

# Clam Dredge Framework

Clam Survey Project, Science Center for  
Marine Fisheries

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Habitat Committee Meeting  
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# Summary

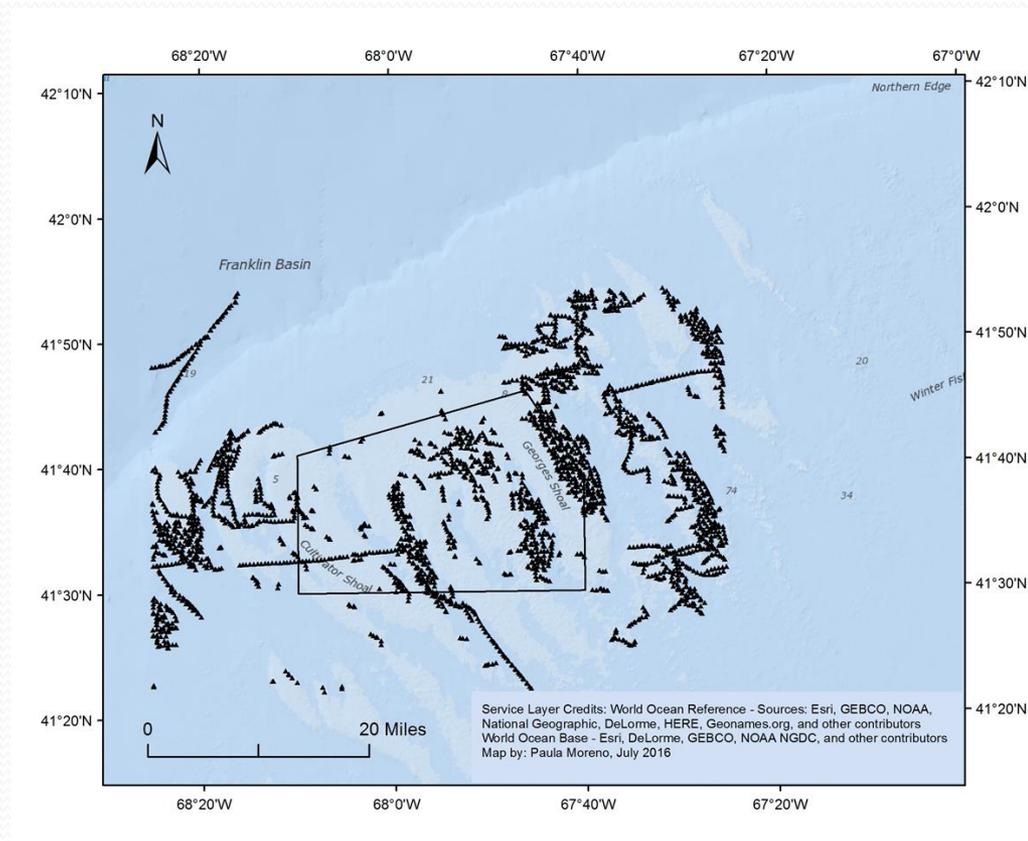
- Work completed by Science Center for Marine Fisheries, Dr. Eric Powell principal investigator
- Project includes three components:
  - Digitize and analyze logs from Northeast Fisheries Science Center clam dredge survey for entire survey area
  - Digitize commercial vessel plotter data in and around each of the HMAs
  - Compare locations of survey tows with complex habitat with fishing locations

# Clam survey project component

- SCeMFiS obtained paper and digital data from clam survey
- Digitized paper logs
- Determined how to standardize data elements across entire survey time series and assigned values of absent, present, or predominate to each variable
  - Approach varied by data element
- Develop GIS database
- Map results and draft report

