

Curriculum Vitae

1 STEVEN PETER HAMBURG

Ittleson Associate Professor of Environmental Studies and Biology
Center for Environmental Studies
Box 1943
Brown University
Providence, RI 02912

2 HOME ADDRESS

110 Lloyd Avenue
Providence, RI 02906
(401) 453-0437

3 EDUCATION

Yale University	Ph.D. (Forest Ecology)	1984
Yale School of Forestry and Environmental Studies	M.F.S.	1977
Vassar College	B.A.	1975

4 PROFESSIONAL APPOINTMENTS

1997-present	BROWN UNIVERSITY Director - Watson Institute Global Environment Program Coordinate and direct research efforts of Global Environment Program	Providence, RI
1994-present	Ittleson Associate Professor Joint Appointment in Environmental Studies and Ecology and Evolutionary Biology	
1994-1995	ENVIRONMENTAL DEFENSE FUND Senior Ecologist Responsible for developing program in ecosystem impacts of global change.	New York, NY
1990-1994	UNIVERSITY OF KANSAS University Environmental Ombudsman Responsible for initiating changes in University programs and policies in order to minimize their environmental impacts. Report to Executive Vice Chancellor - Lawrence	Lawrence, KS
1990-1994	Director - Environmental Studies Program	

Hamburg CV

Page 2

Responsible for coordination and direction of interdisciplinary program with 350 undergraduate majors

- 1991-1994 **Associate Professor**
Joint appointment - Environmental Studies Program and Department of Systematics and Ecology
- 1985-1991 **Assistant Professor**
Joint appointment Environmental Studies Program and Department of Systematics and Ecology
- 1991-1992 HARVARD UNIVERSITY Petersham, MA
Bullard Fellow
Carry out research on the impact of disturbances on ecosystem function at major ecological research sites.
- 1984-1985 STANFORD UNIVERSITY Stanford, CA
Post-Doctoral Fellow (with Dr. Hal Mooney)
Conducting research on nutrient cycling and community dynamics in a serpentine grassland
- 1982-1983 YALE UNIVERSITY New Haven, CT
Research Assistant (with Dr. F.H. Bormann)
Conducted research on long-term nitrogen metabolism of forest ecosystems using macrolysimeters
- 1979-1981 **Teaching Assistant**
Graduate level soils laboratory
- 1978-1979 **Research Assistant** (with Dr. F. H. Bormann)
Conducted research on rates of nitrogen and organic matter accumulation following old-field succession.
- 1977 UNITED STATES FOREST SERVICE Sitka, AK
Soils Technician
Conducted experiments to assess nutrient losses from logging activities in southeast Alaska
- 1976 ENVIRONMENTAL PROTECTION AGENCY Narragansett, RI
Biologist
Developed techniques to monitor long term growth of individual plants of eelgrass, *Zostera marina* L.

5 SCHOLARSHIP

A Books/Monographs

King, H-b, **S.P. Hamburg**, Y-j Hsia, eds. 1997. *Long-Term Ecological Research: East Asia-Pacific Region*. Taiwan Forestry Research Institute. Taipei, Taiwan, R.O.C. 125 pp.

Watson, R.T., J.A. Dixon, **S.P. Hamburg**, A.C. Janetos, R.H. Moss. 1998. *Protecting our planet, securing our Future: Linkages among Global Environmental Issues and Human Needs*. United Nations Environmental Programme, US NASA, The World Bank. 95 pp.

B Book chapters and reports

Hamburg, S.P. 1984. Effects of forest growth on soil nitrogen and organic matter pools following release from subsistence agriculture. IN: E.L. Stone ed. *Forest Soils and Treatment Impacts*, University of Tennessee, Knoxville. pp. 145-158.

Mooney, H.A., **S.P. Hamburg** and J.A. Drake. 1986. The invasions of plants and animals into California. IN: H. A. Mooney and J. A. Drake, eds. *Ecology of Biological Invasions of North America and Hawaii*. Springer-Verlag Ecological Studies 58:250-272.

Hamburg, S.P. and R.L. Sanford, Jr. 1986. Disturbance, *Homo sapiens*, and ecology. *Bulletin of the Ecological Society of America* 67:169-171.

Bormann, F.H., W.B. Bowden, R.S. Pierce, **S.P. Hamburg**, R.C. Ingersoll, G.E. Likens and G.K. Voigt. 1988. The Hubbard Brook sandbox experiment IN: W.R. Jordon III, M.E. Gilpin and J.D. Aber, eds. *Restoration Ecology: a synthetic approach to ecological research*. Cambridge University Press 251-256.

Hamburg, S. P. and S. I. Ask. 1992. Environmental Ombudsman at the University of Kansas. In: D. J. Eagan and D. W. Orr eds. *The campus and environmental responsibility*. New Directions for Higher Education. Jossey-Bass, Inc., San Francisco, Number 77. 133 pp.

Lin, T.C., H.B. King, Y.J. Hsia, **S.P. Hamburg**, and C.B. Liou. (1994) An application of multivariate factor analysis to acid deposition data in a forested watershed of northeast Taiwan. Proceedings of the 7Th IUAPPA Regional Conference on Air Pollution and Waste Issues. Taipei, Taiwan, Volume II. pp. 197- 206

Watson, R.T. et al (including **S.P. Hamburg**). 1996. Summary for Policymakers: Scientific-Technical Analyses of Impacts, Adaptations, and Mitigation of Climate

Change: IN Watson, Zinyowera and Moss eds. *Climate Change 1995: Impacts, adaptations and Mitigation of Climate Change: Scientific-Technical Analyses*. Cambridge University Press, Cambridge. pp 1-18.

Watson, R.T. et al (including **S.P. Hamburg**). 1996. Technical Summary: Scientific-Technical Analyses of Impacts, Adaptations, and Mitigation: IN Watson, Zinyowera and Moss eds. *Climate Change 1995: Impacts, adaptations and Mitigation of Climate Change: Scientific-Technical Analyses*. Cambridge University Press, Cambridge. pp 19-53.

Kirschbaum, M.U.F. et al. (including **S.P. Hamburg**). 1996 Ecophysiological, ecological and soil processes in terrestrial ecosystems: a primer on general concepts and relationships: IN Watson, Zinyowera and Moss eds. *Climate Change 1995: Impacts, adaptations and Mitigation of Climate Change: Scientific-Technical Analyses*. Cambridge University Press, Cambridge. pp 57-74.

Haimson, L. et al. (including **S.P. Hamburg**). 1996 A Moment of Truth: Correcting more errors in Gregg Easterbrook's A Moment on the Earth, Part Two. Environmental Defense Fund, New York. 110pp.

Bloomfield, J. and **S.P. Hamburg**. 1997. *Seasons of Change: Global Warming and New England's White Mountains*. Environmental Defense Fund, New York, NY. 33 pp.

Hamburg, S.P., N. Harris, J Jaeger, T.R. Karl, M. McFarland, J.F.B. Mitchell, M. Oppenheimer, B.D. Santer, S. Schneider, K.E. Trenberth, T. M. L. Wigley. 1997. *Common Questions about Climate Change*. United Nations Environmental Program and World Meteorological Organization. Nairobi, Kenya. 24 pp.

