Wilfred Michael Wollheim, Ph.D.

Curriculum Vitae

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EDUCATION

2005	Ph.D. University of New Hampshire, Earth Science
1994	M.S. University of Wyoming, Zoology
1989	B.S. with Honors. Cornell University, Natural Resources

PROFESSIONAL EXPERIENCE

2016-present	Associate Professor, Department of Natural Resources and Environment, University of New Hampshire
2010-2016	Assistant Professor, Department of Natural Resources and Environment, University of New Hampshire
2008-present	Co-Director, Water Systems Analysis Group, University of New Hampshire
2008-present	Watershed Research Coordinator, Plum Island Long Term Ecological Research Site, Essex County, MA.
2008-present	Research Assistant/Associate Professor, Earth Systems Research Center, University of New Hampshire
2007-2008	Research Scientist III, University of New Hampshire
2001-2006	Research Scientist II, University of New Hampshire
1999-2001	Graduate Research Assistant, University of New Hampshire
1994-1999	Research Assistant I and II, Ecosystems Center, Marine Biological Laboratory
1994	Teaching Assistant, Introductory Biology, University of Wyoming
1993	Teaching Assistant, Wetland Ecology, University of Wyoming
1991-1993	Graduate Research Assistant, University of Wyoming
1991	Research Technician, Institute of Ecosystem Studies, NY
1989-1990	Research Technician, Cornell University, NY
1988	Research Experience for Undergraduates, Hubbard Brook, NH

PROFESSIONAL MEMBERSHIPS

Ecological Society of America
Society of Freshwater Scientists
American Society for Limnology and Oceanography
American Geophysical Union

CURRENT RESEARCH INTERESTS

How humans and nature interact
How humans benefit from environmental processes
Biogeochemical and hydrological responses to urbanization and climate change
Controls of nutrient flux and attenuation in river networks
Ecosystem services in suburban and agricultural New England landscapes
Nitrogen and carbon cycling in aquatic environments
Global biogeochemistry of nutrients and carbon
Feedbacks among biogeochemistry, hydrology, and human activities through time
Development of continental scale aquatic ecosystem models

TEACHING

2017-Fall	NREN 993: Hot Topics: Understanding Science Denialism - Past, Present, and Future.
2011-Present	NREN 751/851: Aquatic Ecosystems (4 credits. Every Fall)
2017-Spring	NREN 791: Capstone Experience (1 credit)
2013-Present	NREN 905: Grant Writing (2 credits. Every Spring)
2012-Present	NREN 707/807: Environmental Modeling (4 credits. Every Other Spring).
2014-Fall	NREN 995.02: Data Analysis Methods for Temporally Intensive Hydrology and Biogeochemistry Measurements (2 credits).
2014-Fall	NREN 995.04: Macroscale Carbon Modeling (2 credits).
2008-Present	Guest Lecture – NREN 400: Science Perspectives (Every Fall)
2012-Present	Guest Lecture – NREN 900: Approaches to Research (Every Fall)
2013/Spring	NREN 993: Hot Topics: An Aquatic Symphony (2 credits)
2011/Spring	Guest Lecture - Freshwater Resources (Burdick)
2009/Fall	Macroscale Hydrology: Application of Hydrology in Support of Sustainability (co-taught with R. Lammers) (4 credits)
2009/Spring	Watershed Hydrology (3 credits)
2008/Fall	Guest Lecture – Environmental Modeling (Frolking/Hurtt)
2008/Spring	Guest Lecture – Aquatic ecosystems (McDowell/Gettel)
1994	Teaching Assistant, Introductory Biology, University of Wyoming
1993	Teaching Assistant, Wetland Ecology, University of Wyoming
1988	Undergraduate Teaching Assistant, The Vertebrates, Cornell University

STUDENT MENTORING (Major Advisees in Bold)

2017-ongoing	Eliza Balch (Earlham College, Undergraduate)
2017-ongoing	Mason Caceres (UNH, Undergraduate, NREN Env. Sci)
2016-ongoing	Daniel Bolster (UNH, M.S. Natural Resources, Major Advisor)
2016-ongoing	Drew Robison (UNH, Ph.D. NRESS, Major Advisor)
2015-ongoing	Chris Whitney (UNH, Ph.D. NRESS, Major Advisor)
2015-ongoing	Lindsey Williams (UNH, PhD. NRESS) - Committee Member
2015-ongoing	Sophie Burke (UNH, PhD. NRESS) - Committee Member
2016-2017	Moussa Siri (UNH, Undergraduate, NREN Env. Sci) – McNair Scholar advisor
2016-2017	Kyle Hacker (UNH, Undergraduate, NREN Env. Sci) – REU advisor
2016-2017	Emily Balcom (UNH, Undergraduate, NREN Env. Sci) – REU advisor
2016-ongoing	Michael Bogonko (UNH, PhD. NRESS) - Committee Member
2015-ongoing	Sam Ingraham (UNH, M.S. Natural Resources) – Committee Member
2014-2016	**Tao Haung** (UNH, M.S., Natural Resources) – Major Advisor
2014-ongoing	**Chris Cook** (UNH, M.S., Natural Resources) – Major Advisor
2014-2016	Sophie Wilderotter (UNH, M.S. Earth Science) – Committee Member
2014-ongoing	Amanda Beal (UNH, NRESS) – Committee Member
2013-2016	Josh Buonapane (UNH, Undergraduate, NREN Env. Sci) – REU advisor
2013-2016	**Chris Whitney** (UNH, M.S., Natural Resources) – Major Advisor
2012-ongoing	Shan Zuidema (UNH, PhD. NRESS) – Committee Member
2012-ongoing	Lauren Koenig (UNH, PhD. NRESS) - Committee Member
2012-2015	Bianca Rodriguez (UNH, M.S. Natural Resources) – Committee Member
2012-ongoing	Leslie Atwood (UNH, PhD. NRESS) - Committee Member

2012-2014 Nicholas Shonka (UNH, M.S. Natural Resources) – Committee Member
2012-2014 Laura Diemer (UNH, M.S. Natural Resources) – Committee Member
2012-2014 David Rosengarten (UNH, M.S. Earth Science) - Committee Member
2012-ongoing **Joshua Cain** (UNH, M.S. Natural Resources) - Major Advisor
2011(summer) **Sophia Burke** (UNH B.S. Natural Resources, NSF-REU program)
2011-2014 **Allison Price** (UNH, M.S. Natural Resources) - Major Advisor
2010-2014 Kate Lawrence (UNH, M.S. Earth Science) - Committee Member
2011-ongoing Rich Brereton (UNH, PhD. NRESS) - Committee Member
2011-2012 **Clayton Hutchinson** (UNH, B.S. Natural Resources, UNH-URC poster)
2011-2014 Anna Meyer (UNH, M.S. Natural Resources) – Committee Member
2011-2016 Danielle Grogan (UNH, PhD. NRESS) - Committee Member
2011-2012 Lucy Parham (UNH, M.S. Natural Resources) – Committee Member
2011-2012 Jason Baillio (UNH, M.S. Natural Resources) – Committee Member
2010-2014 **Claire Treat** (UNH, Ph.D. NRESS) – Major Advisor
2009-2014 **Nat Morse** (UNH, Ph.D. NRESS) – Major Advisor
2009-2012 **Kevin Hanley** (UNH, M.S. Earth Science) – Major Advisor
2009-2012 Amanda Hope (UNH, M.S. Natural Resources) – Committee Member
2009(summer) Valerie Schoepfer (UNH B.S. Natural Res. NSF-REU program) – Advisor
2009(summer) **Wade Shaver** (U. Toledo, B.S.) UNH/NASA Research & Discover Program
2008-2010 Gary Lemay (UNH, M.S. Civil Engineering) – Committee Member
2007-2009 **Nathaniel Morse** (UNH, M.S. Natural Resources) – Major Advisor
2007-2009 **Rob Stewart** (UNH, M.S. Earth Science) – Major Advisor
2004-2007 Jody Potter (UNH, M.S. Natural Resources) – Committee Member
2005-2008 Joseph Thouin (UNH, M.S. Earth Science) – Committee Member

STUDENT AWARDS AND HONORS

2017 Andrew Robison: NRESS and UNH Graduate School Travel Grants
2017 Mason Caceres: Environmental Science Undergraduate. Weeks Research Fellowship
2016 Chris Whitney: EPA STAR Fellowship
2013 Claire Treat: Published News and Views piece in Nature.
2013 Claire Treat: UNH Dissertation Year Fellowship
2012 Nat Morse: Society of Freshwater Scientists Presidential Endowment Fund award ($1,000)
2012 Kevin Hanley: American Geophysical Union, Outstanding Student Paper (Oral) for Understanding controls on dissolved organic carbon flux and lability in United States watersheds. San Francisco.
2009 Rob Stewart: Long Term Ecological Research All Scientists Meeting, 4th Honorable Mention for Best Student Poster for: Separation of river network scale nitrogen removal among the main channel and two transient storage compartments.

