

AGENDA: Day 1 - May 15, 2007

- 8:30am Registration & Breakfast
- 9:00am Welcome – Robert Ceberio
Key Note Address – Susan Bass Levin
- 9:30am Dr. Robert Socolow (Princeton University)
Presentation of “Wedges” and how we can best combat global climate change
- 10:30am Venkatachalam Ramaswamy
“State of the Science” - Presentation of the United Nations’ Intergovernmental Panel on Climate Change's latest Global Climate Change Report.
- 11:15am Break #1
- 11:30am Dr. Paul Olsen (Lamont-Doherty Earth Observatory of Columbia University)
“A Scientific History of Science Change”
- 12:15pm **LUNCH BREAK**

Regional Effects of Climate Change and Sea Level Rise

- 1:15pm -Presentation #1
David Robinson (NJ Chief Climatologist) – Moderator/Presenter
“Climate Change and New Jersey”
- Panelist #2
Radley Horton (Climatologist Columbia University, Center for Climate Systems Research)
“Climate Change Impacts in the New York Metropolitan Region”
- Panelist #3
Ellen Kracauer Hartig (NYC Dept. of Parks, Natural Resources Group)
“Sea-Level Rise Impacts and Salt Marsh Change in the New York City Vicinity”
- Panelist #4
Teresa Doss (The Louis Berger Group)
“Future Sea Level Rise and the Meadowlands”
- Panelist #5
Professor Jonathan Adams (Rutgers University)
“Forest Ecosystems and Climate Change”
- 2:45pm Break #2

Renewable Energy

- 3:00pm Advances in Renewable Energy Technologies Part II
Presentations will be made by representatives from Rutgers University about specific renewable energy technologies, and their viability in New Jersey
Moderator = Frank Felder, Dir. Rutgers University Center for Energy, Economic, and Environmental Policy (CEEPP) is putting panel together
- 4:00pm Day 1 Conclusion

AGENDA: Day 2 – May 16, 2007

Biodiversity, Organisms, and Health – Chair: Claus Holzapfel

- 8:00am Registration & Breakfast
- 8:30am Session Key Note Speaker
Mark Bertness (Brown University)
“Biodiversity, Organisms, and Health”
- 9:00am Presentation #1
Dr. Carolyn S. Bentivegna (Seton Hall University)
“Chironomid Hemoglobin Protein as a Molecular Biomarker for Species Identification and Genetic Diversity Using Wild Larvae from Kearny Marsh, N.J.”
- 9:15am Presentation #2
Allison Candelmo (Rutgers – New Brunswick)
“Behavior and Condition Responses of Young-of-the Year Bluefish (*Pomatomus Saltatrix*) to Contaminants Accumulated Via Experimental Trophic Transfer”
- 9:30am Presentation #3
Nellie Tsipoura (NJ Audubon Society)
“Metal Contaminant Levels and Their Effects on Birds Breeding in the Hackensack Meadowlands”
- 9:45am Presentation #4
Dr. Erik Kiviat (Hudsonia, Ltd.)
“Meadowlands Biodiversity: What do Butterflies, Odonates, and Frogs Tell Us?”
- 10:00am Presentation #5
Eric M. Wiener (Ramapo College)
“Tree Ecology in a Hardwood Wetland Forest at Teterboro Woods”
- 10:15am Presentation #6
Dr. Beth Ravit (Rutgers – New Brunswick)
“Rhizosphere Sediment Microbial Communities: Does the Plant Matter?”
- 10:30am BREAK #1
- 10:45am Presentation #7
Ashok D. Deshpande (NOAA – Fisheries)
“Polychlorinated Biphenyl Congeners and Organochlorine Pesticides in Young-of-the-Year Bluefish from Seven Nursery Estuaries Within the New York Bight and the Assessment of Site Fidelity Based on Chemical Fingerprints”
- 11:00am Presentation #8
Shayla D. Williams (NOAA – Fisheries)
“Temporal Organochlorine Signatures in Young-of-the Year Bluefish (*Pomatomus Saltatrix*) in the Hudson River Estuary”
- 11:15am Presentation #9
Janine Harris (NYC Dept. of Parks and Recreation)
“Bronx River Pilot Oyster Reef Restoration: Methods, Monitoring and Community Participation”

- 11:30am Presentation #10
Gareth Russell (NJIT/Rutgers University)
“Sociability Leads to Instability: A Metapopulation Model of the (potential) Heron and Egret Nesting Colonies in New York Harbor and the Meadowlands”
- 11:45am Presentation #11
Stephen Marshall, Esq.
“Looking at the New Jersey Meadowlands: A Historical Overview”
- 12:00pm Presentation #12
Peter F. Straub (Richard Stockton College)
“Habitat Specific Chemical and Gene Expression Signatures in Young of the Year Bluefish”
- 12:15pm Q & A
- 12:30pm **LUNCH BREAK**
- 1:30pm **POSTER PRESENTATIONS** (Time allotted for viewing of poster presentations. All poster presenters are requested to stand near their poster in order to offer explanation and answer questions from viewers.)