Bloomfield, J. and **S.P. Hamburg**. 1997. Summary of the Report: "*Seasons of Change: Global Warming and New England's White Mountain*" in New England Regional Climate Change Impacts Workshop: Workshop Summary Report Institute for the Study of Earth, Oceans, and Space. University of New Hampshire. Durham, NH, USA. pp. 93-96.

Hsia, Y-J., King, H-B., Horng, F-W., Lin, T-C., Wang, L-J., Lin, K-C., Lin, T-T., and **Hamburg, S.P.** 1998. Biogeochemistry and Hydrology of a Moist, Subtropical, Mixed Evergreen Forest: Use of the Small Watershed Technique, IN Toshio Iwakuma ed. *Long-term Ecological Research in the East Asia-Pacific Region: Biodiversity and Conservation of Terrestrial and Freshwater Ecosystems*. Center for Global Environmental Research, National Institute for Environmental Studies, Tsukuba, Japan. 220 pp.

- King, H-B., **Hamburg, S.P.** 1998. East Asia-Pacific Regional Long-term Ecological Research Network. IN Toshio Iwakuma ed *Long-Term Ecological Research in the East Asia-Pacific Region: Biodiversity and Conservation of Terrestrial and Freshwater Ecosystems*. Center for Global Environmental Research, National Institute for Environmental Studies, Tsukuba, Japan. 220 pp.
- Schlamadinger, B., Karjalainen, T., **Hamburg, S.** (Among 15 other authors). 2000. Afforestation, reforestation, and deforestation (ARD) Activities IN :Watson, R. T. , Noble, I. R., Bolin, B., Ravindranath, N.H., Verardo, D.J., Dokken, D.J. eds. *Land Use, Land-use Change, and Forestry*. Intergovernmental Panel on Climate Change. Cambridge University Press Pg 127-179
- Orenstein, D. and **S. Hamburg** 2005 The JNFs Assault on the Negev *The Jerusalem Report* (November 28 issue).
- Hamburg, S.P.**, Pryor, D. and M.A. Vadeboncoeur. 2007. Nitrogen Inputs to Narragansett Bay: an Historical Perspective IN Desbonnet, A. and B Costa-Pierce eds. *Science for Ecosystem-based Estuarine Management: Narragansett Bay in the 21st Century* Springer New York (in press)
- C Referred journal articles**
- Thorne, J.F. and **S.P. Hamburg**. 1985. Nitrification potentials of an old-field chronosequence in Campton, New Hampshire. *Ecology* 66:1333-1338.
- Hamburg, S.P.** and P.S. Homann. 1986. Utilization of growth parameters of eelgrass, *Zostera marina*, for productivity estimation under laboratory and *in situ* conditions. *Marine Biology* 93:299-304.
- Strayer, D., D.H. Pletscher, **S.P. Hamburg** and S.C. Nodvin. 1986. The effects of forest disturbance on land gastropod communities in northern New England. *Canadian Journal of Zoology* 64:2094-2098.
- Williams, K., R.J. Hobbs and **S.P. Hamburg**. 1987. Invasion of an annual grassland in Northern California by *Baccharis pilularis ssp. consanguinea*. *Oecologia* 72:461-465.
- Hamburg, S.P.** and C.V. Cogbill. 1988. Historical decline of red spruce populations and climatic warming. *Nature* 331:428-431.
- Huntington, T.G., D.F. Ryan and **S.P. Hamburg**. 1988. Estimating soil nitrogen and carbon pools in a northern hardwood forest ecosystem. *Soil Science Society of America Journal* 52:1162-1167.

- Koide, R.T., L.F. Huenneke, **S.P. Hamburg** and H.A. Mooney. 1988. Effects of applications of fungicide, phosphorus and nitrogen on the structure and productivity of an annual serpentine plant community. *Functional Ecology* 2: 335-344.
- Huenneke, L.F., **S.P. Hamburg**, R. T. Koide, H.A. Mooney, and P.M. Vitousek. 1990. Effects of soil resources on plant invasion and community structure in Californian serpentine grassland. *Ecology* 71:478-486.
- Herkelrath, W.N., **S.P. Hamburg**, and F. Murphy. 1991. Automatic, real-time monitoring of soil moisture in a remote field area with time-domain reflectometry. *Water Resources Research* 27:857-864.
- Robinson, G. R., R. D. Holt, M. S. Gaines, **S. P. Hamburg**, M. L. Johnson, H. S. Fitch, E. A. Martinko. 1992. Habitat Fragmentation has different consequences for different organisms. *Science*. 257:524-526.
- Knapp, A. K., J. T. Fahnstock, **S. P. Hamburg**, L. J. Statland, T. R. Seastedt and D.S. Schimel. 1993. Landscape patterns in soil-plant water relations, net photosynthesis and primary production in tallgrass prairie. *Ecology*. 74:549-560.
- Bormann, B., F. H. Bormann, W. B. Bowden, R. S. Pierce, **S. P. Hamburg**, D. Wang, M. C. Snyder, R. C. Ingersoll. 1993. Rapid N₂ fixation in pine, alder and locust: evidence from a confined ecosystem study. *Ecology*. 74:583-598.
- Siccama, T. G., **S. P. Hamburg**, M. A. Arthur, R. D. Yanai, F. H. Bormann, and G. E. Likens, 1994. Corrections to Allometric Equations and Plant Tissue Chemistry for Hubbard Brook Experimental Forest. *Ecology*. 75:246-248.
- Schott, G.W. and **S.P. Hamburg**. 1997. The Seed rain and seed bank of a native tall-grass prairie/old-field transition. *Canadian Journal of Botany* 75:1-7.
- Lin, T-C., **S.P. Hamburg**, H-B King and Y-J Hsia. 1997. Spatial variability of throughfall in a subtropical rain forest in Taiwan. *Journal of Environmental Quality*. 26:172-180.
- Utkin A.I., D.G. Zamolodchikov, G.N. Korovin, V.V. Nefedev, T.A. Gulbe, Y. I. Gulbe, **S.P. Hamburg**. 1997. Determination of stand carbon stock in sample plots: comparison of allometric and conversion-volumetric methods. *Lesovedenie* (Forest Science) 5:51-66. (In Russian).
- Hamburg, S.P.**, D.G. Zamolodchikov, G.N. Korovin, V.V. Nefedjev, A.I. Utkin, J.I. Gulbe and T.A. Gulbe. 1997. Estimating the carbon content of Russian forests; a

comparison of phytomass/volume and allometric projections. *Mitigation and Adaptation Strategies for Global Change*. 2:247-265.

Mabry, C.M., **S.P. Hamburg**, T.-C. Lin, F.-W. Horng, H.-B. King, Y.-J. Hsia. 1998. Typhoon disturbance and stand-level damage patterns at a sub-tropical forest in Taiwan. *Biotropica* 30:238-250.

Muth, N.Z. and **S.P. Hamburg**. 1998. Purple Loosestrife control policies in Rhode Island. *Northeast Naturalist* 5:67-74.

Hamburg, S.P. and T.-C. Lin. 1998. Throughfall chemistry of an ecotonal forest on the edge of the Great Plains. *Canadian Journal of Forest Research* 28:1456-1463.

Hamburg, S.P. 2000. Simple rule for measuring changes in ecosystem carbon in forestry-offset projects. *Mitigation and Adaptation Strategies for Global Change* 5:25-37.

