

## CURRICULUM VITAE

### **Sarah E Hobbie**

Department of Ecology, Evolution and Behavior  
University of Minnesota  
St. Paul MN 55108  
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### **Professional Preparation**

Carleton College	Biology, <i>magna cum laude</i>	BA, 1986
University of California at Berkeley	Integrative Biology	PhD, 1995
Stanford University	Ecosystem Ecology	Post-doc, 1995-1998

### **Positions Held**

Professor, University of Minnesota, 2011-present  
Director of Graduate Studies, Ecology, Evolution and Behavior Graduate Program, 2011-2014  
Director of Graduate Admissions, Ecology, Evolution and Behavior Graduate Program, 2005-2008  
Associate Professor, University of Minnesota, 2004-2011  
Assistant Professor, University of Minnesota, 1998-2004  
Post-Doctoral Research Fellow, Stanford University, 1995-1998  
Graduate Student Instructor, University of California, Berkeley, 1990-1991  
Research Assistant, Limnological Research Center, University of Minnesota, 1986-1989

### **Honors and Fellowships**

Fellow, Ecological Society of America, 2015  
Member, Academy of Distinguished Teachers, University of Minnesota, 2014-present  
Graduate and Professional Teaching Award, 2014  
Member, National Academy of Sciences, elected 2013  
Outstanding Faculty Award, Council of Graduate Students, University of Minnesota, 2013  
Outstanding Advisor Award, Ecology, Evolution and Behavior Graduate Program, 2012  
Ada Comstock Distinguished Women Scholar Award, Honorable Mention, 2012  
Institute on the Environment Resident Fellow, 2010-2012  
Aldo Leopold Leadership Program Fellow, 2008  
Named teacher of best course in the major by at least one student, 2002  
McKnight Land-Grant Professorship, 2000-2001  
National Science Foundation Postdoctoral Research Fellowship, 1995-1997  
NASA Global Change Graduate Fellowship, 1992-1995  
National Science Foundation Doctoral Dissertation Improvement Grant, 1992-1994  
Murray F. Buell Award for Excellence in Ecology, 1992  
Outstanding Graduate Student Instructor, 1990-1991  
National Science Foundation Graduate Fellowship, 1989-1992  
Phi Beta Kappa, 1986  
National Merit Scholar, 1982-1986

### **TEACHING AND ADVISING**

#### **Graduate and undergraduate courses taught**

*Ecosystem Ecology, EEB 4609W/5609, Fall*  
*Policy and Science of Global Change, GCC 5008, Spring*

## Graduate and Undergraduate Seminars Taught

*Written Prelim Workshop Seminar, Spring*

## Additional Graduate Teaching and Advising

### *Graduate Faculties*

Ecology, Evolution and Behavior (Senior Member)  
Conservation Biology (Senior Member)  
Natural Resources Science and Management (Affiliate Member)  
Water Resources (Senior Member)

### *Graduate Advisees (Current)*

2015-present      Melissa Pastore, PhD candidate in EEB  
2014-present      Rachel King, PhD candidate in EEB  
2011-present      Clare Kazanski, PhD candidate in EEB

### *Graduate Advisees (Completed)*

2015      Charlotte Riggs, PhD. *Consequences of nutrient enrichment for soil organic matter cycling in grasslands.*  
Present Position: Postdoc, USDA Forest Service  
Co-advisor: Steve Polasky

2015      Christine O'Connell, PhD. *Ecological Tradeoffs to an Agricultural Amazonia: Investigating the effects of increased agricultural production on Amazonia's contribution to global climate and nitrogen cycling*  
Present Position: Postdoc, University of California, Berkeley

2014      William Eddy, PhD, *Experimental warming effects on soil organic matter dynamics at the temperate-boreal forest ecotone.*  
Present Position: Postdoc, University of Illinois, Urbana-Champaign

2014      Pamela Weisenhorn, PhD. *Ecological and evolutionary perspectives on bacterial resource use.*  
Present Position: Postdoc, Argonne National Lab

2014      Daniel Nidzgorski, PhD. *Nutrient transport, transformation, and retention in urban landscapes*  
Present Position: Postdoc, University of Minnesota

2010      Kyle Whittinghill, PhD. *Effect of topography and glaciation history on the movement of carbon and nitrogen within arctic hillslopes.*  
Present Position: Visiting Professor, Colorado College  
Co-advised by Jacques Finlay

2007      Daniel Hernández, PhD. *Plant-microbe interactions in oak savanna: controls on carbon and nitrogen cycling.*  
Present Position: Associate Professor, Carleton College

2007      Bonnie Keeler, MS. *Long-term nitrogen additions alter soil and litter microbial enzyme activity in eight forested and grassland sites - Implications for litter and SOM decomposition*  
Present position: Lead Scientist, The Natural Capital Project

- 2004 Kendra McLauchlan, PhD. *Consequences of land use change from conventional agriculture to perennial grassland for soil carbon and nitrogen dynamics*  
Present position: Associate Professor, Kansas State University
- 2003 Marissa S. Weiss, MS. *The Contribution and Environmental Control of Nitrogen Fixation by Lichens in Upland Arctic Tundra*  
Present position: Science Policy Exchange Coordinator, The Harvard Forest
- 2003 Amy R. Moore (now Broadmoore), MS (Plan B)  
Present position: self-employed
- 2002 Paul Rabie, MS. *Leafy Spurge at Theodore Roosevelt National Park: Relationship to Two Plant Communities and the Nitrogen Cycle, and Control with Imazapic*  
Present position: USGS  
Co-advised by Diane Larson
- 2002 Theodore A. Kennedy, PhD. *The Causes and Consequences of Plant Invasions*  
Present position: Staff Research Scientist, Grand Canyon Monitoring and Research Center, Flagstaff, AZ  
Co-advised by Ray Newman

*Post-doctoral Advisees (Current)*

- 2012-present Ben Janke (co-advised with Jacques Finlay)

*Post-doctoral Advisees (Completed)*

- 2011-2013 Kevin Mueller (co-advised with David Tilman), currently postdoc at ARS.
- 2007-2011 Cinzia Fissore (co-advised with Ed Nater, Peter Reich; Kristen Nelson, Larry Baker), currently faculty at Whittier College
- 2009-2011 Gina Rumore, currently program development coordinator, Minnesota Population Center
- 2005-2009 Carol Adair (co-advised with Peter Reich), currently faculty at University of Vermont
- 2007-2008 Javier Espeleta (co-advised with Ed Nater, Peter Reich), currently visiting faculty at University of Washington
- 2004-2006 Laurie Kellogg (co-advised with Peter Reich), currently practicing law
- 2002-2004 Jason West (co-advised with Peter Reich), currently faculty at Texas A&M
- 2002-2004 Adam Kay, currently faculty at Hamline University
- 2001-2004 Feike Dijkstra (co-advised with Peter Reich), currently faculty at University of Sydney
- 2001-2005 Ian Dickie (co-advised with Peter Reich), currently scientist at LandCare
- 2000-2003 John Schade (co-advised with James Elser and Bill Fagan), currently faculty at St. Olaf College

**RESEARCH ACTIVITIES**

**Publications, Scientific Literature: Refereed Journal Articles**

\*indicates first author was a post-doctoral associate, graduate student, or undergraduate

†Author order is alphabetical; all authors contributed equally.

