

JOAN G. EHRENFELD

June 2009

HOME CONTACT INFORMATION:

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WORK CONTACT INFORMATION:

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Biology, Rutgers University, 14 College Farm Road, New Brunswick, NJ 08901
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EDUCATION:

1975 Ph.D. City University of New York, Biology.
1970 M.A. Harvard University, Biology.
1969 B.A. Barnard College, Columbia University, magna cum laude with honors in
Biology.

EMPLOYMENT:

1997 - Professor, Department of Ecology, Evolution and Natural Resources
1990- 2009 Director, New Jersey Water Resources Research Institute
1996 - 1997. Associate Professor, Department of Ecology, Evolution and Natural
Resources, and Director, New Jersey Water Resources Research Institute
1990-1996. Associate Professor and Director, Division of Water Resources, Institute of
Marine and Coastal Sciences, Rutgers University. Tenure awarded April 1993.
1987-1990: Associate Research Professor, Center for Coastal and Environmental
Studies, Rutgers University. (50% time; partly grant-funded)
1976-1987: Assistant Research Professor, Center for Coastal and Environmental Studies,
Rutgers University. (50% time; grant-funded)

RESEARCH GRANTS:

(* competitively awarded)

*2008: Risk factors for West Nile Virus: the role of biodiversity in the ecology of
hosts, vectors and humans. U. S. EPA STAR. \$749,994 (PI; co-PIs are B. Johnson,
M. Sukhdeo, N. Tsipoura, R. Jordan).
2008: Helen and William Mazer Foundation: Effects of Deer Overbrowse on Carbon
Stocks and Fluxes in New Jersey Forests. \$11,000.
2008: N. J. Dept. of Environmental Protection. Assessing the Potential for New Jersey
Forests to Sequester Carbon and Contribute to Greenhouse Gas Emissions
Avoidance. \$99,977 (co-PI; PI R. Lathrop; other co-PIs are K. A. Dahl, F. Felder, J.
Grabosky, E. J. Green, D. Specca, M. Xu)

2008. National Park Service. Native Plant Demonstration Project: Assessment of Vegetation Response. \$7,000.
- 2005-2006. Delaware River Basin Commission. "Delaware Basin State-of-the-Basin Report" \$29,984. Collaborative with Univ. Delaware, Penn State Univ., Cornell Univ..
- *2005-2008 USDA NRI. "Weedy plant invasions on public conservation lands: using citizen scientists to answer ecological questions." \$481,111 (co-PI; R. Jordan is PI)
- *2005 NSF Dissertation Improvement: "The effects of urbanization on nitrate removal capacity of urban wetlands." \$12,000
- *2003 NSF Dissertation Improvement: Evaluating the effect of plant C and O₂ inputs on structuring rhizosphere microbial communities in anaerobic sediments. \$6,745 (P.I, with. B. Ravit (graduate student), B. Huang (co-P.I))
- *2003-2007 NSF Plant-Soil Feedback: A mechanism to explain the spread of invasive species. \$591,855 (3/1/2003 -2/29/2007) DEB 0235052
- *2002 –2005 USDA NRICGP. "Effects of nitrogen supply on the dynamics and control of Japanese barberry and Japanese stiltgrass." \$280,000
- 2002 – 2007 The Pinelands Commission, NJ: "Effects of water withdrawals on the ecology of the New Jersey Pinelands." Co PI on state-funded project in collaboration with The Pinelands Commission and USGS-NJ office. \$144,475 (total project \$5,000,000). 6/1/04 – 5/31/06
- *2001-2002. NSF. "Development of a Biocomplexity Research Program for the Analysis of Ecosystem Structure and Dynamics in Urban Salt Marshes." M. Levandowsky, P.I. (JE is co-investigator).
- *2000-2002. USGS/NIWR. "Wetlands in urban regions: connections among wetland structure, wetland function and regional water quality. \$115,00.
- *2000 – 2003. USDA NRICGP. "Interactions of roots and N in controlling redox chemistry in wetlands (with P. Jaffe, Princeton Univ.) \$250,000
- 2000-2002. National Park Service. "Restoration of native species demonstration project at Morristown National Historical Park." \$30,000.
- *1998 - 2002. National Science Foundation. "Stimulating woodland restoration: long term effects of spatial and biotic pattern" (co-P.I.with S. Handel, G. Robinson, J. Mattei) \$250,000.
- 1997 - 1998. USDA McIntyre-Stennis. "Restoration of biodiversity of sand and gravel mines in the New Jersey Pinelands." \$25,000
- *1996-1999. US EPA. "Development Of A Methodology For Assessing Urban Wetlands In The New Jersey Transportation Corridor" \$185,000.
- *1995-1998. USDA National Competitive Research Initiative Grant Program "Causes and consequences of exotic species invasions in deciduous forests" \$275,000.
- 1995-1997. U. S. Geological Survey, Dept. Interior: "Use of composted biosolids for the restoration of native plant communities in the New Jersey Pinelands." \$55,000
- *1992-1994. National Science Foundation; Conservation Biology and Restoration Biology: "Stimulation of woodland restoration: initial patch size effects on spread on vegetation and on soil development." (S. Handel, co-P.I.) \$277,000.
- 1992-1995. National Park Service: "Ecology and management of exotic plant species in Morristown National Historical Park." \$35,000.
- 1992-1994. U. S. Geological Survey, Dept. Interior: "Interactions of N and P in freshwater wetlands: potential effects of non-point-source pollution on wetland function." \$18,000

- 1992 - 1994. USDA National Research Initiative Competitive Grants Program. "The effects of ectomycorrhizae on decomposition in coniferous forest soils". \$105,000.
- 1991-1994, US Man and the Biosphere Program: "Ecological Sustainability and Human Institutions: Case Studies of Three Biosphere Reserves" (M. Harwell, principal investigator; 7 other investigators) \$398,934 total; \$20,201 to JGE.
- 1990-1992, U. S. Geological Survey, Dept. Interior: "Heavy metals in wetland plant litters of contrasting quality: retention and effects on decomposition." \$23,600
- *1990-1993, National Science Foundation; Ecosystem Studies Program: "Root inputs in podzol soils: effects on nutrient cycling and connections between horizons." (R. Parmelee, co-investigator) \$470,000.
- 1988-1990, Eastern National Park and Monument Association: "Buxton Woods Freshwater Wetlands: Interrelationships among Vegetation, Hydrology and Water Chemistry." \$5,000.
- *1987-1989, National Science Foundation; Ecosystem Studies Program: "Root Growth and Mortality: Effects on Processes of Nutrient Mineralization and Mobilization in Forest Ecosystems." (R. L. Tate, III co-P.I.). \$199,999
- 1987, N.J. Department of Environmental Protection: "The bioavailability of lead in *Sphagnum*-dominated wetlands." \$2,900.
- *1986-1989, Noyes Foundation: "Evaluation of the Variable Buffer Distance in Protecting Pinelands Wetlands and Water Quality from Development Impacts." \$99,580 (R. Good, P.I. and C. Roman, co-P.Is.).
- 1985-1987, National Park Service: "Presettlement and Current Vegetation of the New Jersey Brigade Site, Morristown National Historic Park, NJ." \$10,913.
- 1985-1987, National Park Service: "Revegetation of the Province Lands Dunes: Monitoring Procedure for 1985 Planting Effort." \$15,500.
- 1985-87, National Park Service: "Interactions Between Vegetation and Visitors in the Fire Island National Seashore Wilderness Area." (S. Cutter co-P.I.) \$59,930 .
- *1984-1986, Water Resource Division, U.S. Geological Survey: "The Effects of *Sphagnum* moss on the Mobility and Availability of Heavy Metals in Wetland Ecosystems of the New Jersey Pinelands." \$38,825
- 1984-87, National Park Service: "A Systematic and Multi-Disciplinary Identification of National Seashore Management Issues and Research Needs." (C. Roman, P.I. and K. Nordstrom, co-P.I.), \$176,532 .
- 1984, N.J. Department of Environmental Protection, Bureau of Forestry: "Growth Trends in Pitch Pine and White Oak Trees in New Jersey." \$1,000.
- *1982, Office of Water Resource Technology: "The Sensitivity of Cedar Swamps to the Effects of Non-Point Source Pollution." \$11,302.
- 1981, New Jersey Department of Environmental Protection: "The Effects of Urbanization on the Water Quality and Ecology of Cedar Swamps of the New Jersey Pine Barrens." \$9,954.
- *1980-1983, Office of Water Resource Technology, Matching Grants Program: "The Feasibility of Using Forest Vegetation to Renovate Septic Tank Effluents in the Pine Barrens of New Jersey." \$110,000.
- 1979, Xerces Society: "Endangered Species of Lepidoptera in New Jersey." \$550, (M. Monica, co P.I.).
- *1978-79, American Philosophical Society: "The Presettlement Vegetation of Northern New Jersey." \$1,310.

