Eve-Lyn S. Hinckley
Curriculum Vitae

CONTACT

Institute of Arctic and Alpine Research
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RESEARCH INTERESTS

- Investigating how interactions among biogeochemical, hydrological, and ecological processes affect nutrient cycling at multiple scales
- Quantifying human impacts on ecosystem function
- Exploring novel approaches to inform policy and sustainable management

EDUCATION

2009 **Ph.D., Stanford University**
Dept. of Geological and Environmental Sciences
Dissertation: *Biogeochemical and Hydrologic Sulfur Dynamics in an Agricultural System*
Advisor: Pamela Matson

2001 **B.A., Middlebury College**
Dept. of Environmental Studies/Conservation Biology, *Summa Cum Laude*, *Phi Beta Kappa*, Highest departmental honors
Honors thesis: *Dissolved N Dynamics in an Undisturbed Coastal Forest: Controls on Retention and Implications for Grassland Restoration*
Advisor: Andrea Lloyd

PROFESSIONAL APPOINTMENTS

2015 – present **Assistant Professor,** Environmental Studies Program and **Fellow**, Institute of Arctic and Alpine Research, University of Colorado, Boulder

2011 - 2015 **Staff Scientist**, Terrestrial Ecology Division, The National Ecological Observatory Network, Boulder, CO

2011 - 2015 **Affiliate Research Faculty**, Institute of Arctic and Alpine Research, Boulder, CO

2009 - 2011 **NSF Postdoctoral Fellow**, Institute of Arctic and Alpine Research, Boulder, CO

2009 **Postdoctoral Researcher**, The Carnegie Institution for Science, Stanford, CA

2002-2009 **Ph.D. Student**, Stanford University, Stanford, CA

2001-2002 **Research Assistant**, Stanford University, Stanford, CA

2000-2001 **Research Assistant**, Marine Biological Laboratories, Woods Hole, MA

TEACHING EXPERIENCE

2015 Field Methods in Ecosystem Science, University of Colorado, Boulder (Faculty)

2013 - 2015 University of Utah Stable Isotopes in Ecology Summer Course (Instructor)

2013 Land cover change in complex terrain: How do biogeochemical tracers help address hydrological questions? Watershed Problem Analysis, Dept. of Watershed Sciences, Colorado State University, 1 Apr (Guest Lecturer)

2012	Using sulfur isotopes to understand biogeochemical and hydrological processes. Special Topics: Isotopes in Environmental Science, Dept. of Geography, CU Boulder, 25 Apr (Guest Lecturer)
2011	Earth's Critical Zone, University of Colorado, Boulder. Co-developed and co-taught with Prof. Suzanne Anderson. Upper-level undergrad course (Instructor)
2011	Conducting biogeochemical and hydrologic tracer experiments in complex terrain. Dept. of Civil and Environmental Engineering, CU Boulder, 15 Feb (Guest Lecturer)
2010-2011	Science Discovery, University of Colorado, Boulder. Developed and taught week-long summer hydrology course for elementary school children (Volunteer)
2010	The basics of hillslope hydrology with examples from tracer studies in the Boulder Creek Critical Zone Observatory. Hydrology Course, CU Boulder, 3 Dec (Guest Lecturer)
2010	Impacts of agricultural intensification on water resources. Vegetation and Climate Course, CU Boulder, 7 Dec (Guest Lecturer)
2003, 2007	Earth Systems Field Course, Stanford University (Head Teaching Assistant)
2005	Earth Sciences Intro Seminar, Stanford University (Teaching Assistant)
2004	The Science of Soils, Stanford University (Teaching Assistant)
2004	A Transition to Sustainability, Stanford University (Teaching Assistant)

PROFESSIONAL ACTIVITIES

2015 - present	Scientific Steering Committee, ENIGMA Project, Department of Energy, Lawrence Berkeley National Laboratory
2014	Session Co-organizer, "The National Ecological Observatory Network: A continental-scale approach for studying soil biology, biogeochemistry, and ecohydrology," Soil Science Society of America Meetings, Long Beach, CA, 2-5 November
2015 - present	Subject-Matter Editor, *Ecosphere*
2014 – present	Advisory Editor, *Environmental Science Online Bibliography*, Oxford University Press
2014 – present	Co-founder and Terrestrial Ecology Representative, NEON Science Council
2013	Guest editor, *Ecological Applications*
2012 - present	Organizer, NEON Terrestrial Biogeochemistry Technical Working Group
2011 - present	Chair, NEON Internal Biogeochemistry Working Group
2006 - present	Reviewer: *Biogeochemistry, Earth Science Reviews, Ecological Applications*, *Ecology, Frontiers in Earth Sciences, Geoderma, Hydrological Processes,* The Kearney Foundation, Maryland Sea Grant, *Oecologia,* Oxford University Press*, Pedosphere, Proceedings of the National Academy of Sciences, Soil Biology and Biochemistry*
2011	Invited discussion leader for keynote address, Gordon Research Seminar, Lewiston, ME, 9-10 July
2010-2011	Coordinator of outreach activities for the Boulder Creek Critical Zone Observatory

