
BETH RAVIT, Ph.D.

Retired, Co-Director, Center for Urban Environmental Sustainability (CUES)
Retired, Assistant Research Professor
Department of Environmental Sciences
School of Environmental & Biological Sciences
Rutgers University
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EDUCATION

Rutgers, The State University of New Jersey , New Brunswick, NJ	8/99 – 5/05
Doctoral Program Environmental Science (Ph.D. degree 5/05)	5/01 – 5/05
Master's Program Environmental Science (M.S. degree 5/01)	1/00 – 5/01
Cook College , Dean's List Fall 1999	8/99 – 1/00
Adelphi University , Garden City, NY (B.A.)	9/66 – 6/70

ACADEMIC POSITIONS

Rutgers, The State University of New Jersey	2/05 – 2019
Associate Member, Rutgers Landscape Architecture Graduate Program	2017 -2019
Co-Founder, Co-Director Rutgers Center for Urban Environmental Sustainability (CUES)	2007 - 2019
Assistant Research Professor, Dept. of Environmental Sciences	2016 - 2019
Instructor, Dept. of Environmental Sciences	7/09 – 12/15
Research Associate, Dept. of Environmental Sciences	8/06 – 6/09
Research Associate, Dept. Biochemistry & Microbiology	4/05 – 7/06
Managing Editor, <i>Soil Science</i>	8/10 - 2019
Part time lecturer – Cook College Dept. Biochem. & Microb.	9/05 – 12/05
Part time lecturer – Newark Biol. Sciences Graduate Program	2/05 – 5/05
Founder, Director Rutgers Environmental Research Clinic	2002 – 2007

RESEARCH GRANTS

National Institute of Environmental Health Sciences, Co-PI (2018-19) (\$15,000)
 Co-PI: Keith Cooper
 Impacts of Microplastics in the Urban Environment Regional Conference
Raritan River Consortium, PI (2017) Completed (\$7,500)
 Co-PI: Keith Cooper
 Microplastic Pollution in the Raritan River

New Jersey Water Resources Research Institute, PI. (2016) Completed (\$20,000).
 Co-PIs: Keith Cooper, Brian Buckley
Microplastic Pollution in New Jersey Surface Waters.

NIEHS CEED grant through Rutgers Center for Environmental Exposures and Disease,
 Co-PI. (2016) Completed (\$15,000)
 PI: Keith Cooper; Co-PI: Brian Buckley
*Exposure Assessment and Toxicity of Microbead Associated Contaminants
 Present In New Jersey Surface Waters*

Bergen County Grant, Co-PI (2016-2018) (\$364,800)
 PI: Wolfram Hoefer
Bergen County Park System Master Planning

Perth Amboy, NJ CUES Project (2016) Completed (\$29,906)
 PI: Richard Alomar
Perth Amboy Trails and Park Design

NY/NJ Baykeeper Grant (2008 - 2016). PI. (\$125,000).
Raritan Bay oyster restoration feasibility studies

Mushett Family Foundation Grant (2014-2015). PI. Completed (\$25,000).
Support for CUES involvement in Raritan Bay oyster reintroduction research.

ISLES, Inc. Grant (2013 – 2015). Co-PI. Completed (\$25,000)
 PI: Laura Lawson
Trenton Regional Food Network Assessment & Feasibility Study

USEPA Grant (2012-2015), Co-PI. (\$100,000)
 PI: Christopher Obropta
Rutgers Sustainable Raritan River Initiative

Community-University Research Partnership Grant (2012 – 2013) (\$23,000)Co-PI.
 PI: Michele Bakacs, RCE Middlesex County Agent
*Community and Backyard Gardening in New Brunswick's Urban Soils: Providing
 Locally Grown Food While Protecting Human Health*

Dodge Foundation Grants (2009 - 2012). PI. Completed (\$80,000)
Center for Urban Environmental Sustainability (CUES) operating support

Township of Voorhees Grant (2010 - 2014). Co-PI. Completed
 PI: Wolfram Hoefer, Department of Landscape Architecture
Buzby Landfill Brownfield to Greenfield reuse project