- 1978, New Jersey Audubon Society, contract: "Research activities of the New Jersey Audubon Society". \$6,000.
- 1977-80, New Jersey Department of Environmental Protection, Research Contract: "Uptake of Nitrogen by the Lowland Vegetation of the New Jersey Pine Barrens." \$126,457.
- 1976-77, National Park Service, Research Contract: "Vegetation of the Morristown National Historical Park: Ecological Analysis and Management Alternatives." \$26,500.
- 1973, City University of New York, Grant to Assist Doctoral Research, \$100.
- *1973: Sigma Xi Grants-in-Aid of Research, \$400.
- *1972, Theodore Roosevelt Fund Award, American Museum of Natural History, \$600.
- 1972, City University of New York, Research Support, \$600.
- 1969 - 1970: Public Health Service Traineeship, Harvard University.

PROFESSIONAL SERVICE:

- 2007-2009 – Associate Editor, *Journal of Hydrology*
- 2006 - . Member, Vegetation Group, Appalachian Trail Mega-Transect
- 2007-2010: National Research Council. Member, Committee on Independent Scientific Review of Everglades Restoration Progress. (2 terms)
- 2006- 2007 Advisory Committee on Governance, Society of Wetland Scientists
2005. Technical Advisory Committee, Highlands Council
- 2004 – 2010. National Research Council. Member, Water Science and Technology Board (2 terms).
- 2002 – 2003. National Research Council, Committee on Funding for Water Resources Research.
- 2002 – Advisory Board, *Hudsonia* (nonprofit organization for environmental research)
- 2002 – Mullica Watershed Planning Project, Permanent Land Protection and Biodiversity Technical Focus Group member
2002. NSF. Peer-review panel, Biocomplexity Program., Coupled Natural and Human Ecosystems
2002. National Institutes of Water Resources, Committee on Reauthorization.
- 2001 Peer review panel, USGS/NIWR National Competitive Grant Program
2000. AAAS, peer review panel, Canon National Park Science Scholars Program
- 2000-2003. Associate Editor, *Wetlands*
2000. Society of Wetland Scientists, Chair, Outstanding Scientist Award Committee
- 2000 – Science Advisory Committee, The Pinelands Commission
1999. Guest Editor, *Ecological Applications*: Invited Feature: “ Invasions and the Soil”
- 1999 – 2003. Associate Editor, *Restoration Ecology*
- 1998 – 2001 Ecological Society of America. Corporate Awards Committee
- 1998 – 2003 Associate Editor for Vegetation, *American Midland Naturalist*
- 1997 - Scientific Advisory Group, (scientific review of estuarine restoration program), Estuarine Enhancement Program, PSG&E.
- 1997 - 2000 Society of Wetland Scientists. Awards Committee
- 1996 - 1997 Everglades National Park Wetland Restoration Scientific Oversight Committee
- 1995-8 Ecological Society of America. Corporate Awards Committee
- 1995 - Member, NJ Department of Environmental Protection Research Partnership

- 1995 - Member, NJ Department of Environmental Protection - Atlantic white cedar Steering Group
- 1995 – 2000 Associate Editor, JOURNAL OF COASTAL CONSERVATION (international journal published by Opulus Press, Uppsala, Sweden)
1992. Invited Participant, Workshop to Design the National Center for Ecological Synthesis: Scientific Objectives, Structure and Implementation. Albuquerque, NM. 25-27 October.
1993. Member, Peer Review Panel, Forest/Crop/Range Ecosystems Program, US Dept. Agriculture National Competitive Research Initiative Grant Program
- 1991-1993 Series Editor, American Association for the Advancement of Science Press; Ecosystems and wetlands ecology; new series of books on the environment
- 1991-1994. Member, Human-Dominated Ecosystems Directorate, U. S. Man and the Biosphere Program.
1991. Co-Chair, Symposium on Plant-Environment Relationships Near the Tideline. Annual Meeting, Botanical Society of America, San Antonio, Texas.
- 1989 -1992. Member, National Science Foundation, Ecosystem Studies Review Panel.
- 1989 -1991. New Jersey Department of Environmental Protection/Environmental and Occupational Health Sciences Institute, Fellowship Committee Member.
1988. Member, National Science Foundation/U. S. Dept. Agric./U. S. Dept. Energy Plant Science Centers Program Review Panel.
- 1987-1991. Secretary, and Special Publications Committee member, New Jersey Academy of Science.
1984. Steering Committee, First Atlantic White Cedar Symposium, Woods Hole, MA, October.
- 1981 -1990. New Jersey Water Resources Research Council, Water Resources Research Institute.
- 1971-1976. Columbia University Seminar on Population Biology, Secretary, (1971-1975); Chairperson, (1975-1976).
- Reviewer for Ecology, Bulletin of the Torrey Botanical Club, BioScience, Wetlands, Soil Science, Forest Science, Science of the Total Environment, Geoderma, Ecological Applications, Journal of Ecology, Weed Science, Rhodora, National Science Foundation, U. S. Dept. Agric. Competitive Grants Program, Environmental Protection Agency, NOAA, National Geographic Society, N.J. Academy of Sciences, *and others*

PUBLIC SERVICE:

2005. Member, Advisory Task Force on Energy to Governor-Elect Jon Corzine
- 2004 -. Member, New Jersey Invasive Species Council.
- 2001 - Co-Chair and organizer, Science Advisory Committee, New York/New Jersey Trail Conference; editor, column on natural history and ecological issues, in *The Trailwalker* newsletter.
2000. Expert testimony for the Attorney General of NJ re urban wetland permit denial.
- 1997 - Natural Systems Agriculture Advisory Team, The Land Institute, Salina, KS.
- 1996 -2002. Expert testimony for the Attorney General of NJ (in association with the Environmental Defense Fund and the Pinelands Preservation Alliance) re zoning regulations in the Pinelands National Reserve (NJ v. Heritage Minerals, Inc.); State and Federal courts

1994. Expert testimony for the Army Corps of Engineers, re enforcement action in Federal District Court by USEPA against Barry Horner [testimony on environmental values of a damaged white cedar stand]
- 1990 - . Member, New Jersey State Wetlands Mitigation Council.
1990. Rutgers Law School Environmental Law Clinic. Expert testimony on wetlands re Catanzaro vs. Hackensack Meadowlands Development Commission.
1987. North Carolina Coastal Resources Commission. Buxton Woods Area of Ecological Concern Advisory Panel.
1986. The Land Institute, Salina, Kansas; Member, Honorary Board of Trustees.
1984. National Audubon Society v. Smithville Historic Development. Corporation. Expert testimony on the impacts of development on wetlands water quality and ecology, and on the use of mathematical models in assessing environmental impacts on water quality and wetlands ecology.
1984. Environmental Defense Fund v. Oxley, Inc. Expert testimony on the impacts of suburban development on Pinelands wetlands water quality and ecology.
1984. The Pinelands Commission. Consultant on the effects of water withdrawals on Pinelands wetlands.
- 1984-1985. The Ehrenkrantz Group, Consultant on vegetation, wetlands protection and wetlands reconstruction for the Port Liberte Project, Jersey City, NJ.
- 1983-1984. Essex County Task Force on Integrated Pest Management
- 1982-1983. Scientific Advisory Subcommittee, Mashomack Preserve, New York Nature Conservancy.
- 1981 - New Jersey Conservation Foundation, Board of Trustees, Member of the Executive Committee and Land Acquisition Committee, Chairperson of the Innovative Development Committee.
- 1981-1990. Governor's Science Advisory Panel, Offices of Governors Byrne and Kean:
Panel on Acidic Deposition - responsible for the assessment of the effects of acidic deposition on New Jersey's forests, 1984.
Panel on Gypsy Moth Control - responsible for the analysis of the ecological effects of gypsy moth defoliation on New Jersey forests, 1981 - 1982.
- 1981-1982. Friends of the Earth, New York Office, Consulted on development effects in wetlands of the Long Island Pine Barrens.
1980. N. J. Assembly Agriculture and Environment Committee. Testimony on the effects of gypsy moth defoliation on forests.
- 1979-1980. Hudson River Study, Planning and Development Commission, State of New Jersey. Appointed by Governor Brendan Byrne
1979. The Nature Conservancy, Boston office. Consultant on the effects of highway runoff on wetland forests of the East Hill Tract, Tenafly, NJ.

