

# BAYS & BAYOUS



## SYMPOSIUM 2012

Finding a Common Currency:  
Natural Resource Economics, Ecology and Culture

Mississippi-Alabama  
Bays and Bayous  
Symposium  
**Program**

November 14-15, 2012 | Mississippi Coast Coliseum and Convention Center | Biloxi, Mississippi

## Welcome

The Bays and Bayous Symposium began in 1979 as Alabama's Bays, Bayous and Beaches Symposium. It was held again in 1987, widening the scope of the event to include the economic importance of coastal waters, educational programs and habitat restoration. In 1995, the symposium continued to focus on science while expanding its audience to include local industry and government. In 2006, a core group committed to organizing the local symposium every two years for the citizens of coastal Alabama and Mississippi, rotating the event between the two states.

Bays and Bayous has become a tradition. Hundreds of people gather at the symposium to establish friendships, exchange ideas and learn. Bays and Bayous is successful because of a highly engaged planning committee that is responsive to the recommendations of participants; financial sponsors who recognize the value of local efforts to effect positive change; presenters who choose this event to share their knowledge; and, most importantly, everyone who attends. On behalf of the planning committee, I thank everyone involved in making the 2012 Bays and Bayous a success. The theme of this year's event is "Finding a Common Currency: Natural Resource Economics, Ecology and Culture." We believe people who live, work and play on the coast do so because of the myriad of services provided by our bays and bayous. We thank you for attending and hope this year's event exceeds your expectations.

### Acknowledgments

The Bays and Bayous 2012 Planning Committee worked for more than a year to organize this event. We deeply appreciate the members' time and dedication to the final product.

#### Planning Committee:

- Becky Allee NOAA Coastal Services Center
- Kelley Barfoot Mobile Bay National Estuary Program
- Chris Boyd Mississippi State University/Sea Grant Extension
- Kay Bruening Mississippi-Alabama Sea Grant Consortium
- Monty Graham University of Southern Mississippi
- Marian Hanisko NOAA Gulf Coast Services Center
- Ken Heck Dauphin Island Sea Lab
- Tom Herder Mobile Bay National Estuary Program
- Phillip Hinesley Alabama Department of Conservation and Natural Resources
- Avia Huisman Grand Bay National Estuarine Research Reserve
- Kara Lankford Ocean Conservancy
- Niki Pace Mississippi-Alabama Sea Grant Legal Program and University of Mississippi School of Law
- Melissa Schneider Mississippi-Alabama Sea Grant Consortium
- Steve Sempier Mississippi-Alabama Sea Grant Consortium
- Tracie Sempier Mississippi-Alabama Sea Grant Consortium
- Mike Shelton Weeks Bay National Estuarine Research Reserve
- Chris Snyder University of Southern Mississippi-Gulf Coast Research Lab
- LaDon Swann Mississippi-Alabama Sea Grant Consortium and Auburn University
- Roberta Swann Mobile Bay National Estuary Program
- Jody Thompson Auburn University Marine Extension and Research Center/Sea Grant Extension
- Bill Walton Auburn University Marine Extension and Research Center
- Lee Yokel Gulf of Mexico Alliance

The planning committee appreciates the leadership provided by session chairs and co-chairs who reviewed every abstract and organized each session. In addition, there are a few people who devoted considerable time to make this event a success: Kay Bruening, Melissa Schneider, Steve Sempier, Chris Boyd and Bill Walton.



LaDon Swann, Director  
Mississippi-Alabama Sea Grant Consortium  
Auburn University Marine Program

Thank you to these sponsors for making the 2012 Bays and Bayous Symposium possible.



**Pascagoula Refinery**



**NOAA Coastal Services Center**  
LINKING PEOPLE, INFORMATION, AND TECHNOLOGY



**THE UNIVERSITY OF SOUTHERN MISSISSIPPI**  
GULF COAST RESEARCH LABORATORY



# Agenda

## November 14

### Wednesday

- 7:30 – 8:30 a.m. Registration – Central Lobby  
Breakfast
- 8:30 – 9:45 a.m. Welcome – Senator Brice Wiggins and LaDon Swann – Room C2  
Keynote Presentation  
Environmental well-being to human well-being: Are you making the connection?  
David Yoskowitz, Harte Research Institute for Gulf of Mexico Studies
- 9:45 – 10:45 a.m. Concurrent Sessions
- Living Estuarine Resources – Room D1
  - Habitat Management and Restoration – Room D2
  - Deepwater Horizon Oil Spill Science – Room D3
  - Water Quality and Quantity – Room D11
  - Climate and Hazard Resilience – Room D12
- 10:45 – 11:00 a.m. Break
- 11:00 – 12:00 p.m. Concurrent Sessions Continue
- 12:00 – 1:30 p.m. Lunch and Keynote Presentation – Room C2  
Overview of science during the MC 252 response and Natural Resource Damage Assessment  
Bea Stong, BP America Outreach
- 1:30 – 2:50 p.m. Concurrent Sessions Continue
- 2:50 – 3:10 p.m. Break
- 3:10 – 4:30 p.m. Concurrent Sessions Continue
- 4:30 – 5:00 p.m. Break
- 5:00 – 5:15 p.m. Presentation by *The Blues Rangers* – Room C2  
Forest rangers from Mississippi’s De Soto National Forest perform original blues songs highlighting the importance of forest management and watershed health
- 5:15 – 6:30 p.m. Poster Presentation and Reception – Continental/Poster Area  
Music provided by *The Blues Rangers* – Room C2
- 6:30 – 7:30 p.m. Guest Presentation and Beneath the Surface Science Clips – Room C2  
The importance of ecosystem services to outdoor businesses  
Gary Finch, Finch Productions, LLC/Gary Finch Outdoors

