

RANDALL K. KOLKA

*USDA Forest Service
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EDUCATION

*Ph.D. (July 1996) - University of Minnesota, Advisors David F. Grigal and Edward A. Nater
Major - Soil Science, Minors - Water Resources and Forest Resources*

Dissertation: "Hydrologic transport of mercury through forested watersheds."

*M.S. (July, 1993) - University of Minnesota, Advisors David F. Grigal and Edward A. Nater
Major - Soil Science, Minor - Forest Resources*

Thesis: "Cation release rates from weathering of five Upper Great Lakes forest soils."

*B.S. (Dec., 1990) - University of Wisconsin - Stevens Point, Advisor - Aga Razvi
Major - Soil Science, Minor - Business Management*

PROFESSIONAL POSITIONS

January 2002 to Present – Project/Team Leader and Research Soil Scientist, USDA Forest Service, Northern Research Station

Currently, I'm the team leader of USDA Forest Service Research Work Unit in Grand Rapids, MN. My work unit specializes in watershed and aquatics research. I administrate the unit as well as performing my own research on riparian, wetland and aquatic systems.

July 1998 to January 2002 - Assistant Professor of Forest Hydrology and Watershed Management, Department of Forestry, University of Kentucky

June 1996 to July 1998 – Research Soil Scientist, USDA Forest Service, Southern Research Station

1991- 1996 - Research Assistant, Department of Soil Science, University of Minnesota

Fall 1995 - Instructor, Department of Geography, University of Wisconsin-Eau Claire

1994-1995 - Soil Scientist, USDA Forest Service, North Central Research Station, part-time

1992-1993 - Data Quality Control Specialist, State Climatology Office, part-time

1993 - Sampling and Field Supervisor, Global Climate Change Project

1990 - Wind Erosion Technician, Central Sands Erosion Control Project, Stevens Point, WI.

RESEARCH INTERESTS

I conduct sound watershed or landscape level soil and hydrological research involving upland, riparian and wetland soil carbon, nutrient and mercury dynamics and relating these studies to upland land use and pollution transport to surface waters. I investigate ecosystem restoration and the linkages between upland and riparian or wetland communities. Also, I study the implications of global climate change.

TEACHING EXPERIENCE

Guest Field Lecturer, *Soils*, Bemidji State University – 2016.
 Guest Field Lecturer, *Graduate Course on Peatlands*, University of Minnesota – 2016.
 Professor, *Seminar on Coupled Natural and Human Systems: Payments for Ecosystem Services*, Colorado State University, Instituto de Ecología (Mexico), Michigan Technological University, State University of New York, Universidad Nacional Autónoma de México, University of New Hampshire, - 2015
 Guest Presenter, *Want to be a scientist?* Itasca Community College Career Day – 2013-2014
 Guest Lecturer, *Problem Solving: Environmental Review*, University of Minnesota – 2014.
 Guest Lecturer, *Integrated Topics in Land and Atmospheric Sciences*, University of Minnesota – 2012-2013.
 Guest Lecturer, *Wetland Ecology*, Central Lakes College – 2009-2012.
 Guest Field Lecturer, *Graduate Student Soils Field Trip*, University of Minnesota – 2006-2010.
 Guest Lecturer, *Watershed Management*, Lakehead University, Thunder Bay, Canada – 2006.
 Guest Lecturer, *Hydrology and Watershed Management*, University of Minnesota - 2004
 Guest Lecturer, *Restoration Ecology*, Lakehead University, Thunder Bay, Canada - 2003.
 Guest Field Talk, *Graduate Student Soils Field Trip*, University of Minnesota - 2003.
 Professor - Environmental Science Field Station, *Soil and Hydrology* – 1999-2001
 Assistant Professor - University of Kentucky, *Riparian Forests: Management, Ecology and Restoration* – 2000
 Assistant Professor - University of Kentucky, *Integrated Forest Management* – 1999-2001
 Assistant Professor - University of Kentucky, *Forest Watershed Management* – 1998-2001
 Guest Field and Class Lecturer, Environmental Science Field Station, *Introduction to Environmental Science* - 1998
 Guest Field Talk - Mercer University, *Environmental Engineering* - 1998
 Guest Lecturer - College of Charleston, *Wetlands Soil and Hydrology* - 1998
 Guest Field Talk - University of Georgia, *Wetlands Ecology* - 1997
 Instructor - *Introduction to Soil Science, Soil Survey and Land Use Planning*, Department of Geography, University of Wisconsin-Eau Claire, 1995-1996

PROFESSIONAL MEMBERSHIPS

Soil Science Society of America
 Society of Wetland Scientists
 International Peat Society
 Society of American Foresters

JOURNAL REVIEWER

Journal of Environmental Quality
 Wetlands
 Ecological Engineering
 Soil Science Society of America Journal
 American Water Resources Association Journal
 Environmental Science and Technology
 Environmental Pollution
 Journal of Hydrology
 Water, Air and Soil Pollution
 Landscape Ecology
 Journal of Environmental Engineering Science
 Forest Ecology and Management
 Forest Science
 Canadian Journal of Forest Research
 Climate Change
 Polish Journal of Environmental Studies
 Journal of Forestry
 Biogeochemistry
 Journal of Geophysical Research – Biogeosciences
 Agricultural and Forest Meteorology
 Global Change Biology
 Hydrologic Processes
 Geoderma
 Arctic, Antarctic, and Alpine Research
 Agroforestry Systems
 Science of the Total Environment
 Transactions of the American Society of Agricultural
 and Biological Engineers
 Wetlands Ecology and Management
 Sustainability

Annals of Forest Science
 Proceedings of the National Academy of Sciences
 Land
 Water Resources Research
 Global Change Biology Bioenergy
 PLOS ONE

PROFESSIONAL CONTRIBUTIONS

Subject Area Representative Ecology and Biology Subject Area, and Member of the Forest Science and Technology Board – Society of American Foresters, 2006-2010

EDITORIAL POSITIONS

Associate Editor, *Agricultural and Environmental Letters Journal*, 2015 – present.
 Editorial Board, *Soil Science, International Scholarly Research Network (ISRN)*, online journal, 2011-2014.
 Associate Editor, *Wetlands*, 2006-2009.
 Associate Editor, *Journal of Environmental Monitoring and Restoration*, 2000-2013.
 Ecosystems Restoration and Creation Annual Conference Editorial Review Committee, 1997-2012.

CURRENT FACULTY APPOINTMENTS

Faculty of Graduate Studies, Faculty of Natural Resources Management, Lakehead University
 Adjunct Professor, Department of Biological Sciences, North Dakota State University
 Affiliate Assistant Professor, Department of Natural Resource Ecology and Management, Iowa State University
 Adjunct Faculty, Department of Forest Resources, University of Minnesota
 Adjunct Assistant Professor, Department of Soil, Water and Climate, University of Minnesota
 Adjunct Associate Professor, School of Forest Resources and Environmental Science, Michigan Technological University
 Associate Faculty, Center for Environmental, Economic, Earth and Space Studies, Bemidji State University

ADVISORY POSITIONS

2016 – present, Natural Resources Research Institute (NRRI) and University of Minnesota – Duluth Community Impact Board
 2013- present, Forest Conservation Workgroup, Upper Midwest and Great Lakes Landscape Conservation Cooperative
 2012- present, Great Lakes Restoration Initiative (GLRI) Science Subgroup, Advising GLRI on Scientific Priorities
 2011- present, Science Team Advising the Implementation of Minnesota Climate Change Response Framework
 2011- present, National Atmospheric Deposition Program (NADP) Total Deposition Science Committee
 2011- present, National Atmospheric Deposition Program (NADP) Advisory Group, Development of Mercury Litterfall Network
 2011- 2013, Intergovernmental Panel on Climate Change (IPCC), Lead Author Preparing Supplement for Guidelines to Develop Greenhouse Gas Emissions from Wetlands
 2010 - present, Science Steering Group, International Soil Carbon Network
 2008 - 2015. Natural Resources Research Institute (NRRI) Advisory Board (University of Minnesota - Duluth)

BOOK REVIEWER

Walker, R.L., J. Walker, and R.J. Hobbs. 2008. Linking Restoration and Ecological Succession. Springer Publishing. *Ecology*, 89(3): 886.
 Hey, D.L. and N.S. Philippi. 2000. A Case for Wetland Restoration. John Wiley & Sons Inc. *Journal of Natural Resources and Life Sciences Education*, 29: 167.

OTHER REVIEWS

2015. Great Lakes Advisory Board's Science and Information Subcommittee (SIS) Nomination Review Panel
 2014. University of Minnesota Duluth, Department of Civil Engineering, Tenure and Promotion Package.
 2012. Book proposal review for the Higher Education Press.
 2012. Review of the *2013 Supplement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories: Wetlands* for the Intergovernmental Panel on Climate Change (IPCC)

2011. Review of Senior Associate Dean for Research and Graduate Programs, College of Food, Agricultural and Natural Resource Sciences, University of Minnesota
2011. Minnesota Climate Change Response Framework Science Team
2011. Review of Federal Interagency: “National Action Plan to Manage Freshwater Resources in a Changing Climate”
2011. Review of the “Minnesota Forest Resources Council on Minnesota Forest Resources Research: Assessment and Needs”
2011. Review of Department Head, Department of Forest Resources, University of Minnesota
2011. Review of Special Issue for the Journal of Forestry on *Managing Forests Because Carbon Matters: Integrating Energy, Products, and Land Management*
2010. Review of University of Wisconsin – Platteville’s Pioneer Farm Watershed Research Program
2010. Review (for Forest Service) the US Geological Survey’s Program for the “Development of a Methodology for National Assessment of Ecological Carbon Stocks, Carbon Sequestration, and Greenhouse Gas Fluxes”
2009. Hiring Committee, Assistant Professor of Pedology, Department of Soil, Water and Climate, University of Minnesota.
2009. Review of Wisconsin Water Quality Guidelines for Forestry Operations
2008. Review of Special Issue for the Journal of Forestry on *Forest Management Solutions for Mitigating Climate Change in the United States*
2008. Review of the Department of Natural Resources and Ecology Research, Education and Extension Programs, Iowa State University.
- 2005-2008. Riparian Science Technical Committee, Minnesota Forest Resources Council
2007. Northern Research Station Co-representative on the Forest Service R&D National Program Review for the Water, Air, and Soil Sponsored Program Area.
2007. Forest Service R&D Wilderness Review Team, and Wilderness Review Response Team.
2007. Long-term trends from collaborative ecosystem research in the Hubbard Brook Valley, New Hampshire by Campbell et al. FS General Technical Report.
2006. Province of Manitoba Riparian Guidelines.

PROPOSAL REVIEW COMMITTEES

- NSF Ecosystem Studies Program, Adhoc Reviewer, 2016
- Department of Energy Terrestrial Ecosystem Science and Subsurface Biogeochemical Research Programs. 2015. Washington D.C.
- University of Minnesota’s Water Resources Center, Adhoc Reviewer, 2014.
- Natural Sciences and Engineering Research Council of Canada (NSERC), Adhoc Reviewer, 2013.
- EPA STARS Scholarship Review Panel, Climate Change Section, 2012. Washington D.C.
- University of Wisconsin Water Resources Institute, Adhoc Reviewer, 2012.
- NSF Arctic Sciences Program, Adhoc Reviewer, 2012.
- Earthwatch Institute Adhoc Reviewer, 2011.
- NSF Geobiology and Low-Temperature Geochemistry Program, Adhoc Reviewer, 2010.
- EPA STARS Scholarship Review Panel, Climate Change Section, Adhoc Reviewer, 2010.
- EPA STARS, Forecasting Ecosystem Services from Wetland Condition Analysis Review Panel. 2009. Washington D.C.
- USDA NRI Soil Processes Adhoc Reviewer, 2008.
- USDA NRI Soil Processes Adhoc Reviewer, 2007.
- British Columbia Forest Science Program, Hydrology Section. 2007.
- British Columbia Forest Science Program, Hydrology Section. 2006.
- NSERC Proposal Site Review. 2005. Whitecourt, Alberta, Canada.
- British Columbia Forest Science Program, Hydrology Section. 2005.
- EPA STARS Scholarship Review Panel, Terrestrial Systems and Ecology Section. 2005. Washington D.C.
- British Columbia Forest Science Program, Hydrology Section. 2004.
- EPA STARS Scholarship Review Panel, Terrestrial Systems and Ecology Section. 2004. Washington D.C.
- USDA NRI Watershed Processes and Water Resources Review Panel. 2002. Washington D.C.
- EPA STARS Scholarship Review Panel, Terrestrial Systems and Ecology Section. 2001. Washington D.C.
- University of Kentucky College of Agriculture Undergraduate Scholarships. 2000.
- USDA Water Quality Competitive Grants. 2000. Washington D.C.
- EPA STARS Scholarship Review Panel, Terrestrial Systems and Ecology Section. 2000. Washington D.C.

EPA/NSF/USDA Competitive Grant Review Panel, Water and Watersheds Section. 1999. Washington D.C.

POST DOCTORAL/VISITING SCIENTIST ADVISOR/CO-ADVISOR

- Dr. Kathleen Quigley, Post Doctoral Scholar, Department of Forestry, Michigan State University. 2017-present. Project Title: Manipulating Soil Heating Patterns to Optimize Barrens Restoration.
- Dr. Nam Jin Noh, Post Doctoral Scholar, Michigan Technological University, School of Forest Resources and Environmental Science. 2016-present. Project Title: Development of Management Guidelines for Black Ash Wetlands.
- Dr. Charlotte Riggs, Post Doctoral Scholar, University of Minnesota, Department of Soil, Water and Climate. 2015-present. Project Title: Development of Best Management Practices For Mercury Contamination Following Fire: Implications for Ecosystem Restoration.
- Dr. Jessica Corman, Post Doctoral Scholar, University of Wisconsin, Center for Limnology. 2014-present. Project Title: Assessing the Susceptibility and Resilience of Lake Chemistry to Environmental Change on the Chequamegon-Nicolet National Forest.
- Dr. Paulo Pereira, Post Doctoral Scholar, Department of Forestry, Michigan State University. 2016. Project Title: Manipulating Soil Heating Patterns to Optimize Barrens Restoration.
- Dr. Nora Casson, Post Doctoral Scholar, University of Wisconsin, Center for Limnology. 2013-2014. Project Title: Assessing the Susceptibility and Resilience of Lake Chemistry to Environmental Change on the Chequamegon-Nicolet National Forest.
- Dr. Olha Furman, Post Doctoral Scholar, University of Minnesota, Department of Soil, Water and Climate. 2012-2014. Project Title: Mercury and Sulfur Dynamics in the SPRUCE Experiment.
- Dr. Emma Witt, Post Doctoral Scholar, University of Minnesota, Department of Soil, Water and Climate. 2012-2014. Project Title: Development of Best Management Practices For Mercury Contamination Following Fire: Implications for Ecosystem Restoration.
- Dr. Matt Powers, Post Doctoral Scholar, Michigan Technological University, School of Forest Resources and Environmental Science. 2009-2011. Project Title: Effects of Red Pine Thinning and Stand Age on Ecosystem Carbon Pools and Fluxes.
- Dr. Marfín Pérez Suárez, Post Doctoral Scholar, Iowa State University, Department of Natural Resource Ecology and Management. 2009-2012. Project Title: Ecosystem Structure and Function in Watersheds with Contrasting Annual-Perennial Plant Community Configurations.
- Dr. Yuchuan Ding, Visiting Scientist from the Shanxi Academy of Agricultural Sciences. Co-hosting at the Department of Natural Resource Ecology and Management, Iowa State University. 2009. Project Title: Understanding Above and Belowground Nutrient Cycling in Agroecosystems.
- Dr. Peter Weishampel, Post Doctoral Scholar, University of Minnesota, Department of Soil, Water and Climate. 2004-2008. Project Title: Carbon Processes in Peatland Landscapes.
- Dr. Mark Gabriel, Post Doctoral Scholar, University of Minnesota, Department of Soil, Water and Climate. 2005-2007. Project Title: Prescribed Fire Effects on Watershed Cycling of Mercury in the Boundary Waters Canoe Area.

