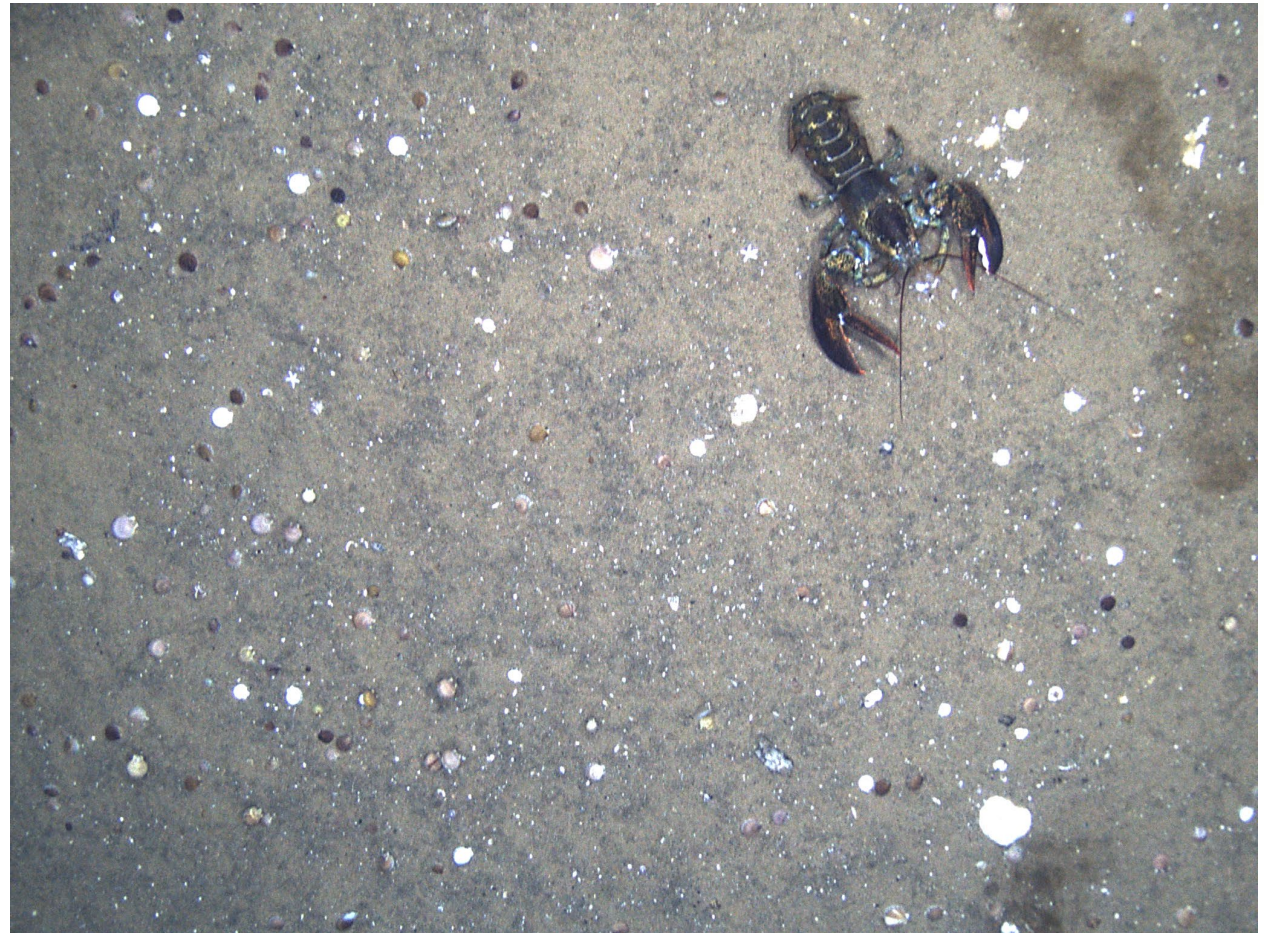


2026 CFF HabCam Survey



Sea Scallop PDT Meeting
August 26-27, 2026

Tasha O'Hara
Luisa Garcia
Liese Siemann



F/V Princess Scarlett

Owner:

Atlantic Shellfish, Inc.