**2016/in press**

- Hall, S. J., J Learned, B Ruddell, K L Larson, J Cavender-Bares, N Bettez, P M Groffman, J M Grove, J B Heffernan, **S E Hobbie**, JL Morse, C Neill, KC Nelson, JPM O'Neil-Dunne, L Ogden, DE Pataki, WD Pearse, C Polsky, R Roy Chowdhury, MK Steele, TLE Trammell. 2016. Convergence of microclimate in residential landscapes across diverse cities in the United States. *Landscape Ecology* 31:101-117
- Mueller, K. E., N. Eisenhauer, P. B. Reich, **S. E. Hobbie**, O. A. Chadwick, J. Chorover, T. Dobies, C. M. Hale, A. M. Jagodzinski, I. Kalucka, M. Kasprovicz, B. Kieliszewska-Rokicka, J. Mordrzyński, A. Rozen, M. Scorupski, Ł. Sobczyk, M. Stasińska, L. K. Trocha, J. Weiner, A. Wierzbicka, J. Oleksyn. In press. Light, earthworms, and soil resources as predictors of diversity of 10 soil invertebrate groups across monocultures of 14 tree species. *Soil Biology and Biochemistry* 92:184-198.
- \*Nidzgorski, D. L. and **S. E. Hobbie**. In press. Urban trees reduce leaching to groundwater. *Ecological Applications*

## **2015**

- Hobbie, S. E.** 2015. Plant species effects on nutrient cycling: revisiting litter feedbacks. *Trends in Ecology and Evolution* 30:357-363
- Larson, K.L., K.C. Nelson, S.R. Samples, S.J. Hall, N. Bettez, J. Cavender-Bares, P.M. Groffman, M. Grove, J.B. Heffernan, **S. E. Hobbie**, J. Learned, J.L. Morse, C. Neill, L.A. Ogden, J. O'Neil-Dunne, D.E. Pataki, C. Polsky, R. Roy Chowdhury, M. Steele, and T.L. Trammell. In press. Ecosystem services in managing residential landscapes: priorities, value dimensions, and cross-regional patterns. *Urban Ecosystems*
- Leff, J. W., S. Jones, S. M. Prober, A. Barberán, E. T. Borer, J. Firn, W. S. Harpole, **S. E. Hobbie**, K. S. Hofmockel, J. M. H. Knops, R. L. McCulley, K. J. La Pierre, A. C. Risch, E. W. Seabloom, M. Schütz, C. Steenbock, C. J. Stevens, and N. Fierer. 2015. Consistent responses of soil microbial communities to elevated nutrient inputs in grasslands across the globe. *Proceedings of the National Academy of Sciences* 112:10967-10972
- \*Martini, N., K. C. Nelson, **S. E. Hobbie**, L. A. Baker. 2013. Why feed the lawn? Exploring the Influences on Residential Turf Grass Fertilization in the Minneapolis-Saint Paul Metropolitan Area. *Environment and Behavior* 47:158-183
- Mueller, K. E., **S. E. Hobbie**, J. Chorover, P. B. Reich, N. Eisenhauer, M. J. Castellano, O. A. Chadwick, T. Dobies, C. M. Hale, A. M. Jagodziński, I. Kałucka, B. Kieliszewska-Rokicka, J. Modrzyński, A. Rozen, M. Skorupski, Ł. Sobczyk, M. Stasińska, L. K. Trocha, J. Weiner, A. Wierzbicka, and J. Oleksyn. In press. Effects of litter traits, soil biota, and soil chemistry on soil carbon stocks at a common garden with 14 tree species. *Biogeochemistry* 123: 313-327
- Reich, P. B., K. M. Sendall, K. Rice, R. L. Rich, A. Stefanski, **S. E. Hobbie**, R. A. Montgomery. 2015. Geographic range predicts photosynthetic and growth response to warming in co-occurring tree species. *Nature Climate Change* 5:148-152
- Rich, R.L., Stefanski, A., Montgomery, R.A., **Hobbie, S.E.**, & Reich, P. 2015. Design and performance of B4WarmED, an aboveground and belowground free-air warming experiment at the temperate-boreal forest ecotone. *Global Change Biology* 21:2334-2348
- \*Riggs, C. E., **S. E. Hobbie**, E. M. Bach, K. S. Hofmockel, and C. E. Kazanski. 2015. Nitrogen addition changes grassland soil organic matter decomposition. *Biogeochemistry* 125:203-219.
- \*Riggs, C. E., **S. E. Hobbie**, J. Cavender-Bares, J. A. Savage, and X. Wei. 2015. Contrasting effects of plant species traits and moisture on the decomposition of multiple litter fractions. *Oecologia* 179:573-584.
- Snell-Rood, E., A. Espeset, P. Jeyasingh, **S. E. Hobbie**, N. Morehouse. 2015. Life history in the Anthropocene: effects of increasing nutrients on traits and tradeoffs. *Evolutionary Applications* 7:635-649.
- Stevens, C. J., E. M. Lind, Y. Hautier, W. S. Harpole, E. T. Borer, **S. Hobbie**, E. W. Seabloom, L. Ladwig, J. D. Bakker, C. Chu, S. Collins, K. F. Davies, J. Firn, H. Hillebrand, K. J. L. Pierre, A.

MacDougall, B. Melbourne, R. L. McCulley, J. Morgan, J. L. Orrock, S. M. Prober, A. C. Risch, M. Schuetz, and P. D. Wragg. 2015. Anthropogenic nitrogen deposition predicts local grassland primary production worldwide. *Ecology* 96:1459-1465

Tu, Q., M. Yuan, Z. He, Y. Deng, K. Xue, L. Wu, **S. E. Hobbie**, P. B. Reich, and J. Zhou. 2015. Fungal communities respond to long-term elevated CO<sub>2</sub> by community reassembly. *Applied and Environmental Microbiology* 81:2445-2454.