GRADUATE STUDENT ADVISOR OR CO-ADVISOR

- Nate Looker, Ph.D., University of Minnesota, Department of Soil, Water and Climate. Ongoing. Thesis Title: TBD.
- Jennie Sirota, M.S., University of Minnesota, Department of Forest Resources. 2016. Thesis Title: An Investigation of Mercury Dynamics in the Pore Water of Peat Columns During Experimental Warming, Freezing, and Thawing.
- Mikayla Boche, M.S., North Dakota State University, Department of Soil Science. 2016. Thesis Title: Environmental Influences on Soil Total Mercury, Carbon and Nitrogen Distribution in Northern Minnesota Seasonal Pond Basins.
- Ben Roush, M.S., University of Minnesota, Department of Forest Resources. 2015. Peatland Hydrological Dynamics in Northern Minnesota.
- Salli Dymond, Ph.D., University of Minnesota, Department of Forest Resources. 2014. Dissertation Title: The Relationship between Water Availability and Forest Dynamics in Northern Minnesota.
- Nancy Serediak, Ph.D., Lakehead University, School of Forestry and the Environment. 2014. Dissertation Title: A Critical Examination of Chemical Extremes in Fresh Water Systems.
- Todd Ontl, Ph.D., Iowa State University, Department of Natural Resource Ecology and Management. 2013. Dissertation Title: Soil Carbon Cycling and Storage of Bioenergy Cropping Systems Across a Heterogeneous Agroecosystem.

- Aleta Daniels, M.S., Michigan Technological University, School of Forest Resources and Environmental Science. 2013. Thesis Title: Interactive Controls of Water Table Position and Plant Functional Types on Peat Porewater Character in Northern Bog Ecosystems: Implications for Carbon Cycling Dynamics.
- Tomorra Smith, M.S., Iowa State University, Department of Agronomy. 2012. Thesis Title: Effect of Native Perennial Buffer Strips on Dissolved Organic Carbon on Surface Runoff from an Agricultural Landscape.
- Joe Shannon, M.S., University of Minnesota, Department of Forest Resources. 2011. Thesis Title: Canopy Transpiration and Water Yield Changes Following Forest Canopy Conversion in Northern Minnesota.
- Joan Spence, M.S., University of Minnesota, Department of Forest Resources. 2010. Thesis Title: Spatial and Temporal Pattern of N₂O Flux in an Upland-Bog Watershed.
- Emma Witt, M.S., University of Minnesota, Department of Soil, Water and Climate. 2007. Thesis Title: Atmospheric Deposition of Total and Methyl Mercury in Boreal Forests and Response to Forest Fire.
- Jason McClure, M.S., Michigan Technological University, School of Forest Resources and Environmental Science. 2006. Thesis Title: Hydrologic Contributions to Baseflow for a Northern Old Growth Riparian Area.
- Jamie Svec, M.S., University of Kentucky, Department of Forestry, 2002. Thesis Title: Defining Perennial, Intermittent and Ephemeral Channels in Eastern Kentucky; Application to Forestry Best Management Practices.
- Amanda Abnee, M.S., University of Kentucky, Department of Agronomy, 2001. Thesis Title: Effect of Slope Position and Aspect in Carbon Mineralization and Sequestration in Eastern Kentucky Landscapes.
- Chris Coulter, M.S., University of Kentucky, Department of Agronomy, 2001. Thesis Title: Influence of Urbanization on the Transport of Sediment and Nutrients to Streams.
- Eric Byrd, M.S., University of Kentucky, Department of Forestry, 2001. Thesis Title: Evaluation of Infiltration and Surface Runoff on Reclaimed Non-Compacted Mine Spoil Soils.

GRADUATE STUDENT COMMITTEES

- Sadie Libal, M.S., Bemidji State University, Department of Environmental, Economic, and Space Studies. Ongoing. Thesis Title: TBD.
- Tanya McMaster, M.S., Lakehead University, School of Forestry and the Environment. Ongoing. Thesis Title: TBD.
- Bethany Brittenham, M.S., Iowa State University, Department of Agricultural and Biosystems Engineering. Ongoing. Thesis Title: TBD.
- Nicholas Bolton, Ph.D., Michigan Technological University, School of Forest Resources and Environmental Science. Ongoing. Thesis Title: TBD.
- Emily Zimmerman, Ph.D., Iowa State University, Department of Natural Resource Ecology and Management. Ongoing. Thesis Title: TBD.
- Kristine Haynes, Ph.D., University of Toronto-Scarborough, Department of Physical and Environmental Science. 2016. Dissertation Title:
- Joshua Davis, Ph.D., Michigan Technological University, School of Forest Resources and Environmental Science. 2016. Dissertation Title: Vegetation dynamics and nitrogen cycling responses to simulated emerald ash borer infestation in *Fraxinus Nigra*-dominated wetlands of Upper Michigan, USA.
- Emily Altrichter, M.S., Iowa State University, Department of Natural Resource Ecology and Management. 2016. Thesis Title: Restoration of the Forest Herbaceous Layer: Genetic Differentiation, phenotype plasticity, and opportunities for conservation and nursery professionals.
- Rose Schwartz, M.S., Michigan Technological University, School of Forest Resources and Environmental Science. 2016. Thesis Title: Carbon cycling and restoration in temperate forested peatlands.
- Michelle Natarajan, M.S., University of Minnesota, Department of Soil, Water, and Climate. 2015. Thesis Title: Mercury methylation in denitrifying bioreactors: An investigation in pollution swapping.
- Matthew Van Grinsven, Ph.D., Michigan Technological University, School of Forest Resources and Environmental Science. 2015. Dissertation Title: Implications of emerald ash borer disturbance on black ash wetland watershed hydrology, soil carbon efflux, and dissolved organic matter composition.
- Terje Kristensen, Ph.D., University of Minnesota, Department of Forest Resources. 2015. Thesis Title: Spatial assessment of boreal forest carbon.
- Sona Psarska, M.S., University of Minnesota, Department of Soil, Water, and Climate. 2015. Thesis Title: Biogeochemical cycling of mercury in terrestrial environments: Emphasis on mercury uptake by black spruce (*Picea mariana*) in peatlands and impacts of invasive earthworms on soil mercury cycling.
- Usman Anwar, M.S., Iowa State University, Department of Natural Resource Ecology and Management. 2014. Thesis Title: Soil moisture patterns and hydraulic properties associated with alternative biomass cropping systems across a landscape gradient.

- Lindsey Seifert-Monson, M.S., University of Minnesota Duluth, Department of Biology. 2013. Thesis Title: Effects of Altered Deposition Chemistry on Dissolved Organic Carbon, Pore Water Nutrients, and Microbial Enzyme Activities in a Northern Peatland.
- Cassandra Ott, M.S., Michigan Technological University, School of Forest Resources and Environmental Science. 2013. Thesis Title: Carbon in the Peatlands of the Great Lakes Region of North America.
- Michaeleen Gerken Golay, Ph.D., Iowa State University, Department of Natural Resource Ecology and Management. 2013. Dissertation Title: Assessing the Composition and Function of Hardwood Forest Herbaceous Flora: Implications and Applications for Forest Restoration.
- Aicam Laacouri, M.S., University of Minnesota, Department of Soil, Water, and Climate. 2012. Thesis Title: Mercury Distribution Within Leaves of Deciduous Trees in Minnesota: Intra-seasonal and Inter-seasonal Accumulation.
- Emma Witt, Ph.D., University of Kentucky, Department of Soil and Plant Science. 2012. Dissertation Title: Evaluating Streamside Management Zone Effectiveness in Appalachian Forested Watersheds.
- Brooke Haworth, M.S., University of Minnesota, Department of Forest Resources. 2011. Thesis Title: Response of *Thuja Occidentalis* and *Abies Balsamea* to Stand Manipulations in Northern Minnesota Riparian Forests.
- Adam Guy, M.S., North Dakota State University, Department of Soil Science. 2011. Thesis Title: Impacts of Major Flooding on Water and Sediment Quality in an Urban Environment.
- Anne Timm, Ph.D., Virginia Tech University, Department of Fisheries and Wildlife Sciences. 2011. Dissertation Title: Biological Success Criteria for Prioritization and Monitoring of Stream Crossing Improvement Projects.
- Matthew Bischof. M.S. North Dakota State University, Department of Biological Sciences. 2010. Thesis Title: Influence of Adjacent Uplands and Groundwater on the Hydrology and Invertebrate Community Composition in Seasonal Forest Ponds of North Central Minnesota.
- David Pelster, Ph.D. Lakehead University, School of Forestry and Environment. 2009. Dissertation Title: Development of Key Components of a Nitrogen Budget for a Forested Watershed on the Canadian Boreal Plain.
- Michelle Martin, M.S., University of Minnesota, Department of Forest Resources. 2008. Riparian Plant Composition, Abundance, and Structure Responses to Different Harvesting Approaches in Riparian Management Zones Nine Years After Treatment in Northern Minnesota, U.S.A.
- Melissa Cheatham, M.S., Iowa State University, Department of Natural Resource Ecology and Management. 2007. Thesis Title: Species and Functional Diversity Effects on Productivity and Nutrient Uptake: Implications for Designing Sustainable Agricultural Systems in the Midwest.
- Ryan Maher, M.S., Iowa State University, Department of Natural Resource Ecology and Management. 2007. Thesis Title: Soil Respiration and Plant Growth Across a Chronosequence of Tallgrass Prairie Reconstructions.
- Dan Tersteeg, M.S., University of Minnesota, Department of Soil, Water and Climate. 2007. Thesis Title: Landscape and Harvesting Effects on Seasonal Wetland Hydrology.
- Jeremy Steil, M.S., University of Minnesota, Department of Forest Resources. 2007. Thesis Title: Effects of Timber Harvesting on Windthrow Activity and Coarse Woody Debris Attributes in Mixed Conifer-Deciduous Riparian Forests in Northern Minnesota.
- Jaclyn Sumner, M.S., North Carolina State University, Department of Soil Science. 2006. Thesis Title: Methods to Evaluate Normal Rainfall for Short-Term Wetland Hydrology Assessment.
- Danielle Andrews, M.S., University of Kentucky, Department of Forestry. 2006. Thesis Title: Vegetation Establishment, Hyporheic Zone Development, and Water Quality Improvement in a Restored Riparian Area.
- Rachel Tarpey, M.S., Michigan Technological University, School of Forest Resources and Environmental Science. 2006. Thesis Title: The Long-term Effects of Silvicultural Thinning on Soil Physical Properties and Carbon Pools in a Red Pine (*Pinus resinosa Ait.*) Forest.
- Alex Cherry, M.S., University of Kentucky, Department of Forestry. 2006. Thesis Title: Hydrochemical Characterization of Ten Headwater Catchments in Eastern Kentucky.
- Doug Kastendick, M.S., University of Minnesota, Department of Forest Resources. 2005. Thesis Title: Riparian Forest Management in Northern Minnesota.
- Aaron Steber, M.S., University of Minnesota, Department of Forest Resources. 2005. Thesis Title: Soil Compaction Effects on Site Productivity and Organic Matter Storage in Aspen Stands of the Great Lakes States
- Eric Anderson, Ph.D., North Carolina State University, Department of Soil Science, 2004. Dissertation Title: Landscape Influences on Soil Carbon Storage in the Coastal Plain of North Carolina.
- Scott Shouse, M.S., University of Kentucky, Department of Forestry, 2001. Thesis Title: Costs Associated with Forestry BMP Implementation in Kentucky.

Brian Sandefur, M.S., University of Kentucky, Department of Agronomy, 2001. Thesis Title: Soil, Hydrology and Vegetation Characterization of Mountain Bog Systems.

Laura Giese, Ph.D., Virginia Tech University, Department of Forestry, 2001. Dissertation Title: Riparian Forest Restoration: Methods of Assessing Functional Recovery.

George Landman, M.S., University of Georgia, Botany Department, 2000. Thesis Title: Seed Bank Characterization of Pen Branch Corridor and Delta in Relation to Restoration.

EXTERNAL EXAMINER

University of Minnesota Duluth, Department of Civil Engineering. 2014. External Reviewer for Tenure and Promotion Committee.

University of Kentucky, Department of Forestry. 2007. External Reviewer for Tenure and Promotion Committee.

Paul Hazlett, Ph.D., University of Guelph, Department of Environmental Biology. 2006. Thesis Title: Carbon and Nitrogen Dynamics in Forested and Clearcut Boreal Soils: Issues for Riparian Forest Management.

TRAININGS AND ONLINE RESOURCES

Kolka, R. 2016. Host St. Josephs 4th Grade Class from Grand Rapids for Science Day at the Marcell Experimental Forest.

Kolka, R. 2016. Co-organizer and Presenter of University of Minnesota Extension Symposium and Field Trips on Soils and Forest Management.

Kolka, R. 2015. Host of Iowa State University Forestry Camp at the Marcell Experimental Forest.

Kolka, R. 2015. Host of the Plains Regional Soil Judging Competition at the Marcell Experimental Forest.

Kolka, R. 2015. Tour leader. National Cooperative Soil Survey Conference. Field tour to the Marcell Experimental Forest and the SPRUCE experiment.

Murdiyarso, D., R. Kolka, and B. Kauffman. 2015. The Sustainable Wetlands for Adaptation and Mitigation Program (SWAMP) Toolbox. CIFOR. Bogor, Indonesia: CIFOR. <http://www.cifor.org/swamp-toolbox/>

To better understand the carbon dynamics of tropical peatland and mangrove ecosystems, the toolbox provides training materials for academia, policy makers and practitioners on wetlands issues related to land use and climate change and mitigation strategies for these important ecosystems.

Individual Modules:

Kolka, R. and D. Murdiyarso. 2015. Topic A1: Wetlands in the UNFCCC processes. Swamp Toolbox. Bogor, Indonesia: CIFOR. <http://www.cifor.org/swamp-toolbox/presentations/theme-a/a1-wetlands-unfccc-processes/>

Murdiyarso, D. and R. Kolka. 2015. Topic A2: Wetlands in the IPCC processes. Swamp Toolbox. Bogor, Indonesia: CIFOR. <http://www.cifor.org/swamp-toolbox/presentations/theme-a/a2-wetlands-ipcc-processes/>

Kolka, R. and L. Verchot. 2015. Topic: D3. IPCC emissions factors and activity data for wetlands. Swamp Toolbox. Bogor, Indonesia: CIFOR. <http://www.cifor.org/swamp-toolbox/presentations/theme-d/d3-ipcc-emissions-factors-activity-data-wetlands/>

Kolka, R. 2013. Tour leader. Society of Wetland Science National Conference. Field tour to the Marcell Experimental Forest and the SPRUCE experiment.

Kolka, R. and D. Murdiyarso. 2013. Introduction to the Global Sustainable Wetlands for Adaptation and Mitigation Program (SWAMP). Lima, Peru.

Workshop to introduce the importance of wetlands globally and in South America to global climate and carbon storage, and provide opportunity for discussion of policy related to REDD+, IPCC, and national initiatives. Attended by ~40 academic and government employees from Peru, Brazil, Colombia, and Ecuador.