Homeport:

Fairhaven, MA

Size: 90+ ft

Berths: 13

Primary Gears:

Dredge and Twin Trawl

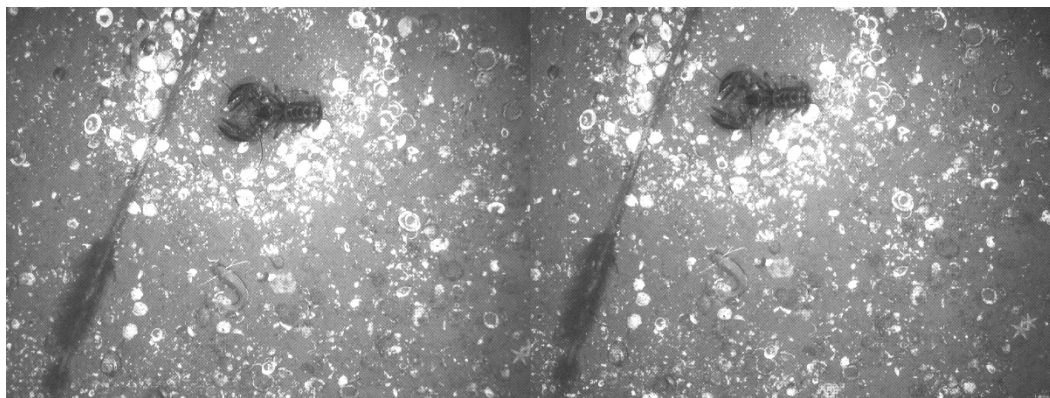
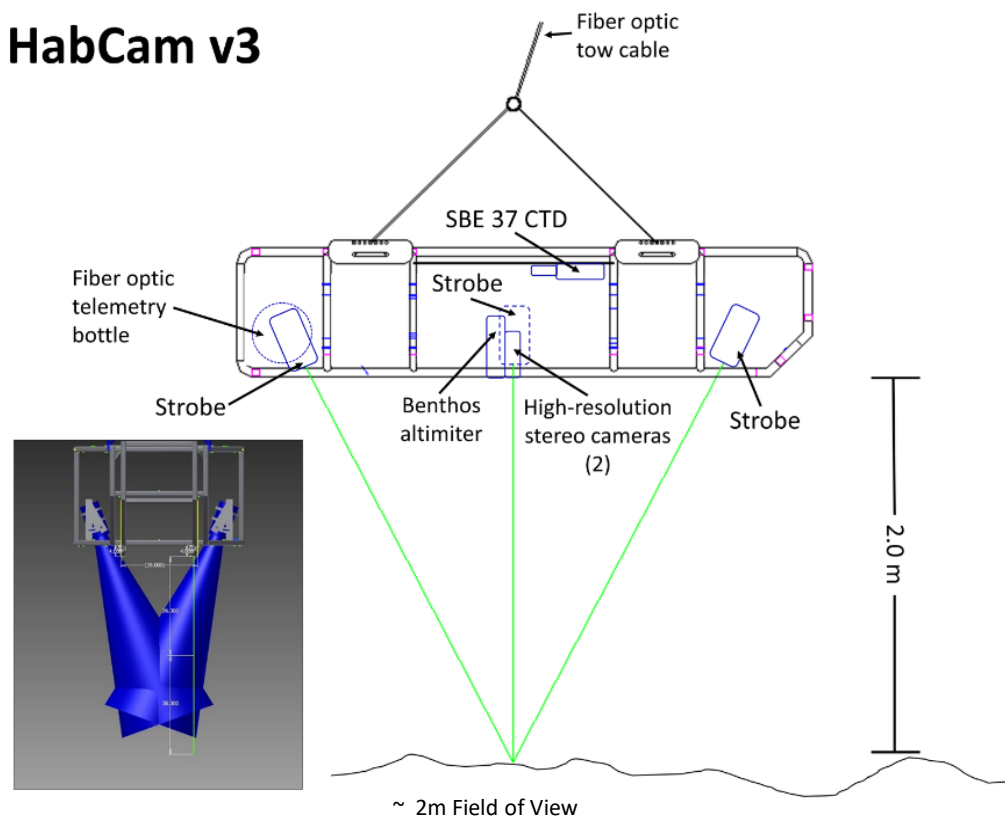