Tu, Q., Zhou, X. He, Z., Xue, K., Wu, L., Reich, P., **Hobbie, S.**, Zhou, J. The Diversity and Co-occurrence Patterns of N<sub>2</sub>-Fixing Communities in a CO<sub>2</sub>-Enriched Grassland Ecosystem. *Microbial Ecology*. August 2015 <http://dx.doi.org/10.1007/s00248-015-0659-7> 2015

## **2014**

Groffman, P. M., J. Cavender-Bares, N. D. Bettez, J. M. Grove, S. J. Hall, J. B. Heffernan, **S. E. Hobbie**, K. L. Larson, J. L. Morse, C. Neill, K. Nelson, J. O'Neil-Dunne, L. Ogden, D. E. Pataki, C. Polsky, R. Chowdhury, and M. K. Steele. 2014. Ecological homogenization of urban USA. *Frontiers in Ecology and the Environment* 12:74-81.

**Hobbie, S. E.**, L. A. Baker, C. Buyarski, D. Nidzgorski, and J. C. Finlay. 2014. Decomposition of tree leaf litter on pavement: implications for urban water quality. *Urban Ecosystems* 17:365-385

\*Janke, B., J. C. Finlay, **S. E. Hobbie**, L. A. Baker, R. W. Sterner, D. Nidzgorski, B. N. Wilson. 2014. Contrasting influences of stormflow and baseflow pathways on nitrogen and phosphorus export from an urban watershed. *Biogeochemistry* 121:209-228

Polisky, C., J. M. Grove, C. Knudson, P. M. Groffman, N. D. Bettez, J. Cavender-Bares, S. J. Hall, J. B. Heffernan, **S. E. Hobbie**, K. Larson, J. L. Morse, C. Neill, K. C. Nelson, L. A. Ogden, J. O'Neil-Dunne, D. E. Pataki, R. Roy Chowdhury, and M. K. Steele. 2014. Assessing the homogenization of urban land management with an application to US residential lawn care. *Proceedings of the National Academy of Sciences* doi/10.1073/pnas.1323995111.

Reich, P. B., **S. E. Hobbie**, and T. D. Lee. 2014. Plant growth enhancement by elevated CO<sub>2</sub> eliminated by joint water and nitrogen limitation. *Nature Geoscience* 7:920-924

\*Steele, M. K., J. B. Heffernan, N. Bettez, J. Cavender-Bares, P.M. Groffman, M. Grove, S. Hall, **S. E. Hobbie**, K. Larson, J. L. Morse, C. Neill, K.C. Nelson, J. O'Neil-Dunne, L. Ogden, D.E. Pataki, C. Polsky, R. Roy Chowdhury. 2014. Convergent surface water distributions in U.S. cities. *Ecosystems* 17:685-697

\*Thakur, M. P., P. B. Reich, W. C. Eddy, A. Stefanski, R. Rich, **S. E. Hobbie**, N. Eisenhauer. 2014. Some plants like it warmer: increased growth of three selected invasive plant species in soils with history of experimental warming. *Pedobiologia* 57 (1): 57-60

\*Thakur, M. P., P. B. Reich, N. A. Fisichelli, A. Stefanski, S. Cesarz, T. Dobies, R. Rich, **S. E. Hobbie**, N. Eisenhauer. 2014. Nematode community shifts in response to experimental warming and canopy conditions are associated with plant community changes at the temperate-boreal forest ecotone. *Oecologia* 175:713-725

\*Whittinghill, K., J. C. Finlay, and **S. E. Hobbie**. 2014. Bioavailability of dissolved organic carbon across a hillslope chronosequence in the Kuparuk River region, Alaska. *Soil Biology and Biochemistry* 79:25-33

## **2013**

Ågren, G., R. Hyvönen, L. S. Berglund, **S. E. Hobbie**. 2013. The critical N:C ratio as a predictor of litter decomposition and soil organic matter stoichiometry. *Soil Biology and Biochemistry* 67: 312-318

Eisenhauer, N., T. Dobies, S. Cesarz, **S. E. Hobbie**, R. J. Meyer, K. Worm, P. B. Reich. 2013. Plant diversity effects on soil food webs are stronger than those of elevated CO<sub>2</sub> and N deposition in a long-term grassland experiment. *PNAS* 110:6889-6894

Grogan, P., V. Eviner, and **S. E. Hobbie**. 2013. The qualities and impacts of a great mentor – how to improve your own mentoring. *Bulletin of the Ecological Society of America* 94:170-176.

- Isbell, F., P.B. Reich, D. Tilman, **S.E. Hobbie**, S. Polasky, S. Binder. 2013. Nutrient enrichment, biodiversity loss, and consequent declines in ecosystem productivity. *PNAS* 110: 11911-11916.
- \*Mueller, K., D. Tilman, D. Fornara, **S. E. Hobbie**. 2013. Root depth distribution and the diversity-productivity relationship in a long-term grassland experiment. *Ecology* 94:787-793
- \*Mueller, K., **S. E. Hobbie**, Tilman, D. and P. B. Reich. 2013. Effects of plant diversity, N fertilization, and elevated carbon dioxide on grassland soil N cycling in a long-term experiment. *Global Change Biology* 19:1249-1261
- \*Norris, M. D., P. G. Avis, P. B. Reich, and **S. E. Hobbie**. 2013. Positive feedbacks between decomposition and soil nitrogen availability along fertility gradients. *Plant and Soil* 367:347-361
- \*O'Halloran, L. R., E. T. Borer, E. W. Seabloom, A. S. MacDougall, E. E. Cleland, R. L. McCulley, **S. Hobbie**, S. W. S. Harpole, N. M. DeCrappeo, C. Chu, J. D. Bakker, K. F. Davies, G. Du, J. Firm, N. Hagenah, K. S. Hofmockel, J. M. H. Knops, W. Li, B. A. Melbourne, J. W. Morgan, J. L. Orrock, S. M. Prober, C. J. Stevens. 2013. Regional contingencies in the relationship between aboveground biomass and litter in the world's grasslands. *PLoS ONE* 8(2):e54988. doi:10.1371/journal.pone.00054988
- Reich, P. B., and **S. E. Hobbie**. 2013. Decade-long soil nitrogen constraint on the CO<sub>2</sub> fertilization of plant biomass. *Nature Climate Change* 3:278-282
- Xu, M., Z. He, Y. Deng, L. Wu, J. Van Nostrand, **S. E. Hobbie**, P. Reich, J. Zhou. 2013. Elevated CO<sub>2</sub> alters microbial carbon and nitrogen cycling. *BMC Microbiology* 13:124-