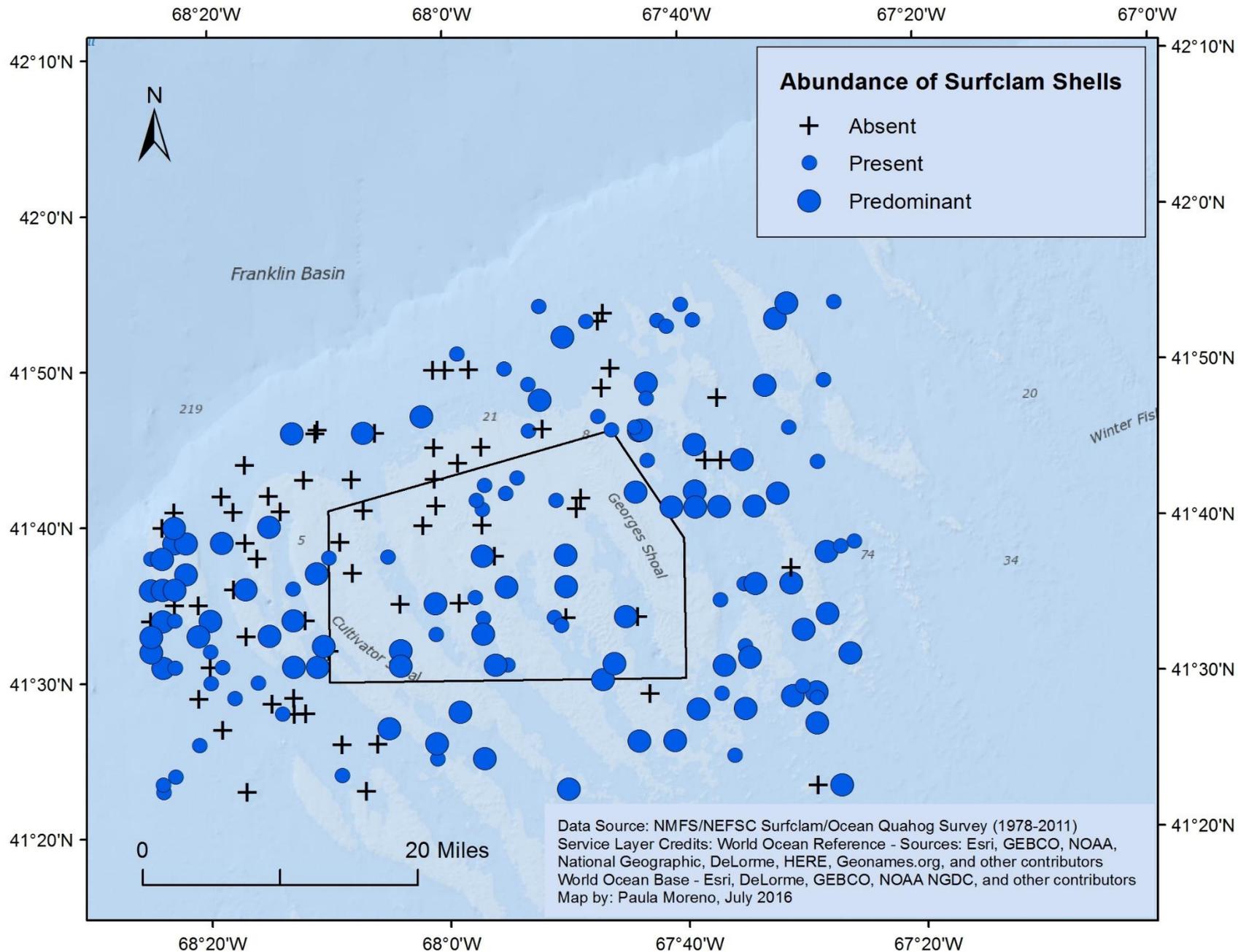
# Commercial vessel plotter data

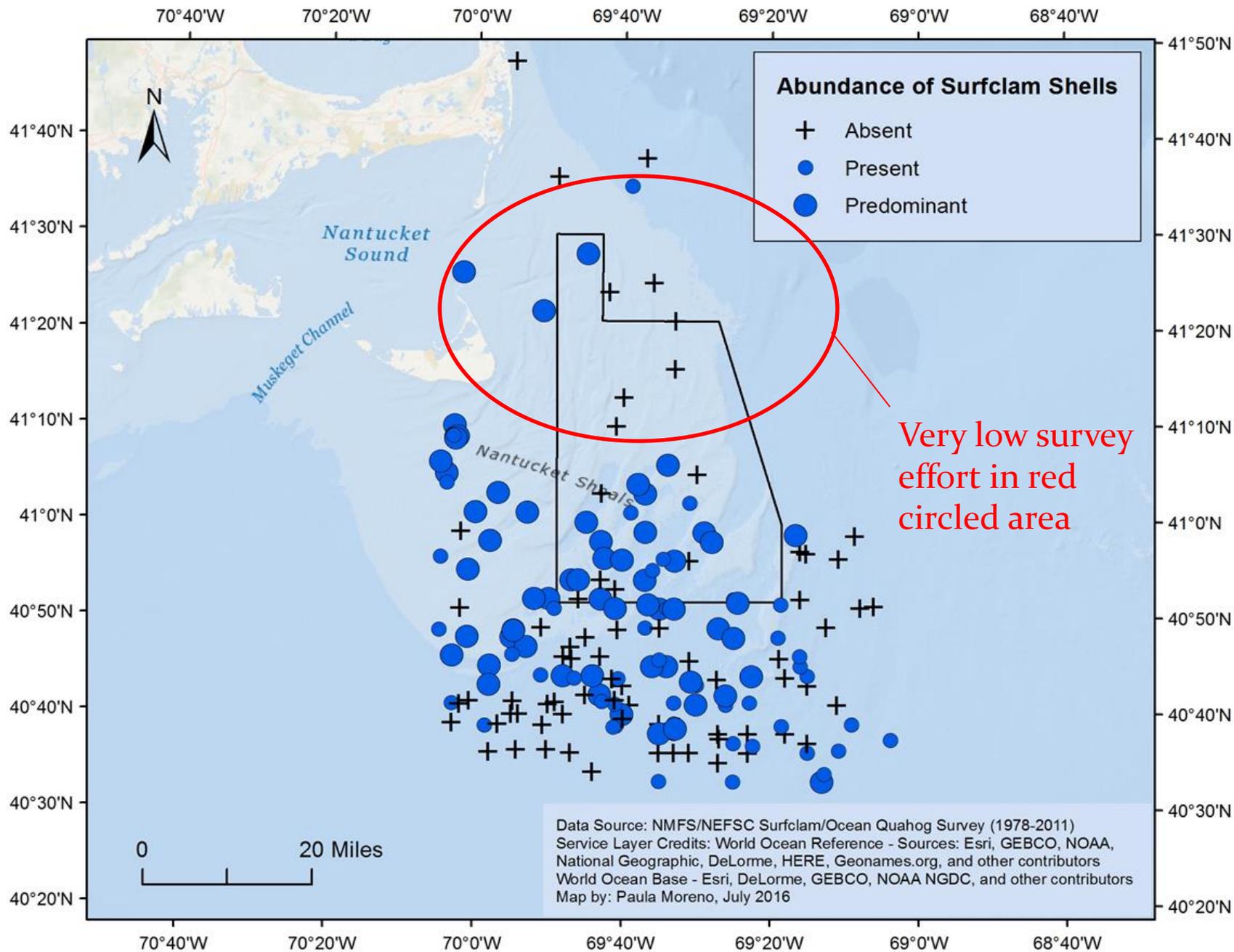
- Obtained WinPlot data from various clam vessels
- Compared adjacent polls to impute vessel speed
- Filtered data to pull out polls that likely represent fishing
- Develop GIS database and map results