All Employee Climate Change Workshop, Chippewa National Forest. 2011. Day long training to introduce the employees of the Chippewa National Forest to concepts, findings and application of knowledge to conduct their jobs in light of climate change. Attendance was approximately 85. Kolka was a member of the organizing committee and Kolka co-lead a section on the climate change impacts on water and aquatic ecosystems.

At the Water's Edge: Current State of Riparian Forest Management. 2008. Three day training based on the results from several long-term riparian harvest studies were presented to an audience of resource managers, loggers, industry employees, and citizens during a three-day conference of oral presentations and field tours. Kolka was a member of organizing committee, gave broad overview of the various studies and co-led aquatic portion of field tour.

Minnesota Woodland Owners Extension Program. 2003. Kolka did a two hour session on forest soils. Mankato, MN.

State Kentucky's Riparian Committee. 1998-1999. We developed training modules for Riparian Zone Management to be given to county agents and state natural resource employees.

CONFERENCE AND SESSION ORGANIZER

2015. Co-organizer, Chippewa National Forest Science Meeting, Bemidji, Minnesota.
 2014. Symposia on Belowground Biogeochemical Processes in Forested Wetlands. Soil Science of America Annual Meeting, Long Beach, California.
 2014. Symposia on Tropical Forested Wetlands, Climate, and Land-Use Change: Adaptation and Mitigation Opportunities. International Union of Forest Research Organizations World Congress, Salt Lake City, Utah.
 2007. Poster Session, Annual Society of American Foresters Conference, Portland, Oregon.
 2007. Symposium on Ecohydrology, Ecosummit 2007, Beijing, China.
 2007. Symposium on Linking Aquatic Sciences and Management: Small Watershed Studies in North American Forested Landscapes, Congress of the International Association of Theoretical and Applied Limnology, Montreal, Canada.

MULTI-MEDIA

- Kolka, R.K. 2016. Interview with Indonesian Television Crew on Peatlands and the SPRUCE Experiment. https://www.youtube.com/watch?v=XovPbvI_imE
 Kolka, R.K. 2016. Interview with Georgia Technological University on the SPRUCE Experiment. <http://www.rh.gatech.edu/features/shaking-sleeping-bog-monster>
 Kolka, R. and P. Hanson. 2015. Unprecedented global warming experiment underway in northern Minnesota. Television Interview. KDLH Duluth News, Channel 6, aired 08/27/2015. <http://www.northlandsnewscenter.com/news/iron-range/Unprecedented-global-warming-experiment-underway-in-northern-Minn--323025601.html>
 Kolka, R. and S. Sebestyen. 2012. Climate change and the SPRUCE Experiment. Radio Interview. All Things Considered Show, Minnesota Public Radio.
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 Kolka, R.K. 2009. Effect of perennial vegetation on carbon storage in Iowa landscapes. Iowa State Extension, Iowa Public Radio.
 Kolka, R.K. 2009. Mercury cycling in northern Minnesota. Radio Interview. KAXE, Minnesota Public Radio.

HONORS AND AWARDS

- Outstanding Performance Award, 2005, 2014, USDA Forest Service
 Superior Performance Award, 2006-2013, 2015-2016, USDA Forest Service
 USDA Forest Service Northern Research Station Nominee for the Jim Sedell Research Achievement Award. 2013. For excellence in research.
 Handbook of Soil Science, 2nd Edition, won Outstanding Academic Title from the Choice Reviews in 2012, Kolka contributed a chapter to the book
 Session Best Poster Presentation, 2012, SSSA Conference, Forest and Wildland Soil, Cincinnati, OH.
 Certification of Appreciation for Peer Review, 2011, American Chemical Society
 William and Anne Manierre Award, 2010, Publication of Exemplary Research on the Huron Mountains Society of Wetland Scientists, 2009, Appreciation for Associate Editorship
 Certificate of Appreciation, Contributing to Wilderness Program Area Review, 2007.
 Chief's Rise to the Future Award, For Outstanding Collaborative Research, 2006.
 Certificate of Merit, Outstanding Performance as Acting NC Research Station Assistant Station Director, 2005.
 Rise to the Future Award, Region 9 National Forests, For Outstanding Collaborative Research, 2005.
 Certificate of Recognition, Teaching Excellence, Environmental Sciences Field Station, 1999
 Vice Presidents Award, 1998, Savannah River Technology Center
 Superior Performance Award, 1997, USDA Forest Service
 Spot Award, 1997, USDA Forest Service
 Best Session Poster Presentation, 1995, SSSA Conference, Forest and Wildland Soils, St. Louis, MO.

Martin Travel Scholarship 1991 and 1995
 Graduate School Block Grant Fellowship, 1994
 Graduate School Travel Grant, 1994
 Wisconsin Garden Club Federation Scholarship, 1990
 UWSP Soil Judging Team, 1990, Regional Contest, Waseca, MN, 3rd place.
 UWSP Soil Judging Team, 1990, National Contest, Purdue University, 9th place.
 LaVern Wiedenhoft Memorial Scholarship, 1989
 Wisconsin Fertilizer and Chemical Association Scholarship, 1989
 National Agronomy Recognition Award, 1989
 UCLCC Scholarship, 1988
 Izaak Walton League Scholarship, 1988

EDITOR FOR BOOK/SPECIAL JOURNAL ISSUE

Kolka, R.K., D. Murdiyarso, J.B. Kauffman, R.A. Birdsey (Eds.). 2016. *Tropical Wetland Ecosystem Services and Impacts of Global Change*. Special Journal Series, Wetlands Ecology and Management. Springer Publishing, 24(2): 107-278.

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PUBLICATIONS

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Haynes, K.M., E. Kane, L. Potvin, E. Lilleskov, R. Kolka, and C.P.J. Mitchell. 2017. Mobility and transport of mercury and methylmercury in peat as a function of changes in water table regime and plant functional groups. *Global Biogeochemical Cycles*. (in press).

Olson, J., A. Marcarelli, A. Timm, S. Eggert, and R. Kolka. 2017. Evaluating the effects of culvert designs on ecosystem processes in northern Wisconsin streams. *River Research and Applications*. (in press)

Timm, A., D. Higgins, J. Stanovick, R. Kolka, and S. Eggert. 2017. Quantifying fish habitat associated with stream simulation design culverts in northern Wisconsin. *River Research and Applications*. (in press)

Davis, J.C., J.P. Shannon, N.W. Bolton, R.K. Kolka, and T.G. Pypker. 2017. Vegetation responses to simulated emerald ash borer infestation in *Fraxinus nigra* dominated wetlands of Upper Michigan, USA. *Canadian Journal of Forest Research*, 47: 319-330.

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Corman, J.R., B. Bertolet, N.J. Casson, S.D. Sebestyen, R.K. Kolka, and E.H. Stanley. 2016. Carbon... and what else? Watershed leachate potential of lakes in northern Wisconsin. American Geophysical Union Annual Conference. San Francisco, CA

Looker, N.T., R.K. Kolka, H. Asbjornsen, L. Munoz-Villers, P.O. Colin, L.R.G. Aguilar, and A.B. Ward. 2016. Effects of land use/cover and landform on upper soil physical properties in the highlands of Veracruz, Mexico. American Geophysical Union Annual Conference. San Francisco, CA

Van Grinsven, M.J., J.P. Shannon, N.W. Bolton, J.A. Davis, J.W. Wagenbrenner, S.D. Sebestyen, R.K. Kolka, and T.P. Pypker. 2016. Synthesis of gaseous soil-carbon flux responses to simulated Emerald Ash Borer disturbances in black ash wetlands. American Geophysical Union Annual Conference. San Francisco, CA.

Visser, A., R. Wilson, S. Sebestyen, N. Griffiths, J. Chanton, N. Veale, K.J McFarlane, R.K Kolka, and T. Guilderson. 2016. Interlinkages between carbon and water residence times at SPRUCE. American Geophysical Union Annual Conference. San Francisco, CA.

Riggs, C.E., R.K. Kolka, E.A. Nater, E.L. Witt, T.R. Wickman, L.G. Woodruff, and J.T. Butcher. 2016. Fish mercury loads and lake productivity are not impacted by wildland fire in northern Minnesota. American Geophysical Union Annual Conference. San Francisco, CA.

Kolka, R., D. Murdiyarso, B. Kauffman, K. Hergoualc'h, C. Trettin, E. Lilleskov, R. MacKenzie, C. Mackie, and E. Hoenig. 2016. Sustainable Wetlands Adaptation and Mitigation Program (SWAMP). Soil Science Society of America Conference. Phoenix, AZ.

Witt, E.L., C.D. Barton, J.W. Stringer, and R.K. Kolka, 2016. Impact of streamside management zones on soil temperature changes following forest harvesting. Soil Science Society of America Conference. Phoenix, AZ.

Corman, J.R., B. Bertolet, N.J. Casson, S.D. Sebestyen, R.K. Kolka, and E.H. Stanley. 2016. From whence the carbon: Watershed leachate potential of lakes in northern Wisconsin. International Long Term Ecological Research (LTER) Open Science Meeting. Kruger National Park, South Africa.

- Serediak, N., R. Kolka, and T. Wickman. 2016. The Chemical Extremes Project and field validation of the acid input model - is climate change the new acid rain? North American Lake Management Society Annual Meeting. Banff, Alberta, Canada.
- Jin Noh, N., J.P. Shannon, N.W. Bolton, J.A. Davis, M.J. Van Grinsven, T.P. Pypker, R.K. Kolka, and J.W. Wagenbrenner. 2016. Carbon dioxide efflux from coarse dead wood in black ash wetlands. Society of American Foresters Annual Conference. Madison, WI.
- Davis, J.C., N.W. Bolton, J.P. Shannon, M.J. Van Grinsven, N. Noh, J.W. Wagenbrenner, R.K. Kolka, and T.G. Pypker. 2016. Nutrient dynamics and vegetation impacts of simulated emerald ash borer infestation in black ash wetlands. Society of American Foresters Annual Conference. Madison, WI.
- Bolton, N. J. Davis, J. Shannon, M. Van Grinsven, N. Noh, S. Schooler, J. Wagenbrenner, R. Kolka, and T. Pypker. 2016. Controls on Alternative Species Seedling Survival and Growth in Black Ash Ecosystems. Society of American Foresters Annual Conference. Madison, WI.
- Van Grinsven, M.J., J.P. Shannon, N.W. Bolton, J.A. Davis, J.W. Wagenbrenner, S.D. Sebestyen, R.K. Kolka, and T.P. Pypker. 2016. Hydrological response to simulated emerald ash borer infestations in depressional black ash wetlands. Society of American Foresters Annual Conference. Madison, WI.
- Van Grinsven, M.J., J.P. Shannon, J.C. Davis, N.W. Bolton, N.J. Noh, J.W. Wagenbrenner, S.D. Sebestyen, R.K. Kolka, T.G. Pypker. 2016. Ecosystem implications of emerald ash borer disturbances in black ash wetlands. American Association of Geographers - Great Lakes Division Meeting. Marquette, MI.
- Hanson, P.J., D.M. Ricciuto, K.J. McFarlane, J. Chanton, N.A. Griffiths, and R.K. Kolka. 2016. Peatland carbon impacts from warming and elevated CO₂: initial responses from the SPRUCE in situ manipulations. The 10th INTECOL International Wetlands Conference. Changshu, China.
- Kolka, R.K., and P.J. Hanson. 2016. Spruce and Peatland Responses Under Climatic and Environmental Change (SPRUCE) Experiment. International Peat Congress. Kuching, Malaysia.
- Kolka, R., D. Murdiyarso, B. Kauffman, K. Hergoualc'h, C. Trettin, E. Lilleskov, R. MacKenzie, C. Mackie, and E. Hoenig. 2016. Sustainable Wetlands Adaptation and Mitigation Program (SWAMP). International Peat Congress. Kuching, Malaysia. (Best Poster Award)
- Kolka, R.K. 2016. The Marcell Experimental Forest and the Spruce and Peatland Responses Under Climatic and Environmental Change (SPRUCE) Experiment. Center for International Forestry Research (CIFOR). Bogor, Indonesia.
- Lilleskov, E.A., J.L. Lamit, J.T. Lennon, K.R. Romanowicz, S.G. Tringe, E.S. Kane, L.R. Potvin, M.M. Wiedermann, R.A. Chimner, and R.K. Kolka. Fungal community response to water table and plant functional group manipulations in the PEATcosm experiment: evidence for the Gadgil Effect? Mycology Society of America Annual Meeting. University of California, Berkeley.
- Kolka, R. 2016. Fire effects on soils. USFS Region 9 Air, Water and Soil Meeting. Ashland, WI.
- Kolka, R. 2016. Air, water and soil research. USFS Region 9 Air, Water and Soil Meeting. Ashland, WI.
- Corman, J., N. Casson, B. Bertolet, S. Sebestyen, R. Kolka, and E. Stanley. 2016. Environmental change and the lakes of the Chequamegon-Nicolet National Forest. USFS Region 9 Air, Water and Soil Meeting. Ashland, WI.
- Jones, K., H. Asbjornsen, A. Mayer, T. Selfa, L. Saenz, R. Kolka, and K. Halvorsen. 2016. Assessing impacts of payments for watershed services on sustainability in coupled human and natural systems: A framework and review of measured outcomes. International Association for Society and Natural Resources Conference. Houghton, MI.
- Toner, B.M., O. Furman, J.L.M. Gutknecht, S.D. Sebestyen, R.K. Kolka, and E. A. Nater. 2016. The effect of climate change on coupled biogeochemistry of sulfur and mercury in organic soils. Goldschmidt Geochemical Society Conference. Yokohama, Japan.
- Davis, J.C., J.P. Shannon, N.W. Bolton, R.K. Kolka, and T.G. Pypker. 2016. Vegetation responses to simulated emerald ash borer infestation in *Fraxinus nigra*-dominated wetlands of Upper Michigan, USA. Ecological Society of America. Fort Lauderdale, FL.
- Casson, N.J., J.R. Corman, S.D. Sebestyen, R.K. Kolka, E.H. Stanley. 2016. Controls on variability in seepage lake dissolved organic carbon concentrations across northern Wisconsin. Canadian Geophysical Union. Fredericton, New Brunswick, Canada.
- Hanson, P.J., D.M. Ricciuto, K.J. McFarlane, J.P. Chanton, N.A. Griffiths, and R.K. Kolka. 2016. Peatland Carbon impacts from warming and elevated CO₂: One-year responses from the SPRUCE in situ manipulations. INTECOL International Wetlands Conference. Changshu, China.
- Corman, J.R., B. Bertolet, N.J. Casson, S.D. Sebestyen, R.K. Kolka, and E.H. Stanley. 2016. From whence the carbon: Watershed leachate potential of lakes in northern Wisconsin. Association for the Sciences of Limnology and Oceanography (ASLO). New Orleans, LA.