## **2012**

- Deng, Y., Z. He, M. Xu, Y. Qin, J. Van Nostrand, L. Wu, B. Roe, G. Wiley, **S. Hobbie**, P. Reich, and J. Zhou. 2012. Elevated carbon dioxide alters the structure of soil microbial communities. *Applied and Environmental Microbiology* 78:2991-2995.
- \*Fissore, C., J. P. McFadden, K. C. Nelson, E. B. Peters, **S. E. Hobbie**, J. Y. King, L. A. Baker and I. Jakobsdottir. 2012. Potential impacts of emerald ash borer invasion on biogeochemical and water cycling in residential landscapes across a metropolitan region. *Urban Ecosystems* 15:1015-1030
- \*Fissore, C., **S. E. Hobbie**, J. Y. King, J. P. McFadden, K. C. Nelson, L. A. Baker. 2012. The residential landscape: fluxes of elements and the role of household decisions. *Urban Ecosystems* 15:1-18
- Hobbie, S. E.**, W. C. Eddy, C. R. Buyarski, E. C. Adair, M. L. Ogdahl, and P. Weisenhorn. 2012. Response of decomposing litter and its microbial community to multiple forms of nitrogen enrichment. *Ecological Monographs* 82:389-405
- \*Knapp, S., L. Dinsmore, C. Fissore, **S. Hobbie**, I. Jakobsdottir, J. Kattge, J. King, S. Klotz, D. C. Laughlin, J.P. McFadden, and J. Cavender-Bares. 2012. Phylogenetic and functional characteristics of household yard floras and their changes along an urbanization gradient. *Ecology* 93:S83-S98
- Knapp, A. K., M. D. Smith, **S. E. Hobbie**, S. L. Collins, T. J. Fahey, G. J. A. Hansen, D. A. Landis, K. J. La Pierre, J. M. Melillo, T. R. Seastedt, G. R. Shaver, J. R. Webster. 2012. Past, present and future roles of long-term experiments in ecology. *BioScience* 62:377-389.
- Laliberté, E., E. C. Adair, and **S. E. Hobbie**. 2012. Estimating litter decomposition rate in single-pool models using nonlinear beta regression. *PLoS ONE* 7(9): e45140
- \*Mueller, K. M., D. M. Eissenstat, **S. E. Hobbie**, J. Oleksyn, A. M. Jagodzinski, P. B. Reich, O. A. Chadwick, and J. Chorover. 2012. Tree species effects on coupled cycles of carbon, nitrogen, and acidity in mineral soils at a common garden experiment. *Biogeochemistry* 111:501-614
- \*Mueller, K. M., **S. E. Hobbie**, J. Oleksyn, P. B. Reich, and D. M. Eissenstat. 2012. Do evergreen and deciduous trees have different effects on net N mineralization in soil? *Ecology* 93:1463-1472
- Reich, P. B., D. Tilman, F. Isbell, K. Mueller, **S. E. Hobbie**, D. F. B. Flynn, and N. Eisenhauer. 2012. Impacts of biodiversity loss escalate through time as redundancy fades. *Science* 336:589-592.
- \*Reid, J. P., E. C. Adair, **S. E. Hobbie** and P. B. Reich. 2012. Biodiversity, nitrogen deposition, and CO<sub>2</sub> affect grassland soil carbon cycling but not storage. *Ecosystems* 15:580-590
- Templer, P. and 24 others. 2012. Sinks for Nitrogen Inputs in Terrestrial Ecosystems: A Meta-Analysis of <sup>15</sup>N Tracer Field Studies. *Ecology* 93:1816-1829

\*Whitthillingill, K. and **S. E. Hobbie**. 2012. Effects of pH and calcium on soil organic matter dynamics in Alaskan tundra. *Biogeochemistry* 111:569-581

## **2011**

\*Adair, E. C., P. B. Reich, J. J. Trost, and **S. E. Hobbie**. 2011. Elevated CO<sub>2</sub> stimulates grassland soil respiration by increasing carbon inputs rather than by enhancing soil moisture. *Global Change Biology* 17:3546-3563.

\*Fissore, C., L. A. Baker<sup>†</sup>, **S. E. Hobbie**<sup>†</sup>, J. Y. King<sup>†</sup>, J. P. McFadden<sup>†</sup>, K. C. Nelson<sup>†</sup>, I. Jakobsdottir. 2011. Carbon, nitrogen, and phosphorus fluxes in household ecosystems in the Minneapolis-Saint Paul, Minnesota, urban region. *Ecological Applications* 21(3):619-639

\*Goebel, M., **S. E. Hobbie**, B. Bulaj, M. Zadworny, D. D. Archibold, J. Oleksyn, P. B. Reich, and D. M. Eissenstat. 2011. Surprisingly faster rate of decomposition of coarser, higher branching order roots than of thinner, lower branching order roots in four temperate tree species. *Ecological Monographs* 81(1):89-102

He, Z., Y. Piceno, Y. Deng, M. Xu, Z. Lu, T. DeSantis, G. Andersen, **S. Hobbie**, P. Reich, and J. Zhou. 2011. The phylogenetic composition and structure of soil microbial communities shifts in response to elevated carbon dioxide. *The ISME Journal* (2011) 1-14. doi:10.1038/ismej.2011.99

**Hobbie, S. E.**, L. A. Baker, C. Fissore, J. Y King, K. C. Nelson, J. M. McFadden. 2011. Planetary stewardship begins at home. *Bulletin of the Ecological Society of America*. October, 2011: 389-391

\*Whitthillingill, K. and **S. E. Hobbie**. 2011. Effects of landscape age on soil organic matter processing in Northern Alaska. *Soil Science Society of America Journal* 75:907-917

## **2010**

\*Adair, E. C., **S. E. Hobbie**, R. K. Hobbie. 2010. Single pool exponential decomposition models: potential pitfalls in their use in ecological studies. *Ecology* 91:1225-1236

Berg, B., M. P. Davey, A. De Marco, B. Emmett, M. Faituri, **S. E. Hobbie**, M.-B. Johansson, C. Liu, C. McClaugherty, L. Norell, F. A. Rutigliano, L. Vesterdal, and A. Virzo De Santo. 2010. Factors influencing limit values for pine needle litter decomposition: a synthesis for boreal and temperate pine forest systems. *Biogeochemistry* 100:57-73

\*Brandt, L. A., J. Y. King, **S. E. Hobbie**, D. G. Milchunas, and R. Sinsabaugh. 2010. The role of photodegradation in surface litter decomposition across a grassland ecosystem precipitation gradient. *Ecosystems* 13:765-781

