Size and Abundance of Juvenile Atlantic Surfclams (*Spisula solidissima*) in Wind Lease Areas for New Jersey

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Introduction

- Surfclams (*Spisula solidissima*) are an important fishery species in New Jersey
- In 2022, the Haskin Shellfish Lab sampled the population in and around New Jersey offshore wind lease areas
- The juvenile surfclams caught are used here to assess the size and abundance of newly recruited clams
- Understanding surfclam recruitment will inform our understanding of population dynamics
- In the long-term this work will help in understanding how offshore wind may impact the surfclam population

Methods

- Collected benthic grabs at the stations in and around offshore wind project areas (Figure 1)
- Grabs collected the top 5-10 cm of bottom sediments (0.1 m^2)
- Sort samples over a 2 mm sieve
- Count and measure surfclams from the samples to get abundance and size frequency per station

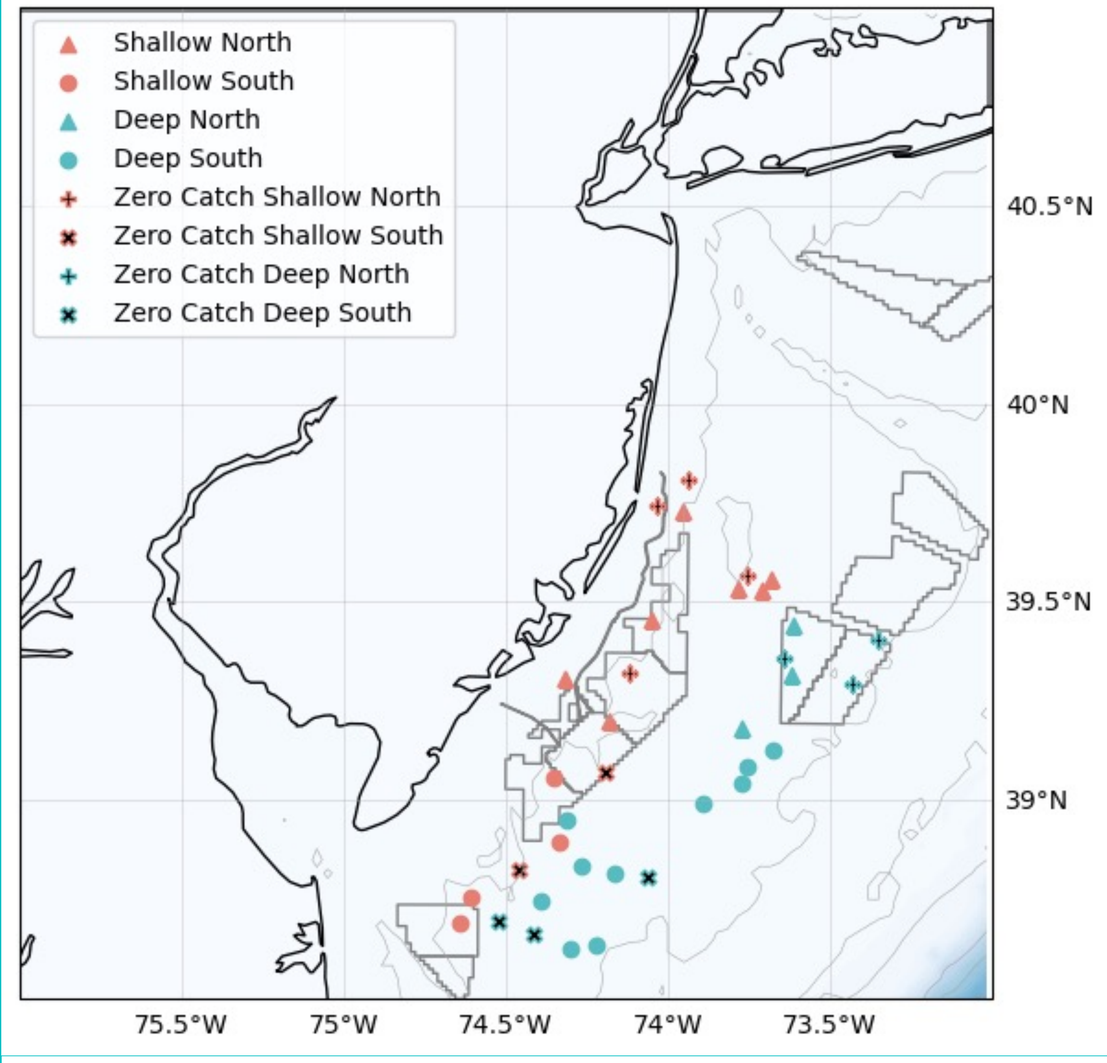

Figure 1. Benthic grab locations divided into deep (blue), shallow (red), north (triangle), south (circle), and zero catch stations (cross or x).