POSTDOCTORAL FELLOW ADVISING

2014-2016 **Nihar Samal** (UNH, Post Doc, obtained PhD from Jadavpur U., India)
2012-2014 **Madeleine Mineau** (UNH, Post Doc, obtained PhD from Idaho State U., now Research Assistant Professor in EOS, UNH)
2012-2015 **Ken Sheehan** (UNH, Post Doc, obtained PhD from West Virginia U.)
2011-2013 **Kyle Whittinghill** (UNH, Post Doc, obtained PhD from U. of Minnesota, now an Assistant Professor at St. Olaf College, MN)
2011-2015 **Richard Carey** (UNH, Post Doc, obtained PhD from U. of Florida, now Research Scientist 2 at UNH)
2008-2009 **Gretchen Gettel** (UNH, Post Doc, obtained PhD from Cornell U., now at UNESCO- International Hydrologic Institute, Netherlands)

PANELIST

2017 (May) NSF- Arctic System Science
2016 (November) LTER synthesis working group
2016 (October) NSF-Ecosystem Science
2015 (March) NSF-Ecosystem Science
2011 (March) NSF-Ecosystem Science
2010(September) NASA-Carbon Cycle Science
2007 NASA-ESSF (Earth System Science Fellowship)

JOURNAL EDITOR

2013-2104 Biogeochemistry (Guest Editor, Special Issue on Urban Streams)

JOURNAL REVIEWER

Proceedings of the National Academy of Science, Environmental Science and Technology, Ecosystems, Nature Geoscience, Freshwater Science, Journal of the American Water Resources Association, Biogeoscience, Earth Interactions, Ecology, Geophysical Research Letters, Water Resources Research, Global Biogeochemical Cycles, Journal of the North American Benthological Society, Biogeochemistry, Journal of Environmental Quality, Limnology and Oceanography, Water Soil and Air Pollution, USGS-Peer Review

PROGRAM/PROPOSAL REVIEWER

Deutsche Forshungs Gemeinshaft (2017), New York Agricultural Experiment Station (2017), NSF Arctic Natural Science (2016), LTER synthesis working group Review Panel (2016), NSF Ecosystems Panel (2011, 2015, 2016), NSF Geobiology and Low Temperature Geochemistry (2015), Maryland SeaGrant (2015), Maine Agriculture Experiment Station (2013, 2014), Vermont Water Resources Center (2012), New Hampshire Water Resources Center (2012), Minnesota Water Resources Center (2011), NSF-Hydrology (2011, 2017), NOAA/NSF-CAMEO, NSF-OPP, NSF-GEO/EAR, NASA-LBA, NSF-GRS (Geography and Regional Science), NASA-Carbon, NASA-TE (Terrestrial Ecology), National Institute of Climate Change Research (2006 and 2007), UNH-WRRC (Water Resources Research Center), Minnesota Sea Grant (2011)

HONORS

2013 Outstanding Reviewer for Journal Biogeochemistry
2004 Outstanding Student Paper Award – Biogeosciences Section – AGU Montreal
1989 Honors, Department of Natural Resources, Cornell University

UNIVERSITY SERVICE

2017-present Search Committee, External Chair for new Department of Agriculture, Nutrition and Food Systems in COLSA, UNH.
2016-04 Panelist: Women in Science and Engineering. Implicit Bias.
2016-present Coordinator: Environmental Science Degree Program, Department of Natural Resources and Environment, University of New Hampshire
2009-present Co-Director (with R. Lammers) Water Systems Analysis Group (ESRC/EOS)
2015-present Undergraduate Research Conference - Integrated Science and Engineering, Planning Committee.
2015-present Search Committee, Environmental Microbiology Cluster Hire
2014-present Member, COLSA Academic Affairs Committee
2015-present Member, URC-Interdisciplinary Science and Engineering Committee
2015-present Search Committee, Environmental Microbiology Cluster hire
2014-2015 Search Committee, UNH Bioscience Librarian
2014(Spring) Chair, Search Committee, NREN Environmental Science Lecturer
2013-present Coordinating Committee For NH-EPSCoR Ecosystems and Society (PI committee)
2013(Fall) Search Committee, UNH Bioscience Librarian
2013 and 2015 (Fall) Organic Dairy Research Field Day
2012-2013 NH Sea Grant Know the Coast Day/Ocean Appreciation Day presenter (annual)
2012-present COLSA Undergraduate Research Conference organizing committee
2011-present CUAHSI representative for UNH
2012-2014 PreAward Services Working Group
2012-2014 Summer Teaching Assistant Fellowship Committee
2011(Fall) NRESS recruitment booth at AGU in San Francisco
2011-2012 Research and Development Infrastructure Committee
2011(Spring) Panelist for UNH ADVANCE Collaborative Scholarship Award program
2011(Spring) UNH Representative at Northeast Forum of USDA: Adapting to Climate Change in the Northeast: Water Quantity and Quality Challenges for Agricultural and Natural Systems
2011(Spring) Interviewee for Class Project - Faris al-Hashmi (turned into newspaper article for the New Hampshire)
2008-2011 Curriculum Committee - Institute for the Study of Earth, Ocean and Space
2009(Fall) Co-Organizer of the UNH Environmental Science Seminar Series with the theme of Ecosystem Services (http://www.unh.edu/nressphd/Env-Sci-Seminars-09.html)
2008 Representative for EOS at Association of Ecosystem Research Centers

OUTSIDE SERVICE

2017-present Chair, Endowment Committee – Society of Freshwater Scientists
2016 (Fall) Panelist: LTER synthesis working group Review Panel
2016 (Fall) Panelist: NSF Ecosystem Science Proposal Review Panel
2016 (Spring) Presenter and Participant: New Hampshire Stakeholders Workshop, Concord NH. May 17, 2016
2015 (Spring) Panelist: NSF Ecosystem Science Proposal Review Panel
2014-present Member, Technical Advisory Committee – Parker, Ipswich, Essex River Restoration Progress Committee
2014-present Member Endowment Committee – Society of Freshwater Scientists
2014 (Spring) Organizer of NASA funded Workshop. Co-conveners Mineau, Salisbury, Green. Strategies to Improve Understanding of DOC Dynamics through Time-varying Regional to Continental Scale Models. Held at UNH. Jun 9-10, 2014. 22 Participants.
2013-2014 Guest Editor, Biogeochemistry. Special Issue on Urban Streams.
2013-present Mentor for new faculty on EPSCoR project at Keene St. University (D. Burchsted)
2013-present Durham-UNH Integrated Permit Technical Advisory Committee
2011-present NEON Aquatic Advisory Committee
2012-present Student Oral Presentation Judge At Annual Meeting each year of the Society of Freshwater Science.
2009-present Watershed Research Team Lead for Plum Island LTER (co-PI on project)
2011(Fall) AGU student oral presentation judge, San Francisco CA, December 2011
2011 (Spring) Student Oral Presentation Judge: North American Benthological Society Meeting in Providence RI, May 2011
2011 (Spring) Panelist: NSF Ecosystem Science Proposal Review Panel
2010 (Fall) Poster Judge: AGU Fall Meeting in San **Francisco**. December 2010.
2010 (Fall) Panelist: NASA Carbon Cycle Science Review Panel
2010 (Spring) Poster Judge - NABS Annual Meeting in Sante Fe NM. June 2010.
2010 (Spring) Co-Organizer of LTER All Scientist Meeting Follow-on Synthesis Workshop with J. Kominoski, R. Barnes, J. Blair, E. Hotchkiss, and A. Ulseth. Predicting the influence of inland climate change on continental-scale carbon and nutrient processing in river networks. June 2010
2010 (Spring) Co-Organizer of Special Session at National Meeting of ASLO/NABS: Development of Continental-Scale Aquatic Ecosystem Models. June 2010
2009 (Fall) Co-Organizer of LTER Working Group: Quantifying carbon and nutrient transformations in aquatic ecosystems at regional to continental scales. LTER All Scientists Meeting, Estes Park CO. September 2009.
2009-2014 Unfunded Co-Investigator (Active) – NSF-ULTRAex: Boston Metropolitan Area ULTRA: Exploring past, current and future socio-ecological dynamics in a founding city.
2009-present Liaison – Plum Island Estuary LTER site contact for National Ecological Observatory Network (NEON)
2008-2012 Working Group Member (Active) - NSF-Cuashi Hydrologic Synthesis Activity. Humans Transforming the Hydrologic Cycle
2004-present Technical Advisory Committee, Ipswich River Watershed Association (IRWA)

2007	NASA Review Panel (ESSF - Earth System Science Fellowship)
2007	Invited Speaker – EPA Workshop – Common Ground For Conserving Ecosystem Services
2006	Invited Speaker – Mississippi River Science Symposium: Sources, Transport, and Fate of Nutrients in the Mississippi and Atchafalaya River Basins.
2004-2006	GIS Day guide, EOS, UNH
2003	Invited Speaker – Ipswich River Watershed Restoration Conference
2003	Presentation at Ipswich River Watershed Association (IRWA) annual meeting
2002	Presentation at IRWA annual meeting
2002	Contributor – IRWA report: A multivariate regression analysis of dissolved oxygen in the Ipswich River mainstem.

EXTERNAL RESEARCH FUNDING

2016-2022 NSF-LTER. LTER-Plum Island Ecosystems: Dynamics of a coastal ecosystem in a region of rapid climate change. 424,888 (UNH Portion). 1 mo Summer/yr

2016-2018 EPA: Estimating Spatially Explicit Water Quality Benefits throughout River Systems: Development of Next Generation Stated Preference Methods Using National Probability Samples and Online Labor Pools. Lead PI at UNH with Rob R. Johnston. $200,000 (UNH portion). 1 mo Summer/yr.

2014-2017 NH-AES: Are all non-point sources created equally? Understanding the role of landscape heterogeneity and nutrient retention processes in agricultural and suburban lands of Sea Coast NH. $30,000.

2013-2016 NSF EPSCoR Track 2 (with U Maine). Collaborative Research: Strengthening the scientific basis for decision making: Advancing sustainability science and knowledge-action capacities in coupled coastal systems. (w/ J. Nisbet - PI). Lead of watershed modeling portion. $217,524 (Wollheim portion). 1 Summer/yr

2013-2015 University of New Hampshire: Baseline quantification of the magnitude and timing of non-point nitrogen fluxes in the Oyster River and its impacted tributaries. Lead PI, with Carey, Mulukutla. $142,243 in year 1, $95,000 in year 2

2012-2016 NSF-LTER. ***OCE-1238212*** LTER-PIE: Interactions Between External Drivers, Humans and Ecosystems in Shaping Ecological Process in a Mosaic of Coastal Landscapes and Estuarine Seascapes. Lead PI at UNH with A. Giblin, C. Hopkinson, L. Deegan, G. Pontius, J. Vallino, J. Morris. $322,688 (UNH portion). 1.0 mo Summer/yr.

2012-2014 NOAA-SEAGRANT. Understanding the Mechanisms Controlling Storm Event Nitrogen Fluxes from the Lamprey River Watershed using Continuous in situ Sensors. Lead PI, with McDowell, Robinson, Peterson, Dailey, Toppin, Pellerin. $200,000. 0.25 Summer/yr

2012-2013 NSF-EPA ULTRA. EPA ULTRA Climate Project. Lead PI at UNH, with P. Warren, C. Polsky. $9,000 (UNH portion).

