

AGENDA

Adapting to Climate Change in the Mid-Atlantic

Hyatt Regency Chesapeake Bay Resort
100 Heron Blvd.
Cambridge Maryland 21613

<http://www.fws.gov/northeast/climatechange/conference/ccmidatlantic.html>

March 23-25, 2010

This Workshop is dedicated to the memory of Sam Hamilton, Director, U.S. Fish and Wildlife Service, 2009-2010, and a visionary leader in the field of climate change adaptation and mitigation

Workshop Goal: To develop a common understanding of assessment techniques that determine potential climate change impacts to protected areas in the Mid-Atlantic United States and to explore adaptive management approaches that address those impacts.

Outcomes: At the completion of the workshop participants will:

- More fully understand techniques used to assess climate change impacts to the forested and ocean and coastal ecosystems of the Mid Atlantic United States;
- Be able to identify climate adaptation approaches that address impacts to infrastructure, cultural resources and natural resources in terrestrial, coastal, and marine protected areas.
- Discover collaborative opportunities that address common climate adaptation issues among non-governmental organizations and local, state and federal government agencies.

Target Audience

Managers of federal, state and private lands and resources, both terrestrial and marine, in the Mid Atlantic United States. The workshop would also benefit protected area planners, maintenance and facility managers, education specialists, wildlife, fisheries, forestry and other technical specialists that work in or within these areas.

Tuesday, March 23

- 8:00 am **Registration**
- 9:00 am **Welcome & Introduction**
Room: Choptank Ballroom
 National Park Service Regional Director Peggy O’Dell, National Capital Region
- 9:15 am **Review of Workshop Agenda, Purpose and Logistics**
 David Reynolds, Workshop Planning Team, National Park Service
- 9:30 am **Opening Address**
- Kit Batten, Ph.D., Science Advisor to the Deputy Secretary, U.S. Department of the Interior**
 Objective: Provide a challenge to the group and briefly describe DOI efforts in organizing to understand and adapt to climate change impacts.
- 10:00 am **Keynote Addresses- Adapting to a Changing World**
 Introduction of speaker by Dave Russ, Northeast Regional Executive, US Geological Survey
- Marcia McNutt, Director, US Geological Survey**
 Objective: USGS Director McNutt will review the range of scientific climate change assessment tools, resources and techniques available for state, federal and non-governmental land and ocean resource managers to make adaptation decisions.
- Introduction of speaker by Dennis Reidenbach, Regional Director Northeast Region, National Park Service
- Jon Jarvis, Director National Park Service**
 Objective: NPS Director Jarvis will discuss climate adaptation in protected areas from a planning, policy and management perspective. Issues such as cultural resource and recreational impacts, invasive species and species migration will be addressed.
- 11:00 pm Questions
- 11:30 pm **Lunch on Your Own**
- 12:45 pm **Assessing the Risk – Review of Risk Assessment Techniques for infrastructure, cultural and natural resources in the aquatic environment**
Room: Choptank Ballroom

Donald Cahoon, U.S. Geological Survey – Overview of assessment techniques for aquatic systems.

1:15 pm

Review of Risk Assessment Techniques for infrastructure, cultural and natural resources in the terrestrial environment – Christopher Pyke, Director of Research, U.S. Green Building Council

Objective: Speakers will present an overview of assessment tools and techniques to determine climate impacts to infrastructure, cultural and natural resources. Time for questions from the audience will be included.

Concurrent Sessions on Assessing Climate Change in Terrestrial/Forest and Coastal/Marine Areas

