



## SUMMARY

### 1. Habitat Activities and Accomplishments

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- States and Federal Agencies Discuss Climate Issues in the Mid-Atlantic
- Interagency Climate Workshop in the Chesapeake Bay
- Future Coast Initiative

### 2. Tools and Upcoming Trainings

- Climate College: California Leading the Way on Climate Action (September 18, 2012, 1pm-2pm PDT)
- Demonstration of Habitat Climate Change Vulnerability Index (HCCVI) by Pat Comer of NatureServe (September 25, 2012, 1pm-2pm EDT)
- Decision Analysis for Climate Change Course (October 1, 2012 – November 26, 2012)

### 3. Conferences and Key Events

- Third Annual Pacific Northwest Climate Science Conference, Boise, ID (October 1-2, 2012)
- Restore America's Estuaries 6th National Conference on Coastal and Estuarine Habitat Restoration, Tampa, FL (October 20-24, 2012)
- CERF 2012, Mar Del Plata, Argentina (November 11-14, 2012)
- 28<sup>th</sup> Lowell Wakefield Fisheries Symposium, Anchorage, AK (March 26-29, 2013) – **Abstracts due November 30, 2012**

### 4. Additional References

- Blunden, J., and D.S. Arndt, Eds., 2012: State of the Climate in 2011. *Bull. Amer. Meteor. Soc.*, 93 (7), S1-S264.
- Siikamäki, Juha, Sanchirico, James N., and Jardine, Sunny L. 2012. Global economic potential for reducing carbon dioxide emissions from mangrove loss. *Proceedings of the National Academy of Sciences of the United States of America*. doi: 10.1073/pnas.1200519109.
- Staudinger, Michelle D., et al. 2012. Impacts of Climate Change on Biodiversity, Ecosystems, and Ecosystem Services: Technical Input to the 2013 National Climate Assessment. Cooperative Report to the 2013 National Climate Assessment. 296 pp.
- Voluntary Step-By-Step Guide For Considering Potential Climate Change Effects On Coastal And Estuarine Land Conservation Projects. February 2012. NOAA's Office of Ocean and Coastal Resource Management – Coastal and Estuarine Land Conservation Program. 31pp.
- Yoskowitz, David, et al. 31 March 2012. Assessment of Changing Ecosystem Services Provided by Wetland Habitat in the Galveston Bay Region: Final Report to The Gulf of Mexico Foundation and the Gulf of Mexico Alliance Habitat Conservation and Restoration Priority Issue Team. *Texas A&M University Corpus Christi and Harte Research Institute for Gulf of Mexico Studies*. 73pp.

# HIGHLIGHTS

## Habitat Activities and Accomplishments

- **Restoration Center Contributes to 2012 River Herring Climate Change Workshop**

NMFS was petitioned to list river herring under the Endangered Species Act in August of 2011. Through their review to determine whether these species warrant listing, the Northeast Region's Protected Resources Division (PRD) identified three topics for which additional information is needed: stock structure, extinction risk, and the impact of climate change on these species. PRD held three workshops in June and July of 2012 to gather more information on each of these topics, inviting participants with relevant expertise to present their work and participate in structured discussions. The workshops were also open to the public and webcast. Matt Collins of the RC Northeast was an invited participant for the workshop that investigated the potential impacts of climate change on river herring and gave a talk entitled "Regional hydroclimatic flood trends and relevance for river herring habitat". Narrative summaries of the workshop's presentations, presentation PDFs, and a recording of the entire webcast are available [here](#). Contact: Mathias Collins

- **States and Federal Agencies Discuss Climate Issues in the Mid-Atlantic**

There is strong interest in climate issues in the Mid-Atlantic, with discussions on sea-level rise and ocean acidification at the state and federal levels. The states have been tracking this closely through their Mid-Atlantic Regional Council on the Ocean, which identified ocean acidification as a primary water quality issue. The federal agencies are also talking about sea level and acidification. Those separate conversations, amplified by strong interests from the lone Tribal Nation in the region (the Shinnecock on Long Island), are likely to merge as the six states (NY, NJ, PA, DE, MD, and VA), about ten interested federal agencies, and the Tribe join forces on the Mid-Atlantic Regional Planning Body to implement the ocean planning or CMSP goal of the President's National Ocean Policy. The states have a brief action plan identifying their priority actions. Federal agencies participated in a webinar on August 29 led by the U.S. Army Corps of Engineers on climate adaptation and may continue that discussion with similar updates from other agencies. It is unclear if some aspect of climate will emerge as a shared priority but those discussions are likely to begin this fall when the Regional Planning Body is established, meets for the first time, and invites regional stakeholders to offer their insights on regional ocean planning. Contact: Tom Bigford