Results

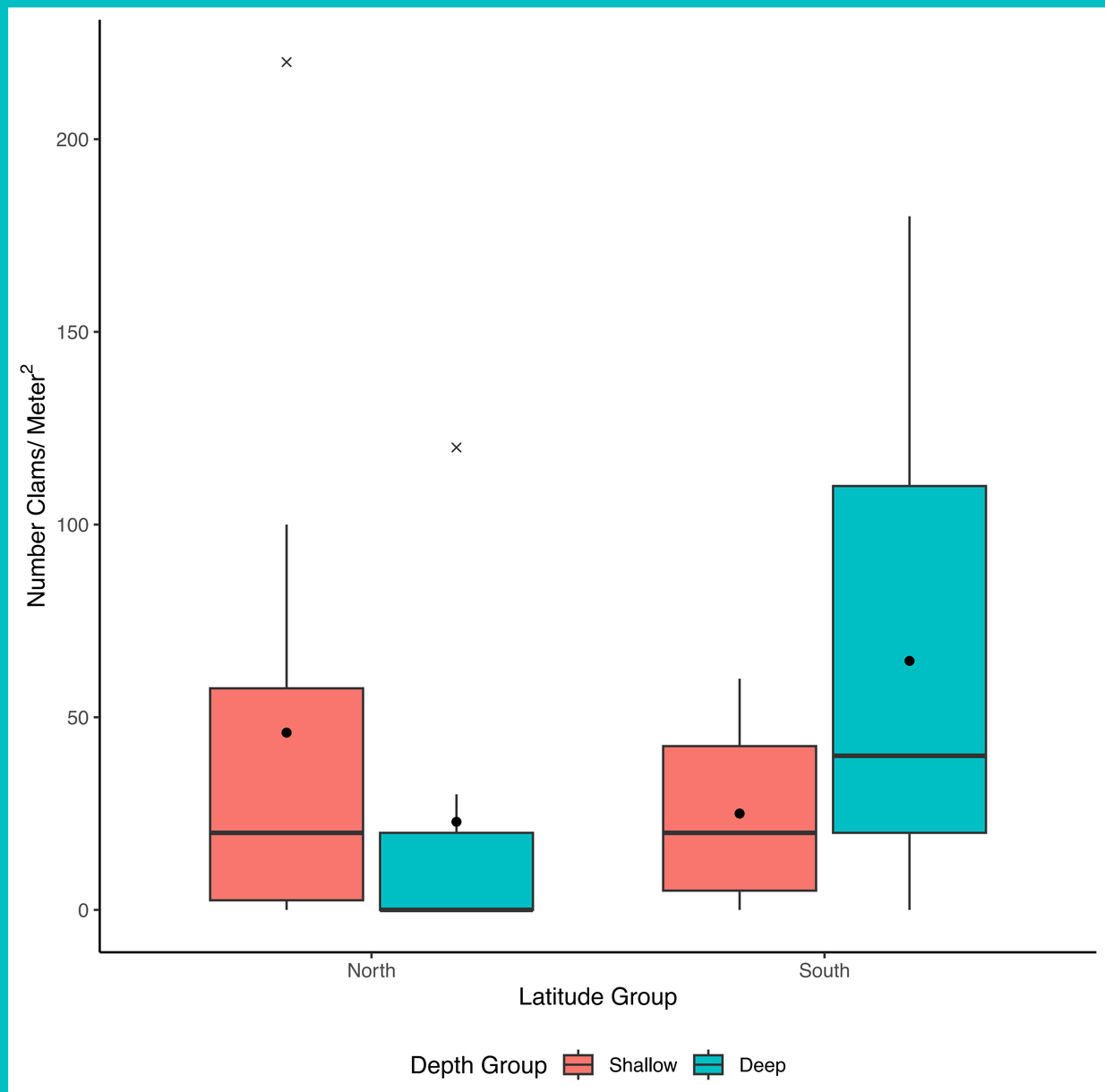

Figure 2. Abundance of surfclams at all stations divided into quadrants and standardized. Dots signify the means and x's indicate outliers.