<p>Tuesday, March 23</p> <p>Track 1: Assessing climate impacts to terrestrial/freshwater ecosystems Forests in the Mid-Atlantic <u>Room: Choptank Ballroom</u> Objective: Overview of the anticipated changes to forests and other biotic communities, and discussions of planned adaptation techniques to achieve specific objectives.</p> <p>2:15 pm Interactions between Forests, Carbon and Climate Change – Chris Swanston, USDA Forest Service – Northern Research Station</p> <p>3:15 pm Break <u>Room: Choptank Front Foyer</u></p> <p>3:30 pm Assessing Effects of Climate Change and Atmospheric Chemistry on Mid-Atlantic Forests - Richard Birdsey, Project Leader, Climate, Fire and Carbon Cycle Sciences, USDA Forest Service - Northern Research Station</p>	<p>Tuesday, March 23</p> <p>Track 2: Assessing climate impacts to Coastal and Marine resources in the Mid-Atlantic <u>Room: Chesapeake E, F, G</u> Objective: Overview of expected climate change impacts on coastal and marine resources.</p> <p>2:15 pm Overview of coastal and marine issues in the Mid-Atlantic- Norbert P. Psuty, Director, Sandy Hook Cooperative Research Programs, Institute of Marine and Coastal Sciences, Rutgers University</p> <p>2:45 pm Assessing the potential impacts to Gateway National Recreation Area Barry Sullivan, Superintendent, Gateway National Recreation Area, National Park Service</p> <p>3:15 pm Break <u>Room: Choptank Front Foyer</u></p> <p>3:30 pm Scenario Planning and Climate Change Response at Assateague Island National Seashore - Carl Zimmerman, Assateague Island NS, National Park Service</p>
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<p>4:00 pm Forest Trends in the Mid-Atlantic States and how Climate Change Might Affect Them - Will McWilliams, USDA Forest Service - Northern Research Station</p> <p>4:30 pm Linking Climate, Ecosystem Services, and Ecosystem Services Markets – Sara Hines, USDA Forest Service Northeastern Area</p> <p>5:00 pm An Evolutionary Approach to Understanding Native and Non-native Species Responses to Climate Change using Phenological Data Charles Davis, Assistant Professor of Organismic and Evolutionary Biology and Curator of Vascular Plants, Harvard University</p>	<p>4:00 pm Climate Adaptation in the Delaware Estuary: Risks, Opportunities and Tough Choices - Danielle Kreeger, Partnership for the Delaware Estuary, part of the EPA Climate Ready Estuaries Initiative</p> <p>4:30 pm Facilitated discussion, brain storming, Q+A, sharing of other tools and ways to think about and plan adaptation; audience encouraged to participate. Michael P. De Luca, Reserve Manager, Jacques Cousteau National Estuarine Research Reserve, Institute of Marine & Coastal Sciences, Rutgers University</p>

5:30 pm **Posters and Reception with Refreshments**
 Room: Choptank side Foyer

6:30 pm **Dinner on Your Own**

Wednesday, March 24

- 8:30 am **Plenary Session**
Room: Choptank Ballroom
 Announcements, review of agenda and recap of previous day's talks
- 8:45 am **View from State government and Non-governmental Organization (NGO) perspectives- Panel Talk**
 Objective: Representatives from non-governmental and state agencies will discuss the steps their organizations are taking to address climate change issues in order to meet their agency's mission. Focus on adaptation.
- Panelists:
- **Virginia's Climate Change Strategy for Wildlife**, Chris Burkett, Wildlife Action Plan Coordinator, Virginia Department of Game and Inland Fisheries
 - **National Wildlife Federation Climate Adaptation Initiatives**, Curtis Fisher, Regional Executive Director, National Wildlife Federation (NWF), Northeast Regional Center
- 9:45 am **Break** Room: Choptank Foyer
- 10:15 am **Plenary Address: Human Choice and Climate Change**
Room: Choptank Ballroom
 Richard H. Moss, Senior Scientist, Joint Global Change Research Institute, Pacific Northwest National Laboratory and University of Maryland
- Abstract: Human choices underlie both the sources of the climate change problem and the implementation of options to manage the risks it poses. As managers of protected areas, participants may often think of climate change in terms of adaptation for the natural environment. However, changing climate will have impacts for human communities as well, including public health, socioeconomic welfare, public safety, food production, access to clean water, recreational opportunities, and damage to infrastructure, among others. The presentation will provide an overview of factors that influence vulnerability to climate change and the capacity to mitigate forcing and adapt to impacts.

