NEW JERSEY
SEA GRANT CONSORTIUM

Sea Grant

February 2018

The New Jersey Sea Grant Consortium is one of 33 Sea Grant college programs and is an affiliation of New Jersey colleges and universities.

Hurricane Sandy caused major flooding and housing damage in Seaside Heights, New Jersey. Credit: Tim Larsen, New Jersey Governor's Office

New Jersey Sea Grant research paves the way for resilience planning in coastal communities

More than ever, towns all over the country are focused on how to make coastal infrastructure more resilient to extreme weather and climate change. New Jersey Sea Grant researchers worked with Ventnor City, New Jersey as a model for other coastal communities to incorporate adaptation elements into pre-existing land use documents, such as master plans, zoning ordinances, recreation plans and stormwater management plans. As a result of New Jersey Sea Grant's guidance, Ventnor is leading the county-wide program for public information under FEMA's community rating system program.

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10,000
Volunteer hours completed

25,000
K-12 students reached

6,200
Workshop and conference participants

Metrics reported to National Sea Grant Office in June 2017 for work completed February 2016 to January 2017

RESEARCH EXTENSION EDUCATION

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New Jersey Sea Grant promotes stewardship through habitat restoration, improves community resilience to future storms

Volunteers aid living shoreline project by relocating oyster spat for reef growth. Credit: New Jersey Sea Grant

Hurricane Sandy severely damaged many beaches along Delaware Bay, some of which still require restoration to provide protection from future storms. Oyster reefs provide many ecological benefits, including serving as living shorelines which can reduce erosion and make shorelines more resilient. New Jersey Sea Grant worked with Rutgers University and The Nature Conservancy to expand educational opportunities and excellence in STEM through the community-based oyster restoration curriculum known as Project PORTS (Promoting Oyster Restoration through Schools), improving the resilience of Delaware Bay beaches and reaching over 4,000 students from 10 under-resourced southern New Jersey K-8 schools in 2016.

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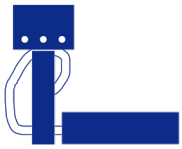
"Without New Jersey Sea Grant we wouldn't have the culture of preparedness in Cape May County that we have today."
- Edward Mahaney, Principal, Mahaney Consulting, LLC and Mayor Emeritus, City of Cape May, NJ

Reducing Sewage Discharges from Boats

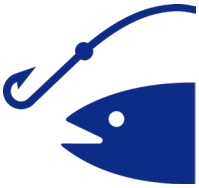


Marina pumpout stations can greatly reduce sewage discharges from boats, however, more than half of New Jersey's existing stations were destroyed by Hurricane Sandy. New Jersey Sea Grant partnered with federal, state and local agencies to rebuild more than 75% of the damaged stations. In 2016, about 650,000 gallons of sewage were collected and properly disposed of at marina pumpout stations.

Bringing Underwater Robotics to Middle Schoolers

In partnership with Jenkinson's Aquarium, New Jersey Sea Grant educators were able to use that facility to expand their underwater robotics program. Over the course of ten presentations, 172 middle school students learned how scientists explore deep oceans and built remotely operated underwater vehicles (ROV's) of their own design to deploy in the aquarium's exhibit tanks.

Refining the Stock Assessment Approach



New Jersey Sea Grant researchers refined the "Only Reliable Catch Stocks" (ORCS) approach for stock assessments to estimate overfishing limits for U.S. fisheries. The refined ORCS approach performed better than other widely used catch-only models, correctly classifying the harvest level for 74% of all stocks when other methods incorrectly classified many of those stocks as being overexploited.