Bergen County Grant (2009-2012) Co-PI. Completed. (\$54,000)
 PI: Dr. Wolfram Hoefer, Department of Landscape Architecture
Oradell Waterworks Cultural Landscape Study and Public Outreach

Sustainable Raritan Initiative (2009) Completed. \$10,000
 funded by the Mushett Family Foundation through Bloustein

New Jersey Meadowlands Commission Grant PI. (2007-2008) Completed. (\$25,000)
 Co-PI: Judith Weis, Rutgers Newark
Hackensack River Oyster Habitat Development Study

New Jersey Meadowlands Commission Grant, PI (2006-2008) Completed. (\$370,000)
 Co-PIs: Weilin Huang, Bingru Huang
Leachate water recovery and turfgrass development for a Meadowlands golf

course

Rutgers EcoComplex – Burlington County Grant (2006-2008) Completed. (\$130,000)

Co-PIs: Donna Fennell, Uta Krogmann

A study to improve the operation of the Burlington County bioreactor landfill and to investigate landfill biogeochemical processes in this bioreactor.

New Jersey Meadowlands Commission Grant, PI (2006-2007) Completed. (\$100,000)

Co-PIs: Christopher Obropta, Carter Strickland (RU Environmental Law Clinic)

A Stormwater Utility Feasibility analysis to address stormwater-related flooding issues in the Hackensack Meadowlands District

New Jersey Meadowlands Commission Grant, PI (2005-2007) Completed. (\$240,000)

Co-PI: Christopher Obropta

Modeling of Kearny Marsh ground and surface water contaminant inputs

New Jersey Wetlands Mitigation Council, Co-PI (2004-2007) - \$200,000

Teaneck Creek Conservancy subcontract to Cook College

PI: Christopher Obropta

Development of an urban hydrological model linking denitrification potential to urban wetland restoration.

New Jersey Meadowlands Commission Grant, PI (2005) - \$110,000 (Completed)

Co-PIs: Lisa Totten, Weilin Huang, Max Häggblom

Kearny Marsh sediment contaminant characterization study

NJ Water Resource Research Institute Grant, Co-PI(2005-2006) (Completed) \$30,000

Co-PIs: Barbara Turpin, Sybil Seitzinger

A study to link atmospheric N deposition with surface and ground water N and denitrification capabilities in an urban New Jersey wetland.

CUES CONSULTING AGREEMENTS

Northern New Jersey Community Foundation (2018). \$10,000.

A Vibrant Regional Economy and Environment Focused on the Hackensack River

Perth Amboy & Raritan Bay YMCA CUES Consulting (2018). \$15,000.

Perth Amboy, New Jersey Healthy Community Initiative

NY/NJ Baykeeper CUES Consulting (2016-2018). \$6,820

Microplastic reduction project and Newark, NJ community outreach

NY/NJ Baykeeper CUES Consulting (2015 – 2018). \$23,000

Oyster monitoring at Naval Weapons Station Earle

Middlesex County Improvement Authority CUES Consulting (2016). \$6,450

(Completed) Brownfield (known and potential) survey in the City of Perth Amboy

Jersey City, NJ CUES Consulting (2016). \$9,750 (Completed)

Produce an Environmental Resource Inventory

Township of Voorhees CUES Consulting (2014-2016). \$25,000. (Completed)

Voorhees Environmental Park implementation.

County of Bergen CUES Consulting (2014 – 2016). \$25,000 (Completed)

Teaneck Creek Wetland Restoration with RCE Water Resources

Borough of Somerville CUES Consulting (2014-2015). Completed (\$15,000)

Station Area and Landfill Redevelopment Plan: Wetland 'Green Seam' Design

AWARDS

- NJASLA Merit Award for Environmental Planning. 2018. *Bergen County Parks Master Plan*. (CUES)
- NJASLA Student Design Award. 2013. *Voorhees Environmental Park: Urban Landfill Reuse*. (CUES)
- Running With Scissors Award*, NY/NJ Baykeeper 2012
- USEPA STAR Fellowship (2002-2005)