- Martin, M., B.J. Palik, E.K. Zenner, C.R. Blinn and R.K. Kolka. 2016. Riparian plant composition, abundance, and structure responses to different harvesting approaches in Riparian Management Zones nine years after treatment in northern Minnesota. Minnesota Society of American Foresters Annual Meeting. Duluth, MN.
- Kolka, R.K., B. Sturtevant, J. Miesel, P. Townsend, P. Wolter, S. Fraver, and T.M. DeSutter. 2016. Post fire forest floor fire severity index relationships with forest floor and soil carbon, nitrogen and mercury pools: issues of scale. Sustainable Forests Education Cooperative's 2016 Forestry and Wildlife Research Review. Cloquet, MN.
- Corman, J.R., B. Bertolet, N.J. Casson, S.D. Sebestyen, R.K. Kolka, and E.H. Stanley. 2015. Watershed leachate potential of lakes in northern Wisconsin. 9th International Conference on Acid Deposition. Rochester, NY.
- Dymond, S., R. Kolka, P. Bolstad, K. Gill, M. Cuzon, and A. D'Amato. 2015. Excess growing-season water limits lowland black spruce productivity. American Geophysical Union Annual Conference, San Francisco, CA.
- Bolton, N., J. Davis, J. Shannon, M. Van Grinsven, J. Wagenbrenner, S. Sebestyen, R. Kolka, and T. Pypker. 2015. Microsite implications for seedling survival following simulated emerald ash borer invasion in northern Michigan wetlands. Society of American Foresters Conference. Baton Rouge, LA.
- Kolka, R.K., B. Sturtevant, J. Miesel, P. Townsend, P. Wolter, S. Fraver, and T.M. DeSutter. 2015. Post fire forest floor fire severity index relationships with soil carbon, nitrogen and mercury pools. Soil Science Society of America Conference. Minneapolis, MN.
- Lilleskov, E., E. Kane, R. Chimner, R. Kolka, J. Lennon, L. Potvin, T. Ontl, K. Romanowicz, L.J. Lamit and A. Daniels. 2015. Peatcosm: Experimental insights into climate change effects on peatland carbon cycling and trace gas flux. Soil Science Society of America Conference. Minneapolis, MN.
- Furman, O., B.M. Toner, E. A. Nater, S.D. Sebestyen, and R.K. Kolka. 2015. Interpretation of depth profiles of organic S species in northern peatlands. Goldschmidt Geochemical Society Conference. Prague, Czech Republic.
- Kluber, L.A., N. Hendershot, J.M. Steinweg, K.S. Hofmockel, S.D. Bridgham, J.K. Keller, S. Sebestyen, E.A. Lilleskov, J.E. Kostka, R.K. Kolka, P.J. Hanson, and C.W. Schadt. 2015. Understanding microbial community responses to the SPRUCE deep peat heating experiment. Department of Energy Terrestrial Ecosystem Science Principal Investigator Meeting. Potomac, MD.
- Iversen, C.M., J. Childs, R.J. Norby, T.A. Ontl, R.K. Kolka, D.J. Brice, K. McFarlane, and P.J. Hanson. 2015. Just beneath the surface: The distribution and dynamics of fine roots in a forested peat bog. Department of Energy Terrestrial Ecosystem Science Principal Investigator Meeting. Potomac, MD.
- Davis, J., M. Van Grinsven, N. Bolton, J. Shannon, R. Kolka, J. Wagenbrenner, and T. Pypker. 2015. Changes in nitrogen cycling resulting from simulated emerald ash borer mortality in black ash wetlands of northern Michigan. Ecological Society of America. Baltimore, MD.
- Kolka, R.K., S.D. Sebestyen, J.L. Campbell, L.E. Rustad, S.F. Dymond, and M.B. Green. 2015. Climate change effects on hydrologic processes in northern forests. IUFRO International Conference on Forests and Water in a Changing Environment. Kelowna, British Columbia, Canada.
- Kolka, R. 2015. Cycling of mercury and controls on methylmercury production in northern Minnesota. Chippewa National Forest Science Meeting, Bemidji, MN.
- Hanson, P.J., C.M. Iversen, D. Ruscitto, and R.K. Kolka. 2015. Peatland responses to climatic and atmospheric change: SPRUCE deep peatland heating and whole-ecosystem warming studies. Climate Change Interagency Working Group. Washington D.C.
- Serediak, N., R. Kolka, and G. Putz. 2015. Development of a simple model for estimating acid neutralizing capacity in northern USA seepage lakes. International Rainy-Lake of the Woods Watershed Forum. International Falls, MN.
- Kolka, R.K. 2015. An introduction to the spruce and peatland responses to climatic and environmental change (SPRUCE) experiment. Seminar to the Global Institute for Water Security, University of Saskatchewan. Saskatoon, Saskatchewan.
- Miesel, J.R., R.K. Kolka, and W.C. Hockaday. 2015. What factors control post-fire ecosystem processes in burned forest? Examining the influences of wildfire severity, forest type, and soil organic matter composition on carbon and nitrogen dynamics in the Pagami Creek wildfire, USA. 5th Annual International Conference of Fire Effects on Soil Properties. Dublin, Ireland.
- Kolka, R., and P. Hanson. 2015. The Spruce and Peatlands Responses Under Climatic and Environmental Change (SPRUCE) Experiment: Wetland science for the future. Invited to Symposium on Wetland Carbon Cycling in a Changing Climate. Society of Wetland Scientists Annual Meeting. Providence, RI.
- Kane, E., E. Lilleskov, L. Potvin, R. Kolka, T. Veverica, T. Ontl, and Rod Chimner. 2015. Using dissolved organic carbon as an indicator of peat redox processes: lessons learned from experimental manipulation of water table and plant functional group. Society of Wetland Scientists Annual Meeting. Providence, RI.

- Iversen, C.M., P.J. Hanson, R.K. Kolka, N.A. Griffiths, L. Hook, W.R. Nettles, R.J. Norby, J. Phillips, D.M. Ricciuto, C.W. Schadt, S. Sebestyen, J.M. Warren, and D.J. Weston. 2015. Peatland responses to atmospheric and climatic change: The SPRUCE experiment warms an ombrotrophic bog from deep, ancient peat to the forest canopy. Society of Wetland Scientists Annual Meeting. Providence, RI.
- Jicha, T., B. Hill, R. Kolka, and S. Sebestyen. 2015. Initial response of the nitrogen cycle to soil warming in northern Minnesota peatlands. Society of Wetland Science Annual Meeting. Providence, RI.
- Casson, N.J., S.D. Sebestyen, R.K. Kolka, and E.H. Stanley. 2015. Sensitivity of seepage lakes in northern Wisconsin to acid deposition. Society of Freshwater Science Annual Meeting. Milwaukee, WI.
- Mitchell, C., K. Haynes, S. Eggert, R. Kolka, and S. Sebestyen. 2015. Forest harvesting does not lead to hotter methylmercury “hot spots” at the forested upland-peatland ecotone. 11th International Conference on Mercury as a Global Pollutant Conference. JeJu, South Korea.
- Kolka, R., C. Mitchell, and E. Nater. 2015. Understanding mercury cycling, synthesis of research from Northern Minnesota. Fifth Interagency Conference on Research in Watersheds. Charleston, SC.
- Sebestyen, S., and R. Kolka. 2015. Thirty-year results from a paired-catchment study of upland flowpath responses to forest cover conversion in Northern Minnesota. Fifth Interagency Conference on Research in Watersheds. Charleston, SC.
- Haynes, K., C. Mitchell, R. Kolka, E. Kane, L. Potvin, E. Lilleskov and R. Kolka. 2015. Climate change impacts on mercury mobility in peatland ecosystems. American Geophysical Union and Canadian Geophysical Union Joint Assembly. Montreal, Canada.
- Haynes, K., C. Mitchell, R. Kolka, E. Kane, L. Potvin, and E. Lilleskov. 2015. Gaseous mercury fluxes in peatland ecosystems. American Geophysical Union and Canadian Geophysical Union Joint Assembly. Montreal, Canada.
- Mitchell, C., K. Haynes, S. Eggert, R. Kolka, and S. Sebestyen. 2015. Forest harvesting does not lead to hotter methylmercury “hot spots” at the forested upland-peatland ecotone. American Geophysical Union and Canadian Geophysical Union Joint Assembly. Montreal, Canada.
- Bolton, N., J. Davis, J. Shannon, M. Van Grinsven, J. Wagenbrenner, S. Sebestyen, R. Kolka, and T. Pypker. 2014. Microsite implications for seedling survival following simulated short and long-term emerald ash borer invasion. Science in the Northwoods Conference, Boulder Junction, WI.
- Van Grinsven, M., J. Davis, J. Shannon, N. Bolton, J. Wagenbrenner, S. Sebestyen, R. Kolka, and T. Pypker. 2014. Hydrology of black ash wetlands and water table response to a simulated emerald ash borer disturbance in the Upper Peninsula of Michigan. Science in the Northwoods Conference, Boulder Junction, WI.
- Kolka, R.K. 2014. IPCC Wetlands and an Introduction to the SPRUCE Project. Seminar to the School of Earth and Atmospheric Sciences, Georgia Institute of Technology, Atlanta, GA.
- Kolka, R.K. 2014. A large-scale climate change experiment: The SPRUCE experiment on the Marcell Experimental Forest. Minnesota Forest Resources Partnership. Marcell Experimental Forest, Grand Rapids, MN.
- Terry, N., X. Comas, L. Slater, M. Warren, R. Kolka, A. Kristijono, N. Sudiana, D. Nurjaman, and T. Darusman. 2014. Improving Indonesian peatland C stock estimates using ground penetrating radar (GPR) and electrical resistivity imaging (ERI). American Geophysical Union Annual Conference, San Francisco, CA.
- Miesel, J.R., W.C. Hockaday, and R.K. Kolka. 2014. How does wildfire severity influence soil black carbon in a Minnesota boreal forest? American Geophysical Union Annual Conference, San Francisco, CA.
- Furman, O.S., B.M. Toner, S.D. Sebestyen, R.K. Kolka, and E.A. Nater. 2014. Sulfur speciation in peat: a time-zero signature for the SPRUCE experiment. American Geophysical Union Annual Conference, San Francisco, CA.
- Bolton, N., M. Van Grinsven, J. Shannon, J. Davis, S. Sebestyen, R. Kolka, J. Wagenbrenner, T. Pypker. 2014. Unexpectedly high methane emissions through black ash lenticels in forest wetlands of northern Michigan. American Geophysical Union Annual Conference, San Francisco, CA.
- Van Grinsven, M., J. Shannon, N. Bolton, J. Davis, S. Sebestyen, R. Kolka, and T. Pypker. 2014. Hydrologic and soil gas flux responses to disturbance in northern forested wetlands. American Geophysical Union Annual Conference, San Francisco, CA.
- Casson, N.J., S.D. Sebestyen, R.K. Kolka, E.H. Stanley. 2014. Hydrological and landscape controls on the chemical response of lakes. American Geophysical Union Annual Conference, San Francisco, CA.
- Davis, J., M. Van Grinsven, N. Bolton, J. Shannon, R. Kolka, J. Nelson, J. Wagenbrenner, T.G. Pypker. 2014. Simulated impacts of emerald ash borer on throughfall and stemflow inputs of water and nitrogen in black ash wetlands in northern Michigan. American Geophysical Union Annual Conference, San Francisco, CA.
- Nater, E.A., O. Furman, B.M. Toner, S.D. Sebestyen, M.M. Tfaily, J.P. Chanton, C. Fissore, K.J. McFarlane, P.J. Hanson, C.M. Iversen and R.K. Kolka. 2014. Elucidating effects of atmospheric deposition and peat

- decomposition processes on mercury accumulation rates in a northern Minnesota peatland over last 10,000 cal years. American Geophysical Union Annual Conference, San Francisco, CA.
- Kolka, R.K. 2014. Cycling of mercury and controls on methylmercury production in boreal landscapes. Webinar to the Interagency Air Quality Research Subcommittee. Washington, D.C.
- Schulte Moore, L., M. Helmers, J. Arbuttle, P. Drobney, M. Harris, M. Liebman, R. Kolka, J. Neal, M. O'Neal, and J. Tyndall. 2014. Agroecology that harnesses the power of prairie to achieve landscape conservation goals. National Workshop on Large Landscape Conservation. Washington, D.C.
- Kolka, R.K. 2014. A large-scale climate change experiment: The SPRUCE experiment on the Marcell Experimental Forest. Eastern Region Silviculture Workshop. Bemidji, MN.
- Timm, A., S. Eggert, A. Marcarelli, J. Olson, R. Kolka, D. Higgins, and S. Reinecke. 2014. Fish habitat and biomass at three stream simulation design culverts on the Chequamegon-Nicolet National Forest. International Conference on Engineering & Ecohydrology for Fish Passage. Madison, WI.
- Eggert, S., A. Timm, J. Olson, A. Marcarelli, R. Kolka, D. Higgins, and S. Reinecke. 2014. Wood standing crops in stream simulation design culverts. International Conference on Engineering & Ecohydrology for Fish Passage.
- Ontl, T.A., J. Silva, L. Potvin, E. Kane, E. Lilleskov and R.K. Kolka. 2014. Linking root productivity and rhizosphere processes of different plant functional types to biogeochemical processes in northern peatlands. Soil Science Society of America Conference. Long Beach, CA.
- Kane, E., E. Lilleskov, L. Potvin, R. Kolka, T. Veverica, K. Romanowicz, T. Ontl, L.J. Lamit, and R. Chimner. 2014. Understanding peat redox and decomposition environment with different plant functional types and a drier climate: Considering more than just water table position. Soil Science Society of America Conference. Long Beach, CA.
- Rustad, L., J.L. Campbell, R.K. Kolka, M.B. Adams, T. Schuler, R. Hallett, D. Hollinger, J.M. Kabrick, S. Sebestyen, M. Martin, and John Brissette. 2014. Environmental sensor applications at USDA Forest Service Experimental Forests: The Smart Forest Network. Soil Science Society of America Conference. Long Beach, CA.
- Iversen, C.M., J. Childs, R.J. Norby, T.A. Ontl, K. McFarlane, R.K. Kolka, and P.J. Hanson. 2014. The distribution and dynamics of fine roots in a forested bog in northern Minnesota, USA. Soil Science Society of America Conference. Long Beach, CA.
- Kolka, R., B. Sturtevant, J. Miesel, P. Townsend, P. Wolter, S. Fraver, and T. DeSutter. 2014. Post fire forest floor fire severity index relationships with soil mercury pools. Soil Science Society of America Conference. Long Beach, CA.
- Kolka, R., C. Mackie, D. Murdiyarsa, and B. Kauffmann. 2014. Sustainable wetlands adaptation and mitigation program (SWAMP). International Union of Forest Research Organizations World Congress. Salt Lake City, Utah.
- Campbell, J.L., L.E. Rustad, M.B. Adams, J.C. Brissette, D.Y. Hollinger, J.M. Kabrick, R.K. Kolka, M.E. Martin, T.M. Schuler, and S.D. Sebestyen. 2014. Environmental sensor applications at experimental forests: The Smart Forest Network. Symposium on Experimental Forests and Ranges as a Research Network. Ecological Society of America. Sacramento, CA.
- Kolka, R.K., S.D. Sebestyen, J.L. Campbell, L.E. Rustad, S.F. Dymond, and M.B. Green. 2014. Climate change effects on hydrologic processes in northern forests. Symposium on Experimental Forests and Ranges as a Research Network. Ecological Society of America. Sacramento, CA.
- Dymond, S., P. Bolstad, R.K. Kolka, and A.D. D'Amato. 2014. Moisture matters: Linking soil water availability to forest productivity. Ecological Society of America. Sacramento, CA.
- Mitchell, C.P.J., M. Mazur, C.S. Eckley, S.L. Eggert, R.K. Kolka, S. Sebestyen, and E.B. Swain. 2014. Gaseous mercury fluxes from forest soils in response to forest harvesting intensity: A field manipulation experiment. Canadian Geophysical Union. Banff, Canada.
- Furman, O., B.M. Toner, E. A. Nater, S.D. Sebestyen, M.M. Tfaily, J.P. Chanton, and R.K. Kolka. 2014. Mercury and sulfur cycling in a northern peatland. Goldschmidt Geochemical Society Conference. Sacramento, CA.
- Casson, N.J., S.D. Sebestyen, E.H. Stanley, and R.K. Kolka. 2014. Landscape controls on the sensitivity of seepage lake chemistry to environmental change. Joint Aquatic Sciences Meeting. Portland, OR.
- Barton, C.D., E.L. Witt, J.W. Stringer, A. Cherry, and R.K. Kolka. 2014. Influence of variable streamside management zone configurations on water quality following forest harvest. NCASI Symposium on Forestry Best Management Practice Effectiveness in the Eastern U.S. Blacksburg, VA. Blacksburg, VA.
- Witt, E.L., C.D. Barton, J.W. Stringer, A. Cherry, and R.K. Kolka. 2014. Influence of variable streamside management zone configurations on water quality following forest harvest. NCASI Symposium on Forestry Best Management Practice Effectiveness in the Eastern U.S. Blacksburg, VA.