System Overview

HabCam v3 Deployment

- Target altitude 2.2 m
- Average speed: 5.4 knots
- Images and data transmitted over armored fiber optic cable
- Integrated shipboard metadata
- Target spatial “station” distance ~40m

HabCam v3



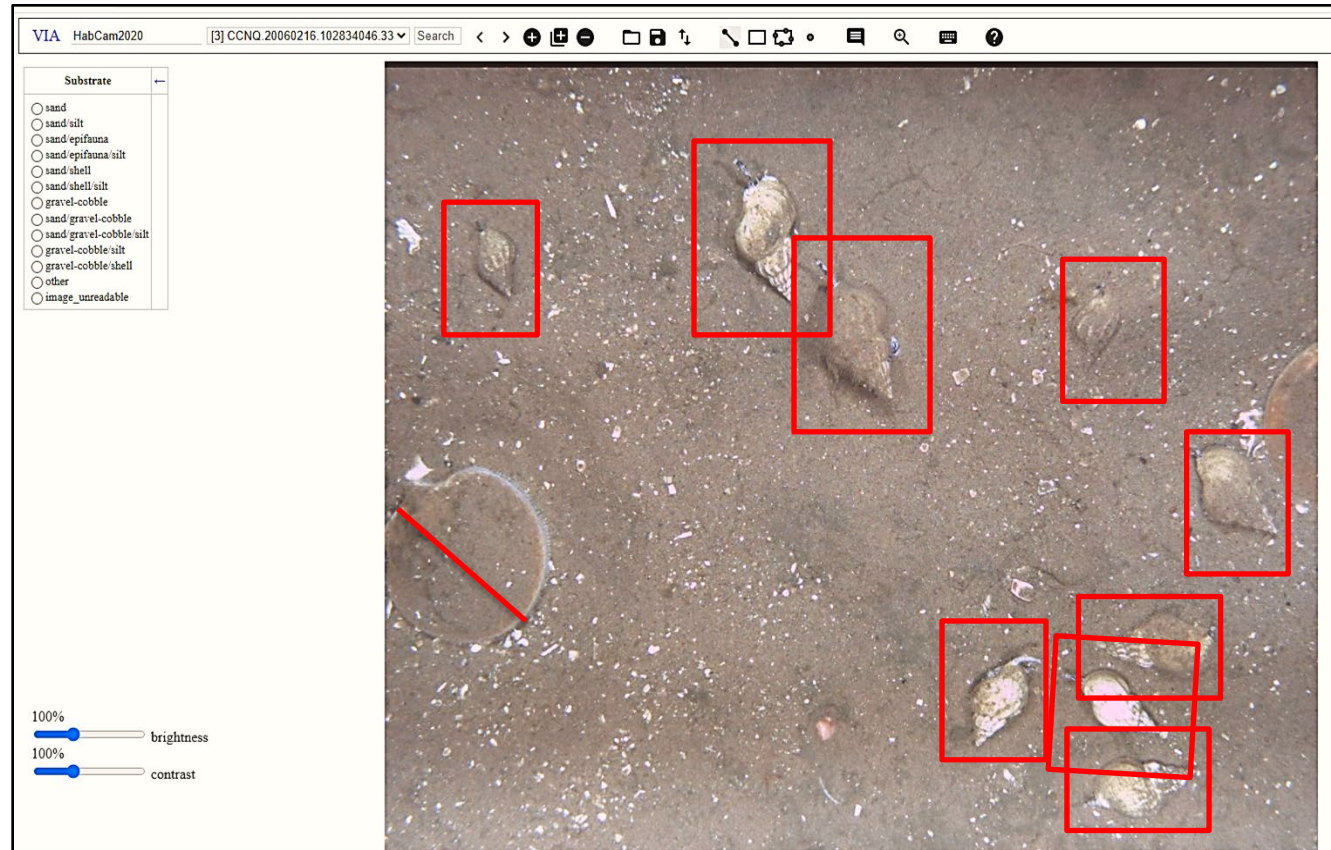
Data Analysis

All annotators trained and assessed on control set

