from genomic data. *BMC Genomics* 9:261.

L. Jiang, Z. Pu*, and D. R. Nemergut (2008). On the importance of the negative selection effect for the relationship between biodiversity and ecosystem functioning. *Oikos* 117: 488-493.

J. R. Zaneveld*, D. R. Nemergut, and R. Knight (2008). Are all horizontal transfers created equal? Prospects for mechanism based studies of HGT patterns. *Microbiology* 154 1-15.

D. R. Nemergut, S. P. Anderson, C. C. Cleveland, A. P. Martin, A. E. Miller, A. Seimon, and S. K. Schmidt (2007). Microbial community succession in an unvegetated, recently-deglaciated soil. *Microbial Ecology* 53: 110-122.

S. K. Schmidt, E. K. Costello*, D. R. Nemergut, C. C. Cleveland, M. N. Weintraub, A. F. Meyer, and A. M. Martin (2007). Biogeochemical consequences of rapid microbial turnover and seasonal succession in soil. *Ecology* 88: 1379-1385.

C. C. Cleveland, D. R. Nemergut, A. R. Townsend, and S. K. Schmidt (2007). Increases in soil respiration following labile carbon additions linked to rapid shifts in soil microbial community composition. *Biogeochemistry* 82: 229-240.

D. R. Nemergut, E. K. Costello*, A. F. Meyer*, M. Pescador*, M. Weintraub, and S. K. Schmidt (2005). Structure and function of alpine and arctic soil microbial communities. *Research in Microbiology* 156: 775-784.

D. R. Nemergut, A. P. Martin and S. K. Schmidt (2004). Integron diversity in heavy metal contaminated mine tailings and inferences about integron evolution. *Applied and Environmental Microbiology* 70: 1160-1168.

A. P. Martin, E. K. Costello, A. F. Meyer, D. R. Nemergut, and S. K. Schmidt (2004). The rate and pattern of cladogenesis in microbes. *Evolution* 71: 946-955.

D. R. Nemergut, and S. K. Schmidt (2002). Disruption of *narH*, *narJ*, and *moaE* inhibits heterotrophic nitrification in *Pseudomonas* strain M19. *Applied and Environmental Microbiology* 68: 6462-6465.

D. R. Nemergut, K. G. Wunch, R. M. Johnson, and J. W. Bennett (2000). Benzo[a]pyrene removal by *Marasmiellus trojanus* in soil microcosms. *Journal of Industrial Microbiology and Biotechnology* 25: 116-119.

D. R. Nemergut, R. M. Johnson, K. G. Wunch, and J.W. Bennett (2000). Extraction and quantification of benzo[a]pyrene in soil by reversed phase thin layer chromatography. *Journal of Liquid Chromatography and Related Technologies* 23: 579-586.

Non-Peer-Reviewed Publication

J. Kuczynski*, E. K. Costello, D. R. Nemergut, J. Zaneveld*, C. L. Lauber, D. Knights*, O. Koren*, N. Fierer, S. T. Kelley, R. E. Ley, J. I. Gordon, R. Knight (2010). Direct sequencing of the human microbiome readily reveals community differences. *Genome Biology*. 11:210.

Book Chapters (reviewed by section editor)

M. Rhodes, J. Knelman, R. C. Lynch, J. L. Darcy, D. R. Nemergut, S. K. Schmidt (2012) Structure and function of prokaryotic communities in soils of polar and high elevation deserts. *The Prokaryotes*. Springer-Verlag.

D. R. Nemergut, T. Barkay, J. Coombs (2007). Mobile gene elements in environmental microbial communities. In: Manual of Environmental Microbiology, 3rd edition, C.J. Hurst, R. Crawford, J. Garland, D. Lipson, A. Mills and L. Stetzenbach. Eds., ASM Press, Washington, DC.

Abstracts Presented at National Meetings (since beginning faculty appointment)

E. B. Graham, W. R. Wieder, A. R. Townsend, C. C. Cleveland, L. F. Stanish, T. M. Legg, S. A. Weintraub, J. W. Leff, D. R. Nemergut. Enhancing the predictive power of nitrogen cycling models using community data. Fourth Annual Soils Metagenomic Workshop, Argonne National Labs, 2012.