2011-2016 NSF-EPSCoR Track 1. Interaction Among Climate, Land Use, Ecosystem Services and Society (Named Co-Investigator, w/ J. Nisbet - PI). Lead of aquatic modeling

portion. $1,600,000 (Water Systems Analysis Group portion). $20,000,000. 1 summer/yr

2011-2014 NH-AES: Scaling the Impact of Agricultural Activity on Water Quality Through Time and Space in the Great Bay Watershed. $30,000.

2011-2015 NSF-Macrosystem Biology. #EF1065255 Collaborative Research: Stream Consumers and Lotic Ecosystem Rates (SCALER): Scaling from Centimeters to Continents. Lead PI at UNH, with Dodds (overall Lead PI), Ballantine, Bowden, Whiles, Rosemond, Jones, McDowell. $735,916 (UNH portion). $464,567 (Wollheim portion). 0.25 Summer/yr.

2011-2014 NSF-EaSM. Type 2 - LOI02170327 - EaSM-1049181 A Regional Earth System Model of the Northeast Corridor: Analyzing 21st Century Climate and Environment. Lead PI at UNH with Vorosmarty, Duchlin, Gonzalez, Melillo. $300,000 (UNH Portion). 1.5 mo AY/yr.

2010-2012 *NSF-LTER*. Plum Island Sound Comparative Ecosystem Study. Lead PI at UNH with A. Giblin, C. Hopkinson, L. Deegan, J. Vallino, J. Morris. $154,283 (UNH portion).

2010-2013. *EPA-STAR: Consequences of Global Change on Water Quality*. Impact of Climate Change and Variability on the Nation's Water Quality and Ecosystem State. lead PI at UNH with C. Vorosmarty(CCNY), and L. Poff (U. Colorado). $300,000 (UNH portion).

2009-2012 *NSF Chemical Oceanography*. ETBC: Collaborative Research: Controls on the Flux, Age, and Composition of Terrestrial Organic Carbon Exported by Rivers to the Ocean. Lead PI at UNH with M. Holmes (WHRC), Peucker-Ehrenbrink (WHOI) and others. $83,687 (UNH portion).

2009-2012. *NSF-CSAS*. Collaborative Research: How Does Changing Seasonality Affect the Capacity of Arctic Stream Networks to Influence Nutrient Fluxes from the Landscape to the Ocean? lead PI at UNH with B. Bowden (UVM) and M. Gooseff (PSU). $340,920 (UNH portion).

2009-2013. *NASA-NEWS*. Tracking Dissolved Organic Carbon and Its Absorption Characteristics Along the Aquatic Continuum Over Time Using a Remote Sensing Based Approach. lead PI, with Co-I's J. Salisbury (at UNH), and G. Aiken (USGS). $740,592.

2007-2011 *NSF-DEB-Coupled Human Natural Systems.* Suburbanization, Water-Use, Nitrogen Cycling & Eutrophication in the 21st Century: Interactions, Feedbacks & Uncertainties in a Massachusetts Coastal Zone. Lead PI at UNH with C. Polsky, C. Hopkinson, G. Pontius, C. Vorosmarty. $336,826.

2006-2009 *NSF-DEB-Ecosystems*. Collaborative Research: Understanding the Scaling of N Cycle Controls Throughout a River Network. Lead PI at UNH with C. Vorosmarty, B. Peterson, C. Hopkinson, M. Gooseff. $369,292.

2004-2010 *NSF-LTER*. Plum Island Sound Comparative Ecosystem Study. Lead PI at UNH with A. Giblin, C. Hopkinson, B. Peterson, L. Deegan, J. Vallino, J. Morris. $407,544.

PUBLICATIONS (In Review, In Press, or Accepted; First Authors from Wollheim Lab Highlighted in Bold, * represents student led papers)

Wollheim, W.M., G.K. Mulukutla, C. Cook, R.O. Carey. In Review. Aquatic nitrate retention at river network scales across flow conditions determined using nested in situ sensors. Water Resources Research.

Sheehan, K.R., W.M. Wollheim, J. Ruegg, M. Trentman, K.J. Farrell, J. Kominoski, W.K. Dodds, A. Rosemond. (In Preparation). Quantifying Aquatic Metabolism of Entire River Networks. Limnology and Oceanography.

***Zuidema**, S. W.M. Wollheim, M.M. Mineau, M.B. Green, R.J. Stewart. In Preparation. Chloride impairment in a New England river network: regional assessment using a dynamic watershed transport model. Water Resources Research

Samal, N., W.M. Wollheim, S. Zuidema, R. Stewart, Z. Zhou, M. Mineau, T. Huang, S. Glidden, C. Wake, M. Borsuk, D. Lutz, G. Mavormatti, K. Gardner. In Press. **Projections of coupled terrestrial and aquatic ecosystem change relevant to ecosystem service valuation at regional scales. Ecology and Society.**

Mulukutla, G.K., W.M. Wollheim, J.E. Salisbury, R. Carey, T.K. Gregory, W. McDowell. In Review. High frequency concurrent measurements in watershed and impaired estuary reveal coupled DOC and decoupled Nitrate dynamics. Geophysical Research Letters**.**

Contosta, A., et al. (In Press), A longer vernal window: the role of winter coldness and snowpack in lengthening spring and implications for ecosystem function, *Glob. Change Biol.*

Wlostkowski, A., M.N. Gooseff, W.B. Bowden, W.M. Wollheim. In Press. Stream tracer breakthrough curve decomposition into mass fractions: A simple framework to analyze and compare conservative solute transport processes. Limnology and Oceanography: Methods

***Treat, C**., W.M. Wollheim, R.K. Varner, W.B. Bowden. 2016. Increased nitrate availability for leaching during fall in tundra soils. Environmental Research Letters.

Mineau, M.M., W.M. Wollheim, I.D. Buffam, S.E.G. Findlay, R.O. Hall, E. Hotchkiss, L.E. Koenig, W.H. McDowell, T.B. Parr. 2016. Dissolved organic carbon uptake in streams. JGR-Biogeoscience.

Ruegg, J., W.K. Dodds, M.D. Daniels, K.R. Sheehan, C.L. Baker, W.B. Bowden, K.J. Farrell, M.B. Flinn, T.K. Harms, J.B. Jones, L.E. Koenig, J.S. Kominoski, W.H. McDowell, S.P. Parker, A.D. Rosemond, M.T. Trentman, M. Whiles, W.M. Wollheim. 2015. Baseflow physical characteristics differ at multiple spatial scales in stream networks across diverse biomes. Landscape Ecology. DOI 10.1007/s10980-015-0289-y.

Wollheim, W.M. 2016. From Headwaters to rivers to river networks: scaling in stream ecology. In Streams In a Changing Environment. J. Jones and E. Stanley. Eds. Elsevier. 547pp.

Mineau. M.M., W.M. Wollheim, and R.J. Stewart. 2015. An index to characterize the spatial distribution of land use within watersheds and implications for river network nutrient removal and export, Geophysical Research Letters. 42, doi:10.1002/2015GL064965

Wollheim, W.M., R.J. Stewart, G.R. Aiken, K.D. Butler, N.B. Morse, and J. Salisbury. 2015. Removal of terrestrial dissolved organic carbon in aquatic ecosystems of a temperate river network. Geophysical Research Letters. 42, doi:10.1002/2015GL064647

Kaushal, S.S., W.H. McDowell, W.M. Wollheim, T.A. Newcomer Johnson, P.M. Mayer, K. T. Belt, M.J. Pennino. 2015. Urban evolution: the role of water. Water. 7, 4063-4087; doi:10.3390/w7084063

Hale, I.L, W.M. Wollheim, R.G.Smith, H. Asbjornsen, A.F. Brito, K.D. Broders, A.S. Grandy, R.J. Rowe. 2014. Pushing the boundaries: A conceptual framework for assessing the

environmental impacts of expanding local agriculture. Sustainability. *6*, 8432-8451; doi:10.3390/su6128432

Kaushal, S.S., W.H. McDowell, W.M. Wollheim. 2014. Tracking evolution of urban biogeochemical cycles: past, present, and future. Biogeochemistry. 121: 1-21. DOI:10.1007/s10533-014-0014-y

Wollheim, W.M., T.K. Harms, B.J. Peterson, K. Morkeski, C.S. Hopkinson, R.J. Stewart, M.N. Gooseff, M.A. Briggs. 2014. Nitrate uptake dynamics of surface transient storage in channels and fluvial wetlands. Biogeochemistry. 120: 239-257.

Carey R.O., W.M. Wollheim, and G.K. Mulukutla. 2014. Characterizing Storm-Event Nitrate Fluxes in a Fifth Order Suburbanizing Watershed Using In Situ Sensors. Environmental Science and Technology. 10.1021/es500252.

LINX collaborators: W. K. Dodds, J. R. Webster, C. L. Crenshaw, A. M. Helton, J. M. O'Brien, E. Martí, A. E. Hershey, J. L. Tank, A. J. Burgin, N. B. Grimm, S. K. Hamilton, D. J. Sobota, G. C. Poole, J. J. Beaulieu, L. T. Johnson, L. R. Ashkenas, R. O. Hall, Jr., S. L. Johnson, W. M. Wollheim, W. B. Bowden. 2014. The Lotic Intersite Nitrogen Experiments: an example of successful ecological research collaboration. Freshwater Science. DOI: 10.1086/676938

*** Treat, C**. W.M. Wollheim, R. Varner, A.S. Grandy, S. Frolking. 2014. Temperature and substrate quality control decomposition in Alaskan permafrost peatlands. Global Change Biology. DOI: 10.1111/gcb.12572

*** Morse, N.B.** and W.M. Wollheim. 2014. Climate variability masks the impacts of land use change on nutrient export in a suburbanizing watershed. Biogeochemistry. 121: 45-59. DOI: 10.1007/s10533-014-9998-6.

