

U.S. EPA STAR Global Aquatic Ecosystem Services and Multi-Stressor Progress Review Workshop

Washington Plaza Hotel
10 Thomas Circle, NW
Washington, DC 2005

June 8-9, 2006

Agenda

This is a Joint Workshop and Progress Review for U.S. EPA STAR Grants on:

Topic I: *Effects of Climate Change on Ecosystem Services of Coral Reefs and Tidal Marshes*
Topic II: *Regional-Scale Multi-Stressor Models for Aquatic Ecosystems*

Thursday, June 8, 2006

8:00 – 8:30 a.m. Registration

8:30 – 9:00 a.m. Welcome and Introduction from EPA
Becki Clark, Division Director (NCER)
Joel Scheraga, National Program Director (Global Change Research)
Rochelle Araujo, Associate Director for Ecology (NERL)
Iris Goodman, Eco Team Lead (NCER)

Topic I: Effects of Climate Change on Tidal Marshes and Coral Reefs

9:00 – 9:30 a.m. *Effects of Climate Change on Ecosystem Services Provided by Hawaiian Coral Reefs*
Robert Buddemeier, University of Kansas

9:35 – 10:05 a.m. *Connectivity in Marine Seascapes: Predicting Ecological and Socioeconomic Costs of Climate Change on Coral Reef Ecosystems*
James Sanchirico, Resources for the Future

10:10 – 10:25 a.m. Break

10:25 – 10:55 a.m. *Linking Impacts of Climate Change to Carbon and Phosphorus Dynamics Along a Salinity Gradient in Tidal Marshes*
Melanie Vile, Academy of Natural Sciences

11:00 – 11:30 a.m. *Climate-Linked Alteration of Ecosystem Services in Tidal Salt Marshes of Georgia and Louisiana*
Mark Hester, University of New Orleans

11:35 – 12:05 p.m. *Effect of Sea Level Rise and Climate Variability on Ecosystem Services of Tidal Marshes, South Atlantic Coast*
Christopher Craft, Indiana University

12:10 – 1:10 p.m. Lunch

Topic I (continued): Aquatic Ecosystem Services: Outputs, Impacts and Communication to Decision Makers (Discussion: EPA Scientists and STAR Grantees)
1:10 – 2:30 p.m.

Susan Julius, Office of Research and Development
Jordon West, Office of Research and Development
Mary Reiley, Office of Water

Topic II: Regional-Scale Physical Models for Environmental Decision-Making

2:40 – 3:10 p.m. *Development of Coupled Physical and Ecological Models for Stress-Response Simulations of the Apalachicola Bay*

Wenrui Huang and Hongqing Wang, Florida A&M University

3:15 – 3:25 p.m. Break

3:30 – 4:00 p.m. *A Shallow-Water Coastal Habitat Model for Regional-Scale Evaluation of Management Decisions in the Virginia Province*

Charles Gallegos, Smithsonian Institute

4:05 – 4:35 p.m. *Development of a Regional-Scale Model for the Management of Multiple-Stressors in the Lake Erie Ecosystem*

Joseph Koonce, Case Western Reserve University

4:40 p.m. Adjourn

Friday, June 9, 2006

8:00 – 8:30 a.m. Registration

Topic II (continued): Regional-Scale Population Models for Environmental Decision-Making

8:30 – 9:00 a.m. *Effects of Multiple Stressors on Aquatic Communities in the Prairie Pothole Region*
Patrick Schoff, University of Minnesota–Duluth

9:05 – 9:35 a.m. *Application of Individual-Based Fish Models to Regional Decision-Making*
Steve Railsback, Humboldt State University

9:40 – 10:10 a.m. *Stressor-Response Modeling of the Interactive Effects of Climate Change and Land Use Patterns on the Alteration of Coastal Marine Systems by Invasive Species*
Robert Whitlatch, University of Connecticut

10:15 – 10:30 a.m. Break

Topic II (continued): Regional-Scale Statistical Models for Environmental Decision-Making

10:30 – 11:00 a.m. *Adaptive Implementation Modeling and Monitoring for TMDL Refinement*
Song Qian, Duke University

- 11:05 – 11:35 a.m.** *Bayesian Methods for Regional-Scale Stressor Response Models*
Conrad Lamon, Duke University
- 11:40 – 12:40 p.m.** **Lunch**
- 12:40 – 1:10 p.m.** *Developing a Risk Propagation Model for Estimating Ecological Responses of Streams to Anthropogenic Watershed Stressors and Stream Modification*
Vladimir Novotny, Northeastern University
- 1:15 – 1:45 p.m.** *Developing Relations Among Human Activities, Stressors, and Stream Ecosystem Responses and Linkage in Integrated Regional, Multi-Stressor Models*
Mike Wiley, University of Michigan
- Topic II (continued): Integrated Modeling and Monitoring for Adaptive Environmental Management (Discussion: EPA Scientists and STAR Grantees)**
1:50 – 3:25 p.m.
- 3:25 – 3:40 p.m.** **Closing Remarks:** Iris Goodman, U.S. EPA
- 3:40 p.m.** **Adjourn**