D. Nemergut, Community assembly and invasions: niche and neutral processes in a post-disturbance landscape. ***Invited talk and roundtable participant***

D. M. McKnight, L. F. Stanish, D. R. Nemergut and J. Cullis. Climate change and microbial mats in Antarctic meltwater streams: Modeling the scouring of mats by flood pulses. ESA General Meeting, 2012

A. M. Faist, S. P. O'Neill, D. R. Nemergut and S. K. Collinge. Vernal pool soil properties and their role in restoration success. ESA General Meeting, 2012

S. C. Castle, D. R. Nemergut, S. K. Schmidt, A. S. Grandy and C. C. Cleveland. Microbial community succession and biogeochemical cycling: A comparison across glacial forelands. ESA General Meeting, 2012

L. F. Stanish, T. M. Legg, D. R. Nemergut, S. P. O'Neill, and A. Gonzalez-Pena. The utility of C-score analysis for examining bacterial co-occurrence patterns in large sequencing datasets. ESA General Meeting, 2012

T. M. Legg, Y. Zheng, N. Mladenov, J. Ebert, M. M. Rahman, K. M. Ahmed, D. McKnight, D. Nemergut. Evidence for the role of humics-reducing bacterial in groundwater arsenic mobilization. ASM General Meeting, 2012

J. Knelman, S. O'Neill, D. R. Nemergut. Common patterns in root associate bacterial communities in early ecosystem succession. ASM General Meeting, 2012

L. F. Stanish, D. McKnight, S. P. O'Neill, A. Gonzalez-Pena, T. M. Legg, D. R. Nemergut. Cyanobacterial endemism in Antarctic stream microbial mats. ASM General Meeting, 2011

D. R. Nemergut. Unexpected importance of the 'rare biosphere' in bacterial community assembly, ASM General Meeting, 2011, ***invited talk***

J. E. Knelman, E. Hood, S. P. O'Neill, D. R. Nemergut. Plant feedbacks on microbial community succession in a glacier forefield. ASM General Meeting, 2011

S. P. O'Neill, A. R. Townsend, B. A. Melbourne, D. R. Nemergut. Dispersal limitations and the 'rare biosphere'. ASM General Meeting, 2011

T. M. Legg, Y. Zheng, B. Simone, K. A. Radloff, N. Mladenov, A. Gonzalez-Pena, D. Knights, H. Siu, M. Rahman, K. Ahmed, D. M. McKnight, D. R. Nemergut. Sedimentary carbon, metals and grain size structure bacterial community composition in a high arsenic aquifer. ASM General Meeting, 2011

J. W. Jennett, P. Taylor, C. Washenberger, W. Wieder, T. Seastedt, D. Nemergut. Microbial community changes and biogeochemical consequences of forest dieback. ASM General Meeting, 2011

C. L. Washenberger, S. Giovannoni, D. R. Nemergut. Design of integron integrase primers for multiplex high-throughput pyrosequencing. ASM General Meeting, 2011

D. Nemergut, A. Townsend, S. O'Neill, B. Melbourne. Distribution and dispersal limits of bacterial taxa. Second Annual Soils Metagenomic Workshop, Argonne National Labs, 2010.

D. M. McKnight, B. Simone*, N. Mladenov, Y. Zheng, T. Legg* and D. Nemergut. Source and processes of dissolved organic matter in a Bangladesh Aquifer. American Geophysical Union, Annual Meeting, 2010.

S. C. Reed, D. Nemergut, A. Keller*, B. Ostertag and C. Cleveland. Overarching controls over decomposition. Hawaii Ecosystems Meeting. 2010.

T. M. Legg*, D. R. Nemergut, B. Simone*, D. M. McKnight, A. Gonzalez Pena*, Y. Zheng. Patterns in bacterial community structure across groundwater arsenic gradients. ISME Annual Meeting, 2010.

A. Gonzalez-Pena*, D. Nemergut, T. Legg*, Visual Primer Design (VPD): A pipeline tool to design degenerate primers based in grid analysis, ISME Annual Meeting, 2010.

J. Knelman*, E. Hood, S. O'Neill, D. Nemergut. Influence of successional vegetation type on microbial communities and biogeochemistry in a post-glacial chronosequence. ISME Annual Meeting, 2010.