Wollheim, W.M, M.B. Green, C.S. Hopkinson, B.A. Pellerin, N.B. Morse. 2013. Impacts of ecosystem service regionalization on a suburban New England watershed. Estuaries and Coasts. DOI 10.1007/s12237-013-9646-8

*** Hanley, K. W**., W.M. Wollheim, J. Salisbury, T. Huntington, G. Aiken. 2013. Controls on dissolved organic carbon quantity and chemical character in temperate rivers of North America. Global Biogeochemical Cycles. DOI: 10.1002/gbc.20044

*** Stewart, R. J**., W. M. Wollheim, A. Miara, C. J. Vorosmarty, B. Fekete, R. Lammers, and B. Rosenzweig. 2013. Horizontal Cooling Towers: Riverine Ecosystem Services and the Fate of Thermoelectric Heat in the Contemporary Northeast. Environmental Research Letters. 8 025010 doi:10.1088/1748-9326/8/2/025010

Miara, A., C.J. Vorosmarty, R. Stewart, W. Wollheim, and B. Rosenzweig. 2013. Riverine ecosystem services and the thermoelectric sector: Strategic issues facing the Northeastern United States. Environmental Research Letters, 8: {Miara, 2013 #3072}.

Vorosmarty, C.J., L. Bravo de Guenni, W.M. Wollheim, B. Pellerin, D. Bjerklie, M. Cardoso, C. D'Almeida, P. Green, L. Colon. 2013. Extreme rainfall, vulnerability and risk: A continental-scale assessment for South America. Philosophical Transactions of the Royal Society A. 371. doi: 10.1098/rsta.2012.0408

Hope, A.J., W.H. McDowell, W.M. Wollheim. 2013. Ecosystem metabolism and nutrient uptake in an urban, piped headwater stream. Biogeochemistry. 121: 167-187. DOI:10.1007/s10533-013-9900-y

Hale, R.L., J.H. Hoover, W.M. Wollheim, C.J. Vorosmarty. 2013. History of nutrient inputs to the northeastern United States, 1930–2000. Global Biogeochemical Cycles. 27, 1-14, doi:10.1002/gbc.20049

*** Morse, N.B.,** W.M. Wollheim, J.P. Benstead, W.H. McDowell. 2012. Impacts of suburbanization on food web stoichiometry in detritus-based streams of New England. Freshwater Science. 31: 1202-1213.

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PRESENTATIONS (First Authors from Wollheim Lab Highlighted in Bold)
2016

Zuidema S., Wollheim, WM, Schloss, AL, 2017. Chloride and temperature threats to aquatic ecosystems for uncertain futures in New Hampshire and Great Bay watersheds. Annual Meeting of New England Association of Environmental Biologists. Hartford, CT, 2017-03-14
Huang, T., W.M. Wollheim, and R.J. Stewart. 2017. Assessing fecal indicator bacteria removal in New England watersheds. 41st Annual New England Association of Environmental Biologists Conference. Hartford, Connecticut. Mar 14-16, 2017.
Huang, T., W.M. Wollheim, and R.J. Stewart. 2017. Environmental control of fecal indicator bacteria from land to the ocean: the importance of river networks. Plum Island Ecosystems LTER All Scientists Meeting. Woods Hole, Massachusetts. Mar 6-8, 2017.

Huang, T., W.M. Wollheim, and R.J. Stewart. 2017. Quantifying fecal indicator bacteria removal in New England watersheds for ecosystem service management. 2017 Lamprey River Symposium. University of New Hampshire, Durham, New Hampshire. Jan 9, 2017.

Wollheim, W.M., 2017. The importance of aquatic ecosystem function at watershed to regional scales. Northeastern University Marine and Environmental Sciences. Northeastern University Marine Science Center. March 16, 2017.

Wollheim, W.M., 2017. Changes in biogeochemical supply and demand during storm events alter the role of river networks in controlling downstream exports. **AGU Chapman Conference on Extreme Climate Event Impacts on Aquatic Biogeochemical Cycles and Fluxes**. San Juan, Puerto Rico. January 23, 2017.

Wollheim, W.M., 2016. The importance of aquatic ecosystem function at watershed to regional scales. Earth System Science Interdisciplinary Center Seminar Series. University of Maryland. November 28, 2016.

Wollheim, W.M., 2016. The importance of aquatic ecosystem function at watershed to regional scales. Life Sciences Seminar Series. University of Alaska, Fairbanks, Institute of Arctic Biology. September 30, 2016

Wollheim, W.M., 2016. The importance of aquatic ecosystem function at watershed to regional scales. Biogeosciences Seminar Series. Boston University. September 12, 2016

Huang, T., 2016. Fecal indicator bacteria removal by river networks. Thesis defense. University of New Hampshire, Durham, New Hampshire. Aug 5, 2016.

Balcom, E. C. Bunyon, W. Wollheim. 2016. Effects of freshwater tributary inputs on fecal coliform levels in Little Bay. UNH Summer Undergraduate Research Conference.

Hacker, K., W.M. Wollheim, C.Whitney, and A. Robison. 2016. Greenhouse Gas Emissions of Two Dammed Reservoirs. UNH Summer Undergraduate Research Conference.

Zuidema, S, WM Wollheim, 2016, Characterizing the present and future extent of chloride impairment in the Merrimack River New Hampshire, USA, Society for Freshwater Sciences Annual Meeting, Sacramento, CA, May 23, 2016.

Wollheim, W., W. Dodds, M. Whiles, K. Sheehan, R. Stewart, F. Ballantyne, C. Baker, W. Bowden, K.J. Farrell, M. Flinn, K. Gido, T. Harms, A. Helton, J. Jones, L.E. Koenig, W. McDowell, S. Parker, A. Rosemond, J. Ruegg, C. Song, M. Trentman, and J.S. Kominoski. Scaling laws for aquatic metabolism vs. watershed size. 2016 Society for Freshwater Science meeting, Sacramento, CA. (Oral)

Cook, C., W.M. Wollheim, G. Mulukutla. 2016. Understanding storm event nitrate export in different land uses. 2016 Society for Freshwater Science meeting, Sacramento, CA. (Oral)

Dodds, W.K., W. Wollheim, C. Baker, F. Ballantyne, B. Bowden, M. Evans-White, K. Farrell, M. Flinn, B. Frenette, E. Garcia, J. Guinnip, T. Harms, S. Higgs, D. Hoeinghaus, J. Jones, L. Koenig, J.S. Kominoski, D. Larson, R. Lehrter, R. Mapes, W. McDowell, D. McMaster, S. Parker, B. Penaluna, A. Rosemond, J. Ruegg, J. Scott, K. Sheehan, A. Siders, C. Song, M. Spangler, R. Taylor, M. Trentman, M. Whiles, and A. Argerich. Implications of spatial heterogeneity for scaling lotic metabolism. 2016 Society for Freshwater Science meeting, Sacramento, CA. (Oral).

Wollheim, W.M., S. Zuidema, N. Samal, Z. Zhou, R. Stewart, C. Wake. 2016. Coupled and terrestrial and aquatic regional responses to land use change and climate variability. Scenarios, Services, and Society Research Coordination Network Workshop III: Moving Ecosystem Service Models to Human Benefits. Burlington VT. May 19, 2016.

Wollheim, W.M. 2016. Coupled and terrestrial and aquatic regional responses to land use change and climate variability. New Hampshire Stakeholders Workshop, Concord NH. May 17, 2016.

Wollheim, W.M. 2016. Dissolved Organic Carbon in Surface Waters. New Hampshire Department of Environmental Services. April 19, 2016. (Invited).

Stewart, R.J., W.M. Wollheim, M.M. Mineau, K.A. Whittinghill, S. Zuidema, B. Rosenzweig. Natural vs. Anthropogenic Aquatic Infrastructure: How Aquatic Ecosystem Services of DIN Removal Interact with Wastewater Treatment in the Northeast U.S., New Hampshire Water and Watershed Conference, Plymouth NH, March 2016.

Zuidema, S, Chloride impairment of the Merrimack River through 2100:the interactive roles of climate, development, and management. New Hampshire Waters and Watersheds, Plymouth, NH, March 18, 2016.

Huang, T., W.M. Wollheim, R.J. Stewart. 2016. The role of river networks in regulating fecal coliform. 2016 NH Water & Watershed Conference. Plymouth State University, Plymouth, New Hampshire. Mar 18, 2016.

2015

Whitney, C.T., W.M. Wollheim, G. Mulukutla, A. Lightbody. 2015. Fluvial Wetland Nitrogen Removal in Shallow Sloped, Coastal New England Watersheds. American Geophysical Union Annual Meeting, San Francisco, CA, December, 2015. (Poster)

Wollheim, W.M., R.J. Stewart, G.R. Aiken, K.D. Butler, N.B. Morse, and J. Salisbury. 2015. Removal of terrestrial dissolved organic carbon in aquatic ecosystems of a temperate river network. American Geophysical Union Annual Meeting, San Francisco, CA, December, 2015. (Oral)

Dodds, et al. 2015. Biome Context and Lotic Ecosystem Rates. American Geophysical Union Annual Meeting, San Francisco, CA, December, 2015. (Poster)

Song, C. et al. 2015. Temperature sensitivity of stream gross primary production and respiration from the tropics to the arctic. American Geophysical Union Annual Meeting, San Francisco, CA, December, 2015. (Poster)

Wollheim, W.M., N. Samal, Z. Zhou, S. Zuidema, R.J. Stewart, M. M. Mineau. 2015. Coupled terrestrial and aquatic regional responses to land use change and climate variability in a temperate New England watershed. American Geophysical Union Annual Meeting, San Francisco, CA, December, 2015. (Oral)

Samal, N.R., W.M. Wollheim, R.J. Stewart, S. Zuidema, A. Proussevich, S. Glidden, T. Huang 2015. Sensitivity of New England Stream Temperatures to Air Temperature and Precipitation Under Projected Climate. American Geophysical Union Annual Meeting, San Francisco, CA, December, 2015. (Poster)

Buonpane, J.M., W.M. Wollheim, C.T. Whitney. 2015. What factors control the percentage of nitrogen that gets exported downstream from man-made reservoirs? American Geophysical Union Annual Meeting, San Francisco, CA, December, 2015. (Poster)

Huang, T., W.M. Wollheim, R.J. Stewart. 2015. Fecal Coliform Removal by River Networks. American Geophysical Union Annual Meeting, San Francisco, CA, December, 2015. (Oral)

Zuidema, S., A. Thorn, W.M. Wollheim, C.P. Wake, M. M. Mineau. 2015. Understanding potential futures of riverine chloride impairment in New England USA due to climate

change, groundwater storage, and human activities. American Geophysical Union Annual Meeting, San Francisco, CA, December, 2015. (Poster)

Mineau, M.M., W.M. Wollheim, R.J. Stewart, and C.W. Hunt. 2015. Developing a regional to continental scale model of dissolved organic carbon fluxes and processing in river networks. Annual Meeting of the Society of Freshwater Science. Milwaukee, WI. (Oral).