# Agenda

## November 15

### Thursday

- 7:30 – 8:30 a.m. Registration – Central Lobby  
Breakfast
- 8:30 – 9:45 a.m. Keynote Presentation – Room C2  
Putting ecosystem values in context: Challenges of measurement and application  
Rex Caffey, Louisiana State University
- 9:45 – 10:45 a.m. Concurrent Sessions
- Living Estuarine Resources – Room D1
  - Habitat Management and Restoration – Room D2
  - Water Quality and Quantity – Room D11
  - Climate and Hazard Resilience – Room D12
- 10:45 – 11:00 a.m. Break
- 11:00 – 12:00 p.m. Concurrent Sessions Continue
- 12:00 – 1:30 p.m. Lunch Presentation  
Prioritization of research and management needs for the region: An interactive session – Room C2  
Stephen Sempier, Mississippi-Alabama Sea Grant Consortium and  
Roberta Arena Swann, Mobile Bay National Estuary Program (Question and Answer Activity)
- 1:30 – 2:50 p.m. Concurrent Sessions Continue
- 2:50 – 3:10 p.m. Break
- 3:10 – 4:30 p.m. Concurrent Sessions Continue
- 4:30 p.m. Adjourn



## Distinguished Speakers



### **David Yoskowitz, Harte Research Institute for Gulf of Mexico Studies**

David Yoskowitz is the Harte Research Institute Endowed Chair for Socio-Economics at the Harte Research Institute and professor of economics in both the College of Business and the College of Science and Technology, both at Texas A&M University-Corpus Christi. His work is focused on elucidating the link between environmental well-being and human well-being and moving practice into policy. Currently, he is leading an effort to inventory and value ecosystem services for the Gulf of Mexico region. Additionally, he is exploring the economic impact of climate change on the coastal zone, specifically in the area of sea-level rise and freshwater inflow and is currently working with colleagues in

Mexico on the socio-economic assessment of the United Nations Industrial Development Organization's (UNIDO's) Gulf of Mexico – Large Marine Ecosystem project. He serves on the National Research Council Committee on the Effects of the Deepwater Horizon Mississippi Canyon-252 Oil Spill on Ecosystem Services in the Gulf of Mexico. He also sits on the Ecosystem Scientific and Statistical Committee and Socio-Economic Scientific and Statistical Committee for the Gulf of Mexico Fishery Management Council and is a Kavli Fellow of the National Academy of Sciences.

### **Bea Stong, BP America**



Bea Stong is the director of Natural Resource Damages & Regulatory Affairs for BP's Gulf Coast Restoration Organization. She is responsible for continuing the Natural Resource Damage (NRD) program to assess the injury to the natural resources caused by the Deepwater Horizon incident, reach resolution with the NRD Trustees on the restoration requirements resulting from that injury and continue to progress early restoration under the \$1 billion Early Restoration Framework agreed by the federal and state NRD Trustees. Bea is the former director of environmental response and regulatory affairs in the Gulf Coast Restoration Organization (GCRO), which included leading the Environmental Section of the Gulf Coast Incident Management Team.



## Distinguished Speakers



### **Gary Finch, Finch Productions, LLC**

Gary Finch is a professional outdoorsman from Mobile, Ala. He is host of the syndicated outdoor program “Gary Finch Outdoors,” which can be seen weekly on WEAR ABC 3 in Mobile and Pensacola, Fla., and WTVY CBS 4 in Dothan/Panama City, as well as regional cable stations. The program has run continuously for over 20 years. After attending the University of Georgia, Finch joined the U.S. Army to serve as a pilot. He now serves on several boards, including the Enrichment Foundation for Baldwin County Schools, and he is a trustee of the Islands of Perdido. He resides in Fairhope, Ala., where he is a member of the Outdoor Writer’s Association of America and the Southeastern

Outdoor Press Association. Finch has written more than 350 articles for various publications aimed at educating youth about proper safety and conservation.



### **Rex Caffey, Louisiana State University**

Dr. Rex Caffey is the director of marine extension for the Louisiana Sea Grant College Program and a program specialist in the LSU AgCenter in the topic area of wetlands and coastal resources. He is the founding director of the LSU Center for Natural Resource Economics and Policy.

The primary objective of the center is to foster the interaction of environmental economists and policy professionals to address natural resource conservation and management challenges in Louisiana and the southeastern United States. His research interests include wetland policy, marine fisheries management and the economics of coastal wetland restoration.

## 2012 Session Chairs

### **Living Estuarine Resources**

Chair: Chet Rakocinski, University of Southern Mississippi Gulf Coast Research Lab

Co-chairs:

Bill Walton, Auburn University

Dr. Jennifer Walker, University of Southern Mississippi Gulf Coast Research Lab

Dr. Frank Hernandez, University of Southern Mississippi Gulf Coast Research Lab

### **Habitat Management and Restoration**

Chair: Meg Goecker, USFWS, National Wildlife Refuge System

Co-chairs:

Judy Haner, The Nature Conservancy

Becky Allee, NOAA Gulf Coast Services Center

Carl Ferraro, Alabama Department of Natural Resources State Lands Division Coastal Section

Debbie Devore, United States Fish and Wildlife Service Gulf Coast Restoration

### **Deepwater Horizon Oil Spill Science**

Chair: Steve Sempier, Mississippi-Alabama Sea Grant Consortium

Co-chairs:

Dave Burrage, Mississippi State University Coastal Research and Extension Center/Sea Grant Extension

Robert Moorhead, Northern Gulf Institute

John Valentine, Dauphin Island Sea Lab

### **Water Quality and Quantity**

Chair: Michael Shelton, Weeks Bay National Estuarine Research Reserve

Co-chairs:

Eric Brunden, Stewardship Coordinator, Weeks Bay National Estuarine Research Reserve

Angela Underwood, Education Specialist, Weeks Bay National Estuarine Research Reserve

Chad Leister, Owner, Leister Consulting Co.