PUBLICATIONS

- Ravit, B.**, Cooper, K., Buckley, B., Yang, I., Deshpande, A. 2019. Organic compounds associated with microplastic pollutants in New Jersey, U.S.A. surface waters. *AIMS Environmental Science*, 6(6): 445–461. DOI: 10.3934/environsci.2019.6.445.
- Ravit, B.**, Cooper, K., Moreno, G., Buckley, B., Yang, I., Deshpande, A., Meola, S., Jones, D., Hsieh, A. 2017. Microplastics in urban New Jersey freshwaters: distribution, chemical identification, and biological effects. *AIMS Environmental Science* 4(6): 806-826. DOI: 10.3934/environsci.2017.6.809
- Grabosky, J., **Ravit, E.**, Gallagher, F. 2017. Influencing the outcomes in a cycle of redevelopment for the good of urban canopy. *Arboricultural Consultant* 50(3):4-10.
- Ravit, B.**, Gallagher, F., Doolittle, J., Shaw, R., Muñiz, E., Alomar, R., Hoefer, W., Berg, J., Doss, T. 2017. Urban wetlands: Restoration or designed rehabilitation? *AIMS Environmental Science* 4(3): 458-483.
- Drake, L., Lawson, L., **Ravit, B.** 2016. Developing a vacant land inventory through productive partnerships: A university, NGO, and municipal planning collaboration in Trenton, New Jersey. *Cities and the Environment (CATE)* 8(2): Article 6. <http://digitalcommons.lmu.edu/cate/vol8/iss2/6>
- Kannepalli, S. **Ravit, B.**, Strom, P.F. 2016. Composting of aged reed bed biosolids for beneficial reuse: a case study in New Jersey, USA. *Compost Science & Utilization* 24(4): 281-290.
- Hoefer, W. Gallagher, F., Hyslop, T., Wibbelt, T., **Ravit, B.** 2016. Unique landfill restoration designs increase opportunities to create urban open space. *Environmental Practice* 18:106-115.
- Drake, L., **Ravit, B.**, Dikidjieva, I., Lawson, L. 2015. Urban greening supported by GIS: From data collection to policy implementation. *AIMS Environmental Science*. 2(4):910-934.
- Ravit, B.**, Weis, J., Rounds, D. 2015. Is urban marsh sustainability compatible with the Clean Water Act? *Environmental Practice* 17(1):1-11.
- Ravit, B.**, Weis, J. 2014. Clean Water Act Section 404 and Coastal Marsh Sustainability. *Coastal Management* 42(5):464-477.

- Ravit, B.**, Cooper, K., Buckley, B., Comi, M., McClandish, E. 2014. Improving management support tools for reintroducing bivalve species [Eastern oyster (*Crassostrea virginica* Gmelin)] in urban estuaries. *Integrated Environmental Assessment & Management* 10(4):555-565.
- Ravit, B.**, Comi, M., Mans, D., Lynn, C., Steimle, F., Walsh, S. Miskewitz, R., Quierolo, S. D. 2012. The Eastern Oyster (*Crassostrea virginica*) in the Hudson-Raritan Estuary: Restoration versus shellfishery regulation. *Environmental Practice* 16(2):110-129.
- Ravit, B.** Obropta, C., Kallin, P. 2008. Restoration of a forested riparian ecosystem: A baseline characterization approach to wetland enhancement in an urban watershed. *Urban Habitats* 5(1):126-152.
- Ravit, B.**, 2008. Rohleder, L., Johnson, L., Ehrenfeld, J., Kallin, P. Restoration of a forested riparian ecosystem: A vegetation survey of Teaneck Creek wetlands. *Urban Habitats* 5(1):199-214.
- Obropta, C., Kallin, P., Mak, M., **Ravit, B.** 2008. Restoration of a forested riparian ecosystem: Modeling urban wetland hydrology 5(1):183-198.
- Ravit, B.**, Ehrenfeld, J.G., Häggblom, M.M., Bartels, M. 2007. The Effects of Hydrology and Nutrient Inputs on Two Estuarine Macrophytes and their Root-Associated Microbial Communities. *Wetlands* 27(4):915-927.
- Babson, D., Krogmann, U., Fennell, D., **Ravit, B.** 2007. Development of a dynamic energy balance to assess operating efficiency of the Burlington County bioreactor landfill in New Jersey (USA). *Proceedings Sardinia 2007, Eleventh International Waste Management and Landfill Symposium, Cagliari, Italy.*
- Häggblom, M. M., Fennell, D., Ahn, Y-B., **Ravit, B.** Kerkhof, L. 2006. Anaerobic dehalogenation of halogenated organic compounds: Novel strategies for bioremediation of contaminated sediments. *In* *Viable Methods of Soil and Water Pollution Monitoring, Protection, and Remediation*. NATO Science /series IV. Vol. 69. Springer. The Netherlands.
- Ravit, B.**, Häggblom, M.M., Ehrenfeld, J.G. 2006. Salt Marsh vegetation affects rhizosphere microbial community structure and function. *Soil Biology & Biochemistry* 38(8):2359-2371.
- Ehrenfeld, J. G., **B. Ravit**, Elgersma, K. 2005. Feedback in the Plant-Soil System. *Annual Review of Environment and Resources*. 30:7.1–7.41
- Ravit, B.**, Häggblom, M.M., Ehrenfeld, J.G. 2005. Salt Marsh Rhizosphere Affects Biotransformation of a Widespread Halogenated Contaminant. *Soil Biology & Biochemistry* 37:1049-1057.
- Ravit, B.**, Ehrenfeld, J.G., Häggblom, M.M. 2003. A Comparison of Sediment Microbial Communities Associated with *Phragmites Australis* and *Spartina alterniflora* in Two Brackish Wetlands of New Jersey. *Estuaries* 26(2B):465-474.