UNIVERSITY SERVICE:

- 2005- 2007 Graduate School, Biological Sciences Area Committee
- 2005-2006 Graduate School; Academic Review Committee
- 2004 - Graduate Program in Ecology and Evolution, Curriculum Committee chair
- 2001/02 – Search Committee (interdepartmental), Watershed management extension specialist.
- 2000/01 – Search Committee, Dept Ecology, Evolution and Natural Resources, Ecosystem Modeler position

2000 – Member, Advisory Board, Center for Urban Restoration Ecology
 1999 – NJAES Research Advisory Committee
 1999 -2002 Appointments and Promotions Committee, Cook College
 1998-199 Admissions Committee, Graduate Program in Ecology and Evolution
 1998 – Mentoring committee for Colleen Hatfield
 1998 - Ad Hoc Task Force on Wildlife Management in the Hutcheson Memorial Forest,
 Cook College
 1997-1998 - Chair, Search Committee, Ecosystems and Geomatics position, DEENR
 1997 - Graduate Program in Ecology and Evolution, Library Committee (Chair),
 Admissions Committee
 1996 - Chair, Building Committee, DEENR
 1995-1996. Acting Director, Graduate Program in Ecology and Evolution
 1995-1996 Search Committee, Environmental Chemistry positions, Dept. Environmental
 Sciences
 1995-1996 Working Group, Department of Ecology, Evolution and Natural Resources
 1995. Deans' Committee for Ecology and Evolution
 1994. Dean's Committee for Environmental Sciences and Engineering, Strategic Plan for
 Cook/NJAES.
 1993. Graduate Program in Environmental Sciences. Committee to Develop Core Course
 Curriculum
 1993 -4 Chair, Natural Resources and Environment Committee, Strategic Plan for Cook
 College
 1993-1996 Membership and Nominating Committee, Cook College
 1992-4 Search committee, Director, Division of Pinelands Research, Institute of Marine
 and Coastal Sciences
 1990-1991. Institute of Marine and Coastal Sciences: Water column microbiology and
 Ecosystem Search Committees
 1989-91. Graduate Program in Plant Biology: Student Affairs Committee
 1985-1992. Graduate Program in Ecology: Admissions committee; Statistics committee
 1984 -90. Center for Coastal and Environmental Studies: Chairperson, Unit Safety
 Committee

HONORS:

2003: Research Excellence and Impact Award, Cook College, Rutgers University.
 2000: Elected Fellow of the American Association for the Advancement of Science
 1999. Academic Professional Excellence Award for Academic Innovation and Creativity,
 Cook College.
 1998. FASIP award, Rutgers University
 1991. Leo Branin Award for Best Scientific Paper in the Bulletin of the New Jersey
 Academy of Science
 1987 Supplemental salary adjustment ("merit award"), Rutgers University.
 1973. Life Membership, Jacob Feld Award of the New York Academy of Sciences.
 1969. Hermann Botanical Prize, Barnard College.
 1968. Phi Beta Kappa, elected during Junior year.

MEMBERSHIPS:

Ecological Society of America.
 New York Academy of Sciences (Life Membership).
 New Jersey Academy of Science. Secretary, 1987- 1991
 Torrey Botanical Club.
 Society of Wetland Scientists
 Society for Ecological Restoration
 Soil Ecology Society
 Soil Society of America
 Sigma Xi

TEACHING:

16:215:602. Ecology of Invasive Species and Invasions. 3 cr. 100%
 11:704:484. Field Methods in Ecology. 3 cr. 20%
 11:704:352. Principles of Applied Ecology. 4 cr. 20% (8 lectures – community and ecosystems ecology)
 11:704:421. Wetland Ecology. 3 credits, 100% (undergraduate version)
 11:704:471 Ecosystems Ecology and Global Change. 3 credits. 100%.
 11:704:452. Research Methods in Ecology. 3 credits. 100%
 16:375:519. Wetland Ecology 3 credits 100% (graduate version)

Full Member, Graduate Programs in Ecology and Evolution, Plant Biology,
 Environmental Sciences

REFEREED PUBLICATIONS:

Stander, E. K. and **J. G. Ehrenfeld**. 2009. Evaluating the Ability of the HGM Functional Assessment Method to Predict Nitrate Production and Removal Functions in Urban Wetlands. *Environmental Management* 43:725-742

Stander, E. K. and **J. G. Ehrenfeld**. 2009. Rapid assessment of urban wetlands: do hydrogeomorphic classification and reference criteria work? *Wetlands* 29:261-276

Ehrenfeld, J. G. 2009. Extensive Defoliation of Japanese Barberry (*Berberis thunbergii* DC.) in New Jersey by a Native Moth, *Coryphista meadii*. *Natural Areas Journal*. 29:57-63.

Dukes, J. S., J. Pontius, D. Orwig, J. R. Garnas, V. L. Rodgers, N. Brazeel, B. Cooke, K. A. Theoharides, E. E. Stange, R. Harrington, **J. Ehrenfeld**, J. Gurevitch, M. Lerdau, K. Stinson, R. Wick, M. Ayres. 2009. Responses of pests, pathogens and invasive species to climate change in the forests of northeastern North America: what can we predict? *Canadian Journal of Forest Research*. 39:231-248.

Cutway, Heather Bowman and **J. G. Ehrenfeld**. 2009. Exotic plant invasions in forested wetlands: effects of adjacent urban land use type. *Urban Ecosystems* (online) DOI 10.1007/s11252-009-0088-9

Ehrenfeld, J. G. 2008 Exotic invasive species in urban wetlands: environmental correlates and implications for wetland management. *Journal of Applied Ecology*. 45:1160-1169.

NRC. 2008. Progress Toward Restoring the Everglades. The Second Biennial Review. National Academies Press, Washington, D. C. 324 pp. (Ehrenfeld member of committee)