### **Climate and Hazard Resilience**

Chair: Niki Pace, Mississippi-Alabama Sea Grant Legal Program and University of Mississippi School of Law

Co-chairs:

Marian Hanisko, NOAA Gulf Coast Services Center

Jody Thompson, Auburn University Marine Extension and Research Center/Sea Grant Extension



	<b>Living Estuarine Resources</b>	<b>Habitat Management and Restoration</b>	<b>Deepwater Horizon Oil Spill Science</b>	<b>Water Quality and Quantity</b>	<b>Climate and Hazard Resilience</b>
<b>Moderators</b>	<b>Frank Hernandez</b>	<b>Judy Haner</b>	<b>Dave Burrage</b>	<b>Mike Shelton</b>	<b>Niki Pace</b>
Time 9:45	<b>Coastal pelagic fish resources in the Gulf of Mexico: A population genetics analysis</b> , Meagan N. Schrandt, University of South Alabama	<b>Cost estimates for shoreline erosion products in the Northern Gulf of Mexico</b> , Chris A. Boyd, Mississippi State University Coastal Research and Extension Center	<b>Response to stranded marine mammals and turtles in Mississippi and Alabama after the BP Deepwater Horizon oil spill</b> , Moby Solangi, Institute for Marine Mammal Studies	<b><i>Vibrio cholerae</i>, a common member of the summer microbial community in Mobile Bay, Ala.</b> , Jessica Nash, University of South Alabama, FDA	<b>Implementing a hazard resilience tool: The Community Resilience Index</b> , Jody Thompson, Auburn University Marine Extension and Research Center
10:05	<b>Short-term movements and habitat use of phase II hatchery released striped bass, <i>Morone saxatilis</i> in the Biloxi River, Miss.</b> , Jennifer Green, Department of Coastal Sciences, Gulf Coast Research Lab, The University of Southern Mississippi	<b>Bayou Auguste restoration project: A community-based effort to protect our natural resources</b> , Britton Jones, Gulf Coast Community Design Studio	<b>The impact of the Deepwater Horizon oil spill on the composition of marine megafauna in the Gulf of Mexico</b> , Chris Free, Dauphin Island Sea Lab	<b>Updating the Harmful Algal Bloom Observing System to meet the needs of scientists and the public</b> , L. M. Dornback, Florida Institute of Oceanography, NOAA National Coastal Data Development Center	<b>Regional resilience training supports effective management in Gulf communities</b> , Chad Leister, Leister Consulting Company
10:25	<b>Evaluating the performance of vertical longlines to survey reef fish populations in the northern Gulf of Mexico</b> , Kevan Gregalis, Center for Ecosystem Based Fisheries Management, Dauphin Island Sea Laboratory	<b>The economics of restoration: Linking science, communities and dollars</b> , Judy Haner, The Nature Conservancy	<b>Anthropogenic impacts on the movement of a small coastal shark</b> , Andrea Kroetz, University of South Alabama, Dauphin Island Sea Lab	<b>Temporal and spatial variability of phytoplankton production along the shoreline of the Bay of Saint Louis, Mississippi, estuary</b> , A.D. Boyette, The University of Southern Mississippi Department of Marine Science	<b>Mapping social vulnerability to climate change hazards in Mississippi</b> , Yumeka Rushing, Oxfam America
<b>10:45</b>	<b>Break</b>				
<b>Moderators</b>	<b>Frank Hernandez</b>	<b>Carl Ferraro</b>	<b>Dave Burrage</b>	<b>Mike Shelton</b>	<b>Cathy Janasie</b>
11:00	<b>Calibrating a Biological Condition Gradient model to the Mobile Bay Estuary</b> , Michael Dardeau, Mobile Bay National Estuary Program (MBNEP)	<b>The value of ecosystem services provided by oyster reefs, mangroves and salt marshes along the Gulf of Mexico</b> , Matthew G. Interis, Mississippi State University	<b>Social effects of offshore oil and the Deepwater Horizon: Phase one study findings</b> , Diane Austin, University of Arizona	<b>Alabama Department of Environmental Management Water Quality Monitoring: Current status</b> , Fred Leslie, Alabama Department of Environmental Management	<b>Architecture of defense</b> , Allison Anderson, Unabridged Architecture PLLC
11:20	<b>Impacts of seagrass cover in shallow coastal embayments on the abundance and biomass of macroinvertebrate and finfish populations</b> , Rachel Gamble, Dauphin Island Sea Lab	<b>Maximizing the ecological and engineering benefits of living shorelines through the effective design of breakwaters</b> , Bret M. Webb, University of South Alabama	<b>Subsistence seafood use and the BP oil spill</b> , Brian Marks, Bureau of Applied Research in Anthropology, University of Arizona	<b>Expanding real-time hydrographic and meteorological monitoring in Mobile Bay</b> , Renee C. Collini, Dauphin Island Sea Lab	<b>Measuring financial vulnerability of local governments to tropical natural disaster risk</b> , J. Matthew Fannin, LSU AgCenter
11:40	<b>Assemblage-level metrics of trophic structure in fragmented salt marsh habitats based on stable isotope analyses</b> , Michael R. Lowe, Department of Coastal Sciences, University of Southern Mississippi	<b>Alabama State Lands Division coastal habitat restoration projects update</b> , Carl Ferraro, Alabama Department of Conservation and Natural Resources	<b>Just the facts? Stakeholders' opinions on media coverage of the Deepwater Horizon oil spill's impact on seafood safety</b> , Stefanie Christensen, Auburn University	<b>Coastal Alabama Stormwater Team (CAST)</b> , Casi Callaway, Mobile Baykeeper	<b>Coastal Resilience: A decision support tool for restoration and coastal hazards</b> , Nicole Love, The Nature Conservancy
<b>12:00</b>	<b>Lunch</b>				