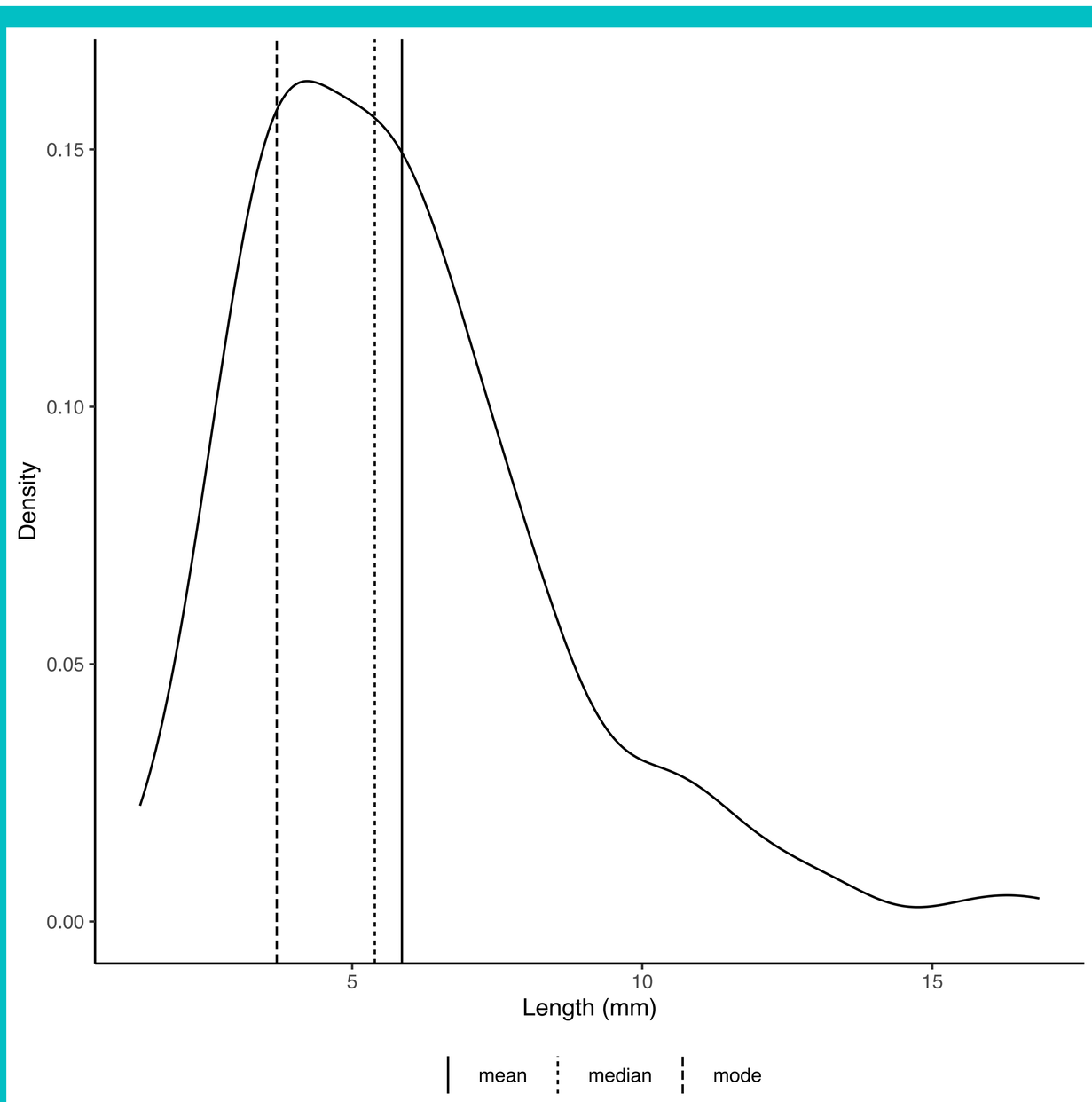

Figure 3. Size distribution of juveniles caught at all stations.

Conclusions

- 12 stations caught no juvenile surfclams
- The shallow stations were similar in abundance, but deep stations in the south had higher abundance
- Most of the surfclams found were smaller than 6 mm, indicating a recent recruitment event

Next Steps

- Compare present trends to New Jersey surveys in 2023 and to surveys in the southern range of surfclams
- Assess annual changes in abundance and size distributions
- Compare current survey work with historical benthic grab collections