2008-2009 Co-developed core curriculum for the Dept. of Environmental Earth Systems Science, Stanford University

SCIENTIFIC PLANNING ACTIVITIES

2014 *Network Biogeochemistry in the Global Change Era* – Organized a workshop for participants from 5 observatory networks to identify priority observations and case studies for network science. INSTAAR, Boulder, CO, 12 November.

2013 *Frontiers in Ecosystem Science: Energizing the Research Agenda* – One of 30 invited participants to synthesize input from Town Hall meetings at national conferences. NSF SESYNC, Annapolis, MD, 1-2 October.

2013 *NSF EarthCube Workshop* - Invited reporter for biogeochemistry section. Product: plan for Earth Sciences community to apply for NSF EarthCube initiative funds. University of Delaware, 21-23 January.

2012 *Frontiers in Ecosystem Science: Energizing the Research Agenda* – Invited speaker. American Geophysical Union Meeting, San Francisco, CA, 3-7 December.

PROFESSIONAL MEMBERSHIPS

American Geophysical Union, Ecological Society of America, Soil Science Society of America

GRANTS

2011 NSF Supplement to Boulder Creek Critical Zone Observatory – "Weathered profile development in a rocky environment and its influence on watershed hydrology and biogeochemistry" ($19,503; support following postdoc fellowship)

2010 NSF International Grant for Postdoctoral Researchers ($6800)

2009 NSF Earth Sciences Postdoctoral Fellowship (2 years, $160,000)

2008 NSF International Grant for Graduate Students ($3000)

2006 EPA STAR Graduate Research Fellowship (3 years, $126,000)

2006 Geological Society of America Grant ($2000)

AWARDS

2014, 2013 Excellence in Reviewing Award from *Biogeochemistry*

2012 Best Session Paper, Forest, Range, and Wildland Soils Division, Soil Science Society of America Meeting

2008 Student Presentation Award, SoilCritZone Meeting, Chania, Crete

2008 Best Student Presentation, American Society of Enology and Viticulture

2001 Janet C. Curry Science Honors Award, Middlebury College

2001 Scott A. Margolin Memorial Award, Middlebury College

2000 Best Student Presentation, New England Estuarine Research Society

1999 Morris K. Udall Fellowship

PUBLICATIONS

Hinckley, E.S., S. Anderson, J.S. Baron, P.D. Blanken, G. Bonan, W.D. Bowman, S. Elmendorf, N. Fierer, A. Fox, K. Goodman, K. Jones, D. Lombardozzi, C. Lunch, J. Neff, M. SanClements, K.

Suding, W.R. Wieder. Optimizing available network resources to address questions in environmental biogeochemistry. (In review).

Hinckley, E.S., G. Bonan, G. Bowen, B. Colman, P. Duffy, C. Goodale, B. Houlton, E. Marín-Spiotta, K. Ogle, S. Ollinger, E. Paul, P. Vitousek, K. Weathers, D. Williams. A continental-scale strategy for terrestrial biogeochemistry sampling. *Ecosphere* Special Issue (In review).

Hinckley, E.S. 2015. "Acid Deposition". In *Oxford Bibliographies in Environmental Science*. Ed. Ellen Wohl. New York: Oxford University Press.

Hinckley, E.S. 2015. Fate of sulfur fungicide in the vineyard and beyond. *Practical Winery and Vineyard* (May Issue).

Hinckley, E.S. 2015. "Human Manipulation of the Global Nitrogen Cycle." In *Oxford Bibliographies in Environmental Science*. Ed. Ellen Wohl. New York: Oxford University Press.

Anderson, S.P., **E.S. Hinckley,** P. Kelly, and A. Langston. 2014. Variation in critical zone processes and architecture across slope aspects. *Procedia Earth and Planetary Science*, DOI: 10.1016/j.proeps.2014.08.006.

Hinckley, E.S., R.T. Barnes, M.W. Williams, S.P. Anderson, and S. Bernasconi. 2014. Nitrogen retention and transport differ by hillslope aspect at the rain-snow transition in the Colorado Front Range. *JGR-Biogeosciences*, DOI: 10.1002/2013JG002588.

