

# Monitoring Surfclams at Offshore Wind Energy Project Sites in the Mid-Atlantic

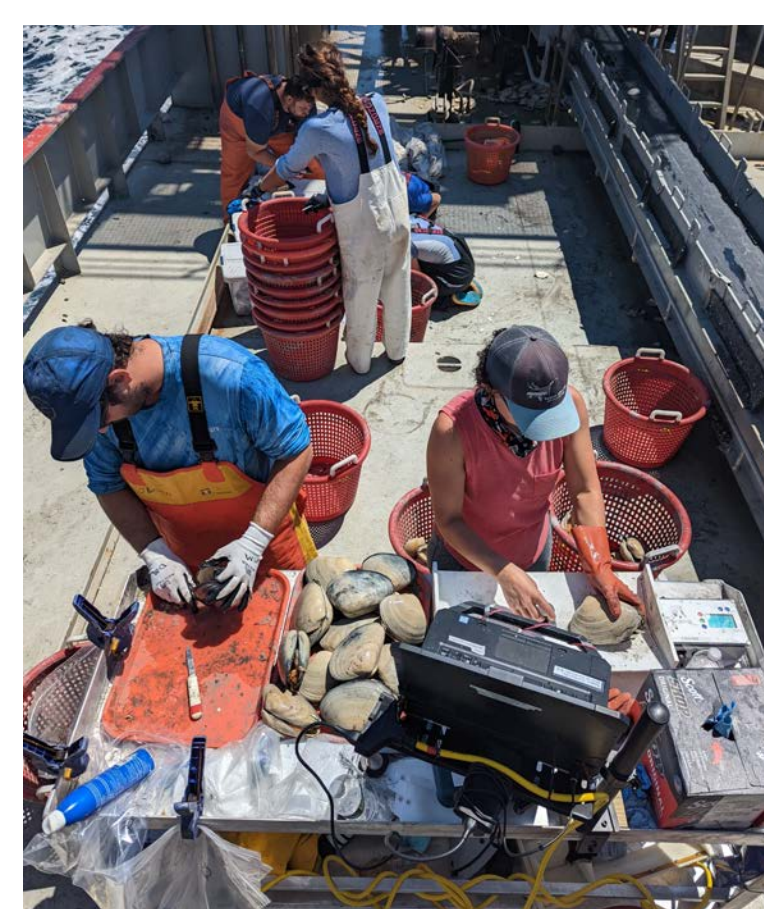
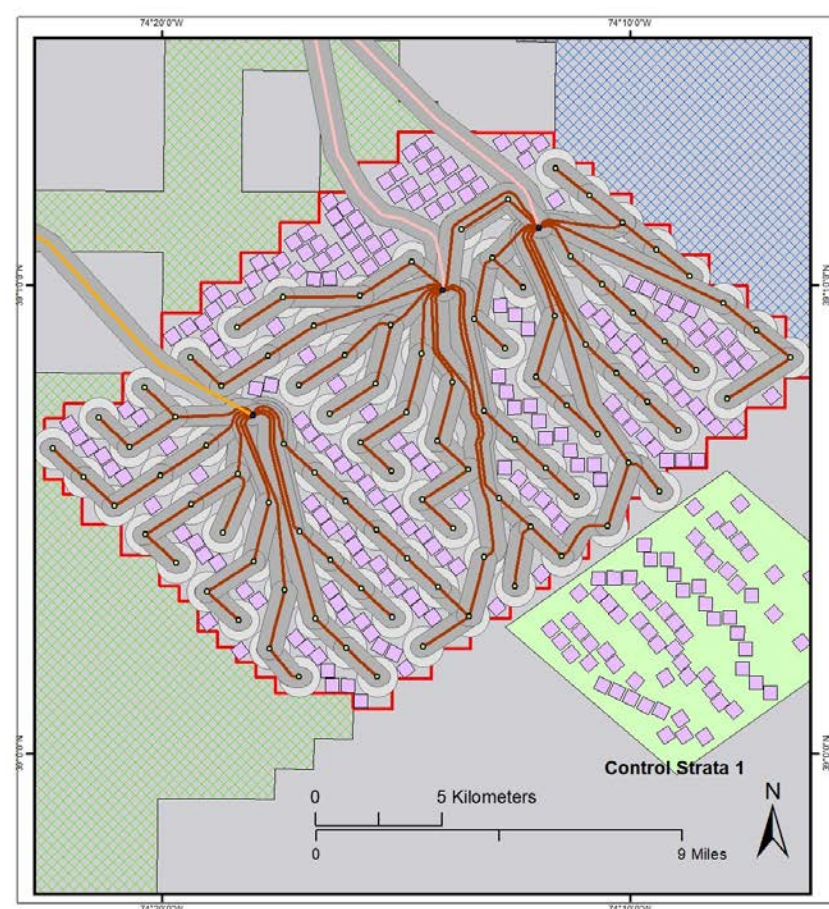
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## SUMMARY

