

Curriculum Vita
Frank Gallagher Ph.D.
GallagherGreen.com

Experience:

- 2013- present: Associate Professor of Professional Practice (2017-), Director Environmental Planning and Design Program, (2013-present), Assistant Professor of Professional Practice (2015-2016); Lecturer (2013-2014), Rutgers the State University, Department of Landscape Architecture. Member of the Graduate Faculty for the Department of Landscape Architecture, Department of Ecology Evolution and Natural Resources and the Federated Department of Biological Sciences at Rutgers. Responsible for the establishment of an innovative, forward-looking undergraduate program in environmental planning, with emphases on ecological systems, open space and green infrastructure. Course work includes Praxis Studios as well as issues in Environmental/Ecological Planning. Research focuses on novel vegetative assemblage development and function under conditions of soil metal induced stress.
- 2016-present: Member Board of Trustees, New Jersey Shade Tree Federation.
- 2010–2015: Research Associate, Montclair State University affiliated with College of Science and Mathematics.
- 1998 -2015 Member, Board of Trustees, American Forest Foundation. Served as chair of the Educations Operating Committee for the Project Learning Tree program and an at large member of the Board.
- 2009-2012: Visiting Scholar, Rutgers the State University, Department of Ecology Evolution and Natural Resources. Working with the Urban Forestry Laboratory to examine the biometrics of vegetative assemblages exhibiting metal induced stress towards the development of a model for the phytostabilization of brownfield soils.
- 2005-2012: Administrator, Division of Parks and Forestry, Office of the Director. Responsible for the future development of Liberty State Park, review and analysis of plans, policy, and projects concerning the current brownfield restoration and redevelopment issues. Served as a jurist for the selection of the NJ 911 Memorial.
- 1995-2012: Adjunct Professor (PTL), Rutgers the State University, Department of Ecology, Evolution and Natural Resources. Instructor of Environmental Issues, a survey course and Open Space Planning and Management a course of practical application.
- 2007: Lecturer: Columbia University, A6853 Design Studio Organized a multidisciplinary collaborative MAAD graduate design studio with Kate Orff.
- 2004–2005: Acting Assistant Director, Division of Parks and Forestry, State Park Service, Oversight of New Jersey’s 380,000+ acres of parks, forests, recreation areas.
- 1994-2004: Administrator, Division of Parks and Forestry; Within the Office of the Director, responsible for the development of site specific general management plans, and the oversight of the division’s interpretive and educational programs.
- 1996–2004: Commissioner, Governor’s Commission on Environmental Education. The Environmental Education Act established the commission in January of 1996: Served as the commission’s chair from 1999-2003.
- 1983-1994: Adjunct Professor of Biology, Upsala College. Responsibilities included instruction in the following courses: Introduction to Biology, Field Biology, Environmental Science and Evolution.

1983-1994: Chief of Interpretive Service, Liberty State Park, DEP. Responsibilities included the design and implementation of a comprehensive interpretive program, including educational programs, teacher training and exhibit development.

1987-1988: Senior Biologist, CDM Inc. CDM is an environmental consulting firm that deals with a wide spectrum of issues.

1986-1987: Senior Biologist, Aware Inc.; 1986-87. Aware Inc. is an environmental consulting firm that deals primarily with toxic and hazardous waste.

1980-1983: Naturalist, High Point State Park; 1980-83. Prepared and presented interpretive and educational programs.

1978-1983: Natural Resource Assistant, Sussex County Soil Conservation District.

Education:

2008 Ph.D., Rutgers the State University, Department of Ecology Evolution and Natural Resources.

1989 Post Graduate Work, Rutgers the State University, Graduate School of Education.

1983 M.A., Biology, Montclair State College.

1978 B.A., Botany, Rutgers the State University.

1973-75, School of Architecture, New Jersey Institute of Technology,

Publications, Peer Reviewed:

2017 Salisbury A., Gallagher, F.J., Caplan, J. Grabosky, J.C., Maintenance of photosynthetic capacity despite high load of trace metals in contaminated anthropogenic soils. *Science of the Total Environment*. In Review.

