

U.S. Environmental Protection Agency (EPA)
**The Plight of Ecosystems in a Changing Climate: Impacts on Services, Interactions,
and Responses Workshop**

May 27 - 28, 2009

Plymouth Church (Across From the EPA Region 10 Office)
1217 Sixth Avenue
Seattle, WA

DRAFT AGENDA

Day One, Wednesday, May 27, 2009

8:00 a.m. – 8:30 a.m. **Registration**

8:30 a.m. – 9:00 a.m. **Introductory Remarks**
Roseanne Lorenzana, EPA, Region 10 Science Liaison
Brandon Jones, Project Officer, EPA, ORD, NCER

Tier I – Effects of Climate Change on Ecosystem Services Provided by Coral Reefs and Tidal Wetlands
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9:00 a.m. – 9:20 a.m. **Effect of Sea Level Rise and Climate Variability on Ecosystem Services of Tidal Marshes**
Chris Craft, Indiana University, Bloomington

9:20 a.m. – 9:40 a.m. **Climate-Linked Alteration of Ecosystem Services in Tidal Salt Marshes of Georgia and Louisiana**
Mark Hester, University of Louisiana at Lafayette

9:40 a.m. – 10:00 a.m. **Linking Impacts of Climate Change to Carbon and Phosphorus Dynamics Along a Salinity Gradient in Tidal Marshes**
Melanie Vile, Villanova University

10:00 a.m. – 10:20 a.m. **Break**

10:20 a.m. – 10:40 a.m. **Connectivity in Marine Seascapes: Predicting Ecological and Socioeconomic Costs of Climate Change on Coral Reef Ecosystems**
James Sanchirico, Resources for the Future

10:40 a.m. – 11:00 a.m. **Effects of Climate Change on Ecosystem Services Provided by Hawaiian Coral Reefs**
Paul Jokiel, University of Hawaii at Honolulu

11:00 a.m. – 11:45 a.m. **Tier I Discussion**

11:45 a.m. – 12:45 p.m. **Lunch (on your own)**

Day One, Wednesday, May 27, 2009 (continued)

Tier II – Nonlinear Responses to Global Change in Linked Aquatic and Terrestrial Ecosystems
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- 12:45 p.m. – 1:05 p.m. **Hydrologic Forecasting for Characterization of Nonlinear Response of Freshwater Wetlands to Climatic and Land Use Change in the Susquehanna River Basin**
Denice Wardrop, Pennsylvania State University
- 1:05 p.m. – 1:25 p.m. **Sustainable Coastal Habitat Restoration in the Pacific Northwest: Modeling and Managing the Effects, Feedbacks, and Risks Associated With Climate Change**
John Rybczyk, Western Washington University
- 1:25 p.m. – 1:45 p.m. **Nonlinear Response of Pacific Northwest Estuaries to Changing Hydroclimatic Conditions: Flood Frequency, Recovery Time, and Resilience**
Rob Wheatcroft, Oregon State University
- 1:45 p.m. – 2:05 p.m. **Nonlinear Response of Prairie Pothole Landscapes to Climate Change and Land Management**
Carter Johnson, South Dakota State University
- 2:05 p.m. – 2:25 p.m. **Innovative Management Options To Prevent Loss of Ecosystem Services Provided by Chinook Salmon in California: Overcoming the Effects of Climate Change**
Lisa Thompson and David Purkey, University of California at Davis
- 2:25 p.m. – 2:45 p.m. **Break**
- 2:45 p.m. – 3:05 p.m. **Hydrologic Thresholds for Biodiversity in Semi-Arid Riparian Ecosystems: Importance of Climate Change and Variability**
Thomas Meixner, University of Arizona
- 3:05 p.m. – 3:25 p.m. **Nonlinear and Threshold Response to Environmental Stresses in Land-River Networks**
Jerry Melilo, Woods Hole Oceanographic Institution
- 3:25 p.m. – 4:25 p.m. **Tier II Discussion**
- 4:25 p.m. **Adjourn** (continued discussion and dinner on your own)

Day Two, Thursday, May 28, 2009

7:30 a.m. – 8:00 a.m.

Registration

Tier III – Ecological Impacts From the Interactions of Climate Change, Land Use Change, and Invasive Species

8:00 a.m. – 8:20 a.m.

Integrated Bioclimatic-Dynamic Modeling of Climate Change Impacts on Agricultural and Invasive Plant Distributions in the United States

**Wei Gao, Colorado State University*

8:20 a.m. – 8:40 a.m.

Global Change and the Cryptic Invasion by Transgenes of Native and Weedy Species

**Cynthia Sagers, University of Arkansas*

8:40 a.m. – 9:00 a.m.

A Multi-Scale Approach to the Forecast of Potential Distributions of Invasive Plant Species

**John Silander, University of Connecticut*

9:00 a.m. – 9:20 a.m.

Predicting Risk Invasion by Salt Cedar and Mud Snails

Leroy Poff, Colorado State University

9:20 a.m. – 9:40 a.m.

Integrating Future Climate Change and Riparian Land Use To Forecast the Effects of Stream Warming on Species Invasions and Their Impacts on Native Salmonids

Julian Olden, University of Washington

9:40 a.m. – 10:00 a.m.

Break

10:00 a.m. – 10:20 a.m.

Climate Change: Pathogens and Decline of Ectotherms

Jason Rohr, University of South Florida

10:20 a.m. – 10:40 a.m.

Beach Grass Invasions and Coastal Flood Protection: Forecasting the Effects of Climate Change on Coastal Vulnerability

Eric Seabloom, Oregon State University

10:40 a.m. – 11:00 a.m.

Elevated Temperature and Land Use Flood Frequency Alteration Effects on Rates of Invasive and Native Species Interactions in Freshwater Floodplain Wetlands

Curtis Richardson, Duke University

11:00 a.m. – 11:20 a.m.

Ecological Impacts From the Interactions of Climate Change, Land Use Change, and Invasive Species

Robert Whitlatch, University of Connecticut

11:20 a.m. – 12:20 p.m.

Tier III Discussion

12:20 p.m. – 12:30 p.m.

Closing Remarks

12:30 p.m.

Adjourn

*** USDA Grantees**