SELECTED PRESENTATIONS

- Ravit, B.**, K. Cooper, B. Buckley, A. Deshpanda. 2018. Restoring NJ Urban Water Resources: Species Reintroduction (Easter Oyster), Regulatory Policy, and an Emerging Pollutant (Microplastics). Columbia University Seminar on Pollution & Water Resources. April 26, 2018. New York, NY.
- Ravit, B.**, K. Cooper, D. Jones, Amy Hsieh, Daniel Baron, B. Buckley, I. Yang, A. Deshpanda, M. Comi, S. Meola. 2018. Restoring NJ Urban Water Resources Raritan Valley Community College. February 19, 2018.
- Ravit, B.**, K. Cooper, D. Jones, Amy Hsieh, Daniel Baron, B. Buckley, A. Deshpanda. 2017. Addressing Microplastic Pollution in an Urban Watershed. HDC-SETAC Fall Workshop. October 5, 2017. West Windsor, NJ.
- Ravit, B.**, S. Kannepalli, P. Strom. 2017. Composting of Aged Reed Bed Biosolids for Beneficial Reuse: A Case Study in New Jersey, USA. New Jersey Water Environment Association 2017 Fall Technology Transfer Seminar. September 14, 2017. Eatontown, NJ.
- Ravit, B.** Cooper, K., Buckley, B., Meola, S., Greenberg, M. 2016. Addressing Microplastic Pollution in Urban Watershed. Urban Extension Conference. Rutgers – Newark. November 29, 2016. Newark, NJ.
- Ravit, B.** 2016. Lion Gate Park: An Urban Wetland Restoration. Invited Presentation Society for Ecological Restoration. March 14, 2016. Stockton, NJ.
- Ravit, B.** 2015. The Geology/Ecology and Art of the Meadowlands. New Jersey City University. October 17. Jersey City, NJ.
- Ravit, B.** 2015. Pearls in the Harbor: Reintroducing Eastern Oysters to the Hudson-Raritan Estuary. Fairleigh Dickinson University. September 24. Teaneck, NJ.
- Ravit, B.** 2015. Restoration, Site Evaluation and Selection in an Urban Estuary: Challenges and Opportunities. Invited Presentation HDC SETAC Annual Meeting. April 20. New Brunswick NJ.
- Ravit, B.**, M. Comi. 2014. Reintroducing the Eastern Oyster into one of the Largest Urban Estuaries in the World. Invited Presentation National Summit on Coastal & Estuarine Restoration. Washington, D.C. November 3, 2014.
- Ravit, B.** 2014. Brownfield Action Items for Sustainable Jersey. Invited Presentation Sustainable Raritan Remediation & Reuse Workshop. October 22, 2014. New Brunswick, NJ.
- Ravit, B.**, Weis, J., Rounds, D. 2014. Sea Level Rise, Coastal Marsh Sustainability, and the Clean Water Act Section 404. Invited Presentation. NY/NJ Harbor Estuary Program Annual Conference. June 4. New York, NY.
- Ravit, B.** 2013. Sustainable Jersey Brownfield Action Items. League of Municipalities Annual Meeting. November 20. Atlantic City, NJ.
- Ravit, B.**, Hoefer, W. 2013. Northern New Jersey Post-Sandy Resiliency. Stevens University Waterfront Conference. October 8. Hoboken, NJ.
- Ravit, B.** 2011. Workshop Organizer and Presenter. Restoring the Hudson-Raritan Estuary: the Planet's Most Urban Ecosystem. Coastal and Estuarine Research Federation International Meeting. November 6. Daytona Beach, FL.

