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U.S. Department of Agriculture **Accomplishments Report AD-421** U.S. Dept. of Agriculture, State Agricultural Experiment Stations and Other Institutions			Date (Month, Day, Year) 03/22/2012
1. Accession 0214298	Agency Identification No. 2. CSREES 3. LA.B	5. Work Unit/Project No. **LAB93916**	6. Status **Annual Report**

7. Title

Towards Sustainable Regeneration and Management of Coastal Wetland Forests

12. Investigator Name(s) (Last Name and Initials)

Chambers, J. L.; Dean, T.; Keim, R.

20. Termination Date 09/30/2013	40. Period Covered (mo/da/year): 01/01/2011 TO 12/31/2011

Outputs:

One presentation was made and the abstract was published for the American Geophysical Union Conference in San Francisco, CA, concerning the spatial variability in baldcypress radial growth in relation to historical changes in climate and hydrology. A second presentation was given at the 27th Annual Louisiana Remote Sensing and GIS Workshop. This presentation presented methods of analyzing Landsat for classifying coastal cypress-tupelo forests by canopy condition. Models to predict the chance of epicormic branch production in bottomland red oaks were created and evaluated.

Graduate Student Years: 1.5

Outcomes/Impacts:

Assessment of spatial variability in baldcypress radial growth in relation to historical changes in climate and hydrology led to delineation of the importance of river hydrology (water levels) to effects on cypress radial growth even in areas not directly connect to major rivers. Indirect effects are correlated through effects on near shore water levels. Mapping of the canopy health conditions of large areas of cypress-tupelo in south-central and south eastern Louisiana were possible through these efforts. This research will aid governments in placing more emphasis on and applying corrective measures to impacted and declining coastal forests within the state. Models of epicormic branch production in Louisiana red oaks will help forest managers and forest landowners make practical decisions related to silvicultural practices in Louisiana.

Publications:

Bohora,Som, Richard F. Keim, Jim L. Chambers. 2011. American Geophysical Union San Francisco, CA December 5-9, 2011. Spatial Variability in Response of Deltaic Baldcypress Forests to Hydrology and Climate American Geophysical Union San Francisco, CA December 5-9, 2011. (Abstract)

Keim, R., H.B. DeWitt, G. Shaffer, J.L. Chambers, and B. Edwards. 2011. Mapping Coastal Wetland Forest Condition in Coastal Louisiana. 27th Annual Louisiana Remote Sensing and GIS Workshop. May 3-5, 2011. (Abstract).

Participants:

J. Chambers (PI), R. Keim, G.Shaffer, B. DeWitt, B. Edwards, S. Bohora, Y. Hsueh, and D. Culpepper, LSU AgCenter.

Target Audiences:

Target Audiences included: Coastal Impact and Assessment Program personnel, the LADEQ, LADNR, and LAOCRP. Each organization is involved in protection and restoration of coastal forests or some aspect of environment related to these forests. Information from this research will be helpful to each. Development of plans to restore coastal Louisiana depend on knowledge provided by this project.

Project Modifications:

Nothing significant to report during this reporting period.

Approved (Signature)	Title	Date
Richard A Ehrenfeld		3/23/12