- Ontl, T.A., S. Hargreaves, L.A. Schulte, C.A. Cambardella, and R.K. Kolka. 2014. Soil texture and root biomass influence carbon storage through impacts on microbial enzyme activities across a heterogeneous agroecosystem. Soil Science Society of America Special Conference on Ecosystem Services. Sacramento, CA.
- Kolka, R.K. 2014. Watershed cycling of mercury. Upper St. Croix Basin Forestry Conference. Hinckley, MN.
- Warren, M., R. Kolka, and D. Murdiyarso. 2014. Peatlands and their role in climate change. The Status and Challenges of Peatland Management in Indonesia Presented by @america. Jakarta, Indonesia.
- Murdiyarso, D., R. Kolka, K. Hergoualc'h, and M. Warren. 2014. Tropical peat swamp forests: Current knowledge gaps and science needs. The Status and Challenges of Peatland Management in Indonesia Presented by @america. Jakarta, Indonesia.
- Eggert, S., B. Palik, D. Kastendick, J. Kragthorpe, and R. Kolka. 2014. Effects of riparian timber harvesting on detrital resources in northern Minnesota stream food webs. Minnesota Lake Superior Watershed Stream Science Symposium. Duluth, MN.
- Eggert, S., A. Timm, N. King, J. Olson, A. Marcarelli, R. Kolka, D. Higgins, and S. Reinecke. 2014. Improved stream food web function associated with stream simulation design culverts in northern Great Lakes streams. Minnesota Lake Superior Watershed Stream Science Symposium, Duluth, MN.
- Toner, B., O. Furman, R. Kolka, E. Nater, and S. Sebestyen. 2014. Mercury and sulfur cycling in a peatland soil warming and carbon dioxide enhancement study: sulfur speciation at time-zero. World Congress of Soil Science, Jeju, Korea.
- Witt, E.L., T.R. Wickman, R.K. Kolka, and E.A. Nater. 2013. Impacts of forest fire on mercury concentrations in fish from Northern Minnesota lakes: Implications for management. Webinar for the Joint Fire Sciences Lakes States Fire Consortium.
- Dymond, S., J.S. Roden, P. Bolstad, and R.K. Kolka. 2013. $\delta^{13}\text{C}$ in aspen tree-rings using a long-term soil moisture record. American Geophysical Union Annual Conference, San Francisco, CA.
- Furman, O., E.A. Nater, B.M. Toner, S.D. Sebestyen, M.M. Tfaily, J.P. Chanton, and R.K. Kolka. 2013. Estimating effects of atmospheric deposition and peat decomposition processes on mercury and sulfur accumulation and retention in northern peatlands, Minnesota. American Geophysical Union Annual Conference, San Francisco, CA.
- Seifert-Monson, L., R. Kolka, and B. Hill. 2013. Effects of altered deposition chemistry on dissolved organic carbon, pore water nutrients, and microbial enzyme activities in a northern peatland. Soil Science Society of America Conference, Tampa, FL.
- Boche, M., R. Kolka, and T. DeSutter. 2013. Soil total mercury, carbon and nitrogen within northern Minnesota forested wetland basins in relation to landscape position, profile depth, and landscape characteristics. Soil Science Society of America Conference, Tampa, FL.
- Helmets, M.J., L.A. Schulte, J. Arbuckle, P. Drobney, M. Harris, R. Kolka, M. Liebman, M. O'Neal, and J. Tyndall. 2013. Integration of prairie strips into agricultural landscapes to enhance ecosystem services: an Iowa example. Soil Science Society of America Conference, Tampa, FL.
- Dymond, S.F., P.V. Bolstad, and R.K. Kolka. 2013. Five decades of soil moisture dynamics in a northern forest. Ecological Society of America Annual Conference, Minneapolis, MN.
- Hill, B.H., C.M. Elonen, T.M. Jicha, R.K. Kolka, L.L.P. Lehto, S.D. Sebestyen, L.R. Seifert-Monson. 2013. Microbial ecoenzymatic stoichiometry and the processing of C, N, and P in northern bogs and fens. Water Resources Seminar Series, University of Minnesota Duluth, Duluth, MN.
- Bradford, J.B., A.W. D'Amato, P.A. Klockow, V.J. Kurth, B.J. Palik, R.K. Kolka, and S. Fraver. 2013. Nutrient balance and availability following woody biomass harvests in *Populus tremuloides* forests. Ecological Society of America Annual Conference, Minneapolis, MN.
- Witt, E.L., R.K. Kolka, E.A. Nater, and T.R. Wickman. 2013. Short-term impacts of forest fire on fish and lake water mercury concentrations from northern Minnesota lakes. Ecological Society of America Annual Conference, Minneapolis, MN.
- Hanson, P.J., C. Barbier, J.R. Riggs, R.K. Kolka, S.D. Sebestyen, N.A. Griffiths, L.A. Hook, C.M. Iversen, J.M. Warren, D.J. Weston, R.J. Norby. 2013. Whole-ecosystem warming and CO₂ manipulation to assess ombrotrophic bog responses to hypothetical future environments. Invited Presentation to the Peatland Processes and Environmental Change: Past Present and Future Symposium. Ecological Society of America Annual Conference, Minneapolis, MN.
- Ontl, T.A., C.A. Cambardella, K.S. Hofmockel, L.A. Schulte, and R.K. Kolka. 2013. Spatial variability of soil carbon storage and root production in conventional and perennial agroecosystems. Invited Presentation to the Managing Belowground Processes in Agroecosystems Symposium. Ecological Society of America Annual Conference, Minneapolis, MN.

- Schulte, L.A., M.J. Helmers, J. Arbuckle, P. Drobney, M. Harris, R. Kolka, M. Liebman, M. O'Neal, J. Tyndall. 2013. Ecosystem Complementarity through STRIPs. Invited Presentation to the Complementarity Considers Ecological Principals to Create Sustainable Pathways Symposium. Ecological Society of America Annual Conference, Minneapolis, MN.
- Kolka, R.K., P.J. Hanson, and S.D. Sebestyen. 2013. Marcell Experimental Forest: USDA Forest Service peatland research past and present. Invited Presentation to the Peatland Processes and Environmental Change: Past Present and Future Symposium. Ecological Society of America Annual Conference, Minneapolis, MN.
- Olson, J., A. Marcarelli, A. Timm, S. Eggert, and R. Kolka. 2013. Evaluating the impact of culvert designs on hydrologic connectivity and nutrient uptake in northern Wisconsin streams. Ecological Society of America Annual Conference, Minneapolis, MN.
- Anwar, U., L. Schulte, M. Helmers, and R. Kolka. 2013. Impacts of alternative biomass cropping systems and landscape position on soil moisture dynamics. Ecological Society of America Annual Conference, Minneapolis, MN.
- Harris, M., L.A. Schulte, M.J. Helmers, J. Arbuckle, P. Drobney, R. Kolka, M. Liebman, M. O'Neal, J. Tyndall. 2013. Bridging the conservation lands - working lands divide with a cost-effective strategy to enhance ecosystem services. Invited presentation to the Bridging The Public-Private Land Divide - Supporting Biodiversity Conservation and Ecosystem Services By Tapping The Ingenuity In Social-Ecological Systems Symposium. Ecological Society of America Annual Conference, Minneapolis, MN.
- Miesel, J.R., R.K. Kolka, P.A. Townsend and W.C. Hockaday. 2013. Fire severity effects on forest soil carbon and nitrogen in northern Minnesota, USA. Ecological Society of America Annual Conference, Minneapolis, MN.
- Witt, E.L., J.G. Wiener, R.K. Kolka, P.J. Blanchfield, R.A. Bodaly, J.A. Dittman, C.T. Driscoll, T.M. Grieb, E.A. Paul, A.M. Scheuhammer, and J.A. Sorenson. 2013. Mercury in yellow perch: relation with aqueous mercury and ecosystem factors in midcontinental North American lakes. International Conference on Mercury as a Global Pollutant. Edinburgh, Scotland.
- Kolka, R. 2013. Disturbance effects on peatlands. Invited presentation to Symposium on Wetland Values. Society of Wetland Science Annual Meeting, Duluth, MN.
- Kolka, R., and P. Hanson. 2013. Spruce-Peatland Responses Under Climatic and Environmental change: an *in situ* warming by carbon dioxide manipulation of a forest bog in northern Minnesota. Invited presentation to Symposium on Peatlands and Climate Change. Society of Wetland Science Annual Meeting, Duluth, MN.
- Potvin, L.R., E.S. Kane, R.A. Chimner, R.K. Kolka, and E.A. Lilleskov. 2013. Response of sedge, ericoid and moss communities to water table and vegetation manipulations. Society of Wetland Science Annual Meeting, Duluth, MN.
- Daniels, A., E. Kane, E. Lilleskov, and R. Kolka. 2013. Interactive controls of water table position and vegetation type on biogeochemical processes in poor fen ecosystems: PEATcosm Experiment. Society of Wetland Science Annual Meeting, Duluth, MN.
- Gerken, M., J. Thompson, C. Mabry, R. Kolka, D. Lock, and R. Mannatt. 2013. Effects of different forest land uses on the herbaceous layer in hardwood forests of Iowa. North American Forest Ecology Workshop, Bloomington, IN.
- Iversen, C.M., J. Childs, R.J. Norby, T.A. Ontl, R.K. Kolka, P.J. Hanson. 2013. The distribution and dynamics of fine roots in a forested bog in northern Minnesota, USA. Department of Energy Terrestrial Ecosystem Science Meeting. Washington, D.C.
- Anwar, U., L. Schulte, M. Helmers, and R. Kolka. 2013. Soil moisture response of alternative biomass cropping systems across a landscape in wet, average and drought years. Iowa State University Graduate Program in Sustainable Agriculture Symposium, Ames, IA.
- Kolka, R.K. 2013. A large-scale climate change experiment: The SPRUCE project at the Marcell Experimental Forest. Forest Health Workshop, Walker, MN.
- Townsend, P., B. Sturtevant, R. Kolka, S. Fraver, E. Gustafson, J. Charney, P. Wolter, and L. Frelich. 2013. Fire severity and ecosystem impacts immediately following an extreme fire event in northern Minnesota. Webinar for the Joint Fire Sciences Lakes States Fire Consortium.
- Mitchell, C.P.J., K. Haynes, M. Mazur, N. Fidler, C. Eckley, R. Kolka, S. Eggert, and S. Sebestyen. 2013. Forestry impacts on mercury mobility, methylation, and bioaccumulation – A field experiment with enriched stable mercury isotope additions. European Geosciences Union Generally Assembly, Vienna, Austria.
- Kolka, R., S. Fraver, P. Townsend, B. Sturtevant, P. Wolter, J. Miesel, and T. DeSutter. 2013. Canopy and forest floor fire severity index relationships with soil carbon, nitrogen and mercury pools. North American Forest Soils Conference, Whitefish, MT.

- Horvatin, P.J., T.G. Nettesheim, K.R. Newman, K. Majerus, C.T. Braverman, K. Glassner-Shwayder, J.R. Keough, J.F. Bratton, R. Kolka, L.M. Carl, M. Colton, C. Stow, M. Faust, C.C. Krueger, D.B. Bunnell, H.M. Stirratt, C.A. Czarnecki, and E. Drott. 2013. An adaptive science-based framework for Great Lakes restoration. International Association of Great Lakes Research, West Lafayette, IN.
- Miesel, J.R., R.K. Kolka, P.A. Townsend, and W.C. Hockaday. 2013. Fire severity effects on soil organic matter in northern Minnesota, USA. International Meeting of Fire Effects in Soil Properties, Vilnius, Lithuania.
- Kane, E.S., E.A. Lilleskov, L.R. Potvin, R.K. Kolka, T. Pypker, and R. Chimner. 2013. Interactive controls of water table and plant functional types on the carbon balance of northern peatlands: the PEATcosm Experiment. North American Carbon Program All Investigators Meeting, Albuquerque NM.
- Serediak, N., R. Kolka, and G. Putz. 2012. Using maximum likelihood methods to calculate critical loading limits of acid-sensitive lakes in the Chequamegon-Nicolet National Forest, Wisconsin, USA. North American Lake Management Society, Madison, WI.
- Puhlick, J., A. Weiskittel, L. Kenefic, I. Fernandez, S. Fraver, L. Rustad, R. Kolka, and J. Brisette. 2012. How silvicultural treatments affect carbon storage on the Penobscot Experimental Forest: A 60 year perspective. Eastern CANUSA Forest Science Conference, Durham, NH.
- Miesel, J., R.G. Corrace, P.C. Goebel, D. Hix, R. Kolka, B. Palik, and D. Mladenoff. 2012. Lake States Fire Consortium knowledge gaps assessment: Increasing awareness and accessibility of regional results by management and research communities. 5th International Fire Ecology and Management Congress, Portland, OR.
- Mitchell, C., S. Eggert, R. Kolka, S. Sebestyen, and C. Eckley. 2012. Impacts of forest biomass harvesting on the mobility and bioaccumulation of mercury in the Western Great Lakes Region. Great Lakes Atmospheric Deposition Program Webinar Series on Atmospheric Toxics.
- Daniels, A.L., E.S. Kane, E. Lilleskov, and R. Kolka. 2012. Interactive controls of water table position and vegetation type on biogeochemical processes in bog ecosystems: PEATcosm experiment. American Geophysical Union Annual Conference, San Francisco, CA.
- Van Grinsven, M., T. Pypker, R. Kolka. 2012. Use of isotopic and hydrometric monitoring methods to partition hydrologic contributions to forested wetlands, Upper Peninsula of Michigan. American Geophysical Union Annual Conference, San Francisco, CA.
- Romanowicz, K.J., A.L. Daniels, L.R. Potvin, E.S. Kane, R.K. Kolka, R.A. Chimner, and E.A. Lilleskov. 2012. Incorporating peatland plant communities into the enzymic 'latch' hypothesis: Can vegetation influence carbon storage Mechanisms? American Geophysical Union Annual Conference, San Francisco, CA.
- MacKenzie, R.A., R. Kolka, C. Mackie, M. Warren, J.B. Kauffman, J. Purbopuspito, and D. Murdiyaso. 2012. Sustainable wetlands adaptation and mitigation program (SWAMP). 1st ASEAN Congress on Mangrove Research and Development, Manila, Philippines.
- Dymond, S., R. Kolka, and P. Bolstad. 2012. Long term soil moisture trends at the Marcell Experimental Forest. Soil Science Society of America Conference, Cincinnati, OH.
- Kolka, R., S. Fraver, P. Townsend, B. Sturtevant, P. Wolter, and T. DeSutter. 2012. Influence of wildfire severity on forest floor and upper soil carbon, nitrogen and mercury pools. Soil Science Society of America Conference, Cincinnati, OH.
- Kolka, R., P. Hanson, C. Iversen, S. Sebestyen, R. Norby, B. Palik, P. Thornton, J. Warren, S. Wullschleger, N. Griffiths, and L. Hook. 2012. Spruce-Peatland Responses Under Climatic and Environmental change: an *in situ* warming by CO₂ manipulation of a forested bog in northern Minnesota. Soil Science Society of America Conference, Cincinnati, OH.
- Helmert, M.J., X. Zhou, A. Daigh, R. Horton, T. Isenhardt, R. Kolka, A. Mallarino, C. Pederson, and L. Schulte-Moore. 2012. Impact of biomass production strategies on nitrate-nitrogen concentrations and fluxes in Iowa. Soil Science Society of America Conference, Cincinnati, OH.
- Warren, J., S. Wullschleger, J. Childs, C. Gunderson, P. Hanson, and R. Kolka. 2012. Physiological response of a boreal forest to increased temperature and carbon dioxide – gas exchange and water relations at the SPRUCE project. Department of Energy Terrestrial Ecosystem Science Principal Investigators Meeting. Washington D.C.
- Iverson, C.M., J. Childs, R.J. Norby, P.J. Hanson and R.K. Kolka. 2012. The distribution and dynamics of fine roots in a forest bog in northern Minnesota, USA. Department of Energy Terrestrial Ecosystem Science Principal Investigators Meeting. Washington D.C.
- Wickman, T. and R. Kolka. 2012. Mercury dynamics and fire in the Boundary Waters Canoe Area Wilderness. Western Great Lakes Resource Management Conference. Ashland, WI.