2017 Qian, Y., Feng, F. H., Gallagher, F.J., Zhu, Q., Wu, M., Liu, C.J., Jones, K., and Tappero, R. Risk assessment and interpretation of heavy metal contaminated soils on an abandoned urban brownfield site. *Environmental Science and Pollution Research*. 24:23549-23558.

2017 Feng, H., Wang, J., Qian, Y., Gallagher, F.J., Yu, L. Liu, C.W., Liu, H. Li., Y. Mahajan, M.D., Zhang, W., Eng, C., Jones, K.W., Liu, C.J., Tappero, R. (Sub) Micro-scale investigation of Fe plaque distribution in selected wetland plant root epidemis. *Nova Science Publishers*. In Print 5/17

2017 Salisbury, A. Reinfelder J.R., Gallagher F.J., Grabosky, J.C., Long-Term Stability of Trace Element Concentrations in a Spontaneously Vegetated Urban Brownfield With Anthropogenic Soils. *Soil Science*. 182 (2) 69-81.

2017 Ravit, B., Gallagher F.J., Doolittle J., Shaw R., Muñiz E., Alomar R., Hoefler W., Doss, T. Urban Wetlands: Restoration or designed rehabilitation? *AIMS Environmental Science*. 4(3) 458-483.

2017 Wadhwa, S., Gallagher, F.J., Rodriguez-Saône C., Holzapfel, C., Analysis of fluctuating asymmetry in isopod and hardwood tree populations in brown fields. *Journal of Environmental Indicators*. 76 (2017) 42-51.

2017 Radwanski, D., Gallagher, F.J., Vanderklein, D.W., Schafer, K. V.R. Physiology and carbon allocation of two co-occurring poplar species (*Populus 1 deltoides* and 2 *Populus tremuloides*) in an urban brownfield. *Environmetal Pollution*. April Vol 23:497-506

2016 Feng, H. Yu Qian, Gallagher, F.J., Liu, C.W., Zhang, W., Yu, L., Jones, K.W., Tappero, R. Micro-scale study of trace metal accumulation and translocation in wetland plant root systems at a brownfield site. *Journal of Environmental Sciences* 4 1:1 7 2 - 1 8 2.

2016 June-Wells. M. Gallagher, F. J., Gibbons, J., and Bugbee, G., The Influences of Water and Soil Chemistries on the Structure of Lentic Plant Communities. *The*