- **Interagency Climate Workshop in the Chesapeake Bay**

NOAA and USGS are getting interested parties together for a one day "workshop" to discuss the climate component/climate change supporting strategy, *Respond to Climate Change Supporting Strategy*, of the Chesapeake Bay Executive Order 13508. Specifically, participants will discuss activities that we submitted in the FY12 action plan, activities that we have/may want to include in the FY13 action plan, and thoughts on future climate change planning for the Executive Order. The date is yet to be determined but sometime in the September/October timeframe. The workshop will be held in the Annapolis, MD area. Contact: Jennifer Faught

- **Future Coast Initiative**

The Future Coast initiative is a model for engaging communities in discussions on coastal flooding and sea-level rise that is being developed and tested by a team of researchers led by George Mason University, and funded by Mid-Atlantic Sea Grant. The project has three primary components: a survey of Anne Arundel County residents, a day-long community event with residents and experts on policy responses to coastal flooding, and an online visualization of local impacts developed specifically for the use of the general public.

The project launched in spring 2012 with a survey of Anne Arundel County, Maryland residents accompanied by invitations to attend a follow-up community discussion session. At the event, participants engaged with fellow community members to discuss their perceptions of coastal flooding now and in the future, and what local governments might do in the long-term to address it. Science and policy experts attended the event to answer residents' questions. Participants' survey responses have been compiled into a report that is now being shared with local officials and media. A draft of the project survey report is available on the project website. You can download the report from this page (first download link): <http://www.futurecoast.info/reports>.

George Mason University is collaborating on the project with researchers at the U.S. Naval Academy and Center for the Study of Local Issues at Anne Arundel Community College. The

visualization and online site is being developed by Dewberry, a regional engineering firm. The final project report will include recommendations for how other communities can develop their own Future Coast sites and community discussions and will be made publicly available in fall 2012. Contact: Jennifer Faught

## Resources

### Tools and Upcoming Trainings

- **Climate College: California Leading the Way on Climate Action (September 18, 2012, 1pm-2pm PDT)**  
Registration is now open for the DFG Climate College! This is a 10 month course designed to cover the fundamentals of climate science and provide tools and resources necessary to empower participants to better incorporate climate change into his/her work. Registration is not restricted to DFG employees. The first lecture will take place on September 18 from 1:00-2:00PM PDT in Sacramento, and will also be accessible via WebEx. In the meantime, check out the DFG Climate College website for general information on the course, lecture schedule, certification opportunities, and more ([www.dfg.ca.gov/Climate\\_and\\_Energy/Climate\\_Change/Climate\\_College](http://www.dfg.ca.gov/Climate_and_Energy/Climate_Change/Climate_College)). If you wish to register, send an email to [Registrar@dfg.ca.gov](mailto:Registrar@dfg.ca.gov) with your name, email address, organization, and whether or not you intend to participate in person or via WebEx. You must register for each individual lecture/class at least two days prior to the scheduled lecture. If you would like to register for all classes at once, please submit a request to the above email address indicating that you would like to register for every class in the course.
- **Demonstration of Habitat Climate Change Vulnerability Index (HCCVI) by Pat Comer of NatureServe (September 25, 2012, 1pm-2pm EDT)**  
The earth's rapidly changing climate requires substantial adjustments to existing strategies for conserving natural systems. Managers need a better understanding of factors that contribute to the vulnerability of ecosystems and plant communities in order to formulate new adaptation strategies. The Climate Change Vulnerability Index for Ecosystems and Habitats (HCCVI) documents series of indicators of vulnerability to climate change. Indicators are organized within categories of indirect effects, direct effects, and adaptive capacity. NatureServe recently piloted the HCCVI with major ecosystem types in the Mojave and Sonoran deserts, and applied results in a workshop setting with regional specialists to help identify appropriate strategies for climate change adaptation. To reserve your Webinar seat go to: <https://www1.gotomeeting.com/register/998022600>.
- **Decision Analysis for Climate Change Course (October 1, 2012 – November 26, 2012)**  
Natural resource managers are increasingly tasked with understanding climate change impacts and using this knowledge in making decisions. Yet the uncertainty inherent in evaluating climate impacts often impedes action. This 8-week online course provides participants with skills to address climate change impacts in making decisions about natural resource management. This course and the entire Structured Decision Making curriculum at NCTC are developed in partnership with staff from USGS. As a pilot offering, there is no tuition or registration fee associated with the course. We will be looking for input from course participants throughout the course on different aspects of the online course process. Registration is open now with only a few spaces remaining. For more information contact Michelle Haynes, NCTC course leader 304.876.7652 or [michelle\\_haynes@fws.gov](mailto:michelle_haynes@fws.gov). Course and enrollment information at: <http://nctc.fws.gov/courses/SDM/courses/da4cc.html>.