- Ravit, B.** 2011. Shallow Water Habitat Restoration in an Urbanized Estuary. Sustainable Raritan Conference. Rutgers University, New Brunswick, NJ. June 16, 2011.
- Ravit, B.** 2010. Oyster Restoration in an Urban Estuary: Lessons Learned. Ecology in the Balance – Sustainable Raritan Initiative. Rutgers University, New Brunswick, NJ.
- Ravit, B.** 2010. Oyster Restoration in an Urban Estuary: Lessons Learned. Atlantic Estuarine Research Society Conference. Atlantic City, NJ. March 5, 2010.
- Ravit, B.** 2009. Urban Oyster Restoration: How to Proceed? NY/NJ Baykeeper Oyster Conference. Governors Island, NYC. April 24, 2009.
- Ravit, B.** 2009. Urban Wetland Rehabilitation. Puffin Cultural Forum. Teaneck, NJ.
- Ravit, B., Vos-Wein, N., Comi, M., Ponticorvo, J.** 2008. Hackensack River Oyster Project: Integrating Volunteer Monitoring to Develop a Benthic Habitat Restoration Plan. The National Monitoring Conference. Atlantic City, NJ.
- Ravit, B., Obropta, C., Hoefer, W., Miskewitz, R.** 2008. Conceptual Plan for Adaptive Re-Use and Floodwater Control at the Historic Oradell Waterworks. American Ecological Engineering Society Annual Meeting. Blacksburg, VA.
- Yergeau, S., Obropta, C., Ravit, B., Kallin, P.** 2007. Development of a Water Budget for Kearny Marsh. NJ Meadowlands Symposium.
- Ravit, B., Häggblom, M., Ehrenfeld, J.** 2007. Does the Plant Matter? NJ Meadowlands Symposium.
- Ravit, B., Xiao, B., Wall, S., Totten, L., Huang, W.** 2007. Kearny Marsh sediment contaminant Investigation. NJ Meadowlands Symposium.
- Ravit, B., Webster, R. Esq.** 2006. Science and the Law Seminar. Cook College. New Brunswick, NJ.
- Ravit, B., Arnold, M.** 2006. Member of Brownfields to Greenfields panel. NJDEP Coast the Remediation Highway Workshop. Trenton, NJ.
- Ravit, B., Arnold, M.** 2005. Collaborative Partnerships: A Successful Restoration Paradigm. Annual Volunteer Monitoring Summit. NJDEP. Edison, NJ.
- Ravit, B., Ehrenfeld, J.G., Häggblom, M.M.** 2004. *Macrophytes and Microbes: Salt Marsh Grasses Affect Sediment Microbial Communities*. Intecol International Wetlands Conference. Utrecht, The Netherlands.
- Ravit, B., Obropta, C., Kallin, P.** 2004. *A Plan to Assess the Hydrologic Flow and the Denitrification Function in a New Jersey Urban Wetland Restoration Project*. SWS Stormwater Conference. Philadelphia, PA.
- Ravit, B.** 2003. *Vegetation, Microbes, and Debromination*. Society of Wetland Scientists. Annual Meeting. New Orleans, LA.