Carey, R.O., W.M. Wollheim, G. Mulukutla. 2015. Variable coupling of carbon, nitrogen, and phosphorus concentrations during baseflow and storms in a suburbanizing watershed. Annual Meeting of the Society of Freshwater Science. Milwaukee, WI. (Oral).

Sheehan, K, W.M. Wollheim et al. 2015. Beyond our reach? Extrapolating network-scale aquatic metabolism from reach-scale observation. Annual Meeting of the Society of Freshwater Science. Milwaukee, WI. (Oral).

Wollheim, W.M., M.M. Mineau, R.J. Stewart, S. Zuidema, N. Samal. T. Huang, Z. Zhou. 2015. Understanding land use and climate impacts on water quality across spatial scales: interactions of scale, intensity, dilution, and ecosystem services (ISIDES). Annual Meeting of the Society of Freshwater Science. Milwaukee, WI. (Oral)

Huang, T., W.M. Wollheim, R.J. Stewart. 2015. Increasing the understanding of pathogen removal ecosystem service by aquatic ecosystems to improve water sustainability. Maine Sustainability & Water Conference. Augusta Civic Center, Augusta, Maine. March 31, 2015.

Huang, T., W.M. Wollheim, R.J. Stewart. 2015. A modeling approach to evaluate pathogen loading and in-stream removal at the watershed scale. . New Hampshire Watersheds 2015 Joint NEAEB/NH Water & Watershed Conference: Partnerships for Environmental Progress. March 18-20, 2015, Bartlett, NH

Wollheim, W.M. 2015. Understanding the Controls of Multiple Water Quality at Regional Scales by Linking a Spatially Distributed Model and an In-Situ Sensor Network. New Hampshire Watersheds 2015 Joint NEAEB/NH Water & Watershed Conference: Partnerships for Environmental Progress. March 18-20, 2015, Bartlett, NH

Wollheim, W.M. G. Mulukutla, R.O. Carey, C. Cook, W. McDowell, J. Potter, L. Snyder, M. Daley, K. Toppin, K. Robinson, T. Smith. 2015. Understanding the mechanisms controlling storm event nitrate fluxes from the Lamprey River Watershed using continuous in situ sensors. New Hampshire Sea Grant Site Review. Durham. NH

Wollheim, W.M., G. Mulukutla, et al. 2015. Understanding the mechanisms controlling storm event nitrate fluxes from the Lamprey River Watershed using continuous *in situ* sensors. 2015 New Hampshire Sea Grant Symposium. Durham, NH.

Wollheim, W.M. 2015. Interactions of climate and land use in controlling nitrogen fluxes through the Oyster R. watershed in 2013 and 2014. Eighth Annual Lamprey River Symposium. Durham NH.

2014

Cain, J., W. Wollheim, K. Sheehan, A. Lightbody. 2014. Heterogeneity in a Suburban River Network: Understanding the Impact of Fluvial Wetlands on Dissolved Oxygen and Metabolism in Headwater Streams. American Geophysical Union Annual Meeting, San Francisco, CA, December, 2014. (Poster).

Hunt, C., J. Salisbury, W. Wollheim, M. Mineau, R. Stewart. 2014. The Buffering Balance: Modeling Arctic river total-, inorganic-, and organic-alkalinity fluxes. American Geophysical Union Annual Meeting, San Francisco, CA, December, 2014. (Oral).

Kaushal S, W. McDowell, W. Wollheim, S. Duan et al. 2014. Tracking evolution of urban biogeochemical cycles: salinization of fresh water. American Geophysical Union Annual Meeting, San Francisco, CA, December, 2014. (Oral).

Rosenzweig, B. et al. 2014. A megaregion-scale approach for assessing the impacts of climate change and strategic management decisions in the Northeast United States. (Wollheim 8th author out of 14 total). American Geophysical Union Annual Meeting, San Francisco, CA, December, 2014. (Poster).

Wilderotter, S. A. Lightbody, L. Kalnejais, W. Wollheim. 2014. Transient Storage Parameterization of Wetland-dominated Stream Reaches. American Geophysical Union Annual Meeting, San Francisco, CA, December, 2014. (Poster).

Stewart, R. W. Wollheim, K. Whittinghill, M. Mineau, B. Rosenzweig. 2014. Natural and Anthropogenic Water Treatment: How Riverine Ecosystem Services of Nitrogen Removal Interact with Wastewater Treatment Infrastructure in the Northeast U.S. American Geophysical Union Annual Meeting, San Francisco, CA, December, 2014. (Poster).

Wollheim, W. G. Mulukutla, C. Cook, R. Carey. 2014. Understanding dynamic pattern and process across spatial scales in river systems using simultaneous deployments of in situ sensors. (*Invited*). American Geophysical Union Annual Meeting, San Francisco, CA, December, 2014. (Oral).

Zuidima, S., W. Wollheim, M. Green, M. Mineau, R. Stewart, E. Volitis. 2014. Regional Analysis of River Conductivity Maps Salinity Driven Aquatic Habitat Degradation Potential Throughout New England. American Geophysical Union Annual Meeting, San Francisco, CA, December, 2014. (Poster).

Wollheim, W.M. 2014. NSF-EPSCoR Ecosystems and Society Biogeophysical Research Accomplishments. Reverse Site Visit. National Science Foundation. Arlington VA, Sept. 17, 2014.

Wollheim, W.M. 2014. Scaling aquatic ecosystem rates to river network scales. Third MacroSystems Biology PI Meeting. National Science Foundation. Arlington VA. June 19-20, 2014.

Wollheim, W. M., G.R. Aiken, K.E. Butler, R. Stewart, N. Morse, K.R. Sheehan, J. Salisbury. 2014. Fate of terrestrial dissolved organic matter within a New England river network. Joint Aquatic Science Meeting, Portland OR. May 2014. (Oral).

Carey, R. O., W.M. Wollheim, G.K. Mulukutla. 2014. Variance among storm-event carbon, nitrogen, and phosphorus fluxes in a suburbanizing watershed. Joint Aquatic Science Meeting, Portland OR. May 2014. (Oral).

Sheehan, K. R., W.M. Wollheim, J. Reugg, K. Farrell. Network scale modeling of dissolved oxygen in river from fine scale data: is the whole a sum of its parts? Joint Aquatic Science Meeting, Portland OR. May 2014. (Oral).

Wollheim, W.M. 2014. Plum Island Ecosystem Long Term Ecological Research: Watershed Research Accomplishments. LTER Three Year Site Review. Newburport MA. May 6-7, 2014.

Wollheim. W.M. 2014. Monitoring nonpoint nitrogen sources in the Oyster River Watershed using continuous sensors. Durham/UNH Integrated Permit Project Team/Agency Meeting. Portsmouth NH.

Wollheim, W.M. 2014. Water quality in the Oyster River Watershed: Interactions of storm events and land use in headwater and mainstem river. Seventh Annual Lamprey River Symposium. Durham NH.

2013

Wollheim, W.M., R. Stewart; K.R. Sheehan. 2013. A general framework for incorporating heterogeneity of aquatic ecosystems into aquatic network models to understand biogeochemical fluxes *(Invited).* American Geophysical Union Annual Meeting, San Francisco, CA, December 9, 2013. (Oral).

Lightbody, A., K. Lawrence, W.M. Wollheim. 2013. Contribution of Surface Transient Storage to Nitrogen Retention within Wetland-Dominated Stream Reaches. American Geophysical Union Annual Meeting, San Francisco, CA, December 9, 2013. (Poster)

Miara, A., C. J. Vorosmarty, R. Stewart, W.M. Wollheim, B. Rosenzweig. 2013. Riverine ecosystem services and the thermoelectric sector: strategic issues facing the Northeastern United States. American Geophysical Union Annual Meeting, San Francisco, CA, December 9, 2013. (Poster).

Hutyra, L., Y. Yang, J. Kim, C. Cheng, P. O'Brien, S. Rouhani E.M. Douglas, C. Nicolson, R. Ryan, C. Schaaf, P. Warren, W.M. Wollheim. Future scenarios of urbanization and its effects on water quantity and quality in three New England watersheds. American Geophysical Union Annual Meeting, San Francisco, CA, December 9, 2013. (Poster).

Whittinghill, K.A., R. Stewart, M. Mineau, W.M. Wollheim, R.B. Lammers. Modeling Nitrogen Processing in Northeast US River Networks. American Geophysical Union Annual Meeting, San Francisco, CA, December 9, 2013. (Poster).

Mineau, M., W.M. Wollheim, R. Stewart, M. Daley, W.H. McDowell. 2013. Factors controlling aquatic dissolved inorganic nitrogen removal and export in suburban watersheds. American Geophysical Union Annual Meeting, San Francisco, CA, December 9, 2013. (Oral).

Rosenzweig, B., C.J. Vorosmarty, A. Miara, R. Stewart, W.M. Wollheim, X. Lu, D.W. Kicklighter, N. Ehsani, K. Shikhmacheva, P. Yang. Incorporating human activities into an earth system model of the Northeastern United States: socio-hydrology at the regional scale. American Geophysical Union Annual Meeting, San Francisco, CA, December 9, 2013. (Poster).

Vorosmarty, C.J., A. Miara, B. Rosenzweig, F. Duchin, N. Dileki, R. Stewart, W.M. Wollheim, J.M. Melillo, D.W. Kicklighter, B.M. Fekete, P. Yang, J. Gonzalez. 2013. NE-RESM: An Integrated Water Resource Assessment and Solutions Platform for the U.S. Northeast. American Geophysical Union Annual Meeting, San Francisco, CA, December 9, 2013. (Oral).

Carey, R.O., W.M. Wollheim, G. Mulukutla, C. S. Cook. 2013. Stream Nitrate Concentrations Diverge at Baseflow and Converge During Storms in Watersheds with Contrasting Urbanization. Presented at American Geophysical Union Fall Meeting, San Francisco, CA, December 9, 2013. (Poster).

