

STEPHEN D. SEBESTYEN, *Research Hydrologist*

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EDUCATIONAL BACKGROUND:

- 2008 PhD, Forest and Natural Resources Management, State University of New York College of Environmental Science and Forestry (SUNY-ESF).
- 2000 MS, Program in Biogeochemistry and Environmental Change, Dept. of Natural Resources, Cornell University.
- 1997 BS, Environmental Science major, Dept. of Geological and Environmental Science, minors in French and Music, Susquehanna University.

PROFESSIONAL EXPERIENCE:

- 2007 to present USDA Forest Service, Research Hydrologist, Grand Rapids, MN. Scientist and co-lead of research planning at the Marcell Experimental Forest (MEF).
- 2005 to 2007 University of California, Berkeley, Dept. of Environmental Science, Policy, and Management, Visiting Graduate Researcher while completing dissertation research in the PhD program at SUNY-ESF.
- 2005 East Asia-Pacific Summer Institute, Kyoto University, Japan, National Science Foundation/Japan Society for the Promotion of Science Fellow.
- 2001 to 2008 SUNY-ESF, Faculty of Forest and Natural Resource Management, graduate research assistant during dissertation research.
- 2001 Oregon State University, Dept. of Forest Engineering, Visiting Grad Student while enrolled in the PhD program at SUNY-ESF.
- 2000 Cornell University, Dept. of Natural Resources (DNR), research assistant for stream habitat assessment and data compilation.
- 2000 Cornell University, DNR, Coldwater Fisheries Research Program, research on the effects of acidic groundwater seepage on brook trout reproduction.
- 2000 SUNY Cortland, Geology, wetlands hydrological technician.
- 1998 to 1999 Cornell University, DNR, graduate research assistant while completing MS thesis research on lakeshore groundwater seepage and biogeochemistry.

PROFESSIONAL ACTIVITIES AND RECOGNITION

HONORS AND AWARDS

- 2013 Early Career Scientist Award from the Director of the Northern Research Station, USDA Forest Service.
- 2008 Forest Service award for contributions to a strategic focus document on the Clean Air and Water Problem Area.
- 2005 East Asia-Pacific Summer Institute fellowship, National Science Foundation/Japan Society for the Promotion of Science.
- 2004 Horton Research Grant awardee from the Hydrology Section of the American Geophysical Union. This award recognizes several doctoral students each year. http://www.agu.org/about/honors/research_grants/horton_recipients.shtml.
- 2003 to 2007 US EPA Science To Achieve Results (STAR) Fellowship.

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- 2003 Albert L. Leaf Memorial Award which is given to a SUNY-ESF doctoral student each year.
- 1999 Summer Graduate Fellowship from the Graduate School, Cornell University.
- 1996 Membership in the National Collegiate Natural Science Award of the United States Achievement Academy.
- 1996 Susquehanna Univ. Summer Undergrad student stipend award.
- 1994 Membership in the Alpha Lambda Delta Honor Society.
- 1993 to 1997 Susquehanna University Scholarship for Distinguished Achievement in Science and Mathematics.

SOCIETY AND PROFESSIONAL ACTIVITIES

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

- 2003 to present International Association of Hydrological Sciences.
- 2002 to present American Association for the Advancement of Science.
- 1997 to present American Geophysical Union (AGU).

PROFESSIONAL SERVICE

- 2013-present Member of the AGU Hydrology Section Water Quality Technical Committee.
- 2013 I co-organized and hosted a group of 10 artists on a tour of the Marcell Experimental Forest for discussions of climate change effects on northern forest within a program titled, "Art from the Edge of the Boreal Forest."
- 2013 Co-organized and led US-Japan Joint Seminar on Responses of Catchment Hydrology and Forest Biogeochemistry to Climatic and Environmental Change. The workshop, funded by NSF and the Japan Society for the Promotion of Science, had 43 participants from the US and Japan, with an emphasis on contributions from early career scientists, postdocs, and students.
- 2012 Convened a conference session at the Society of Freshwater Scientists.
- 2011 Discussion leader for the "Sentinels for the future" session at the Gordon Research Conference on Catchment Sciences: Interactions of Hydrology, Biology & Geochemistry.
- 2011 Participant to Tracking Climate Change Impacts and Vulnerabilities: Physical Climate Indicators for the National Climate Assessment Workshop, National Climate Assessment (NCA) of the US Global Change Research Program, Washington, DC.
- 2010 Participant to the North American regional consultation for the Global Environment Outlook (GEO-5) of the United Nations Environment Programme.
- 2009 Water in a Changing Environment Workshop, Coweeta Hydrologic Laboratory, Otto, NC. Results from this workshop were reported to the Research and Development Office of the Forest Service in a white paper titled, "Can Forest Watershed Management Mitigate Climate Change Impacts on Water Resources?" by Vose JM, Ford CR, Laseter S, Sun G, Adams MG, Dymond S, **Sebestyen SD**, Campbell JL, Luce C.

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- 2009 I contributed key ideas to a proposal that led to successful funding to Gustavus Adolphus College from the National Science Foundation Major Research Instrument Program for an Inductively Coupled Plasma – Mass Spectrometer.
- 2006-present I have organized and convened the pop-up session at the annual Berkeley Catchment Symposium.
- 2006 to 2007 Student member, Executive Committee of the Hydrology Section, AGU. I was the first student member.
- 2004 to present I annually convene conference sessions at American Geophysical Union meetings.

PEER REVIEW

JOURNAL REVIEW: I have reviewed manuscripts for: Advances in Water Research, Biogeochemistry, Biogeosciences, Canadian Journal of Forest Research, Climatic Change, Ecological Applications, Ecological Monographs, Environmental Monitoring and Assessment, Environmental Science & Technology, Environmental Earth Sciences, Environmental Science: Processes & Impacts, Global Change Biology, Groundwater, Hydrological Processes, Hydrology and Earth Systems Science, Isotopes in Environmental and Health Studies, J. of the American Water Resources Association, J. Environmental Quality, J. Geophysical Research, J. Hydrology, PNAS, Sci. of the Total Environment, Water Resources Research, Wetlands.

REVIEWER OF 1 book chapter and 1 conference proceeding.

AD HOC REVIEWER for the National Science Foundation and Canadian Natural Sciences and Engineering Council.

AD HOC REVIEWER of the Fifth Environment Outlook (GEO-V) of the United Nations Environment Programme.

PANEL REVIEWER for the Hydrological Sciences Program at the National Science Foundation, the Forest Investment Account - British Columbia Forest Science Program, and the Northeastern States Research Cooperative.

2010 to present Member of the board of editors for Ecological Research (Springer).

ACADEMIC APPOINTMENTS AND TEACHING ROLES:

FACULTY APPOINTMENTS:

2013 to present Michigan Technological University, Graduate Faculty, Graduate School.

2012 to present Michigan Technological University, Adjunct Assistant Professor, School of Forest Resources and Environmental Science.

2012 to present University of Minnesota, Graduate Faculty, College of Food, Agriculture, and Natural Resource Sciences

2010 to present University of Minnesota, Adjunct Assistant Professor, Dept. of Forest Resources, St. Paul, MN.

2010 to 2012 Bemidji State University, Associate Graduate Faculty, Environmental Studies, Bemidji, MN.

TEACHING ROLES:

2015 University of Minnesota, St. Paul, Classroom lecturer for a course on environmental review.

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- 2014 Lecturer to Iowa State University students on a field tour of the Marcell Experimental Forest (MEF), MN.
- 2013 Lecturer to Itasca Community College students on peatlands ecology and field tour host at the MEF, MN.
- 2013 Host and lecturer to students from Gustavus Adolphus College on field a tour of the MEF.
- 2011 All Employee Climate Change Workshop. A day-long session to train Forest Service, Minnesota Interagency Fire Center, and Michigan Tech. University employees on climate change causes, impacts, and possible responses.
- 2008 to 2012 Annual host and lecturer to hydrology students from St. Cloud State University on field tours of the MEF.
- 2002 and 2004 Assisted with planning and teaching of hydrology field courses at the Sleepers River Research Watershed, Vermont.
- 2002 SUNY-ESF, teaching assistant for Watershed Hydrology. Guest lecture on “Watershed studies.”
- 2001 Assisted with planning and teaching of field course modules at the HJ Andrews Experimental Forest / Long-Term Ecosystem Research Site, Oregon.
- 1999 Cornell University, teaching assistant for Field Biology. Guest lecture on, “A naturalist’s perspective to biogeochemical studies of seepage in Adirondack lakes.”
- 1998 Cornell University, teaching assistant for Aquatic Resource Management.
- 1997 Cornell University, teaching assistant in class and lab for Fisheries Techniques. Guest lecture on “Fish collection techniques: chemicals, explosives, and trot lines.”
- 1997 Susquehanna University, teaching assistant for Watershed Hydrology and Management.

INVOLVEMENT WITH STUDENTS AND POSTDOCTORAL RESEARCHERS:

I collaborate with undergraduate students, graduate students, and postdoctoral researchers on numerous projects, many based on my research program at the MEF.

Post-doctoral advising:

- 2015 to present Dr. Jessica Corman, Univ. of Wisconsin, Madison. Mentors: Stanley EH, **SD Sebestyen**. Dr. Casson explores how Wisconsin lakes have responded to reductions in atmospheric deposition and the mechanisms that drive changes in lake condition.
- 2012 to 2014 Dr. Olha Furman, Univ. of Minnesota, St. Paul, MN. Mentors: B Toner, E Nater, RK Kolka, **SD Sebestyen**. Dr. Furman explores climate effects on mercury and sulfur cycling in northern peatlands.
- 2013 to 2014 Dr. Nora Casson, Univ. of Wisconsin, Madison. Mentors: Stanley EH, **SD Sebestyen**. Dr. Casson explores how Wisconsin lakes have responded to reductions in atmospheric deposition and the mechanisms that drive changes in lake condition.

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- 2010 to 2013 Dr. Alba Argerich, Oregon State University, Corvallis, OR. Mentors: SL Johnson, CC Rhoades, **SD Sebestyen**. Dr. Argerich explored disturbance effects on stream chemistry from 10 Forest Service watershed studies.
- 2009 to 2011 Dr. Effie Greathouse, National Council on Air and Stream Improvement / Oregon State University, Corvallis, OR. Mentors: SL Johnson, CC Rhoades, **SD Sebestyen**. Dr. Greathouse compiled stream chemistry data and metadata from 10 Experimental Forest sites of the Forest Service.

Graduate student committees:

- 2013 to present Matt VanGrinsven, PhD student, Forest Science, Michigan Tech, Houghton, MI. Academic advisor: T Pypker. I advise Matt on his study of forest management on wetland hydrology.
- 2012 to present Ben Roush, MS student, Dept. of Forest Resources, University of Minnesota, St. Paul, MN. Academic advisor: RK Kolka. I advise Ben on the development of his MS research on peatland hydrology at the MEF.
- 2010 to 2014 Salli Dymond, PhD student, degree expected during 2015, Dept. of Forest Resources, University of Minnesota, St. Paul, MN. Academic advisors: PV Bolstad, RK Kolka. I co-drafted a proposal to fund Salli's study of effects of climate variability on tree productivity at the MEF.
- 2010 to 2013 Kathryn Resner, MS student, 2013, Dept. of Soil, Water, and Climate, University of Minnesota, St. Paul, MN. Academic advisor: K Yoo. "Influence of invasive earthworms on inorganic biogeochemical cycles in soils: An application of a geochemical mass balance to an earthworm invasion chronosequence in a sugar maple forest in Northern Minnesota." I advised Kathryn on her study of effects of invasive earthworms on soil geochemistry in forest soils.
- 2010 to 2013 Amy Lyttle, MS student, MS 2013, Dept. of Soil, Water, and Climate, University of Minnesota, St. Paul, MN. Academic advisor: K Yoo. "Carbon-mineral interactions and bioturbation: an earthworm invasion chronosequence in a sugar maple forest in Northern Minnesota." I advised Amy on her study of effects of invasive earthworms on carbon cycling and transport in forest soils.
- 2010 to 2012 Stefan Bischof, MS student, MS 2012, Bemidji State University, MN. Academic advisor: T Kroeger, MA Hanson. "Groundwater exchange in shallow lakes of Itasca State Park and west-central Minnesota." I advised Stefan on a study of effects of groundwater on lake nutrient status.

Graduate student collaborations:

- 2014 to present Jennie Sirota, Dept. of Forest Resources, University of Minnesota, St. Paul, MN. Academic advisor: RK Kolka. I advise Jennie on her study of Hg dynamics in peatlands at the MEF.
- 2012 to present Jake A. Zwart, MS student, Biological Sciences, University of Notre Dame, South Bend, IN. Academic advisor: SE Jones. I advise Jake's research aimed at quantifying pathways of dissolved organic matter transport to a lake at the University of Notre Dame Environmental Research Center.
- 2009 to 2011 Matthew Bischof, 2011 MS, Dept. of Biology, North Dakota State University, Fargo, ND. Academic advisor: M Butler. "Influence of adjacent uplands and

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- groundwater on the hydrology and invertebrate community composition in seasonal forest ponds of north central Minnesota.” I advised Matt on his study, reviewed his thesis, and participated in his thesis exam.
- 2009 to 2010 Philipp Rauneker, 2010 Diploma Thesis, Institute of Hydrology, University of Freiburg, Germany. Academic advisor: M Weiler. “Subsurface flow and soil moisture responses to the clearcut harvest and forest conversion of a deciduous forest.” I designed the study and advised Philipp during his stay at the MEF.
- 2009 to 2010 Dr. Martin TK Tsui, Dept. of Ecology, Evolution, and Behavior, University of Minnesota, St. Paul, MN. Academic advisor: JC Finlay. Martin collaborated on a study of mercury transport at the MEF while completing his PhD program.
- 2009 to 2010 Katelyn Fitzgerald Watson, 2010 MS, Geological and Mining Engineering and Sciences, Michigan Technological University, Houghton, MI, Academic advisor AS Mayer. Katelyn collaborated on a study of hydrological transport across dynamic interface zones between upland and peatland ecosystems.
- 2008 to 2011 Joseph Shannon, 2011 MS, University of Minnesota, Dept. of Forest Resources, St. Paul, MN. Academic advisor: KN Brooks. “Transpiration and water yield changes following forest canopy conversion in northern Minnesota.” I guided Joe’s research, reviewed his thesis, and participated in his thesis exam.