Hinckley, E.S., W.R. Wieder, N. Fierer, and E.A. Paul. 2014. Digging into the world beneath our feet: Bridging across scales in the age of global change. *Eos Transactions, AGU,* DOI: 10.1002/2014EO110004.

Kao, B.H., C.M. Gibson, R.E. Gallery, C.L. Meier, D.T. Barnett, K.M. Docherty, K.K. Blevins, P.D. Travers, E. Azuaje, Y.P. Springer, K.M. Thibault, V.J. McKenzie, M. Keller, L.F. Alves, **E.S. Hinckley**, J. Parnell, and D. Schimel. 2012. NEON terrestrial field observations: designing continental-scale, standardized sampling. *Ecosphere*, DOI: 10.1890/ES12-00196.1.

Hinckley, E.S., B.A. Ebel, R.T. Barnes, R.S. Anderson, M.W. Williams, and S.P. Anderson. 2012. Aspect control of water movement on hillslopes near the rain-snow transition of the Colorado Front Range, U.S.A. *Hydrological Processes*, DOI: 10.1002/hyp.9549.

Hinckley, E.S. 2012. Tracking lost irrigation water. *Practical Winery and Vineyard*, Summer 2012. (Republished in *Australian and New Zealand Grapegrower & Winemaker*).

Wieder, W., C.C. Cleveland, P.G. Taylor, D.R. Nemergut, **E.S. Hinckley**, L. Philippot, D. Bru, S.R. Weintraub, M. Martin, A.R. Townsend. 2012. Experimental removal and addition of leaf litter inputs reduces nitrate production and loss in a lowland tropical forest. *Biogeochemistry*, DOI:10.1007/s10533-012-9793-1.

Ebel, B.A., **E.S. Hinckley**, and D.A. Martin. 2012. Soil-water dynamics and unsaturated storage during snowmelt following a wildfire. *Hydrology and Earth Systems Sciences* 9, 441-483, DOI:10.5194/hessd-9-441-2012, 2012.

Anderson, S.P., R.S. Anderson, **E.S. Hinckley**, P. Kelly, A. Blum. 2011. Exploring weathering and regolith transport controls on Critical Zone development with models and natural experiments. *Applied Geochemistry* 26: S3-S5.

Hinckley, E.S. and P.A. Matson. 2011. Transformations, transport, and potential unintended consequences of high sulfur inputs to Napa Valley vineyards. *Proceedings of the National Academy of Sciences,* DOI: 10.1073/pnas.1110741108.

Nicholas, K.A. and **E.S. Hinckley**. 2011. Conducting research on private farms and ranches: Approaches, issues, and tips. *Journal of Extension* 49(6) (Online: http://www.joe.org/joe/2011december/tt11.php).

Hinckley, E.S., S. Fendorf, and P.A. Matson. 2010. Short-term fates of high sulfur inputs in Northern California vineyard soils. *Nutrient Cycling in Agroecosystems* DOI: 10.1007/s10705-010-9383-3.

Hinckley, E.S., C. Kendall, and K. Loague. 2008. Not all water becomes wine: Sulfur inputs as an opportune tracer of hydrochemical losses from vineyards. *Water Resources Research* 44: DOI:10.1029/2007WR006672.

Hinckley, E.S., C. Neill, R. McHorney, and A. Lezberg. 2001. Nitrogen retention in the vadose zone and aquifer under a coastal Massachusetts forest. *Biological Bulletin* 201(2): 288-290.

RESEARCH PRESS

Dybas, Cheryl. 2013. "Earth Week: The Search for White Gold—Snowmelt." The National Science Foundation, Discovery Section (Online: http://www.nsf.gov/discoveries/disc_summ.jsp?cntn_id=127580&org=NSF&from=news).

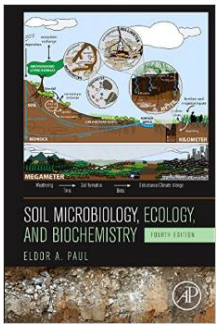
Dybas, Cheryl. 2013. "High-peak Creeks, Forest Fires, and Landscape Erosion: Could They Be Linked?" The National Science Foundation, Discovery Section (Online: http://www.nsf.gov/discoveries/disc_summ.jsp?cntn_id=126540).

Bergeron, Louis. 2009. "Falling Through the Cracks: Stanford Researchers Track the Lost Water of Napa Valley Vineyards." *Stanford Report* (Online: http://news.stanford.edu/news/2009/december14/vineyards-lost-water-121709.html). (Reprinted at Geology.com)

Platoni, K. 2007. "Field Work." *Stanford Alumni Magazine* (Online: https://alumni.stanford.edu/get/page/magazine/article/?article_id=32501).