The Atlantic surfclam (*Spisula solidissima*) fishery is a major economic driver in communities spanning the U.S. Northeast coast. The fishery lands 22,400 tonnes (50 million lbs) generating over \$30 Million USD (ex-vessel) in annual revenue. The fishery operates with large vessels that tow heavy hydraulic dredges to catch surfclams. Wind farm lease areas planned along the MidAtlantic continental shelf overlap regions of high fishable biomass for the surfclam fishery. It is anticipated that the wind farms may restrict vessel transit patterns, or access to fishing locations resulting in economic impacts to the fishery. To plan for appropriate mitigation of compensation for these losses, it is important to fully characterize the stock abundance and demographics within offshore wind lease areas before construction and throughout operations.

A survey tool that samples over a relatively large area and consistently catches large-bodied clams is needed to accurately estimate biomass, abundance, and size structure of the surfclam stock. A scientific hydraulic sampling dredge designed to operate from a commercial vessel to catch a breadth of sizes of surfclams was constructed and used to survey surfclams at offshore wind lease locations. This cooperative survey program will provide important information about stock abundance and demography within offshore wind areas before, during, and after construction.



## OFFSHORE WIND LEASE SURFCLAM SURVEYS

- Sample wind lease area and control locations annually through construction and early operation
  - Before-after-control-impact sampling design to evaluate changes in surfclam abundance.
  - Use station allocation that accounts for wind turbine and cable locations before construction begins
    - Improves statistical before-after comparison
- Selectivity and efficiency of the dredge has been evaluated
  - Allows data generated from this sampling tool to be compared to, and potentially integrated with, long-term federal survey data.
- Consistent methods that follow federal survey standards used in all offshore wind lease area surveys
  - Supports direct comparison among projects and to long-term datasets
- Demographic (age and length) data collected with survey abundance.
  - Genetic data collected where appropriate.

