Project Location

- Apalachicola National Estuarine
 Research Reserve
- Grand Bay National Estuarine
 Research Reserve
- Mission-Aransas National
 Estuarine Research Reserve
- Rookery Bay National Estuarine
 Research Reserve
- Weeks Bay National Estuarine Research Reserve

Project Duration

September 2015 to August 2017

Project Lead

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Products

- A written assessment of blue carbon needs and opportunities based on feedback from blue carbon workshops, evaluation forms, and follow-up calls
- "Blue Carbon in Practice" webinar series for Gulf regional and national audiences
- Two training workshops

Project Partners

- Apalachicola National Estuarine Research Reserve
- Grand Bay National Estuarine
 Research Reserve
- Gulf of Mexico Coastal Training Program Initiative
- Mission-Aransas National Estuarine Research Reserve
- NOAA Office of Habitat
 Conservation
- Restore America's Estuaries
- Rookery Bay National Estuarine Research Reserve
- TerraCarbon
- U.S. Fish and Wildlife
 Service Coastal Program
- Weeks Bay Foundation
- Weeks Bay National Estuarine Research Reserve

Establishing a Blue Carbon Network for the Gulf Coast



National Partners: Restore America's Estuaries, National Estuarine Research Reserve System Science Collaborative, U.S. Fish and Wildlife Service – Coast Program, National Oceanic and Atmospheric Administration Office of Habitat Conservation, TerraCarbon, Guif of Mexico Program

Project Overview

The Gulf Coast continues to lose coastal wetlands at an alarming rate. This has negative implications for water quality, shoreline stability, habitat protection, and greenhouse gas sequestration. Coastal blue carbon is a newly recognized ecosystem service provided by coastal wetlands—including seagrass beds, mangroves, and salt marshes—to capture and store carbon. When coastal wetlands are degraded or destroyed, they release these greenhouse gases into the atmosphere. Bolstering awareness and valuation of blue carbon could lead to increased prioritization of coastal conservation and restoration projects, and increase public and private funding for these types of projects. Moreover, coastal managers are now being asked to consider the greenhouse gas implications of their decisions, and Gulf Coast National Estuarine Research Reserves have recently identified blue carbon as a priority topic.

This project developed a Gulf Coast blue carbon network as a platform for sharing information and coordinating efforts to develop blue carbon tools and projects in the region. End users for the project included reserve staff, local government, restoration practitioners, researchers at local academic institutions, non-profits, resource managers, and others involved in habitat protection and restoration in the Gulf region. The goal was to support the development of projects that advanced local understanding of blue carbon science, and to pilot ways to leverage blue carbon's value to fund coastal wetland restoration and conservation.

Project Benefits

This project created and strengthened relationships with the Gulf Coast reserves and stakeholders knowledgeable about blue carbon. In addition to helping stakeholders improve their understanding of blue carbon and market concepts, it improved Restore America's Estuaries' understanding of end user needs and interest in blue carbon, influencing future blue carbon outreach to stakeholders and identifying resource needs.

- The project team developed a written assessment of blue carbon opportunities and needs from workshop discussions, evaluation forms, and follow-up calls. This document served as a reference in planning additional workshops and webinars.
- A Gulf Coast blue carbon network was created to keep reserve staff and regional stakeholders involved in blue carbon efforts, and to promote their progress nationally.
- Restore America's Estuaries led six webinars for Gulf Coast and national audiences with topics and speakers informed by the written assessment. Webinar recordings were posted **online**.
- Several of the Gulf Coast reserves developed new blue carbon pilot projects and research proposals, including a blue carbon feasibility study for mangrove restoration at the Rookery Bay Reserve and a Science Collaborative project at the Mission-Aransas Reserve exploring blue carbon outreach and communication.

Project Approach

Restore America's Estuaries partnered with the Gulf of Mexico Coastal Training Program Initiative and the five Gulf Coast reserves to create a blue carbon network, provide technical assistance, and promote blue carbon project development.

- Needs Assessment The project took advantage of four workshops coordinated with the Gulf Coast research reserves in fall 2015. The project team facilitated discussions with 118 professionals about current blue carbon needs and opportunities and conducted follow-up calls with attendees to develop a summary report of goals, needs, and opportunities, as well as a list of interested individuals and organizations.
- **Developing a Network** The project team convened a Gulf Coast blue carbon network for reserve staff and regional stakeholders, including local and regional government, academics, non-profits, and restoration practitioners. This facilitated information sharing and helped advance local priorities.
- **Targeted Training** Based on feedback from prior workshops and calls, the project team hosted two additional training workshops to address various stakeholder needs. The project team hosted a "next steps" workshop for past workshop attendees, focusing on using blue carbon to support regional priorities, and a workshop for municipal staff focused on incorporating blue carbon values into sustainability planning.

Project Benefits

- Restore America's Estuaries is developing a "Communicating Blue Carbon" webinar featuring staff from project reserves, and a short, educational blue carbon video that will be shared with research reserves and other partners. These resources, and more, can be found on Restore America's Estuaries blue carbon webpages.
- Additionally, Restore America's Estuaries will create a regional blue carbon tool to estimate the carbon benefit of restoration efforts and serve as a metric that reserves and other practitioners can use to demonstrate the value of coastal restoration.

About the Science Collaborative

The National Estuarine Research Reserve System's Science Collaborative supports collaborative research that addresses coastal management problems important to the reserves. The Science Collaborative is managed by the University of Michigan's Water Center through a cooperative agreement with the National Oceanic and Atmospheric Administration (NOAA). Funding for the research reserves and this program comes from NOAA. Learn more at coast.noaa.gov/nerrs or graham.umich.edu/water/nerrs.