Undergraduate research advising:

- 2011 Bradley Baker, 2011 BS, Earth and Atmospheric Sciences, St. Cloud State University, St. Cloud, MN. Academic advisor: JJ Fedele. I coordinated data sharing with Brad and reviewed his thesis.
- 2011 Jake A. Zwart, 2011 BS, Calvin College, Grand Rapids, MI while attending the University of Notre Dame Practicum in Field Biology. Academic advisor: SE Jones (Notre Dame University). I taught Jake how to measure and interpret data on lake hydrology.
- 2009 to 2010 Joshua R Prososki, 2010 BS, Earth and Atmospheric Sciences, St. Cloud State University, St. Cloud, MN. Academic advisor: JJ Fedele. I planned and advised his study of mixing processes that affect water transport through catchments at the MEF.

PRESENTATIONS

Presentations were oral unless otherwise noted.

INVITED PRESENTATIONS:

01. **Sebestyen SD**, Griffiths NA. Interactions between water flowpaths and subsurface biogeochemistry that drive solute yields from northern peatland catchments. 2014 International Annual Meetings of the American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America, Long Beach, CA, Nov 2014.
02. Dymond SF, Kolka RK, **Sebestyen SD**, Campbell JL, Rustad LE, Green MB. Climate change effects on hydrologic processes in northern forests. 2014 Ecological Society of America (ESA) Annual Meeting, Sacramento, CA, Aug 2014 [student presentation by Dymond].

03. Campbell JL, Rustad LE, Adams MB, Brissette JB, Hollinger DY, Kabrick JM, Kolka RK, Martin ME, Schuler TM, **Sebestyen SD**. Environmental sensor applications at experimental forests: The Smart Forest Network. 2014 ESA Annual Meeting, Sacramento, CA, Aug 2014 [presented by Dr. Campbell].
04. Toner BM, Furman O, Kolka RK, Nater EA, **Sebestyen SD**. Mercury and sulfur cycling in a peatland soil: A warming and carbon dioxide enhancement study. World Congress of Soil Science, Jeju, Korea, Jun 2014 [presented by Dr. Toner].
05. Toner BM, Furman O, Kolka RK, Nater EA, **Sebestyen SD**. Mercury and sulfur cycling in a peatland soil: A warming and carbon dioxide enhancement study. Canadian Light Source, Saskatoon, Saskatchewan, Canada, Apr 2014 [presented by Dr. Toner].
06. **Sebestyen SD**. Forest management effects on watershed hydrology. *Plenary*. Upper St. Croix Basin Forestry Conference, Hinckley, MN, Feb 2014.
07. **Sebestyen SD**. Coupled hydrological and biogeochemical processes that determine when and where unprocessed atmospheric nitrate is transported to streams. Kent State University, Jan 2014.
08. **Sebestyen SD**. Transport and cycling of mercury in peatland watersheds; An overview of Hg research at the Marcell Experimental Forest. Oak Ridge National Lab, TN, Oct 2013.
09. Griffiths NA, **Sebestyen SD**. Spatial and temporal variation in peat pore water chemistry of a northern peatland: Reference conditions of a large-scale climate change experiment (SPRUCE). ESA 98th Annual Meeting, Minneapolis, MN, Aug 2013 [presented by Dr. Griffiths].
10. Kolka RK, Hanson PJ, **Sebestyen SD**. Marcell Experimental Forest, USDA Forest Service peatland research past and present. ESA 98th Annual Meeting, Minneapolis, MN, Aug 2013 [presented by Dr. Kolka].
11. Hanson PJ, Barbier C, Riggs JS, Kolka RK, **Sebestyen SD**, Griffiths NA, Iversen CM, Warren JM, Weston DJ, Norby RJ. Whole-ecosystem warming and CO₂ manipulation to assess ombrotrophic bog responses to hypothetical future environments. ESA 98th Annual Meeting, Minneapolis, MN, Aug 2013 [presented by Dr. Hanson].
12. Yoo K, Resner KE, Lyttle A, Hale C, Aufedenkampe AK, **Sebestyen SD**. Feedbacks between biological retention of nutrients, carbon-mineral sorption, and pore space generation along an earthworm invasion chronosequence. 2013 Goldschmidt Conference, Florence, Italy [published abstract, *Mineralogical Magazine*, 77:5, 2563; presented by Dr. Yoo].
13. **Sebestyen SD**. The SPRUCE Experiment at the Marcell Experimental. Earth and Environmental Sciences, University of Michigan, Ann Arbor, May 2013.
14. **Sebestyen SD**. An Overview of the SPRUCE Experiment at the Marcell Experimental. 2013 Annual Conference, Minnesota Master Naturalist program, Bemidji, MN, May 2013.
15. Pellerin BA, Shanley JB, Saraceno J, Aiken, GR, **Sebestyen SD**, Bergamaschi BA. Relationships between dissolved organic matter and discharge: New insights from in-situ measurements in a northern forested watershed. AGU Fall Meeting, San Francisco, CA, Dec 2012 [published abstract H11L-03, *EOS Trans. AGU*; presented by Dr. Pellerin].

16. **Sebestyen SD.** Identifying when, where, and why atmospheric nitrate is directly transported to streams in nitrogen polluted forests. Rocky Mountain Research Station, USDA Forest Service, Ft. Collins, CO, Oct 2012.
17. **Sebestyen SD.** Identifying when, where, and why atmospheric nitrate is directly transported to streams in nitrogen polluted forests. Dept. of Land Resources & Environmental Sciences, Montana State University, Bozeman, MT, Sep 2012.
18. Campbell JL, **Sebestyen SD**, Boose ER, Wolheim W, Stanley EH. Climate change, snowpacks, and biogeochemical cycling in northern temperate forest ecosystems. ESA 97th Annual Meeting, Portland, OR, Aug 2012 [presented by Dr. Campbell].
19. **Sebestyen SD.** Identifying when, where, and why atmospheric nitrate is directly transported from atmospheric deposition to streams in forests. School of Forest Resources and Environmental Sciences, Michigan Tech University, Houghton, MI, Mar 2012.
20. **Sebestyen SD.** Identifying when, where, and why atmospheric nitrate is directly transported to streams in nitrogen polluted forests of the northeastern and midwestern USA. Dept. of Plant and Soil Sciences, University of Delaware, Newark, DE, Mar 2012.
21. **Sebestyen SD.** An overview of the SPRUCE project, a large-scale study of increased temperature and carbon dioxide effects on a northern peatland. Seminar Series, North Central Outreach and Research Center, Univ. of Minnesota, Grand Rapids, MN, Feb 2012.
22. **Sebestyen SD.** Identifying when, where, and why atmospheric nitrate is directly transported through catchments to streams. AGU Fall Meeting, San Francisco, CA, Dec 2011 [published abstract B12D-07, EOS Trans. AGU].
23. **Sebestyen SD.** Long-term research at an experimental forest in northern Minnesota: Research in forest and peatland hydrology for scientific discovery and informed management decisions. Dept. of Earth and Atmospheric Sciences, St. Cloud State University, St. Cloud, MN, Nov 2011.
24. **Sebestyen SD.** Assessing effects of climatic change on water and carbon at peatland catchments of the Marcell Experimental Forest in northern Minnesota. Geological Society of America Annual Meeting 2011, Minneapolis, MN, Oct 2011.
25. **Sebestyen SD.** Long-term research at an experimental forest in Northern Minnesota: A foundation in forest and peatland hydrology sets the stage for large-scale, climate-effect experiments. Penn State Institutes of Energy and the Environment and Civil Engineering, Penn State University, University Park, PA, Mar 2011.
26. **Sebestyen SD.** Long-term research at the Marcell Experimental Forest: Forest hydrology, ecosystem science, and climate-effect experiments. US Geological Survey, Moundsview, MN, Mar 2011.
27. **Sebestyen SD.** Long-term changes of dissolved organic matter efflux from peatland catchments in northern Minnesota. Water Resources Science Graduate Program, University of Minnesota, St. Paul, MN, Feb 2011.
28. **Sebestyen SD.** Synthesizing data on stream flow and chemistry at research watersheds to assess effects of atmospheric deposition and environmental change. Annual Meeting and Scientific Symposium: Networking the Networks, National Atmospheric Deposition Program, Lake Tahoe, CA, Oct 2010. <http://nadp.sws.uiuc.edu/meetings/fall2010/post/session2/Sebestyen.pdf>.

29. **Sebestyen SD.** The hydrology and biogeochemistry of bog watersheds in northern Minnesota; Findings from long-term studies and experiments at the Marcell Experimental Forest. Understanding the Vegetation and Hydrology of Upper Midwest Wetlands. Carlton, MN, Sep 2010.
30. **Sebestyen SD.** Watershed experiments: Assessing climate impacts and effects of atmospheric pollutants. US Geological Survey, Reston, VA, Sep 2010.
31. **Sebestyen SD.** The SPRUCE Experiment at the Marcell Experimental Forest. Video teleconference. First Friday All Climate Change Talks, USDA Forest Service, Eastern Forest Environmental Threat Center, Southern Research Station, Sep 2010.
32. **Sebestyen SD.** The SPRUCE Experiment at the Marcell Experimental Forest. Carbon Sequestration Team and the Interagency Carbon Sequestration Team, Minnesota Dept. of Natural Resources, St. Paul, MN, Aug 2010.
33. **Sebestyen SD.** The SPRUCE Experiment. Northern Research Station Peatland Research Program and Carbon Storage Workshop, Bovey, MN, Apr 2010.
34. **Sebestyen SD,** Campbell JL, Shanley JB, A Pourmokhtarian, CT Driscoll, Boyer EW. Stream nitrate responses to hydrological forcing and climate change in northern forests of the USA. AGU Fall Meeting, San Francisco, CA, Dec 2009 [published abstract H41J-02, EOS Trans. AGU, 90(52)].
35. **Sebestyen SD.** Using long-term and large scale catchment studies to assess ecosystem responses to disturbance. Physical Geography Lecture Series, University of Toronto, Ontario, Canada, Oct 2009.
36. Shanley JB, Aiken GR, Dittman JA, **Sebestyen SD,** Pellerin BA, Marvin-Dipasquale M, Schuster PF. Total mercury and methylmercury export from terrestrial uplands in a changing climate. AGU/CGU/GAC/IAH-CNC/MAC/SEG/MSA/GS Joint Assembly, Toronto, Ontario, Canada, May 2009 [published abstract B13D-03, EOS Trans. AGU, 90(22), presented by Dr. Shanley].
37. **Sebestyen SD,** Shanley JB, Pellerin BA, Saraceno J, Aiken GR, Boyer EW, Doctor DH, and Kendall C. Complex catchment processes that control stream nitrogen and organic matter concentrations in a northeastern USA upland catchment. AGU/CGU/GAC/IAH-CNC/MAC/SEG/MSA/GS Joint Assembly, Toronto, Ontario, Canada, May 2009 [published abstract H31D-01, EOS Trans. AGU, 90(22)].
38. **Sebestyen SD,** Shanley JB, Boyer EW, Kendall C. Effects of atmospheric nitrate on a temperate uplands stream of the northeastern USA. AGU/CGU/GAC/IAH-CNC/MAC/SEG/MSA/GS Joint Assembly, Toronto, Ontario, Canada, May 2009 [published abstract B32A-01, EOS Trans. AGU, 90(22)].
39. **Sebestyen SD.** Sources and hydrological processes that affect stream nitrate and dissolved organic matter concentrations. Ecology, Evolution, and Behavior; University of Minnesota, St. Paul, MN, Feb 2009.
40. **Sebestyen SD,** Kolka RK. Controls on dissolved organic carbon transport in forested headwater streams. GSA/SSSA/ASA/CSSA Joint Annual Meeting, Houston, TX, Oct 2008 [presented by Dr. Kolka].
41. Shanley JB, Dittman JA, Aiken GR, Driscoll CT, Pellerin BA, McGuire KJ, **Sebestyen SD,** Seraceno J. Mercury and organic matter interactions at three northern forest sites along a