	<b>Living Estuarine Resources</b>	<b>Habitat Management and Restoration</b>	<b>Deepwater Horizon Oil Spill Science</b>	<b>Water Quality and Quantity</b>	<b>Climate and Hazard Resilience</b>
<b>Moderators</b>	<b>Bill Walton</b>	<b>Meg Goecker</b>	<b>Steve Sempier</b>	<b>Mike Shelton</b>	<b>Jody Thompson</b>
Time 1:30	<b>Thaumarchaeota contribute significantly to the total prokaryote community in bottom waters from two distinct seasonally hypoxic zones in the Northern Gulf of Mexico</b> , Natalie Ortel, University of South Alabama and Dauphin Island Sea Lab	<b>A comparison of breakwater effectiveness in various types of designs in relation to the high wave impact area of Deadman’s Island</b> , Heather Reed, Ecological Consulting Services Inc.	<b>NOAA’s management of subsurface monitoring data from the Deepwater Horizon event</b> , Sharon Mesick, National Coastal Data Development Center	<b>Watershed connections to landscape change: B-WET students become coastal stewards</b> , Jessica A. Kastler, Gulf Coast Research Lab	<b>Resilient Coastal Communities through Land Use Planning</b> , Niki L. Pace, Mississippi-Alabama Sea Grant Legal Program, University of Mississippi School of Law
1:50	<b>Linking hypoxia and organic enrichment to macrobenthic process indicators using the Peters Mass Balance Model: Calibration via laboratory experiments</b> , Kelsey Burns, University of Southern Mississippi-Gulf Coast Research Lab	<b>Fisheries enhancement by “Living Shorelines”— does this concept work in coastal Alabama waters?</b> , Claire M. Pabody, Dauphin Island Sea Lab	<b>Key nearshore findings from the Northern Gulf Institute monitoring and research program undertaken in the immediate aftermath of the Deepwater Horizon incident</b> , John M. Harding, Northern Gulf Institute	<b>A Redfish Tale Initiative – Production of a video series to educate about nutrient over-enrichment and both positive and negative human impacts along the Gulf Coast</b> , Roberta Arena Swann, Mobile Bay National Estuary Program	<b>Creating a resilient Gulf Coast through regional planning</b> , Elaine Wilkinson, Gulf Regional Planning Commission
2:10	<b>Recovery of barrier island plant communities and associated changes in habitat on Horn Island, Miss., following Hurricane Katrina</b> , Kelly L. Lucas, Gulf Coast Geospatial Center	<b>The intersection of habitat restoration and the community: How one strengthens the other</b> , Jeff DeQuattro, The Nature Conservancy	<b>The Gulf of Mexico Research Initiative: Investigating the impacts of oil, dispersed oil and dispersants on the ecosystems of the Gulf of Mexico</b> , Charles A. Wilson, Gulf of Mexico Research Initiative	<b>After the golden goose dies: Investing in multi-purpose projects for a sustainable Gulf Coast</b> , Jeffery A. Ballweber, Pickering Firm, Inc.	<b>Measurements of storm surge and waves on Dauphin Island during Hurricane Isaac</b> , Bret M. Webb, University of South Alabama
2:30	<b>Development of marine mammal stranding and identification/viewing smartphone apps for the Southeast Region</b> , Amy D. Whitt, Geo-Marine, Inc.	<b>Sub tidal oyster reef restoration in Mississippi’s coastal bays</b> , Michael Murphy, The Nature Conservancy	<b>Advanced Petroleum Hydrocarbon Testing of the tissue and organs of the inshore fish of Pensacola Bay and offshore in the Gulf of Mexico</b> , Heather Reed, Ecological Consulting Services Inc.	<b>Promoting riparian buffer protection in coastal Alabama</b> , Charlene LeBleu, Department of Landscape Architecture, Auburn University	<b>Gulf Coast Study, Phase 2: Impacts of climate change and variability on transportation systems and infrastructure</b> , Robert Kafalenos, Federal Highway Administration, U.S. Department of Transportation
<b>2:50</b>	<b>Break</b>				

	<b>Living Estuarine Resources</b>	<b>Habitat Management and Restoration</b>	<b>Deepwater Horizon Oil Spill Science</b>	<b>Water Quality and Quantity</b>	<b>Climate and Hazard Resilience</b>
<b>Moderators</b>	<b>Bill Walton</b>	<b>Meg Goecker</b>	<b>Steve Sempier</b>	<b>Mike Shelton</b>	<b>Marian Hanisko</b>
Time 3:10	<b>Shellfish farming in the Gulf of Mexico: Effects of ploidy and gear on the performance of farmed oysters,</b> William C. Walton, Auburn University Shellfish Lab	<b>Developing monitoring guidelines and criteria for judging the success of oyster restoration projects,</b> Lesley P. Baggett, University of South Alabama	<b>The effects of oil from the Macondo blowout on infaunal foraminifera of Louisiana and Mississippi marshes,</b> Charlotte Brunner, Department of Marine Science, University of Southern Mississippi	<b>Let's talk about our feelings: Stakeholder and public perceptions of aquatic nutrient enrichment in Mississippi,</b> Samuel C. Pierce, Mississippi State University, Department of Wildlife, Fisheries, and Aquaculture	<b>The Working Waterfront Inventory 2012 update,</b> Derrick Robinson, Auburn University
3:30	<b>Coastal bioengineering with eastern oyster <i>Crassostrea virginica</i> for shoreline protection and habitat enhancement,</b> Steven G. Hall, Biological and Agricultural Engineering, LSU	<b>The NOAA Gulf of Mexico Data Atlas: Digital discovery and access to Gulf data,</b> Kate Rose, General Dynamics Information Technology, NOAA	<b>Addition of dispersant or dispersed oil results in bacterial communities significantly different from those exposed to crude oil alone,</b> Alice C. Ortmann, University of South Alabama	<b>Building coastal stewards through recreation and education tourism,</b> Liz Smith-Incer, Rivers, Trails and Conservation Assistance Program National Park Service	<b>The rapid damage assessment process: Putting together the numbers after a coastal storm,</b> Kathleen A. Garland, University of Houston Clear Lake
3:50	<b>Engineered oyster reefs for achieving multiple design objectives,</b> Tyler R. Ortego, ORA Estuaries	<b>Artificial reefs in the Mississippi Sound: The attraction versus production debate,</b> Viviana Mazzei, The University of Southern Mississippi	<b>Microbial growth inferred from nutrient depletion in Deepwater Horizon submerged oil/gas plumes,</b> Alan M. Shiller, The University of Southern Mississippi	<b>Zeke's Landing fish waste recycling program: A novel and sustainable approach to fish carcass disposal in Orange Beach, Ala.,</b> Christian L. Miller, Auburn University Marine Extension and Research Center	<b>Flood-proof construction for neighborhood-scale commercial buildings,</b> David Perkes, Mississippi State University Gulf Coast Community Design Studio
4:10	<b>Session Ends</b>	<b>Louisiana asserts extended fisheries management boundaries: Legal issues and potential impacts to Gulf resources,</b> Catherine M. Janasie, Mississippi-Alabama Sea Grant Legal Program	<b>Enhancement of weathered oil biodegradation in coastal wetlands,</b> Irvin Pickett, University of South Alabama	<b>Session Ends</b>	<b>Resilient coastal construction: Successes, needs and opportunities,</b> Alexandra Cary, Smart Home America
<b>4:30</b>	<b>Break</b>				
<b>5:00</b>	<b>Blues Rangers Presentation/Poster Presentations/Reception</b>				
<b>6:30</b>	<b>Gary Finch Presentation</b>				

