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Education:

B.A. Environmental Science, University of Virginia, 1980.

Ph.D Ecology, University of Georgia, 1984.

Professional Positions:

2005 – current, Senior Scientist, Institute of Ecosystem Studies

1999 - 2004, Scientist, Institute of Ecosystem Studies

1993 - 1998, Associate Scientist, Institute of Ecosystem Studies.

1992, Assistant Scientist, Institute of Ecosystem Studies.

1987 - 1991, Assistant Professor, Department Natural Resources Sci., Univ. of Rhode Island.

1984 - 1987, Postdoctoral Research Associate, Departments of Crop and Soil Science and Microbiology and Public Health, Michigan State University.

1980 - 1984, Graduate Research Assistant and Graduate Teaching Assistant, Institute of Ecology, University of Georgia.

Research Interests and Activities:

Terrestrial microbial ecology, dynamics of microbial processes at the landscape level, nutrient cycling and transformation of environmental pollutants in wetlands, forests, agro-ecosystems and groundwater.

Chair, Biogeosciences Section, Ecological Society of America, 2010 – current

U.S. Climate Change Science Program, Synthesis and Assessment Product Committee on “Thresholds of Change in Ecosystems.” 2007 – 2008.

U.S. National Committee for Soil Science. Board on International Scientific Organization, Policy and Global Affairs Division, National Academy of Sciences. 2004 – present.

Intergovernmental Program on Climate Change (IPCC); lead author, chapter on North America (2000) in 3rd Assessment Report, lead author, Wetlands (1995) in 2nd Assessment Report.

Selected Publications:

- Groffman, P.M., J.P. Hardy, S. Fashu-Kanu, C.T. Driscoll, N.L. Cleavitt, T.J. Fahey and M.C. Fisk. 2010. Snow depth, soil freezing and nitrogen cycling in a northern hardwood forest landscape. *Biogeochemistry* 102:223-238.
- Groffman, P.M., C. Stylinski, M.C. Nisbet, C.M. Duarte, R. Jordan, A.J. Burgin, M.A. Previtali and J.Coloso. 2010. Restarting the conversation: Challenges at the interface between ecology and society. *Frontiers in Ecology and Environment* 8:284-291.
- Groffman, P.M., J.P. Hardy, M.C. Fisk, T.J. Fahey and C.T. Driscoll. 2009. Climate variation and nitrogen and carbon cycle processes in a northern hardwood forest. *Ecosystems* 12: 927–943. DOI: 10.1007/s10021-009-9268-y.
- Groffman, P.M., K. Butterbach-Bahl, R.W. Fulweiler, A.J. Gold, J.L. Morse, E.K. Stander, C.L. Tague, C. Tonitto and P. Vidon. 2009. Challenges to incorporating spatially and temporally explicit phenomena (hotspots and hot moments) in denitrification models. *Biogeochemistry* 93:49-77. DOI: 10.1007/s10533-008-9277-5
- Groffman, P.M. and R.V. Pouyat. Methane uptake in urban forests and lawns. 2009. *Environmental Science & Technology* DOI: 10.1021/es803720h.
- Kaushal, S.S., P M. Groffman, L.E. Band, C.A. Shields, R.P. Morgan, M.A. Palmer, K.T. Belt, C.M. Swan, S.E.G.Findlay and G.T. Fisher. 2008. Interaction between climate and land use amplifies watershed nitrogen export. *Environmental Science & Technology*. DOI: 10.1021/es800264f
- Kulkarni, MV, P.M. Groffman and J.B. Yavitt. 2008. Solving the global nitrogen problem: It's a gas! *Frontiers in Ecology and Environment* 4:199-206.
- Groffman, P.M., M.C. Fisk, C.T. Driscoll, G.E. Likens, T.J. Fahey, C. Eagar and L.H. Pardo. 2006. Calcium additions reduce nitrogen cycling in a northern hardwood forest. *Ecosystems* 9:1289-1305.
- Groffman, P.M., J.P Hardy, C.T. Drisoll and T.J. Fahey. 2006. Snow depth, soil freezing and trace gas fluxes in a northern hardwood forest. *Global Change Biology* 12:1748-1760.
- Groffman P.M., M.A. Altabet, J.K. Böhlke, K. Butterbach-Bahl, M.B. David, M.K.Firestone, A.E. Giblin, T.M. Kana, L.P. Nielsen and M.A. Voytek. 2006. Methods for measuring denitrification: Diverse approaches to a difficult problem. *Ecological Applications* 16:2091-2122.
- Groffman, P.M. J.S. Baron, T. Blett, A.J. Gold, I. Goodman, L.H. Gunderson, B.M. Levinson, M.A. Palmer, H.W. Paerl, G.D. Peterson, N. L. Poff, D.W. Rejeski, J.F. Reynolds, M.G. Turner, K.C. Weathers and J. Wiens. 2006. *Ecological*

- thresholds: The key to successful environmental management or an important concept with no practical application? *Ecosystems* 9:1-13.
- Groffman, P.M., A.M. Dorsey and P.M. Mayer. 2005. Nitrogen processing within geomorphic features in urban streams. *Journal of the North American Benthological Society* 24:613-625.
- Kaushal, S.S. P.M. Groffman, G. E. Likens, K. T. Belt, W. P. Stack, V. R. Kelly, L. E. Band and G. T. Fisher. 2005. Increased salinization of fresh water in the northeastern U.S. *Proceedings of the National Academies of Science of the United States of America* 102:13517-13520.
- Groffman, P.M., N.L. Law, K.T. Belt, L.E. Band and G.T. Fisher. 2004. Nitrogen fluxes and retention in urban watershed ecosystems. *Ecosystems* 7:393-403.
- Groffman, P.M., C.T. Driscoll, G.E. Likens, T.J. Fahey, R.T. Holmes, C. Eagar and J.D. Aber. 2004. No gloom of night: A new conceptual model for the Hubbard Brook ecosystem study. *BioScience* 54:139-148.
- Groffman P.M., P.J. Bohlen, M.C. Fisk and T.J. Fahey. 2004. Exotic earthworm invasion and microbial biomass in temperate forest soils. *Ecosystems* 7:45-54.
- Groffman, P.M., D.J. Bain, L.E. Band, K. T. Belt, G.S. Brush, J.M. Grove, R. V. Pouyat, I.C. Yesilonis and W. C. Zipperer. 2003. Down by the riverside: Urban riparian ecology. *Frontiers in Ecology and Environment* 6:315-321.
- Groffman, P.M. and M.K. Crawford. 2003. Denitrification potential in urban riparian zones. *Journal of Environmental Quality* 32:1144-1149.
- Groffman, P.M., N.J. Boulware, W.C. Zipperer, R.V. Pouyat, L.E. Band, M.F. Colosimo. 2002. Soil nitrogen cycling processes in urban riparian zones. *Environmental Science & Technology* 36:4547-4552.
- Groffman, P.M., C.T. Driscoll, T.J. Fahey, J.P. Hardy, R.D. Fitzhugh and G.L. Tierney. 2001. Colder soils in a warmer world: A snow manipulation study in a northern hardwood forest ecosystem. *Biogeochemistry* 56:135-150.