- Bolton, J., P. Bice, M. Gerken, A. Olson, J. Thompson, T. Stewart, Z. Keninger, C. Mabry and R. Kolka. 2012. Land cover, plant communities, and condition of forested headwater streams. Iowa Water Conference. Ames, IA.
- Ontl, T., K. Hofmockel, C. Cambardella, L. Schulte, and R. Kolka. 2012. Root dynamics of bioenergy crops: scaling from the field to landscapes. Ecological Society of America. Portland, OR.
- Schulte, L.A., C.A. Cambardella, T. Gunther, R.B. Hall, A. Hallam, S.K. Hargreaves, W. Headlee, E. Heaton, M.J. Helmers, K.S. Hofmockel, T.M. Isenhardt, R.K. Kolka, R. Manatt, K. Moore, T.A. Ontl, W. Welsh and R.J. Williams. 2012. The Landscape Biomass Project: field tests of ecological and economic tradeoffs associated with five biomass cropping systems. Ecological Society of America. Portland, OR.
- Kolka, R. 2012. Influence of fire on mercury cycling in boreal forests. Superior National Forest Research Forum. Duluth, MN.
- Ontl, T., K. Hofmockel, B. Sigmon, C. Cambardella, L. Schulte, and R. Kolka. 2012. Root contributions to soil organic matter pools: scaling from the field to landscapes. Conference on Scaling Root Processes: Global Impacts Workshop. US Department of Energy. Arlington, VA.
- Ontl, T., B. Sigmon, K. Hofmockel, L. Schulte Moore, and R. Kolka. 2012. Annual root productivity and turnover of bioenergy switchgrass across a topographic gradient. Graduate Research in Evolutionary Biology and Ecology Symposium. Ames, IA.
- Kolka, R., P. Hanson, C. Iversen, S. Sebestyen, R. Norby, B. Palik, P. Thornton, J. Warren, S. Wullschleger, N. Griffiths, and L. Hook. 2012. Spruce-Peatland Responses Under Climatic and Environmental change: an *in situ* warming by CO₂ manipulation of a northern Minnesota bog. St. Louis River Estuary Science Summit, Superior, WI.
- Gerken, M., J. Thompson, C. Mabry, R. Manatt, and R. Kolka. 2012. Forested ecosystem functioning in human impacted landscapes: Opportunities for targeted restoration. EcoSummit 2012, Columbus, OH.
- Hanson, P.J., R. K. Kolka, C. Iversen, S. D. Sebestyen, R. J. Norby, B. Palik, P. E. Thornton, J. Warren, S. D. Wullschleger, and L. Hook. 2012. Spruce-Peatland Responses Under Climatic and Environmental change an *in situ* warming by CO₂ manipulation of a characteristic high-carbon ecosystem. International Peat Society Congress, Stockholm, Sweden.
- Kolka, R., E. Witt, M. Gabriel, E. Nater, T. Wickman, C. Mitchell, and S. Fraver. 2012. Influence of fire on mercury cycling in boreal forests. National Water Quality Monitoring Conference, Portland, OR.
- Kolka, R., S. Sebestyen, C. Mitchell, E. Nater, B. Branfireun, and P. Hanson. 2012. Understanding peatland mercury cycles under elevated carbon dioxide and soil warming: Introduction of the SPRUCE experiment. National Water Quality Monitoring Conference, Portland, OR.
- Kolka, R.K., P.J. Hanson, C. Iversen, S. D. Sebestyen, R. J. Norby, B. Palik, P. E. Thornton, J. Warren, S. D. Wullschleger, and L. Hook. 2012. Spruce-Peatland Responses Under Climatic and Environmental change: an *in situ* warming by CO₂ manipulation of a characteristic high-carbon ecosystem. BIOGEOMON, Northport, ME.
- Sturtevant, B.R., P. Townsend, R. Kolka, S. Fraver, and E. Gustafson. 2012. Fire severity and ecosystem impacts immediately following an extreme fire event in northern Minnesota. Superior National Forest Research Meeting, Sharing Status and Findings of Recent Research on the Superior National Forest. Duluth, MN.
- Kolka, R. 2011. Watershed cycling of mercury. Faculty of Natural Resources Management Seminar. Lakehead University, Thunder Bay, Ontario, Canada.
- Eggert, S., J. Finlay, R. Kolka, E. Nater, and D. Bell. 2011. Potential global change effects on mercury accumulation in food webs of northern Minnesota seasonal ponds. Global Change Effects on Aquatic Ecosystems: A Symposium Inspired by Patrick J. Mulholland, Oak Ridge, TN.
- Helmers, M., X. Zhou, H. Asbjornsen, R. Kolka, and M. Tomer. 2011. Nitrogen losses in runoff from row-cropped watersheds: environmental benefits of native prairie filter strips. American Geophysical Union Annual Conference, San Francisco, CA.
- Fissore, C., E. Nater, B. Dalzell, R. Kolka, and C. Perry. 2011. From 20cm to 1.5m: is digging deeper necessary? American Geophysical Union Annual Conference, San Francisco, CA.
- Fissore, C., C. Giardina, C. Swanston, and R. Kolka. 2011. Lessons from our forests: use of radiocarbon to understand soil carbon stabilization and response to warming. American Geophysical Union Annual Conference, San Francisco, CA.
- Welsh, W., X. Zhou, M. Helmers, L. Schulte-Moore, T. Isenhardt, and R. Kolka. 2011. Evaluating root zone water quality impacts associated with various biomass production systems across landscape positions. American Geophysical Union Annual Conference, San Francisco, CA.

- DeSutter, T., A. Guy, F. Casey, R. Kolka, and J. Leitch. 2011. Sediment quantity and quality following the 2009 flooding event in Fargo-Moorhead. School of Natural Resource Sciences Seminar Series, North Dakota State University, Fargo, ND.
- Olson, D., T. Griffis, R. Kolka, and A. Noormets. 2011. Interannual variability in the carbon budget of a temperate peatland. Geological Society of America. Minneapolis, MN.
- Kolka, R.K., P.J. Hanson, R.J. Norby, B.P. Palik, S.D. Wullschlegler, C.T. Garten, S.D. Sebestyen, P.E. Thornton, P.J. Mulholland, D.E. Todd, C. Iversen, and J. Warren. 2011. Evaluating spruce peatland responses under climatic and environmental change: SPRUCE experiment. Society of American Foresters. Honolulu, HA.
- Kolka, R., M. Powers, J. Bradford, B. Palik, and M. Jurgensen. 2011. Effects of red pine thinning and stand age on ecosystem carbon pools and fluxes. Society of American Foresters. Honolulu, HA.
- Helmets, M., H. Asbjornsen, M. Liebman, L. Schulte-Moore, M. O'neal, R. Kolka, J. Tyndall, J. Arbuckle, M. Harris, M. Tomer, N. Grudens-Schuck, R. Cruse, J. Neal, P. Drobney, T. Sauer, C. Witte, and M. Castellano. Learning and teaching with experimental watersheds: evaluation of ecosystem services in mixed annual-perennial agroecosystems. Agriculture and Food Research Initiative (AFRI) Annual Grant Meeting. Washington, DC.
- Kolka, R. 2011. Lake States fire science consortium. National Indian Timber Symposium. Cloquet, MN.
- Sebestyen, S.D., M. Jacobson, J.B. Cotner, J.C. Finlay, and R.K. Kolka. 2011. Patterns of dissolved organic matter efflux from a northern peatland watershed and related landscape factors. Gordon Research Conference Catchment Science. Lewiston, ME.
- Sebestyen, S.D., P.J. Hanson, R.K. Kolka, R.J. Norby, B. Palik, S.D. Wullschlegler, C.T. Garten, P.E. Thornton, N. Griffiths, P.J. Mulholland, D.E. Todd, C. Iversen, J. Warren, and L. Hook. 2011. An overview of the SPRUCE project, a large-scale study of increased temperature and carbon dioxide effects on a northern peatland. Gordon Research Conference Catchment Science. Lewiston, ME.
- Kolka, R. 2011. Watershed Cycling of Mercury: Lessons Learned from Research in Northern Minnesota. The Water Summit. Grand Rapids, MN.
- Thompson, J., T. Stewart, C. McMullen, K. Franz, R. Kolka, M. Gerken, J. Wu, Z. Keninger, and R. Manatt. 2011. Headwater streams in central Iowa: Measuring hydrological and biological responses to intensified rural and urban land use and climate change. Iowa Water Conference. Ames, IA.
- Smith, T., R. Cruse, M. Helmets, and R. Kolka. 2011. Dissolved organic carbon in runoff from replicated agricultural watersheds. Iowa Water Conference. Ames, IA.
- Palik, B., R. Kolka, and M. Hanson. 2011. Sustaining seasonal forest pond structure and function with riparian buffers: a management experiment. 16th Annual Wisconsin Wetlands Association's Conference. Baraboo, WI.
- Ontl, T., C. Cambardella, K. Hofmockel, L. Schulte, and R. Kolka. 2011. Soil aggregation and soil organic matter pool differences across landscape positions in an agroecosystem. Ecological Society of America Conference, Austin, TX.
- Kolka, R. 2011. Watershed Cycling of Mercury. Minnesota Association of Conservation Professionals. Brainerd, MN.
- Kolka, R. and T. Wickman. 2011. Influence of fire on mercury cycling. Webinar for the Joint Fire Sciences Lakes States Fire Consortium.
- Coleman Wasik, J., D. Engstrom, C. Mitchell, E. Swain, B. Monson, S. Balogh, J. Jeremiason, R. Kolka, B. Branfireun, J. Almendinger. 2011. Rapid declines in methylmercury production from decreased sulfate deposition to a boreal peatland. The 10th International Conference on Mercury as a Global Pollutant, Halifax, Canada.
- Engstrom, D., J. Coleman Wasik, E. Swain, B. Monson, C. Mitchell, J. Almendinger, S. Balogh, B. Branfireun, R. Kolka and J. Jeremiason. 2011. Changes in mercury methylation in a boreal wetland previously enriched in sulfate: synergistic effects of atmospheric deposition and water-level fluctuations. The 10th International Conference on Mercury as a Global Pollutant, Halifax, Canada.
- Kolka, R., S. Sebestyen, C. Mitchell, E. Nater, B. Branfireun, and P. Hanson. 2011. Mercury processes under elevated carbon dioxide and soil warming in a peatland: hypotheses for the SPRUCE experiment. The 10th International Conference on Mercury as a Global Pollutant, Halifax, Canada.
- Kolka, R., C. Mitchell, and S. Fraver. 2011. Influence of blowdown, fire and salvage logging on forest floor and soil mercury pools. The 10th International Conference on Mercury as a Global Pollutant, Halifax, Canada.
- Mitchell, C., A. Hong, S. Eggert, J. Coleman-Wasik, D. Engstrom, E. Swain, B. Monson, and R. Kolka. 2011. Mercury burden in peatland invertebrates in relation to an experimentally-derived methylmercury gradient. The 10th International Conference on Mercury as a Global Pollutant, Halifax, Canada.
- Risch, M.R., J.F. DeWild, D.P. Krabbenhoft, R.K. Kolka, and L. Zhang. 2011. Mercury in litterfall in the Eastern United States. The 10th International Conference on Mercury as a Global Pollutant, Halifax, Canada.
- Hill, B.H., R.K. Kolka, and F.H. McCormick. 2011. Ecosystem services derived from headwater catchments. North American Benthological Society Meeting, Providence, RI.