- wetland gradient. Northeastern Ecosystem Research Cooperative, Durham, NH, Nov 2008 [presented by Dr. Shanley].
42. **Sebestyen SD.** Quantifying direct contributions of atmospheric nitrate to forest streams at the catchment scale: examples from the Sleepers River Research Watershed, Vermont. Thunder Bay, Ontario, Canada, Lakehead University, May 2008.
 43. **Sebestyen SD.** Quantifying catchment-scale atmospheric N contributions to forest streams during storm flow events. Center for Limnology, University of Wisconsin, Madison, WI, Apr 2008.
 44. **Sebestyen SD.** Using high-frequency hydrochemical data to quantify sources of stream nitrate. Examples from the Sleepers River Research Watershed. St. Croix Watershed Research Station of the Science Museum of Minnesota, Marine on St. Croix, MN, Jan 2008.
 45. **Sebestyen SD.** Using high-frequency hydrochemical data to quantify sources of stream nitrate. Examples from the Sleepers River Research Watershed. Generalizing riparian zone function at the landscape scale: New tools, new approaches, gaps in knowledge and future research directions, National Science Foundation Workshop, Indianapolis, IN, Jan 2008.
 46. Shanley JB, **Sebestyen SD**, Boyer EW, Ross D. Solute flushing - a hydrobiogeochemical phenomenon. AGU Fall Meeting, San Francisco, CA, Dec 2005 [published abstract H22B-03, EOS Trans. AGU, 86(52), presented by Dr. Shanley].
 47. Boyer EW, Alexander RB, **Sebestyen SD**. It's all about connections: coupled hydrological and biogeochemical cycles affecting delivery of nitrogen to surface waters. AGU Fall Meeting, San Francisco, CA, Dec 2005 [published abstract B33G-04, EOS Trans. AGU, 86(52), presented by Dr. Boyer].
 48. **Sebestyen SD**, Ohte N, Boyer EW, Shanley JB, Kendall C. Tracing nitrogen sources and movement in forested catchments: atmospheric deposition and streamflow dynamics. Lab of Forest Hydrology, Kyoto University, Kyoto, Japan, Aug 2005.
 49. Boyer EW, Alexander RB, **Sebestyen SD**. Apportioning sources of riverine nitrogen at multiple watershed scales. AGU Joint Assembly, New Orleans, LA, May 2005 [published abstract NB31D-05, EOS Trans. AGU, 86(18), presented by Dr. Boyer].
 50. Shanley JB, Webb RM, Hjerdt KN, **Sebestyen SD**, Peters NE, Burns DA, Aulenbach, BT, Campbell DH, Clow DW, Mast MA, Walker JF, Hunt RJ, Troester J, Larsen MC. Hydrologic biogeochemical connections between uplands streams in contrasting landscapes. AGU Fall Meeting, San Francisco, CA, Dec 2004 [published abstract H44B-01, EOS Trans. AGU, 85(47), presented by Dr. Shanley].
 51. **Sebestyen SD.** Tracing nitrogen movement in forested watersheds. Program in Biogeochemistry and Environmental Biocomplexity Seminar Series, Cornell University, Ithaca, NY, Sept 2004.
 52. **Sebestyen SD**, Johnson SL, McDonnell JJ and McGuire KJ. Chemical signatures in stream networks: Sub-basin sizes and patterns of water chemistry in the Lookout Creek Basin, Oregon, USA. Poster. American Geophysical Union (AGU) Spring Meeting 2002, Washington DC, May 2002 [published abstract H42D-03, EOS Trans. AGU, 83(19)].

OFFERED PRESENTATIONS:

01. **Sebestyen SD**, Kolka RK. 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 the Watersheds. Charleston, SC, Mar 2015.
02. Casson NJ, **Sebestyen SD**, Kolka RK, Stanley EH. Hydrological and landscape controls on the chemical response of lakes in northern Wisconsin to environmental pressures. Poster. AGU Fall Meeting, San Francisco, CA, Dec 2014 [published abstract H13K-1233, EOS Trans, presented by Dr. Casson].
03. Bolton N, Van Grinsven M, Shannon J, Davis J, **Sebestyen SD**, Kolka RK, Wagenbrenner J, Pypker T. Unexpectedly high methane emissions through black ash lenticels in forest wetlands of northern Michigan. Poster. AGU Fall Meeting, San Francisco, CA, Dec 2014 [published abstract GC21D-0589, EOS Trans, student presentation by Bolton].
04. Van Grinsven M, Bolton N, Davis J, Wagenbrenner J, **Sebestyen SD**, Kolka RK, Pypker T. Water table and soil gas emission responses to disturbance in northern forested wetlands. Poster. AGU Fall Meeting, San Francisco, CA, Dec 2014 [published abstract B23E-259, EOS Trans, presented by Dr. Pypker].
05. Furman O, Toner BM, Sebestyen SD, Kolka RK, Nater EA. Sulfur speciation in peat: a time-zero signature for the SPRUCE experiment. Poster. AGU Fall Meeting, San Francisco, CA, Dec 2014 [published abstract B43C-0257, EOS Trans, presented by Dr. Toner].
06. Nater EA, Furman O, Toner BM, **Sebestyen SD**, Tfaily MM, Chanton JP, Fissore C, McFarlane KJ, Hanson PJ, Iversen C, Kolka RK. Elucidating effects of atmospheric deposition and peat decomposition processes on mercury accumulation rates in a northern Minnesota peatland over last 10,000 cal years. Poster. AGU Fall Meeting, San Francisco, CA, Dec 2014 [published abstract B43F-301, EOS Trans, presented by Dr. Nater].
07. **Sebestyen SD**, Griffiths NA. Water and solute connectivity in northern peatlands of Minnesota; Assessing how hydrological connectivity affects solute yields from peatland catchments and responds to climate change. Poster. AGU Fall Meeting, San Francisco, CA, Dec 2014 [published abstract H31F-676, EOS Trans, presented by Dr. Sebestyen].
08. Rustad L, Campbell JL, Kolka RK, Adams MB, Schuler T, Hallett R, Hollinger D, Kabrick JM, **Sebestyen SD**, Martin M, Brissette JB. Environmental sensor applications at USDA Forest Service experimental forests: The Smart Forest Network. 2014 International Annual Meetings of the American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America, Long Beach, CA, Nov 2014 [presented by Dr. Rustad].
09. Bolton N, Davis J, Shannon J, Van Grinsven M, Wagenbrenner J, **Sebestyen SD**, Kolka RK, Pypker T. Microsite implications for seedling survival following simulated short and long-term emerald ash borer invasion. Poster. Science in the Northwoods Conference, Boulder Junction, WI, Oct 2014 [student presentation by Bolton].
10. Van Grinsven M, Bolton N, Davis J, Shannon J, Wagenbrenner J, **Sebestyen SD**, Kolka RK, Pypker T. Hydrology of black ash wetlands and water table responses to a simulated emerald ash borer disturbance in the Upper Peninsula of Michigan. Poster. Science in the Northwoods Conference, Boulder Junction, WI, Oct 2014 [student presentation by Van Grinsven].

11. Furman O, Tfaily M, Toner BM, Nater EA, **Sebestyen SD**, Chanton JP, Kolka RK. Speciation of mercury and sulfur in Northern Peatlands. Goldschmidt Conference, Sacramento, CA, Jun 2014 [presented by Dr. Furman].
12. Griffiths NA, **Sebestyen SD**. Vertical profiles of peat pore water chemistry in an ombrotrophic peatland and expected vulnerabilities to climate change. Joint Aquatic Sciences Meeting, Portland, OR, May 2014 [presented by Dr. Griffiths].
13. Casson NJ, **Sebestyen SD**, Stanley EH, Kolka RK. Landscape controls on the sensitivity of seepage lake chemistry to environmental change. Sciences Meeting, Portland, OR, May 2014 [presented by Dr. Casson].
14. Oda T, Urakawa R, Green M, Ohte N, Endo I, Scanlon T, **Sebestyen SD**, McGuire KJ, Katsuyama M, Fukuzawa K. Hydrological and nitrate recovery times after forest disturbance in US and Japan. 6th International Congress of East Asian Federation of Ecological Societies, Hainan, China, Apr 2014 [presented by Dr. Oda].
15. **Sebestyen SD**. Using nitrate isotopes to distinguish pathways along which unprocessed atmospheric nitrate is transported through forests to streams. AGU Fall Meeting, San Francisco, CA, Dec 2013 [published abstract B42D-04, EOS Trans].
16. Furman O, Nater EA, Toner BM, **Sebestyen SD**, Tfaily M, Chanton JP, Kolka RK. Estimating effects of atmospheric deposition and peat decomposition processes on mercury and sulfur accumulation and retention in northern peatlands, Minnesota. Poster. AGU Fall Meeting, San Francisco, CA, Dec 2013 [published abstract B41C-0411, EOS Trans, presented by Dr. Furman].
17. Oda T, Green M, Ohte N, Urakawa R, Endo I, Scanlon TM, Sebestyen SD, McGuire KJ, Katsuyama M, Fukuzawa K, Tague C, Hiraoka M, Fukushima K, Giambelluca. Comparison of methods for determining the hydrologic recovery time after forest disturbance. Poster. AGU Fall Meeting, San Francisco, CA, Dec 2013 [published abstract H11D-1179, EOS Trans, presented by Dr. Oda].
18. Jones JA., Creed IF, Spargo AT, Buttle JM, Adams MA, Beall FD, Booth E, Campbell JL, Clow DW, Elder K, Ford CR, Grimm NB, Ramlal P, Saha A, **Sebestyen SD**, Spittlehouse D, Sterling SM, Williams MW, Winkler RD, Yao H. Changing forest water yields in response to climate warming: Results from long-term experimental watershed sites across North America AGU Fall Meeting, San Francisco, CA, Dec 2013 [published abstract H14C-04, EOS Trans].
19. Resner KE, Yoo A, Lyttle A, Hale C, Aufdenkampe A, **Sebestyen SD**. Volumetric change and losses of nutrient elements along an earthworm invasion chronosequence in a northern hardwood forest in Minnesota. Poster. ESA 98th Annual Meeting, Minneapolis, MN, Aug 2013 [presented by Resner].
20. **Sebestyen SD**, Shanley JB. Effects of nitrate source variation on interpretations of concentration-discharge hysteresis loops to decipher catchment processes. Poster. Gordon Research Conference: Catchment Sciences, Andover, NH, Jun 2013.
21. Johnson SL, Arismendi I, Argerich A, Dunham J, Rhoades CC, **Sebestyen SD**. Evaluating long term trends in stream temperature and nutrient concentrations: Are we detecting responses to changing climate? Annual Meeting 2013, Society of Freshwater Sciences, Jacksonville, FL, May 2013 [presented by Dr. Johnson].

22. Mitchell CPJ, Haynes K, Mazur M, Fidler N, Eckley C, Kolka RK, Eggert S, **Sebestyen SD**. Forestry impacts on mercury mobility, methylation, and bioaccumulation – A field experiment with enriched stable mercury isotope additions. General Assembly 2013, European Geosciences Union, Vienna, Austria, Apr 2013 [presented by Dr. Mitchell].
23. **Sebestyen SD**. Processes driving long-term trends of dissolved organic matter efflux from peatland catchments: Climatic or atmospheric drivers? US-Japan Joint Seminar on Responses of Catchment Hydrology and Forest Biogeochemistry to Climatic and Environmental Change. Honolulu, HI, Mar 2013.
24. **Sebestyen SD**, Shanley JB. Effects of biogeochemical transformations, source variation, and flowpath routing on interpretations of concentration-discharge hysteresis loops to decipher catchment processes. Poster. AGU Fall Meeting, San Francisco, CA, Dec 2012 [published abstract H11L-03, EOS Trans.]
25. Resner K, Yoo K, Lyttle A, Aufdenkampe AK, **Sebestyen SD**. Soil and elemental mixing rates across an earthworm invasion chronosequence. Poster. AGU Fall Meeting, San Francisco, CA, Dec 2012 [published abstract EP43A-0863, EOS Trans, student presentation by Resner]
26. Lyttle A, Yoo K, Aufdenkampe AK, **Sebestyen SD**, Hale C. Interactions between organic matter and mineral surfaces along an earthworm invasion gradient in a sugar maple forest of Minnesota. Poster. AGU Fall Meeting, San Francisco, CA, Dec 2012 [published abstract H11L-03, EOS Trans, student presentation by Lyttle]
27. Jeremiason JD, Seelen E, Agather E, Carlson B, Mitchell CPJ, **Sebestyen SD**. Methylmercury formation in biogeochemical hot spots in an ombrotrophic peatland. Poster. Geological Society of America (GSA) Annual Meeting 2012, Charlotte, NC, Nov 2012 [presented by Dr. Jeremiason].
28. Agather A, Seelen E, Carlson B, Jeremiason, JD, **Sebestyen SD**. Relationships between organic matter and trace elements in an ombrotrophic bog. Poster. GSA Annual Meeting 2012, Charlotte, NC, Nov 2012 [undergraduate presentation by Agather].
29. Seelen E, Agather A, Carlson B, Jeremiason JD, **Sebestyen SD**. Spatial distributions and yields of Hg and trace elements from an ombrotrophic peatland. Poster. GSA Annual Meeting 2012, Charlotte, NC, Nov 2012 [undergraduate presentation by Seelen].
30. Kolka RK, Hanson PJ, Iversen C, **Sebestyen SD**, Norby RJ, Palik BJ, Thornton PE, Warren J, Wullschleger S, Hook L. Spruce-Peatland Responses Under Climatic and Environmental change: an *in situ* warming by CO₂ manipulation of a forest bog in northern Minnesota. Poster. GSA/SSSA/ASA/CSSA Joint Annual Meeting, Cincinnati, OH, Oct 2012 [presented by Dr. Kolka].
31. Zwart JA, Solomon CT, Weidel BC, **Sebestyen SD**, Coloso JJ, Jones SE. Lake hydrology determines organic carbon sources and retention in a small northern seepage lake. Poster. Global Lake Ecological Observatory Network, Mulranny, Ireland, Oct 2012 [student presentation by Zwart].
32. Johnson SL, Rhoades CC, **Sebestyen SD**, Argerich A, Greathouse E, Viehdorfer M, Adams MB, Amatya DM, Campbell JL, Jones JB, Knoepp JB, Likens GE, McDowell WH, Scatena FN, Wohlgemuth PM, Wright DK, Ice GG. StreamChemDB: A web-accessible stream chemistry database. Poster. Long-Term Ecological Research All Scientist Meeting, Estes Park, CO, Sep 2012 [presented by Dr. Johnson and Argerich].