Whittinghill, K.A., M.M. Mineau, W.M. Wollheim, R.B. Lammers, and R.J. Stewart. 2013. Modeling Nitrogen Processing in New England River Networks. Gordon Research Conference: Catchment Science: Interactions of Hydrology, Biology, and Geochemistry. Andover NH.

Wollheim, W.M. R.J. Stewart, K. Whittinghill, M.M. Mineau, K. Sheehan, R. Smith, I. Hale. 2013. Understanding interactions between ecosystem services and water quality across the riverscape: The ISEES Model. Annual Meeting of the Society of Freshwater Science. Jacksonville FL. (Oral)

Mineau, M.M. I.J. Fernandez, W.M. Wollheim, J.L. Campbell. 2013. Elevated N deposition is associated with decoupling of DON and DOC processing in northeastern USA headwater streams. Annual Meeting of the Society of Freshwater Science. Jacksonville FL. (Oral)

Morse, N.B. and W.M. Wollheim. 2013. Influence of Nutrient Stoichiometry on In-Stream Uptake of NH4 and PO4 in Suburban New England Streams. Annual Meeting of the Society of Freshwater Science. Jacksonville FL. (Oral)

Price, A.J. W.M. Wollheim, G. Mulukutla, W.H. McDowell. 2013. Headwater nitrogen flux and storm response among land use types through seasons. Annual Meeting of the Society of Freshwater Science. Jacksonville FL. (Oral)

Wollheim. W.M. 2013. Storm Event Nutrient Monitoring in River Networks. DES Nitrogen in Stormwater: Sources and Solutions Workshop. Portsmouth NH.

Morse, N.B. and W.M. Wollheim. 2013. Using in-stream boron concentrations to explain phosphorus dynamics in urbanizing river networksNH Watershed Conference. New Hampshire Watershed Conference. Plymouth NH.

Mineau M.M. , K. Whittinghill, and W.M. Wollheim. 2013. Modeling Nitrogen Processing in New Hampshire River Networks NH Watershed Conference. New Hampshire Watershed Conference. Plymouth NH.

Hunt, C.W., W.M. Wollheim, J.S. Salisbury, K.W. Hanley, G.R. Aiken. 2013. Modeling the export of DOC from large watersheds and its influence on the optical properties of coastal waters. Annual meeting of the American Society of Limnologists and Oceanographers. New Orleans, LA. (Oral)

Miara, A., Vörösmarty, C.J., Stewart, R.J., Wollheim, W.M. and Rosenzweig, B.R. "A Regional Earth System Model to Assess Energy and Environmental Tradeoffs". Presented at Engineering Sustainability: Innovation and the Triple Bottom Line, Pittsburgh, PA, April 8, 2013.

Price, A. and W.M. Wollheim. 2013. Headwater stream nutrient diurnal flux and storm response in the Lamprey River watershed. Sixth Annual Lamprey River Symposium. Durham NH.

Mulukutla, G. and W.M. Wollheim. 2013. From the Lamprey River to the Great Bay Estuary: Examining the dynamics of nitrate and dissolved organic matter transport using in situ sensors. Sixth Annual Lamprey River Symposium. Durham NH.

2012.

Carey, R.O., W.M. Wollheim, G.K. Mulukutla. 2012. Carbon , nitrogen, and phosphorus stoichiometry during storms in a suburbanizing watershed. Presented at American Geophysical Union Fall Meeting, San Francisco, CA, December 3, 2012. (Poster).

Hunt, C. W., W. M. Wollheim, J. Salisbury, R. Stewart, K. Hanley, and G. R. Aiken. 2012. Linking headwaters to the coast: modeling DOC export at the large watershed scale. Presented at American Geophysical Union Fall Meeting, San Francisco, CA, December 6, 2012. (Poster).

Mulukutla, G., R.O. Carey, W.M. Wollheim, J. Salisbury, High frequency measurements using in situ sensors in a coupled watershed-estuary reveal factors driving DOC variability. Presented at American Geophysical Union Fall Meeting, San Francisco, CA, December 3, 2012. (Oral).

Price, A., W.M. Wollheim, G.K. Mulukutla, R.O. Carey, W.H. McDowell. 2012. Headwater nutrient concentration patterns in response to storm events across land use types using in situ

sensors. Presented at American Geophysical Union Fall Meeting, San Francisco, CA, December 3, 2012. (Poster).

Stewart, R. J., Wollheim, W. M., Miara, A., Vorosmarty, C. J., Rosenzweig, R., Fekete, B. Capacity of River Networks to Buffer Thermal Impacts of Power Plants in the Northeast United States. Presented at the American Geophysical Union Annual Fall Meeting, San Francisco, CA., December 5, 2012. (Poster).

Treat, C.C., M. Bhagat, J. Talbot, R.K. Varner, S. Grandy, S.A. Ewing, W.M. Wollheim, S. Frolking. 2012. Controls on soil carbon loss with permafrost thaw in Alaskan peatland ecosystems. Presented at American Geophysical Union Fall Meeting, San Francisco, CA, December 4, 2012. (Poster).

Whittinghill, K.A., W.M. Wollheim, W.B. Bowden, M.N. Gooseff, A.N. Wlostkowski. 2012. Spatial and temporal variability in sources and fate of dissolved carbon and nutrients in an arctic river network. Presented at American Geophysical Union Fall Meeting, San Francisco, CA, December 7, 2012. (Poster).

Wollheim, W.M., R.J. Stewart, C. Polsky, R. Pontius, C. Hopkinson. 2012. Impacts and socioeconomic feedbacks associated with regionalization of water supply in a suburban New England watershed. Presented at American Geophysical Union Fall Meeting, San Francisco, CA, December 4, 2012. (Poster).

Bowden, W.B., M.S. Kosh, G. Waldvogel, M.N. Gooseff, W.M. Wollheim, K.A. Whittinghill, A.N. Wlostkoski, A.D. Jacobson, J.W. McClelland, T.A. Douglas, G.O. Lehn, A. Baker. 2012. Seasonal asynchrony in terrestrial nutrient production and demand drives nutrient delivery to arctic streams. Presented at American Geophysical Union Fall Meeting, San Francisco, CA, December 3, 2012. (Oral).

Covino. T.P., W.B. Bowden, M.N. Gooseff, W.M. Wollheim, B.L. McGlynn, K.A. Whittinghill, A.N. Wlostkoski, M.R. Herstand. 2012. Deciphering relationships between in-stream travel times, nutrient concentrations, and uptake through analysis of hysteretic and non-hysteretic kinetic behavior. Presented at American Geophysical Union Fall Meeting, San Francisco, CA, December 3, 2012. (Poster).

Duncan, J.M., L.E. Band, I.F. Creed, C. Duffy, M.B. Green, P.M. Groffman, C. Tague, K.A. Whittinghill, W.M. Wollheim. 2012. Bridging the divide: understanding controls on N export by scale from headwater streams to eastern North America. Presented at American Geophysical Union Fall Meeting, San Francisco, CA, December 3, 2012. (Oral).

Gooseff, M.N., M.N. Taptich, A.N. Wlostkowski, K. Gerecht, R.A. Payn, A.S. Ward, W.B. Bowden, M. Fitzgerald, B.L. McGlynn, K. Singha, W.M. Wollheim. 2012. Connecting streams to wetland through stream-groundwater exchange as determined from the channel. (Invited). Presented at American Geophysical Union Fall Meeting, San Francisco, CA, December 7, 2012. (Oral).

Miara, A., Vörösmarty, C.J., Stewart, R.J., Wollheim, W.M. and Rosenzweig, B.R. "A Model of Water Resources and Thermoelectric Plant Productivity Considering Changing Climates and Environmental Policy". Presented at the American Geophysical Union Fall Meeting, San Francisco, CA, December 3, 2012.

Rosenzweig, B.R., Miara, A., Stewart, R.J., Wollheim, W.M. and Vörösmarty, C.J. "Aquatic Ecosystem Services in the 21st Century Northeast Corridor: Assessment Using a Regional Earth System Model." Presented at the American Geophysical Union Fall Meeting, San Francisco, CA, December 7, 2012. (Poster).

Salisbury, J.S., D.C. Vandemark, S. Fournier, R. Nicolas, B. Chaperon, A. Manino, W.M. Wollheim. 2012. Linking the continental landmass to biogeochemical variability in the coastal ocean: the role of hydrological models and new satellite ocean color and salinity sensors (Invited). Presented at American Geophysical Union Fall Meeting, San Francisco, CA, December 4, 2012. (Oral).

Vörösmarty, C.J., Duchin, F., Melillo, J.M., Wollheim, W.M., Gonzalez, J., Kicklighter, D.W., Rosenzweig, B. R., Yang, P., Lengyel, F. and Fekete, B.M. A Regional Earth System Model of the Northeast Corridor: Analyzing 21st Century Climate and Environment. Invited talk presented at the American Geophysical Union Annual Fall Meeting, San Francisco, CA, December 3, 2012.

Wlostkowski, A.N., M.N. Gooseff, W.B. Bowden, W.M. Wollheim, K.A. Whittinghill. 2012. Hydrogeopmorphic contrast between inlet and outlet streams of a high arctic lake influence stream-groundwater exchange. Presented at American Geophysical Union Fall Meeting, San Francisco, CA, December 3, 2012. (Oral).

Miara, A., Vörösmarty, C.J., Stewart, R.J., Wollheim, W.M. and Rosenzweig, B.R. "A Model of Water Resources and Thermoelectric Plant Productivity Considering Changing Climates and Environmental Policy". Presented at the ASME International Mechanical Engineering Congress, Houston, TX. November 15, 2012.

Morse, N.B., W.M. Wollheim. 2012. Relative influence of urbanization, hydrology, and seasonality on nutrient fluxes to the Plum Island Estuary, MA, USA. Inaugural International Conference of the America's. Coastal and Estuarine Research Federation (CERF). 11-14 November, 2012. Mar del Plata, Argentina. (Oral).

Carey R.O., W.M. Wollheim, and G. Mulukutla. 2012. Seasonal Storm Event Concentration-Discharge Hysteresis in a Suburbanizing Watershed. Society for Freshwater Science Annual Meeting. May 2012, Louisville, KY. (Oral).