Lin T.-C., **Hamburg, S.P.**, H.-B. King, and Y.-J. Hsia. 2000. Throughfall Patterns in a subtropical rain forest of Northeastern Taiwan. *Journal of Environmental Quality*. 29:1186-1193.

Arthur, M.A., **S.P. Hamburg** and T.G. Siccama. 2001. The accuracy of allometric estimates of aboveground living biomass and nutrient contents of a northern hardwood forest. *Canadian Journal of Forest Research* 31:11-17.

Lin, T.-C., **S.P. Hamburg**, Y.-J. Hsia, H.-B. King, L.-J. Wang and K.-C. Lin. 2001. Base cation leaching from the canopy of a subtropical rainforest in northeastern Taiwan. *Canadian Journal of Forest Research*. 31:1156-1163

Kirschbaum, M.U.F., B. Schlamadinger, M.G.R. Cannell, **S.P. Hamburg**, T. Karjalainen, W.A. Kurtz, S. Prisley, E.-D. Schulze and T.P. Singh . 2001. A generalized approach of accounting for carbon stock changes under the Kyoto Protocol. *Environmental Science and Policy* 4:73-85.

Neilson, C.B., P.M. Groffman, **S.P. Hamburg**, C.T. Driscoll, T.J. Fahey and J.P. Hardy. 2001. Freezing effects on carbon and nitrogen cycling in soils from a northern hardwood forest, *Soil Science Society of America Journal* 65:1723-1730

Rhoads, A.G. **S.P. Hamburg**, T. J. Fahey, T.G., Siccama, E.N. Hane, J. Battles, C. Cogbill, J. Randall and G Wilson. 2002. Effects of an intense ice storm on the structure of a northern hardwood forest. *Canadian Journal of Forest Research*. 32:1763-1775.

- Hane, E.N. and **S.P. Hamburg**. 2002. Community dynamics of an Oak-hickory ecotonal Forest in Northeastern Kansas. *Great Plains Research* 12:275-294
- Hamburg, S.P.**, R.D. Yanai, M.A. Arthur, J.D. Blum, T.G. Siccama. 2003. Biotic control of calcium cycling in northern hardwood forests: acid rain and aging forests. *Ecosystems* 6:399-406
- Hane, E.N., **S.P. Hamburg**, J. Plaut and A. Barber. 2003. Phytotoxicity of American beech *Fagus grandifolia* leaf leachate to sugar maple *Acer saccharum* seedlings in a greenhouse experiment. *Canadian Journal of Forest Research* 33:814-821
- Lin, T.-C., **S.P. Hamburg**, Y.-J. Hsia, T.-T. Lin, H.-B. King, L.-J. Wang and K.-C. Lin. 2003. Influences of typhoon disturbance on the understory light of a subtropical rain forest in Northeastern Taiwan. *Journal of Forest Research* 8: 139-145.
- Lin, K.C., **S.P. Hamburg**, S.L. Tang, Y.J. Hsia, T.C. Lin. 2003 Typhoon effects on litterfall in a subtropical forest. *Canadian Journal of Forest Research* 33:2184-2192
- Rhoads, A.G. **S.P. Hamburg**, T.J. Fahey, T.G. Siccama and R. Kobe. 2004. Comparing direct and indirect methods of assessing canopy structure in a northern hardwood forest *Canadian Journal of Forest Research* 34:584-591
- Yanai, R.D., J.D. Blum, **S.P. Hamburg**, S.P., M.A. Arthur, T.G. Siccama, C. Nezat. 2005. New insights into Calcium depletion in Northeastern forests. *Journal of Forestry* 103:14-20
- Fahey, T.J., T.G. Siccama, C.T. Driscoll, G.E. Likens, J. Campbell, C.E. Johnson, J.J. Battles, J.D. Aber, J.J. Cole, M.C. Fisk, P.M. Groffman, **S.P. Hamburg**, R.T. Holmes, P.A. Schwarz, R.D. Yanai. 2005. The Biogeochemistry of Carbon at Hubbard Brook. *Biogeochemistry* 75:109-176
- Yanai, R.D., B.B. Park and **S.P. Hamburg**. 2006. The vertical and horizontal distribution of roots in northern hardwood stands of varying age. *Canadian Journal of Forest Research* 36:450-459.
- Lin T-C., J-H Jung, H-M Hsiao and **S.P. Hamburg**. 2006. Understory light at the Fushan Experimental Forest in Northeastern Taiwan: Watershed and Landscape Perspectives *Taiwan Journal of Forest Science* 21:131-145.
- Leighty, W.W., **S.P. Hamburg**, J. Caouette. 2006 Effects of forest management on carbon sequestration in Southeastern Alaska. *Ecosystems* 9:1051-1065

- Bradley, B.A. R.A. Houghton, J.F. Mustard and **S.P. Hamburg**. 2006. Invasive grass reduces carbon stocks in the shrublands of the Western US. *Global Change Biology* 12:1-8
- Elmore, A.J., J.F. Mustard, **S.P. Hamburg** and S.J. Manning. 2007. Agricultural Legacies in the Great Basin alter vegetation response to precipitation and vegetation composition. *Ecosystems* (in press)
- Park, B.B., R.D. Yanai, M. A. Vadeboncoeur and **S.P. Hamburg**. 2007. How to estimate root biomass: pits cores, or allometric equations. *Soil Science Society of America Journal* (in press)
- Vadeboncoeur, M.A., **S.P. Hamburg** and R.D. Yanai. Validation, correction and expansion of the tree root allometric equations for Hubbard brook Experimental Forest, New Hampshire *Canadian Journal of Forest Research* (in review)
- Nezat, C.A., J.D. Blum, R.D. Yanai, and **S.P. Hamburg**. A sequential extraction to selectively dissolve apatite and other minerals in soils derived from crystalline silicate rocks. *Chemical Geology* (in review)

D Abstracts (partial listing)

- Hamburg, S.P. 1985. Long-term population decline of red spruce in the spruce-hardwood forests of central New Hampshire. *Bull. Ecol. Soc. Amer.* 66:186.
- Hamburg, S.P., D.F. Ryan and T.G. Huntington. 1986. Measuring soil nutrient pools: an ecosystem approach. *Bull. Ecol. Soc. Amer.* 67:131.
- Herkelrath, W.N. and S.P. Hamburg. 1986. Real-time, multi-site monitoring of soil moisture with time-domain reflectometry. *Agronomy Abstracts*, pg. 157.
- Hamburg, S.P. 1986. Measuring forest-soil nutrient pools: an ecosystem approach. *Agronomy Abstracts*, pg. 261.
- Hamburg, S. P., D. Wang, and W.N. Herkelrath. 1987. Real-time quantitative monitoring of soil moisture and its implications for investigating nutrient cycles. *Bull. Ecol. Soc. Amer.* 68:318.
- Hamburg, S. P., D. Wang, and W. N. Herkelrath. 1987. Real-time quantitative monitoring of soil moisture and its implications for investigating nutrient cycles. *Agronomy Abstracts*, pg. 257.