33. Argerich A, Johnson SL, **Sebestyen SD**, Rhoades CC, Greathouse E, Wohlgemuth PM, Scatena FN, McDowell WH, Likens GE, Knoepp JB, Jones JB, Ice GG, Campbell JL, Amatya DM, Adams MB. Effects of forest disturbances on stream nitrate concentrations and fluxes. Poster. ESA 97th Annual Meeting, Portland, OR, Aug 2012 [presented by Dr. Argerich].
34. **Sebestyen SD**, Shanley JB, Ross DS, Elliott EM, Kendall C, Boyer EW. Identifying when, where, and why atmospheric nitrate is directly transported to streams in nitrogen polluted forests. Biogeomon, Lincolnville, ME, Jul 2012.
35. **Sebestyen SD**, Kolka RK, Hanson PJ, Iversen C, Norby RJ, Palik BJ, Thornton PE, Warren J, Wulschleger S, Hook L. Spruce-Peatland Responses Under Climatic and Environmental Change (SPRUCE Experiment): An *in situ* warming by CO₂ manipulation of a characteristic high-carbon ecosystem. Biogeomon, Lincolnville, ME, Jul 2012.
36. Shanley JB, Pellerin BA, **Sebestyen SD**, McGuire KJ. Hysteria over hysteresis: What does it tell us about solute sources? 49th Annual Meeting of Hubbard Brook Cooperators, Campton, NH, Jul 2012 [presented by Dr. Shanley].
37. Rhoades CC, **Sebestyen SD**, Johnson SL, Argerich A. Variability in stream nitrogen and phosphorus at US Forest Service Experimental Forests: Relevance to proposed stream nutrient criteria. 2012 Annual Meeting, Society for Freshwater Sciences, Louisville, KY, May 2012.
38. **Sebestyen SD**, Shanley JB, Ross DS, Elliott EM, Kendall C, Boyer EW. Identifying when, where, and why atmospheric nitrate is directly transported to streams in nitrogen polluted forests. 2012 Annual Meeting, Society for Freshwater Sciences, May 2012.
39. Greathouse E, Johnson SL, Henshaw D, **Sebestyen SD**, Rhoades CC, McDowell WH, Jones JB, Ice GG, Argerich A. StreamChemDB: development of a web-accessible database of stream chemistry for U.S. Forest Service Experimental Forests and National Science Foundation Long-Term Ecological Research sites. 8th National Monitoring Conference, Portland, OR, Apr-May 2012 [presented by Dr. Greathouse].
40. Argerich A, Johnson SL, **Sebestyen SD**, Rhoades CC, Greathouse E, Adams MB, Amatya DM, Campbell JL, Ice GG, Jones JB, Knoepp JB, Likens GE, McDowell WH, Wohlgemuth PM. Temporal trends in stream N concentrations and biogeochemical responses to disturbances in long term reference watersheds. Poster. 8th National Monitoring Conference, Portland, OR, Apr-May 2012 [presented by Dr. Argerich].
41. Kolka RK, **Sebestyen SD**, Mitchell CPJ, Nater EA, Branfireun B, Hanson PJ. Poster. Understanding peatland mercury cycles under elevated carbon dioxide and soil warming: Introduction of the SPRUCE experiment. Poster. 8th National Monitoring Conference, National Water Quality Monitoring Conference, Portland, OR, Apr-May 2012 [presented by Dr. Kolka].
42. Seelen E, Agather A, Jeremiason JD, **Sebestyen SD**, Carlson B. Methylmercury dynamics in the porewaters of an ombrotrophic peatland. Poster. Geological Society of America (GSA) North-Central Regional Conference, Dayton, OH, Apr 2012 [undergraduate presentation by Seelen].
43. Alverson, N, Olson N, Jeremiason JD, Seelen E, **Sebestyen SD**. Mercury, methylmercury, and trace metals in peat and soils from the S2 watershed. GSA North-Central Regional Conference, Dayton, OH, Apr 2012 [undergraduate presentation by Alverson].

44. Kolka RK, Hanson PJ, Iversen C, **Sebestyen SD**, Norby RJ, Palik BJ, Thornton PE, Warren J, Wullschleger S, Hook L. Spruce-Peatland Responses Under Climatic and Environmental change: an *in situ* warming by CO₂ manipulation of a northern Minnesota bog. Poster. St. Louis River Estuary Science Summit, Superior, WI, Mar 2012 [presented by Dr. Kolka].
45. Pourmokhtarian A, Driscoll CT, Campbell JL, Hayhoe K, Shanley JB, **Sebestyen SD**. Cross site analysis of forested watersheds in the northeastern U.S. to climate change and increasing CO₂ over the 21st century using a dynamic biogeochemical model (PnET-BGC). AGU Fall Meeting, San Francisco, CA, Dec 2011 [published abstract H21K-08, student presentation by Pourmokhtarian].
46. Shanley JB, **Sebestyen SD**, Aiken GR, Pellerin BA. DOC quantity and quality in northeastern USA catchments. AGU Fall Meeting, San Francisco, CA, Dec 2011 [published abstract B54A-04, presentation by Dr. Shanley].
47. Rhoades CC, Johnson SL, **Sebestyen SD**, Argerich A, Edwards P, Greathouse E, Ice GG, Knoepp J, Amaty DM, Wohlgemuth PM. Variability in stream nitrogen at US Forest Service Experimental Forests: Relevance to proposed stream nutrient criteria. Poster. AGU Fall Meeting, San Francisco, CA, Dec 2011 [published abstract B43D-0313].
48. Resner K, Yoo K, **Sebestyen SD**, Aufdenkampe AK, Lyttle A, Weinman BA, Blum A, Hale CM. Soil chemical weathering and nutrient budgets along an earthworm invasion chronosequence in a northern Minnesota forest. Poster. AGU Fall Meeting, San Francisco, CA, Dec 2011 [published abstract B33C-0469, student presentation by Resner].
49. Argerich A, Johnson SL, **Sebestyen SD**, Rhoades CC, Greathouse E, Jones J, Knoepp J, Adams MB, Likens G, Campbell JL, McDowell WH, Ice GG, Amaty, DM, Wohlgemuth PM. Temporal trends in stream N concentrations and responses to disturbances in US forested basins. Poster. AGU Fall Meeting, San Francisco, CA, Dec 2011 [published abstract B13G-0648, presentation by Dr.'s Johnson and Sebestyen].
50. Lyttle A, Yoo K, Aufdenkampe AK, Hale CM, **Sebestyen SD**. Earthworm species influence on carbon-mineral association in a sugar maple forest in northern Minnesota. Poster. AGU Fall Meeting, San Francisco, CA, Dec 2011 [published abstract B11A-0470, student presentation by Lyttle].
51. **Sebestyen SD**, Mulholland PJ, Griffiths N, Hanson PJ, Warren JM, Kolka RK. Water research objectives of the SPRUCE experiment, a developing large-scale study of climate change effects on a northern peatland. Poster. Global change effects on aquatic ecosystems: Insights into controls on ecosystem functions and implications to their protection, conservation and restoration; A symposium inspired by the work of Patrick J. Mulholland, Oak Ridge, TN, Nov 2011.
52. Yanai RD, Campbell JL, Green MB, Levine CR, Burns DA, LaDeau SL, Adams MB, Buso DC, Harmon ME, Likens GE, McDowell WH, Parman J, **Sebestyen SD**, Shanley JB, Vose JM, Williams MW. QUEST: Quantifying Uncertainty in Ecosystem Studies. ASA-CSSA-SSSA International Annual Meetings, San Antonio, TX, Oct 2011.
53. Resner K, Yoo K, **Sebestyen SD**, Aufdenkampe AK, Blum AE, Hale C. Differences in soil chemical weathering and nutrient fluxes along an earthworm invasion chronosequence in a Minnesota sugar maple forest. Poster. GSA Annual Meeting 2011, Minneapolis, MN, Oct 2011 [student presentation by Resner].

54. Lyttle A, Yoo K, Aufdenkampe AK, Hale C, **Sebestyen SD**. Organic-mineral interactions along an earthworm invasion chronosequence. Poster. GSA Annual Meeting 2011, Minneapolis, MN, Oct 2011 [student presentation by Lyttle].
55. Levine CR, Campbell JL, Yanai RD, Green MB, Adams MB, Burns DA, Buso DC, Harmon ME, LaDeau SL, Likens GE, McDowell WH, Parman J, **Sebestyen SD**, Shanley JB, Vose JM, Williams MW. Quantifying Uncertainty in Ecosystem Studies (QUEST): A cross-site comparison of watershed input-output budgets. ESA Annual Meeting 2011, Austin, TX, Aug 2011 [student presentation by Levine].
56. Campbell JL, Likens GE, Buso DC, **Sebestyen SD**. Climate-induced changes in the timing of streamwater nutrient export at the Hubbard Brook Experimental Forest, NH, USA. Poster. ESA Annual Meeting 2011, Austin, TX, Aug 2011 [presented by Dr. Campbell].
57. Kolka RK, **Sebestyen SD**, Mitchell CPJ, Nater EA, Branfireun B, Hanson PJ. Mercury processes under elevated carbon dioxide and soil warming in a peatland: Hypotheses for the SPRUCE Experiment. Poster. The 10th International Conference on Mercury as a Global Pollutant, Halifax, Nova Scotia, Canada, Jul 2011 [presented by Dr. Mitchell].
58. Tsui MTK, **Sebestyen SD**, Finlay JC, Nater EA, Jeremiason JD, Jacobson M. Understanding the mechanisms in controlling mercury export from a peatland-upland watershed in northern Minnesota (USA). Poster. The 10th Intl. Conference on Mercury as a Global Pollutant, Halifax, Nova Scotia, Canada, Jul 2011 [presented by Dr. Tsui].
59. Jeremiason JD, Carlson BR, **Sebestyen SD**, Tsui MTK, Finlay JC, Nater EA, Cotner JB, Jacobson M. Trace metals, mercury and dissolved organic matter cycling in an ombrotrophic bog. Poster. The 10th Intl. Conference on Mercury as a Global Pollutant, Halifax, Nova Scotia, Canada, Jul 2011 [presented by Dr. Jeremiason].
60. **Sebestyen SD**, Hanson PJ, Kolka RK, Norby RJ, Palik B, Wullschleger SD, Garten CT, Thornton PE, Griffiths N, Mulholland PJ, Todd DE, Iversen C, Warren J An overview of the SPRUCE project, a large-scale study of increased temperature and carbon dioxide effects on a northern peatland. Poster. Gordon Research Conference: Catchment Sciences, Lewiston, ME, Jul 2011.
61. **Sebestyen SD**, Jacobson M, Watson KA, Cotner JB, Finlay JC, Kolka RK. Patterns of dissolved organic matter efflux from a northern peatland catchment and related landscape factors. Poster. Gordon Research Conference: Catchment Sciences, Lewiston, ME, Jul 2011.
62. Argerich A, Johnson SL, **Sebestyen SD**, Rhoades CC, Knoepp JD, Greathouse EA, Adams MB, Campbell JL, McDowell WH, Ice G. Trends in stream nitrate concentration and responses to disturbances in human-impacted basins across US. 7th Symposium for European Freshwater Sciences, Girona, Catalonia, Spain, Jun-Jul 2011 [postdoctoral presentation by Dr. Argerich].
63. **Sebestyen SD**, Johnson SL, Rhoades CC, Knoepp JD, Argerich A, Greathouse EA, Ice G, Neary D. Syntheses on stream chemistry data from Forest Service sites in the Experimental Forest and Range Network. Poster. XXV IUGG General Assembly (Earth on the Edge: Science for a Sustainable Planet), International Union of Geodesy and Geophysics, Melbourne, Australia, Jun-Jul 2011 [presented by Dr. Neary].
64. Vose JM, Ford C, Laseter S, Sun G, Adams MB, Campbell JL, Elder K, Johnson SL, Luce C, **Sebestyen SD**. Can forest watershed management mitigate climate change impacts on

