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7. Title Coastal Wetland Management and Restoration			
12. Investigator Name(s) (Last Name and Initials) Nyman, J. A.			
20. Termination Date 12/31/2015		40. Period Covered (mo/da/year): 01/01/2011 TO 12/31/2011	
Outputs: The project generated outputs in the form of four published peer-reviewed papers and six presentations at professional meetings ranging from regional to international in scope. Most of those communications address coastal wetland restoration and management. This project obtained funds to begin an experiment examining the toxicity of dispersed oil and continued experiments regarding coastal wetland forests and marshes. The project also prepared simulation models being used by the State of Louisiana to prepare its 2012 Master Plan for Coastal Protection and Restoration. Graduate Student Years: 1.5			
Outcomes/Impacts: This project has provided data that has led coastal wetland managers to adopt and justify the use of marsh terraces in wetland restoration projects throughout the northern Gulf of Mexico. This project showed aquatic vegetation, fish, crustaceans, waterfowl, and wading bird abundance can be increased in shallow open water areas that develop after marsh loss if marsh terraces are built. This project has provided data and insights that are modifying the way coastal wetlands are being managed to survive global sea-level rise throughout the northern Gulf of Mexico and the Atlantic Coast of the United States. This insight is relevant throughout such a large area because it has shows that sediment accumulation is not the only way that coastal marshes add the new elevation needed to survive subsidence and global sea-level rise and that accumulation of soil organic matter can be more important even in sediment rich coastal areas. This project produced simulation models to compare the effects of various coastal protection and wetland restoration options on habitat quality for three wetland wildlife species (American alligators, muskrats, and North American river otters) in coastal Louisiana. Those models were created to provide information to be considered by the State of Louisiana as it prepared its 2012 Master Plan for Coastal Protection and Restoration.			
Publications: OConnell, J.L., and J.A. Nyman. 2011. Effects of marsh pond terracing on coastal wintering waterbirds before and after Hurricane Rita. <i>Environmental Management</i> 48:975-984. Ford, M., and J.A. Nyman. 2011. Preface: an overview of the Atchafalaya River. <i>Hydrobiologia</i> . 658:1-5. Scaroni, A.E., J.A. Nyman, and C.W. Lindau. 2011. Comparison of denitrification characteristics among three habitat types of a large river floodplain; Atchafalaya River Basin, Louisiana. <i>Hydrobiologia</i> . 658:17-25. Nyman, J.A. 2011. Ecological functions of wetlands. pages 115-128 In B. La Page (editor) <i>Wetlands: Integrating Multidisciplinary Concepts</i> . Springer Science. ISBN 978-94-007-0550-0.			
Participants: Nyman, J.A., (PI), A.E. Scaroni, A.J. Rietl, J.S. Ialeggio, and C.C. Green, LSU AgCenter; F. Galvez, Department of Biology, LSU; G. Mayer, Institute of Environmental and Human Health, Texas Tech University; C.W. Lindau,			


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Target Audiences:

Target audiences are public agencies who manage wildlife populations and habitats that are held in trust by state and federal government for this and future generations. Target audiences also include non-governmental agencies and members of the general public interested in sustainable fish and wildlife populations. Efforts were focused primarily on delivering research results at professional meetings; there were two such presentations in Louisiana, two in Tampa Florida, and two in Prague, The Czech Republic.

Project Modifications:

Nothing significant to report during this reporting period.

Approved (Signature)	Title	Date
		3/23/12