

Who: Researchers at East Carolina University and University of North Carolina Wilmington

Lead PI: Dr. Devon Eulie (UNCW)

Co-PI: Dr. Rachel Gittman (ECU); Dr. Huili Hao (UNCW)

Team Members: Dr. Carter Smith (Duke); Mariko Polk (PhD Student, UNCW)

Funders: North Carolina Sea Grant; National Science Foundation (NSF); North Carolina Policy Collaboratory

Timeline: 2018-2020

Location of Focus: Coastal North Carolina (specifically, 20 CAMA counties)

Audience: Coastal Management Practitioners; NC coastal residents; Those who own homes (including second homes) in the coastal counties

Study Website: <https://sites.google.com/view/uncw-ces/research/sea-grant-study>

Online Survey: tinyurl.com/NCCoastalSurvey2019

Short Synopsis:

Researchers from East Carolina University and University of North Carolina Wilmington have collaborated to develop an online survey related to people's experiences during Hurricane Florence and their experiences living on the coast in North Carolina. The survey is part of a larger study on the impacts of shoreline management strategies. The results of this study will directly inform future coastal management, serve as a mechanism to educate homeowners on shoreline conservation and management strategies, and enable the development of long-term, cost-effective shoreline monitoring procedures that can be scaled up to state or region levels.

There are a number of ways to access the survey. One way is by scanning the QR code by using your smart phone's camera, the other is by using the following link:

tinyurl.com/NCCoastalSurvey2019

Extended Synopsis:

North Carolina's estuarine habitats provide a wide range of benefits from being nursery habitats to filtering water pollution, but are increasingly threatened by natural and human pressures. One of the greatest challenges for managing the coast is that drivers of habitat loss happen at different scales. For example, changes can be caused by short-term events, like hurricanes, or long-term from every day waves. A suite of options exist to manage erosion, such as hard bulkheads and nature-based living shorelines, but research comparing the various options and their broader impacts is limited. This study seeks to better understand how people and habitats are impacted based on the shoreline management project near them. This study combines science from multiple disciplines, through geospatial, emerging low-cost remote sensing and aerial mapping technologies, waterfront homeowner surveys, and citizen science. This study hopes to understand:

1. **Long-term patterns of shoreline and coastal habitat change;**
2. **Identify socio-ecological mechanisms responsible for shoreline and habitat changes;**
3. **Test citizen science-based approaches for future shoreline monitoring.**

As part of this study, researchers at East Carolina University and University of North Carolina Wilmington have collaborated to develop an online survey related to people's experiences during Hurricane Florence and their experiences living on the coast in North Carolina. The survey is part of a larger study on the impacts of shoreline management strategies.

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Resilience of North Carolina estuarine ecosystems is dependent upon coastal management decisions made now. The results of this study will directly inform future coastal management, serve as a mechanism to educate homeowners on shoreline conservation and management strategies, and enable the development of long-term, cost-effective shoreline monitoring procedures that can be scaled up to state or region levels.



Online Survey QR Code:

Additional Images:



Graduate students from ECU and UNWC monitor a living shoreline in Summer 2018.



Dr. Rachel Gittman (blue shirt, center) discusses the utility of a real-time kinematic GPS unit with the project team researching the influences of shoreline management structures on shore position.



UNCW Graduate Students, Sarah Benson (left) and Kayla McNeilly (right) collect spatial and vegetation data along one of the study transects.