- Journal of Lake and Reservoir Management*. Vol. 32, No. 2, 116–132.
- 2016 Hoefler, W., Gallagher, F., Hyslop, T., Wibbelt, T., and Ravit, B., Unique Landfill Restoration Designs Increase Opportunities to Create Urban Open Space. *Environmental Practice*. 18 (2), 107-115
- 2015 Evans, J.M., Parker, A., Gallagher, F.J., Krumins, J.A. Plant Productivity, Ectomycorrhiza and Metal Contamination in Urban Brownfield Soils. *Soil Science*. Volume 180, Number 4/5, 198-204.
- 2015 Qian, Y., Feng, F. H., Gallagher, F.J., Zhu, Q., Wu, M., Liu, C.J., Jones, K., and Tappero, R. Synchrotron Study of Metal Localization in *Typha latifolia* L. Root Sections. *Journal of Synchrotron Radiation*, 22, 1459–1468.
- 2015 Hagmann, D.F., Goodey, N.M., Mathieu C., Evens, J., Aronson, M.F.J., Gallagher, F.J. Krumins, J.A. Effect of Metal Contamination on Microbial Enzymatic Activity in Soil. *Soil Biochemistry and Biology*. 91 291-297.
- 2015 Gallagher, F.J. Caplan, J.S. Krumins, A.J., Grabosky, J.C., Root Growth Response to Soil Amendments in an Urban Brownfield. *Ecological Restoration*. Vol. 33, No. 1, March.
- 2015 Krumins, J. A., N. M. Goodey, and F. J. Gallagher. Plant-Soil Interactions in Metal Contaminated Soils. *Soil Biology & Biochemistry*. 80:224-231.
- 2014 Dahle, G.A., Gallagher, F.J., Gershenson D., Schäfer, K. VR., and Grabosky, J.C., Allometric and Mass Relationships of *Betula populifolia* in a Naturally Assembled Urban Woodlot. *Urban Ecosyst*. 17:1147-1160
- 2014 June-Wells, M., Gallagher, F.J., Holzapfel, C., Evaluating Population Border Dynamics among *Artemisia vulgaris* and Community Constituents in Urban Successional Vegetation. *Journal of the Torrey Botanical Society* 141(1), 2014.
- 2014 Qian, Y., Gallagher, F.J, Feng F.H., Wu, M, Qingzhi Zhu. A biogeochemical study of plant uptake of vanadium on an urban brownfield site. *Science of the Total Environment*. 476-477:696-704.
- 2013 June-Wells. M. Gallagher, F., Gibbons, J., and Bugbee, G,. Water chemistry preferences of five nonnative aquatic macrophyte species in Connecticut, USA: A preliminary risk assessment tool. *The Journal of Lakes and Reservoir Management*. 29:4, 303-316.
- 2013 Feng F.H., Qian, Y., Wu, Tappero M.R, Gallagher, F.J., Wu, M. Zhang, W., Yu, L., Zhu, Q., Zhang, K., Liu C.J. Lead accumulation and association with Fe on *Typha latifolia* root from an urban brownfield site. *Environ Sci Pollut Res* 20:3743–3750.
- 2012 Renninger, H.J. Wadhwa, S., Schäfer, V.R., Gallagher, F.J., Vanderklein, D. Allometry and photosynthetic capacity of Poplar (*Populus deltoides*) along a metal contamination gradient in an urban brownfield. *Urban Ecosyst* 16:247–263. doi.org/10.1007/s11252-012-0259-y.
- 2012 Qian, Y., Gallagher, F.J, Feng F.H., Wu, M. A geochemical study of toxic metal translocation in an urban brownfield wetland. *Environmental Pollution*. 166, 23-30.
- 2011 Gallagher, F.J., Pechmann, I., Isaacson B., and Grabosky, J., Morphological Variation in the Seed of *Betula populifolia* Marsh.: A Comparison of Trees from Metal Contaminated Soils. *Urban Habitats*. July.
- 2011 Gallagher, F.J., Pechmann, I. Holzapfel, C., Grabosky, J. Altered Vegetative Assemblage Trajectories within an Urban Brownfield. *Environmental Pollution*. 159 1159-1166.

- 2010 Hofer C., Gallagher F.J., Holzapfel C. Metal accumulation and growth performance of nestlings of passerine bird species at an urban brownfield site. *Environmental Pollution*. 158:1207–1213.
- 2008 Gallagher F.J., Pechmann I., Bogden J., Grabosky J., and Weis P. Soil metal concentrations and productivity of *Betula populifolia* (gray birch) as measured by field spectrometry and incremental annual growth in an abandoned urban Brownfield in New Jersey, *Environmental Pollution*. 156:699–706.
- 2008 Gallagher F.J., Pechmann I., Bogden J., Grabosky J., and Weis P. Soil Metal Concentrations and Plant Productivity in an Urban Brownfield, *Environmental Pollution*. 153:351-361.