Ecosystem Sustainability - Chair: Gareth Russell

- 2:00pm Presentation #1
Ildiko Pechmann (UMDNJ)
“Soil Metal Concentrations and Plant Productivity in an Urban Brownfield”
- 2:15pm Presentation #2
S.W. Wang (EOHSI)
“Study of Baseline Quality of Ambient Air Within the New Jersey Meadowlands District: Modeling Components”
- 2:30pm Presentation #3
Marian Glenn (Seton Hall University)
“Kearny Marsh Sediment Above Aquablok Cap Shows Increased Bacterial Diversity”
- 2:45pm Presentation #4
David Kafkewitz (Rutgers - Newark)
“Phenolics-Oxidizing Enzymes of Roots of Non-Native and Native Plants”
- 3:00pm Presentation #5
Marit Larson (NYC Dept. of Parks and Recreation)
“Biotic and Physical Responses to Rehabilitation Along the Bronx River in the Bronx: Evaluating Success & Monitoring Approaches”
- 3:15pm Presentation #6
Dr. Marion McClary (Fairleigh Dickinson University)
“Effects of Variations of a Clay-Based Cap on the Abundance of Macroinvertebrates and Water Quality in the Kearny Marsh”
- 3:30pm **BREAK #2**
- 3:45pm Presentation #7
Valdis Krumins (Rutgers - New Brunswick)
“Dechlorination of Native PCBs in Kearny Marsh Sediments”

- 4:00pm Presentation #8
B.R. Rosenzweig (Princeton University)
"The Role of Stormwater Detention Ponds in the Nitrogen Cycle of Urban Watersheds"
- 4:15pm Presentation #9
Karolina Fillipiak (NJIT)
"Analysis of the Sediment Data from the Hackensack River"
- 4:30pm Presentation #10
Junu Shrestha (Princeton University)
"Accumulation of Nitrite in Anaerobic Wetland Conditions"
- 4:45pm Presentation #11
Peter Ndiba (NJIT)
"Assessment and Treatment of Contaminated Dredged Sediments from Passaic River"
- 5:00pm Presentation #12
Steven Yergeau (Cook College)
"Development of a Water Budget for Kearny Marsh"
- 5:15pm Q & A (Closing Remarks)

AGENDA: Day 3 - May 17, 2007

Monitoring the Urban Wetland Environment - Chair: Francisco Artigas

- 8:00am Registration & Breakfast
- 8:30am Session Key Note Speaker
Joan Ehrenfeld (Cook College, Rutgers - New Brunswick)
"Monitoring the Urban Wetland Environment"
- 9:00am Presentation #1
Clifford P. Weisel (EOHHSI, UMDNJ)
"Air Concentrations of Volatile Organic Compounds Along the Trails"
- 9:15am Presentation #2
Dr. Aridaman Jain (NJIT)
"Continuous Water Quality Data Modeling for Lower Hackensack River"
- 9:30am Presentation #3
Dr. Taha F. Marhaba (NJIT)
"A Rapid Approach to Characterize Natural Organic Matter in Water"
- 9:45am Presentation #4
Yves R. Personna (Rutgers - Newark)
"Geoelectrical Signatures of Microbial Stimulated Mineralization"
- 10:00am Presentation #5
C. Santiago Bass (Rutgers - New Bruswick)
"Potential Implications of Restoration on Fundulus Heteroclitus and Gill Parasite Interactions"
- 10:15am Presentation #6
Kamilah Hylton (NJIT)
"Trace Monitoring of New and Emerging Pollutants Via Microscale Membrane Extraction Techniques"

10:30am BREAK #1

10:45am Presentation #7
Norman Richardson (Battelle Memorial Institute)
"Uncertainty Analysis of Contaminant Uptake Factors in Estuarine Environments"

