

A serene sunset scene over a wide body of water, with the sun low on the horizon and its reflection shimmering on the water's surface. The sky is a mix of soft orange and deep blue, and the distant shoreline is silhouetted against the light.

# Plodding the Pluff Mud Path: Progress Since 2011

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# Carolina Tidal Creeks Roundtable

February 23, 2011

UNC-Wilmington

Wilmington, N.C.



# Southeast Tidal Creeks Summit 2011

December 5 & 6, 2011  
The Francis Marion Hotel  
Charleston, S.C.





# Focus

Research, Management & Restoration



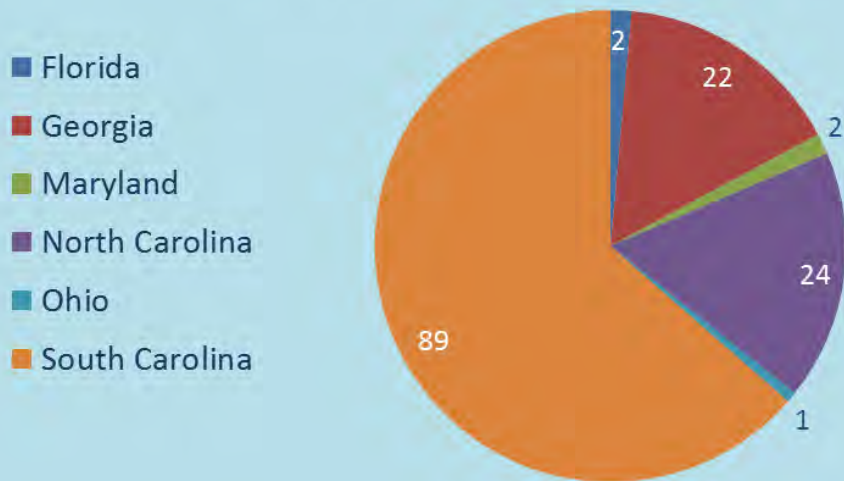
# Objectives

- Identify the current state of knowledge regarding tidal creek research and management in the southeast.
- Identify current issues and threats to tidal creek system ecology and function and relevant future research efforts.
- Evaluate the current and potential management and restoration strategies to protect and enhance the ecology and function of tidal creeks.
- Identify recent trends in tidal creeks science, management and status.

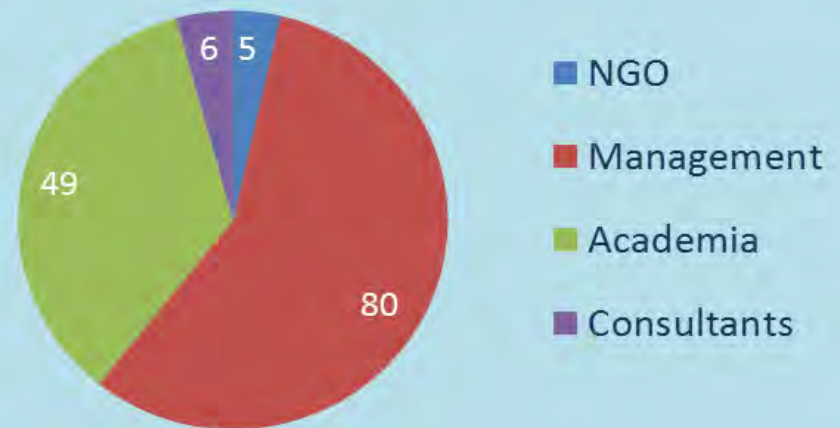
# Attendees

• 140 attendees

Representation by State

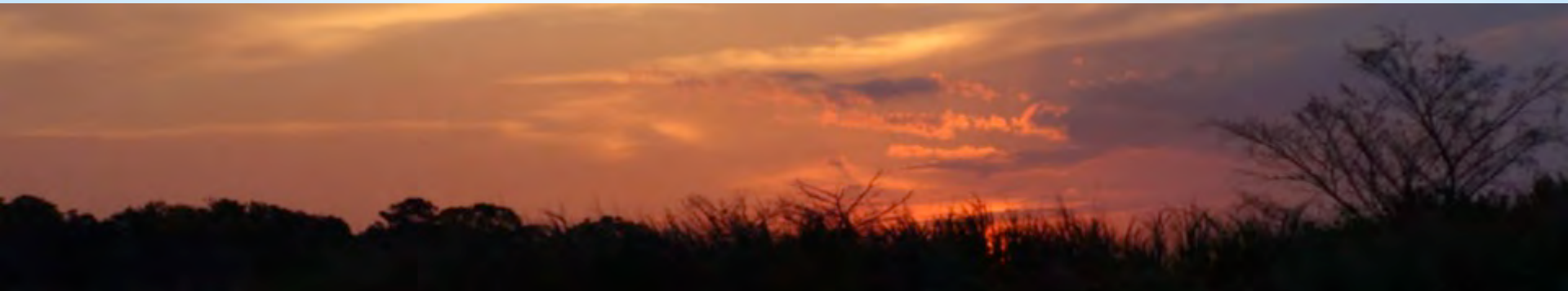


Participant Profile



# Program

- Oral Presentations (Invited) - 19
  - Tidal Creek Functions and Impacts - Research Perspectives
  - Tidal Creek Management - Current Focus and Future Needs
    - State and Federal Representatives
    - Local Case Studies
  - Potential Strategies for Tidal Creeks Research and Management
- Poster Presentations (Submitted) - 25