### Conferences and Key Events

- **Third Annual Pacific Northwest Climate Science Conference, Boise, ID (October 1-2, 2012)**  
The Pacific Northwest Climate Science Conference provides an annual forum to exchange scientific results and policy and management options related to climate change and climate impacts research focused on the Pacific Northwest. The conference, entering its third year, has attracted a wide range of interested individuals including policymakers, resource managers, public agency staff, NGO personnel, and agency and university scientists. This conference aims to go beyond the typical discipline-based climate conference to stimulate a place-based exchange of information about emerging science, impacts, and adaptation related to the Pacific Northwest (PNW) climate. The conference will also provide a forum for emerging policy and management goals, objectives, and information needs related to regional climate impacts and adaptation. To learn more and submit abstracts go to: <http://pnwclimateconference.org/index.html>.
- **Restore America's Estuaries 6th National Conference on Coastal and Estuarine Habitat Restoration, Tampa, FL (October 20-24, 2012)**  
Restore America's Estuaries biennial National Conference on Coastal and Estuarine

Habitat Restoration has become one of the most important and preeminent conferences on the coastal restoration community's calendar. The Conference focuses attention on the challenges and opportunities facing coastal habitat restoration community. Join the restoration practitioners, civic and community leaders, consultants, scientists, educators, planners, engineers, students, volunteers, philanthropists, program managers, field staff, contractors, regulators, and others at this must-attend event. The 6<sup>th</sup> National Conference theme is "Restoring Ecosystems, Strengthening Communities," and they are particularly interested in proposals for sessions, presentations, and posters dealing with the interface of the environment and the economy, but all proposals relevant to coastal habitat restoration will not only be considered, but are highly encouraged. For more information and to submit proposals: <http://program.estuaries.org/>.

- CERF 2012, Mar Del Plata, Argentina (November 11-14, 2012)  
With the theme, *The Changing Coastal and Estuarine Environment: A Comparative Approach*, comparison focuses specifically on temperate, coastal systems within Southern and Northern Hemispheres. This conference aims to summarize the state of knowledge of six topics of concern within a changing coastal environment, compare the nature of human impacts within temperate South America and those in comparable climates within North America, foster future international collaborations, and foster broader education of students and young scientists and promote networking among peers and with the geographically larger community. For more information and to register: <http://www.erf.org/cerf2012argentina>.
- 28<sup>th</sup> Lowell Wakefield Fisheries Symposium, Anchorage, AK (March 26-29, 2013) – **Abstracts due November 30, 2012**  
This symposium, titled *Responses of Arctic Marine Ecosystem to Climate Change*, seeks to advance our understanding of present and future responses of arctic marine ecosystems to climate change at all trophic levels from plankton to marine mammals to humans by documenting and forecasting likely changes in environmental processes and the responses of species to those changes. We encourage contributions that focus on collaborative approaches to understanding and managing living marine resources in a changing Arctic and to managing human responses – locally, regionally, and globally – to changing arctic marine ecosystems. For more information and to submit abstracts: <http://seagrant.uaf.edu/conferences/2013/wakefield-arctic-ecosystems/index.php>.

## Additional References

- Blunden, J., and D.S. Arndt, Eds., 2012: State of the Climate in 2011. *Bull. Amer. Meteor. Soc.*, 93 (7), S1-S264. Full Report: <http://www.ncdc.noaa.gov/bams-state-of-the-climate/2011.php>
- Siikamäki, Juha, Sanchirico, James N., and Jardine, Sunny L. 2012. Global economic potential for reducing carbon dioxide emissions from mangrove loss. *Proceedings of the National Academy of Sciences of the United States of America*. doi: 10.1073/pnas.1200519109. Full Article: <http://www.pnas.org/content/early/2012/07/25/1200519109.full.pdf+html>
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- Voluntary Step-By-Step Guide For Considering Potential Climate Change Effects On Coastal And Estuarine Land Conservation Projects. February 2012. NOAA's Office of Ocean and Coastal Resource Management – Coastal and Estuarine Land Conservation Program. 31pp. Full Guide: <http://coastalmanagement.noaa.gov/resources/docs/guidecelppapp.pdf>
- Yoskowitz, David, et al. 31 March 2012. Assessment of Changing Ecosystem Services Provided by Wetland Habitat in the Galveston Bay Region: Final Report to The Gulf of Mexico Foundation and the Gulf of Mexico Alliance Habitat Conservation and Restoration Priority Issue Team. *Texas A&M University Corpus Christi and Harte Research Institute for Gulf of Mexico Studies*. 73pp. Full Report: <http://www.gulfmex.org/wp-content/uploads/2011/04/Change-in-Ecosystem-Services-in-Galveston-Bay-Final-Report.pdf>