	Living Estuarine Resources	Habitat Management and Restoration	Water Quality and Quantity	Climate and Hazard Resilience
Moderators	Jennifer Walker	Debbie Devore	Mike Shelton	Jody Thompson
Time 9:45	Colonial nesting birds of Mobile Bay and Mississippi Sound area, John Dindo, Dauphin Island Sea Lab	Addressing Gulf-wide tidal hydrology restoration needs through a federal-university partnership, Stephen H. Sempier, Mississippi-Alabama Sea Grant Consortium	Characterization of rain and stormwater nitrogen inputs to Mississippi Sound using a landscape approach, Kevin S. Dillon, Department of Coastal Sciences, University of Southern Mississippi	Visualizing the potential impacts of sea-level rise: A planning tool for Gulf Coast communities, Marian Hanisko, I.M. Systems Group on contract to NOAA Gulf Coast Services Center
10:05	A national survey of consumer preferences for branded Gulf oysters and risk perceptions of Gulf seafood, Dan Petrolia, Mississippi State University	Cost-effectiveness of two small-scale salt marsh restoration designs, Eric L. Sparks, Dauphin Island Sea Lab	Continuous measurements of oxidation-reduction potential to determine the capacity of vegetated agricultural drainage ditches for nutrient reduction, Cory Shoemaker, Department of Wildlife, Fisheries and Aquaculture	Determining localized risk perception and impacts of predicted sea-level rise (SLR) to engineered versus natural landscapes to enhance stakeholder SLR mitigation planning, Matthew Bethel, University of New Orleans-Pontchartrain Institute for Environmental Sciences
10:25	Are tiger sharks a seasonal conduit of terrestrial energy into marine foodwebs?, JM Drymon, Dauphin Island Sea Lab	Potential effects of black mangroves ( <i>Avicennia germinans</i> ) on structural and functional attributes of local saltmarsh grasses, Shailesh Sharma, Dauphin Island Sea Lab	A higher elevation <i>Juncus roemarianus</i> marsh overcomes sulfide accumulation that inhibits nitrification and denitrification in other vegetated coastal sediment, Lei Wang, Dauphin Island Sea, Department of Marine Sciences, University of South Alabama	Development and operational start of the Northern Gulf Operational Forecast System, Timothy Osborn, NOAA
10:45	Break			
Moderators	Jennifer Walker	Debbie Devore	Mike Shelton	Marian Hanisko
11:00	Summer of the Kemp's ridley: The IMMS' response to the high number of incidental captures at Mississippi fishing piers, Andrew T. Coleman, Institute for Marine Mammal Studies	Monitoring for ecological impacts of sea-level rise: Establishing vertical control and sentinel site status at the Grand Bay National Estuarine Research Reserve in Mississippi, William V. Underwood, Grand Bay National Estuarine Research Reserve	Microbial source tracking techniques reveal a limited community composition of <i>Escherichia coli</i> in a coastal lagoon determined by Denaturing Gradient Gel Electrophoresis, Daniel Presley, University of South Alabama, Dauphin Island Sea Lab	Coastal Resilience Gulf of Mexico – Methods, data and web-based mapping applications to inform coastal communities on the risks of sea-level rise, George Raber, The University of Southern Mississippi
11:20	Examining current mercury concentrations in northern Gulf of Mexico red drum, Crystal L. Hightower, Department of Marine Sciences, University of South Alabama	New <i>Spartina alterniflora</i> wetland establishment technology, Pete Melby, Landscape Architecture and Landscape Contracting, Mississippi State University, American Society for Landscape Architects, Landscape Architect	Microbial source tracking in coastal waters: Enterococci persistence and tracking sources of norovirus, Shiao Wang, Department of Biological Sciences, The University of Southern Mississippi	Applying public participation GIS to identify hotspots of local landscape value that are vulnerable to sea-level rise and pollution in the Mobile Bay region, Cody Cox, Auburn University
11:40	The effects of inhibition of polyamine biosynthesis on the acclimation of Gulf Killifish <i>Fundulus grandis</i> to freshwater, Ying Guan, Department of Biological Sciences, Louisiana State University	Successful restoration of shoalgrass ( <i>Halodule wrightii</i> ) to an Alabama coastal lagoon, Ashley McDonald, Dauphin Island Sea Lab	Biogeochemical controls on denitrification in a shallow lagoon, Rebecca Bernard, The University of Alabama Department of Biological Sciences, Dauphin Island Sea Lab	Determining the performance of breakwaters during high energy events: A case study of a Gulf of Mexico breakwater system, Andrew Woodroof, Louisiana State University
12:00	Lunch			