Publications, Education/General Interest:

- 2017 Grabosky, J.C., Ravit, E., Gallagher, F.J., Influencing the Outcomes in a Cycle of Redevelopment for the Good of Urban Canopy. American Society of Consulting Arborist. Accepted.
- 2011 Gallagher, F.J. America's Great Outdoors: Our Nations Laboratory. American Forest Foundation. <http://forestblog.org/wordpress/?p=897>. February 16.
- 2010 Gallagher, Frank, "The Places You Live: Bayonne N.J.", *Orion*, November/December, pg. 17.
- 2006 Gallagher, F.J. *Exploring Environmental Issues in the Places We Live*. American Forest Foundation. Contributing author and reviewer.
- 1998 Gallagher, F.J. *Branching Out, Risk and Forestry*. American Forest Foundation
- 1998 Iozzi, L. and Gallagher, F. *Environmental Issues Focus on Risk*. American Forest Foundation.
- 1997 Gallagher, F.J. *The Presidents Message*. The Daily Planet. Vol. 10 No. 3.
- 1995 Gallagher, F.J. *HEP Hits the Road*. The Tidal Exchange Vol. 5. No. 1.
- 1995 Gallagher, F.J. *The Presidents Message*. The Daily Planet Vol.10 No. 2.
- 1993 Gallagher, F.J. *Communication?*, The Daily Planet Vol. 8 No. 2.
- 1990 Gallagher, F.J. *Environmental Education, the Status of the Master Plan.*, The Alliance. Vol. 5. No. 1. .
- 1989 Gallagher, F.J., Kindervatter, D. *Cent' Anni, A Railroad Reborn*. New Jersey Outdoors. Vol. 16. No.5.
- 1989 Gallagher, F.J. *Efforts Towards a Master Plan for Environmental Education*. The Alliance. Vol. 4. No. 3.
- 1989 Gallagher, F.J. *Professionalism in Environmental Education*. The Alliance. Vol. 4. No. 2.
- 1989 Gallagher, F.J. *Should the Three R's End in EE*. The Alliance. Vol. 4. No. 1.
- 1987 Gallagher, F.J. *Wildlife Photographs*. Sussex County Voice.
- 1979 Gallagher, F.J. *Management and Restoration Guide for Sussex County Lakes*. Sussex County Water Quality Management Program. Sussex County S.C.D. & Planning Dept.

Courses Taught:

- 2015-Current Introduction to Environmental Planning and Design (RU New Brunswick)
- 2013-Current Praxis Studio, Ecological Design (RU New Brunswick)

2013-Current Ecological History of North America. (RU Newark/New Brunswick)
2009-Current Open Space Planning and Management (RU New Brunswick)
1995-Current Environmental Issues in the United States (RU New Brunswick)
1983-1994 Environmental Science (Upsala College)
1983-1994 Field Biology (Upsala College)
1983-1994 Evolution (Upsala College)

Graduate Student Committees:

2017 – Current Michael Young, (MLA RU New Brunswick) How can the golf courses in the Bergen County Park System be better utilized for habitat creation, while reducing the load that maintenance practices put on the surrounding environment and increasing the users experience? Committee Chair.

2017 – Current Jun Wang, (MLA RU New Brunswick) Cemetery Landscape, How to Transform a Cemetery for today’s Society. Committee member

2017 – Current, Nikola Simovski, (MLA RU New Brunswick) Overpeck Park Redesign.

2016 – 2017 Amber Betances, (MLA RU New Brunswick) Current Exploration of Natural Preservation in the Context of Low Income Communities of Color. Committee Member.

2016 – 2017 Donna Derhinger, (MLA RU New Brunswick) Optimizing Ecological Function, Agricultural Productivity and Aesthetic Value on a Small Scale Farm in New Jersey’s Rural Urban Fringe. Committee Chair.

2015-Current Tony Cullen (Ph.D. RU Newark) “Does Japanese barberry (*Berberis thunbergii*) facilitate recruitment of Siebold’s viburnum (*Viburnum sieboldii*)”? Committee member.

2015- 2017Current Nicholas Henshue, (Ph.D. RU Newark) Native and Non-Native Earthworms for Bioremediation of Polluted Industrial Sites. Committee member.

2015 – 2017 Rhadika Bhagwat, Revitalization of an Industrial Waterfront by Designing a Park on the Waterfront of South Camden 2013-2017 Wadhwa, (Ph.D. RU Newark) Effect of heavy metals on the species richness and abundance of leafhoppers (phytophagous insects) in urban brownfields. Committee Member.