- water resources? XXV IUGG General Assembly, International Union of Geodesy and Geophysics, Melbourne, Australia, Jun-Jul 2011 [presented by Dr. Neary].
65. Hayes D, Rustad L, Vose JM, Neary D, Gottfried G, **Sebestyen SD**, Johnson SL, Swanson F, Adams MB. The US Forest Service Experimental Forests and Ranges Network: A continental scale research platform for catchment scale research in the United States. XXV IUGG General Assembly, International Union of Geodesy and Geophysics, Melbourne, Australia, Jun-Jul 2011 [presented by Dr. Neary].
 66. Campbell JL, Yanai RD, Green MB, Levine CR, Adams MB, Burns DA, Buso DC, Harmon ME, Keenan T, LaDeau SL, Likens GE, McDowell WH, Parman J, **Sebestyen SD**, Shanley JB, Vose JM, Williams MW. Quantifying Uncertainty in Ecosystem Studies (QUEST). Poster. North American Forest Ecology Workshop, Roanoke, VA, Jun 2011 [presented by Dr. Adams].
 67. Resner, Yoo K, Hale C, Aufdenkampe AK, Blum A, **Sebestyen SD**. Elemental and mineralogical changes in soils due to bioturbation along an earthworm invasion chronosequence in northern Minnesota. Critical Zone Processes, 9th International Symposium on Geochemistry of the Earth's Surface (GES-9), Denver, CO, Jun 2011 [student presentation by Resner].
 68. Lyttle A, Yoo K, Hale C, Aufdenkampe AK, **Sebestyen SD**. Carbon-mineral interactions along an earthworm invasion gradient at a sugar maple forest in northern Minnesota. Critical Zone Processes, GES-9, Denver, CO, Jun 2011 [student presentation by Lyttle].
 69. Argerich A, Johnson SL, **Sebestyen SD**, Rhoades CC, Knoepp JD, Greathouse EA, Adams MB, Campbell JL, McDowell WH, Likens GE. Trends in stream nitrogen concentrations in forested reference basins across US. Annual Meeting, North American Benthological Society, Providence, RI, May 2011 [postdoctoral presentation by Dr. Argerich].
 70. **Sebestyen SD**, Jacobson M, Watson KA, Cotner JB, Finlay JC, Kolka RK. Patterns of dissolved organic matter efflux from a northern peatland catchment and related landscape factors. Poster. 8th Annual Research Review, University of Minnesota, Cloquet Forestry Center, Cloquet, MN, Feb 2011.
 71. **Sebestyen SD**. An overview of the SPRUCE project, a large-scale study of increased temperature and carbon dioxide effects on a northern peatland. 8th Annual Research Review, University of Minnesota, Cloquet Forestry Center, Cloquet, MN, Feb 2011.
 72. **Sebestyen SD**, Mulholland PJ, Griffiths N, Hanson PJ, Warren JM, Kolka RK. Water research objectives of the SPRUCE experiment, a developing large-scale study of climate change effects on a northern peatland. Poster. 8th Annual Research Review, University of Minnesota, Cloquet Forestry Center, Cloquet, MN, Feb 2011.
 73. Carlson B, Jeremiason JD, **Sebestyen SD**, Kolka RK. Trace metal and dissolved organic matter (DOM) cycling in an ombrotrophic bog. Poster. 2011 American Society of Limnology and Oceanography Aquatic Sciences Meeting, San Juan, Puerto Rico, Feb 2011 [undergraduate presentation by Carlson].
 74. Hanson PJ, Kolka RK, Norby RJ, Palik B, Wullschleger SD, Garten CT, **Sebestyen SD**, Thornton PE, Bradford JB, Mulholland PJ, Todd DE, Iversen C, Warren J, Hook L. Spruce Peatland Responses Under Climatic and Environmental Change: A replicated *in situ* warming by CO₂ manipulation of a characteristic high-carbon ecosystem. Poster.

- Ameriflux Science Meeting and 3rd NACP All-Investigators Meeting, New Orleans, LA, Jan-Feb 2011 [presented by Dr. Hanson].
75. Rhoades CC, Johnson SL, **Sebestyen SD**, Ice G. Clean Water Delivery from Headwater Forests; Synthesizing Stream Chemistry Data from USFS Experimental Forests. Rocky Mountain Research Station Leadership Team Meeting, Fort Collins, CO, Feb 2011.
 76. Mulholland PJ, **Sebestyen SD**, Hanson PJ, Warren JM, Kolka RK. Water research within the SPRUCE experiment, a large-scale study of climate change effects on a northern peatland. Poster. AGU Fall Meeting, San Francisco, CA, Dec 2010 [published abstract H41G-1178].
 77. **Sebestyen SD**, Kolka RK, Jacobson M, Tsui MTK, Cotner JB, Finlay JC, Jeremiason JD, Mitchell CPJ, Watson KA, Carlson B. Dissolved organic matter and biogeochemical hotspots in a northern peatland catchment. Poster. AGU Fall Meeting, San Francisco, CA, Dec 2010 [published abstract B13D-0502].
 78. Lyttle A, Yoo K, Aufdenkampe AK, Hale C, **Sebestyen SD**. Carbon-mineral interactions along an earthworm invasion gradient. Poster. AGU Fall Meeting, San Francisco, CA, Dec 2010 [published abstract B41E-0344, student presentation by Lyttle].
 79. Resner, Yoo K, Aufdenkampe AK, Hale C, **Sebestyen SD**. Geochemistry and chemical weathering in soils along an earthworm invasion gradient. Poster. AGU Fall Meeting, San Francisco, CA, Dec 2010 [published abstract EP43A-0748, student presentation by Resner].
 80. Hanson PJ, Kolka RK, Norby RJ, Palik B, Wulschleger SD, Garten CT, **Sebestyen SD**, Thornton PE, Bradford JB, Mulholland PJ, Todd DE, Iversen C, Warren J. Evaluating Spruce Peatland Responses Under Climatic and Environmental Change using a replicated *in situ* field manipulation. Poster. AGU Fall Meeting, San Francisco, CA, Dec 2010 [published abstract B21A-0293, presented by Dr. Hanson].
 81. Shanley JB, Pellerin BP, Saraceno J, Aiken GR, **Sebestyen SD**, McGuire KJ, Dittman J, Driscoll CT. Faster, cheaper, and better? Real-time *in situ* optical sensors advance biogeochemical investigations in Northern Forest fresh waters. Northeastern Ecosystem Research Cooperative, Durham, NH, Nov 2010.
 82. Ice G, McLaughlin D, Wiegand P, Beebe J, Schilling E, Greathouse E, Rhoades CC, Johnson SL, **Sebestyen SD**, Sugden B. Nutrient criteria and standards for forested headwater streams. Society of American Foresters National Convention, Albuquerque, NM, Oct 2010 [presented by Dr. Ice].
 83. Ice G, McLaughlin D, Wiegand P, Beebe J, Schilling E, Greathouse EA, Rhoades CC, Johnson SL, **Sebestyen SD**, Sugden B. Nutrient criteria and standards for forested headwater streams; An overview of issues and solutions. National Water Quality Monitoring Conference. Denver, CO, Apr 2010 [presented by Dr. Ice].
 84. Greathouse EA, Ice G, Rhoades CC, Johnson SL, **Sebestyen SD**, Wright D, Amatya DM, Campbell JL, Knoepp JD, McDowell WH, Adams MB, Wohlgemuth PM, Jones JB. Synthesizing nutrient data across the US Forest Service Experimental Forest and Range Network - methodological challenges and opportunities. Poster. National Water Quality Monitoring Conference. Denver, CO, Apr 2010 [presented by Dr. Greathouse].

85. Rhoades CC, Johnson SL, **Sebestyen SD**, Ice G, Greathouse EA. Development of stream N and P criteria: Lessons from USFS experimental forest studies. National Water Quality Monitoring Conference. Denver, CO, Apr 2010 [presented by Dr. Rhoades].
86. Shanley JB, Clow DW, Walker JF, Scholl M, Peters NE, Buss HL, Hunt RJ, Murphy SF, **Sebestyen SD**. Contributions of the USGS WEBB program to global change science. Poster. USGS Climate Change Science: Understanding the Past, Informing Decisions for the Future. Denver, CO, Mar 2010 [presented by Dr. Clow].
87. Shannon J, Boedt J, Brooks KN, **Sebestyen SD**, Kolka RK. Sap-flux, interception, and changes in water yield in response to uplands aspen clearcutting and conversion to conifers. Poster. 7th Annual Research Review, University of Minnesota, Cloquet, MN, Mar 2010 [student presentation by Shannon].
88. Tsui MTK, **Sebestyen SD**, Funke M, Finlay J, Nater E. Temporal dynamics of mercury export from an upland-peatland watershed in north-central Minnesota. Poster. Minnesota Water Resources Conference, St. Paul, MN, Oct 2009 [student presentation by Tsui].
89. Ice G, Greathouse EA, Johnson SL, Rhoades CC, **Sebestyen SD**, Buford M. Cooperative effort to synthesize forest watershed information on nutrient concentrations. Poster. Society of American Foresters National Convention, Orlando, FL, Sep-Oct 2009 [presented by Dr. Ice].
90. Kolka RK, **Sebestyen SD**, Shannon J, Boedt J, Rauneker P, Brooks KN. Long-term streamflow effects of upland conversion from deciduous to conifer forests in peatland watersheds of northern Minnesota. Poster. Soc. Am. Foresters National Convention, Orlando, FL, Sep-Oct 2009 [presented by Dr. Kolka].
91. Rhoades, CC, Johnson SL, Adams MB, Amatya DM, Bailey SW, Jones JB, Knoepp JD, McCaughey W, McDowell WH, McGuire KJ, **Sebestyen SD**, and Wohlgemuth PM. Biogeochemical responses to forest harvest and disturbance. Poster. Seventh North American Forest Ecology Workshop, Logan, UT, Jun 2009 [presented by Dr. Rhoades].
92. **Sebestyen SD**, Kolka RK. Controls on long-term increases in TOC concentrations and fluxes in peatland catchments in northern Minnesota, USA. Biogeomon, Helsinki, Finland, Jun-Jul 2009 [presented by Dr. Kolka].
93. Boedt J, KN Brooks, **Sebestyen SD**, Kolka RK. Throughfall and water yield in two experimental watersheds. Poster. MEF 50th Anniversary Symposium, Cohasset, MN, Jun 2009 [student presentation by Boedt].
94. Eggert SL, Rasley S, Zasoski J, Hong A, Wiedeman R, Mitchell CPJ, Blanchard M, Dorrance C, Nelson D, Larson J, Kolka RK, **Sebestyen SD**. Aquatic faunal biodiversity associated with northern Minnesota peatland watersheds. Poster. MEF 50th Anniversary Symposium. Cohasset, MN, Jun 2009 [presented by Dr. Eggert and students Rasley and Zasoski].
95. Jacobson M, **Sebestyen SD**, Cotner J. Differences in the photo- and bio-lability of DOM in a coniferous and deciduous watershed (Marcell Experimental Forest). Poster. MEF 50th Anniversary Symposium, Cohasset, MN, Jun 2009 [student presentation by Jacobson].
96. Hanson PJ, Kolka RK, Norby RJ, Palik B, Wullschlegler SD, Garten CT, **Sebestyen SD**, Thornton PE, Bradford JB, Mulholland PJ, Todd DE, Iversen C, Warren J. Evaluating Spruce-Peatland Responses Under Climatic and Environmental change using an *in situ*

- field manipulation. Poster. MEF 50th Anniversary Symposium, Cohasset, MN, Jun 2009 [presented by Todd].
97. Kolka RK, **Sebestyen SD**, Bradford JB. An evolving research agenda. MEF 50th Anniversary Symposium, Cohasset, MN, Jun 2009 [presented by Dr. Kolka].
 98. Mitchell CPJ, Kolka RK, **Sebestyen SD**. Hillslope manipulation study to understand the consequences of forestry practices on hydrologic transport and mercury cycling between forests and wetlands. Poster. MEF 50th Anniversary Symposium, Cohasset, MN, Jun 2009 [presented by Dr. Mitchell].
 99. Shannon J, KN Brooks, **Sebestyen SD**, Kolka RK. Sap-flux rates and changes in water yield in response to uplands aspen clearcutting and conversion to conifers. Poster. MEF 50th Anniversary Symposium, Cohasset, MN, Jun 2009 [student presentation by Shannon].
 100. **Sebestyen SD**, Kolka RK, Verry ES. Long-term monitoring at the Marcell Experimental Forest. MEF 50th Anniversary Symposium, Cohasset, MN, Jun 2009.
 101. **Sebestyen SD**, Verry ES, Brooks KN. Hydrological responses to forest cover changes on uplands and peatlands. MEF 50th Anniversary Symposium, Cohasset, MN, Jun 2009.
 102. **Sebestyen SD**. Effects of forest cover and environmental change on water chemistry. MEF 50th Anniversary Symposium, Cohasset, MN, Jun 2009.
 103. Verry ES, Ferris DR, **Sebestyen SD**. Watershed hydrology. Marcell Experimental Forest (MEF) 50th Anniversary Symposium, Cohasset, MN, Jun 2009 [presented by Dr. Verry].
 104. Johnson SL, **Sebestyen SD**, Amatya DM, Bailey SW, Jones JB, Knoepp JD, McCaughey W, McDowell WH, McGuire KJ, Rhoades CC, Wohlgemuth PM. Long-term water quality and stream nutrient responses to forest harvest and disturbance at US Forest Service Experimental Forests and Ranges. Poster. AGU Fall Meeting, San Francisco, CA, Dec 2008 [published abstract H13C-0926, EOS Trans. AGU, 89(53), presented by Dr. Johnson].
 105. **Sebestyen SD**, McGuire KJ, Johnson SL, Wohlgemuth PM. 2008. A century of Experimental Forest and Range research at the US Forest Service: Recent synthesis efforts and opportunities for cross-site collaboration. Poster. AGU Fall Meeting, San Francisco, CA, Dec 2008 [published abstract H13C-0927, EOS Trans. AGU, 89(53)].
 106. **Sebestyen SD**, Kolka RK. Long-term DOC responses in peatland catchments. Poster. Northeastern Ecosystem Research Cooperative, Durham, NH, Nov 2008.
 107. Kolka RK, **Sebestyen SD**. Celebrating 50 years of research on the Marcell Experimental Forest. Poster. Society of American Foresters National Convention, Reno-Tahoe, NE, Nov 2008 [presented by Dr. Kolka].
 108. **Sebestyen SD**, Shanley JB, Boyer EW. Documenting effects of atmospheric pollutants on stream chemistry with high-frequency sampling. Third Interagency Conference on Research in the Watersheds, Estes Park, CO, US Geological Survey, Sep 2008.
 109. **Sebestyen SD**, Eggert SL, McGuire KJ, Bailey SW, Campbell JL, Kolka RK. A century of experimental forest and range research: Recent synthesis efforts and opportunities for cross-site collaboration. 45th Annual Meeting of Hubbard Brook Cooperators, Campton, NH, Jul 2008

