

Stay in touch

The NERRS Science Collaborative is committed to sharing information about the projects we fund in the most effective way we can. Updates about this project will be communicated through nerrs.noaa.gov, webinars, conferences, and meetings. If you would like to stay in touch with this project, contact our program coordinator, Cindy Tufts: cindy.tufts@unh.edu

For information about the applied science, contact Ken Able, director, Rutgers University Marine Field Station, at 609.296.5260, ext. 230, or able@marine.rutgers.edu

For information about the collaborative aspect of this project, contact Lisa Auermuller, watershed coordinator, Jacques Cousteau NERR, at 609.812.0649, ext. 204, or auermuller@marine.rutgers.edu

Real time SWMP data monitoring is available at the NERRS Centralized Data Management Office: cdmo.baruch.sc.edu/

What's happening?

A team led by New Jersey's Jacques Cousteau National Estuarine Research Reserve (NERR) has received \$425,104 to engage researchers and fisheries managers in working collaboratively to share data about the impact of climate variations on fisheries and coastal ecosystems along the Atlantic coast.

In partnership with Rutgers University and NERR sites in the Carolinas, this project is creating an online portal for scientists and fisheries managers to share long-term data sets on larval fish recruitment and related environmental variables. The goal is to increase the precision of fisheries management decisions and open up access to data that allows managers to assess impacts from climate change.

Why this project?

Changes in environmental conditions can impact the spawning, growth, migration, behavior, and ultimately, the survival of coastal fishes. Some of these conditions, such as storm activity and salinity, may also be associated with a changing climate. Fisheries managers at the state, regional, and national levels need access to accurate long-term data sets to assess the impacts of climate variation on the sustainability of fish stocks. However, these managers may be unaware of, or lack access to, the data they need. Conversely, scientists and monitoring professionals collecting this data may not be



Oyster Landing is one of the NERRS System Wide Monitoring Program (SWMP) sites, located at the North Inlet-Winyah Bay National Estuarine Research Reserve (NERR). This project will help fisheries managers use data collected at this and similar sites to make more precise management decisions.

aware of how to make it available to the decision makers who need it. For example, environmental data on water quality, water chemistry, and atmospheric data is available through the NERRS System-Wide Monitoring Program (SWMP), but there is no interface for fisheries managers to link SWMP to larval fish recruitment data.

This project will address this gap by enhancing an existing web-based data retrieval system provided by the Southeast Area Monitoring and Assessment Program-South Atlantic (SEAMAP-SA) with data sets that are currently not accessible by fisheries managers from NOAA's National Marine Fisheries Service, Atlantic States Marine Fisheries Commission, and fisheries management agencies in New Jersey, North Carolina, and South Carolina. The team is using a collaborative process to ensure this online portal provides access to long-term regional trends in larval fish data, coupled with environmental changes.

[Learn more on back page...](#)

About the funder

The NERRS Science Collaborative puts Reserve-based science to work for coastal communities coping with the impacts of land use change, stormwater, non-point source pollution, and habitat degradation all in the context of a changing climate. Our approach to connecting science to decision making includes:

- Using a competitive RFP to fund research that integrates collaborative principles and applied science to address coastal management problems identified as priorities for Reserves and their communities.
- Transfer of knowledge: Through our transfer program, the science we fund is shared throughout the NERRS and the communities they serve.
- Graduate education: Through TIDES (Training for the Integration of Decision Making and Ecosystem Science), a non-thesis Master's degree program hosted by the University of New Hampshire, we train the next generation of professionals to link science to coastal decision making.

The program operates by a cooperative agreement between the University of New Hampshire (UNH) and the National Oceanic and Atmospheric Administration.

Learn more at....

[nerrs.noaa.gov/
ScienceCollaborative.aspx](http://nerrs.noaa.gov/ScienceCollaborative.aspx)



Night sampling for larval fish at the Jacques Cousteau NERR.

How will this project work?

This project seeks to increase fishery management precision by integrating long-term data sets on larval fish recruitment and related environmental variables, such as those provided by the NERRS' SWMP. These efforts will increase understanding of how environmental variation and climate change impact estuarine habitat and early-life history of important fish stocks.

While this project focuses on important recreational and commercial species, the team will evaluate the effectiveness of this approach for integrating data to support future ecosystem-scale fisheries management decisions.

The team is using a collaborative framework to facilitate information exchange between stock assessment biologists, and fisheries managers and data providers who work with the NERRS. This framework includes workshops, focus groups, online needs assessment surveys, and small group discussion.

Through the collaborative process, they will establish a better understanding of the data needs and output preferences for fisheries management, using the principles of instructional systems design. They will also collect input on plans to monitor fish larva at three field sites in New Jersey, North Carolina, and South Carolina, where they will record environmental variables available from SWMP data.

The team will integrate this data on the SEAMAP-SA website, overseen by South Carolina Department of Natural Resources, into a web-based information system that facilitates sharing of fishery-independent data and information. Once they develop a beta version of the enhanced website, the team will conduct usability tests and user testing to evaluate the appeal and effectiveness of the website design and determine the usefulness of content.



Sampling at Little Egg Inlet in the Jacques Cousteau National Estuarine Research Reserve (NERR). Scientists will share the data they collect with fisheries managers for better long-term planning.