Similar annotation protocol to NOAA HabCam v4 survey

In-house biomass estimates completed using stratified mean estimation by depth

Images aggregated over ~1000m segments

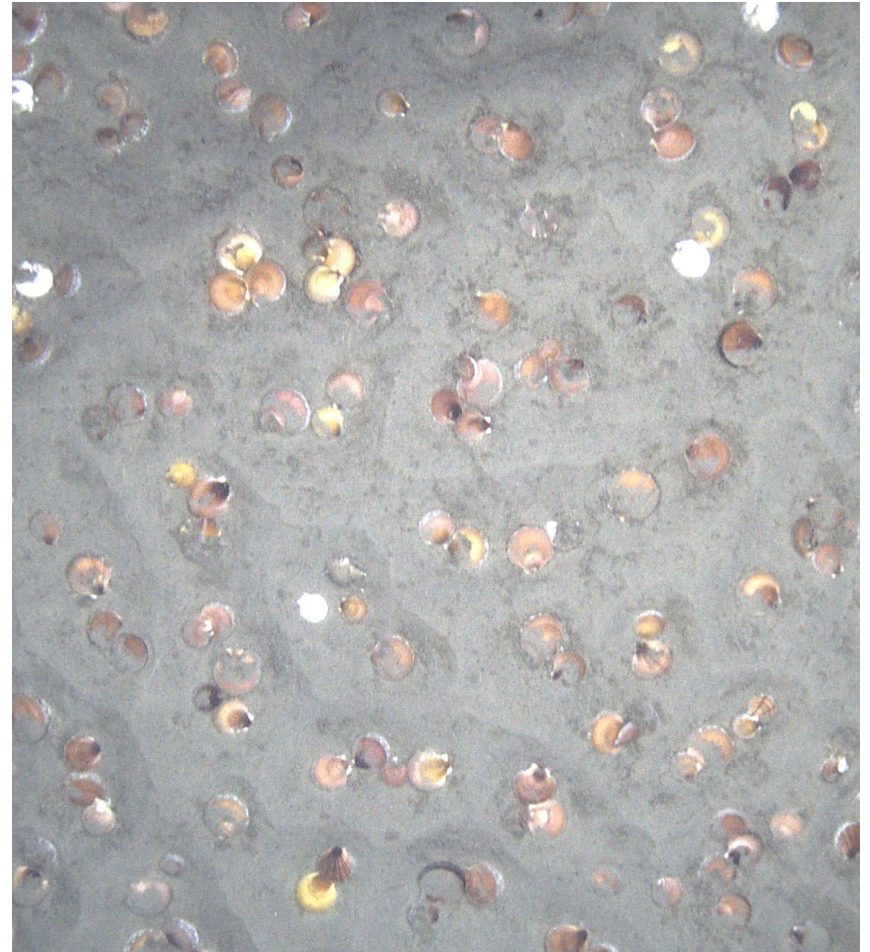


VIA annotator GUI. Annotations are made for pre-determined species and substrate lists. Brightness and contrast bars and zoom function added to improve annotations.