OTHER PRODUCTS

Cover art for
Paul, E. 2014. *Soil Microbiology, Ecology and Biochemistry*. 4th Ed. Academic Press.



SCIENTIFIC PRESENTATIONS (*INVITED)

*Hinckley, E.S. What happens when it rains? Ecosystem fates of N deposition during experimental rainfall in the Colorado Front Range. INSTAAR Noon Seminar Series, 27 April 2015.

*Hinckley, E.S. Humans on the landscape: Exploring our immediate and remote impacts on biogeochemical and hydrologic cycles. Invited speaker for the Program in Ecology and Cross-disciplinary Seminar Series, University of Wyoming, 26-28 March 2015.

Hinckley, E.S., E. Ayres, J. Parnell, and M. SanClements. An update for the SSSA community: The National Ecological Observatory Network's (NEON) soil sampling design. The Soil Science Society of America Meetings, Long Beach, CA, 2-5 November 2014.

Wieder, W.R., A.S. Grandy, C. Kallenbach, E.S. Hinckley, and G. Bonan. Merging microbial traits and soil physiochemical interactions with the MIMICS (Microbial-Mineral Carbon Stabilization) model. The Ecological Society of America Meetings, Sacramento, CA, 10-15 August 2014.

Hinckley, E.S., K. Goodman, C. Roehm, C. Meier, S. Elmendorf, M. SanClements, H. Luo, E. Ayres, J. Parnell, A. Fox, C. Lunch, K. Krause, M. Fitzgerald, D. Barnett, K. Jones, and H. Loescher. A continental-scale strategy to sample carbon and nutrient dynamics within and across air, land, and water systems. The Ecological Society of America Meetings, Minneapolis, MN, 4-9 August 2013.

*Hinckley, E.S. and E. Ayres. A continental scale strategy for soil sampling: Opportunities for a NEON-NRCS partnership. Plenary talk, NRCS National Cooperative Soil Survey Conference, 16-20 June 2013.

*Hinckley, E.S. Perspectives on the metabolism of landscapes. Dept. of Ecosystem Science and Sustainability, Colorado State University, 2 April 2013.

Hinckley, E.S., K.J. Goodman, C.L. Roehm, C.L. Meier, H. Luo, E. Ayres, J. Parnell, K. Krause, A.M. Fox, M. SanClements, M. Fitzgerald, D. Barnett, H.W. Loescher, and D. Schimel. A strategy to sample nutrient dynamics across the terrestrial-aquatic interface at NEON sites. American Geophysical Union Meeting, San Francisco, CA, 3-7 December 2012.

*Hinckley, E.S. Insights into the fate of reactive N deposition to the Colorado Front Range from ^{15}N tracer studies, Van Tuyl Lecture, Colorado School of Mines, Golden, CO, 29 November 2012.

Hinckley, E.S., C. Meier, J. Parnell, and D. Barnett. Integrating soil, microbial, and plant biogeochemical measurements within NEON to understand long-term ecological change. Soil Science Society of America Meetings, Cincinnati, OH, 21-24 October 2012.

*Hinckley, E.S., C.L. Meier, and K. Thibault. Proposed directions and design for NEON's stable isotope measurements, Front Range Isotope Day Conference, Laramie, WY, 17 August 2012.

*Ebel, B.A. and E.S. Hinckley. Deep percolation in devegetated hillslopes. The American Geophysical Union Meeting, San Francisco, CA, 5-9 December 2011.

Hinckley, E.S., R.T. Barnes, M.W. Williams, and S.P. Anderson. The fate of nitrogen differs by hillslope aspect in montane forests of the Colorado Front Range, U.S. The Ecological Society of America Meetings, Austin, TX, 10 August 2011.

*Hinckley, E.S. Integrating biogeochemical and hydrological approaches to understand the fate of reactive elements at multiple scales. National Ecological Observatory Network, Boulder, CO, 25 May 2011.

*Hinckley, E.S., R.T. Barnes, M.W. Williams, R.S. Anderson, and S.P. Anderson. Integrated study of critical zone architecture, near-surface hydrology, and biogeochemistry to understand the fate of N in montane catchments. National Critical Zone Observatory Meeting, Tucson, AZ, 9 May 2011.

Hinckley, E.S., R.T. Barnes, M.W. Williams, and S.P. Anderson. Mobilization and metabolism of deposited N in the high montane forests of the Colorado Front Range. American Geophysical Union Meeting, San Francisco, CA, 16 Dec 2010.