110. Allan CJ, Vidon PG-F, Lowrance R, Inamdar SP, Okay J, Duval TP, Burns DA, **Sebestyen SD**, Mulholland PJ, Fanelli R, Böhlke J-K, Baker ME, Gurwick NP. Hot and cold moments/spots in riparian zones: beyond seasonal and spatial variability. American Water Resources Association (AWRA) Summer Specialty Conference. Riparian Ecosystems and Buffers, Virginia Beach, VA, Jul 2008 [presented by Dr. Allan].
111. Inamdar SP, Scott DT, **Sebestyen SD**, Gurwick N, Vidon PG-F, Allan C, Burns DA. Dissolved organic matter (DOM) exports from watersheds: The role of riparian ecosystems. AWRA Summer Specialty Conference. Riparian ecosystems and buffers. Virginia Beach, VA, Jul 2008 [presented by Dr. Inamdar].
112. Shanley JB, **Sebestyen SD**. Hydrology and biogeochemistry during snowmelt - perspectives from a long-term research catchment in Vermont. The 65th Annual Meeting of the Eastern Snow Conference. Fairlee (Lake Mowry), VT, May 2008 [presented by Dr. Shanley].
113. **Sebestyen SD**, Shanley JB, Boyer EW, Kendall C. A role for high frequency hydrochemical sampling in long-term ecosystem studies. Poster. AGU Fall Meeting, San Francisco, CA, Dec 2007 [published abstract H53A-0958, EOS Trans. AGU, 88(52)].
114. **Sebestyen SD**, Boyer EW, Shanley JB, Kendall C. Tracing water and nitrogen sources to identify controls on stream nitrogen variation. AGU Joint Assembly, Acapulco, Guerrero, Mexico, May 2007 [published abstract B33A-06, EOS Trans. AGU, 88(23)].
115. **Sebestyen SD**, Boyer EW, Shanley JB, Doctor DH, Kendall C, Aiken GR. Quantifying nutrient sources in an upland catchment using multiple chemical and isotopic tracers. AGU Fall Meeting, San Francisco, CA, Dec 2006 [published abstract H12C-05, EOS Trans. AGU, 87(52)].
116. Doctor DH, **Sebestyen SD**, Aiken GR, Shanley JB, Kendall C, Boyer EW. Carbon isotope composition as an indicator of sources of dissolved organic carbon (DOC) to a stream during events in a temperate forested catchment. AGU Fall Meeting, San Francisco, CA, Dec 2006 [published abstract B33A-1154, EOS Trans. AGU, 87(52), presented by Dr. Doctor].
117. **Sebestyen SD**. Coupled hydrological and biogeochemical processes control nutrients in streams of forested watersheds. Dissertation seminar, Forest and Natural Resource Management, SUNY-ESF, Syracuse, NY, Nov 2006.
118. **Sebestyen SD**, Boyer EW, Shanley JB, Doctor DH, Kendall C. Hydrochemical responses among nested catchments of the Sleepers River Research Watershed. Poster. AGU Fall Meeting, San Francisco, CA, Dec 2005 [published abstract H23D-1450, EOS Trans. AGU, 86(52)].
119. **Sebestyen SD**, Boyer EW, Shanley JB, Doctor DH, Kendall C. Dissolved organic carbon flushing from a forested catchment during stormflow events and snowmelt. Poster. Gordon Research Conference: Catchment Science, Waterville, ME, Jul 2005.
120. **Sebestyen SD**, Ohte N, Boyer EW. Tracing atmospheric nitrogen (N) deposition in a forested watershed. Poster. JSPS 2005 Summer Program, Sokendai, Japan, Jun 2005.
121. Lawrence GB, Ross DS, **Sebestyen SD**, Burns DA, Murdoch PS, Shanley JB, Sutherland JS, Nierzwicki-Bauer SA, Boylen CW, Boyer EW. 2005. A new twist on the seasonality of

- nitrate retention and release in watersheds of the northeastern U.S. Acid Rain 2005, Prague, Czech Republic, Jun 2005 [presented by Dr. Lawrence].
122. **Sebestyen SD**, Boyer EW, Shanley JB, Doctor DH. Seasonal and event-scale controls on dissolved organic carbon and nitrate flushing from catchments. AGU Joint Assembly, New Orleans, LA, May 2005 [published abstract B53A-01, EOS Trans. AGU, 86(18)].
 123. **Sebestyen SD**, Boyer EW, Shanley JB, Ohte N, Doctor DH, Kendall C. Tracing nitrogen movement in forested watersheds: preliminary results from the Sleepers River Research Watershed, VT. US-Japan Joint Workshop on Biogeochemistry and Hydrology in Forest Watersheds Associated with LTER, Hokkaido, Japan, Mar 2005.
 124. Warren DR, **Sebestyen SD**, Josephson DC, Lepak J, Kraft CE. Lake spawning brook trout and groundwater. Tri-Society Meeting. New York State American Foresters / Wildlife Society / American Fisheries Society, Syracuse, NY, Feb 2005 [presented by Warren].
 125. **Sebestyen SD**, Shanley JB, Boyer EW, Doctor DH, Kendall C. Tracing nitrogen sources in forested catchments under varying flow conditions: seasonal event scale patterns. AGU Fall Meeting, San Francisco, CA, Dec 2004. [Published abstract H51G-05, EOS Trans. AGU, 85(47)].
 126. Doctor DH, Kendall C, **Sebestyen SD**, Shanley JB. Carbon isotopes as tracers of groundwater and soil water contributions to streamflow in a forested headwater catchment. Poster. Geological Society of America Annual Meeting, Denver, CO, Nov 2004. [Presented by Dr. Doctor].
 127. **Sebestyen SD**, EW Boyer, Shanley JB, Ohte N, Doctor DH, Kendall C. Tracing nitrogen movement in forested watersheds: preliminary results from the Sleepers River Research Watershed, VT. Poster. Northeastern Ecosystem Research Cooperative Conference, Durham, NH, Nov 2004.
 128. **Sebestyen SD**, EW Boyer, Shanley JB, Ohte N, Doctor DH, Kendall C. Tracing nitrogen movement in forested watersheds: Preliminary results from the Sleepers River Research Watershed, VT. Poster. US Environmental Protection Agency 2004 Graduate Fellowship Conference: "Next Generation Scientists, Next Opportunities", Washington, DC, Oct 2004. http://www.epa.gov/ncer/fellow/posters/ppt/sebestyen_2004_star.pdf
 129. **Sebestyen SD**, Shanley JB, Boyer EW, Doctor DH, Kendall C. Diminished stream nitrate concentrations linked to dissolved organic carbon dynamics after leaf fall. AGU Joint Assembly, Montreal, Quebec, Canada, May 2004. [Published abstract H21D-03, EOS Trans. AGU, 85(17)].
 130. Shanley JB, Denner JC, Clark SM, Chalmers A, **Sebestyen SD**, McGlynn B, Hjerdt KN, McDonnell JJ, Kendall C. Catchment science on a shoestring - luddites, labor and high-tech gizmos. Poster. AGU Joint Assembly, Montreal, Quebec, Canada, May 2004. [Published abstract H33B-03, EOS Trans. AGU, 85(17), presented by Dr. Shanley].
 131. **Sebestyen SD**, Shanley JB, Boyer EW, Ohte N, Doctor DH, Kendall C. Tracing nitrate contributions to streams during varying flow regimes at the Sleepers River Research Watershed, Vermont, USA. Poster. AGU Fall Meeting, San Francisco, CA, Dec 2003. [Published abstract H41F-1050, EOS Trans. AGU, 84(46)].
 132. Ohte N, **Sebestyen SD**, Doctor DH, Wankel SD, Shanley JB, Kendall C, Boyer EW. Nitrogen isotopes as indicators of streamflow generation processes in a headwater forested

- catchment: Focusing on atmospheric NO₃- contribution using $\delta^{18}\text{O}$ signature. AGU Fall Meeting, San Francisco, CA, Dec 2003. [Published abstract H52C-03, EOS Trans. AGU, 84(46), presented by Dr. Ohte].
133. **Sebestyen SD**. Tracing nitrate contributions to streams during varying flow regimes at the Sleepers River Research Watershed, Vermont, USA. Fall 2003 Aqua Lunch Seminar Series, Environmental Forest Biology, SUNY-ESF, Syracuse, NY, Nov 2003.
 134. Josephson DJ, Kraft CE, Krueger CC, **Sebestyen SD**. Natural spawning population response by brook trout in Adirondack lakes with outlet barriers. Poster. American Fisheries Society: Québec City, Québec, Canada, Aug 2003. [Presented by Josephson].
 135. **Sebestyen SD**, DH Doctor, Shanley JB, Ohte N, Kendall C, Boyer EW. Carbon nitrogen isotopes as indicators of streamflow generation processes in a headwater forested catchment. Poster. Gordon Research Conference: Catchment Science, New London, NH, Jul 2003.
 136. Shanley JB, **Sebestyen SD**, Hjerdt KN, McDonnell JJ, Bullen T. A synthesis and reinterpretation of field observations on hillslope contributions to streamflow. AGU Fall Meeting, San Francisco, CA, Dec 2002. [Published abstract H51D-11, EOS Trans. AGU, 83(47), presented by Dr. Shanley].
 137. **Sebestyen SD**. Integrating lakeshore seepage into hillslope watershed studies: Dynamic temporal and spatial patterns of nearshore seepage fluxes. Poster. Chapman Conference: State-of-the-Art in Hillslope Hydrology, Sun River, OR, Oct 2001.
 138. **Sebestyen SD**, Schneider RL. The influence of groundwater seepage on lakeshore biogeochemical processes and fluxes of solutes within watersheds. Poster. Gordon Research Conference: Forested Watersheds, Andover, NH, Jul 2001.
 139. **Sebestyen SD**, Schneider RL. The influence of groundwater seepage on lakeshore biogeochemical processes and fluxes of solutes within watersheds. Poster. AGU Spring 2001 Meeting, Boston, MA, May-Jun 2001. [Published abstract H31A-15, EOS Trans. AGU, 82].
 140. **Sebestyen SD**, Schneider RL. Temporal patterns of nearshore seepage flux in a headwater Adirondack lake, Student Water Resources Symposium, Salt City Chapter of the American Water Resources Association, Syracuse, NY, Apr 2001.
 141. **Sebestyen SD**, Schneider RL. Temporal patterns of nearshore seepage flux in a headwater Adirondack lake. Poster. SUNY-ESF Spotlight on Student Research, Syracuse, NY, Apr 2001.
 142. **Sebestyen SD**, Schneider RL. Temporal patterns of nearshore seepage flux in a headwater Adirondack lake. Poster. Aqua Fest 2001, Shackelton Point Biological Field Station, Cornell University, Bridgeport, NY, Mar 2001.
 143. **Sebestyen SD**, Schneider RL. Seepage hydrology and associated patterns of base cation and trace metal concentrations in nearshore regions of three Adirondack lakes. AGU Fall Meeting, San Francisco, CA, Dec 2000. [Published abstract B71E-12, EOS Trans. AGU, 81(48)].
 144. **Sebestyen SD**. Seepage hydrology and interactions at the pore water, sediment and macrophyte interface in three Adirondack lakes. Thesis Seminar, DNR, Cornell University, Ithaca, NY, May 2000.

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145. **Sebestyen SD**, Schneider RL. Groundwater and aquatic vegetation in Adirondack lakes: Interactions at the groundwater, sediment and macrophyte interface. Adirondack Research Consortium: Sixth Annual Conference on the Adirondacks, Saranac Lake, NY, Jun 1999.
146. **Sebestyen SD**, Schneider RL. Groundwater and aquatic vegetation in Adirondack lakes: Interactions at the groundwater, sediment and macrophyte interface. Graduate Student Symposium, Dept. of Natural Resources (DNR), Cornell University, Ithaca, NY, Jan 1999.
147. **Sebestyen SD**, Cirimo CP. A comparison of peat pore-water sampling methods on a suite of peatland sites in the central Adirondack region. Poster. BIOGEOMON 3rd International Symposium on Ecosystem Behaviour, Villanova, PA, Jun 1997.
148. **Sebestyen SD**, Cirimo CP. Comparison of peat pore water sampling devices used in the determination of wetland recharge/discharge function. Adirondack Research Consortium, Fourth Annual Conference on the Adirondacks, Syracuse, NY, May 1997.
149. **Sebestyen SD**, Cirimo CP. A comparison of peat pore-water sampling methods on a suite of peatland sites in the central Adirondack region. Poster. Saint Joseph's University Eighth Annual Sigma Xi Research Symposium, Philadelphia, PA, Apr 1997.
150. **Sebestyen SD**, Cirimo CP. Comparison of peat pore water sampling methods for use in riparian zone wetlands. Pennsylvania Academy of Sciences 73rd Annual Meeting, Malvern, PA, Apr 1997.