2024-2027 CFF HabCam Survey

Project Objectives:

- Collect photographic imagery from proposed optical transects in the survey areas
- Develop GIS-based plots of scallop distribution and density by size and length-frequency distributions of scallops within survey areas
- Derive overall biomass (total and exploitable) within each SAMS area



2026 Survey Highlights

2026 Annotations

Images annotated:

51,305

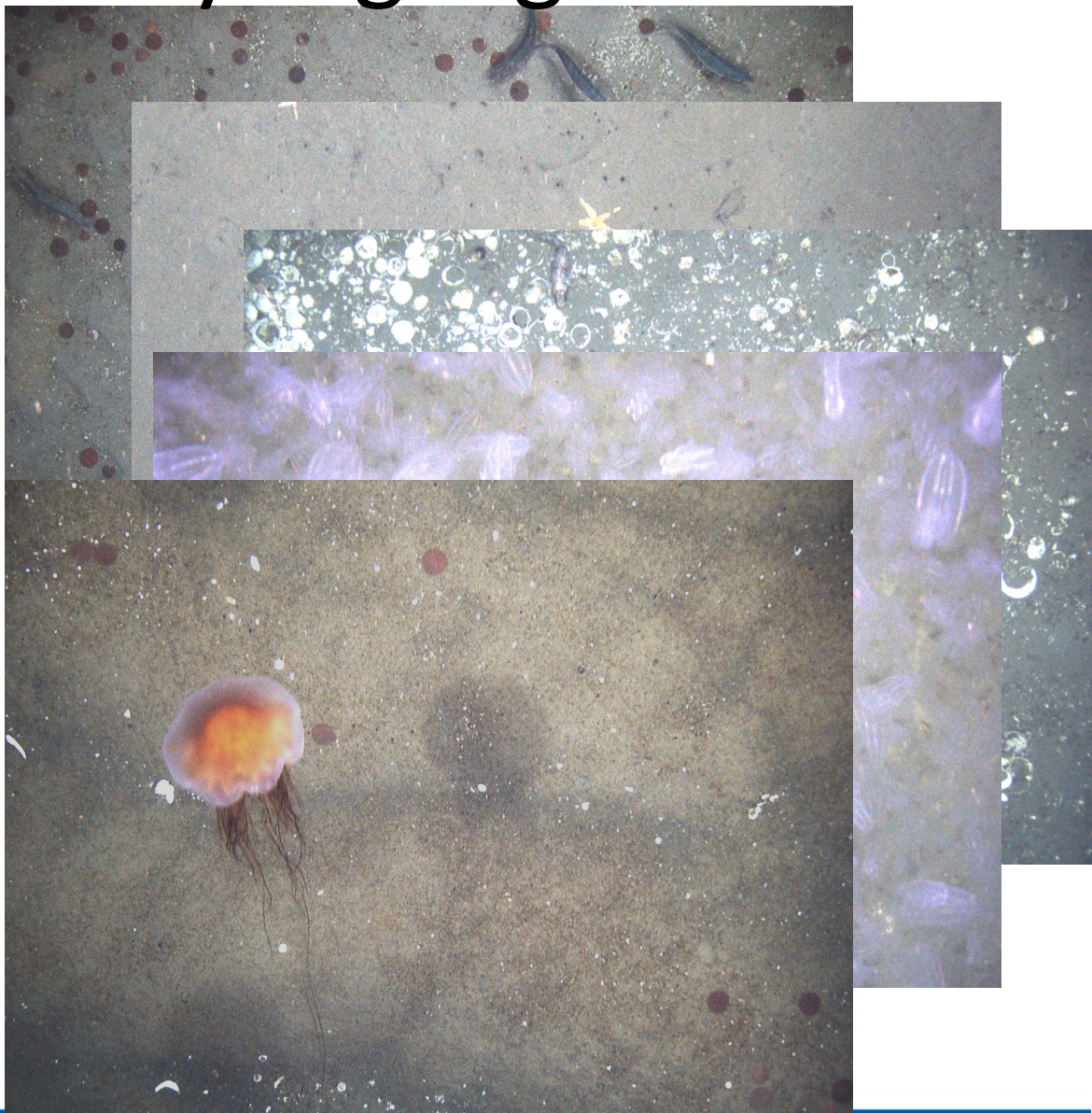
Total annotations:

339,386

Total scallop
annotations: **85,200**

Live scallop
annotations: **84,024**

Unique species
identified: **49**



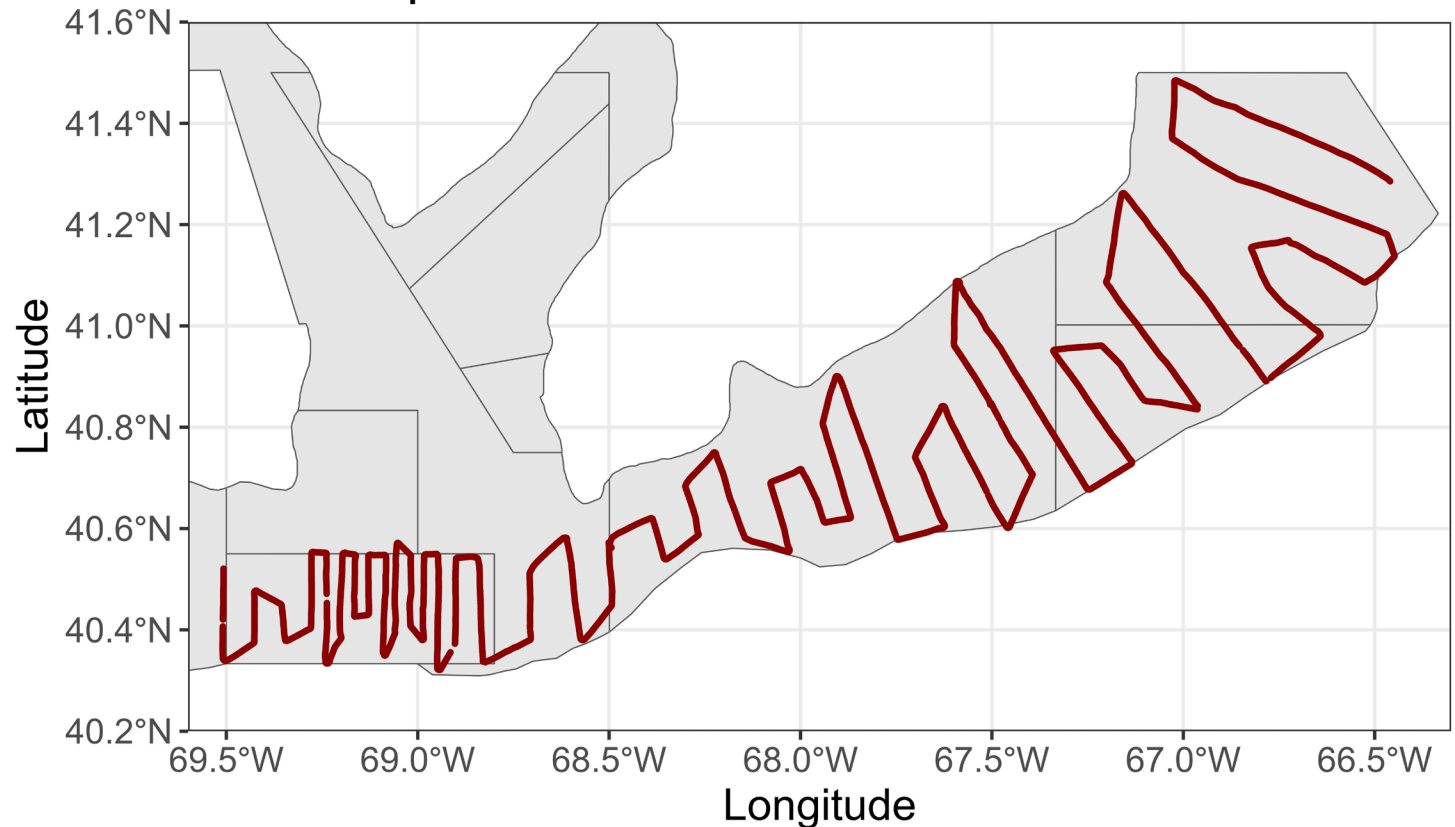