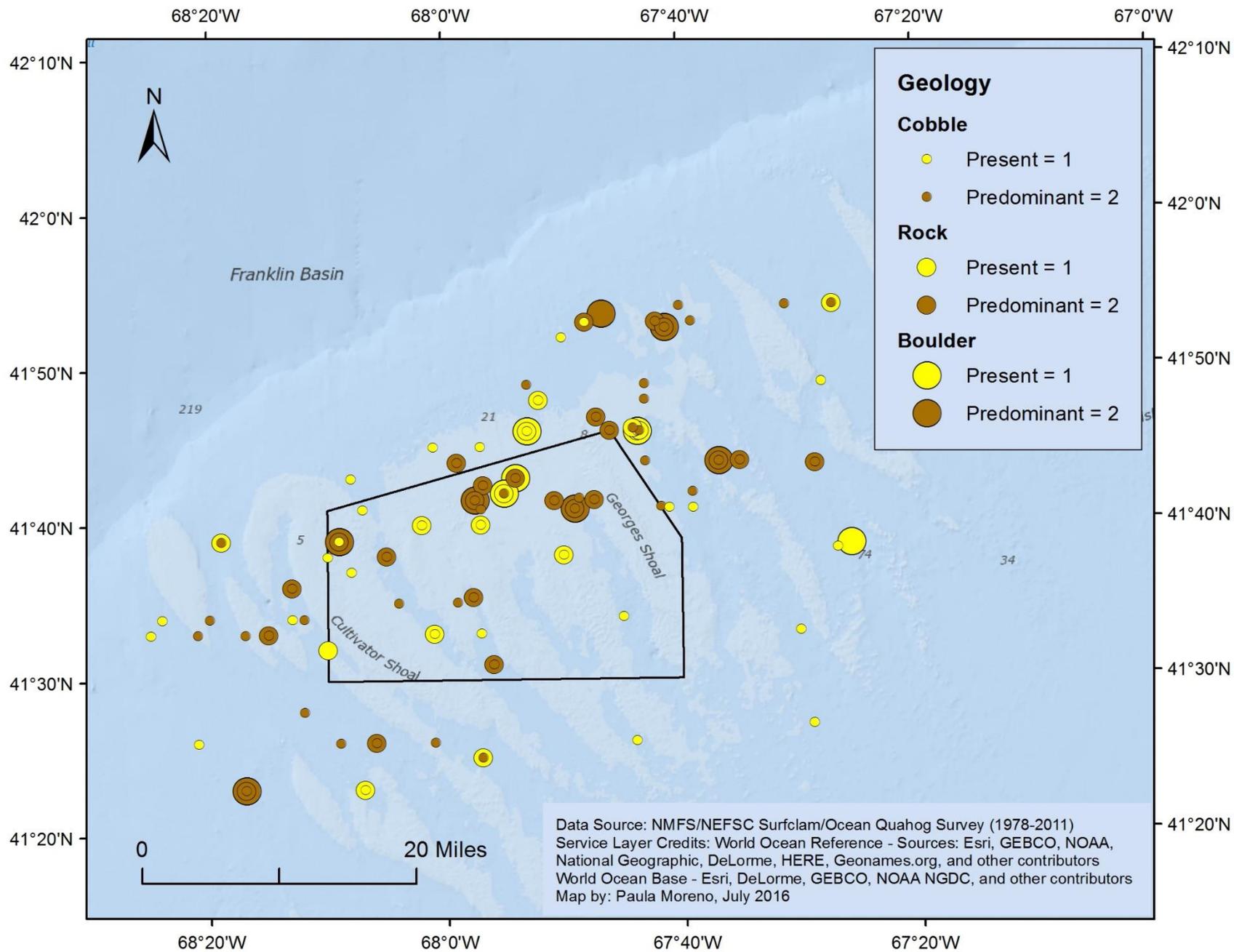


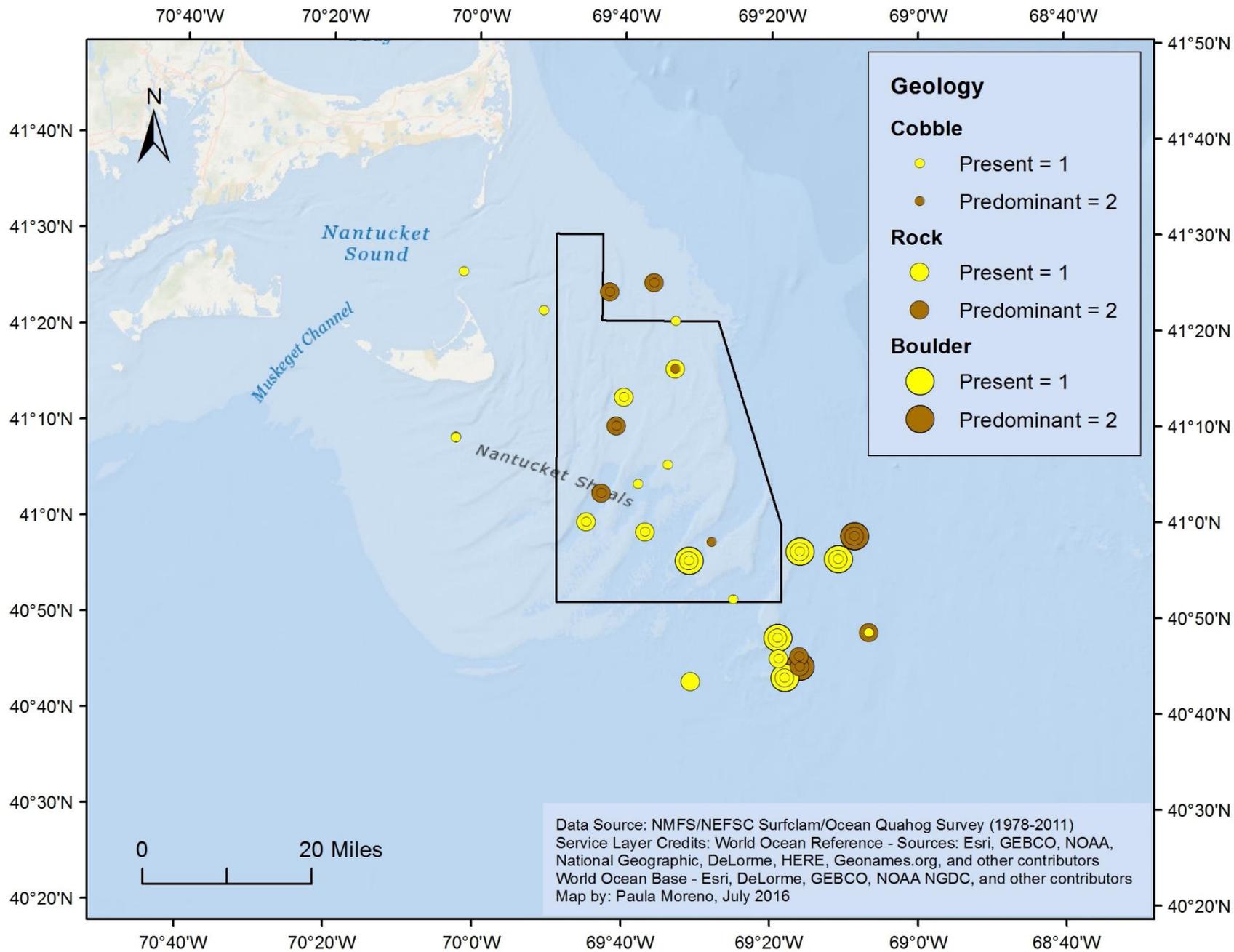
# Comparison of survey and commercial vessel data

- Assess survey tow data and assign tows as complex habitat or not, considering:
  - Haul logs
  - Sediment
  - Epifauna
- Compare locations from commercial data to locations in survey data
- Answer question: commercial tows encounter complex habitat more or less frequently than would be expected by chance, given prevalence of complex habitat in these two HMAs?









# PDT feedback

- Data on habitat elements from clam survey should be a useful addition to other habitat maps generated using video survey and USGS data
  - Caveat: northern half of Great South Channel HMA is poorly surveyed
- Data on commercial fishing distribution should be a useful addition to logbook-based effort and revenue maps, especially given historically low at-sea observer coverage of fishery
  - Caveat: fishing/not fishing is based on assumptions/filters; not a census of all vessels
- PDT was less certain about the complex habitat/fishing location comparative analysis

# Next steps

- PDT will provide detailed comments on draft report to Dr. Powell
- Dr. Powell will forward GIS database to PDT
- PDT will integrate GIS data from this project with existing habitat data, such as sediment maps, bathymetry, benthic boundary shear stress, logbook-based revenue data, and new data obtained from the SMAST image analysis project
- PDT will consider all data sources and develop a range of alternatives for the Committee to consider