He, Z., Xu, M., Deng, Y., Kang, S., Kellogg, L., Wu, L., Van Nostrand, J. D., **Hobbie, S. E.**, Reich, P. B., Zhou, J. 2010. Metagenomic analysis reveals a marked divergence in the structure of belowground microbial communities at elevated CO<sub>2</sub>. *Ecology Letters* 13:564-575

\*Hernández, D.L. and **S. E. Hobbie**. 2010. The effects of substrate composition, quantity, and diversity on microbial activity. *Plant and Soil* 335:397-411

**Hobbie, S. E.**, J. Oleksyn, D. M. Eissenstat, and P. B. Reich. 2010. Fine root decomposition rates do not mirror those of leaf litter among temperate tree species. *Oecologia* 162:505-513

## **2009**

\*Adair, E. C., P. B. Reich, **S. E. Hobbie**, and J. M. H. Knops. 2009. Interactive effects of time, CO<sub>2</sub>, N and diversity on total belowground carbon allocation and ecosystem carbon storage in a grassland community. *Ecosystems* 12:1037-1052

\*Clark, C. M., **S. E. Hobbie**, R. Venterea, and D. Tilman. 2009. Long-lasting effects on N cycling 12 years after treatments cease despite minimal N retention. *Global Change Biology* 15:1755-1766

\*Dijkstra, F. A., J. B. West, **S. E. Hobbie**, and P. B. Reich. 2009. Antagonistic effects of species on C respiration and net N mineralization in soils from mixed coniferous plantations. *Forest Ecology and Management* 257:1112-1118

- \*Fissore, C., J. Espeleta, E. A. Nater, **S. E. Hobbie**, and P. B. Reich. 2009. Limited potential for terrestrial carbon sequestration to offset fossil fuel emissions in the Upper Midwest of the U. S. *Frontiers in Ecology and the Environment*. doi: 10.1890/090059
- \*Fornara, D. A., D. Tilman and **S. E. Hobbie**. 2009. Linkages between plant functional composition, fine root processes and potential soil N mineralization rates. *Journal of Ecology* 97:48-56
- \*Keeler, B. L., **S. E. Hobbie**, and L. Kellogg. 2009. Effects of long-term nitrogen additions on soil and litter microbial enzyme activity in eight forested and grassland sites – implications for litter and SOM decomposition. *Ecosystems* 12:1-15
- \*Schlatter, D., A. Fubuh, K. Xiao, D. Hernández, **S. E. Hobbie** and L. Kinkel. 2009. Resource amendments influence density and competitive phenotypes of *Streptomyces* in soil. *Microbial Ecology* 57:413-420

## **2008**

- Cornwell, W. K., J. H. C. Cornelissen, K. Amatangelo, E. Dorrepaal, V. T. Eviner, O. Godoy, **S. E. Hobbie**, B. Hoorens, H. Kurokawa, N. Perez-Harquindeguy, H. M. Quested, L. S. Santiago, D. A. Wardle, I. J. Wright, R. Aerts, S. D. Allison, P. van Bodegom, V. Brovkin, A. Chatain, T. Callaghan, S. Diaz, E. Garnier, D. Gurvich, E. Kazakou, J. Klein, J. Read, P. Reich, V. Soudzilovskaia, M. Vaieretti, M. Westoby. 2008. Plant traits are the predominant control on litter decomposition rates within biomes worldwide. *Ecology Letters* 11:1065-1071
- \*Hernández, D. L. and **S. E. Hobbie**. 2008. Effects of fire frequency on oak litter decomposition and N dynamics. *Oecologia* 158:535-543
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**Hobbie, S. E.** 1992. Effects of plant species on nutrient cycling. *Trends in Ecology and Evolution* 7:336-339

#### **Publications, Scientific Literature: Book Chapters**

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#### **Publications, Popular Press and Bulletins**

- Baker, L., P. Kalinosky, **S. Hobbie**, R. Bintner, and C. Buyarski. 2014. Quantifying nutrient removal by enhanced street sweeping. *Stormwater* March-April 2014
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#### **Publications, Reports**

- \*Anderson, J., R. Beduhn, D. Current, J. Espeleta, C. Fissore, B. Gangeness, J. Harting, S. Hobbie, E. Nater, and P. Reich. 2008. The potential for terrestrial carbon sequestration in Minnesota: A report to

the Department of Natural Resources from the Minnesota Terrestrial Carbon Sequestration Initiative. (a report to the MN State Legislature).

Kalinosky, P., L.A. Baker, S. E. Hobbie, R. Bintner, and C. Buyarski. 2014. *User Support Manual: Estimating Nutrient Removal by Enhanced Street Sweeping*. Report to the Minnesota Pollution Control Agency, Sept. 2014

\*Authors are listed in alphabetical order.

## Grants and Contracts

### *Current Funded Proposals*

1/22/15, PI, NSF Ecosystems. Collaborative Research: Elucidating unifying principles of soil C-N coupling using a continental-scale grassland experimental network. With K Hofmockel and M Mayes.

6/1/16-5/31/18: PI, NSF Doctoral Dissertation Improvement Grant, Dissertation Research: Plant-microbe effects on soil carbon storage in a changing global environment. With C Kazanski, PhD candidate. \$19,760.

5/1/2014-4/30/2019. Co-PI, NSF Dimensions of Biodiversity. Collaborative Research: Dimensions: Linking remotely sensed optical diversity to genetic, phylogenetic and functional diversity to predict ecosystem processes. With J Cavender-Bares, R Montgomery, and P Reich. \$855,314 to the University of Minnesota.

9/1/12-8/31/17: co-PI, NSF LTREB. LTREB Renewal: Long-term interactions among biodiversity, CO<sub>2</sub>, and N in a perennial grassland ecosystem. With PB Reich (PI), T Lee. \$450,000.

1/1/13-12/31/18: co-PI, NSF LTER. LTER: Biodiversity, Multiple Drivers of Environmental Change and Ecosystem Functioning at the Prairie-Forest Border. With D Tilman (PI), P Reich, and E Seabloom. \$5,879,701.

9/15/11-8/31/16: co-PI, NSF Ecosystem Science. Collaborative Research: The Complexity of Global Change - Interactive Effects of Warming, Water Availability, CO<sub>2</sub> and N on Grassland Ecosystem Function With P Reich (PI), R Montgomery, and T Lee. \$854,283

8/1/11-7/31/16: co-PI, DOE Program on Ecological Research. Renewal: Warming-induced biome change at the temperate-boreal ecotone: An experimental test of key regeneration processes. With P Reich (PI), R Montgomery, and R Rich. \$2,528,252

1/1/11-12/31/15: PI, Institute on the Environment Discovery Grant, Connecting People, Trees, and Water in Urban Ecosystems. With L Baker, K Nelson, and C Schively Slotterback. \$400,000

### *Past Funded Proposals*

5/1/14-4/31/16: PI, NSF Doctoral Dissertation Improvement Grant, Dissertation Research: Effects of nitrogen enrichment on multiple soil organic matter pools. With C Riggs, PhD candidate. \$19,760.