- Ravit, B., **J. G. Ehrenfeld**, M. Haggblom, and M. Bartels. 2007. The effects of hydrology and nutrient inputs on two estuarine macrophytes and their root-associated microbial communities. *Wetlands* 27:915-927
- Ehrenfeld, J. G.** 2006. A potential novel source of information for screening and monitoring the impact of exotic plants on ecosystems. *Biological Invasions*. 8:1511-1521.
- Sedia, E. and **J. G. Ehrenfeld**. 2006. Differential effects of lichens and mosses on soil enzyme activity and litter decomposition. *Biology and Fertility of Soils* 43:177-189.
- Clément, J-C., Shrestha, J., **Ehrenfeld, J. G.**, and Jaffe, P. R. 2005. Ammonium oxidation coupled to dissimilatory reduction of iron under anaerobic conditions in wetland soils. *Soil Biology & Biochemistry* 37 (2005) 2323–2328
- Ehrenfeld, J. G.** 2005. Vegetation of forested wetlands of urban and suburban landscapes in New Jersey. *Journal of the Torrey Botanical Club* 132(2):262-279.
- Ehrenfeld, J. G.**, B. Ravit and K. Elgersma. 2005. Feedback in the Plant-Soil System. *Annual Review of Environment and Resources*. 30:75–115
- Sedia, E. and **J. G. Ehrenfeld**. 2005. Differential effects of lichens, mosses and grasses on respiration and nitrogen mineralization in soils of the New Jersey Pinelands. *Oecologia* 144(1):137-147.
- Ravit, B., **J. G. Ehrenfeld** and M. Haggblom . 2006 .Effects of vegetation on root-associated microbial communities: A comparison of disturbed versus undisturbed estuarine sediments. *Soil Biology and Biochemistry* 38:2359-2371
- Ravit, B., M. Haggblom and **J. G. Ehrenfeld**. 2005. Salt marsh rhizosphere affects microbial transformation of the widespread halogenated contaminant tetrabromobisphenol A (TBBPA). *Soil Biology and Biochemistry* 37:1049-1057.
- Ehrenfeld, J. G.** 2004. Implications of invasive species for below-ground community and nutrient processes. *Weed Technology* 18:1232-1235.
- Ehrenfeld, J. G.** 2004. The expression of multiple functions in urban forested wetlands. *Wetlands* 24:719-733.
- Ehrenfeld, J. G.**, H. B. Cutway, R. Hamilton IV, and E. Stander. 2003. Hydrologic description of forested wetlands in northeastern New Jersey, USA - an urban/suburban region. *Wetlands* 23:685-700
- Ehrenfeld, J. G.** 2003. Ecosystem effects and causes of exotic species invasions. *Ecosystems* 6:503-523.
- Ravit, B., **J. G. Ehrenfeld** and M. Haggblom. 2003. A Comparison of Sediment Microbial Communities Associated with *Phragmites australis* and *Spartina alterniflora* in brackish wetlands of New Jersey. *Estuaries* 26(2B):465-474.
- Windham, L. and **J. G. Ehrenfeld**. 2003. Conflicting effects and the net impact of a plant invasion on nitrogen cycling processes within brackish tidal marshes. *Ecol. Applic.* 13:883-896.
- Kourtev, P. S., **J. G. Ehrenfeld** and M. Haggblom. 2003. Experimental analysis of the effect of exotic and native plant species on the structure and function of soil microbial communities. *Soil Biol. Biochem.* 35:895-905.
- Sedia, K. G. and **J. G. Ehrenfeld**. 2003. Lichens and mosses in the New Jersey Pinelands and the genesis of alternate stable states in the vascular plant community. *Oikos* 100:447-458
- Kourtev, P. S., **J. G. Ehrenfeld** and M. Haggblom. 2002. Exotic plant species alter microbial structure and function in the soil. *Ecology*. 83:3152-3166

- Kourtev, P. S., **J. G. Ehrenfeld** and W. Z. Huang. 2002. Enzyme activities during litter decomposition of two exotic and two native plant species in hardwood forests of New Jersey. *Soil Biol. Biochem.* 34:1207-1218.
- Ehrenfeld, J. G.**, P. Kourtev and W. Huang. 2001. Changes in soil functions following invasions of exotic understory plants in deciduous forests. *Ecological Applications* 11:1287-1300.
- Ehrenfeld, J. G.** and N. Scott. 2001. Introduction: Invited Feature on Exotic Plant Invasions and the Soil. *Ecol. Applic.* 11:1259-1260.
- Ehrenfeld, J. G.** 2001. Plant-soil interactions. In S. Levin, ed-in-chief, *Encyclopedia of Biodiversity*, Academic Press, San Diego, CA. Pp. 689-709
- Ehrenfeld, J. G.** 2000. Evaluating wetlands within an urban context. *Urban Ecosystems* 4:69-85.
- Ehrenfeld, J. G.** 2000. Defining the goals of restoration: honesty is the best policy. *Restoration Ecology* 8:2-9
- Zhu, W-X., and **J. G. Ehrenfeld**. 2000. Nitrogen retention and release in suburban and undeveloped Atlantic white cedar wetlands. *Jour. Env. Qual.* 29:612-618
- Kourtev, P., W. Huang and **J. G. Ehrenfeld**. 1999. Differences in earthworm densities and nitrogen dynamics under exotic and native plant species. *Biol. Invasions.* 1:237-245
- Ehrenfeld, J. G.** 1999. Structure and Dynamics of Populations of Japanese Barberry (*Berberis thunbergii* DC.) *Biol. Invasions.* 1:203-213
- Zhu, W-X. and **J. G. Ehrenfeld**. 1999. Nitrogen mineralization and nitrification in urbanized Atlantic white cedar wetlands. *Jour. Env. Qual.* 28:523-529
- Cantelmo, A. and **J. G. Ehrenfeld**. 1999. Effects of Microtopography on Mycorrhizal Infection in Atlantic White Cedar (*Chamaecyparis thyoides* (L.) Mills.). *Mycorrhiza* 8:175-180.
- Kourtev, P., **J. G. Ehrenfeld** and W. Huang. 1998. Effects of Exotic Plant Species on Soil Properties in Hardwood Forests of New Jersey. *Water, Air and Soil Pollut.* 105:493-501
- Parsons, W. F. J., **J. G. Ehrenfeld**, and S. N. Handel. 1998. Growth and mycorrhizal infection of woody plant roots as potential limits to the restoration of woodlands on landfills. *Restoration Ecology* 6:280-289.
- Ehrenfeld, J. G.**, X. Han, W. F. J. Parsons, and W. Zhu. 1997. On the nature of environmental gradients: temporal and spatial variability of soils and vegetation in the New Jersey Pinelands. *Jour. Ecology* 85:785-798
- Ehrenfeld, J. G.** and L. Toth. 1997. Restoration Ecology and the Ecosystem Perspective. *Restoration Ecology* 5:307-318.
- Ehrenfeld, J. G.** 1997. Invasion of Deciduous Forest Preserves in the New York Metropolitan Region by Japanese barberry (*Berberis thunbergii* DC.). *Jour. Torrey Bot. Club* 124:210-215.
- Ehrenfeld, J. G.**, W. F. J. Parsons, X. Han, R. W. Parmelee, and W. Zhu. 1997. Live and dead roots in forest soil horizons: contrasting effects on nitrogen dynamics. *Ecology* 78:348-362..
- Zhu, W. and **J. G. Ehrenfeld**. 1996. The effects of mycorrhizal roots on litter decomposition, soil biota and nutrients in a spodosolic soil. *Plant and Soil* 179:109-118.