Morse, N.B. and Wollheim., W.M. Influence of flow on seasonal nutrient fluxes in suburban rivers draining a coastal New England watershed. Society of Freshwater Science Annual Meeting. May, 2012. Louisville, KY. (Oral)

Wollheim, W.M., T.K. Harms, R.J. Stewart, B.J. Peterson, K. Morkeski, M. Gooseff, M. Briggs, C. Hopkinson. Nitrate reaction rates among aquatic habitats in a New England Coastal watershed. Society of Freshwater Science Annual Meeting. May 2012. Louisville, KY. (Oral).

Morse, N.B. and Wollheim., W.M. Influence of suburbanization on N and P fluxes in rivers draining to the Plum Island Estuary. Graduate Research Conference. April, 2012; Durham, NH.

Whittinghill, K.A., W.M. Wollheim, W.B. Bowden, M.N. Gooseff, M.R. Herstand, and A.N. Wlostowski. 2012. Examining effects of changing seasonality on arctic stream nutrients using a model of in-stream and hyporheic zone biogeochemical cycling. Abstract and poster presentation at the International Polar Year From Knowledge to Action Conference, Montreal, Canada. April 2012. (Poster).

Morse, N.B. and W.M. Wollheim. of stoichiometry and land use on uptake of NH4 and PO4 in New England streams. LTER All Scientist Meeting. September 2012; Estes Park, CO. (Poster)

Vande Castle, J. , C. Luecke, P. Groffman, D. Childers, C. Driscol, R. Schmitt, J. Magnuson, H. Ducklow, W.M. Wollheim, D. Siegal, K. Cavanaugh and J. Porter. 2012. Key Aquatic

Research Findings of the U.S. Long Term Ecological Research Program. Annual Meeting of the American Society of Limnology and Oceanography. Japan.

Campbell, J.L. S.D. Sebestyen, E.R. Boose, W.M. Wollheim, E.H. Stanley. 2012. Climate change, snowpack, and biogeochemical cycling in northern temperate forest ecosystems. Annual Meeting of the Ecological Society of America, Portland, OR.

Cain, J.S., Wollheim, W.M., Sheehan, Ken. Understanding the contribution of natural and anthropogenic factors to low dissolved oxygen in rivers of the Ipswich River Watershed. 2012 LTER ASM Student Poster.

Carey R.O., W.M. Wollheim, and G. Mulukutla. 2012. Seasonal Storm Event Concentration-Discharge Hysteresis in a Suburbanizing Watershed. Society for Freshwater Science Annual Meeting. May 2012, Louisville, KY. (Oral).

Morse, N.B. and Wollheim., W.M. Influence of flow on seasonal nutrient fluxes in suburban rivers draining a coastal New England watershed. Society of Freshwater Science Annual Meeting. May, 2012. Louisville, KY. (Oral).

Wollheim, W.M. 2012. "Influence of climate change on water quality". Invited talk presented at the EPA Region 1 Science to Achieve Results (STAR) Research Forum. Boston, MA, March 2012.

Morse, N.B. and W.M. Wollheim. Influence of suburbanization on N and P fluxes in rivers draining to the Plum Island Estuary. Graduate Research Conference. April, 2012; Durham, NH.

Whittinghill, K.A., W.M. Wollheim, W.B. Bowden, M.N. Gooseff, M.R. Herstand, and A.N. Wlostowski. 2012. Examining effects of changing seasonality on arctic stream nutrients using a model of in-stream and hyporheic zone biogeochemical cycling. Abstract and poster presentation at the International Polar Year From Knowledge to Action Conference, Montreal, Canada. April 2012. (Poster).

Carey R.O., W.M. Wollheim, and G. Mulukutla. 2012. Detecting Storm and Baseflow Biogeochemical Patterns in the Lamprey River Using Continuous In Situ Sensors. New Hampshire Water and Watershed Conference. March 2012, Plymouth, NH. (Oral)

Whittinghill, K.A., W.M. Wollheim, W.B. Bowden, M.N. Gooseff, M.R. Herstand, L. Snyder, C.C. Treat, G. Waldvogel, and A.N. Wlostowski. 2012. Changing Seasonality in Arctic Stream Networks (CSASN). Oral presentation at the Arctic LTER Annual All Scientist Meeting, Woods Hole, Massachusetts. March 2012. (Oral).

Morse, N.B. and Wollheim., W.M. Influence of suburbanization on C, N and P fluxes in rivers draining to the Plum Island Estuary. PIE LTER Annual Meeting. March, 2012; Woods Hole, MA.

Wollheim, W.M. 2012. Plum Island Ecosystem Watershed Research. PIE All Scientists Meeting. Woods Hole MA. March 2012, Woods Hole, MA. (Oral)

Wollheim, W.M. 2012. Influence of climate change on water quality. EPA Region 1 Science to Achieve Results (STAR) Research Forum. (Invited). March 2012, Boston MA (Oral).

Wollheim, W.M. 2012. What controls water quality in space and time? Presentation to New Hampshire Cooperative Extension. March 2012, Concord NH.

Carey R.O., W.M. Wollheim, and G. Mulukutla. 2012. Continuous In Situ Sensors in the Lamprey River: Storm Event Nutrient Dynamics Across Seasons. Lamprey River Symposium. January 2012, Durham, NH. (Oral)

2011.

Wollheim, W.M. and R.J. Stewart. 2011. Accounting for heterogeneity of nutrient dynamics in riverscapes. (Invited). AGU. December 2011. San Francisco CA. (oral)

Hanley, K.W., W.M. Wollheim, J.E. Salisbury, G.R. Aiken. 2011. Understanding controls on dissolved organic carbon flux and lability in United States watersheds. American Geophysical Union Annual Meeting. December 2011, San Francisco, CA. (Oral)

Carey R.O., W.M. Wollheim, and G. Mulukutla. 2011. Monitoring Urban Water Quality Variability Using Continuous In Situ Sensors. American Geophysical Union Annual Meeting. December 2011, San Francisco, CA. (Oral)

Whittinghill, K.A., W.M. Wollheim, W.B. Bowden, M.N. Gooseff, M.R. Herstand, and A.N. Wlostowski. 2011. Examining effects of changing seasonality on arctic stream nutrients using a model of in-stream and hyporheic zone biogeochemical cycling. American Geophysical Union Annual meeting, San Francisco, California. December 2011. (Poster)

Hanley, K.W., W.M. Wollheim, J.E. Salisbury, G.R. Aiken. 2011. Understanding Controls on Dissolved Organic Carbon Quantity and Quality in United States Watersheds. National Aeronautics and Space Administration Carbon Cycle and Ecosystems Joint Science Workshop. October 2011, Alexandria, VA. (Poster)

Wollheim, W.M. 2011. Towards sustainable suburbia: The role of scale, heterogeneity, and the spatial distribution of aquatic ecosystem services. (Invited). Natural Resources and Earth System Science Seminar Series. October 2011. University of New Hampshire. (Oral)

Wollheim, W.M., R.O. Carey, G.K. Mulukutla, B. Pellerin, J. Saraceno. 2011. Application of aquatic in situ sensors in MA and NH: PIE-LTER, Lamprey R. and NH-EPSCOR. Joint NERC Environmental Sensor Network/Sensor NIS Workshop. October, 2011, Hubbard Br. NH. (Oral)

Whittinghill, K.A., W.M. Wollheim, W.B. Bowden, M.N. Gooseff, M.R. Herstand, C.C. Treat, and A.N. Wlostowski. 2011. Examining effects of changing seasonality on arctic stream nutrients using a model of in-stream and hyporheic zone biogeochemical cycling. Abstract and poster presentation at the Catchment Science Gordon Research Seminar and Gordon Research Conference, Lewiston, Maine. July 2011. (Poster)

Wollheim W. M. 2011. Coupling Continuous In Situ Data and Modeling: Towards Mechanistic Understanding of Watershed Biogeochemical Dynamics. (Invited). Joint USGS- CUAHSI workshop on In Situ Optical Water Quality Sensor Networks. June 2011. National Conservation Training Center, Shepherdstown, West Virginia.

Wollheim, W.M., R.J. Stewart, B.J. Peterson, C.J. Vorosmarty. 2011. Nitrogen efficiency loss at global scales: limits to the effectiveness of freshwater aquatic ecosystems as regulators of N flux to the coastal ocean. Invited talk in Special Session: Linking Landscapes: Watersheds to the Ocean. 59th North American Benthological Society Annual Meeting. May 2011, Providence, RI. (Oral)

Morse, N.B. and Wollheim., W.M. Influence of suburbanization on C, N and P fluxes in rivers draining to the Plum Island Estuary. Oral Presentation at the 59th North American Benthological Society Annual Meeting. May, 2011; Providence, RI.

Hanley, K.W., W.M. Wollheim, J.E. Salisbury, G.R. Aiken. 2011. Examining controls on dissolved organic carbon quantity and quality in large U.S. rivers. 59th North American Benthological Society Annual Meeting. May 2011, Providence, RI. (Poster)

Stewart, R.J., W.M. Wollheim, C. Polsky, R.G. Pontius, C.S. Hopkinson. 2011. Modeling the impact of land cover change and water withdrawals on runoff and N retention in the Ipswich

River, MA. 59th North American Benthological Society Annual Meeting. May 2011, Providence, RI. (Poster)

Wollheim, W.M. 2011. Modification of suburban nutrient fluxes by stream channels and floodplains. New Hampshire Water Conference. Plymouth NH. March 2011. (Oral)

Wollheim, W.M., and G. Mulukutla. 2011. Characterization of storm event carbon, nitrogen, and phosphorus in the Lamprey River using in situ sensors. Lamprey R. Symposium, Durham NH. January 2011. (Oral)

2010.