- Guy, A., T. DeSutter, F. Casey, R. Kolka, and J. Leitch. 2011. Impacts of major flooding on an urban environment. Manitoba Soil Science Society Conference, Winnipeg, Canada.
- Eggert, S., R. Brooks, K. Nislow, R. Kolka, D. Ward, and C. Chen. 2011. Mercury accumulation in aquatic food webs of northern Minnesota seasonal ponds. 8th Annual Forestry, Wildlife and Natural Resource Research Review, Cloquet, MN.
- Sebestyen, S.D., M. Jacobson, K. Watson, J.B. Cotner, J.C. Finlay, and R.K. Kolka. 2011. Dissolved organic matter and biogeochemical hotspots in a northern peatland catchment. 8th Annual Forestry, Wildlife and Natural Resource Research Review, Cloquet, MN.
- Sebestyen, S.D., P.J. Mulholland, P.J. Hanson, J.M. Warren, and R.K. Kolka. 2011. Water research objectives of the SPRUCE experiment, a large-scale study of climate change effects on a northern peatland. 8th Annual Forestry, Wildlife and Natural Resource Research Review, Cloquet, MN.
- Carlson, B., J. Jeremiason, S. Sebestyen, and R. Kolka. 2011. Trace metal and dissolved organic matter cycling in an ombrotrophic bog. American Society of Limnology and Oceanography, San Juan, Puerto Rico.
- Hollinger, D.Y., C.-T. Lai, W.J. Massman, K.L. Clark, K. Bible, J. Vose, A.R. Desai, R. Kolka, A.D. Richardson, J.L. Hom, and R. Evans. 2011. Forest Service climate tower network. North American Carbon Program Meeting, New Orleans, LA.
- Schulte Moore, L., E. Bach, C. Cambardella, S. Hargreaves, M. Helmers, K. Hofmockel, T. Isenhardt, R. Kolka, T. Ontl, W. Walsh, and R. Williams. 2010. Soil, water, and greenhouse-gas impacts of alternative biomass cropping systems. American Geophysical Union Annual Conference, San Francisco, CA.
- Hanson, P.J., R. K. Kolka, R. J. Norby, B. Palik, S. D. Wullschlegel, C. T. Garten; S. D. Sebestyen, P. E. Thornton, J. Bradford, P. J. Mulholland, D. E. Todd, C. Iversen, and J. Warren. 2010. Evaluating Spruce Peatland Responses Under Climatic and Environmental change (SPRUCE) using a replicated insitu field manipulation. American Geophysical Union Annual Conference, San Francisco, CA.
- Mulholland, P.J., S.D. Sebestyen, P.J. Hanson, J.M. Warren, and R.K. Kolka. 2010. Water research within the SPRUCE experiment, a large-scale study of climate change effects on a northern peatland. American Geophysical Union Annual Conference, San Francisco, CA.
- Hernandez-Santana, V., X. Zhou, M.J. Helmers, H. Asbjornsen, and R. Kolka. 2010. Effectiveness of perennial vegetation strips in reducing runoff in annual crop production systems. American Geophysical Union Annual Conference, San Francisco, CA.
- Sebestyen, S.D., R.K. Kolka, M. Jacobson, M. Tsui, J.B. Cotner, J.C. Finlay, J. Jeremiason, C.P. Mitchell, and K. Fitzgerald. 2010. Dissolved organic matter (DOM) dynamics in terrestrial and aquatic ecosystems. American Geophysical Union Annual Conference, San Francisco, CA.
- Mitchell, C., M. Richardson, B. Branfireun, R. Kolka, and D. Fortin. 2010. LiDAR-derived spatial models of hydrological and biogeochemical source areas to improve estimates of terrestrial-aquatic mercury export in northern forested landscapes. American Geophysical Union Annual Conference, San Francisco, CA.
- Witt, E.L., C.D. Barton, J.W. Stringer, D.W. Bowker, and R.K. Kolka. 2010. Impact of streamside management zone width and canopy retention on hydrologic response following forest harvest in Appalachian headwater streams. American Water Resources Association Annual Conference, Philadelphia, PA.
- Kolka, R.K., A. Steber, K. Brooks, and C.H. Perry. 2010. Effects of harvest season, soil texture, and landscape position on soil compaction in northern Minnesota aspen harvests. Soil Science Society of America Conference, Long Beach, CA.
- Kolka, R.K., B.J. Palik, D.P. Tersteeg, and J.C. Bell. 2010. Effects of riparian buffers on the hydrology of seasonal ponds. Soil Science Society of America Conference, Long Beach, CA.
- Ontl, T., L. Schulte Moore, and R. Kolka. 2010. Landscape differences in soil aggregate carbon affects carbon saturation deficit in an Iowa agroecosystem. Soil Science Society of America Conference, Long Beach, CA.
- Helmers, M., H. Asbjornsen, X. Zhou, R. Kolka, M. Tomer and R. Cruse. Integration of perennials in rowcrop agriculture for enhancing water quality in central Iowa. 2010. Soil Science Society of America Conference, Long Beach, CA.
- Eggert, S., R. Kolka, N. Brandt, L. Rutten, C. Huckins, and A. Marcarelli. 2010. The role of research in aquatic habitat protection and restoration on National Forests and protected areas in the Midwest. Midwest Fish and Wildlife Conference, Minneapolis, MN.
- Risch, M.R., J.F. DeWild, D.P. Krabbenhoft, R.K. Kolka, and L. Zhang. 2010. Mercury in litterfall at selected National Atmospheric Deposition Program Mercury Deposition Network sites in the Eastern United States, 2007-2009. Annual National Atmospheric Deposition Program Meeting and Scientific Symposium, Lake Tahoe, CA.

- Asbjornsen, H., M. Helmers, X. Zhou, R. Kolka, M. Tomer, and R. Cruse. 2010. Strategic integration of perennial filter strips in rowcrop agriculture for enhancing water quality and flow regulation in Central Iowa. International Symposium on Soil Quality and the Management of World Mollisols. Harbin, China.
- Mitchell, C., J. Coleman Wasik, J. Almendinger, S. Balogh, B. Branfireun, S. Eggert, D. Engstrom, S. Hong, J. Jeremiason, R. Kolka, B. Monson, and E. Swain. 2010. Methylmercury dynamics in relation to decreasing atmospheric sulphate deposition in an experimental wetland. Canadian Geophysical Union. Ottawa, Ontario, Canada.
- Coleman Wasik, J., J. Almendinger, S. Balogh, B. Branfireun, S. Eggert, D. Engstrom, S. Hong, J. Jeremiason, R. Kolka, C. Mitchell, B. Monson, and E. Swain. Wetland methylmercury declines rapidly following decreases in sulfate deposition. 2010. American Society of Limnology and Oceanography. Santa Fe, NM.
- Eggert, S.L., A.H. Moerke, R.S. Stelzer, and R.K. Kolka. 2010. Invertebrate communities associated with wood in headwater streams of the Huron Mountains, MI. North American Benthological Society, Santa Fe, NM.
- Witt, E.L., C.D. Barton, J.W. Stringer, D.W. Bowker, and R.K. Kolka. 2010. Evaluating Best Management Practices for ephemeral channel protection during forest harvest in the Cumberland Plateau-preliminary findings. Central Hardwoods Conference, Lexington, KY.
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- Rhoades, C.C. and R.K. Kolka. 2002. Carbon sequestration on surface mine lands. American Society for Surface Mining and Reclamation. Lexington, KY.
- Kolka, R.K., Svec, J.R. and Stringer, J.W. 2002. Defining perennial, intermittent and ephemeral channels in eastern Kentucky; application to forestry best management practices. Forestry Best Management Practices Symposium. Atlanta, GA.

- McClure, J.D., A. White and R.K. Kolka. 2002. Effect of riparian zone BMPs on coarse woody debris in Appalachian watersheds. Forestry Best Management Practices Symposium. Atlanta, GA.
- Shouse, S., J. Stringer, M. Smidt, M. Pelkki, J. Ringe and R. Kolka. 2002. BMP costs associated with erosion control measures for skid trails. Forestry Best Management Practices Symposium. Atlanta, GA.
- Svec, J.R., R.K. Kolka, and J.W. Stringer. 2002. Defining perennial, intermittent and ephemeral channels in eastern Kentucky; application to forestry best management practices. 13th Central Hardwood Conference. Urbana-Champaign, IL.
- Kolka, R.K. and M.F. Smidt. 2002. Effects of forest road amelioration on soil bulk density, surface runoff, sediment transport, soil moisture and tree productivity. Kentucky Water Resources Annual Symposium. Lexington, KY.
- Svec, J.R., R.K. Kolka, and J.W. Stringer. 2002. Stream classification: Perennial, Intermittent, and Ephemeral Channels in eastern Kentucky and implications for streamside management zones. Kentucky Water Resources Annual Symposium. Lexington, KY.
- Giese, L.A. W. M. Aust, C. C. Trettin, and R. K. Kolka. 2001. Successional patterns influence riparian forest carbon pools. Southern Forest Science Conference. Atlanta, GA.
- Kolka, R.K., E.P. Sharp, and J.R. Svec. 2001. Long-term stream water quality trends in the Cumberland Plateau physiographic region. Soil Science Society of America Conference, Charlotte, NC.
- Abnee, A.C., J.A. Thompson, R.K. Kolka, M.S. Coyne, and E.M. D'Angelo. 2001. Soil Respiration Dynamics in Forested Landscapes of Eastern Kentucky. Soil Science Society of America Conference, Charlotte, NC.
- Thompson, J.A., R.K. Kolka, A.C. Abnee and E.M. D'Angelo. 2001. Modeling soil carbon storage and dynamics from a landscape perspective in forested watersheds. Soil Science Society of America Conference, Charlotte, NC.
- Rhoades, C.C., R.K. Kolka and A. Dattilo. 2001. Recovery of soil processes and vegetation on recontoured logging roads in the Cumberland Mountains. Soil Science Society of America Conference, Charlotte, NC.
- Stevenson, K.P., R.K. Kolka, and M.S. Coyne. 2001. Suspended solids and the potential for eutrophication from three stream sources in a mixed-use watershed. Soil Science Society of America Conference, Charlotte, NC.
- Shouse, S., J. Stringer, M. Schmidt, M. Pelkki, and R. Kolka. 2001. Machine and labor times required to implement Kentucky's skid trail erosion control and revegetation BMPs. Council on Forest Engineering Conference. Snowshoe, WV.
- Smidt, M.F. and R.K. Kolka. 2001. Alternative skid trail retirement options in steep terrain. Council on Forest Engineering Conference. Snowshoe, WV.
- Coulter, C.B., J.A. Thompson and R.K. Kolka. 2001. Water quality implications of urban development in mixed-use watersheds. American Water Resources Association Conference, San Antonio, TX.
- Kolka, R.K., M.J. Lacki, M.H. Pelkki, and A.J. Worms. 2000. Challenges associated with a multidisciplinary field based senior capstone course in the forestry curriculum. Second Annual Teaching Symposium. University of Kentucky.
- Kolka, R.K. and M.F. Smidt. 2000. Soil moisture and runoff characteristics of two forest road restoration techniques. Soil Science Society of America Conference, Minneapolis, MN.
- Sandefur, B.C., A.D. Karathanasis, and R.K. Kolka. 2000. Geochemistry and hydrology of three southern Appalachian mountain mires. Soil Science Society of America Conference, Minneapolis, MN.
- Thompson, J.A. and R.K. Kolka. 2000. Soil carbon storage estimation in central hardwood forest watersheds using quantitative soil-landscape modeling. Soil Science Society of America Conference, Minneapolis, MN.
- Abnee, A.C., J.A. Thompson and R.K. Kolka. 2000. Carbon mineralization in forest soils of southeastern Kentucky: Landscape and seasonal dynamics. Soil Science Society of America Conference, Minneapolis, MN.
- Smidt, M.F., and R.K. Kolka. 2000. Forest road restoration. Kentucky Forest Industries Association Annual Meeting. Lexington, KY.
- Smidt, M.F., and R.K. Kolka. 2000. Forest road restoration. Kentucky Woodland Owners Association, Annual Meeting. Lexington, KY.
- Kolka, R.K. 2000. Assessment framework for wetland restoration. Invited talk: Ecological Restoration Symposium and Seminar. University of Kentucky.
- Smidt, M and Kolka, R. 2000. Application of the Tilth Self-drafting Subsoiler in Kentucky. Kentucky-Tennessee Regional Meeting, Society of American Foresters, Mammoth Cave, KY.
- Nelson, E.A., R.K. Kolka, and C.C. Trettin. 2000. Evaluating restoration success of a severely impacted wetland system – the Pen Branch project. Society of Wetland Scientists Conference, Quebec, Canada.
- Kolka, R.K., E.A. Nelson, and C.C. Trettin. 1999. Assessment framework for bottomland hardwood restoration. Soil Science Society of America Conference, Salt Lake City, UT.

- Barton, C.D., J.H. Singer, C.C. Trettin, and R.K. Kolka. 1999. Dissolved organic carbon distribution in a restored bottomland hardwood wetland. Soil Science Society of America Conference, Salt Lake City, UT.
- Singer, J.H., C.D. Barton, C.C. Trettin, R.K. Kolka, and R.R. Sharitz. 1999. Techniques for the restoration of isolated depression wetlands in South Carolina. Soil Science Society of America Conference, Salt Lake City, UT.
- Giese, L.A., W. M. Aust, C.C. Trettin, and R.K. Kolka. 1999. Comparison of carbon pools in early successional and late successional riparian forests. Soil Science Society of America Conference, Salt Lake City, UT.
- Giese, L.A., W. M. Aust, C.C. Trettin, and R.K. Kolka. 1999. Litter decomposition within disturbed Coastal Plain riparian forests. 10th Biennial Silviculture Conference, New Orleans, LA.
- Kolka, R.K. 1999. Hydrologic cycling of mercury and organic carbon in forested watersheds. Department of Plant and Soil Science Spring Seminar, University of Kentucky.
- Thompson, J. A., R. K. Kolka, J. M. Kabrick, and S. J. Indorante. 1999. Carbon storage estimation in forested watersheds using quantitative soil-landscape modeling. Soil Modeling Symposium, Minneapolis, MN.
- Kolka, R.K. 1998. Wetland restoration and the use of reference sites. Workshop on Selecting and Using Wetlands Reference Sites, Institute of Ecosystem Studies, Millbrook, NY.
- Kolka, R.K., C.C. Trettin, E.A. Nelson, and W. H. Conner. 1998. Tree seedling survival across a hydrologic gradient in a bottomland hardwood restoration. Annual Conference on Ecosystem Restoration and Creation, Tampa, FL.
- Kolka, R.K., C.C. Trettin, and E.A. Nelson. 1998. Development of an assessment framework for restored forested wetlands. Invited Presentation to the Special Symposium on the Use of Natural Resource Information in Wetland Creation and Restoration. Soil Science Society of America Conference, Baltimore, MD.
- Giese, L.A., W.M. Aust, R.K. Kolka, and C.C. Trettin. 1998. Carbon storage in Southeastern Coastal Plain riparian forests at varying successional stages. Soil Science Society of America Conference, Baltimore, MD.
- Kolka, R.K., E.A. Nelson, and C.C. Trettin. 1998. Interdisciplinary assessment of wetland restoration in a highly degraded system. NOAA Conference on Goal Setting and Success Criteria for Habitat Restoration. Charleston, SC.
- Nelson, E.A., R.K. Kolka, and C.C. Trettin. 1998. Interdisciplinary assessment framework for forested wetland restoration. Society of Wetland Scientist Conference. Anchorage, AK.
- Kolka, R. K., S. O'Ney, M. Baily, C. Trettin, M. Burke, H. Li, W. Harms, and J. Kilgo. 1998. Riparian forest management of the Southeastern Coastal Plain. Riparian Management in Forests of the Continental Eastern U.S. Conference, Columbus, OH.
- Wein, G.R., R.R. Sharitz, J.V. McArthur, K.W. McLeod, R.K. Kolka, E.A. Nelson. 1997. Ecological restoration of wetlands in the Southeastern Coastal Plain. SERDP Conference, Washington DC.
- Kolka, R.K., W.P. Casey, C.C. Trettin, and E.A. Nelson. 1997. Vegetation monitoring of a bottomland restoration in South Carolina. International Conference of the Society of Ecological Restoration. Fort Lauderdale, FL.
- Kolka, R.K., C.C. Trettin, and E.A. Nelson. 1997. Development of an assessment framework for forested wetland restoration. Annual Conference on Ecosystem Restoration and Creation, Tampa, FL.
- Kolka, R.K., J. Fleck, E.A. Nater, and D.F. Grigal. 1997. Inputs of mercury and dissolved organic carbon into a forested watershed. International Conference on the Biogeochemistry of Trace Elements, Berkeley, CA.
- Kolka, R.K., E.A. Nater, and D.F. Grigal. 1996. Hydrologic flux of mercury in a forested landscape. Soil Science Society of America Conference, Indianapolis, IN.
- Kolka, R.K. 1996. Hydrologic transport of mercury through forested watersheds. Savannah River Ecology Lab Special Seminar Series, Savannah River Site, SC.
- Verry, E.S., R.K. Kolka, E.A. Nater and D.F. Grigal. 1996. Hydrologic transport of total Hg through a forested upland/peatland watershed. NADP Technical Committee Meeting, Williamsburg, VA.
- Kolka, R.K., E.A. Nater, and D.F. Grigal. 1995. Hydrologic flux of mercury, dissolved organic carbon, and other ions in surface runoff from an upland forested catchment in Northern Minnesota. Soil Science Society of America Conference, St. Louis, MO.
- Kolka, R.K., D.F. Grigal, and E.A. Nater. 1995. Seasonal patterns, and relationships of Hg, DOC and other ions for a bog stream in Northern Minnesota. Mercury Pollution in the Midwestern United States, Minneapolis, MN.
- Leary, R., K. Nimerfro, M. Holdaway, R. Kolka, T. Burk, and A. Wolf. 1995. An integro-differential equation model of quaking aspen height growth with parameters governed by forcing functions based on heat, evapotranspiration, and forest floor. Midwest Forest Mensurationist Conference, Traverse City, MI.
- Kolka, R.K., D.F. Grigal, and E.A. Nater. 1994. Modeling Fluxes of DOC and Hg in Northern Upland/Bog Systems. International Symposium on the Ecology and Management of Northern Forested Wetlands, Traverse City, MI.
- Kolka, R.K., D.F. Grigal, E.A. Nater, and R. Bouabid. 1992. Comparison of weathering rates predicted by the PROFILE model and a micromorphological weathering index. Soil Science Society of America Conference, Minneapolis, MN.