11:00am Presentation #8
Yuan Gao (Rutgers - Newark)
"Springtime Atmospheric Nitrogen Over the Meadowlands"

11:15am Presentation #9
E.F. Vowinkel (US Geological Survey)
"Nutrient Concentrations and Loads in an Urban Wetlands Watershed in Teaneck Creek, New Jersey"

11:30am Presentation #10
Kevin Olsen (Montclair University)
"Characterization of Highly Contaminated Sediment from the Gowanus Canal, Brooklyn, New York"

11:45am Presentation #11
J.S. Paull (Princeton University)
"Influence of Wetlands on the Removal of Hexavalent Chromium"

12:00pm Presentation #12
Nasser Mansoor (Rutgers - Newark)
"Marine Electrical Resistivity Imaging of Shallow-Water Wetlands"

12:15pm Q & A

12:30pm **LUNCH BREAK**

1:30pm **FIELD TRIPS BEGIN (**see below**)**
(Pontoon Trip Hackensack River)



****2007 Meadowlands Symposium Field Trips ~
Thursday, May 17, 2007 beginning at 1:30PM****
(weather permitting)

What better way to understand the Meadowlands District than having a first hand glimpse of the wetlands and wildlife that comprise it? Please join us on the final day of the 2007 Meadowlands Symposium (May 17) for a fun-filled, two-hour pontoon boat field trip on the Hackensack River. The field trips are included in your registration fee, and offer an extensive, educational look at the Meadowlands District.

Field trips will be departing from the New Jersey Meadowlands Commission at approximately 1:30PM on Thursday, May 17th. A shuttle will be provided to transport all attendees to and from the River Barge Park and Marina in Carlstadt, where the boats will depart. Weaving through the river, you will be passing by such notable places as the Mill Creek Point, Sawmill Creek, and Laurel Hill.

Listen as the tour staff shares their wealth of knowledge regarding the local wildlife, which includes over 260 bird species. Learn about the fascinating history of this as an estuary situated in the middle of one of the greatest metropolitan areas in the world. Learning and making new friends while boating on the Hackensack River is sure to be a wonderful and relaxing way to complete the Symposium. We hope that you will be able to partake!

DETAILS: If you would like to participate in a field trip, please register upon arrival to the Symposium at the Registration Desk. You will be given a color-coded name tag, indicating that you are a field trip participant. If at any time during the Symposium you would like to join and/or cancel your field trip participation, please consult with the Registration Desk.

You may want to bring sunblock, a hat, and binoculars/camera. Bottled water will be supplied for all. Please dress appropriately for the boat trips, noting that there will be a very short walk on the dock to the boat.



POSTER PRESENTATIONS

Arbneshi, Tahir; **Nuli**, Leonora; **Berisha**, Liridon & **Rugova**, Mujë; University of Prishtina, Faculty of Natural Sciences, Department of Chemistry, Prishtinë, Kosovo - "Ground Waters Quality in Potential Zone of Influence of Ash Disposal Site at the Thermal Power Plant"

Babson, David; **Krogmann**, Uta ; **Fennell**, Donna; **Ravit**, Beth; Department of Environmental Sciences, Rutgers University, NJ, USA & Rutgers EcoComplex, Rutgers Research & Extension Center, NJ, USA - "Development of a Dynamic Energy Balance to Assess Operating Efficiency of the Burlington County Bioreactor Landfill in New Jersey (USA)"

Barrett, Kirk R. and **Slaff**, Eric; Passaic River Institute and Department of Earth and Environmental Studies, Montclair State University, Montclair, NJ - "Is Flooding Getting Worse in the Passaic-Hackensack Watershed? A Historical, Empirical Analysis of Temporal Trends in Flood Frequency and Magnitude"

Benzecry, Alice; Fairleigh Dickinson Teaneck, New Jersey - "Experimental Method Toward In-Situ Burial and Floral Restoration of Contaminated Sites in Submerged Wetlands"

Gallagher, Frank J.; **Pechmann**, Ildiko; **Weis**, Peddrick; **Grabosky**, Jason; **Bogden**, John; Urban Forestry Program, Department of Ecology, Evolution and Natural Resources Rutgers, The State University, New Brunswick, New Jersey; University of Medicine and Dentistry of New Jersey, Newark, NJ - "The Relationship Between Soil Metal Concentrations and Endemic Vegetative Assemblages in an Urban Brownfield"