- Hamburg, S. P. 1989. Ecological Evidence of an Agricultural Past. First Joint Archaeological Congress, Baltimore, Maryland.
- Hamburg, S. P. 1989. Ecosystem change during 30 years of old-field succession in a tall grass prairie. *Bull. Ecol. Soc. Amer.* 70:133.
- Hamburg, S. P. 1989. Tallgrass prairie soil C and N under varying management. *Agronomy Abstracts* pg. 304.
- Hamburg, S. P., and T. Chin. 1991. Canopy uptake and absorption of nitrogen in a Kansas Forest. *Agronomy Abstracts.* pg. 349.
- Hane, E. and S.P. Hamburg. 1996 Community dynamics in an oak/hickory ecotonal forest in Northeast Kansas. *Bull. Ecol. Soc. Amer.* 77:136.
- Lin, T-C., Y-J Hsia, H-B King, F-F Horng and S.P. Hamburg. 1996. The influences of typhoons on the dynamics of a subtropical rain forest in Taiwan. *Bull. Ecol. Soc. Amer.* 77:169.
- Hamburg, S.P. 1996. Carbon accumulation during prairie and forest old-field succession. *Agronomy Abstracts.* pg. 303.
- Hamburg, S.P. 1997. Linking soil respiration and the Framework Convention on Climate Change. *Agronomy Abstracts.* pg.
- Hamburg, S.P. 1997. Does reforestation of agricultural lands increase soil C? *Agronomy Abstracts.* pg.
- Hamburg, S.P. 1999. Can we Measure Change in Ecosystem Carbon on the Project Level? 1999 AAAS Annual Meeting and Science Innovation Exposition pg A-61.
- Hamburg, S.P., R. D. Yanai, M.A. Arthur. 2000 Biotic Control of Ca decline in forest soils. *Bull. Ecol. Soc. Amer.* P 113
- Yanai, R.D., M.A. Arthur, T.G. Siccama and S.P. Hamburg 2000. Calcium depletion in the northern hardwood forest: interpreting the forest floor. *Agronomy Abstracts*
- Arthur, M.A., S.P. Hamburg and R.D. Yanai. 2000. Calcium depletion in the northern hardwood forest: biotic control. *Agronomy Abstracts*
- Rhoads, A.G., S.P. Hamburg, T. Fahey, T. Siccama, and E.N. Hane. August 2000. Characterizing susceptibility to and effects of the January 1998 ice storm in the

White Mountain National Forest, NH. Ecological Society of America, Annual Meeting, Snowbird, UT.

Hamburg, S. P., C. Johnson and T.G. Siccama. 2001. Measuring Soil C Changes Associated with Harvesting: Does the Quantitative Pit Method Work? *Agronomy Abstracts*

Hamburg, S.P. 2003 How does land-use Change/forest Management affect C Stocks in Northern Hardwood Forests? *Agronomy Abstracts*

Rhoads, A.G. and S.P. Hamburg. August 2003. The role of past agriculture on the composition of the northern hardwood forest. Ecological Society of America, Annual Meeting, Savannah, GA.

Rhoads, A.G. and S.P. Hamburg. September 2003. The legacy of past agriculture on post-abandonment forest composition in the northern hardwood forest of New Hampshire. LTER All Scientists Meeting, Seattle, WA.

Orenstein, D.E., J. Albert, J. Mustard and S.P. Hamburg. 2003. Comparative Methodologies for Tracking Land Use/Land Cover Change in Israel, 1978-1999. Poster and abstract in the proceedings of the Open Meeting on the Human Dimension of Global Environmental Change. Montreal, Canada.

Orenstein, D.E., J. Albert and S.P. Hamburg. 2004. Fifty years of change in Israel: Tracking loss of open space and its ecological implications. Abstract in the proceeding of the Ecological Society of America Annual Conference. Portland, Oregon.

Hamburg, S.P., M Vadeboncoeur, L Schneider and A Rhoads. 2004. The Importance of Land-use: Looking for Large Scale Patterns., . Abstract in the proceeding of the Ecological Society of America Annual Conference. Portland, Oregon.

Orenstein, D.E., J. Albert, and S.P. Hamburg. 2004. Controlling Development – the On-and-Off Connection between Demographic Change and Land Use/Cover Change in Israel: 1948-2002. Abstract in the proceeding of the Population Association of America (PAA) Annual Meeting. Boston, Mass

Nezat, C.A., J. D. Blum, R.D. Yanai and S.P. Hamburg 2004 The Importance of Soil Mineralogy to Plant Nutrient Availability in the Northeastern US. American Geophysical Union Fall Meeting

Orenstein, D. E. and S.P. Hamburg 2005 The Middle East Environmental Futures Project: Theoretical and Methodological Challenges for a Trans-border Research

Initiative. BRITVII: Border Regions in Transition Crossing Disciplines, Crossing Scales, Crossing Cultures. Van Leer Institute, Jerusalem Israel

Orenstein, D.E. and S.P. Hamburg. 2005 Learning from history: Using models to understand the spatial relationships between population growth, loss of open spaces and land use policy in Israel, 1961-1995. American Association of Geographers Annual Meeting. Denver, CO.

Orenstein, D.E. and S.P. Hamburg. 2005 Losing Ground: The Interaction between Demography, Land-Use Policy, Ethnic Conflict and Environment in Israel. Population association of America (PAA) Annual Meeting. Philadelphia, PA.

Vadeboncoeur, M.A. and S.P. Hamburg. 2005. Land-use Legacies and Soil Carbon Dynamics: a Regional Assessment of the White Mountain Region, NH. Proceedings of Ecological Society of America Annual Meeting.

S.P Hamburg and T-C Lin. 2005. Using long-term data from the New and Old World to understand the influence of typhoon/hurricane frequency on forest structure. Proceedings of the Ecological Society of America Annual Meeting

Yanai, R, B.B. Park, M. Vadeboncoeur, and S.P. Hamburg. 2005. How best to estimate root biomass: pits, cores or allometric equations? *Agronomy Abstracts*

Vadeboncoeur, M.A. and S.P. Hamburg. 2006. Looking for Climate Change at the Ecosystem Level: Examination of a 50-year Record from Hubbard Brook. Proceedings of the Ecological Society of America Annual Meeting

E Invited lectures (partial listing)

1996

University of Rhode Island - Biology Department
New England Board of Higher Education
Brown University - Hillel Foundation

1997

Cornell University
Marine Biological Laboratory - Ecosystem Center
World Bank - Fifth Annual World Bank Conference on
Environmentally and Socially Sustainable Development
Soil Science Society of America - Symposium on soil respiration
Soil Science Society of America - Symposium on big questions in forest
soils

EPA Conference - Global Warming: What does it mean for New England?
- plenary speaker
OSTP - New England Regional Climate Change Impacts
Workshop - UNH - plenary speaker
ILTER East Asia Regional Meeting - Japan

1998

Coalition of Northeast Governors - Role of Forests in Climate Change
Planning in the Northeast
LTER Coordinating Committee Meeting
Union of Concerned Scientists
Fourth Mid-Atlantic Environmental Conference
Climate Change in the Hudson-Deleware Region
Society for College and University Planning-fall mini-conference

1999

American Association for the Advancement of Science - Climate
Change Symposium
University of Connecticut
University of Rhode Island
Project Kaleidoscope Workshop - Environmental Studies: Issues for New
and Expanding programs
Rhode Island School of Design
Third East Asia and Pacific Region International Long-term Ecological
Research Conference - Seoul, South Korea
Testify before United States Senate Environment and Public Works
Committee on S 547.