- Zhu, W., **Ehrenfeld, J. G.**, R. W. Parmelee, W.F. J. Parsons, and X. Han. 1996. The effects of live and dead roots on soil fungi in spodosolic soils of the New Jersey Pinelands. *Biol. Fert. Soils*. 21:215-226.
- Ehrenfeld, J. G.** 1995. Microsite differences in surface substrate characteristics in *Chamaecyparis* swamps of the New Jersey Pinelands. *Wetlands*. 15:183-189.
- Ehrenfeld, J. G.** 1995. Microtopography and vegetation in Atlantic white cedar swamps: the effects of natural disturbances. *Can. J. Bot.* 73:474-484.
- Parmelee, R. W., **J. G. Ehrenfeld**, X. Han and W. Zhu. 1995. Effects of dead pine roots on soil fauna and the decomposition of dead roots in a spodosol soil from the New Jersey Pinelands. *Acta Zool. Fennica* 196:27-32.
- Ehrenfeld, J. G.**, W. Zhu and W. F. J. Parsons. 1995. Above- and below-ground characteristics of persistent forest openings in the New Jersey Pinelands. *Bull. Torrey Bot. Club* 122:298-305.
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- Ehrenfeld, J. G.**, J. McCracken and R. W. Parmelee. 1991. Microbial activity in soils of the New Jersey Pinelands: studies of the effects of organic matter quantity and quality. *Bull. Ecol. Soc. Amer.* 72: 106.
- Oskarsson, H. and **J. G. Ehrenfeld**. 1990. Vegetation communities of the freshwater wetlands of Buxton Woods, Cape Hatteras, NC: community diversity and comparison of disturbed and undisturbed areas. *Bull. Ecol. Soc. Amer.* 71:suppl.
- Oskarsson, H. and **J. G. Ehrenfeld**. 1990. Interrelationships among vegetation and environmental factors in the freshwater wetlands of Buxton Woods, Cape Hatteras, NC. *Bull. N. J. Acad. Sci.* 35:35.
- Montgomerie, R. and **J. G. Ehrenfeld**. 1990. Anthropogenic versus natural disturbance effects on microtopography of Atlantic white cedar wetlands: effects on tree regeneration and species diversity. *Bull. N. J. Acad. Sci.* 35:35.
- Ehrenfeld, J.G.** and R.W. Parmelee. 1989. Biological and Physical characteristics of a soil catena in the New Jersey Pinelands. *Bull. Ecol. Soc. Amer.* 70:104.
- Parmelee, R.W. and **J.G. Ehrenfeld**. 1989. Rhizosphere response of nematodes and microarthropods in organic and mineral soils of the New Jersey Pinelands. *Bull. Ecol. Soc. Amer.* 70:222.
- Lynch, K. and **J. G. Ehrenfeld**. 1989. Comparative rates of mycorrhizal fungal infection in *Pinus rigida* Mill. grown in organic and mineral soils of the NJ Pinelands. *Bull. N. J. Acad. Sci.* 34:35.
- Stammerjohann, V. and **J. G. Ehrenfeld**. 1989. The effects of varying concentrations of NO_3^- on the formation of mycorrhizal roots in *Pinus rigida*. *Bull. N. J. Acad. Sci.* 34:35
- Ehrenfeld, J. G.** and R. W. Parmelee. 1988. Seedling growth and mycorrhizal development in pitch pine (*Pinus rigida* Mill.) seedlings in two soil types. *Bull. Ecol. Soc. Amer.* 69:126.
- R. W. Parmelee. and **J. G. Ehrenfeld** 1988. Root density and rhizosphere effects on the decomposer fauna of an organic soil from the New Jersey Pinelands. *Bull. Ecol. Soc. Amer.* 69: 254.
- Hahn, B. and **J. G. Ehrenfeld**. 1988. The effects of water stress on wetland plant species. *Bull. N. J. Acad. Sci.* 33:27.
- Dibeler, B. and **J. B. Ehrenfeld**. 1988. Vegetation and land-use history of the NJ Brigade Area, Morristown National Historical Park. *Bull. N. J. Acad. Sci.* 33:27.
- Ehrenfeld, J.G.** and K. Blumer. 1987. Regeneration and mortality patterns of dominant barrier islands in response to disturbance. *Bull. Ecol. Soc. Amer.* 68:295-296.
- Ehrenfeld, J.G.** 1986. Relationships between herbaceous and shrub vegetation on an east coast barrier island. IV. *Int. Cong. Ecol.* p. 141.

- Floyd, J. and **J.G. Ehrenfeld**. 1986. Microtopography and root biomass distribution in Atlantic white cedar wetlands. IV. Int. Cong. Ecol. p. 148.
- Vedagiri, U. and **J.G. Ehrenfeld**. 1986. Interactions of Sphagnum moss, acidity and heavy metals in acidic wetlands. IV. Int. Cong. Ecol. p. 337.
- Vedagiri, U. and **J. Ehrenfeld**. 1985. The effect of *Sphagnum* moss on lead mobility in acidic wetlands. Proc. Sixth Ann. Mtg., Soc. Environ. Toxic. Chem., p. 17.
- Ehrenfeld, J.G.** 1984. Comparative water relations of trees and shrubs of the New Jersey Pinelands. Bull. Ecol. Soc. Amer. 65:177.
- Schneider, J.P. and **J.G. Ehrenfeld**. 1984. Water chemistry and hydrology of cedar swamps along a gradient of suburban development in the New Jersey Pine Barrens. Bull. Ecol. Soc. Amer. 65:280.
- Schneider, J.P. and **J.G. Ehrenfeld**. 1983. Cedar swamp community structure along a gradient of suburban development in the New Jersey Pine Barrens. Bull. Ecol. Soc. Amer. 65:106.
- Gulick, M. and **J.G. Ehrenfeld**. 1982. A Study of the Role of Soil Properties in Maintaining Shrub-free Patches in Pine Barrens Upland Forests. Bull. N.J. Acad. Sci. 27, 41.
- Ehrenfeld, J.G.** 1982. The distribution of evergreen shrubs along a water table gradient in the New Jersey Pine Barrens, Bot. Soc. Amer. Misc. Public. 162:33.
- Ehrenfeld, J.G.** 1981. A Comparison of Biomass, Productivity and Nitrogen Content in Swamps, Floodplains and Pine Lowlands of the New Jersey Pinelands. Bull. N.J. Acad. Sci. 26, 72.
- Ehrenfeld, J.G.** 1981. Changes in the Species Composition of Pine Barrens Swamps as Affected by Development. Bull. N.J. Acad. Sci. 26, 72.
- Schneider, J. and **J.G. Ehrenfeld**. 1980. Nitrogen Content and Population Structure of Two Species of Shrubs Growing on Contrasting Soils. Bull. N.J. Acad. Sci. 25, 59.
- Ehrenfeld, J.G.**, M. Gulick and J. Schneider. 1979. Structure and Dynamics of Hardwood Swamps in the New Jersey Pine Barrens. Bull. N.J. Acad. Sci. 24, 89.

THESES SUPERVISED:

- Research degrees:
2009. Craig Ruzicki, M. S., Ecology and Evolution. "Early Root Structure and Growth of Japanese Barberry Seedlings."
2008. Kristen A. Ross. Ph.D. Ecology and Evolution. "The effects of soil manipulation on invasion success of two exotic species, Japanese barberry (*Berberis thunbergii*) and Japanese stilt grass (*Microstegium vimineum*)"
2008. Jonathon Schramm. Ph. D. Ecology and Evolution. "Historical legacies, competition and dispersal control patterns of invasion by a non-native grass, *Microstegium vimineum*."
2007. Emilie Stander. Ph. D. Ecology and Evolution. "The effects of urban hydrology and elevated atmospheric deposition on nitrate retention and loss in urban wetlands."
2005. Matthew Palmer. Ph. D. Ecology and Evolution. "The effects of microtopography on environmental conditions, plant performance, and plant community structure in fens of the New Jersey Pinelands."
2004. Elizabeth Ravit. Ph. D. Environmental Sciences. "Effects of *Spartina alterniflora* and *Phragmites australis* on brackish sediment microbial communities."

2004. Heather Bowman Cutway. Ph. D. Ecology and Evolution. "The effects of urban land use and human disturbance on forested wetland invasibility."
2001. Ekaterina Golland Sedia. Ph. D. Ecology and Evolution. "Interactions of lichens and mosses in the New Jersey Pinelands."
2001. Peter Kourtev. Ph. D. Ecology and Evolution. "Effects of exotic plant species on soil and litter microbial communities."
1999. Windham, Lisamarie. Ph. D. Ecology and Evolution. "Effects of an invasive reedgrass, *Phragmites australis*, on nitrogen cycling in brackish tidal marsh of New York and New Jersey."
1997. Yuan He, M. S., Ecology and Evolution, "Restoration Research in New Jersey Pinelands."
1997. Aviva Zuller, M. S. Degree, Ecology and Evolution. "Natural re-establishment of vesicular-arbuscular mycorrhizae in five closed municipa landfills."
1995. Weizing Zhu. Ph. D. Degree, Ecology and Evolution. "Effects of mycorrhizal roots on soil organisms, litter decomposition and nutrient dynamics in the New Jersey Pinelands."
1995. Sarada Sangemeswaran. M. S. Degree, Ecology and Evolution. "Nitrogen dynamics in three types of wetlands of the New Jersey Pinelands."
1993. Jane McGuire. M. S. Degree, Environmental Sciences. "Removal of cadmium, lead, and zinc by six New Jersey wetland plant litters and the effect on decomposition".
1991. Hlynur Oskarsson. M. S. Degree, Ecology: "The freshwater wetlands of Buxton Woods, Cape Hatteras, North Carolina: a study of the wetland edge and comparison of protected and disturbed wetlands"
1989. Usha K. Vedagiri. Ph.D. Degree, Environmental Sciences: "Behavior of Lead in Pristine and Urbanized Acid Wetlands in the New Jersey Pinelands with Special Reference to the Role of *Sphagnum* Moss"
1989. Beverly Hahn. M.S. Degree, Ecology: "The Effects of Water Stress on Wetland Plant Species"
1988. John P. Schneider. Ph.D. Degree, Ecology: "The Effects of Suburban Development on the Hydrology, Water Quality and Community Structure of *Chamaecyparis thyoides* (L.) B.S.P. Wetlands in the New Jersey Pinelands."
1987. Robert S. Hedin. Ph.D. Degree, Ecology: "The Consequence of Strip-mine Reclamation: Vegetation and Economics of Reclaimed and Unreclaimed Sites in West-central Pennsylvania."
1983. Martha Gulick. M.S. Degree, Ecology: "Long-term Maintenance of Herbaceous Communities in the New Jersey Pine Barrens Following Human Disruption of Woodland Vegetation and Soil."

