
**INTERNATIONAL SYMPOSIUM ON SUSTAINABILITY SCIENCE:
THE EMERGING PARADIGM AND THE URBAN ENVIRONMENT**

Montclair State University
University Hall Conference Center

October 25-27, 2010

Symposium Program

DAY 1	25 October
8:00 - 9:00	Registration and Continental Breakfast
9:00 - 9:45	Welcome and Introductions
9:45 – 10:30	KEYNOTE ADDRESS I (Prologue) <i>From the Unity of Nature to Sustainability Science: Ideas and Practice</i> Robert W. Kates, Bangor, ME
10:30 -11:00	Coffee Break
Session I	MANAGING THE EARTH'S LIFE SUPPORT SYSTEMS: THE EMERGENCE OF SUSTAINABILITY SCIENCE AND TRANSDISCIPLINARITY
Session Chair:	Maurie Cohen, New Jersey Institute of Technology
11:00 – 11:30	<i>Sustainability of Biodiversity under Global Changes, with Particular Reference to Biological Invasions</i> Daniel Simberloff, University of Tennessee
11:30 – 12:00	<i>Post-Sustainability: the Emergence of the Social Sciences as the Hand-Maidens of Policy</i> Michael Redclift, Kings College, United Kingdom
12:00 – 1:30	Lunch and Guest Speaker
Session II	BALANCING ECOLOGY AND ECONOMY: THE VALUE OF NATURAL CAPITAL AND THE QUALITY OF LIFE
Session Chair:	Maurie Cohen, New Jersey Institute of Technology
1:30 – 2:00	<i>The Value of Natural and Social Capital In Our Current Full World and in a Sustainable and Desirable Future</i> Robert Costanza, University of Vermont (via teleconference)
2:00 – 2:30	<i>Steps Towards Sustainability Through Restoring Natural Capital. Examples from the Mediterranean Basin</i> James Aronson, CEFE/CNRS, France
2:30 – 3:00	Coffee Break
3:00 – 3:30	<i>Investing in Natural Capital Pays</i> Rudolf de Groot, Wageningen University, Netherlands

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- 3:30 – 4:00 *Economics for a Transition to Global Sustainability*
Faye Duchin, Rensselaer Polytechnic Institute
- 4:00 – 5:00 **PANEL DISCUSSION** (Prepared Challenge Questions, and Interactions with Audience) Moderator: Neeraj Vadwan, Montclair State University
- 6:00 **Dinner** (On your own)
- DAY 2** **26 October**
- 7:30 – 8:30 **Continental Breakfast**
- 8:30 - 9:15 **KEYNOTE ADDRESS II**
Sustaining Sustainability: Creating a Systems Science in a Fragmented Academy and Polarized World
John D. Sterman, MIT
- Session III** FROM SCIENCE TO POLICY: ECOSYSTEM-BASED MANAGEMENT AND THE COASTAL CONTINUUM
- Session Chair:** Tony MacDonald, Urban Coast Institute, Monmouth University
- 9:15 – 9:45 *Sustainability Trajectories for Urban Waters*
Richard Burroughs, University of Rhode Island
- 9:45 – 10:15 *The Purpose and Politics of Ecosystem-Based Management*
Judith Layzer, MIT
- 10:15 – 10:45 **Coffee Break**
- 10:45 – 11:15 *Sustainable Coastal Margins: Challenges of Tempo and Mode for the Policy Domain*
Ronald C. Baird, UNC-Wilmington
- 11:15 – 11:45 *It's OK to Talk about Sustainability*
Alan D. Hecht, USEPA
- 11:45 – 1:00 **Lunch**
- Session IV** THE COASTAL COMMONS AND THE ECOLOGY OF CITIES
- Session Chair:** Jaime Ewalt, New Jersey Department of Environmental Protection
- 1:00 – 1:30 *A Landscape Ecological Approach to Sustainability: Theory, Design Principles, and Measures*
Jianguo Wu, Arizona State University
- 1:30 – 2:00 **Coffee Break**

- 2:00 – 2:30 *Urbanization and Sustainability Management Planning: Processes and Strategies*
Robert W. Taylor, Montclair State University
- 2:30 – 3:00 *A Mathematical Description of Urban Metabolism*
Christopher Kennedy, University of Toronto
- 3:00 – 3:30 *Cities as Dissipative Structures: Global Change and the Increasing Vulnerability of Urban Civilization*
William E. Rees, University of British Columbia
- 3:30 – 4:00 *Climate Change, Globalization, and Urban Sustainability: Greetings from Coastal New Jersey*
Robin M. Leichenko, Rutgers University
- 4:00 – 4:45 **PANEL DISCUSSION** (Prepared Challenge Questions, and Interactions with Audience) Moderator: Jaime Ewalt, New Jersey Department of Environmental Protection
- 5:00 – 6:00 **Symposium Reception**, Student Center Ballroom
- 6:15 **Dinner** - Hosted by the PSEG Foundation, University Hall Conference Center
- 8:00 **Sokol Lecture** (Sustainability Science Theme) – *The Arctic in a Warmer World*, Bob Reiss, Best Selling Author and Guest Speaker, Alexander Kasser Theater
- DAY 3 27 October**
- 7:30 – 8:30 **Continental Breakfast**
- Session V RESTORING AND REHABILITATING ECOSYSTEMS: RETURN FROM THE PRECIPICE**
- Session Chair:** Meiyin Wu, Montclair State University
- 8:30 – 9:00 *Reversing Two Centuries of Wetland Degradation: Can Science Better Inform Policy & Practice?*
Michael P. Weinstein, Montclair State University
- 9:00 – 9:30 *The Tool Maker, More than the Tools*
R. Eugene Turner, Louisiana State University
- 9:30 – 10:00 **Coffee Break**
- 10:00 – 10:30 *Changing Nature: Novel Ecosystems, Intervention, and Knowing When to Step Back*
Eric S. Higgs, University of Victoria, CA
- 10:30 – 11:00 *The Challenge of Climate Change and Sea Level Prediction: A Progress Report on the Sustainability of the Cryosphere*
Sandra Passchier, Montclair State University

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- 11:00 – 12:00 **PANEL DISCUSSION** (Prepared Challenge Questions, and Interactions with Audience) Moderator: Meiyin Wu, Montclair State University
- 12:00 – 1:00 **Lunch**
- Session VI** ACHIEVING THE SUSTAINABILITY TRANSITION: SOCIAL RESPONSIBILITY AND SOCIAL LEARNING
- Session Chair:** Mark Kay, Montclair State University
- 1:00 – 1:30 *Sustainability as an Ethical Issue*
Stephen M. Gardiner, University of Washington
- 1:30 – 2:00 *Forest and Fishery Transitions to Sustainability*
Bonnie J. McCay and Thomas K. Rudel, Rutgers University
- 2:00 – 2:30 **Coffee Break**
- Session VII** WHERE DO WE GO FROM HERE?
- 2:30 – 3:15 **KEYNOTE ADDRESS III (EPILOGUE)**
The Challenge of Sustainability: Lessons from an Evolutionary Perspective
Simon A. Levin, Princeton University
- 3:15 – 3:45 **Closing Remarks**
- 3:45 **Meeting Adjournment**