OFFICE OF RENEWABLE ENERGY PROGRAMS: **Ongoing Studies**

Region: Atlantic Region

Planning Area(s): North Atlantic

Title: Southern New England Cooperative Ventless Trap Survey

BOEM Cost: $897,691 **Period of Performance**: FY 2013-2016

Cooperating Organizations: University of Rhode Island and Rhode Island Commercial Lobster Fishermen

BOEM Contact: Brian Hooker

Description:

Background: The American lobster fishery is one of the most valuable fisheries in southern New England, producing nearly $70 million in revenue annually (Atlantic States Marine Fisheries Commission, 2010). Massachusetts and Rhode Island are the primary contributors to the southern New England lobster fishery, supporting fleets of 1500 and 250 vessels, respectively (Dean, 2010; Hasbrouck et al. 2011). In addition to nearly 2000 commercial fishing jobs, the southern New England lobster fishery also sustains a variety of support businesses, such as trap-builders, gear suppliers, bait and ice dealers, shipyards, fuel companies, engine sales and repair businesses, and marine electronic retailers.

This project will help to fill a data gap that exists between state surveys, conducted within three miles of the coast, and Federal surveys, conducted in deep waters offshore (>30 miles). The objective is to establish a cooperative ventless trap survey to monitor the potential effects of offshore renewable energy development and to contribute to lobster stock assessment.

The Southern New England Cooperative Ventless Trap Survey (SNECVTS) aims to develop a baseline for measuring the cumulative effects of offshore development offshore Rhode Island and Massachusetts, as well as contribute to the assessment of the southern New England lobster stock, which is currently at a low level of abundance (Atlantic States Marine Fisheries Commission, 2010). The proposed study is needed to distinguish the potential effects of offshore energy development from the effects of fishing and other population stressors (Schmitt & Osenberg, 1998). To the extent possible, this project will follow Atlantic States Marine Fisheries Commission survey protocols and adhere to the Atlantic Coastal Cooperative Statistics Program data requirements.

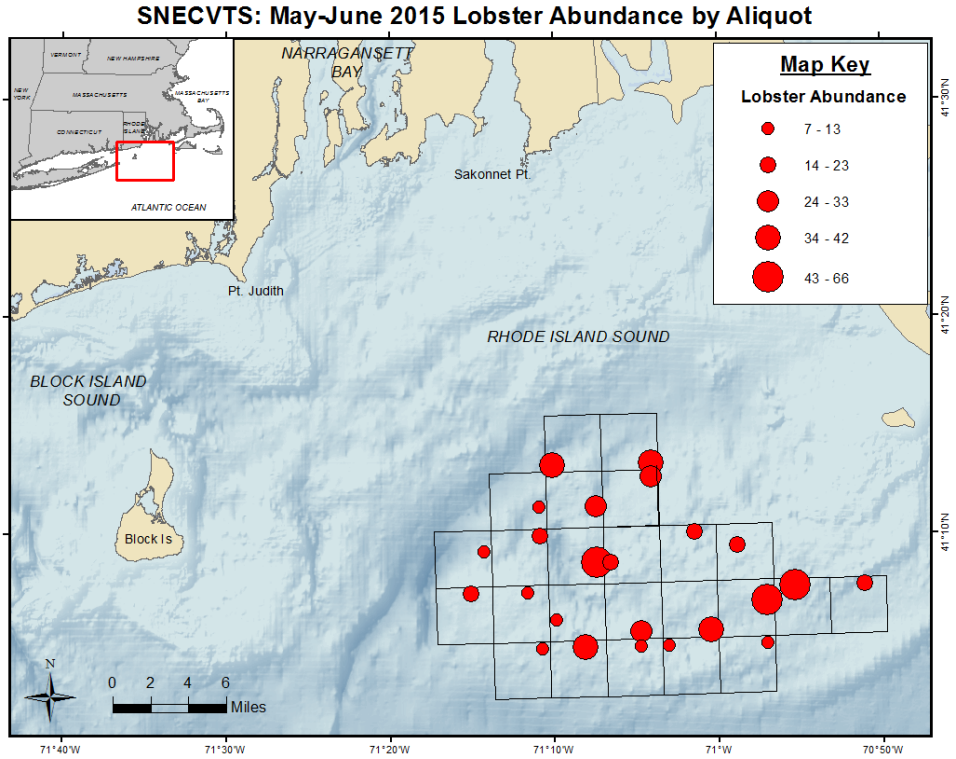
Objectives:

1. Establish a ventless trap survey protocol to assess the potential impacts of wind energy development offshore Rhode Island and Massachusetts.

2. Determine the seasonal and spatial patterns of lobster abundance within these development areas.

3. Conduct two years of pre-development monitoring that will allow Before-After and Control-Impact (BACI) comparisons to be made. This monitoring survey will establish pre-construction conditions. Continuation of monitoring during construction and post-construction will assess possible impacts in the context of a regional database.

Figure 1. Total lobster abundance by aliquot. To date, the highest lobster abundance has been observed in Aliquots 32, 41, and 42, which are located in the center and on the eastern side of the study site.



References:

Atlantic States Marine Fisheries Commission (ASMFC). 2009. American Lobster Stock Assessment. http://www.asmfc.org/species/american-lobster accessed Accessed April 16, 2014.

Atlantic States Marine Fisheries Commission (ASMFC). 2010. Recruitment failure in the

southern New England lobster stock. Prepared by the American Lobster Technical Committee, Atlantic State Marine Fisheries Commission, 58 pp.

Dean, M.J. 2010. Massachusetts Lobster Fishery Statistics for 2006. Technical report of the Massachusetts Division of Marine Fisheries, Commonwealth of Massachusetts. 30 pp.

Hasbrouck, E.C, Scotti, J., Stent, J. and Gerbino, K. 2011. Rhode Island commercial fishing and seafood industries : The development of an industry profile. 124 pp.

Schmitt, R.J. and Craig W. Osenberg. 1996. *Detecting Ecological Impacts: Consents and Applications in Coastal Habitats*. Academic Press. San Diego, California. 401 p.

Importance to BOEM: Information about the seasonal and spatial patterns of the economically important lobster fishery will be used to evaluate any changes in distribution that result from the placement of offshore wind facilities in the area.

Current Status: The project kick-off meeting was held on August 6, 2013. Sampling for Year 1 began in the Spring of 2014 – Fall 2014. Year 2 sampling season was completed in October 2015.

Final Report Due: October 2016

Publications: None

Affiliated Web Sites: None

Revised Date: July 28, 2016