	Living Estuarine Resources	Habitat Management and Restoration	Water Quality and Quantity	Climate and Hazard Resilience
Moderators	Chet Rakocinski	Meg Goecker	Mike Shelton	Niki Pace
Time 1:30	<b>Effect of salinity on the ontogeny of osmoregulation in Gulf killifish <i>Fundulus grandis</i></b> , Yanling Meng, Department of Biological Sciences, Louisiana State University	<b>An Integrated Ecosystem Assessment of the Mississippi Sound &amp; Bight</b> , Scott Milroy, The University of Southern Mississippi	<b>Spatial distribution of biogeochemistry and the effect on light attenuation in a shallow, turbid estuary of the Northern Gulf of Mexico</b> , Ryan A. Vandermeulen, The University of Southern Mississippi, Department of Marine Science	<b>Integrating hazard mitigation into local planning to support community resiliency on the Mississippi Gulf Coast</b> , Allison Beasley, Southern Mississippi Planning and Development District
1:50	<b>Outreach, extension and research activities related to derelict blue crab traps in Louisiana</b> , Amy B. Alford, Louisiana Sea Grant College Program	<b>Integrated ecosystem assessment: Comparison of four northern Gulf of Mexico systems</b> , W. H. McAnally, Mississippi State University	<b>Low-grade weirs on the agriculture landscape: Temporal and spatial nutrient trends</b> , Beth Poganski, Mississippi State University	<b>Simulation and prediction of storm surge in the Mississippi Gulf Coast using an integrated coastal/riverine/ocean process model</b> , Yan Ding, National Center for Computational Hydro-science and Engineering, The University of Mississippi
2:10	<b>Estuaries 101: An online resource for all your estuary education needs!</b> , Jennifer Buchanan, Mississippi Department of Marine Resources, Grand Bay National Estuarine Research Reserve	<b>Integrated ecosystem assessment for Barataria Basin, La.</b> , Erick M. Swenson, Department of Oceanography and Coastal Sciences, Louisiana State University	<b>Polycyclic aromatic hydrocarbons degradation in emerged and submerged sediment</b> , Dorcee S. Batubara, Louisiana State University	<b>Information updating on storm forecasting model with climate changes</b> , Mohammad Anwar Rahman, The University of Southern Mississippi
2:30	<b>The use of charismatic megafauna to engage citizen scientists: A successful integration of outreach into research</b> , Elizabeth Jones, USM/GCRL Marine Education Center	<b>Plugging the leak: Barrier island restoration following Hurricane Katrina enhances habitat quality for oysters in Mobile Bay, Ala.</b> , Kyeong Park, University of South Alabama/ Dauphin Island Sea Lab	<b>Supply and use of global freshwater resources: Present and future</b> , Claude E. Boyd, Auburn University	<b>Integrating climate change education into K-12 science standards</b> , Tina Miller-Way, Dauphin Island Sea Lab
<b>2:50</b>	<b>Break</b>			
Moderators	Chet Rakocinski	Meg Goecker	Mike Shelton	Cathy Janasie
3:10	<b>Trawling for answers and reeling in classroom teachers: The essentials of fisheries management in a K-12 classroom</b> , Greg Graeber, Dauphin Island Sea Lab	<b>Numerical modeling of Mobile Bay</b> , Tate O. McAlpin, U.S. Army Corps of Engineers	<b>A possible mechanism for toxic <i>Pseudo-nitzschia</i> spp. blooms in Coastal Alabama</b> , J.D. Liefer, Dauphin Island Sea Lab	<b>"But it never flooded here before!" A generic prime-time television program on flooding with local application</b> , Emily H. Sommer, grassroots, inc.
3:30	<b>Session Ends</b>	<b>Conservation legacy: A conservation strategy for the Mississippi Gulf Coast</b> , Oliver Sellers-Garcia, CDM Smith	<b>Isolation and identification of harmful algal bloom (HAB) toxins from <i>Karlodinium veneficum</i> species around the world and the initial studies on their mechanism of action for ichthyotoxicity</b> , Amanda L. Waters, Department of Pharmacognosy, University of Mississippi	<b>Weathering the storm: Evidence-based outreach to encourage coastal hazard resilience</b> , Chris Snyder, Gulf Coast Research Lab
3:50		<b>Monitoring North America's migratory birds along the northern coast of the Gulf of Mexico</b> , Frank Moore, The University of Southern Mississippi	<b>Export of organic matter from bayous and lagoons with different levels of anthropogenic disturbance</b> , Bart Christiaen, University of South Alabama, Dauphin Island Sea Lab	<b>Coastal IQ – Hazards awareness, storm preparation and mental calculus of evacuation: A survey of Gulf of Mexico coastal counties</b> , Jarryl B. Ritchie, Northern Gulf Institute, Mississippi State University
4:10		<b>Deer Island restoration: Coastal fringe tree species survival and condition</b> , T.P. Cathcart, Agricultural and Biological Engineering, Mississippi State University	<b>Stepping towards debris-free seas</b> , Rebecca Mathias, University of Southern Mississippi's Gulf Coast Research Laboratory Marine Education Center	<b>Adapting to Climate Change – Mississippi and Alabama communities are accepting the challenge</b> , Tracie Sempier, Mississippi-Alabama Sea Grant Consortium
<b>4:30</b>	<b>Adjourn</b>			

**Poster Presentations**

**Wednesday, November 14, 2012**

**Poster Session: 5:15 – 6:30 p.m.**

Poster #	Living Estuarine Resources		
1	Landscape factors affecting density of Clapper Rails and Seaside Sparrows in the Grand Bay National Estuarine Research Reserve	Alison H. Leggett	Warnell School of Forestry and Natural Resources, University of Georgia and Mississippi Department of Marine Resources
2	MarketMaker: A direct marketing tool for the seafood industry	Benedict Posadas	Mississippi State University Coastal Research and Extension Center
3	The influence of depth on the distribution and composition of apex predators in the northern Gulf of Mexico	Laura C. Stone	Dauphin Island Sea Lab
4	Estimating release mortality in the Gulf of Mexico greater amberjack ( <i>Seriola dumerili</i> ) stock with acoustic telemetry	Jay Jackson	University of South Alabama, Dauphin Island Sea Lab
5	Seagrass assessment on Northern Chandeleur Island, La.	Linh Thuy Pham	Department of Coastal Sciences, The University of Southern Mississippi
6	Expanding fisheries independent surveys into Alabama's artificial reef permit zones: Traditional gear meets the unconventional	TP Spearman	Dauphin Island Sea Laboratory
7	Off-bottom oyster farming: Creating entrepreneurial opportunities in rural Gulf communities	Julie E. Davis	Auburn University Shellfish Laboratory
8	Outreach, extension and research activities related to derelict blue crab traps in Louisiana	Amy B. Alford	Louisiana Sea Grant College Program