MEDIA INTERVIEWS:

- 2014 Featured in "Bogs, A Love Story," which is a video documentary by Dr. Christine Baeumler (University of Minnesota). This video has now been exhibited at the Macrostie Center in Grand Rapids, MN and the Katherine E. Nash Gallery at the Regis Center for the Arts, University of Minnesota.
- 2013 Interviewed for background information on peatlands and SPRUCE for an article that was published (9/21/13) in the New Scientist, "Deep, dank, and mysterious."
- 2013 Radio interview about snowmelt and soil frost in northern Minnesota forests on the Phenology Program, KAXE (91.7 FM Grand Rapids, MN) 9 Mar 2013.
- 2012 Interviewed for an online article and radio news segment on the SPRUCE Project. "N. Minn. bog to be site of massive global warming study," Minnesota Public Radio, 7 June 2012. <http://minnesota.publicradio.org/display/web/2012/06/07/environment/northern-minnesota-bog-massive-global-warming-study/>
- 2012 Interviewed for a printed article on the SPRUCE Project. "If a peat bog emits CO₂ in the forest, and no one's around to measure it... there's still CO₂ being emitted," Grand Rapids Herald-Review, 21 Mar 2012. http://mnspruce.ornl.gov/system/files/GRH_Kolka_Sebestyen_article_20120321.pdf
- 2012 Interviewed for a printed article on the SPRUCE Project. "State peat bogs to be climate study labs," Minneapolis Star Tribune, 27 Feb 2012, <http://www.startribune.com/local/140387343.html>
- 2012 Radio interview on the SPRUCE Project on the Phenology Program, KAXE (91.7 FM Grand Rapids, MN) 21 Feb 2012.

PARTICIPATION IN TECHNICAL CONFERENCES AND WORKSHOPS

01. Future Topophagies/Eating Tomorrow's Ecosystems. Minneapolis, MN, Sep 2014.

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02. Follow up workshop to the US-Japan joint seminar on responses of catchment hydrology and forest biogeochemistry to climatic and environmental change. Blacksburg, VA, Oct 2013.
03. US-Japan joint seminar on responses of catchment hydrology and forest biogeochemistry to climatic and environmental change. Honolulu, HI, Mar 2013 [co-convener].
04. Nutrient criteria: Evaluate seasonal stream chemistry relative to proposed numeric nutrient criteria. A symposium at the Long-Term Ecological Research All Scientist Meeting, Estes Park, CO, Sep 2012 [co-convener].
05. Long-Term Trends in Climate and Hydrology at Long-Term Ecological Research (LTER) Sites, Pt. 2: Seasonal Trends and Roles of Population Change, Sevilleta National Wildlife Refuge, Socorro, NM. Nov 2011 [Invited to attend].
06. Stream Chemistry Database Project Workshop, Corvallis, OR, Oct 2011 [project co-leader].
07. WEBINAR of the US Forest Service FR and LTER Program Stream Chem Working Group on StreamChemDB, WEBINAR / teleconference, Sep 2011 [project co-leader].
08. ICP (International Cooperative Programme on Assessment and Monitoring of Air Pollution Effects on Forests) Level II Critical Loads Workshop, USDA Forest Service Office of Research Development, Riverside, CA, May 2011 [Invited to attend].
09. Quantifying Uncertainty in Ecosystem Studies (QUEST) Workshop sponsored by the LTER Network, Boston, MA. Mar 2011 [Invited to attend].
10. Social and Ecological Resilience of Water Yield Responses to Climate Change: Contrasting Capacities for Adaptation among Regions in the US. LTER Network, Sevilleta National Wildlife Refuge, Socorro, NM. Nov 2010 [Invited to attend].
11. Stream Chemistry Database (StreamChemDB) Project Workshop, HJ Andrews Experimental Forest, Blue River, OR. Sep 2010 [project and workshop co-leader].
12. Northern Research Station Peatland Research Program and Carbon Storage Workshop, Bovey, MN. Apr 2010 [Invited to attend].
13. Stream Chemistry Database Project Workshop, Sevilleta National Wildlife Refuge, Socorro, NM. Mar 2010 [project and workshop co-leader].
14. Water in a Changing Environment Workshop, Coweeta Hydrologic Laboratory, Otto, NC. Sep 2009 [Invited to attend].
15. Stream Chemistry Synthesis from Experimental Forests, WEBINAR / teleconference, Sep 2009 [project and WEBINAR co-leader].
16. Carbon in the North Woods, University of Wisconsin, Trout Lake Station, Boulder Station, WI. Feb 2009 [Invited to attend].
17. Generalizing Riparian Zone Function at the Landscape Scale: New Tools, New Approaches, Gaps in Knowledge and Future Research Directions, National Science Foundation Workshop, Indianapolis, IN. Jan 2008 [Invited to attend].
18. International Long-Term Ecological Research (ILTER) Network Coordinating Committee. Colima, Mexico, Oct 2005.
19. ILTER, US-Japan Joint Workshop on Biogeochemistry and Hydrology. Japan, <http://www.lternet.edu/news/Article22.html>. Mar 2005 [Invited to attend].

20. Modular Modeling System and GIS WEASEL. USGS, Denver, CO. Feb 2003.
21. Isotope Tracers of the Nitrogen Cycle in Hydrologic Systems. USGS, Menlo Park, CA. Feb 2002 [Invited to attend].

DISSEMINATING RESEARCH FINDINGS

MANUSCRIPTS UNDER CONSIDERATION

01. Shi, X, Thornton P, Ricciuto D, Hanson PJ, Mao J, **Sebestyen SD**, Griffiths NA, Gautam Bisht. 2015. Representing northern peatland microtopography and hydrology within the Community Land Model. Biogeosciences.
My contribution: I co-authored and edited the manuscript.

PUBLICATIONS

02. Shanley JB, **Sebestyen SD**, McDonnell JJ, McGlynn BL, Dunne T. 2015, early view. Water's Way at Sleepers River watershed - revisiting flow generation in a post-glacial landscape, Vermont USA. Hydrological Processes, doi: 10.1002/hyp.10377.
My contribution: I co-planned, co-wrote, and analyzed data for the manuscript.
03. Rose L, **Sebestyen SD**, Elliott EM, Koba K. 2015. Drivers of atmospheric nitrate processing in forested catchments. Water Resources Research, 51(2):1333-1352, doi: 10.1002/2014WR015716.
My contribution: I co-developed the concept for this paper, contributed data, co-authored and edited the manuscript.
04. Resner K, Yoo K, **Sebestyen SD**, Aufdenkampe A, Hale C, Lyttle A, Blum A. 2015. Invasive earthworms deplete key soil inorganic nutrients (Ca, Mg, K, and P) in a northern hardwood forest. Ecosystems, 18(1): 89-102, doi: 10.1007/s10021-014-9814-0.
My contribution: I collaborated on the project and edited the manuscript.
05. Lyttle A, Yoo K, Hale CM, Aufdenkampe A, **Sebestyen SD**, K Resner, Blum A. 2015. Impact of exotic earthworms on organic carbon sorption on mineral surfaces and soil carbon inventories in a northern hardwood forest. Ecosystems, 18(1):16-29, doi: 10.1007/s10021-014-9809-x.
06. Dymond SF, Kolka RK, Bolstad PV, **Sebestyen SD**. 2014. Long-term soil moisture patterns in a northern Minnesota forest. Soil Sci. Soc. Am. J., 78(S1), S208-S216, doi:10.2136/sssaj2013.08.0322nafsc.
My contribution: I collaborated on the project and advised the student researcher.
My contribution: I collaborated on the project and edited the manuscript.
07. Mazur M, Mitchell CPJ, Eckley CS, Eggert SL, Kolka RK, **Sebestyen SD**, Swain EB. 2014. Gaseous mercury fluxes from forest soils in response to forest harvesting intensity: A field manipulation experiment. Science of the Total Environment, 496, 678-687, doi:10.1016/j.scitotenv.2014.06.058.
My contribution: I collaborated on the project and edited the manuscript.
08. Hill BH, Elonen CM, Jicha TM, Kolka RK, Lehto LLP, **Sebestyen SD**, Seifert-Monson LR. 2014. Ecoenzymatic stoichiometry and microbial processing of organic matter in northern bogs and fens reveals a common P-limitation between peatland types. Biogeochemistry, 120(1-3), 203-224, doi:10.1007/s10533-014-9991-0.
My contribution: I collaborated on the project and edited the manuscript [refereed].

09. Creed IF, Spargo AT, Jones JA, Buttle JM, Adams MB, Beall FD, Booth E, Campbell JL, Clow DW, Elder K, Green MB, Grimm NB, Miniati C, Ramlal P, Saha A, **Sebestyen SD**, Spittlehouse D, Sterling S, Williams MW, Winkler R, Yao H. 2014. Changing forest water yields in response to climate warming: Results from long-term experimental watershed sites across North America. *Global Change Biol*, 20(10), 3191-3208, doi:10.1111/gcb.12615.
My contribution: I participated in the workshop that led to this manuscript and edited the manuscript.
10. **Sebestyen SD**, Shanley JB, Boyer EW, Kendall C, Doctor D. 2014. Coupled hydrological and biogeochemical processes controlling variability of nitrogen species in streamflow during autumn in an upland forest. *Water Resources Research*, 50(2), 1569-1591, doi:10.1002/2013WR013670.
My contribution: I designed the study, completed field measurements and laboratory analyses, and wrote the paper.
11. McGuire KJ, **Sebestyen SD**, Ohte N, Elliott EM, Gomi T, Green MB, McGlynn BL, Tokuchi N. 2014, in press. Merging perspectives in the catchment sciences: the US-Japan Joint Seminar on Catchment Hydrology and Forest Biogeochemistry. *Hydrological Processes Today – Commentary*, 28(5), 2878-2880, doi:10.1002/hyp.10129.
My contribution: I co-organized the conference and co-wrote with KGM the manuscript.
12. Argerich A, Johnson SL, **Sebestyen SD**, Rhoades CC, Greathouse E, Knoepp JD, Adams MB, Likens GE, Campbell JL, McDowell WH, Scatena FN, Ice GG. 2013. Trends in stream nitrogen concentrations for forested reference catchments across the USA. *Environmental Research Letters*, 8(1):014039, DOI: 10.1088/1748-9326/8/1/014039.
My contribution: I co-designed the study, contributed data, and edited the manuscript.
13. Bischof MM, Hanson MA, Fulton MR, Kolka RK, **Sebestyen SD**, Butler MG. 2013. Invertebrate community patterns in seasonal ponds in Minnesota, USA: Response to hydrologic and environmental variability. *Wetlands*, 33(2):245-256, DOI: 10.1007/s13157-012-0374-9.
My contribution: I collaborated on the project and advised the student researcher.
14. Parsekian AD, Slater L, **Sebestyen SD**, Kolka RK, Ntarlagiannis D, Nolan J, Hanson PJ. 2012. Reducing uncertainties in assessments of peat volumes with ground penetrating radar, a step towards refining global carbon stock estimates. *Soil Science Society of America Journal*, 76:1911-1918.
My contribution: I co-designed the study, assisted with field work, wrote 5% of the paper, and edited the manuscript.
15. Jones JA, Creed I, Hatcher K, Warren R, Benson M., Boose E, Brown W, Campbell JL, Covich A, Clow D, Dahm C, Elder K, Ford CR, Grimm N, Henshaw D, Larson K, Miles E, Moore K, **Sebestyen SD**, Stone A, Vose JM, Williams W. 2012. Water supply sensitivity and ecosystem resilience to land use change, climate change, and climate variability at long-term ecological research sites. *BioScience*, 62(4):390-404, DOI: 10.1525/bio.2012.62.4.10.
My contribution: I participated in the workshop that led to this manuscript and edited the manuscript.
16. Vose JM, Ford CR, Laseter S, Dymond S, Sun G, Adams MG, **Sebestyen SD**, Campbell JL, Luce C, Amatya D, Elder K, Heartsill-Scalley T. 2012. Can forest watershed management mitigate climate change impacts on water resources? Edited by Webb AA, et al., pp. 12-25.

Revisiting experimental catchment studies in forest hydrology. Vol. 353. International Association of Hydrological Sciences (IAHS), Wallingford, United Kingdom.

My contribution: I contributed data and attended the workshop where the study was developed and analyses were determined.

