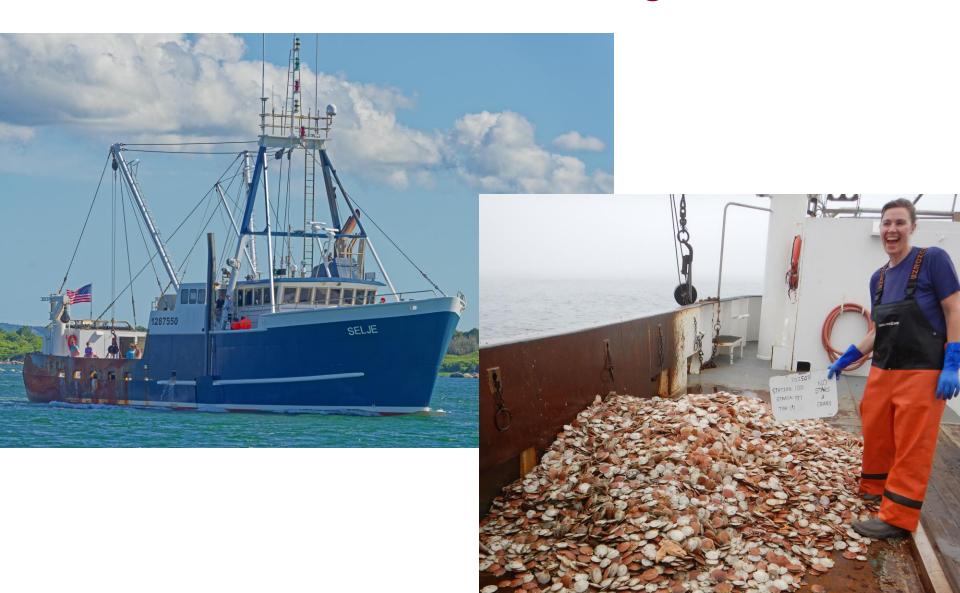
# 2025 NEFSC Sea Scallop Survey

Dvora Hart and Han Chang, NEFSC



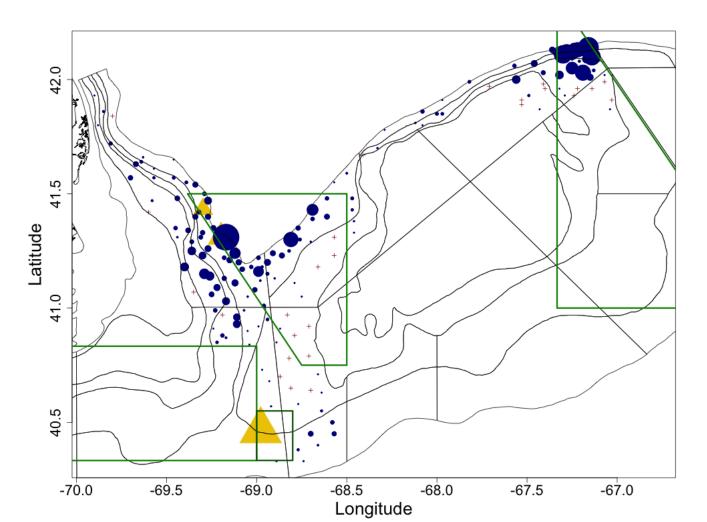
## Summary

**Dredge Survey:** Successfully completed 173 stations on Georges Bank on the F/V *Selje*. First implementation of GRTS. NEFSC coverage: GSC, Closed Area I, Northern Flank, Closed Area II North

Habcam Survey: Surveyed the Nantucket Lightship Area plus portions of Closed Area I before losing the vehicle due to an uncharted wreck. AUV was deployed from shore and completed transects in the northern Mid-Atlantic. Vehicle was recovered.

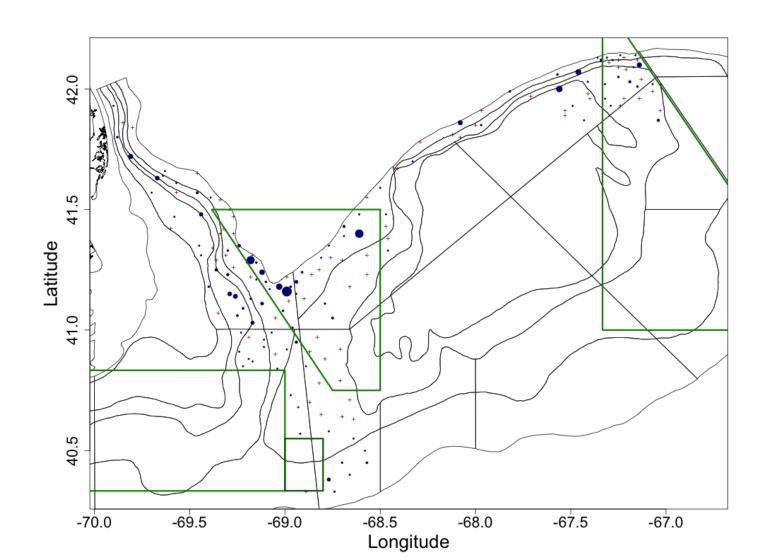
### **Biomass from Dredge Survey**

Biomass concentrated in northern portions of Closed Areas I and II, with some in GSC. Also note very large non-random station in NLS Extension.