Non-research degrees:

1998. Scott Mittman. M. A. Degree, Environmental Sciences. "Fate of nitrogen in wastewater wetlands."
1997. Adrienne Taber. M. A. Degree, Environmental Sciences: "Possible Impacts to Wetlands due to Sediment Loading from Nonpoint Source Runoff."
1995. Allan Coesfeld M. A. Degree, Environmental Sciences: "The feasibility of utilizing wetlands for the treatment of municipal wastewater."

1994. Scott Castro. M. A. Degree, Ecology and Evolution. "Ecology and Management of Exotic Species."
1991. James Pallias. M. A. Degree, Environmental Sciences: "The phosphorus cycle in freshwater wetlands"
1990. Ronald Prann. M. A. Degree, Environmental Science: "The Fate of No. 2 Fuel Oil in the Water Column and Marsh Sediments and its Effects on *Spartina alterniflora*".
1990. Maureen Gorman. M. A. Degree, Ecology: "Decomposition and Heavy Metals in Wetlands"
1990. Isabelle Allgood Neal. M. A. Degree, Environmental Science: "Mangrove ecosystems and their use, destruction and management"
1989. Jean Walat. M. A. Degree, Environmental Science: "Treatment Effectiveness and ecological effects of wastewater application to wetlands"

Current Graduate Students (Committee Chair):

Kenneth Elgersma, Ph. D. Ecology and Evolution
 Monica Palta, Ph. D., Ecology and Evolution
 Ai Wen, Ph. D., Ecology and Evolution (co-chair)
 Brian Clough, Ph. D., Ecology and Evolution
 Laura Shappell, Ph.D., Ecology and Evolution

Current Graduate Students (Committee Member):

Jack Siegrist, Ecology and Evolution
 Ari Novy, Plant Biology

Previous Graduate Students (Committee Member):

Kristi MacDonald, Ecology and Evolution, 2007
 Jennifer Adams Krumins, Ecology and Evolution, 2007
 Dennis Gray, Ph. D. Ecology and Evolution, 2006
 Stephanie Murray, M. S., Environmental Science, 2004.
 Joseph Farside, M. S. Environmental Science, 2003.
 David Bart, Ph. D. , Ecology and Evolution
 Jason Tesauro, M. S., Ecology and Evolution
 Amy Tuininga, Ph. D., Ecology and Evolution
 Michael Haas, M. S., Plant Biology, 1999
 Steve Gates, M. S., Ecology and Evolution, 1999
 Scott Mittman, M. S., Environmental Science, 1998.
 Laura Lynch, Ph. D., Ecology and Evolution, 1997
 Jim Baxter, Ph. D., Ecology and Evolution, 1997
 David Bart, M. S., Anthropology, 1997.
 Eleanor Vine, M. A. Ecology and Evolution, 1997.
 Sue Watts, Ph. D., Ecology and Evolution, 1996.
 Angela Salvimini, Ecology and Evolution, 1995.
 Robert Jordan, Ph. D., Ecology and Evolution, 1993
 Karen Wurst, M. A., Environmental Sci., 1993
 Martha Windisch, M. S., Biology - Camden, 1993
 Robert Fimbel, Ph. D., Horticulture, 1992

Richard Pouyat, Ph. D., Ecology, 1992
 Eileen Boyle, M. S., Horticulture, 1992
 William Schnitzerling, M. A., Environmental Sci., 1991
 William Walton, M. S., Ecology and Evolution, 1991
 Robert Zampella, Ph. D., Ecology, 1990
 Walter Carson, M. S., Ecology, 1988
 Khadga Basnet, Ph. D., Ecology, 1990
 Herwasone Soedjito, Ph. D., Ecology, 1990
 Enid Lotstein, Ph. D., Geography, 1989
 Jean Walat, M. S., Environmental Sci., 1989
 Curtis Helm, M. S., Horticulture, 1988
 Sumitra Poovaradam, Ph. D., Soils and Crops, 1986.

UNDERGRADUATE RESEARCH PROJECTS SUPERVISED:

- 2008: Jonathan Lafond, independent research. "Carbon fractions in organic matter of an urban wetland soil"
- 2007: Kai Lee Pan, Catherine Tarsiewicz, NSF REU project, "Utilization of soil amino acids by native and exotic understory species."
- 2007: Chris Klaube, Cook Honors project, "Comparative Morphology of Root Systems of Exotic and Native Understory Shrubs."
- 2007: Chidimma Ibeh, independent research, Denitrification in relation to vegetation in the Raritan River floodplain.
- 2006: Marissa de Tata, independent research, *Microstegium* growth under varying nutrient conditions.
- 2005: Sharon Wittes, Inbal Lavotashkin: Soil responses to invasive species growth 2002-2003. Michael Umansky, Natural Resources Curriculum, independent research: "Patterns of returning vegetation in restored brackish marshes on the Delaware River"
- 2002-2003. Rebecca Lyne, Natural Resources Curriculum. George H. Cook Honors Project. Effect of water table variations on the carnivorous plant, *Drosera intermedia*.
2002. Carl Figueiredo, Reich Fund Minority/Urban Access Project in Environmental Studies Scholarship. Ecological profiles of state parks and forests for inclusion in "New Jersey Walk Book".
2002. Jennifer Small, Meteorology curriculum. George H. Cook Honors Project. "Identification and analysis of dry periods in New Jersey using multiple station precipitation records and the Harnack-Small method".
2002. Fleur Nicklen, Douglass Honors Program. "Alteration of Floral Resource Availability by an Invasive Species and Consequences for Pollinator Communities"
2001. Christina Faust, Natural Resources Management curriculum. George H. Cook Honors Project. "Quantitative diet analysis of size classes of green sunfish (*Lepomis cyanellus*) for determination of piscivory status"
2001. Oscar Abelleira Martinez. "Benthic macroinvertebrate community characterization in upland forest and forested wetland stream channels in the Whippany River headwaters." Research in Science and Engineering Program, Rutgers University.
1999. Sage LaCroix. George H. Cook Honors Project. "Occurrence and reproductive strategies in *Microstegium vimineum*."