2000

US State Department - briefing for UNFCCC negotiating team
RI DEM Greenhouse Gas Stakeholder Group

2001

Fourth East Asia and Pacific region International Long-term Ecological
Research Conference - Ulaanbataar, Mongolia

2002

Rhode Island School of Design
International Symposium on Forest Carbon Sequestration and Monitoring
Global Environment Facility Project on Climate Change in Mongolia
(teach short course)

2003

Washington State University

2004

Taiwan Forestry Research Institute
Ecosystem Center, Marine Biological Laboratory
Rhode Island Natural History Survey
Spatial structures in the Social Sciences Colloquium, Brown University
Climate Change in New England and Eastern Canada Symposium – New
England Governors and Eastern Premiers

2005

Tel Aviv University
Hakido University Field Station
New Hampshire Environmental Educators Annual Meeting

F Papers read

1996

Ecological Society of America - Symposium on Ecological Literacy and
Problem Solving
Soil Science Society of America - Carbon dynamics section
Hubbard Brook Ecosystem Study Annual Cooperators Meeting

1997

Hubbard Brook Ecosystem Study Annual Cooperators Meeting

1998

Hubbard Brook Ecosystem Study Annual Cooperators Meeting

1999

Hubbard Brook Ecosystem Study Annual Cooperators Meeting

2000

Hubbard Brook Ecosystem Study Annual Cooperators Meeting

2001

Soil Science Society of America Meeting

2002

Hubbard Brook Ecosystem Study Annual Cooperators Meeting

2003

Hubbard Brook Ecosystem Study annual Cooperators Meeting
Soil Science Society of America Meeting

2004

Ecological Society of America (Symposium co-organizer)
Hubbard Brook Ecosystem Study Annual Cooperators Meeting
2005

Ecological Society of America (Organized Session co-organizer)
Hubbard Brook Ecosystem Study Annual Cooperators Meeting

6 Research in Progress

- A Disturbance effects on the forests of Taiwan
- B Role of land-use History in structuring ecosystem and social dynamics in Grafton County N.H. of the Hubbard Brook Experimental Forest
- C Biotic control of Ca dynamics in the northern hardwood forest

7 Service

A University Service

BROWN UNIVERSITY

Energy and Environmental Advisory Committee 2006 - present
Chair, Three year contract review committee for Leiwen Jiang 2007
West House faculty advisor 2004-present
Hillel Faculty Advisory Board 2005-present
President's Environmental Task Force 2004-2006
Semester in Environmental Science on campus advisor 2004-present
Vice Chair (2005-present) Campus Planning Advisory Committee 2004-present
Chair, Third year review committee for Simone Pulver 2005
Chair, Promotion Committee for Brian O'Neill 2005
Environmental Science Concentration Advisor 1995-present
CES Director Graduate Studies 2004 - present
CES/ECI Director Search Committee 2003-2004
Chair, Global Environment/CES assistant Professor search committee - 2002
Strategic Planning Committee - Watson Institute 2001
Chair, Terms of employment committee - Watson Institute 2000
Chair, Third year review committee for Brian O'Neill 2000
Watson Institute Director's Committee 1997-2001, 2002-present
Conservation Biologist Search Committee - 1999-2000
MacMillan Oversight Committee - 1998-2005
Watson Institute Executive Committee - 1997-2001
Chair-Environmental Sciences Curricular and Technical Coordinator Search-1998
Chair-Environmental Sciences Assistant Professor (Research) Search - 1997-1998
NEASC accreditation Steering Committee - 1997-1998
Strategic Planning Committee - Liberal Education in the 21st Century - 1996-1997
MacMillan Hall Building Committee - 1994-1998

Hamburg CV

Page 16

Points of the Compass seminar presentation - 1995-1996
Environmental Studies Executive Committee - 1994-2000
Chair, Environmental Sciences Curriculum Committee - 1995-2005
Environmental Sciences Task Force 1995-1996
Promotion and Tenure Committee Department of Ecology and Evolutionary
Biology -1995-present

Student advising:

Freshman advisor -	8 advisees - 1996-1997 10 advisees - 2000-2001 6 advisees - 2002-2003
Sophomore advisor -	1 advisee - 1996-1997 2 advisees - 1997-1998 4 advisees - 1998-1999 2 advisees - 1999-2000 2 advisees - 2003-2004 2 advisees - 2004-2005 3 advisees - 2006-2007
Concentration advisor -	21 advisees - 1997-1998 19 advisees - 1998-1999 18 advisees - 1999-2000 11 advisees - 2000-2001 11 advisees - 2002-2003 14 advisees - 2003-2004 12 advisees - 2004-2005 12 advisees - 2005-2006 12 advisees - 2006-2007
Graduate committees -	6 committees - 1997-1998 6 committees - 1998-1999 5 committees - 1999-2000 4 committees - 2000-2001 3 committees - 2002-2003 7 committees - 2003-2004 5 committees - 2004-2005 7 committees - 2005-2006 5 committees - 2006-2007

Graduate Committees Currently Supervising:

Anne Pezella (MA) Role of long use change in development of a marine
protected area in Taiwan.
William Yandik (MA) Role if land-use change in shifting bird communities in
central New Hampshire
Celia Reichel (MA)

Jessica Hunter (MA)

Doctoral Dissertations Supervised:

Daniel Orenstien, 2006. Drivers and Ecological Implications of land-use/Land cover change in Israel

Anne Rhoads, 2004. Role of disturbance in the structure and function the northern hardwood forest.

Elizabeth Hane, 2001. Multi-factor interactions in the decline of *Acer saccharum* regeneration in the White Mountains of New Hampshire 155 pp.

Masters' Theses Supervised:

Stephanie Elson, 2006. Transformation of rural New England to an Exurban landscape: Campton, NH case study

Adam Wienert, 2006. Understanding the carbon implications of exurban development in the White Mountains of New Hampshire

Farhod Maksudov, 2006. Environmental impacts of Independence: Uzbekistan

Jennifer Henman, 2004 Feasibility of Peru using the CDM to meet its conservation goals in the Peruvian Amazon

David Rowland, 2002. Forestry Management and Carbon Storage in New Hampshire

(<http://envstudies.brown.edu/thesis/2001/rowland/index.htm>)

Leslie Katz, 2000. Management plan for the Block Island Salt Pond.

James Henson ,1999. Does JABOWA work? A verification study and its policy implications.

Malena Sell, 1999. Climate Change Mitigation Projects in the forestry sector: the significance of co-benefits beyond carbon sequestration.

Hugh Brandt, 1997. Creating Choice Through Information: Educating Consumers to Consider Environmental Impact When They Purchase Electricity in a Deregulated Market

Avijit Sen, 1997. Characterization of water temperature in Mount Hope Bay in the influence of thermal discharge from Brayton Point power plant

Undergraduate Theses Supervised:

Deringer, Molly (AB). May 2006. honors From Woodlots to House Lots? A Parcel-level Analysis of Private Forestry in Four Central New Hampshire Towns.

Forsyth, Elizabeth (ScB). May 2006. honors. Patterns of Typhoon Damage in Two Subtropical Forests (Royce Fellow)

Fuller, Christopher (ScB). December 2006. The Legacy of Subsistence Agriculture on New England's Successional Forest Soils: A 25-year Direct Measurement Perspective.

