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Responsible Seafood ADVOCATE

Fisheries

Can electronic tags fill knowledge gaps between offshore wind and fisheries?

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By Responsible Seafood Advocate

The first of its kind, its results will inform wind energy construction practices in the Atlantic

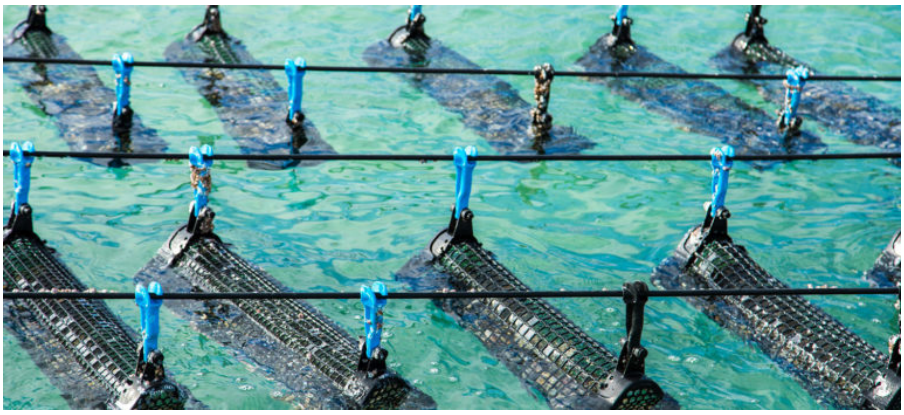
The Nature Conservancy (TNC) and the National Oceanic and Atmospheric Administration (NOAA) will be assisting a first-of-its-kind study investigating fish behavior in response to offshore wind turbine installation and related construction activities in the Atlantic Ocean.

Using fine-scale positioning technology, the study will be conducted at the Coastal Virginia Offshore Wind (CVOW) research site, approximately 27 miles off the coast of Virginia Beach, Virginia. Developed and operated by Dominion Energy, CVOW is the second offshore wind farm operating in the United States with two existing turbines and 176 in the works.

Between now and 2027, TNC marine scientists and acoustics and fisheries experts from NOAA's Northeast Fisheries Science Center will analyze how local fish populations react to offshore wind development, their responses to construction noise, the value of new vertical structures as fish habitat, and whether substrate areas with buried transmission cables are used or avoided by tagged fish. They will also monitor the ambient soundscape — natural, biological and human sounds — to document changes that occur.

A first-of-its-kind study will explore fish behavior in response to offshore wind turbines and construction activities in the Atlantic Ocean. Image courtesy of TNC.

“This research will help fill gaps in our understanding of how offshore wind development interacts with commercial and recreational fisheries, and will broaden our marine soundscapes research,” said Jon Hare, Ph.D., director of the NOAA Northeast Fisheries Science Center. The study results will be made public for environmental impact assessments and management considerations of future offshore wind projects.



Advancing the ecosystem services of aquaculture

The Nature Conservancy was inactive in aquaculture until new program leader Robert Jones joined. His focus is on the positive outcomes of responsible aquaculture.

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While there are only seven operational offshore wind turbines on the U.S. Atlantic coast, many more are planned over the next decade. “More than 3,000 new offshore wind turbines are expected to be installed off the East Coast by 2030,” said Brendan Runde, Ph.D., marine scientist with TNC. “While we need renewable energy, it is also critical that we understand how this development affects marine species. The more we know, the more we can advise on how to avoid or minimize those impacts.”

Researchers will collect various fish species — black sea bass, greater amberjack and summer flounder, to name a few — to record biological information and tag the fish with electronic transmitters before a safe release.

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