- 1998 Shana Groschler. Douglass Project Super Program. “Nitrate reductase as an indicator of nitrogen nutrition in exotic and native species in New Jersey”
1998. Tara Bowers. Rutgers Undergraduate Research Fellow. “Biodiversity and plant community composition in urban forested wetlands of New Jersey”
1998. Kelly Lynch. Rutgers Undergraduate Research Fellow. “Soil respiration under different kinds of plants in the New Jersey Pinelands”
- 1997-1998. Jayne Haussler. George H. Cook Honors Project. “Environmental Design and ‘Green Architecture’ in the planning of a new building for Cook College.”
1997. Richard Ochs. “Response of pine roots to applications of composted biosolids in the NJ Pinelands”
1997. Karen Tekel. “Effects of exotic species invasions on soil biology”
- 1995-1996. Mary Jasch. George H. Cook Honors Project. “Evaluation of the success of creating wetlands: a comparison of vegetation and soils.”
- 1995-1996 André Cantelmo, Jr., George H. Cook Honors Project. “Effects of microtopography on mycorrhizal infection and nutrient uptake in Atlantic white cedar.”
- 1995-1996. Amy Burtelow. Henry Rutgers Honors Project. “Short- and long-term effects of earthworms on denitrification in the forest floor.” (co-advisor with Dr. Patrick Bohlen, Institute of Ecosystem Studies)
- 1993-1994. John Barrett. George H. Cook Honors Project. “Ecosystem effects of submersed aquatic vegetation in the the tidal freshwater Hudson River.” (co-advisor with Dr. Stuart Findley, Institute of Ecosystem Studies)
- 1992-3 John Barrett. Soil respiration in organic horizons of Pinelands soils
- 1993-4 Mary Jasch. Mycorrhizal colonization of woody plants on drastically disturbed soils
- 1994-5 Mary Jasch. Different forms of mycorrhizae on red cedars from old-fields of varying
1992. John Barrett. The contribution of roots to soil respiration in organic soil horizons in the New Jersey Pinelands
1991. Samantha Manburg. Growth of extramatrical mycorrhizal hyphae in soil at varying levels of nutrient availability.
1990. Thomas Kowalenko. Fungal hyphal production along a toposequence in the NJ Pinelands
- 1989 Valery Pierce. Abundance of fungal mycelium along a toposequence in the NJ Pinelands
- 1989 Victoria Stammerjohann. George H. Cook Honors Project: Effects of acid precipitation on mycorrhizal infection of pitch pine seedlings.
- 1987 Kelly Lynch. Mycorrhizal Infection of Pitch Pine Roots in Contrasting Soils of the N. J. Pinelands
- 1985 Jenny Floyd. Root Biomass in Atlantic White-cedar Swamps of the New Jersey Pinelands
- 1982 Jerri Wiegand. George H. Cook Honors Project: Effects of gypsy moth defoliation on forest floor moisture and tree seedling water stress

HIGH SCHOOL INTERNS:

Spring semester, 2004. Noah Needleman, Research Intern from Solomon Schechter Day School of Essex and Union

- Summer, 1994. Discovery Pre-College Program, Cook College. Victor Larach and Raymond Johnston
- Summer, 1993. Partners-in-Science Program, Liberty Science Center. William Wang
- Summer, 1990. Partners-in-Science Program, Liberty Science Center. Jeannette McCracken
- Summer, 1989. Partners-in-Science Program, Liberty Science Center. Eric Kaldor

POSTDOCTORAL ASSOCIATES

- Dr. Robert W. Parmelee, Ph. D. University of Georgia, 1987-1992
- Dr. Xingguo Han, Ph. D., University of Georgia, 1990-1992
- Dr. Stuart Allison, Ph. D. University of California 1993
- Dr. William F. J. Parsons, Ph. D. University of Wyoming 1992-1996
- Dr. Weize Huang, Ph. D. University of Saskatchewan, 1996-1999
- Dr. Jean-Christophe Clement, Ph. D. Université of Rennes, France. 2001-2004
- Dr. Karen Goodell, Ph. D. State University of New York Stony Brook. 2001-2004
- Dr. Torsten Vor, Ph. D. Groeningen University, Germany, 2004-2007.
- Dr. Shen Yu, Ph. D. Zhejiang University, China. 2004-2006.

MEETINGS ORGANIZED AND HOSTED:

- 2008: “The Climate Ahead: Impacts of Climate Change on Water Resources” Rutgers University, April, 2008.
2003. “Watershed Management and the University.” Meeting sponsored and organized by the NJ WRRI. Rutgers University, May, 2003.
2002. Water Resource Briefing for the New Jersey State Legislature (with US Geological Survey – New Jersey Division).
2001. “Water for South Jersey: Will the Supply Meet the Demand.” Organizer and sponsor, as a function of the NJ Water Resources Research Institute.
1999. Symposium, Ecological Society of America Annual Meeting. “Invasive Species and the Soil: Effects on Organisms and Ecosystem Processes” (primary organizer; proceedings to be published in *Ecological Applications*)
1996. “Restoration of Atlantic White Cedar”, sponsored by the NJ Water Resources Research Institute, NJ Dept. of Environmental Protection, and Stockton College.
1994. “Water Resources of the New Jersey Pinelands: A Survey of Current Research”, sponsored by the NJ Water Resources Research Institute and the IMCS Division of Pinelands Research. Cook College, NJ.
1993. “Conference on Proposed Changes to the Surface Water Quality Standards in New Jersey” sponsored by the NJ Water Resources Research Institute. Cook College, NJ.
1992. "The Pinelands Research Conference". sponsored by the NJ Water Resources Research Institute. Cook College, NJ.
1991. "Research Priorities for Water Resources Research in the 1990's". Sponsored by the NJ Water Resources Research Institute, with support from NJAES, USEPA, and the Rutgers IMCS. Cook College, NJ
1991. Mid-Atlantic Regional Meeting, National Association of Water Institute Directors. Somerset, NJ.

INVITED PRESENTATIONS:

- 2009: “Distribution of exotic species in parks of northern New Jersey and adjacent New York Highlands: use of citizen scientists to determine extent of invasion”. 6th Research Symposium, Black Rock Forest, Cornwall, NY
- 2008: “Wetlands in Urban Environments: functions, values and services”. International Workshop on Urban Wetland Ecology and Restoration, Institute of Urban Environment Chinese Academy of Sciences, Xiamen, China. Dec 12-15.
2008. “Invasive plants and ecosystems: a matter of scale.” Northeastern Ecosystem Research Cooperative, 2008 Conference. Durham, NH. November, 2008.
2008. “Plants and Soil: finding a way through the maze.” Plenary address, Netherlands Ecological Research Network First Annual Meeting, Lunteren, The Netherlands.
2007. “Plant-soil feedback in exotic plant invasions: legacy effects of plant influence on microbial communities.” 7th BIORHIZ Conference, Hundested, Denmark. June.
2007. “Monitoring Wetlands in Urban Environments. Meadowlands Environmental Research Institute Research Conference, Lyndhurst, NJ.
2007. Weed Science Society of America, NRI PD Meeting. “Using Citizen Volunteers to Sample Exotic Species Occurrence in Deciduous Forests: Issues and Preliminary Results.” San Antonio, TX February 6, 2007.
2007. Mid-Atlantic Chapter, Society for Ecological Restoration. “The challenge of restoring soils and managing invasive plant species in hardwood forests.” Philadelphia, PA. January 11, 2007.
2006. Strategic Environmental Research and Development Program, U. S. Dept. of Defense, Partners in Environmental Technology Technical Symposium & Workshop. “Changes in Ecosystem Function Resulting from Exotic Invasions: Theory & Practice” November 30, 2006, Washington, D. C.
2006. American Water Resources Association, Annual Meeting. “Biotic Indicators”, a presentation in “Panel: The science of measuring change – assessing the state of the Delaware River Basin.” November, 2006. Baltimore, MD.
2006. University of Pennsylvania. “Wetlands in Urban and Suburban Regions – An Overview.” October, 2006. Philadelphia, PA.
- 2006 Organizer: Workshop on “Watershed Management and Wetlands” at the “Regional Planning Comes of Age” conference held to celebrate the 25th anniversary of the Pineland Comprehensive Management Plan, organized by the Pinelands Preservation Alliance. New Brunswick, NJ, September 29th 2006
2006. Nature Network. “Monitoring Exotic Species in Forested Areas: A Citizen Science Initiative.” September 2006, New York, NY.
2006. Annual Meeting, Ecological Society of America. Closing Plenary Luncheon: “Remarks on the Meeting, or Icons, Upstarts and the Oxford English Dictionary”
2006. Annual Meeting, Ecological Society of America, Symposium on Soil Restoration: **Joan G. Ehrenfeld**, Kristen Ross and Manisha Patel, “Soils and the management of invasive plant species: a case study of the challenges of soil restoration
2006. Duluth, MN. “Workshop to Develop a Strategy for Advancing Urban Ecology” Comments, Ecological Issues. May.
2006. Mid-Atlantic Chapter, Ecological Society of America. Keynote Address. “Finding Ecology in the ‘Burbs”. April, Montague, NJ.
2006. Sustainable Landscapes Conference, Utah State University. “Wetland Restoration in Urban Areas: Constraints and Chances. Keynote Address, April.