Georgopoulos, P.G.; **Lioy**, P.J.; **Welsh**, W.J.; **Isukapalli**, S.; **Wang**, S.W.; Environmental and Occupational Health Sciences Institute (EOHSI), a Joint Institute of UMDNJ - Robert Wood Johnson Medical School and Rutgers University, Piscataway, NJ - "Integrating Environinformatic and Bioinformatic Approaches for the Systematic Analysis of Environmentally Related Human Health Risks"

Jusino-Atresino, Rafael and **Gao**, Yuan; Rutgers University, Newark, NJ - "Urban Aerosols Characterization in Newark NJ"

Kim, E-W; **Park**, M.; **Levandowsky**, M.; **Wang**, Zhaoyan; **Vaccari**, David A. (corresponding author); Haskins Labs, Pace University, N.Y., NY; The River Project, N.Y., NY; Dept. of Civil, Environmental and Ocean Engineering, Stevens Institute of Technology, Hoboken, NJ - "Multivariate Statistical Analysis of Phytoplankton Populations in the Lower Hudson River"

Kou, D.; **Wang**, X.; **Bishop**, E.; and **Mitra**, Som; New Jersey Institute Of Technology, Newark, New Jersey, Department of Chemistry and Environmental Science - "On-Line Membrane Extraction for Real-Time Water Monitoring"

Laska, Mark S.; **Dvoretz**, Dan; and **Stanich**, Serge; Great Eastern Ecology, Inc., New York, NY - "History of Industrialization and Land Use Changes in the Berry's Creek Watershed and the Use of Geographic Information Systems (GIS) in Mapping of Restoration Opportunities"

Laska, Mark S.; Great Eastern Ecology, Inc., New York, NY, **Galloway**; Richard W.; Honeywell International, Morristown, NJ, **Guest**, Daniel T.; MACTEC Engineering and Consulting, Inc., Hamilton, NJ - "Natural Resource Damage Assessments in Urbanized and Changing Habitats - Berry's Creek, NJ"

Makofske, William J.; Emeritus Professor of Physics, Ramapo College of NJ, Warwick, NY - "Retrofit Path to Net-Zero Energy Buildings"

Mankiewicz, Paul S.; The Gaia Institute and Montclair State University Passaic River Institute, Bronx, NY - "Coupling Top-Down and Bottom-Up Restoration Paradigms to Enhance Biogeochemical Cycling, Ecosystem Services, and Biodiversity in the Hackensack Meadowlands"

Maresca, Susan I.; **Albrecht**, Sherri; Natural Resource Damages Coordinator, Region 2, New York State Department of Environmental Conservation, NYSDEC Region 3, Habitat Division, New Paltz, NY; URS, Wayne, NY - "Bridge Creek - Tidal Wetland Restoration in an Urban Setting"

Marti, Alex; Meadowlands Environmental Research Institute, New Jersey Meadowlands Commission, Lyndhurst, NJ 07071 - "Toxicology Analysis for *Vulpes Vulpes*"

McBrien, Peg; **Feltes**, Ross; The Louis Berger Group, Inc., Florham Park, NJ; The New Jersey Meadowlands Commission, Lyndhurst, NJ - "Overcoming Challenging Soil Conditions in the Meadowlands to Enhance a Degraded, Urban Wetland"

Nichols, Caitlyn P.; **Wallace**, William G.; **Patnaik**, Pradyot; **Powers**, Evelyn; **Ward**, Angela; Earth and Environmental Science Program, City University of New York Graduate Center, Department of Earth and Environmental Sciences, The Graduate Center, New York, NY, Interstate Environmental Commission, New York, NY, Biology Department, City University of New York College of Staten Island, College of Staten Island/CUNY, Staten Island, NY - "Profiling Bioavailable Metals in Urban Salt Marsh Sediments"

O'Brien, M.; **Zhang**, C.; **Ntarlagiannis**, D.; **Slater**, L.; **Yee**, N.; Department of Earth and Environmental Sciences, Rutgers University, Newark, NJ; Department of Environmental Sciences, Rutgers University, New Brunswick, NJ - "Geophysical Monitoring of Microbial Activity Within a Wetland Soil"

Palta, Monica M.; Department of Ecology and Evolution, Rutgers University, New Brunswick, NJ - "Nitrate Removal in Urban Wetlands: Examining the Roles of Vegetation, Soils, and Hydrology in the Creation of "Hot Spots" and "Hot Moments" of Denitrification"