- Harris, Maria (ScB). May 2006. honors. Recent and Historic Land Covers of the Big River Management Area Implications for Early Successional Habitat Management.
- Ross, Noam (ScB). May 2006. honors. Soil Organic Carbon at Lake Hovsgol, Mongolia: The Role of Grazing and Permafrost.
- Brian Weeks (BA) May 2006. honors. The impacts of an ice storm on the forest canopy of a Northern Hardwood forest
- Monica Skeldon (ScB) May 2006. honors. The Ecology of Terrestrial Gastropod Distribution in the Northern Hardwood Forest
- Maria Hast (ScB) May 2006. honors. Snag Biomass and Dynamics in a Neotropical Rainforest
- Monica Candal (ScB) May 2005. Identifying Sites for Successful Eelgrass Restoration in Narragansett Bay, Rhode Island
- Aaron Wdowin (ScB) May 2005. Is the quality of water in the Big River Management Area affected by land use?
- Timothy Downing (ScB) May 2005. honors. Modeling shrub encroachment in Shompole Group Ranch, Kenya
- Michal Kapitulnik (ScB) May 2005 A Tree Grows in Kenya: The Status of *Prunus africana* in the Kakamega Forest, Western Kenya.
- Glenday, J (ScB) May 2004. honors. Carbon Storage and Carbon Emission Offset Potential in an African Tropical Forest (Royce Fellow – Faculty Scholar).
- Apte, J (ScB) honors May 2004. Residential windows, greenhouse gas emissions and the Potential of Emerging Window Technologies. (Royce Fellow)
- Wang, L (ScB) May 2003. Climate change in New England: Implications for a vector Borne disease.
- Leighty, W (ScB) May 2001. honors. Modeling the effects of potential management regimes on carbon sequestration in the Tongass National Forest, USA, using spatial analysis. (Royce Fellow – Faculty Scholar)
- Balazs, C. (ScB) honors May 2001. Deforestation and Human Land-Use Dynamics in the Brazilian Amazon: A Case Study Using Remote Sensing and GIS
- Smith, J. (ScB) May 2000. A management plan for Slater Island, Slater Park, Pawtucket.
- Chuang, T. (ScB) May 2000. honors. Ambient air pollution and daily mortality in Taipei, Taiwan and Hong Kong, China
- Sinaikin, J (ScB) May 2000. The effect of Nitrogen and Phosphorous fertilization on the Cation Exchange Capacity of Artic Soils and Plant Nutrient Content
- Coleman, K. (ScB) May 2000. honors An assessment of the possible importance of species composition to calcium cycling in young northern hardwood forest stands
- Fredericks, R. (ScB) December 1999. Carbon dynamics of a New Hampshire hill farm.
- Gokaldas, V. (ScB) December 1999. Telling a story from the ground up: land-use history and vegetation change in Owens Valley, California

- Rotkin-Ellman, M. (ScB) December 1999. Nitrogen uptake in riparian zone soils.
- Abrams, E. (ScB) May 1999. Conservation biology of rare New England plant: *Cynolossum boreale*.
- Atlee, J. (ScB) May 1999. The effects of whole tree harvest on soil carbon and nitrogen after 15 years.
- Denenny, D. (ScB) May 1999. Keeping up, catching up or giving up: mapping plant species distribution changes in a Cape Cod salt marsh to determine the Impact of sea level rise and coastal storms.
- Hardt, B. (ScB) May 1999. Site quality effects of *Ailanthus altissima* and *Acer platanoides* on an urban-rural gradient.
- Schmitt, L. (ScB) May 1999. Exploration of Possible Feedback Mechanisms for Carbon and Nitrogen Cycling in a Forested Ecosystems in response to Global Climate Change.
- Stander, E. (ScB) May 1999. Using epiphytes as bioindicators of acid rain in a subtropical rainforest of Taiwan.
- Hayes, T. (ScB) May 1998. Speak to the past and it shall teach thee: Effect of 250 Years of Agriculture on Soil Characteristics at Casey Farm
- Nielsen, C. (ScB) May 1998. honors. Changes in Microbial Respiration and Nitrogen Cycling Following Soil Freezing
- Nuengsigkapan, P. (ScB) May 1998. honors. Have Our Forests Stopped Growing? Detecting Changes in Forest Productivity Through Analyzing 150 Years of Aboveground Biomass Accumulation in the White Mountains of New Hampshire
- Sanderman, J. (ScB) May 1998. honors. The effects of elevated soil temperatures in root and microbial respiration in a mixed hardwood forest
- Westover, K. (ScB) May 1998. honors. Detecting a Record of Hurricane Strikes and Lead Pollution in Succotash Marsh, Rhode Island
- Perrette, J. (AB) May 1998. The Potential for Community Supported Agriculture (CSA) in Rhode Island: Evaluating the Durability of the CSA Model for Agricultural Decision-Making in the 21st Century
- Jeremy Burns (AB) 1997. Can US Property Insurers (help) Save the Planet? An Examination of Insurance Arrangement, Loss Prevention and Global Climate Change
- Lauri Mignone (AB) 1997. Are Environmental Concerns Compatible With An Increase in Water Usage By Expanding Vermont And New Hampshire Ski Resorts For Snowmaking Purposes?
- Kim Burkland (ScB) 1997. Oregon's History of "Red Tides": A Retrospective Analysis of Shellfish Toxicity Data
- Megan Carney (ScB) 1997. Surface temperatures in Narragansett Bay: Seasonal dynamics and anthropogenic effects
- Wendy Fujikawa (ScB) 1997. Honors. A Reconstruction of the Presettlement Forest in the White Mountains of New Hampshire

- Sibylle Otto (ScB) 1997. honors. Effects of N enrichment and vegetation type on microbial processes in a freshwater tidal marsh
- Gerin River (ScB) 1997. honors. The Magnitude and Mechanisms of Coral Growth Inhibition by a Macroalga
- Molly Smith (ScB) 1997. honors. An Analysis of Land Gastropod Population Declines in the White Mountains of New Hampshire
- Norris Muth (AB) 1997. honors. Purple Loosestrife, a scientific and policy analysis.
- Marn-Yee Lee (AB) 1996. honors. Strengthening global environmental research: A case-study of Long-term Ecological Research (LTER) networking in East Asia.
- Sam Stegman (AB) 1996. Honors. Recreating Riverside Mills: a chance for alignment of the ecological and social improvements on the Woonasquatucket River Greenway?
- Zac Unger (AB) 1996. honors. Rangeland health assessment: historic roots and modern practices.
- Marya Carr (ScB) 1996. honors. Metals levels in Rhode Island municipal sludges and their resulting appropriateness for agricultural use by sod farms.
- Rebecca Miller (ScB) 1996. honors Parasitism of Cranberry Fruitworm by indigenous *Trichogramma* on Cranberries in Massachusetts.
- Christina Seda (ScB) 1996. Identifying sources of fecal coliform to the Orange Juice Creek Tributary, East Providence, R I
- Avijit Sen (ScB) 1996. honors. Characterization of water temperature in Mount Hope Bay in the influence of thermal discharge from Brayton Point power plant.
- Andy Holdsworth (ScB) 1995. honors. Effects of fire on regeneration of an Amazonian Forest
- Josh Berry (AB) 1995. Impacts of climate change on the White Mountains of New Hampshire
- Amy Doherty (AB) 1995. honors. Historical patterns of Eelgrass distribution in Narragansett Bay

UNIVERSITY OF KANSAS

Rockefeller Residency Program - Nature, Culture and Society Executive Committee, 1991-1994.