AM Concurrent Sessions: Adapting to Global Change-The Human Dimension

Participants will learn about practical tools to enhance decision-making regarding current and future climate change impacts

<p>Wednesday, March 24</p> <p>Concurrent Sessions AM 1 <u>Room: Schooner A, B</u> Adaptation: How government agencies are assessing impacts to cultural resources and a discussion of how climate change decisions are incorporated in the planning process, including the National Environmental Policy Act.</p> <p>10:45 am Impacts of Climate Change on the Historic and Archeological Resources of the Chesapeake - Susan Langley, Maryland State Underwater Archeologist</p> <p>11:15 am Incorporating Climate Change into the National Environmental Policy Act - Heidi West, Consultant</p> <p>11:45 am Adaptation Planning for Gateway National Recreation Area and National Parks of NY Harbor, Helen Mahan, Senior Planner, NPS</p>	<p>Wednesday, March 24</p> <p>Concurrent Sessions AM 2 <u>Room: Clipper A, B, C</u> Adaptation: Human Communities – How state and municipal governments are planning for adaptation in regards to extreme storm events, public health implications and impacts to socioeconomic welfare of their communities.</p> <p>10:45 am Climate Change Adaptation Policy and Practice in the State of Maryland – Zoë Johnson, Program Manager, Climate Change Policy, Office for a Sustainable Future, Maryland Dept. of Natural Resources</p> <p>11:30 am Adaptation Options at the Municipal Level – Laura Grape, Senior Environmental Planner, Northern Virginia Regional Commission</p>	<p>Wednesday, March 24</p> <p>Concurrent Sessions AM 3 <u>Room: Cutter A & B</u> Adaptation: Communicating Climate Change – This session will explore approaches for engaging with the public, stakeholders, and decision-makers about the science of climate change and its impact to protected areas, and collaborating on adaptation planning initiatives.</p> <p>10:45 am Understanding Audiences and the Value of Localized Information - Karen Akerlof , Research Team, Center for Climate Change Communication, George Mason University</p> <p>11:15 am Collaborating with Communities on Climate Decision-Making - Joe Cone, Assistant Director and Communications Leader, Oregon Sea Grant</p> <p>11:45 am Getting to Your Neighbors, A Communication Case Study – Bill Crowell, Director, Albemarle-Pamlico National Estuary</p>
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12:15 pm **Lunch on Your Own**