2013-2017 Allyson Salisbury (Ph.D. RU New Brunswick), Resilience within Naturally Assembled Urban Forest Stand. Understanding the Role of Urban Forests as a Carbon Sink. Committee member.

2015- 2016 Megan Philla, (MLA RU New Brunswick) The integration of biological and social ecologies in urban landscape design. Chair

2015- 2016 Longjun Ju, (MLA RU New Brunswick) New Jersey Waterfront Pier Design, Chair

2015- 2016 Current Bo Young, (MLA RU New Brunswick) “Relationship between Landuse change and Development pattern on Water quality in sub-watershed of Raritan River" Committee member.

2013-2105 Han Yan (MLA RU New Brunswick), Bridging Social and Land Recovery at Liberty State Park- Artistic expression of restoration ecological science. Chair.

2014-2015 Justin Hyde (MLA), Green Infrastructure Techniques: Stormwater Management for George Street, New Brunswick. Chair.

2014-2015 Kara Lugar (MLA RU New Brunswick), The Living Seawall. Chair.

2013-2015 Miloni Mody (MLA RU New Brunswick), Comparative Studies of the Development Patterns of the Urban Waterfront. Chair.

- 2014-2015 XiaoXia Wang (MLA RU New Brunswick), The Orientation Center at Liberty State Park, Committee member.
- 2012-2015 Megan Litwhiler (Ph.D. RU Newark), Attraction and Risk in Urban Bird Habitats. Committee member.
- 2013 -2015 Yuan Qian (Ph.D. Biology, Montclair State University), Biogeochemical Study of Toxic Metals in Wetland Plants on a Coastal Urban Brownfield Site. Committee member.
- 2013 2015 Jessica Evens (Masters, MSU RU New Brunswick), Plant Productivity, Ectomycorrhiza and Metal Contamination in Urban Brownfield Soils. Committee Member.
- 2012-2014 Alisa Stainslow (MLA RU New Brunswick), Devising a Planting Strategy for Liberty Hills at Liberty State Park. Committee Member.
- 2010-2009 Charles Hofer (MS RU Newark), Metal accumulation and growth performance of nestlings of passerine bird species at an urban brownfield site. Committee member.

Select List of Invited Lectures:

- 2017 “Temporal Changes in Leaf Area Index Within an Urban Brownfield” ESA Portland, Oregon. Aug. 9.
- “2017 “Post Industrial Ecology – no historic reference required”. Hixon Center for Urban Ecology. Yale University School of Forestry and Environmental Studies. March 27.
- 2017 “Unbuilding Green Infrastructure in Environmental Planning”. New Jersey American Planning Association. New Brunswick, N.J. Jan. 23.
- 2017 “Is Brown the New Green, What Urban Wildlands Can Do”. Alliaience for New Jersey Environmental Education. Princeton N.J. Jan 19.
- 2016 Liberty State Park: A Study in Social and Ecological Democracy. New Jersey Historic Forum Nov. 19.
- 2016 “Re-envisioning Post-Industrial Public Landscapes: Freshkills Park and Liberty State Park”, Center for Resilient Landscapes, a partnership between Rutgers University, the US Forest Service, and the Department of Landscape Architecture March 27.
- 2016 “Urban Wildlands and Biodiversity N.J. Land Conservation Rally, Trenton, N.J. March 18.
- 2015 “An Introduction to Wetland Ecology” Natural Lands Stewardship Workshop Focus on Wetlands Management. Eco Complex Bordentown Township, NJ Dec. 3.
- 2015 “Post-Industrial Ecology -The Road Less Traveled” Ecological Society of America, Annual Conference, Baltimore Maryland August 14.
- 2015 “Brownfield to Greenfields with Trees” Casey Tree Webinar Series, May 20.
- 2014 “Pollution Mitigation and Contamination Risk” New Jersey Shade Tree Federation, annual conference, Cherry Hill New Jersey, Oct 24.
- 2014 “From Brownfields to Greenfields the Easy Way”. Graduate Seminar, the Department of Ecology, Evolution and Natural Resources, Rutgers The State University, New Brunswick N.J. October 2.
- 2014 “Photosynthetic capacity of common tree species under conditions of soil metal induced stress within an urban brownfield”. 99th ESA Annual Meeting, Sacramento California, August 13.