2005. University of Pennsylvania – Morris Arboretum and the Mid-Atlantic Plant Pest Council. “Exotic invasions in deciduous forests – can managing soil help?”
2005. Yale University, “Invasive Species and the Public Good” lecture series: “Ecological consequences and Management Innovations. New Haven, CT. Jan. 24.
2004. Keynote address: “Wetlands in urban and suburban regions: a challenge for science, conservation and management.” Society of Wetland Scientists- New England Chapter Conference, October, 2004.
2004. “seminar in Wisconsin
2004. “Effects of plant species in brackish marshes on microbial diversity and function,” with B. Ravit and M. Haggblom. Symposium presentation at the 7th Intecol International Wetlands Conference, Utrecht, The Netherlands, July, 2004.
2004. “Predicting impacts of exotic plant species on ecosystem processes.” At “Beijing International Symposium on Biological Invasions,” Beijing, China, June 2004.
2004. “Wetlands in the suburbs: balancing uses and abuses.” Symposium sponsored by the Stony Brook-Millstone Watershed Association, “Using Science to Protect Wetlands: Making Science Available to All.” May, 2004.
2003. Invasive Plants in Natural and Managed Systems: Linking Science and Management. Conference, Ft. Lauderdale, FL, Nov, 2003. Invited presentations: (1) “Implications of invasive species for below-ground community and nutrient processes” (2) “Challenges in restoring soils altered by exotic plant invasions”
2003. “Invasive Species and Soil Ecosystems – A Neglected Dimension of Exotic Species” and “Ecology of Urban Wetlands.” Binghamton University, March 2003.
2003. “Invasions of Exotic Species: The Hidden Dimension”. Invited seminar, Pennsylvania State University, January, 2003.
2002. “State of the Forest Symposium”, Mendham, NJ. Panelist on ‘Impacts and Management of Invasive Plant Species.’
2002. “Synergies and Conflicts in sustaining multiple functions in forested wetlands of the northeast” at “Urban Wetlands: Sustaining Multiple Functions,” Portland, OR.
2002. “A Comparison of Sediment Microbial Communities Associated with *Phragmites australis* and *Spartina alterniflora* in brackish wetlands of New Jersey” at “Phragmites australis: A Sheep in Wolf’s Clothing?”, Cumberland, NJ.
2002. USDA Interagency Forum on Invasive Species.” Annapolis, MD. “Exotic species and the soil.”
2001. “Invasive Plants: Action on all fronts” Conference, Swarthmore, PA. “Japanese Stiltgrass and Barberry: Effects on Soil”.
2001. Université Laval, Quebec. Invited Lectures. (1) The Effects of Exotic Species Invasions on the Soil” and (2) “A Study of Urban Wetlands in New Jersey”
1999. Invited Lecture, Metro Forest Council. (keynote speech to annual meeting). “Wetlands in the Urban Landscape”
1999. Invited Lecture, Environmental Defense Fund, Science Advisory Committee Meeting on Ecosystem Restoration: Targets and Constraints. “An Ecosystems Perspective on Setting Restoration Goals”
1999. Invited Lecture, Fordham University, New York. “Trouble Underfoot: Exotic plants and Forest soils.”
1999. Invited Lecture, State University of New York, Stony Brook. “Trouble Underfoot: Exotic plants and Forest soils.”

1999. Invited Lecture, Institute of Ecosystem Studies, Millbrook, NY. "There's more to exotic plant invasions than meets the eye: the belowground connection."
1998. Metro Forest Council, NY. Managers' Field Day: Exotic Species and Deer Browse Issues in Suburban Forests. Field Trip to Morristown National Historical Park. Nov. 10, 1998.
1998. NJ Chapter, The Wildlife Society. "Exotic Species In Upland Habitats of New Jersey." Oct. 21. 1998
1998. Invited Field Trip Organizer, Ecological Society of America Annual Meeting, Baltimore, MD. Field trip to the NJ Pinelands. August, 1998
1998. Invited Lecture, Workshop on Selecting and Using Wetland Reference Sites, "Reference Sites in the Urban Areas of New Jersey" May, 1998, Institute for Ecosystem Studies, Millbrook, NY.
1998. Invited Lecture, Colorado State University, Colloquium in the Life Sciences. "Exotic plant invasions: causes and consequences of ecosystem change"
1998. Invited Lecture, National Conference on Goal Setting and Success Criteria for Coastal Habitat Restoration. "Evaluating Wetlands Within an Urban Context". Charleston, SC. Jan. 1998.
1996. Invited Lecture, Conference on Wetland Mitigation Banking, sponsored by the Interstate Council on Water Policy. "Status of Mitigation Banking in New Jersey."
1996. Invited lectures, Cornell University. (1) "Feedbacks between Plants and Soils: Their Role in Nutrient Cycling;" (2) "The Effects of Hydrology and Water Quality on the Vegetation of Wetlands". Guest of the Graduate Student Association of the School of Natural Resources.
1996. Invited lecture, University of Massachusetts, Plant Biology Program. "Plants and Soils of the New Jersey Pinelands: Layers of Complexity."
1996. Society for Ecological Restoration, Rutgers University, New Brunswick, NJ. "Ecological Restoration on Drastically Disturbed Land". Symposium on Restoration of Urban Land
1996. NSF Workshop on Restoration Biology, Santa Barbara, CA. "Principles of Ecosystems Ecology Useful in Restoration Ecology."
1995. Villanova University. Villanova, PA. "Nutrient and Roots in Pinelands Forests" Invited Seminar.
1995. Restoration of spodosolic soils and associated plant communities in the New Jersey Pinelands Using High Quality Composted Sludge. Society for Ecological Restoration, 1995 International Conference, Seattle, WA.
1994. EPA Workshop on The Challenges of Wetlands Assessment and Monitoring, Boston, MA. "Evaluating ecological change within wetlands in urbanizing landscapes"
1993. Philadelphia Society for Promoting Agriculture, Philadelphia, PA. "The Ecology of Wetlands."
1992. Ecological Society of America Annual Meeting, Madison, WI. "Small gaps with variable live and dead root biomass in the New Jersey Pinelands: effects on soil biota and nutrients" Symposium on The Below-ground Response to Gaps
1992. Symposium on Forested Wetlands, Annapolis, MD. "Responses of forested wetland vegetation to perturbations of water chemistry and hydrology."
1991. Botanical Society of America Annual Meeting, San Antonio, TX: "Responses to Anthropogenic Disturbance in Barrier Island Vegetation", Symposium on Plant-Environment Relationships Near the Tideline.

1990. Graduate Program in Environmental Science Seminar Series, Rutgers-New Brunswick. "Effects of roots on forest nutrient cycles".
1990. U. S. Dept. Agri., Soil Conserv. Service. "Impacts of Pollution on New Jersey Wetlands".
1990. Graduate Program in Biology Seminar Series, Rutgers-Newark. "Effects of roots on forest nutrient cycles".
1986. New Perspectives in Water Quality, Hudson/Delaware SETAC Symposium, Rutgers University, New Brunswick, NJ. "Fate of Pollutants from Upland Development on Pinelands Wetlands Communities."
1984. First Atlantic White Cedar Symposium, Woods Hole, MA, Oct. 1984. "Suburban Development and Cedar Swamps: Effects on Water Quality, Water Quantity and Plant Community Composition."
1984. Smithsonian Environmental Research Laboratory, Edgewater, MD. "Effects of Suburban Development on Swamps of the New Jersey Pinelands."
1983. Marine Biological Laboratory, Woods Hole, Mass., "Swamps of the New Jersey Pine Barrens: Disturbed and Undisturbed."
1982. Conference on Ecological Solutions to Management Concerns in the Pinelands National Preserve. "Some Effects of Nutrient Additions to Pinelands Wetlands."
1981. Rutgers Ecology Graduate Program Seminar. "Some Aspects of Community Structure and Nitrogen Dynamics in Swamps of the New Jersey Pine Barrens."

REVIEWER FOR:

Ecology, Plant Ecology, Journal of Ecology, Plant and Soil, Wetlands among others
 National Science Foundation, USDA NRICGP programs in Soils and Soil Biology,
 Water Resources and Watersheds, Biotic Invasions, Managed Ecosystems.