Poster #	Habitat Management and Restoration		
9	Hydraulic impact on fish migration in a Sariakandhi fish pass of Bangladesh	Bijoy Kumar Ghosh	Institute of Water and Flood Management, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh
10	Shrimp biofloc solids as an alternative to commercial fertilizer in coastal salt marsh plant nursery production	Heather M. Joesting	Gulf Coast Research Laboratory, The University of Southern Mississippi
11	An automated system configuration for bathymetric data collection using Real Time Network (RTN) GPS technology	Thomas P. Strange	Grand Bay National Estuarine Research Reserve
12	Site suitability modeling for Mobile Bay & Mississippi Sound: A GIS & remote sensing based approach	Sarane Dutta	Mississippi State University
13	Community Grass Gardens: A community restoration, outreach and education initiative	Chris A. Boyd	Mississippi State University Coastal Research and Extension Center and Mississippi-Alabama Sea Grant Consortium
14	Oyster gardening on Mobile Bay	PJ Waters	Auburn University Marine Extension and Research Center, Alabama Cooperative Extension System, Mississippi-Alabama Sea Grant Consortium, Mobile Bay National Estuary Program
15	Coastal ecology educational experiences at Mobile County's Environmental Studies Center: Supported by Mississippi-Alabama Sea Grant Consortium, NOAA and Legacy Inc.	Anita Salinas	Mobile County Public Schools
16	The NOAA Gulf of Mexico Data Atlas: Digital discovery and access to Gulf data	Kate Rose	General Dynamics Information Technology, NOAA
17	Utilizing NASA Earth Observing System (EOS) data to determine ideal planting locations for wetland tree species in St. Bernard Parish, La.	Ross Reahard	NASA DEVELOP National Program, John C. Stennis Space Center
18	Multi-scaled investigation of landbird stopover during spring migration across the northern Gulf of Mexico coast	Jill M. Gautreaux	University of Southern Mississippi
19	Planning for large-scale restoration: How to get ahead of the permitting curve	Mary Kate Stubljar	The Nature Conservancy
20	Adaptive management to reduce infestation of common reed ( <i>Phragmites australis</i> ) in a restored wetland area at Helen Wood Park, Mobile, Ala.	Tom Herder	Mobile Bay National Estuary Program
21	Wave attenuation devices: A comprehensive evaluation of wave transmission through physical modeling	Richard Allen	University of South Alabama
22	Sea turtles, climate change and beach renourishment on Horn Island, Miss.: "Finding the ties that bind" to ensure availability of critical sea turtle nesting habitat	Andrew S. Maurer	National Park Service, Gulf Islands National Seashore

Poster #	Habitat Management and Restoration (continued)		
23	Emergent wetlands status and trends in the northern Gulf of Mexico: 1950-2010	Kathryn Spear	U.S. Geological Survey, National Wetlands Research Center, Lafayette, La.

Poster #	Deepwater Horizon Oil Spill Science		
24	Effects of dispersant and cometabolite addition on hydrocarbon degradation gene diversity and abundance in coastal Alabama sediment microcosms	Robert Chang	Department of Biology, University of South Alabama
25	Gulf of Mexico Research Initiative	Charles Wilson	Gulf of Mexico Research Initiative

Poster #	Water Quality and Quantity		
26	Analysis of coastal vegetation types for use in coastal flood modeling	Jeff Zanotti	AMEC Environment and Infrastructure
27	Isolation and characterization of Bisphenol A degrading bacteria from coastal Alabama environments	Loreen N. Menn	Department of Biology, University of South Alabama
28	Net primary productivity (netPP) and respiration (RESP) measured using an automated optical dissolved oxygen (DO) sensor	Kjell Gundersen	The University of Southern Mississippi, Department of Marine Science, Stennis Space Center
29	Theoretical framework for developing a GIS based model to protect groundwater source	Ashoka Rahman	The University of Southern Mississippi
30	Land conversion in coastal Alabama and its effect on headwater wetland and stream functions	Christopher J. Anderson	Auburn University School of Forestry and Wildlife Sciences
31	Evolution of the nitrogen cycle over saltwater marsh ecosystem formation	Alice Kleinhuizen	University of Alabama, Dauphin Island Sea Lab
32	Effects of low-grade weirs on hydraulic patterns of agricultural run-off in the Mississippi Delta	Angela Brison	Mississippi State University
33	Greywater irrigation of six diverse southeastern U.S. landscape plant species	Charlene LeBleu	Department of Landscape Architecture, Auburn University
34	Stormwater education for coastal Alabama homeowners: Updating efforts of the Coastal Alabama Rain Barrel Project	Christian L. Miller	Auburn University Marine Extension and Research Center
35	National and international collaboration to enhance participation of underrepresented groups in engineering and sciences by developing green infrastructure research studies at Mississippi State University	Jairo N. Diaz-Ramirez	Mississippi State University
36	Quantification of Harmful Algal Blooms (HABs) in the Grand Bay in Jackson County, Miss.	Jeanna M. Dampier	Environmental Science Ph.D. Program, Jackson State University
37	Phosphate, freshwater discharge and the distribution of unicellular nitrogen (N <sub>2</sub> ) fixers in the Mississippi Sound	Karen Orcutt	The University of Southern Mississippi, Department of Marine Science, Stennis Space Center
38	Spatial and temporal variation in water quality at Grand Bay National Estuarine Research Reserve	Kim Cressman	Grand Bay National Estuarine Research Reserve
39	Detection and mapping of cyanobacterial harmful algal blooms using satellite data in one Louisiana lake and four Mississippi lakes	Padmanava Dash	Department of Biology and the Environmental Science Ph.D. Program, Jackson State University
40	REACH: A Mississippi program towards grassroots water resource conservation	Robert Kröger	Department of Wildlife, Fisheries and Aquaculture, Mississippi State University
41	The status and long-term trends of trace metals in oysters from Mississippi Gulf Coast	Yungkul Kim	Jackson State University
42	Distribution of trace elements in Louisiana Shelf waters	DongJoo Joung	Department of Marine Science, The University of Southern Mississippi

Poster #	Climate and Hazard Resilience		
43	Does one rebuilt house bring back evacuees?	D. T. Mitchell	University of Central Arkansas
44	Delivering community decision support extension programming to local governments in budget planning under coastal risk	J. Matthew Fannin	LSU AgCenter