6/1/11-5/31/15: PI, NSF Macrosystems Biology, Collaborative research: Ecological homogenization of urban America. With K Nelson and J Cavender-Bares. \$334,034.

2012: REU Supplement, \$8000

2013: REU Supplement, \$14,600

6/1/11-5/31/13: PI, NSF Doctoral Dissertation Improvement Grant, Dissertation Research: Elucidating stoichiometric and biogeochemical consequences of soil heterotrophic bacterial life history strategies. With P Weisenhorn, PhD candidate. \$15,000.

6/1/11-5/31/13: PI, NSF Doctoral Dissertation Improvement Grant, Dissertation Research: Experimental warming effects on labile and recalcitrant soil organic matter decomposition in a southern boreal forest ecosystem. With W Eddy, PhD candidate. \$14,827

9/01/09-9/31/13: co-PI, NSF Dynamics of Coupled Natural and Human Systems. Collaborative Research: Coupling human choice and biogeochemical cycling in urban ecosystems. \$998,121. With L Baker (PI) and K Nelson.

10/01/06-9/30/12: co-PI, NSF LTER Program. Biodiversity, environmental change and ecosystem function at the prairie-forest border. With D Tilman (PI), PB Reich, S Polasky. \$4,920,000.

10/1/09-8/29/14. co-PI, EPA Section 319(h): Quantifying phosphorus load reductions from street sweeping. With L Baker (PI), R Binter. \$285,970

1/28/13-1/27/14: co-PI, Institute on the Environment Mini-Grant. Resident Fellow Grant: Citizen Phenology Network to Inform Water Quality Management. With R Montgomery (PI) and J Finlay. \$10,000.

3/1/12-2/29/14: Co-PI, Water Resources Center Competitive Grants Program. Tracing nutrient sources at the land-water interface in urban environments. With J Finlay (PI). \$30,428

7/1/07-6/30/12: co-PI, NSF LTREB. LTREB: Long-term interactions among biodiversity, CO<sub>2</sub>, and N in a perennial grassland ecosystem. With PB Reich (PI), T Lee. \$450,000.

08/01/07-07/31/11: co-PI, DOE. Warming-induced biome change at the temperate-boreal ecotone: An experimental test of key regeneration processes. With PB Reich (PI), R Montgomery, J Oleksyn and R Rich. \$1,806,655.

4/1/10-9/31/11:PI, DOE NICCR, Experimental warming effects on soil organic matter dynamics at the temperate-boreal forest ecotone. With PB Reich (PI), R Montgomery. \$117,500

9/01/07-8/31/10: co-PI, NSF Biocomplexity: Dynamics of Coupled Natural and Human Systems: Integration of Human Choice into Models of Biogeochemical Cycling in Urban Ecosystems; with L Baker (PI), J King, J McFadden, K Nelson. \$550,000.

08/01/07-07/31/11: co-PI, DOE. Warming-induced biome change at the temperate-boreal ecotone: An experimental test of key regeneration processes. With PB Reich (PI), R Montgomery, J Oleksyn and R Rich. \$1,806,655.

10/08-10/10: co-PI, DOE-NICCR. Interactive effects of carbon dioxide, water, and nitrogen on grassland ecosystem processes. With PB Reich (PI), T Lee. \$245,000.

3/1/06-2/29/10: co-PI, NSF Ecosystem Studies, Photodegradation of plant litter in grassland ecosystems: A mechanism for uncoupling C and N biogeochemistry; with J King (PI), D Milchunas, W Parton and RL Sinsabaugh; \$315,000

5/01/04-4/30/10: PI, NSF Faculty Development. CAREER: Understanding nitrogen limitation of decomposition; \$500,000.

6/07-6/08: Minnesota State Legislature: Minnesota Terrestrial Carbon Sequestration Initiative; with E Nater, J Anderson, D Current. \$265,000.

10/06-10/08: co-PI, DOE-NICCR. Interactive effects of carbon dioxide, water, and nitrogen on grassland ecosystem processes. With PB Reich, T Lee. \$375,000.

11/01/03-10/31/07: co-PI, NSF Biocomplexity in the Environment, Coupled Biogeochemical Cycles. Interacting responses of C and N cycles to altered biodiversity, elevated CO<sub>2</sub>, and N enrichment; with P Reich, D Tilman, S Naeem, J Knops, N Johnson, T Lee, D Ellsworth, D Zak, B Medlyn; \$1,800,000

3/1/02-5/31/06: co-PI, NSF Ecosystem Studies. Collaborative Research: Linking leaf and root traits to ecosystem structure and function in a common-garden study of 14 tree species; with PB Reich, J Oleksyn, DM Eissenstat, MG Tjoelker, J Chorover; O Chadwick \$594,804

10/15/00-09/30/06: co-PI, NSF LTER Program. Long-Term Ecological Research: Biodiversity, Disturbance and Ecosystem Functioning at the Prairie-Forest Border; with PB Reich, D Tilman, C Lehman, M Ritchie, D Wedin, JMH Knops, S Naeem; \$4,200,000

09/1/03-08/31/06: co-PI, NSF Biocomplexity in the Environment, Coupled Biogeochemical Cycles. Coupled biogeochemical cycles in urban and agricultural ecosystems: role of hydrology, stoichiometry, spatial linkages, and human behavior; with P Brezonik, L Baker, J King, D Mulla, M Bauer, D Hope, J Kaye; \$355,317

10/1/02-9/30/04: PI, The Andrew W. Mellon Foundation. The role of soil texture and establishment of grassland vegetation in soil development and dynamics; \$70,000

9/01/99-8/31/03: NSF Integrated Research Challenges in Environmental Biology. Biological Stoichiometry from Genes to Ecosystems; with JJ Elser, RW Sterner, JB Cotner, LJ Weider, TA Markow, WF Fagan, JF Harrison, GM Odell, HA Woods, JD Schade; \$2,842,162 (co-PI on \$849,944 subcontract to University of Minnesota with JB Cotner and RW Sterner)

4/01/99-3/31/03: PI, NSF Office of Polar Programs, Arctic System Science, Collaborative research: moist acidic versus nonacidic tundra—why does vegetation composition differ and what are the consequences for ecosystem carbon storage? with L Gough, University of Alabama; \$214,816 to the University of Minnesota