J. Leff*, S. C. Reed, D. R. Nemergut, C. C. Cleveland. Resource manipulations drive shifts in soil microbial community structure and function in a tropical rainforest. ISME Annual Meeting, 2010.

D. Nemergut. A cross-systems comparison of bacterial:archaeal ratios: the role of nutrients and functional groups in regulating microbial community structure. ISME Annual Meeting, 2010.

S. O'Neill, D. Nemergut, A. Townsend and B. Melbourne. Is everything everywhere? The effects of geographical distance on microbial community succession. ISME Annual Meeting, 2010.

B. Simone*, D. McKnight, N. Mladenov, T. Legg*, D. Nemergut and Y. Zheng. Source and processes of dissolved organic matter in a Bangladesh Groundwater System. GSA Annual Meeting, 2010.

B. Simone*, T. Legg*, D. McKnight, D. Nemergut, Y. Zheng. Chemical Characteristics of Dissolved Humic Substances From Arsenic-Rich Shallow Groundwater in Bangladesh. AGU Chapman conference on Arsenic and Groundwater in Southeast Asia, 2009.

D. McKnight, N. Mladenov, KM Ahmed, D. Nemergut, Y. Zheng. Reduced Humic Substances Promote Iron Reduction and Mobilization of Arsenic in Aquifers in Bangladesh AGU Chapman conference on Arsenic and Groundwater in Southeast Asia, 2009.

Legg*, T.M., Radloff*, K.A., Simone*, B., Mladenov, N., Zheng, Y., McKnight, D.M. and D.R. Nemergut. Bacterial Community Structure across Arsenic Gradients in Groundwater Sediment: A Case Study from Araihasar, Bangladesh. American Society for Microbiology Annual Meeting, 2009.

T. Legg*, D. Nemergut, K. Radloff*, Y. Zheng, D. McKnight. The Relationship Between Microbial Community Structure and the Mobilization of Groundwater Arsenic: Evidence from Araihasar, Bangladesh. American Geological Society Fall Meeting. 2008.

R. Kysela*, C. C. Cleveland, A. R. Townsend and D. R. Nemergut. Antibiotic resistance in response to nitrogen and phosphorous fertilization in a primary lowland tropical rainforest. Wind River Conference on Prokaryotic Biology. 2008.

D. R. Nemergut, E. K. Costello, M. Hamady, C. Lozupone, S. K. Schmidt and R. Knight. Global patterns in the occurrence and co-occurrence of bacteria. Wind River Conference on Prokaryotic Biology. 2008.

D. R. Nemergut, D. M. Bortz, and S. C. Reed*. Genomic network modeling: An approach to predict net ecosystem processes from microbial community structure data, Ecological Society of America Annual Meeting, 2007.

S. C. Reed*, A. R. Townsend, C. C. Cleveland, and D. R. Nemergut. Free-Living Nitrogen Fixation in a Tropical Rain Forest: Rates, Controls, and Ecological Significance. International Nitrogen Initiative Meeting, 2007.

S. C. Reed*, S. K. Schmidt, D. R. Nemergut, A. S. Grandy, C. C. Cleveland, M. N. Weintraub, A. W. Hill*, E. K. Costello, A. F. Meyer, and J. C. Neff. Microbial and biogeochemical succession in recently de-glaciated soils" Soil Ecology Meetings, 2007.

S. R. Sattin*, C. C. Cleveland, E. Hood, S. C. Reed*, A. J. King*, S. K. Schmidt, and D. R. Nemergut. Soil microbial community succession in the recently deglaciated soils of the Mendenhall Glacier, Alaska, Soil Ecology Meetings, 2007.

D. Nemergut, R. Knight, A. P. Martin and S. K. Schmidt. Integron diversity and evolution. American Society for Microbiology Annual Meeting, 2006, **invited talk**.

S. C. Reed*, A. R. Townsend, C. C. Cleveland, and D. R. Nemergut. Biogeochemical and microbial community controls over free-living nitrogen fixation in a lowland tropical rain forest. Ecological Society of America Meeting, 2006.

S. K. Schmidt, S. C. Reed*, D. R. Nemergut, C. C. Cleveland, M. N. Weintraub, A. King*, E. K. Costello*, A. F. Meyer. Microbial life and biogeochemistry of barren high elevation soils of the Rockies and Andes. American Society for Microbiology Annual Meeting, 2006.