Poster #	Climate and Hazard Resilience (continued)		
45	Climate resiliency on Dauphin Island, Ala.	Catherine M. Janasie	Mississippi-Alabama Sea Grant Legal Program, University of Mississippi
46	Working waterfront initiatives in Alabama: Protecting environmental, economic and cultural resources	Jody A. Thompson	Auburn University Marine Extension and Research Center/Mississippi-Alabama Sea Grant Consortium
47	Sea-level rise, species survival and preservation of upland habitat	Jaclyn Lopez	Center for Biological Diversity
48	Sea-level rise and storm surge impacts in coastal habitats in the Gulf of Mexico	Michael Thompson	The Nature Conservancy – Texas Program
49	The evolving coastal economy in Alabama: The role of waterfront	Yaoqi Zhang	School of Forestry and Wildlife Sciences, Auburn University
50	Coupled methane and carbon dioxide fluxes in coastal marshes along a salinity gradient	Ben J. Wilson	University of Alabama, Dauphin Island Sea Lab
51	Community Disaster Preparedness: An index designed to measure the disaster preparedness of rural communities	Amanda Seymour	Mississippi State University, Coastal Research and Extension Center
52	Monitoring sea surface salinity changes near the Gulf Coast during Hurricane Isaac using microwave remote sensing	Bumjun Kil	Department of Marine Science in University of Southern Mississippi, Stennis Space Center
53	“Show me the money” Economics: National Ocean Watch (ENOW) data for ocean management	Marian Hanisko	I.M. Systems Group on contract to NOAA Gulf Coast Services Center
54	Coastal changes in temperature and salinity observed during Hurricane Isaac recorded and downloaded by NASA DRIFTERS moored in Heron Bay and Half Moon Island, La.	Maria Kalcic	CSC, NASA Stennis Space Center
55	Tides of change: The Plan For Opportunity and the Mississippi Gulf Coast	Zachary E. Kenitzer	The Ohio State University
56	Quantifying modes of sedimentation in coastal marshes	Christopher G. Smith	St. Petersburg Coastal and Marine Science Center – US Geological Survey
57	Recovery of vegetation and land area on the Mississippi-Alabama barrier islands in the initial five years following Hurricane Katrina	Gregory A. Carter	Department of Geography and Geology, Gulf Coast Geospatial Center
58	Community Economic Preparedness: An index designed to test the economic preparedness of rural communities	Randy Y. Coker	Mississippi State University, Coastal Research and Extension Center
59	The effects of storm track, intensity and sea-level rise on storm surge	Paul McKay	Oceanography Division, Naval Research Laboratory
60	Identifying flood-generating areas in 8-Mile Creek Watershed	Latif Kalin	Auburn University

Poster #	Education Facilities		
61	Creating stewards of the Sound: The education and outreach programs at the Gulf Coast Research Laboratory’s Marine Education Center	Chris Snyder	Gulf Coast Research Laboratory
62	Dauphin Island Sea Lab’s Discovery Hall Programs: An education and outreach facility for the state of Alabama	Tina Miller-Way	Dauphin Island Sea Lab
63	Grand Bay Coastal Resources Center: Living on the Edge — The Nature of Change	Jennifer Buchanan	Mississippi Department of Marine Resources Grand Bay National Estuarine Research Reserve
64	Mississippi Gulf Coast Community College – Estuarine Education Center: Merging outdoor recreation with environmental education	Todd Adams	Mississippi Gulf Coast Community College



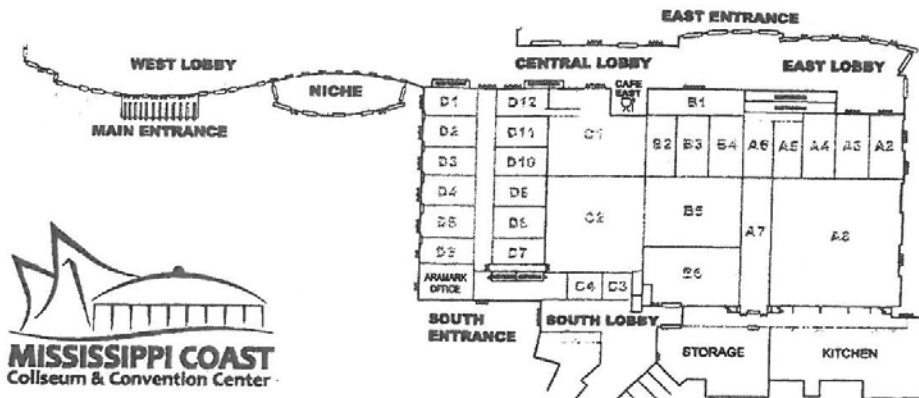






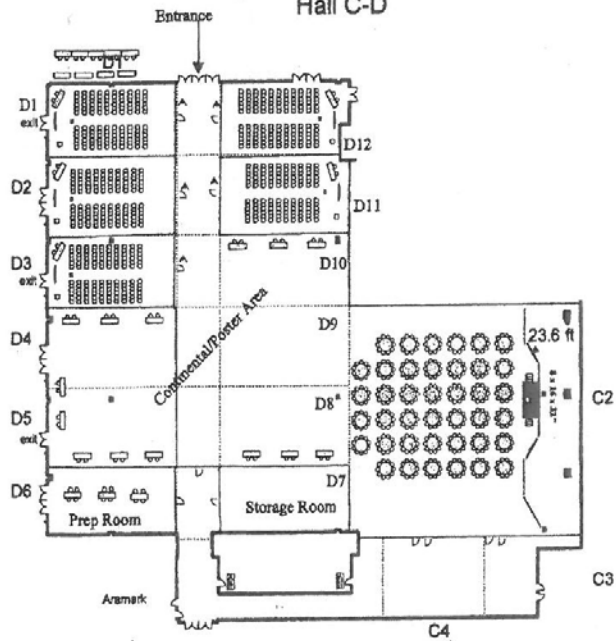
**MASGP-12-047.** This publication was supported by the U.S. Department of Commerce’s National Oceanic and Atmospheric Administration under NOAA Award NA10OAR4170078, the Mississippi-Alabama Sea Grant Consortium, Chevron Pascagoula Refinery, Mississippi Department of Marine Resources, Mobile Bay National Estuary Program, Grand Bay National Estuarine Research Reserve, BP, NOAA Coastal Services Center, University of Southern Mississippi Gulf Coast Research Lab, EPA Gulf of Mexico Program, NOAA National Coastal Data Development Center, Alabama Department of Conservation and Natural Resources State Lands Division, Gulf of Mexico Alliance, Alabama State Port Authority, Digital Engineering, Ocean Conservancy and Volkert and Associates, Inc.

# Symposium Floor Plan



TSM MS-AL SEA GRANT  
NOVEMBER 14-15, 2012

## Hall C-D



D1, D2, D3, D11, D12 – Concurrent Sessions

D4, D5, D8, D9, D10 – Continental Breakfast, Break Items, Lunch Items, Poster Session, Reception Food

D6 – Speaker Prep Room

C2 – Welcome, Keynote Speakers, Lunch, Reception, Networking, The Blues Rangers (Music)

D7 – Storage



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