6/00: REU Supplement, \$5,975

6/01: REU Supplement, \$4,350

03/01-02/02: co-PI, Addendum to NSF Ecosystem Studies. Collaborative Research: Linking leaf and root traits to ecosystem structure and function in a common-garden study of 14 tree species; with PB Reich, J Oleksyn, DM Eissenstat, MG Tjoelker, JC Neff, J Chorover; \$49,748

12/98-11/99: PI, University of Minnesota Graduate School Grant-in-Aid. Nitrogen versus carbon limitation of decomposition in Minnesota ecosystems; \$18,636

### **Seminars, Invited**

University of Tennessee, 11/15  
Duke University, Graduate Student Invited Speaker, *A Watershed Approach to Understanding Urban Eutrophication*, 10/14  
Carnegie Institution for Science, Department of Global Ecology, *A Watershed Approach to Understanding Urban Eutrophication*, 6/14  
Arizona State University, *A Watershed Approach to Understanding Urban Eutrophication*, 4/14  
Institute on the Environment, University of Minnesota, *A Watershed Approach to Understanding Urban Eutrophication*, 5/14  
Distinguished Faculty Luncheon, University of Minnesota, 10/13  
Semester in Ecosystem Science Distinguished Lecture Series, Ecosystems Center, Marine Biological Laboratory, 10/12  
Ecology Program, Dartmouth College, 1/12 (two seminars)  
Dept of Soil, Water and Climate, University of Minnesota, 12/10  
Dept of Geography, University of Minnesota, 9/10  
Dept of Ecology, Evolution and Behavior, University of Minnesota, 9/10  
Institute on the Environment, University of Minnesota, 4/10  
Brown University, 3/10  
Carleton College, 11/09  
College of St. Catherine, 10/09  
University of Minnesota Conservation Biology Seminar Series, 9/08  
Iowa State University, 10/07  
St. Olaf College, 5/07  
Duke University, Graduate Program in Ecology Invited Speaker, 4/07  
Hamline University, 10/06  
Kellogg Biological Station, 12/05  
Michigan State University, 12/05  
Graduate Student Invited Speaker, Ecology and Evolutionary Biology, University of Michigan, 11/05  
Civil Engineering, University of Minnesota, 10/05  
St. Thomas University, 10/05  
Distinguished Ecologist Lecture Series, Michigan Tech University, 9/05  
Distinguished Ecologist Lecture Series, Colorado State University, 2/05 (presented three research seminars)  
University of Minnesota, Natural Organic Matter Seminar Series, 3/03  
University of Colorado, Boulder, 3/02  
University of Alaska, Fairbanks, 2/02  
University of Minnesota, Dept. of Soil, Water, and Climate, 4/01  
University of California, Santa Barbara, 3/01  
University of Minnesota, Dept. of Ecol, Evol and Behav Welcome Weekend Seminar, 1/01  
Natural Resources Ecology Laboratory, Colorado State University, Ft. Collins, 10/00  
Grinnell College, Grinnell, 11/99  
Carleton College, Northfield, 10/99  
Cedar Creek Natural History Area, 7/99  
Biogeochemistry Research Training Grant Seminar Series, Cornell University, Ithaca, 4/99  
University of Illinois, Urbana-Champaign, 12/98

### **Symposia and Workshops, Invited**

Hobbie, S. E. 2011. Challenges of including nitrogen effects on decomposition in earth system models. American Geophysical Union, San Francisco, CA  
Hobbie, S. E. 2011. Framing urban sustainability and urban ecosystems. Twin Cities Urban Sustainability Forum, University of Minnesota, St. Paul, MN



Retirement Symposium Honoring F. S. Chapin, III, University of Alaska, Fairbanks, 9/11

Hobbie, S. E., L. A. Baker, C. Fissore, J. Y. King, J. A. McFadden, and K. C. Nelson. 2011. Earth stewardship begins at home: quantifying the biogeochemical impacts of household choices in the Minneapolis-Saint Paul, Minnesota, metropolitan area. Ecological Society of America Meeting, Austin, TX, August. Organized Oral Session Presentation.

*Urban Ecosystems and Human Well-Being: Implications for Global Survivability*, University of Minnesota, 1/10, Organizing Committee and Invited Speaker

LTER Network Workshop: *Understanding Lawns in Diverse Human Ecosystems*, Arizona State University's Global Institute of Sustainability, 2/09

Retirement Symposium Honoring Gary Wagenbach, Carleton College, 5/08

ASA-CSSA-SSSA Symposium: Microbial controls over organic matter structure and dynamics, 11/07

LTER Network Ecophylogenetics Workshop (6/07)

International Geosphere and Biosphere Programme and Diversitas Fast Track Initiative on Plant Functional Types, 2/07, Alicante, Spain (declined)

ARC-NZ Research Network for Vegetation Function Workshop: Species-specific decomposition, 11/06 (declined, but contributed data for meta-analysis)

National Center for Ecological Analysis and Synthesis Working Group: The fate of nitrogen inputs to terrestrial ecosystems, 1/05, 5/05

Carey Conference X, Ecosystem Function in Heterogeneous Landscapes, Institute of Ecosystem Studies, Millbrook, NY, 4/03

Forest Ecology Symposium, Indiana University, Bloomington, IN, 4/03

Society for Integrative and Comparative Biology, Symposium, Toronto, Canada, 1/03

Ecological Society of America, Symposium, The Ecology and Evolution of Coupled Energy and Material Flows: Integration of Multiple Scales and Multiple Biota, Tucson AZ, 8/02, co-organizer

Minnesota Academy of Sciences Symposium, Ecosystem Ecology, Change and Restoration, 4/02

NSF Workshop, Linking Ecological Biology and Geoscience, Madison WI, 8/01

GCTE Workshop: Biodiversity and Ecosystem Functioning, Paris 12/00

Joint Meeting of the International Society for Ecological Modeling and the Ecological Society of America Meeting, Symposium, Modeling N turnover in soils and the availability of inorganic and organic N to forest trees, Spokane WA, 1999

GCTE Workshop: How Nutrient Cycles Constrain Carbon Balances in Boreal Forests and Arctic Tundra, Abisko, Sweden, 6/99

GCTE Workshop: Long-term and evolutionary response of plants to global change, Reno NV, 5/99

Resilience Network Workshop: Sustainability in Boreal Regions, Sources and Consequences of Variability, Itasca MN 1997