*Hinckley, E.S., R.T. Barnes, M.W. Williams, and S.P. Anderson. Investigation of hydrological flows and the fate of nitrogen deposition using ^{15}N tracer studies in the Boulder Creek Critical Zone Observatory. INSTAAR Seminar Series, CU Boulder, 15 Nov 2010.

*Hinckley, E.S., R.T. Barnes, M.W. Williams, and S.P. Anderson. Physical and hydrological controls on the fate of N in the Colorado Front Range. Natural Resources Ecology Lab, Fort Collins, CO, 8 Oct 2010.

Hinckley, E.S., R.T. Barnes, M.W. Williams, and S.P. Anderson. Mobilization and metabolism of deposited N in high montane forests of the Colorado Front Range, U.S., National Critical Zone Meeting, Boulder, CO, 15 Sept 2010.

*Hinckley, E.S. Interactions among critical zone structure, hydrologic forcing, and nitrogen deposition in the Colorado Front Range, U.S., ETH, Zurich, 7 Sept 2010.

Hinckley, E.S. and P.A. Matson. Sulfur as a tracer of hydrologic and biogeochemical dynamics in Northern California vineyard soils. American Geophysical Union Annual Meeting, San Francisco, CA, 16 Dec 2009.

*Hinckley, E.S. Not all water becomes wine: Sulfur inputs as an opportune tracer of hydrochemical losses from vineyards. Dept. of Geography, University of Colorado, Boulder, CO, 2 Oct 2009.

Hinckley, E.S., and P.A. Matson. An integrated study of biogeochemical and hydrological processes to determine water residence times, hydrochemical losses, and the sustainability of sulfur use in vineyards. SoilCritZone Meeting, Chania, Crete, 9 Sept 2008.

Hinckley, E.S., C. Kendall, and K. Loague. Integrating hydrological and biogeochemical approaches for tracing the fates of applied water and sulfur in vineyards. Ecological Society of America Meetings, Madison, WI, 4 Aug 2008.

Hinckley, E.S., C. Kendall, and K. Loague. From fumigant to tracer: How applied sulfur provides insight into vineyard water losses. American Society of Enology and Viticulture, Portland, OR, 19 June 2008.

Hinckley, E.S. and P.A. Matson. Interactions between hydrology and sulfur biogeochemistry in vineyards of the Napa River Watershed. Gordon Research Conference, New London, NH, 8 July 2007.

*Hinckley, E.S. Interactions between hydrology and sulfur biogeochemistry in vineyards of the Napa River Watershed, San Francisco Estuary Institute, Oakland, CA, 15 May 2007.

Hinckley, E.S., S.E. Fendorf, and P.A. Matson. Water use in Northern California vineyard systems: Effects on transformations and fates of applied sulfur. Ecological Society of America Meetings, Memphis, TN, 9 Aug 2006.

Hinckley, E.S., S.E. Fendorf, and P.A. Matson. High sulfur inputs in Northern California vineyards: Short-term fates and long-term implications. World Congress of Soil Science, Philadelphia, PA, 14 July 2006.

Hinckley, E.S., S.E. Fendorf, and P.A. Matson. High sulfur inputs in Northern California vineyards: Short-term fates and long-term implications. Ecological Society of America Meetings, Montreal, Can., 9 Aug 2005.

EXTENSION PRESENTATIONS

From fumigant to tracer: Sulfur provides insight into vineyard water losses and nutrient cycling, Robert Sinskey Vineyards, 29 April 2008.

Evidence of luxury sulfur uptake by vines and cover crop plants? Napa Sustainable Winegrowers Group, 8 April 2008.

Movement of sulfur and other nutrients into our water system, Napa Sustainable Winegrowers Group Continuing Education Lecture Series, 27 March 2008.

Hydrologic response and sulfur biogeochemical dynamics in vineyards: Applying an ecosystem science approach to the winegrowing environment, Benziger Family Winery, 3 July 2007.

Interactions between hydrology and nutrient cycling: Lessons learned in Napa Valley Vineyards, Napa Sustainable Winegrowers Group, 8 May 2007.

Interactions of water and reactive nutrients in vineyards: New results from direct and indirect assessments, California Enological Research Association, Napa, CA, 19 April 2006.

Water use in Napa Valley vineyards: New results from direct and indirect assessments, Napa Sustainable Winegrowers Group, Napa, CA, 11 April 2006.

Hydrologic controls on nutrient interactions in the soil water system: Implications for management in California vineyards, Napa Sustainable Winegrowers Group, Napa, CA, 12 April 2005.