COURSES TAUGHT

Environmental Design Analysis	Fall 2016, 2017
Environmental Science 101, Rutgers, New Brunswick	1/09 – 12/14
Portals to Academic Student Success (PASS)	Spring 2010, 2011

Microbial Ecology (Instructor & Course Coordinator)	Spring 2010
Special Topics: Ecology & Microbiology, Cook College (Graduate)	Fall 2006
Microbial Ecology, Cook College	Fall 2005
Microbial Ecology, Rutgers Newark (Graduate)	Spring 2005

STUDENT ADVISING

Research Advisor, Amanda Boddy	2018
Research Advisor, Daniel Baron, Amy Hsieh, Dayvonn Jones	2016-17
Aresty Student Advisor, Derek Lechner	2017-18
Aresty Student Advisor, Julia Burmistrova, Eden Cohen	2016-17
Aresty Student Advisor, Henry Wright, Julia Gerdes	2015-16
Thesis Advisor, Ty Triplett, SEBS-LA Masters Candidate	2014-15
Research Advisor, Carol Baille, SEBS undergraduate	2012-16
Thesis Advisor, Stephen Yergeau, SEBS-DES PhD Candidate	2005-2010
Department of Environmental Sciences, undergraduate advisor	2012
Research Advisor, Stephanie Queirolo, SEBS undergraduate	2010
PhD Committee Member, Allison Mass, PhD Candidate CUNY, College of Staten Island	2009 - 2013
PhD Committee Member, Tiffany Medley, PhD Candidate CUNY, Queens College	2010
Student Mentor, Sneya Shah, MS Candidate Fairleigh Dickinson University, Hackensack, NJ	2010 – 2011

OUTREACH

NJDEP Science Advisory Board Appointment	2018-2021
CUES/LA Design Studio Bergen County Parks Master Plan	2016
CUES/LA Design Studio Jersey City	2015
CUES/LA Design Studio Little Ferry	2015
CUES/LA Design Studio Borough of Somerville	2014
Co-Chair CUES Brownfields Task for Sustainable Jersey	2012-Present
CUES Financial Feasibility Studies for the Hackensack Water Works (collaboration with Rutgers Business School & NYU graduate school)	2011-2012
Voorhees Environmental Park Community Outreach	2011-2012
Co-Chaired 'Green Solutions for Urban New Jersey' CUES Conference	2011
Co-Chaired 'Shaping the City of New Jersey' CUES Conference	2010
Sustainable Raritan Initiative (collaboration with Bloustein)	1/09- Present
Co-Chaired Stewardship Subcommittee	2010-2011
Invited outside grant reviewer, USEPA STAR Fellowship	2011
Invited outside grant reviewer, USEPA Region II Environmental Education	2008-2014
Invited outside grant reviewer, PSEG Environmental Education	2009

SELECTED BOARDS and ORGANIZATIONS

Board of Trustees, NY/NJ Trail Conference	2014 - Present
Board of Trustees, Hackensack Riverkeeper, Hackensack, NJ	2008 - Present

Treasurer, Executive Committee	2010 - Present
<i>Tidelines</i> newsletter columnist	2001 - Present
Advisory Board	1999 – 2008
Closter Nature Center , Trustee	2012 – Present
Treasurer, Executive Committee	2015 - Present
Sierra Club , Northern NJ, Executive Committee	2012 - 2015
Environmental Commission, Closter, NJ , (Chairman 2010-2012)	2004 – 2012
Board of Trustees, Teaneck Creek Conservancy, Teaneck, NJ	2008 - 2011
Vice-President, Treasurer, Executive Committee	
Watershed Management Planning, WMA5	2001 – 2006
Member Steering Technical Advisory, and Public Advisory Committees	

ABREVIATED WORK HISTORY

Retail Executive	1/70 – 6/99
Numerous executive level positions in national and international corporations	
Beth Ravit Associates , retail consultants	5/98 – 6/99
Next USA , Board of Directors, President, CEO	6/96 – 8/98
National Retail Federation Speaker, <i>The Globalization of Brands</i>	1/98
Panel Member , Forbes Magazine Executive Women's Summit	11/98
Speedo Authentic Fitness , President, Retail Division	4/92 – 5/96
Lane Bryant Division, Limited Stores Corp. , V.P Merchandising	2/86 – 5/89