17. Neary DG, Hayes D, Rustad LE, Vose JM, Gottfried G, **Sebestyen SD**, Johnson SL, Swanson F, Adams MB. 2012. US Forest Service Experimental Forests and Ranges Network: a continental research platform for catchment-scale research. Webb et al., editors. Revisiting experimental catchment studies in forest hydrology. Vol. 353. Wallingford, UK: IAHS. pp. 49-57.
My contribution: I contributed to the discussions that led to this publication.
18. Pellerin BA, Saraceno, J, Shanley, JB, **Sebestyen SD**, Aiken GR, Wollheim WM, Bergamaschi BA. 2012, in press. Taking the pulse of snowmelt: *In situ* sensors reveal seasonal, event and diurnal patterns of nitrate and dissolved organic matter variability in an upland forest stream. Biogeochemistry. 108: 183-198, DOI: 10.1007/s10533-011-9589-8.
My contribution: I co-designed the study, wrote 10%, and substantially edited the manuscript.
19. Lyttle A, Yoo K, Hale C, Aufdenkampe A, **Sebestyen SD** (2011), Carbon-mineral interactions along an earthworm invasion gradient at a Sugar Maple Forest in Northern Minnesota, Applied Geochemistry, 26(Supplement 1), S85-S88, DOI:10.1016/j.apgeochem.2011.03.037.
My contribution: I collaborated on the project and advised the student researcher.
20. Resner K, Yoo K, Hale C, Aufdenkampe A, Blum A, **Sebestyen SD** (2011), Elemental and mineralogical changes in soils due to bioturbation along an earthworm invasion chronosequence in Northern Minnesota, Applied Geochemistry, 26(Supplement 1), S127-S131, DOI:10.1016/j.apgeochem.2011.03.047.
My contribution: I collaborated on the project and advised the student researcher.
21. Kolka RK, **Sebestyen SD**, Verry ES, Brooks KN. 2011. Peatland biogeochemistry and watershed hydrology at the Marcell Experimental Forest. CRC Press. 488 p. <http://www.crcpress.com/product/isbn/9781439814246>.
My contribution: I co-planned this book, wrote the preface, wrote individual chapters (see following related entries), worked with contributing authors, reviewed, coordinated external review, and extensively edited the scientific content.
22. **Sebestyen SD**, Dorrance C, Olson DM, Verry ES, Kolka RK, Elling AE, Kyllander R. 2011. Long-term monitoring sites and trends at the Marcell Experimental Forest. Kolka RK, **Sebestyen SD**, Verry ES, Brooks KN, editors. Peatland biogeochemistry and watershed hydrology at the Marcell Experimental Forest. CRC Press. pp. 15-71.
My contribution: I wrote 95% of the book chapter.
23. Kolka RK, **Sebestyen SD**, Bradford JB. 2011. An evolving research agenda of the Marcell Experimental Forest. Kolka RK, **Sebestyen SD**, Verry ES, Brooks KN, editors. Peatland biogeochemistry and watershed hydrology at the Marcell Experimental Forest. CRC Press. pp. 73-91.
My contribution: I wrote 20% of the book chapter.
24. Verry ES, Brooks KN, Nichols DS, Ferris DR, **Sebestyen SD**. 2011. Watershed hydrology. Kolka RK, **Sebestyen SD**, Verry ES, Brooks KN, editors. Peatland biogeochemistry and watershed hydrology at the Marcell Experimental Forest. CRC Press. pp. 193-212.

My contribution: I wrote 10% of the book chapter, contributing most substantially to the editing.

25. Urban NR, Verry ES, Eisenreich SJ, Grigal DF, **Sebestyen SD**. 2011. Nutrient cycling in upland/peatland watersheds. Kolka RK, **Sebestyen SD**, Verry ES, Brooks KN, editors. Peatland biogeochemistry and watershed hydrology at the Marcell Experimental Forest. CRC Press. pp. 213-241.

My contribution: I wrote 5% of the book chapter, analyzed TOC concentration data, and prepared figures.

26. **Sebestyen SD**, Verry ES, Brooks KN. 2011. Hydrological responses to forest cover changes on uplands and peatlands. Kolka RK, **Sebestyen SD**, Verry ES, Brooks KN, editors. Peatland biogeochemistry and watershed hydrology at the Marcell Experimental Forest. CRC Press. pp. 401-432.

My contribution: I compiled and analyzed long-term data and wrote 80% of the book chapter.

27. **Sebestyen SD**, Verry ES. 2011. Water chemistry responses to watershed experiments at the Marcell Experimental Forest. Kolka RK, **Sebestyen SD**, Verry ES, Brooks KN, editors. Peatland biogeochemistry and watershed hydrology at the Marcell Experimental Forest. CRC Press. pp. 433-458.

My contribution: I compiled and analyzed long-term data and wrote the book chapter.

28. Vidon PG-F, Allan C, Burns DA, Duval T, Gurwick N, Inamdar S, Lowrance R, Okay J, Scott D, **Sebestyen SD**. 2010. A review of hot spots and hot moments in riparian zones: Opportunities for water quality and watershed management. J. American Water Resources Association. 46(2):278-298. DOI: 10.1111/j.1752-1688.2010.00420.x. Selected by editors of JAWRA as a finalist for the 2011 William R. Boggess Award that, "best describes, delineates, or analyzes a major problem or aspect of water resources from either a theoretical, applied, or philosophical standpoint."

My contribution: I participated in discussions at the workshop that led to this review, wrote 15% of the paper, and comprehensively edited the manuscript.

29. Wells G, Hayes D, Krause K, Bartuska A, LeVan-Green S, Anderson J, Gough T, Adams MB, Schuler T, Kolka RK, **Sebestyen SD**, Kenefic L, Brissette J, Stout S, Kanoti K, Swanson F, Greene S, Herring M, Ritchie M, Skinner C, Lisle TE, Keppeler ET, Reid LM, Wohlegemuth P, Kitchen S, McCaughey W, Guldin J, Bragg D, Shelton M, Loftis D, Greenberg C, Murphy J. 2009. Experimental Forests and Ranges: 100 years of research success stories. GTR FPL-182. Madison, WI: USDA Forest Service.

My contribution: I contributed to the entry for the MEF.

30. Glynn PD, Larsen MC, Green EA, Buss HL, Clow DW, Hunt RJ, Mast MA, Murphy SF, Peters NE, **Sebestyen SD**, Shanley JB, Walker JF. 2009. Selected achievements, science directions, and new opportunities for the WEBB small watershed research program. Webb RMT and Semmens DJ, ed., Proceedings of the Third Interagency Conference on Research in the Watersheds (ICRW): Planning for an Uncertain Future: Monitoring, Integration, and Adaptation. Scientific Investigations Report 2009-5049. Washington, DC: US Geological Survey. pp. 39-52.

My contribution: I participated in discussions that led to the preparation of this manuscript and contributed to editing.

31. **Sebestyen SD**, Shanley JB, Boyer EW. 2009. Using high-frequency sampling to detect effects of atmospheric pollutants on stream chemistry. Webb RMT, Semmens DJ, editors.

Proceedings of the Third ICRW: Planning for an Uncertain Future: Monitoring, Integration, and Adaptation. Scientific Investigations Report 2009-5049. Washington, DC: US Geological Survey. pp. 171-176.

My contribution: I designed the study, assisted with field measurements and laboratory chemistry analyses, and wrote the paper.

32. **Sebestyen SD**, Boyer EW, Shanley JB. 2009. Responses of stream nitrate and dissolved organic carbon loadings to hydrological forcing and climate change in an upland forest of the northeast USA. *J. Geophysical Research, G: Biogeosciences*, 114:G02002. DOI: 10.1029/2008JG000778.

My contribution: I designed the study, completed field measurements and laboratory chemistry analyses, modeled changes projections of future climate, and wrote the paper.

33. Doctor DH, Kendall C, **Sebestyen SD**, Shanley JB, Ohte N, Boyer EW. 2008. Carbon isotope fractionation of dissolved inorganic carbon (DIC) due to outgassing of carbon dioxide from a headwater stream. *Hydrological Processes*, 22(14): 2410-2423, DOI:10.1002/hyp.6833.

My contribution: I co-designed the study, assisted with field and laboratory measurements, wrote 10% of the paper, and edited drafts of the manuscript.

34. **Sebestyen SD**, Boyer EW, Shanley JB, Doctor DH, Kendall C, Aiken GR, Ohte N. 2008. Sources, transformations, and hydrological processes that control stream nitrate and dissolved organic matter concentrations during snowmelt at an upland forest. *Water Resources Research*, 44(12):W12410, DOI:10.1029/2008WR006983.

My contribution: I designed the study, completed field measurements and laboratory analyses, and wrote the paper.

35. **Sebestyen SD**. 2008. Coupled hydrological and biogeochemical processes that control stream nitrogen and dissolved organic carbon at the Sleepers River Research Watershed. PhD dissertation, SUNY-ESF, Syracuse, NY. <http://gradworks.umi.com/33/03/3303957.html>

36. Warren DR, **Sebestyen SD**, Josephson DJ, Lepak JM, Kraft CE. 2005. Acidic groundwater discharge and *in situ* egg survival in lake-spawning brook trout redds. *Transactions of the American Fisheries Society*, 11(5): 1193-1201, DOI: 10.1577/T04-180.1.

My contribution: I co-designed the study, assisted with field measurements, analyzed the hydrological data, wrote 30% of the paper, and edited drafts of the manuscript.

37. Ohte N, **Sebestyen SD**, Kendall C, Shanley JB, Wankel SD, Doctor DH, Boyer EW. 2004. Tracing sources of nitrate in snowmelt runoff using a high-resolution isotopic technique. *Geophysical Research Letters*, 31, DOI:10.1029/2004GL020908.

My contribution: I co-designed the study, completed field and chemistry measurements, wrote 10% of the paper, and edited drafts of the manuscript.

38. **Sebestyen SD**, Schneider RL. 2004. Seepage patterns, pore water and aquatic plants: hydrological and biogeochemical relationships in Adirondack Lakes. *Biogeochemistry*, 68(3): 383-409, DOI: 10.1023/B: BIOG.0000031036.32100.8f.

My contribution: I co-designed the study, completed field and laboratory measurements, analyzed data, and wrote the paper.

39. **Sebestyen SD**, Schneider RL. 2001. Dynamic temporal patterns of nearshore seepage flux in a headwater Adirondack Lake. *J. Hydrology*, 247(3-4): 137-150, DOI: 10.1016/S0022-1694(01)00377-8.

My contribution: I co-designed the study, completed field and laboratory measurements, analyzed data, and wrote the paper.

40. **Sebestyen SD**. 2000. Seepage hydrology and interactions at the pore water, sediment and macrophyte interface in three Adirondack lakes. M.S. Thesis, Cornell University, Ithaca, NY.

RESEARCH GRANTS AND OTHER FUNDING

01. 2014-2015: Principle investigator (PI), Forest Service Air Resource Management Plan. Innovative snowmelt monitoring in support of critical loads. \$6,000.
02. 2013-2016: PI, Dairyland Power Cooperative Settlement Funds to the Forest Service. Assessing the susceptibility and resilience of lake chemistry to environmental change on the Chequamegon-Nicolet National Forest. \$215,000.
03. 2013: co-PI, National Science Foundation. US-Japan joint seminar on responses of catchment hydrology and forest biogeochemistry to climatic and environmental change. \$53,192.
04. 2011-2015: Co-PI, Great Lakes Restoration Initiative. Future of black ash wetlands in the northern Great Lakes region. \$567,660.
05. 2010 to 2012: Co-PI, USDA Forest Service, Northern Research Station Climate Change Strategic Plan. Linking water availability with forest productivity. \$124,596.
06. 2010 to 2012: Co-PI, Northeastern States Research Cooperative. Climate controls on organic carbon flux from northern forest watersheds. \$92,820.
07. 2010 to 2012: PI, Northeastern States Research Cooperative. A survey of nitrate isotopes to detect atmospheric nitrate inputs to stream and soil waters of forested watersheds in the northeastern USA. \$14,919. <http://nsrcforest.org/projectpages/ongoing.php?id=166>.
08. 2010 to 2012: Co-PI, Great Lakes Air Deposition Program. Impacts of Forest Biomass Harvesting on the mobility and bioaccumulation of mercury in the western Great Lakes region. \$123,800.
09. 2009 to 2011: Co-PI, US Dept. of Energy. Science Plan for the Climate Change Response Scientific Focus Area. \$14,715,666. <https://mnspruce.ornl.gov>. Renewals are expected on 3-year cycles through 2023 (>\$4,000,000/year).
10. 2008 to 2009: Co-PI, Northeastern States Research Cooperative. Continuous *in situ* measurement of carbon quality as a tool for understanding stream mercury dynamics in northern forests. \$134,537. <http://nsrcforest.org/projectpages/ongoing.php?id=108>.
11. 2005: PI, East Asia-Pacific Summer Institute, National Science Foundation/Japan Society for the Promotion of Science. **Sebestyen SD**. \$6,000. <http://www.nsf.gov/od/oise/eapsi-05-awds.jsp>.
12. 2004: Co-PI, Cornell University Program in Biogeochemistry and Environmental Biocomplexity. The influence of groundwater pH on brook trout (*Salvelinus fontinalis*) reproduction: A biogeochemical control on brook trout in northern lakes. \$3,880.
13. 2003: PI, US EPA Science To Achieve Results (STAR) Fellowship. Critical Landscape Interfaces: The coupled role of hydrologic flowpaths and biogeochemical processes in controlling solute fluxes from forested watersheds. \$17,000 to \$20,000 yearly stipend / tuition / \$5,000 yearly research allowance from 2003 to 2007.
14. 2003: PI, Edna Bailey Sussman Fellowship, SUNY-ESF. \$4,000.

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15. 1999: PI, Program in Biogeochemistry and Environmental Change, Cornell University. Biogeochemistry of near-shore regions of an Adirondack lake during spring snowmelt. \$2,000. <http://www.biogeo.cornell.edu/pastgrants.html>.
16. 1999: PI, Kieckhefer Adirondack Fellowship. Groundwater influence on macrophytes in Adirondack lakes: Interactions at the groundwater and sediment interface. \$5,000.
17. 1998: PI, Summer Graduate Fellowship, Graduate School, Cornell University. Groundwater influence on macrophytes in Adirondack lakes: Interactions at the groundwater and sediment interface. \$1,250.
18. 1998: PI, Program in Biogeochemistry and Environmental Change, Cornell University. Groundwater influence on macrophytes in Adirondack lakes: Interactions at the groundwater, sediment, and macrophyte interface. \$2,500. <http://www.biogeo.cornell.edu/pastgrants.html>.
19. 1998: PI, Kieckhefer Adirondack Fellowship. Groundwater influence on macrophytes in Adirondack lakes: Interactions at the groundwater, sediment, and macrophyte interface. \$3,000.