Pecchioli, Joel A. and **Buchanan**, Gary; Division of Science, Research and Technology, New Jersey Department of Environmental Protection, Trenton NJ - "The New Jersey Toxics Reduction Workplan for NY-NJ Harbor: Ambient Levels of Toxic Contaminants in the Hackensack River"

Pechmann, Ildiko; **Artigas**, Francisco; New Jersey Meadowlands Commission, MERI GIS - "Balloon Imagery to Enhance the Accuracy of Hyperspectral Wetland Vegetation Mapping"

Phillipuk, Caroline; **Buckley**, Katie A.; **Ravit**, Beth; **Obropta**, Christopher C.; Center for Remote Sensing and Spatial Analysis, New Jersey; Rutgers Cooperative Extension Water Resources Program, New Jersey; Rutgers University Department of Environmental Science, New Jersey - "A GIS-Based Approach for Modeling the Effects of Sea-Level Rise in the New Jersey Meadowlands District"

Prezant, Robert S.; **Chapman**, Eric J. and **Shell**, Rebecca; Department of Biology and Molecular Biology, Montclair State University, Montclair, NJ; Western Pennsylvania Conservancy, Freshwater Conservation Program, Blairsville, PA - "Is Molluscan Biodiversity Enhanced in a Northern New Jersey Urban Pond?"

Ravit, Beth; **Totten**, Lisa; **Huang**, Weilin; Rutgers University, School of Environmental & Biological Sciences (SEBS), New Brunswick, NJ - "Kearny Marsh Sediment Contaminant Investigation"

Reichmuth, Jessica M.; **Place**, Allen R. and **Weis**, Judith S.; Department of Biological Sciences, Rutgers University, Newark, NJ; Center of Marine Biotechnology, University of Maryland Biotechnology Institute, Baltimore, MD - "Behavioral Differences in Two Populations of Blue Crab in New Jersey"

Rohleder, Linda; **Ehrenfeld**, Joan; Graduate Program in Ecology & Evolution, and Department of Ecology, Evolution, & Natural Resources, Cook College, Rutgers University, New Brunswick, NJ - "Structure and Composition of the Vegetation at Teaneck Creek Conservancy"

Seebaugh, David R.; **Wallace**, William G.; Department of Biology, Graduate School and University Center, City University of New York, New York, NY; Department of Biology, College of Staten Island, City University of New York, Staten Island, NY - "Influence of Pre-Exposure to Dietary Metal on the Assimilation and Subcellular Distribution of Cadmium by Grass Shrimp"

Shin, Jin Young; **Konsevick**, Ed; **Weisel**, Clifford P.; **Lioy**, Paul J.; **Kwon**, Jaymin; **Mohan**, Krishan and **Alkimoharti**, Shahnaz; New Jersey Meadowlands Commission; EOHSI, UMNDJ, Piscataway, NJ - "Baseline Air Concentrations of Particulate Matter, Elemental and Organic Carbon and Volatile Organic Compounds in the Meadowlands"

Shisler, Joseph K.; ARCADIS BBL, Cranbury, New Jersey - "Can We Control Phragmites in the Urban Environment?"

Tsipoura, Nellie; **Mizrahi**, David; **Witkowski**, Ken; New Jersey Audubon Society (NJAS), Princeton, NJ - "Avian Abundance and Distribution in the New Jersey Meadowlands District"

Weppler, Peter; **Appell**, Karen; **Doss**, Teresa; U.S. Army Corps of Engineers - New York District, New York; The Louis Berger Group, Inc., Florham Park, New Jersey - "The Meadowlands Comprehensive Restoration Implementation Plan"

Wnek, Patricia A.; NOAA National Weather Service, Middle Atlantic River Forecast Center, State College, PA - "Multisensor Precipitation Estimates Produced by NOAA National Weather Service River Forecast Centers"

Woolcott, Craig A.; NOAA Fisheries Restoration Center, NMFS, Sandy Hook Field Office, Highlands, NJ - "Nekton Use of Phragmites Australis and Spartina Alterniflora in the Hackensack Meadowlands"

Zagajski, Jane E. & **Holzappel**, Claus; Rutgers University Newark, Department of Biology & The Brearley School, New York, NY - Weehawken, NJ; Rutgers University Newark, Department of Biology, Newark NJ - "Self-Shading and Physiological Integration in Phragmites Australis: Factors Leading to Division of Labor"

Zhao, Yunliang; **Gao**, Yuan; Department of Earth and Environmental Sciences, Rutgers-Newark - "Mass Size Distribution of Particulate Water-Soluble Ions Over Newark"