



## Sentinel Site Quarterly

*North Carolina  
Sentinel Site Cooperative*

### Spring 2017

Contact [Jennifer Dorton](#) or [Sarah Spiegler](#) if you have articles or events that you would like to include in the next edition. Previous Quarterly Newsletters are on the [NC DEQ](#) website.

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### NCSSC Partner Meeting



Participants at the 2017 NCSSC Partner Meeting

The NCSSC hosted a partner meeting at the NOAA Beaufort Lab on February 21, 2017. In attendance were approximately 50 people representing academic, government, management, non-profit, and planning organizations. Meeting

participants were asked to fill out a pre-meeting survey to identify gaps in research, management and education related to sea level rise in the Cooperative. The results of the survey informed breakout group discussions during the meeting. Outcomes from the meeting will be used to update the Cooperative's Implementation Plan for the next three years. A NOAA Technical Memo detailing the meeting outcomes will be available by late Spring 2017.

High priority needs identified during the meeting include communication products related to sea level rise and community resiliency in the Cooperative's geography, as well as the sharing of data between research and management communities. Meeting participants also identified the need for a NOAA Tools workshop that will train users in the available tools for sea level rise planning and adaptation. This workshop is currently in development for Fall, 2017.

### Citizen Science: Sentinels of the Sounds



Cypress tree stumps along the Albemarle Sound

Cypress trees can serve as [sentinels of our sounds](#), if we learn how to read their stories. Dr. [Marcel Ardón](#) (Department of Forestry and Environmental Resources, North Carolina State University) began a citizen science project to collect photos, locations, and basic information about cypress trees along the shores of our sounds and rivers. The project asks citizen scientists to take pictures and answer some questions about these trees and send them to a central website using a mobile device application.

The goal of the project is to better understand how our shores are changing. By increasing the number of eyes and cameras that are looking for these trees, Dr. Ardón hopes to get a more complete picture of their current health. The project will also help to improve our understanding of how these majestic trees and swamps are being affected by a changing climate and rising sea levels, in order to better prepare for an uncertain, but certainly different, future.

If you want to learn more about how to become involved, visit the website: <http://sentinelsnc.weebly.com/>.

### NCSSC/NC Sea Grant Graduate Fellowship Program

Carter Smith was selected by a panel of NCSSC Core Management

Team members to study sea level rise and storm events in Carteret, Dare and Brunswick counties. Smith will survey NC homeowners to identify attitudes and perceptions of sea level rise risk in the context of ecosystem services, shoreline hardening, and coastal resiliency. The project, entitled "*Evaluating stakeholder perceptions of sea level rise in coastal North Carolina using a social-ecological framework*," will use a two-year hurricane resiliency field study conducted by Smith from before and after Hurricane Matthew. Smith will use field data and social perceptions to understand the links between risk, socioeconomic data, and observed damage. The overarching goal of the project is to collect data that will help coastal managers inform stakeholders about climate change and coastal resilience adaptation strategies. Smith is a UNC-IMS PhD student in the lab of Dr. Charles Peterson, and will receive \$10,000 to support her project.



Carter Smith (UNC-IMS), NCSSC/NCSSG fellow

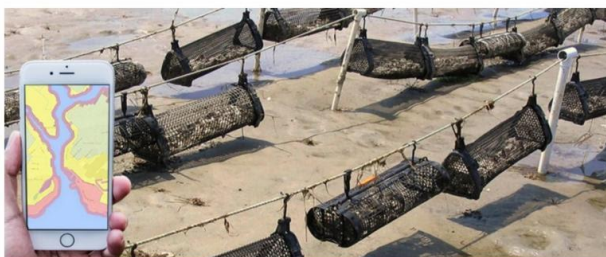
### Data Corner: NOAA Aquaculture Planning Tool

The [Coastal Aquaculture Planning Portal](#) (CAPP) is a new toolbox now available on the NOAA National Centers for Coastal Ocean Science (NCCOS) website. CAPP was developed by the NCCOS Coastal Aquaculture Siting and Sustainability program led by Dr. [James Morris](#), an ecologist at the Beaufort Laboratory. Morris cites the important role aquaculture can play in meeting a growing seafood demand as wild fish stocks decline from overfishing, pollution,

and habitat loss. Morris partnered with the [Digital Coast](#) in the NOAA Office of Coastal Management to develop the portal that features around 40 tools with specific applications for the planning and siting of aquaculture operations and industries. The tools are used to engage and assist managers, planners, industry and stakeholders involved with sustainable aquaculture.

The suite of tools included on CAPP have widespread applications for marine spatial planning and management concerns related to sea level rise, climate change, and coastal resiliency. For example, the [CanVis](#) tool allows viewers to simulate seascape changes due to aquaculture development. Morris's team has used the CanVis tool in Southern California and Hawaii. Other tools on the portal include a [sea level rise viewer](#), a [habitat priority planner](#), [climate wizard](#), [coastal change hazards portal](#), and [coastal resilience mapping portal](#).

Coastal Aquaculture Planning Portal (CAPP)



CAPP on the NOAA NCCOS website

## Upcoming Trainings and Conferences

### Upcoming Trainings

- NOAA's National Weather Service is working to improve the collection of reliable storm surge water level observations. A team from offices within NOAA and affiliated partners has developed a plan and methodology for gathering this information by establishing a network of collaborators and volunteers. A workshop will be hosted at the NOAA Beaufort Lab on April 20, 2017 to share this methodology and build collaboration among groups that may be able to assist with this type of data collection after a storm. To learn more about the event, please contact Jennifer Dorton ([dortonj@uncw.edu](mailto:dortonj@uncw.edu)).
- NOAA: [Planning Effective Projects for Resilient Coasts](#) (April 26-27, NOAA Beaufort Lab)

### Upcoming Talks/Conferences

- Dr. Rosana Nieto Ferreira, East Carolina University, will present "[Climate Change: Science and Impacts in Eastern NC](#)" on

March 27, 7:00-8:30 pm, at the Carteret Community College.

- [NC Sea Grant Coastal Conference](#) will focus on coastal resilience. The event will take place at the McKimmon Center, on the NC State Campus in Raleigh, April 4-5.

The [NOAA Sentinel Site Program](#) leverages existing research and monitoring resources to ensure resilient coastal communities and ecosystems in the face of changing conditions. The program's place-based approach focuses on issues of local, regional, and national significance that impact habitats and species managed by NOAA as well as surrounding coastal communities.