# Summit Outcomes

- Networking and sharing of information across state lines and disciplines
- Where do we go from here?
  - Facilitated group discussions and wrap up
  - Participant questionnaires and Follow-up survey (Working Group)
- White paper (summary) documenting the 2011 Summit
- Potential article(s) in the journal, *Coastal Management*
- Website [www.bea.ncsu.edu/workshops/tidalcreeksummit/](http://www.bea.ncsu.edu/workshops/tidalcreeksummit/)



# Questionnaires

- Participants were asked:
  - Critical research needs (n=56)
    - basic and applied research
  - Critical resource management needs (n=51)
    - policy changes, legislation, regulation, enforcement, outreach and/or research
  - Important strategies/restoration needs (n=39)
    - basic and applied research, pilot projects, policy changes and/or education
  - Research, management, or strategies/restoration (integration/additional thoughts) (n=46)
    - key messages or points from the Summit



# Summary Paper

- Summarized the oral presentations
- Needs Assessment
  - Compiled oral and written comments
  - Grouped by Research, Management, Restoration, and Education/Outreach



# Summary of Needs

1. Inventory and Classification
2. Ecosystem Services
3. Climate Change, Sea Level Rise Impacts
4. Secondary and Cumulative Impacts of Development
5. Ecological Functioning
6. Impacts of Stormwater and Effectiveness of Practices
7. Monitoring and Assessment
8. Pollutant Loadings and Flushing
9. Other Anthropogenic Impacts
10. Shoreline Hardening
11. Role of Sediment



# Summary of Needs

12. Planning Tools to Guide Habitat Protection
13. Clearinghouse
14. Examination of Current Management Approaches
15. New Management Approaches
16. Communication and Information Transfer
17. Identify Goals and Refine Approaches for Restoration
18. Tailored Education and Outreach





# Working Group

- Workshop on the November 15<sup>th</sup>, 2013
- Purpose
  - Identify priorities from the 2011 Summit needs assessment
  - Develop brief concept plans for addressing the priority needs
  - Provide direction for 2013 Summit breakout groups
- Goals
  - Protect and restore fish and wildlife in tidal creeks systems (productive fisheries).
  - Maintain the quality of waterways for human use and community enjoyment.
  - Maintain and enhance water quality of tidal creeks.
  - Sustain and enhance tidal creek habitat in developing landscape.
  - Increase coastal resiliency to sustain the value of land and water resources associated with tidal creeks.



# Southeast Tidal Creeks Summit 2013



December 16-17, 2013  
Hilton Wilmington Riverside Hotel,  
Wilmington, N.C.

# Focus

Research, Management,  
Restoration, and **Outreach**



# Objectives

- Identify the current state of knowledge regarding tidal creek research and management in the southeast.
- Identify current issues and threats to tidal creek system ecology and function and relevant future research efforts.
- Evaluate the current and potential management and restoration strategies to protect and enhance the ecology and function of tidal creeks.
- Identify recent trends in tidal creeks science, management and status.

# Program

- Oral Presentations (Submitted) - 35
  - Opening Session
    - Freshwater and Climate Change
  - Plenary Session
    - Nutrient Management Criteria
  - Concurrent Sessions
    - Pollutant Accumulation
    - Outreach and Education
    - Faunal Assessment and Restoration
    - Physical and Chemical Functions
    - Restoration
    - Impacts to Tidal Creeks





# Program

- Poster Presentations (Submitted) - 24
- Directions and Challenges
  - Breakout Groups
  - Report out and Wrap up





# Definition

- A tidal creek is a natural or manmade water conveyance channel, also referred to as a tidal tributary, bayou, tidal canal or tidal river, and their associated benthic, intertidal banks and flats, and oyster reef habitats. Their primary watershed is most often a tidal wetland, notwithstanding those creeks that also drain small upland catchments.
- Tidal influence results in water level fluctuations caused by the exchange of fresh and estuarine waters. Tidal creeks include intermittent creeks to the point where a major water body is encountered (e.g., river draining an upland watershed, estuarine bay or sound, ocean).
- Tidal creeks are ecologically important for their habitat, water conveyance, and nursery areas for the early life stages of resident and estuarine-dependent fish and crustacean species, and economically important for finfish and shellfish production.

# Anticipated Summit Outcomes

- Networking and sharing of information across state lines and disciplines
- Summary documenting the 2013 Summit
- Working Group
- Development of Strategic Initiative for Tidal Creeks
- Potential article(s) in the journal (*Coastal Management*)