PM Concurrent Sessions: Adapting to Global Change – the Natural Environment

Managers learn planning and adaptation techniques to protect natural resources

<p>Wednesday, March 24</p> <p>Concurrent Session PM 1 <u>Room: Schooner A, B</u> Forest & Vegetation</p> <p>1:45 pm Adaptation and Mitigation Concepts for Forest Management - Maria Janowiak, Northern Institute of Applied Carbon Science</p> <p>2:35 pm Climate Change and Invasive Weeds: Threats and Consequences - Dr. Lew Ziska, USDA Agricultural Research Service</p> <p>3:15 pm Break - <u>Clipper Foyer</u></p> <p>3:30 pm Strategies for Detecting and Managing Climate Change Impacts on Forest Health- Jim Steinman, Forest Health Monitoring Program Manager - USDA Forest Service Northeastern Area</p>	<p>Wednesday, March 24</p> <p>Concurrent Session PM 2 <u>Room: Clipper A, B, C</u> Animals</p> <p>1:45 pm Assisted Migration of Wildlife: A discussion, Dov Sax, Assistant Professor, Ecology and Evolutionary Biology, Brown University</p> <p>2:15 pm Endangered Species Program and climate change - Debby Crouse, Office of Endangered Species, U.S. Fish and Wildlife Service</p> <p>2:45 pm Species at Risk in the Mid-Atlantic Region due to Climate Change -Rachel Muir, Regional Science Program Officer, USGS and Tom Smith, Virginia Natural Heritage Program</p> <p>3:15 pm Break – <u>Clipper Foyer</u></p> <p>3:30 pm Impacts of Climate Change to Eastern Brook Trout and their habitat in the Mid Atlantic- Mark Hudy, USFS</p>	<p>Wednesday, March 24</p> <p>Concurrent Session PM 3 <u>Room: Cutter A & B</u> Bio-physical Processes</p> <p>1:45 pm Chesapeake Bay Executive Order and Adaptation Strategy– Peter Claggett, Research Geographer, U.S. Geological Survey</p> <p>2:40 pm Framework for a U.S. Geological Survey State-Level Hydrologic Climate-Response Program Bob Lent, Director, Maine Water Science Center, U.S. Geological Survey</p> <p>3:15 pm Break – <u>Clipper Foyer</u></p> <p>3:30 pm Climate Change Impacts on Submerged Aquatic Vegetation: research with management applications, particularly by focusing on sentinel research sites as part of the NERRS</p>
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<p>4:00 pm Climate Change Response Framework for Landscape Management Challenges - Chris Swanston, USDA Forest Service - Northern Research Station</p>	<p>4:00 pm Nature Serve- Tools for climate adaptation – Pat Comer, Chief Ecologist and Acting Vice President of Science, Nature Serve</p>	<p>water quality System Wide Monitoring Program (SWMP) and SAV Biological Monitoring Program. Erin Shields, Virginia Institute of Marine Science</p> <p>4:00 pm Accurately Assessing Sea Level Rise Impacts on Coastal Habitats: Phillipe Hensel, National Geodetic Survey</p>
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- 4:30 pm **Plenary Session**
Room: Choptank Ballroom
- Climate Adaptation and the National Climate Assessment**
 Objective: Introduce participants to the National Climate Assessment process and structure with specific reference to how it is intended to enable adaptation efforts and support decision-making.
- Kathy Jacobs, Assistant Director for Climate Assessment and Adaptation, Office of Science and Technology Policy (OSTP)
- 5:30 pm **Poster Session and Side Bar meetings**
Room: Choptank Foyer
- 6:30 pm **Workshop Dinner** – Room: Choptank Ballroom *cost included in registration fee*
- 8:00 pm **After Dinner Program**
- The Disappearing Island Communities of the Chesapeake Bay and Sea Level Rise.* An engaging talk on the story of the island communities of the Chesapeake Bay and their experience with climate impacts. Speaker: Court Stevenson, Horn Point Laboratory, Maryland
- Thursday, March 25 (Plenary all day)**
- 8:30 am **Opening remarks** – Rick Bennett, Workshop Planning Team, U.S. Fish and Wildlife Service, NE Region
Room: Choptank Ballroom
- 8:45 am **Collaborative Adaptation Programs and Tools: A Panel Discussion**
- Introduction of Panel and Objectives:** Marvin Moriarty, Northeast Regional Director, U.S. Fish and Wildlife Service
- Objective: Participants will learn about new and ongoing programs that provide useful information for planners and managers working on climate adaption issues. The panel will discuss what makes each program unique and how the programs interact. A half hour will be provided for questions from participants.
- 8:45 am **Landscape Conservation Cooperatives, (LCCs)** – Rick Bennett, Regional Scientist, NE Region, US Fish and Wildlife Service
- 9:00 am **Cooperative Ecosystem Study Units (CESU)**, Tom Fish, Cooperative Ecosystem Study Unit Coordinator

- 9:15 am **National and Regional Climate Science at the Department of the Interior**, Robin O'Malley, U.S. Geological Survey
- 9:30 am **Climate-Smart Sanctuaries and NOAA's Climate Service** – Jim Sullivan, National Marine Sanctuaries Program, NOAA
- 9:45 am **The Role of Inventory and Monitoring Programs in Climate Change Assessment and Adaptation** – Shawn Carter, Climate Change Monitoring Coordinator, National Park Service and Andrew Gude, U.S. Fish and Wildlife Service, representing National Wildlife Refuge Inventory and Monitoring Program
- 10:15 am **Climate Effects Network – National and Regional Monitoring for Climate Change** – Pete Murdoch, Climate Effects Network Program Manager, U.S. Geological Survey
- 10:30 am **Interactive Discussions with Panelists and Workshop Participants-** Moderator, Marvin Moriarty, Northeast Regional Director, U.S. Fish and Wildlife Service
- 11:00 am **Summary address: Finding Common Ground in Climate Adaptation**
- Introduction of speaker by Marvin Moriarty, Northeast Regional Director, U.S. Fish and Wildlife Service
- Curtis Fisher, Regional Executive Director, Northeast Regional Center, National Wildlife Federation
- Objective: Share a vision of how non-governmental organizations and government agencies can collaborate in the Mid-Atlantic region to strengthen ecosystem resilience from climate change impacts through joint adaptation actions.
- 11:45 am **Wrap up and Next Steps** - Dave Russ, Northeast Regional Executive, U.S. Geological Survey
- 12:00 pm **Adjournment**