### **Recruitment from Dredge Survey**

Recruitment in surveyed area was generally poor.
Some recruitment was observed in Closed Area I



# Generalized Random Tessellation (GRTS) Implementation

First year using GRTS, incorporating a spatially balanced design unequal inclusion probabilities.

Inclusion probabilities based on 2024 dredge survey, but tempered to assure some sampling even at lower density areas.

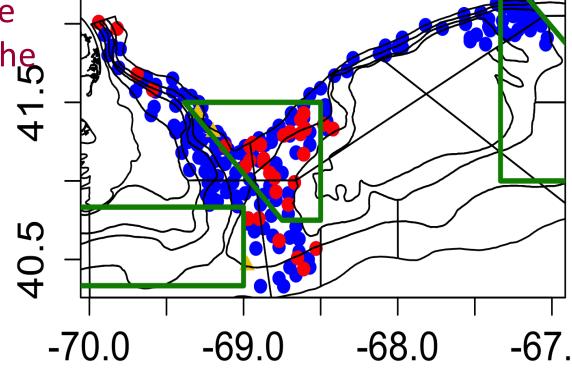
A complication was that 205 stations were allocated, but due to time constraints, only 173 were completed. This requires adjustments of the inclusion probabilities to account for the drops.

## **Completed and Dropped Stations**

Stations were dropped in specific areas. For NF and Closed Area I, inclusion probabilities were adjusted based on traditional strata boundaries. Inclusion probabilities were

reduced according to the percentage of drops in the stratum

GSC was split into three zones, > 41.5, < 40.8333 and the area in between, and inclusion probabilities were adjusted by zone



Longitude

## **Dredge Survey Summary Estimates**

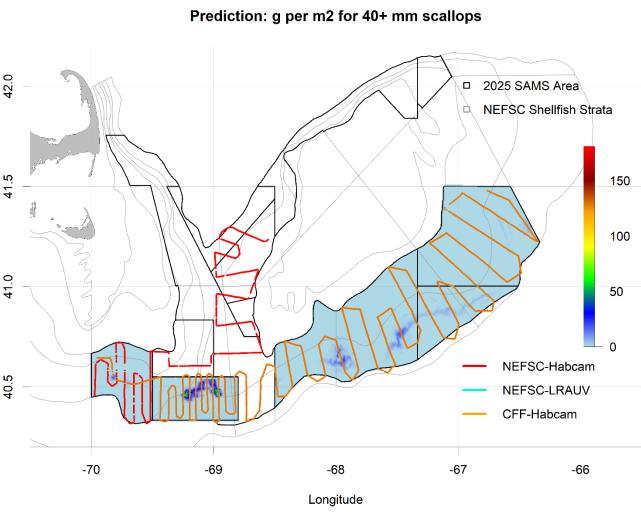
SAMS	Number	SE	Biomass	SE	ExplBms	SE
	millions		mt		mt	
CAI-North	220.0	67.2	4108	1464	3219	1283
CAI-Mid+S	6.8	2.3	146	56	122	49
CAII-North	98.0	28.2	3468	931	1944	849
NF	38.2	12.9	697	211	486	126
GSC	222.1	27.5	4409	484	3234	337

## Habcam – Georges Bank

NEFSC coverage – Lightship West, GSC South, portions of Closed Area I.

Geostatistical Models only constructed for MLS-West, NLS-South, SF, CL2-South, and CL2-Ext.

NLS-South aggregation is further north than 2012 cohort.



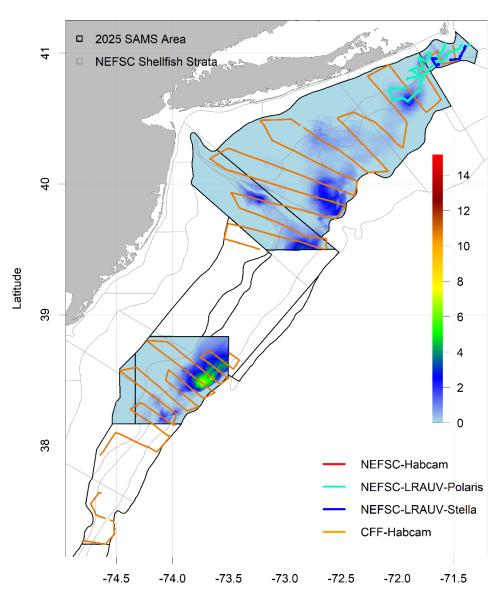
### **Mid-Atlantic**

Prediction: g per m2 for 40+ mm scallops

Geostatistical Models only constructed for BI, LI, NYB, and ET. Good survival of 2024 ET recruitment event.

To supplement the CFF tracks NEFSC sent two AUVs from shore to survey Block Island and northern Long Island.

AUV tracks designed to follow the VIMS dredge stations as well as survey a small hotspot observed in 2024.



Longitude

#### **LRAUV – Mid-Atlantic**



Slightly higher densities south of Montauk and in deep water of LI observed by AUV and predicted by geostatistical models.

Prediction: g per m2 for 40+ mm scallops Observation: # per m2 for >75 mm scallops