Univ. Senate Comm. on Libraries, 1986-1989, Chair 1988-1989

Humanities Lecture Committee, 1988-1991

Faculty Advisor, University of Kansas Crew Club, 1988-1989

Energy-Environment Advisory Committee 1990

Mentor in University Scholars Program, 1990-1993

KU Truman Scholarship Selection Committee 1989-1991

Faculty Senate Member of University Council 1990-1991

General Research Fund First Level Review Committee, 1989

Hamburg CV

Page 21

Executive Vice Chancellor's Task Force on Toxic Waste 1990
Executive Vice Chancellor's Task Force on Waste Reduction, 1989-1990
Division of Biological Sciences Executive Committee, 1992-1994
Department of Systematics and Ecology, Admissions Committee, 1989-1991,
Co-Chair, 1990-1991
Department of Systematics and Ecology, Long-range Planning Committee, 1986-
1987, 1989
Division of Biological Science, Greenhouse Executive Committee 1988-1990
Environmental Studies Lecture Coordinator, 1987-1992
Environmental Studies Honors Coordinator, 1988-1993
Environmental Studies Curriculum Coordinator, 1986-1991
Environmental Studies Scheduling Officer, 1990-1993
Remote Sensing Search Committee, 1989-1990
Experimental and Applied Ecology Building Comm. Chair 1991-1994
Chair, Applied Ecologist Search Committee, 1992-1993
Environmental Studies Director Search Committee, 1993-1994

Graduate Committees Supervised:

Teresa Shister (Ph.D.) 1989. Risk assessment in environmental policy-- Theory
and application to the hazard ranking system
Susan Woontner (MA). 1990. Nitrogen saturation, forest floor dynamics and the
Hubbard Brook ecosystem study
Linda Johnston (MA). 1990. Sense of place--an environmental perspective
Gary Schott (MA). 1993. Seed rain in a tallgrass prairie
Teng-Chiu Lin (Ph.D.). 1995. Throughfall dynamics in a subtropical forest.
Elizabeth Hane (MA). 1995. Community Dynamics of a Northeastern Kansas
Ecotonal Forest

Undergraduate Theses Advised:

Ashley Sherard. Honors. Conservation Easement law in Kansas
Cynthia Biller. Sigma Xi Undergraduate research award. Calibration of time
domain reflectometry
Scott Hayes. Preservation of Agricultural lands in Douglas County, KS

Special Students advised:

Ian Baldwin; 1988-1989. Nitrogen turnover, and old-field succession
Larry Statland; Summer 1989, 1990-6 months. Time domain reflectometry, water
relations and the tallgrass prairie

B Professional service

Vice Chair, International Long-term Ecological Research Network 2006- present
NSF Biological Field Station program panel member 2006

Hamburg CV

Page 22

Chair External Review Committee – Earth, Oceans and Space Institute,
University of New Hampshire 2005

Chair External Review Committee – Ramat Hanadiv, Rothschild Foundation,
Israel 2005

Participant National Academy of Sciences Meeting on Use of Biosphere 2 2005

Chair, Education and Outreach Committee, Hubbard Brook Ecosystem Study
2003- present

Co-chair International Committee US-LTER 2003-present

Board of Editors, Northeastern Naturalist 2002-present

Review Panel, International Programs, National Science Foundation – 2001

Switzer Fellowship Selection Committee 2000-2001, 2003

Steering Committee, New England Science Center Collaborative, 1999-present

External Review Committee – Environmental Studies Program, University of
Oregon – 2001

Chair – New Hampshire Voluntary Greenhouse Gas Registry – Carbon
Sequestration Sub-committee 1999-2000

Co-chair – US LTER Committee in support of the East Asia and Pacific Region
ILTER network 1999- present

Steering Committee member - East Asia Regional ILTER Network 1995-present

Member – Future Meetings Committee, Ecological Society of America 1999-2001

Lead Author - Intergovernmental Panel on Climate Change. Special Report on
Land-Use and Land-Cover Change 1998-2000.

Reviewer - Marine Biological Laboratory Semester in Environmental Science
Faculty Fellowship 1996-1999.

Co-Chair-Ecological Society of America Environmental Responsibility
Committee - 1996-1999

Contributor to UNEP Climate Change Program’s “Answers to most commonly
asked questions about Climate Change” 1996-1997

Author - UNEP-NASA Interlinkages Assessment; Climate change/
biodiversity/ozone depletion interactions 1996-1998

Land-use and Biotic Mitigation Policy Project Steering Committee (Trexler
Associates) 1996-1997

Chair First Regional Conference on International Long-term Ecological Research;
The East Asia and Pacific Region 1995

Planning Committee Ecological Society of America Annual Meeting 1995-96

Review team co-chair Intergovernmental Panel on Climate Change WG-II 1994-
1995

Executive Board Kansas Advisory Council on Env. Ed., 1988-1991

Science Advisory Board, Land Institute, Salina, KS 1986-1992

Journal referee:

American Naturalist, Ecology, Botanical Gazette, Canadian Journal of Forest
Research, Torrey Botanical Club Bulletin, Soil Science Society of America Journal,

Canadian Journal of Botany, Forest and Conservation History, Northeast Naturalist (Guest editor), Oecologia, Hydrobiologia, Water, Soil and Air Pollution, EcoScience, Global Change Biology, Biological Invasions, Ecological Applications, Ecosystems, Ecological Indicators, Plant Ecology, American Malacological Bulletin

C Community Service

Member - Board of Directors - Clean Air Cool Planet 2006 - present
Member Providence Zoning Commission - Subcommittee on Waterfront and Environmental Zoning 2005
Member - Board of Directors, Save the Bay (on leave FY 2002) 1998-present
Vice President 1999-present
Chair - Program and Policy Committee 1999-present
Chair - Program Committee of Capital Campaign 1999-2001
Member - Capital Campaign Steering Committee 1999 - 2004
Architect Selection Committee 2000-2001
Member Building Committee 2002- 2004
Site Implementation Committee - 2001 - present
Chair - Program and Policy Committee 1999 - 2001
Member - Facilities Committee of Capital Campaign 1999-2001
Member, Governor's Narragansett Bay Task Force - Nutrients panel 2004
Save the Bay - Bay Experience Task Force 1997
Advisor - Peace Dale Pond Association 1995-1996
Member - Campton, N.H. Planning Board, 1991-1992
President - Kansas Land Trust, 1990-1994
Chief Strategist - Power Line Task Force, 1992-1994

8 Academic Honors

2002 US EPA Environmental Merit Award
1993 Sixth Annual Seaver Lecturer, University of Kansas
1991-1992 Bullard Fellowship - Harvard University
1990 Nomination - HOPE award - outstanding educator
1990 Selection to teach in Kansas Honors Academy
1987 Outstanding Paper (S-7) - Soil Science Society
1982-1983 Fulbright Fellowship - Hebrew University
(Israeli Government Grant) - declined
1981-1982 Yale University Fellowship
1975-1977 Yale Forestry School Fellowship
1971-1975 New York State Regents Scholarship

Current grant support:

Hamburg CV

Page 24

The Biotic Control of Calcium Supply: distinguishing sources to regrowing forests. NSF, 2003-2007. PIs - Yanai, Arthur, Blum and Hamburg \$550,000 (Hamburg subcontract \$147,000).