Carey Conference VII: Successes, Limitation, and Frontiers in Ecosystem Science, Institute of Ecosystem Studies, Millbrook NY, 1997

NCEAS Workshop: Arctic and Boreal Processes that Feed Back to Climate, Santa Barbara CA, 1997

ARCUS Workshop: Toolik Field Station, Bodega Bay CA, 1995

## SERVICE ACTIVITIES

### University service

#### *Departmental/Graduate Faculty*

2015-2016	EEB Advisory Committee
2015-present	Faculty Mentor, Forest Isbell
2010-present	Faculty Mentor, Emilie Snell-Rood
2009-2012	EEB Graduate Faculty Membership Selection Committee
2010-present	CBS Writing Enriched Curriculum Liaison
2008-2010	EEB Writing Enriched Curriculum Liaison

2009 Elmer Birney Fellowship Selection Committee  
 2008-2009 Ecology Faculty Search Committee  
 2008-2009 EEB Mentoring of Associate Professors Committee  
 2008-2009 EEB Post-Tenure Review Committee (Chair)  
 2007-2008 EEB Post-tenure Review Committee  
 2007-2008 IGERT Seminar Committee  
 2006-2007 EEB Mentoring of Associate Professors Committee  
 2006-2009 EEB Mentor for Jennifer Powers  
 2005-2008 EEB Director of Graduate Admissions (and EEB Admissions Committee)  
 2005-2007 EEB Advisory Committee  
 2002-2004 EEB Advisory Committee  
 2001 Ad Hoc committee on Jennifer King's appointment  
 2000-2001 EEB Advisory Committee  
 2000-2001 Salary Committee  
 2000-2001 Search Committee, Global Ecology  
 2000 Organizing Committee, Symposium, Global Ecosystem Change: Ethics, Science and Policy, Spring  
  
 2000 Ad Hoc Committee on the Written Preliminary Examination, spring 2000  
 2000 Search Committee, EEB Executive Secretary  
 2000 Long-Range Planning, Chair, Group 2  
 1999-2000 Seminar Committee, 1999-2000  
 1999-2000 EEB Advisory Committee, 1999-2000  
 1998-1999 Admissions Committee

*University-Wide*

2015 Boreas Leadership Program Faculty Advisory Board  
 2015 Institute on the Environment Leadership Council  
 2015 Grand Challenges Forum Committee Leader  
 2015 Chair, Campus Writing Board  
 2015 Interdisciplinary Graduate Group Selection Committee  
 2015 Grand Challenges Committee for the Office of the Provost  
 2014 Strategic Planning Committee for the OVPR, "Enhancing Excellence"  
 2014 Strategic Planning Committee for the Office of the Provost, "Recruiting and Retaining Field Shapers"  
  
 2014 Search Committee, CBS Dean  
 2014 Search Committee, Cedar Creek Ecosystem Science Reserve Associate Director  
 2013-2015 Mentor, President's Distinguished Faculty Mentor Program  
 2013 Special Committee on Graduate Education  
 2010-2015 Campus Writing Board  
 2009-present Masters of Development Practice Program Committee  
 2009 Search Committee, Physical Geographer, Dept of Geography (outside member)  
 2008-2009 Sustainability Minor Curriculum Committee  
 2007-2010 University Senate  
 2006-present Cedar Creek Natural History Area Executive Committee  
 2005 Search Committee, Associate Director/Reserve Manager Cedar Creek Natural History Area,  
  
 2005-2008 Joint Degree Program's Governing Committee, Law School  
 2001-2005 Cedar Creek Research Review Board  
 2003-2004 Search Committee, Forest Ecologist, Dept. of Forest Resources  
 2001 CBS Visiting Day Presentation to Prospective Students  
 1998-1999 Search Committee, Forest Ecologist, Dept. of Forest Resources

1999 Search Committee, Associate Director, Cedar Creek Natural History Area  
 1999 Reviews of Sigma Delta Epsilon Graduate Women in Science Fellowship Proposals (2)

### Professional service

#### *Committees, Boards, Panels*

2015 Co-Chair, Decennial Review Committee, Marine Biological Laboratory  
 2015-present National Academy of Engineering Online Ethics Center Life and Environmental Sciences Editorial Board  
 2015-present Southwest Experimental Garden Array Science Advisory Board (SEGA)  
 2015-present Leopold Leadership Program Advisory Committee  
 2014-present Editorial Board, *Annual Review of Ecology, Evolution, and Systematics*  
 2014 Urban NEON Design Committee  
 2014 Review Team, Carleton College Environmental Studies Program  
 2013-present Editorial Service, *Proceedings of the National Academy*  
 2012 Annual Evaluation Committee, Editor-in-Chief, *Ecology*  
 2010-present Leopold Leadership Program Fellowship Selection Committee  
 2010-present Editorial Board, *Ecosystems*  
 2009 DOE NICCR Panel (Northeastern Region)  
 2008 NSF Office of Polar Programs Post-Doctoral Fellowship Panel  
 2008 NSF Workshop on Undergraduate Biology Education in the 21<sup>st</sup> Century  
 2007-2008 Contributor, Minnesota Terrestrial Carbon Sequestration Initiative, a report to the Minnesota State Legislature on the potential for terrestrial ecosystems to sequester carbon  
 2007 Ecological Society of America Millennium Conference Selection Committee  
 2007-2010 LTER Executive Board  
 2007-2008 Ecological Society of America Nominating Committee  
 2007 Cedar Creek LTER Winter Science Meeting Organizing Committee, Chair  
 2005-2006 Program Committee, Fall 2006 LTER All-Scientist's Meeting  
 2002-2005 National Center for Ecological Analysis and Synthesis (NCEAS) Science Advisory Board  
 2002 LTER Coordinating Committee Meeting, Niwot Ridge  
 2002 National Science Foundation LTER Renewal Panel, Washington, DC  
 2002 Co-organizer, Ecological Society of America Symposium, Tucson AZ  
 2001 National Phytotron at Duke University Strategic Planning Workshop  
 2001 Ecological Society of America Nominating Committee  
 2000 Guest Editor, Special Issue, *Plant and Soil*  
 1999 National Science Foundation Site Review, H. J. Andrews LTER  
 1999 Invitation to join Editorial Board of *Ecosystems* (declined)  
 1999 Invitation to join Editorial Board of *Plant and Soil* (declined)  
 1999 Invitation to join Editorial Board of *Ecological Applications* (declined)  
 1998-1999 Steering Committee, How Nutrient Cycles Constrain Carbon Balances in Boreal Forests and Arctic Tundra, Abisko, Sweden  
 1998 National Science Foundation Doctoral Dissertation Improvement Grant Panel