## SURVEYS TO DATE

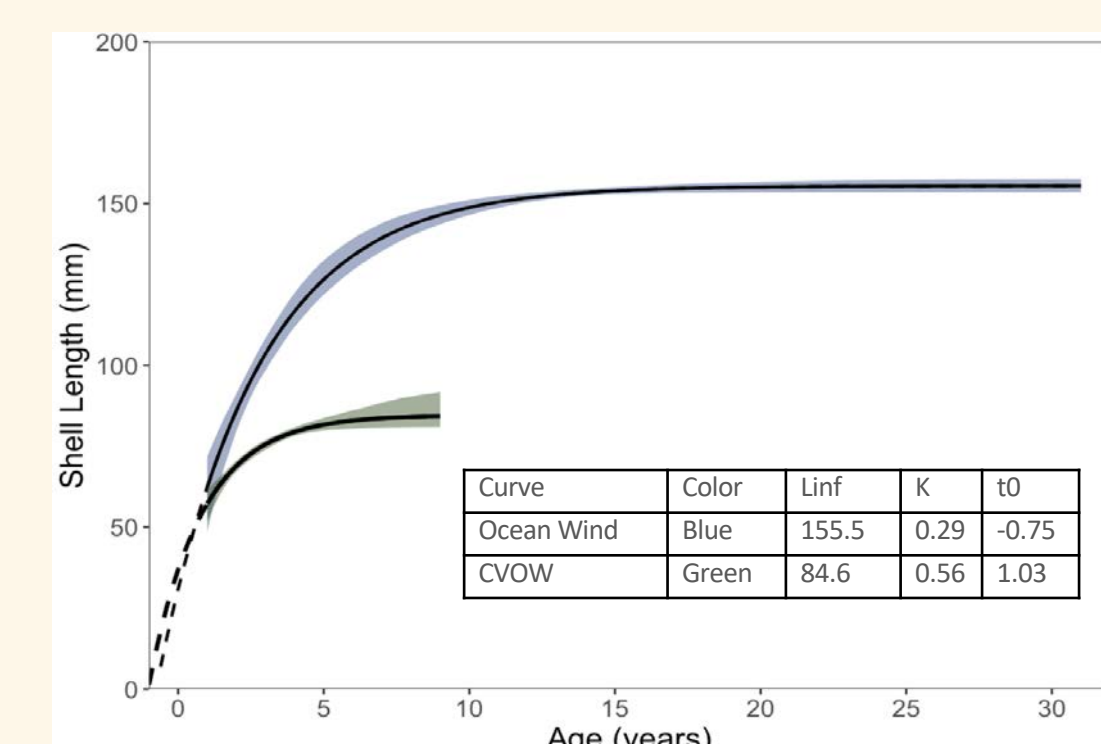
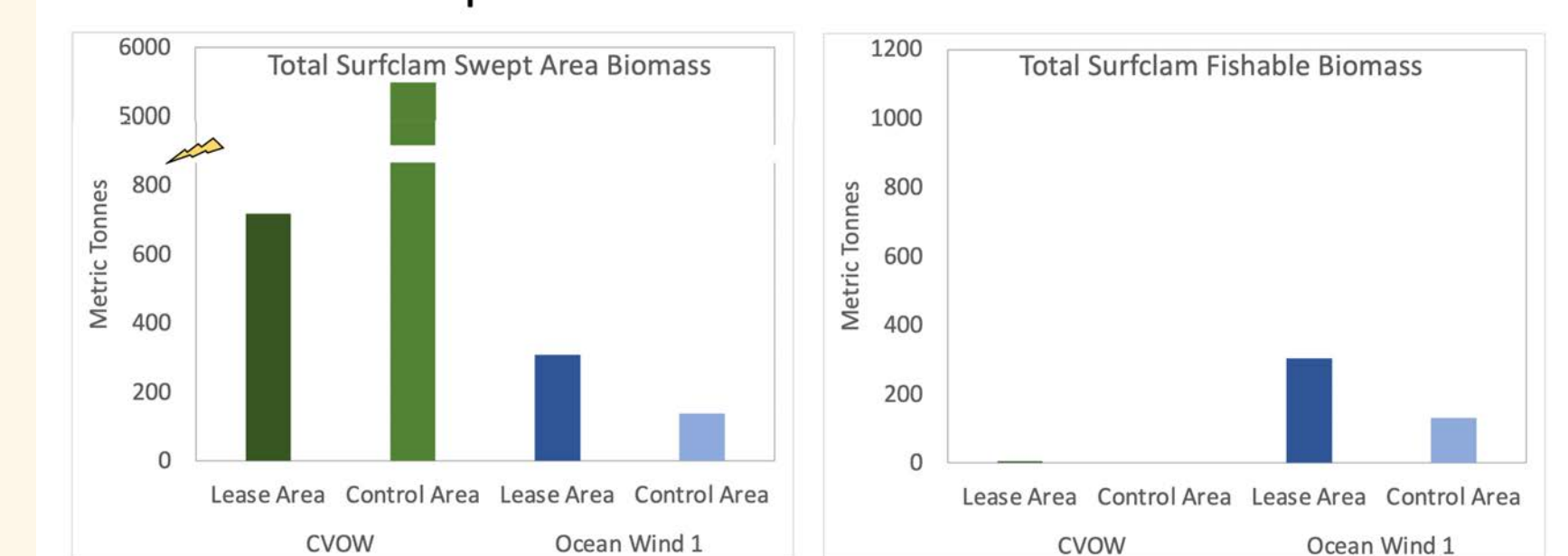
### Ocean Wind 1

1. Used a stratified approach
  - Lease and controls stratified to account for variation across the lease in habitat and biomass
2. Two years of pre-construction surveys complete
  - Surveys in 2022 & 2023
  - ~40 stations occupied per year
  - Project now cancelled

### Coastal Virginia Offshore Wind

1. Survey led by Virginia Institute of Marine Science
2. Used a gradient approach
  - Controls in a gradient to north and south include comparable habitat to lease site
3. One year pre-construction survey complete
  - Survey in 2023
  - ~ 40 stations occupied
  - No plans for during or post-construction survey

### Swept Area Biomass Estimates



### Atlantic Shores Offshore Wind

1. Fishery Management Plan in development

*Cooperative monitoring programs that use consistent methods across offshore wind projects will support regional evaluation of changes in the surfclam stock and will provide data critical to survey and fishery mitigation.*