- 2013 "From Blight to Bright, through Phytostabilization", 16th European Forum on Urban Forestry Conference, Milano, Italy, May 10.
- 2013 "Ways Artist Take on Environmental Issues" Culture Trashes Nature Series, A Project of the Slideshow Gallery, Williamsburg, Brooklyn, New York, New York March 10th.
- 2013 "Maintenance Survival and its Relation to Freedom", a conversation with Mierle Laderman Ukeies, Brooklyn Museum, New York, New York, January 13.
- 2012 "Valuing Ecosystem Services of Urban Green Space" Montclair State University: Sustainability Seminar Series, Montclair State University. January 31.
- 2011 "Allometric Relationships of *Betula populifolia* in a Naturally Assembled Urban Woodlot: Implications for Carbon Modeling". Ecological Society of America, Austin, Texas. August 11.
- 2011 "Growth of *Betula populifolia* Marsh. along a metal contamination gradient". International Society of Arboriculture Annual Conference, Sydney Australia. July 27.
- 2011 "How Ecosystem Service Markets Challenge the Public Trust". American Forest Foundation, Project Learning Tree, International Conference, Montgomery Texas. June 10.
- 2011 "Focusing on Forests or Soybeans?" American Forest Foundation, Project Learning Tree, International Conference Montgomery Texas. June 9.
- 2011 "Corporate Environmental Responsibility, Returns on Investment in the Land". Pershing LLC. A BNY Mellon Company. Jersey City, N.J. April 27.
- 2011 "Urban Wildlands, Structure, Function and Ecological Risk". Society of Ecological Restoration, Mid-Atlantic Regional Conference, University of Maryland, College Park, Maryland, April 1.
- 2011 "Allometric relationships of *Betula populifolia* under conditions of soil metal induced stress". Ecological Society of America, Mid-Atlantic Conference. Montclair State University,, New Jersey, April 9.
- 2010 "From Blight to Bright Solutions for Remediation and Adaptive re-use of Postindustrial Sites". American Society of Landscape Architects Annual Conference. Wolfram Hoefer, Frank Gallagher, Brian Clemson. Washington, D.C., Sept 10.
- 2010 "Ecosystem Services and Markets." American Forest Foundation, Project Learning Tree International Conference. Lake Tahoe, Nevada. May 18.
- 2010 "Phytostabilization of Brownfield Soils." American Institute of Professional Geologist, Annual Meeting, , Liberty State Park, Jersey City, New Jersey. May 12.
- 2010 Shaping the 'City' of New Jersey. A workshop for Rutgers faculty working on urban-suburban issues, Rutgers Cooperative Extension's Environmental and Resource Management County Agents, Non Governmental Organizations (NGOs), and public officials throughout the State to craft sustainable solutions. April 16
- 2010 " Brownfields to Greenfields, Ecological Risk and Ecological Function." Jersey City University, Center for Learning and Teaching. Jersey City, New Jersey. March 31.
- 2010 "Brownfields to Greenfields, The Science and the Art. Association of Science Museum Directors. Mid-Winter Meeting, Liberty Science Center, Jersey City, New Jersey. Feb. 4.
- 2009 "Ecological Risk Associated with the Phytostabilization of an Urban Brownfield", National Watchable Wildlife Conference Avalon, New Jersey.