Hanley, K. W., W.M. Wollheim, J. Salisbury, G. Aiken. 2010. Examining Controls on Dissolved Organic Carbon Quantity and Quality in Large North American Rivers. Annual Meeting of the American Geophysical Union, December 2010, San Francisco. (Poster)

Wollheim, W. M., B. A. Pellerin, J. Saraceno, C. Hopkinson, A. Hope, and N. Morse. 2010. Modification of suburban carbon and nitrogen fluxes by a coupled channel/floodplain system assessed using in situ sensors. Annual Meeting of the American Geophysical Union, December 2010, San Francisco. (Oral)

Wollheim, W. M., R. Stewart, M. Gooseff, and M. Green. 2010. Dynamics of nitrogen saturation in river networks. (Invited), Annual Meeting of the American Geophyical Union, December 2010, San Francisco. (Oral)

Stewart, R.J., W.M. Wollheim, R.B. Lammers, and B.M. Fekete. 2010. A process-based approach for modeling global water temperatures in large rivers. Joint Annual Meeting of ASLO/NABS. June 2010. Sante Fe, NM. (Oral)

Wollheim, W. M., B. J. Peterson, and C. J. Vorosmarty. 2010. Decline in aquatic ecosystem service efficiency magnifies global flux of anthropogenic nitrogen to coastal zones, Joint Annual Meeting of ASLO/NABS. June 2010. Sante Fe, NM. (Poster).

Wollheim, W.M. 2010. Connectivity, Residence Time, and Reactivity (CRR) in River Networks. (Invited), Interactive Session: Crossing Ecosystem Boundaries by Quantifying Biogeochemical Reaction Versus Transport Across the Hydrologic Continuum. Joint Annual Meeting of ASLO/NABS. June 2010. Sante Fe, NM.

Wollheim, W.M. 2010. Evolution of Ecosystem Services in a Coastal New England Watershed. Harvard Forest Seminar Series. April 2010.

Wollheim, W.M. 2010. A historical perspective on ecosystem services in coastal New England Watersheds: Suburbanization in Context. Lamprey River Symposium. January, 2010 (Oral).

2009 and earlier.

Stewart, R.J., W.M. Wollheim, M.N. Gooseff, M.A. Briggs, J.M. Jacobs, B.J. Peterson, and C.S. Hopkinson. 2009. Separation of river network scale nitrogen removal among main channel and two transient storage compartments. LTER - All Scientist Meeting, September 14-16, 2009, Estes Park, Colorado. (Poster) (received 4th honorable mention in student poster competition).

Wollheim, W.M., M.B. Green,B.A. Pellerin, J.M. Duncan, G.M. Gettel, C. Hopkinson, C. Polsky, R. Pontius. 2009. Evolving demand for ecosystem services and their impact in a coastal New England watershed. AGU Fall Meeting, San Francisco, December 13-18. (Oral).

Wollheim, W.M. 2009. Changes in freshwater aquatic regulation of land-to-ocean fluxes due to human activities and climate change. University of Maine Environmental Seminar Series. Oct. 2, 2009. Orono ME.

Wollheim, W.M. 2009. Watershed to Estuaries Connections: An Ecosystem Services Perspective. CUASHI Summer Institute 2009. City College of New York. July 2009. (Oral).

Wollheim, W.M., B.J. Peterson, G.M. Gettel, C.S. Hopkinson, T.K. Harms. 2009. Increased spiraling lengths in urban headwater streams - potential buffering mechanisms by river networks**.** North American Benthological Society Annual Meeting, Grand Rapids, MI. May 2009. Invited: Special Session - Advances in Stream Biogeochemistry: The Legacy and Promise of 30 Years of the Nutrient Spiralling Concept (Oral)

Wollheim, W.M., R. Stewart, G.M. Gettel. 2009. Hydrological and Biological Controls of Aquatic N Removal in River Networks. Lamprey River Symposium. January, 2009 (Oral)

Wollheim, W.M., R. Stewart, M. Briggs, G. Gettel, M. Green, M. Gooseff, T. Harms, C. Hopkinson, K. Morkeski, N. Morse, B. Peterson. 2008. Assessing the influence of various aquatic ecosystem types on biogeochemical fluxes at river network scales. AGU Fall Meeting, San Francisco, December 15-18. (Oral)

Wollheim, W.M. et al. 2008. Suburban impacts on nitrogen fluxes at the scale of river networks. 2nd Symposium on Urbanization and Stream Ecology, Salt Lake Plaza Hotel, Salt Lake City, Utah, May 23-24, (Oral)

Wollheim, W.M. et al. 2008. Nutrient removal in point source dominated river systems – interactions of dilution, saturation and hydraulic loads. North American Benthological Society Annual Meeting, Salt Lake City, Utah. (Oral)

Wollheim W.M. 2008. Long Term Observations in the Ipswich and Parker River Watersheds, MA. Lamprey River Hydrologic Observatory Symposium. Durham NH. (Oral)

Wollheim, W. M., C. J. Vorosmarty, B. Fekete, P. Milly, K. Findell, and B. J. Peterson 2007, Understanding nitrogen removal processes within river networks over annual time scales: implications of saturation. Eos Trans. AGU, 88, Fall Meeting Supplement. (Poster)

Wollheim W.,M Vorosmarty C.J., Bouwman A.F., Green P., Harrison J., Linder E., Peterson B., Seitzinger S, Syvitski J. 2007. The Role of Rivers, Lakes, and Reservoirs in the Global Aquatic N Cycle Using A Spatially Distributed Within-Basin Approach. 30th Congress of the International Society of Limnology. Montreal Canada. (Oral)

Wollheim W.M., Vorosmarty C.J., Peterson B.J., Hopkinson C.H. 2007. River network N removal over annual time scales - incorporating time varying hydrological conditions. North American Benthological Society Annual Meeting, Columbia SC. (Oral)

Wollheim, W.M., Vorosmarty, C.J., Peterson B.J. and Hopkinson, C.H. 2006. The controls of aquatic denitrification in a 5th order river network. Denitrification Research Coordinating Network Workshop: Denitrification Modeling Across Terrestrial, Freshwater and Marine Systems. Institute for Ecosystem Studies, Millbrook NY. Poster. (Poster)

Wollheim, W.M. 2006. Nitrogen Removal Capacity of Entire River Networks—Interactions of Geomorphic, Hydraulic and Biological Factors. Science Symposium: Sources, Transport, and Fate of Nutrients In the Mississippi and Atchafalaya River Basins. Minneapolis MN. (Oral)

Wollheim, W.M., Vorosmarty, C.J., Peterson B.J. and Hopkinson, C.H. 2006. Nutrient Removal and Stream Size in the Ipswich R. Network, Plum Island LTER. LTER All Scientists Meeting, Estes Park, Colorado. (Oral)

Wollheim, W.M., Vorosmarty, C.J., Peterson B.J. and Hopkinson, C.H. 2006. Geomorphic, hydrological and biological controls of nutrient removal in river networks. NABS Annual Meeting, Anchorage Alaska. (Oral)

Wollheim, W.M., Vorosmarty, C.J., Green, P.A., Peterson, B.J., Seitzinger, S.P., Harrison, J.A., Bjerklie, D.M. 2005. The Relative Importance of Terrestrial and Aquatic N Sinks in the Global N Cycle: An Inverse Approach. ASLO Aquatic Sciences Meeting. Salt Lake City, Utah. (Oral)

Wollheim, W.M. B.A. Pellerin, Vorosmarty, C.J., and Hopkinson, C.H. 2004. Nitrogen Removal by the River Network of the 400 km^2 Ipswich R. Watershed, MA, USA. AGU Joint Assembly – Montreal, Canada. (Poster)

Wollheim, W.M., B.A. Pellerin, Vorosmarty, C.J., and Hopkinson, C.H. 2003.N retention as a function of land use and watershed size in northeastern MA. LTER All Scientists Meeting, Seattle, Washington.

Wollheim, W.M., B.J. Peterson et al. 2000. Estimates of Nitrogen Loading to Streams Using In-Stream Processing Rates. NABS Annual Meeting. Keystone, Colorado.

Wollheim W. M., B. J. Peterson, W. B. Bowden, N.B. Grimm, J.L. Meyer, D. Sanzone, P.J. Mulholland, J.L. Tank, and J.R. Webster. 1998. Estimating ammonium uptake length using ^{15}N-biota and water column $^{15}NH_4$ during tracer additions to streams. Bulletin of the North American Benthological Society 15.

Wollheim, W. M. and B. J. Peterson. 1997. The impact of recycling on estimates of travel distance in ^{15}N experiments. Bulletin of the North American Benthological Society 14.

Wollheim, W. M., J. C. Finlay, B. J. Peterson, W. B. Bowden, D. Arscott. 1996. Nitrogen uptake by bryophytes in reference and fertilized reaches of an Arctic Tundra river. Bulletin of the North American Benthological Society 13.

Wollheim, W. M. and B. J. Peterson. 1995. Nitrogen cycling in a lake outlet stream: comparing model results with nitrogen isotope tracer data. Bulletin of the North American Benthological Society 12.

WORKSHOP PARTICIPATION (2009 – present)

Urban Stream Workshop. July 2013. Annapolis MD. July 8-10, 2013

Northeast Megaregion Workshop. The Megaregion as Socio-Ecological Unit—Multi-level governance of water, energy, and carbon in the Northeast Megaregion of the United States. Annapolis MD. May 28-30, 2013.

LTER All Scientists Meeting. The Unique role of the LTER Network in the Anthropocene: Collaborative Science Across Scales. Estes Park, Colorado. Sept 10-13, 2012.

Joint NERC Environmental Sensor Network/Sensor NIS Workshop. October 24-26, 2011. Hubbard Brook, NH.

Sustainable Ecosystem Learning Community Workshop, August 24-26, 2011, Durham NH.

CUAHSI Sensor Workshop. June 2011. Shepardstown WV. Breakout Leader for two breakout sessions (Bang for the Buck with in situ sensors; Integrating optical measurements to improve predictions)

USDA Northeast Forum. March 24, 2011. Greenbelt MD.

^{15}N Food Web Workshop. January 13-14, 2011. Manhatten KS.

CUAHSI Summer Institute Capstone Event: A history of human-water interactions in the Northeast United States: dynamics in a water-rich environment July 26-27, 2009. West Point NY.

CUAHSI Sensors Workshop: In situ optical sensors for water quality. Aug 2 -5, 2009. University of Vermont, Burlington VT.

LTER Synthesis Workshop: Ecosystem response to diminished snow and ice in a warming climate. Mar. 31 – Apr 1, 2009. Woods Hole MA.

LTER Synthesis Workshop: Disturbance legacies in material fluxes. Feb 9 – 11, 2009. Durham NH.