Kolka, R.K., D.A. Laird and E.A. Nater. 1991. Comparison of three mass balance mathematical techniques for quantitative clay mineralogy. Soil Science Society of America, Denver, CO.

OTHER CONFERENCES ATTENDED, ACADEMIC TRAVEL AND TRAINING

Other conferences attended and professional training include:

- 2016 Department of Energy, Terrestrial-Aquatic Interface Workshop, Washington D.C
- 2016 Tropical Peatlands Working Group, Jakarta, Indonesia
- 2016 Office of Science and Technology Policy Soil Workshop, Washington D.C.
- 2016 Tropical Peatlands Research Visit, Iquitos, Peru
- 2014-2016 NSF Sponsored Payment for Hydrologic Services Grant, Xalapa, Mexico.
- 2014 Tropical Peatlands Working Group, Jakarta, Indonesia.
- 2013 Tropical Peatlands Research Workshop, Lima, Peru.
- 2011-2013 Intergovernmental Panel on Climate Change (IPCC), Hayama, Japan, Victoria Falls, Zimbabwe, Dublin, Ireland, Manaus, Brazil.
- 2010 Establishing a watershed study on Pioneer Farm, UW Platteville, Platteville, WI.
- 2007 Climate Change Media Relations Training, Denver, CO.
- 2006-2009 Chequamegon Ecosystem - Atmosphere Study, Woodruff, WI
- 2006 FORWARD Workshop, Thunder Bay, ON, Canada.
- 2004-2008 Northern Research Station Representative for NEON, various locations.
- 2005 EPA Workshop on Nutrients in the Upper Mississippi River Basin, St. Louis, MO.
- 2000-2001 Kentucky Water Resources Annual Symposium, Lexington, KY
- 2000 Coweeta Scientist Meeting, Athens, GA.
- 1999-2000 Kentucky-Tennessee Society of American Foresters Meeting, Jackson, TN, Mammoth Cave, KY.
- 1999 Supervisor Training, University of Kentucky, Lexington, KY
- 1999 Central Hardwoods Conference, Lexington, KY.
- 1998 Workshop on Using Wetland Reference Sites, Institute of Ecosystem Studies, Millbrook, NY.
- 1998 Riparian Management in Forests of the Continental Eastern U.S. Conference, Columbus, OH.
- 1997-1998 Annual Conference on Ecosystem Restoration and Creation, Tampa, FL.
- 1997-1998 Supervisory Training and Civil Rights Training, USDA Graduate School, Atlanta, GA.
- 1997 International Conference on the Biogeochemistry of Trace Elements, Berkeley, CA.
- 1996 WEPP Workshop (Water Erosion Prediction Program) for Southern Forests, Auburn, AL.
- 1994 Week visitation to the Experimental Lakes Area Hg research facility, Ontario, Canada.
- 1994 Mercury as a Global Pollutant Conference, Whistler, B.C., Canada.
- 1994 Ecosystem Management Strategies for the Lake Superior Region, Duluth, MN.
- 1992-1994 Great Lakes Forest and Soils Conference, Ashland, WI, Sault Ste. Marie, Ontario, Bemidji, MN.

SUCCESSFUL PROPOSALS (PI OR COPI)

- Spruce-Peatland Responses Under Climatic and Environmental Change (the SPRUCE Experiment). 2009-2025. Department of Energy/Oak Ridge National Laboratory. \$4,000,000-\$6,000,000K/year for 10+ years (~\$50,000,000)
- Manipulating soil heating patterns to optimize barrens restoration. 2015-2018. Joint Fire Sciences Program. \$380,022.
- Fire-science Network and Delivery System for Fire-dependent Ecosystems of the Northern Lake States. 2016-2017. Joint Fire Sciences Program. \$262,500.
- Prairie strips as an innovative agroecosystem practice to enhance ecosystem services from farmers' fields. 2014-2017. USDA National Institute of Food and Agriculture. \$498,966.
- Insights into peatland carbon cycling derived from integration of Omics with biogeochemical profiling. 2014-2015. For 1500 analysis hours for samples from the PEATcosm and SPRUCE Experiments. Department of Energy, Environmental Molecular Sciences Laboratory.
- How does wildfire severity influence post-fire nutrient cycling in forest soil? 2014-2016. USDA Forest Service Forest Health Monitoring Grants. \$45,453.
- Experimental Frameworks for Evaluating Net Effects of Hydrologic Service Payments on Coupled Social-Ecological Systems in Mexico. 2013-2018. National Science Foundation. \$1,475,000.
- Development of Best Management Practices For Mercury Contamination Following Fire: Implications for Ecosystem Restoration. 2011-2016. EPA - Great Lakes Restoration Initiative. \$210,300.
- Future of Black Ash Wetlands in the Northern Great Lakes Region. 2011-2016. EPA - Great Lakes Restoration Initiative. \$706,150.

- Fire-science Network and Delivery System for Fire-dependent Ecosystems of the Northern Lake States. 2013-2015. Joint Fire Sciences Program. \$299,313.
- Understanding Soil Organic Matter Change: Modeling Root and Soil Interactions Across Agricultural Landscapes. 2012-2014. Leopold Center for Sustainable Agriculture. \$69,452.
- PEATcosm: Understanding the Interactions of Climate, Plant Functional Groups and Carbon Cycling in Peatland Ecosystems. 2011-2014. National Science Foundation. \$705,636.
- Fire Severity and Ecosystem Impacts Immediately Following an Extreme Fire Event in Northern Minnesota. 2011-2013. National Science Foundation. \$199,999.
- How Silvicultural Treatments Affect Carbon Storage in a Northern Conifer Forest: A 60-Year Perspective. 2011-2014. Northeastern States Research Cooperative. \$55,041.
- Getting the Most out of Iowa Forests: Linking Forest Understory Composition to Stream Water Quality and Enhancing Nutrient Capture in Forest Remnants in Agricultural Landscapes. 2011-2013. Leopold Center for Sustainable Agriculture. \$93,745.
- Impacts of Forest Biomass Harvesting on the Mobility and Bioaccumulation of Mercury in the Western Great Lakes Region. 2010-2013. Great Lakes Air Deposition Program. \$123,800.
- Evaluation of Biomass Harvesting Impacts on Minnesota's Forests. 2010-2012. Legislative-Citizen Commission on Minnesota Resources. \$350,000.
- Fire-science Network and Delivery System for Fire-dependent Ecosystems of the Northern Lake States. 2010-2012. Joint Fire Sciences Program. \$397,827.
- Transitioning to ecologically functional production systems. 2010-2012. Leopold Center for Sustainable Agriculture. \$116,131.
- Learning and Teaching with Experimental Watersheds: Evaluation of Ecosystem Services in Mixed Annual-Perennial Agroecosystems. 2009-2012. AFRI Managed Ecosystems. \$499,833.
- Influence of Alternative Biomass Cropping Systems on Short-Term Ecosystem Processes. 2009-2012. AFRI Managed Ecosystems. \$499,250.
- Assessing the Environmental Sustainability and Capacity of Forest-Based Biofuel Feedstocks within the Lake States Region. 2009-2012. DOE Biomass Research and Development Initiative Program. \$2,715,000.
- Biocomplexity of Hydrological Service Payments and Watershed Sustainability in Mexico. 2009-2010. National Science Foundation Planning Grant. \$38,500.
- Carbon Cycle Research, Coordination, and Outreach through the National Soil Carbon Network. 2009-2011. Agriculture and Food Research Initiative (AFRI), Cooperative State Research, Education, and Extension Service (CSREES) REE-NET Grants. \$200,000.
- Linking Water Availability with Forest Productivity. 2009-2012. Forest Service Climate Change Initiative. \$125,000.
- Using the Houghton Mesocosm Facility for Climate Change Research: Parameterizing Models of Feedbacks Between Peatlands and Climate Change. 2009-2010. Forest Service Climate Change Initiative. \$80,000.
- Implement the National Soil Carbon Network. 2009-2010. Forest Service Climate Change Initiative. \$80,000.
- NRS Flux Tower and Climate Research Network. 2009-2010. Forest Service Climate Change Initiative. \$30,000.
- Marcell Experimental Forest 50th Anniversary Symposium. 2009. Blandin Foundation. \$10,000.
- Marcell Experimental Forest 50th Anniversary Symposium. 2009. Itasca County, Minnesota. \$5,000.
- Mixing Reconstructed Prairie with Cropland to Balance Food and Biofuel Production with Environmental Quality. 2009-2011. Sustainable Agriculture Research and Education (USDA Cooperative State Research, Education and Extension Service). \$175,000.
- Integration of Water, Nutrient and Carbon Cycling Under Diverse Annual-Perennial Plant Community Systems in Agricultural Landscapes. 2008-2010. Leopold Center for Sustainable Agriculture. \$267,000.
- Effects of Red Pine Thinning and Stand Age on Ecosystem Carbon Pools and Fluxes. 2008-2011. Forest Service Agenda 2020. \$145,000.
- Impacts of Woody Biomass Harvesting on Saproxylic Communities, Nutrient Availability, and Productivity in Aspen Ecosystems. 2008-2010. Minnesota Forest Resources Council. \$296,000.
- Effect of Invasive Earthworms on the Hydrology of Northern Hardwood Forests in Michigan's Upper Peninsula. 2008. Huron Mountain Wildlife Foundation. \$3,100.
- Effect of fire on mercury cycling and fish accumulation in the Boundary Water Canoe Wilderness Area, Minnesota. 2007-2014. Forest Service National Fire Plan. \$300,000.
- Integrating Landscape-Scale Carbon Measurements with Remote Sensing and Ecosystem Models to Improve Carbon Management Decisions. 2007-2010. NASA Carbon Cycle Science Program. \$876,000.
- Forest Service R&D for the Development of an Experimental Forest and Range Network. 2007-2008. \$72,000.

- Effects of Sulfate Deposition on Methyl Mercury Production in Peatlands. 2007-2009. Great Lakes Air Deposition Program. \$111,000.
- Evaluating Riparian Timber Harvest Guidelines: Phase III. 2007-2009. Legislative-Citizen Commission on Minnesota Resources. \$400,000.
- Hyporheic Flux of a Northern Old Growth Riparian Area: Solute Injection During Snowmelt. 2007. Huron Mountain Club. \$4,100.
- Minnesota Riparian Management Study: Comparison of Effects on Stream Habitat and Fish Nine Years after Harvest Treatments. 2006-2007. NCASI. \$20,000.
- Evaluating Riparian Timber Harvest Guidelines: Phase II. 2006-2008. Legislative Commission on Minnesota Resources. \$333,000.
- Assessing indicator sensitivity for monitoring the effects of woody encroachment and restoration on forest health in oak savannas and woodlands in Central Iowa. 2006-2008. USDA Forest Service Forest Health Monitoring Grants, \$80,000.
- The Distribution of Mercury in a Forest Floor Transect. 2005-2007. USDA Forest Service Forest Health Monitoring Grants, \$65,000.
- Integration of Water, Nutrient and Carbon Cycling Under Diverse Annual-Perennial Plant Community Systems in Agricultural Landscapes. 2005-2007. Leopold Center. \$125,000.
- Biocomplexity of Integrated Perennial-Annual Agroecosystems. 2005-2006. National Science Foundation Biocomplexity Program. \$100,000.
- Minnesota Riparian Management Study: Ninth Year Comparison of Harvest Treatment Effects on Forest Regeneration, and Songbird Habitat. 2005-2006. NCASI. \$45,000.
- Testing the Flux Tower Upscaling Hypothesis at a Regional Scale in a Complex Landscape. 2004-2008. NASA Carbon Cycle Science Program. \$891,000.
- Linking Landscape-scale Carbon Monitoring with Forest Management. 2004-2008. NASA Carbon Cycle Science Program. \$1,074,700.
- Measurement of Mercury Mobilization and Accumulation in Fish in Response to Prescribed Fire in a Boreal Forest Ecosystem. 2004-2007. Joint Fire Sciences Program. \$423,000.
- Enhanced Rates of Mercury Methylation from Sulfate Deposition: A Whole Wetland Experiment. 2004-2007. Great Lakes Air Deposition Program. \$225,000.
- Understanding Carbon Pools and Processes in Peatland Watersheds. 2004-2005. Global Climate Change Program. \$200,000.
- Testing the Efficacy of Riparian Buffers for Protecting Seasonal Wetlands. 2003-2004. USDA Forest Service Integrated Programs. \$52,500.
- Soil Compaction Effects on Site Productivity and Organic Matter Storage in Aspen Stands of the Great Lakes States. 2003-2005. USDA Forest Service Forest Health Monitoring Grants. \$114,000.
- Linking Fiber Production and Soil Productivity to Intensity of Silviculture. 2003-2005. Agenda 2020. \$123,500.
- Riparian Zone Silviculture Experiment. 2002. USDA Forest Service. \$57,000.
- Carbon Sequestration on Surface Mine Lands. 2002-2006. US Department of Energy National Energy Technology Laboratory. \$1,479,805.
- Effect of Riparian Zone Width and Disturbance on Water Quality and Stream Communities Following Forest Harvest in Eastern Kentucky Watersheds. 2001-2004. Kentucky State Budget 271 Funds. \$215,000.
- Retirement and Restoration of Forest Roads in Steep Terrain: Influence on Nonpoint Source Pollution and Hillslope Hydrology. 2001. Kentucky Water Resources Research Institute. \$10,000.
- Coarse Woody Debris Cycling in Eastern Kentucky Riparian Zones. 2001. University of Kentucky Undergraduate Research and Creativity Grants. \$3,000.
- Coarse Woody Debris Cycling in Eastern Kentucky Riparian Zones. 2001. Environmental Field Station Grant, Savannah River Site. \$4,000.
- Forestry Student Summer Camp Scholarships. 2001. Kentucky Wood Products Competitive Corporation. \$3,000.
- Forestry Student Summer Camp Scholarships. 2000. Kentucky Wood Products Competitive Corporation. \$4,000.
- Defining Perennial, Intermittent and Ephemeral Channels in Eastern Kentucky; Application to Forestry Best Management Practices. 1999. Kentucky Water Resources Research Institute. \$6,000.
- Site-specific analysis of a wetland restoration project. 1999. University of Kentucky Undergraduate Research and Creativity Grants. \$3,000.
- Impact Assessment of Forest Harvesting on Blanton Forest. 1999. Kentucky State Nature Preserves. \$25,000.
- Recovery and rehabilitation of skid trails and haul roads. 1999. USDA Forest Service. \$37,000.
- USDA Forest Service Equipment Grant. 1998. For purchase of an ICP-AES. \$95,000.

Bottomland hardwood seedbank dynamics along a successional gradient. 1997. Education, Research and Development Association of Georgia Universities (ERDA). \$70,000.

Influence of canopy cover and forest succession on litter decomposition in bottomland hardwood wetlands. 1997. Oak Ridge Institute for Science and Education (ORISE). \$9,000.

Influence of particulates on the transport of mercury through forested watersheds. 1996. Water Resources Research Council (WRRC). \$50,000.