S. K. Schmidt, S. C. Reed*, D. R. Nemergut, C. C. Cleveland, M. N. Weintraub, A. King*, E. K. Costello*, A. F. Meyer. Microbial biomass turnover and seasonal succession drive the alpine N cycle, LTER All Scientists Meeting, 2006.

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Teaching Accomplishments

Designed and taught six new courses and seminars, including: General Biology; Critical Thinking: Biotechnology and the Environment; Critical Thinking: Rethinking Hurricane Katrina; Molecular to Global Biogeochemistry; The Evolution of Biogeochemical Cycles; and Soil Microbial Biogeochemistry.

Serve(d) as the primary advisor for: Sarah Sattin (MA, 2008), Robert Kysela (MA, 5/09), Teresa Legg (PhD, expected grad 5/13), Joey Knelman (MA, EBIO 5/11, PhD, EBIO, expected grad 5/16, NSF Graduate Research Fellow and Fulbright Scholar), Emily Graham (PhD, expected 12/ 16), Sean O'Neill (MA, expected grad 5/14), Emily Graham (PhD, expected grad 5/13), Nicholas Mosely (EBIO honors 5/09, UROP funded) and John Jennett (EBIO honors, McNair Fellow, expected graduation 12/11, UROP and McNair Fellow. Also an advisor for research projects by undergraduate and high school students including Jenny (Liz Pfeffer, UROP-funded), Jordan Chamberlain (ENVS, 2009), Bryan Todd (UROP funded), Sean O'Neill (BS, 2008, UROP-funded), Jessika Gonzales (BS, 2008), Emily Krauter, Nita Clark (SMART program), Taija Ventralla, Kate Schimel, Lisa Kant, Breanna Prince, and Callan Jones.

Serve(d) on committees for: Kristen Freeman (PhD, 2010), Bailey Simone (MA, 2010), Kelly Rameriz (PhD, 2012), Ryan Lynch, Gaddy Bergman, Jack Darcy, Courtney Naff, Katy White (BS, 2010), Maxwell Mazzella (BS, 2010), Amanda Redford (MA, 2008), Lee Stanish, Kelly Ramirez, Betsy Swanner, Doug Lim (BS, 2010), Jesse Zaneveld, Jamie Sheren (PhD, 2007), Sarah Gonzales (BS, 2010), Kristen Peterson (BS, 2008), Reece Gesumaria (BS, 2011), Dan Knights (PhD, 2012), Antonio Gonzales (PhD, 2012).

Service Activities

Departmental

INSTAAR, Program review committee, 2011-present
ENVS, Program review committee, 2011-present
ENVS, endowed chair search committee, 2011-present
INSTAAR, executive committee, 2009-present
INSTAAR, brochure committee, 2009.
INSTAAR, SAC visit committee, 2008.
ENVS, Diversity committee, 2008.
INSTAAR, director search committee, 2007-2008.
INSTAAR, INSTAAR/USGS Joint Institute Exploratory committee, 2007-2008.
ENVS, colloquium committee, 2006-2008.

University

CAT, Critical Assessment Test Grader, May 2010

Local

Boulder Preparatory High School- funded and advised my lab manager, Chris Washenberger, in teaching a course on Environmental Science, 2010
Boulder Preparatory High School- School Board Member, Board Secretary, 2006-present
Boulder Preparatory High School- designed and taught a Microbial Diversity course, 2006

National/International

Editorial Board, Frontiers in Microbiology, 2011-present
Co-organizer, Special Issue on Microbial Community Assembly in Frontiers in Microbiology, 2012
NSF, Evolutionary Ecology Review Panel, 2011
Portuguese Science Society, Remote Panelist, 2009-2010
AGU, Co-convened a session on Cryospheric Biogeochemistry, December 2010
NSF, Ecosystems Review Panel, 2010
“Think Green, Live Clean” Faculty Review Member, 2010
Army Microbiology Workshops for Funding Directives (Sept 2008)
NSF, Long Term Ecological Research site (LTER) Review Panel, 2008.
NSF, Antarctic Biology and Medicine Review Panel, 2006.