- 2009 "Soil Metal Contamination Influences the Vegetation Assemblage Development of an Urban Brownfield", Annual ESA conference, Albuquerque New Mexico.
- 2008 "Restoration of Liberty State Park, an Urban Brownfield", National Association of Harbor Estuary Programs, Annual Conference New York, New York.
- 2008 "Creating and Maintaining Urban Parks" Metropolitan Waterfront Alliance, Annual Conference. New York, New York.
- 2008 "Parks, People and Place" Keynote address, The New Jersey Tree Federation, 83rd Annual Meeting, cherry Hill New Jersey.
- 2007 "The Myths Associated with Sustainable Forestry", meeting of the American Forest Foundation. Idaho City, Idaho.
- 2007 "The Relationship between Soil Metal Load and Vegetative Assemblage Structure, Columbia University, School of Architecture.
- 2007 "Soil Metal Concentrations and Vegetative Assemblage Structure in an Urban Brownfield", International Society Arboriculture, Conference Hawaii.
- 2006 "Demographic Transition and the Corresponding Need for Natural Resource Based Educational Materials. New Jersey Shade Tree Federation's annual conference in Cherry Hill, NJ.
- 2005 "Demographic Transition and its Impact on Regional Forest Resources". The American Forest Foundation's Project Learning Tree Conference, International Conference. Portland Or.
- 2001 "Connecting Forestry to People", for the American Forest Foundation, invitation by Princess Abdullah of Jordan, Amman Jordan

Selected List of Fund Raising Initiatives:

- 2017 American Forest Foundation, Model Programs Initiative. \$10,000
- 2015 American Forest Foundation, Model Programs Initiative. \$10,000
- 2014 American Forest Foundation, Model Program Initiative. \$10,000
- 2013 NJAES McIntire-Stennis Award Program. Resilience within Naturally Assembled Urban Forest Stand. \$60,000
- 2008 Vegetative mapping update for the Liberty State Park upland restoration site, I serve as project manager and Co-PI, Principal investigator Dr. Clause Hozalpfel Rutgers University, Newark NJ, Department of Environmental Protection, appropriation from Liberty State Park Restoration Fund. \$25,000
- 2007 Soil Metal Characterization for the Liberty State Park restoration project, I served as project manager and Co-PI, Principal investigators Dr. Judith Weis and Dr. Ildiko Pechman, Rutgers University, Newark NJ, appropriation from Liberty State Park Restoration Fund. \$28,000.
- 2007 Estuarine wetland creation, Congressional Authorization 2007 WRDA bill, Liberty State Park restoration project, I serve as the DEP Project Manager, \$17,000,000. An appropriation is needed.
- 2006 Freshwater wetland mitigation grant, Principal Investigator, New Jersey Wetland Mitigation Council. \$ 1,500,000.
- 2005 Soil metal concentration and translocation characterization. I served as project manager and Co-PI, Principal investigator Dr. Peter Weis, University of Medicine and Dentistry, Newark N.J. \$125,000

Awards:

2015 Ruddy Schafer, Lifetime Achievement in Environmental Education Award. The American Forest Foundation.

2013 US EPA Environmental Quality Award

2009 Audrey Zapp Environmental Achievement Award, Friends of Liberty State Park

2009 Proclamation, Leadership in Ecosystem Restoration, City of Jersey City

2008 Running with Scissors, NY/NJ Baykeeper

1999 Outstanding Service, USDA, Forest Service Conservation Education Implementation Team

1990 Excellence in Environmental Education., New Jersey Audubon

1989 Excellence in Environmental Education, the Alliance for New Jersey Environmental Education

Affiliations, Certifications and Licenses:

2012 Hazardous Waste Operations and Emergency Response Certification, US Department of Environmental Protection

2005 Member, Ecological Society of America

2005 Member, Society of Ecological Restoration

1998 Member, Society of American Foresters

1992 Brain-Based Instructional Strategies, Academy for Professional Development, Department of Education.

1991 4 MAT Learning Styles and Modalities, Introductory and Intermediate, Department of Education.

1985 Special Purpose Wildlife Rehabilitation, Federal Fish Game and Wildlife Service.

1983 Master Bird Banding Permit, Federal Fish Game and Wildlife Service.