Linking the US-LTER with the ILTER Network. NSF, 2004-2007. \$520,000. PI - Hamburg.

Long Term Ecological Research at the Hubbard Brook Experimental Forest. NSF, 2004-2010. Hamburg subcontract, \$75,000.

Katrina and the built environment: spatial and social impact. NSF 2005-2007. \$98,104 PIs Logan, Brown, Hamburg, Morello, Mustard

The Middle East Environmental Futures Project. SEED grant Brown University 2004-2007 \$65,000 PIs Hamburg, Albert, Morello, Goldschneider

Disaster, Resilience and the Built Environment on the Gulf Coast. NSF 2006-2009. \$750,000 PIs Logan, Brown, Hamburg, Morello, Mustard

Land-use Change: Designing and Implementing New Global Environmental Curricula. Henry Luce Foundation, 2006-2009. PIs -Hamburg, Jacobs, Mustard, Pulver, Wetzler, White . \$550,000.

Pending grant support:

Collaborative Research: Multiple Nutrient Interactions and Consequences for Nutrient Limitation in a Forest Ecosystem. NSF 2007-2012. PIs Fisk, Blum, Hamburg and Yanai \$500,00 (Brown subcontract \$90,000).

Seasons of Change: NSF 2007-2009 PIs Hamburg and Polonsky \$1,800,000

Past grant support:

Effects of land management on soil carbon and nitrogen: abandoned cropland in the tall grass prairie region. General Research Fund, The University of Kansas, July 1986-June 1987, \$4,488. PI - Hamburg.

Tall grass prairie: soil erosion, vegetation, and management regimes. General Research Fund, The University of Kansas, July 1987 - June 1988, \$5,155. PI -Hamburg.

Hamburg CV

Page 25

Research on the utilization of remote sensing/GIS Technologies for land management, U.S. Department of Agriculture, July 15, 1987 - September 15, 1988, \$181,068. PI - Martinko (Hamburg - cooperating researcher -\$12,300).

Establishment of a research program to study the characteristics and environmental impacts of atmospheric deposition. Research Improvement Award, The University of Kansas, July 1986 - June 1989, \$100,500. PIs -Lane, Hamburg, Marotz, Randtke, and Martin.

Aerosol nitrogen inputs to a tree/ grass ecotone. Environmental Protection Agency, October 1986 - September 1989, \$373,943. PIs - Lane, Hamburg, Marotz, Randtke and Martin.

Accumulation of macronutrients during 70 years of old-field succession. General Research Fund, The University of Kansas, July 1989 - June 1990, \$4,990. PI - Hamburg.

Patch size, herbivory and secondary succession: an experimental study. National Science Foundation, January 1988 - December 1990, \$259,376. PIs - Holt, Gaines, and Hamburg.

Installation of a TDR system. Subcontract from Konza Prairie LTER -- Kansas State University, May-July 1990, \$1,600 direct, \$2,000 indirect. PI-Hamburg.

Development of TDR as an ecological tool. General Research Fund, The University of Kansas, July 1990-June 1991, \$6,511. PI-Hamburg.

Integration of an Historical Perspective into Ecological Research. Andrew W. Mellon Foundation, October 1987 - June 1991, \$95,000. PI - Hamburg.

A Laboratory Building for Kansas Ecological Reserves, National Science Foundation, 1990, \$110,00. PI-Armitage, CoPIs-Hamburg and 6 others.

Synthesis of the Integration of History into Ecology Tropical-Temperate Forest Comparisons. Andrew W. Mellon Foundation, July 1991-June 1993, \$119,000. PIs-Hamburg and Sanford.

Remote Sensing and GIS Approaches to Understanding Ecological Impacts of Global Change. University of Kansas. July 1993-June 1995. \$60,000. PIs-Rich, Gogineni, Hamburg, Holt, and Price.

Nitrogen Pollution and a Subtropical Forest ecosystem. National Science Foundation. July 1993-December 1996, \$120,000. PI-Hamburg.

Teachers and Resources for Environmental Education in Schools. Eisenhower Professional Development Proposal. January 1996-December 1996. \$48,000. PIs- Ward, Hamburg and Rolbin.

A computer Learning Center for Remote Sensing and GIS. NASA 1997-1998. \$160,000 PI's Mustard, Hamburg and Prell.

Long Term Ecological Research at the Hubbard Brook Experimental Forest. National Science Foundation, 1992-1998. PIs-Fahey and Driscoll (Hamburg subcontracts \$20,000).

Calcium, Snails and Moose. Andrew W. Mellon Foundation (subcontract through Yale University) 1996-1999. \$17,000 PI Hamburg.

The dynamics of a semi-arid region in response to climate and water-use policy. NASA. 1997-2000. \$358,000 PI's-Mustard, Hamburg, Grant, Manning and Steinwand

Catalyzing the Flow of North-South Environmental Knowledge at Brown University. Henry Luce Foundation, 2001-2004. PIs - Hamburg and Wetzler. \$1,200,000.

Landscape Dynamics and Land-use Land-Cover Change in the Great Basin-Mojave Desert region. NASA, 2001-2005. \$364,708 PIs Mustard, Hamburg and Manning,

US-Taiwan research Development visit with EASI: Linking TERN with the US LTER Network through graduate student Visits. NSF. 2003-2005. \$18,600. PI Hamburg.

Long Term Ecological Research at the Hubbard Brook Experimental Forest. National Science Foundation, 1998-2005. PIs-Fahey and Driscoll (Hamburg subcontract \$202,000, including supplements).

Developing a land-use plan for the Big river Management Area Water Resources Board of the Rhode Island. \$30,000 2003, 2005 PI Hamburg

9 Teaching
2006-2007

Environmental Science ES 49 – 30 students (pre-registered)

Ecosystem Analysis ES/BI 145 – 10 students

Hamburg CV

Page 27

Independent Study (ES/BI 195, 196, ES/BI 295, 296, 299) - 13 students

Undergraduate theses directed - 5 students

Masters students theses directed - 4 student

2005-2006

Environmental Science ES 49 - 24 students

Ecosystem Analysis ES/BI 145 - 13 students

Independent Study (ES/BI 195, 196, ES/BI 295, 296, 299) - 24 students

Undergraduate theses directed - 9 students

Masters students theses directed - 4 student

Ph.D. dissertations directed - 1 students

2004-2005

Ecosystem Analysis ES/BI 145 - 8 students

Independent Study (ES 195, 196, ES/BI 295, 296) - 5 students

Undergraduate theses directed - 4 students

Masters students theses directed - 1 student

Ph.D. dissertations directed - 1 students

2003-2004

Ecosystem Analysis ES/BI 145 - 17 students

Environmental Science ES 49 - 12 students

Environmental Problem Solving ES 192- 16 students (co-instructor

T Page)

Independent Study (ES 195, 196, ES/BI 295, 296) - 12 students

Undergraduate theses directed - 3 students

Masters students theses directed - 1 student

Ph.D. dissertations directed - 2 students

2002-2003

Environmental Science ES49 - 16 students

Ecosystem Analysis ES/BI 145 - 13 students

Independent Study (ES 195, 196, ES/BI 295, 296) - 5 students

Undergraduate theses directed - 1 student

Ph.D. dissertations directed - 2 students