Georges Bank Track

Georges Bank and Nantucket Lightship

May 29-June 4, 2026

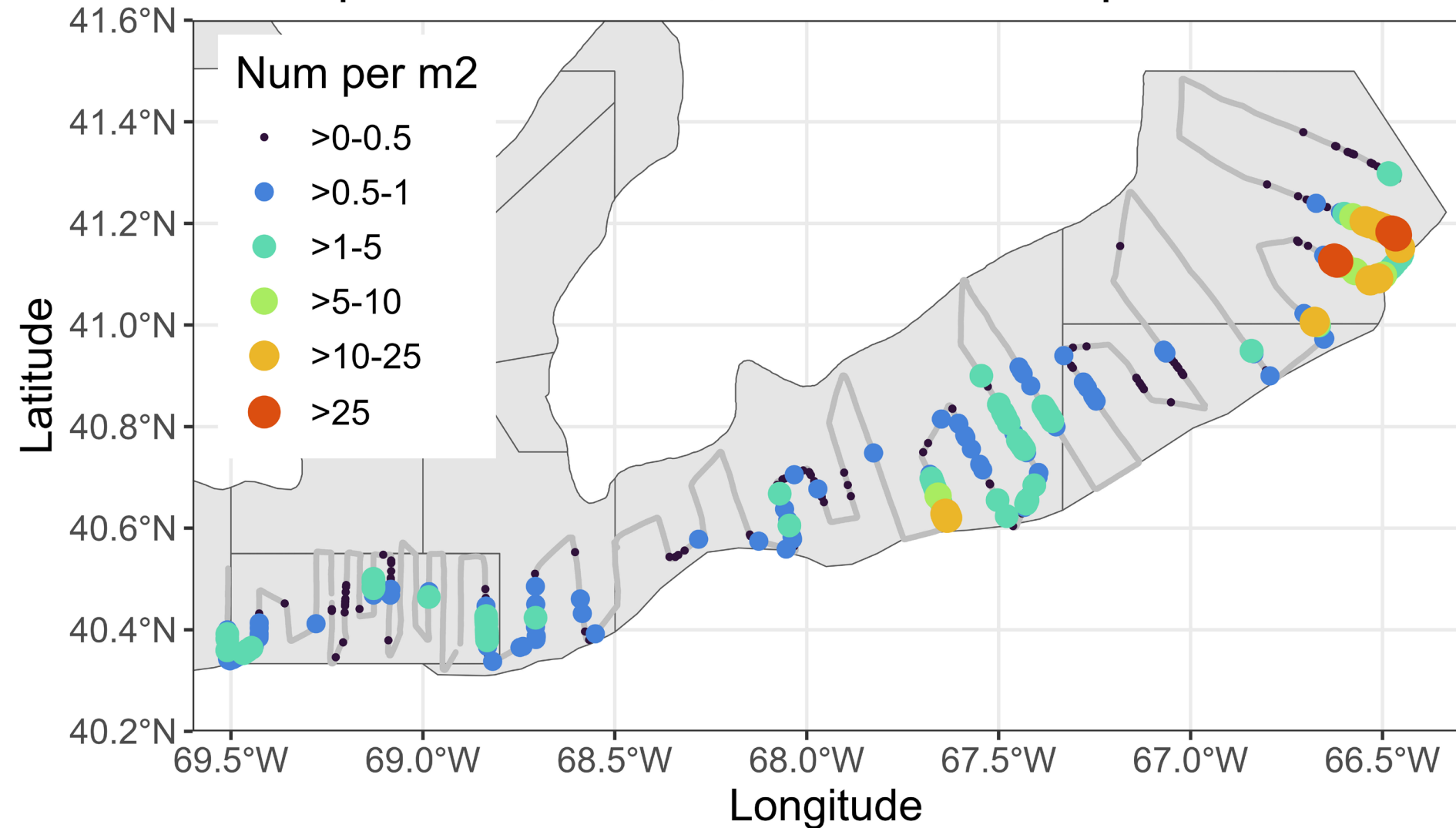
~700 nm completed

~3.1 million images collected



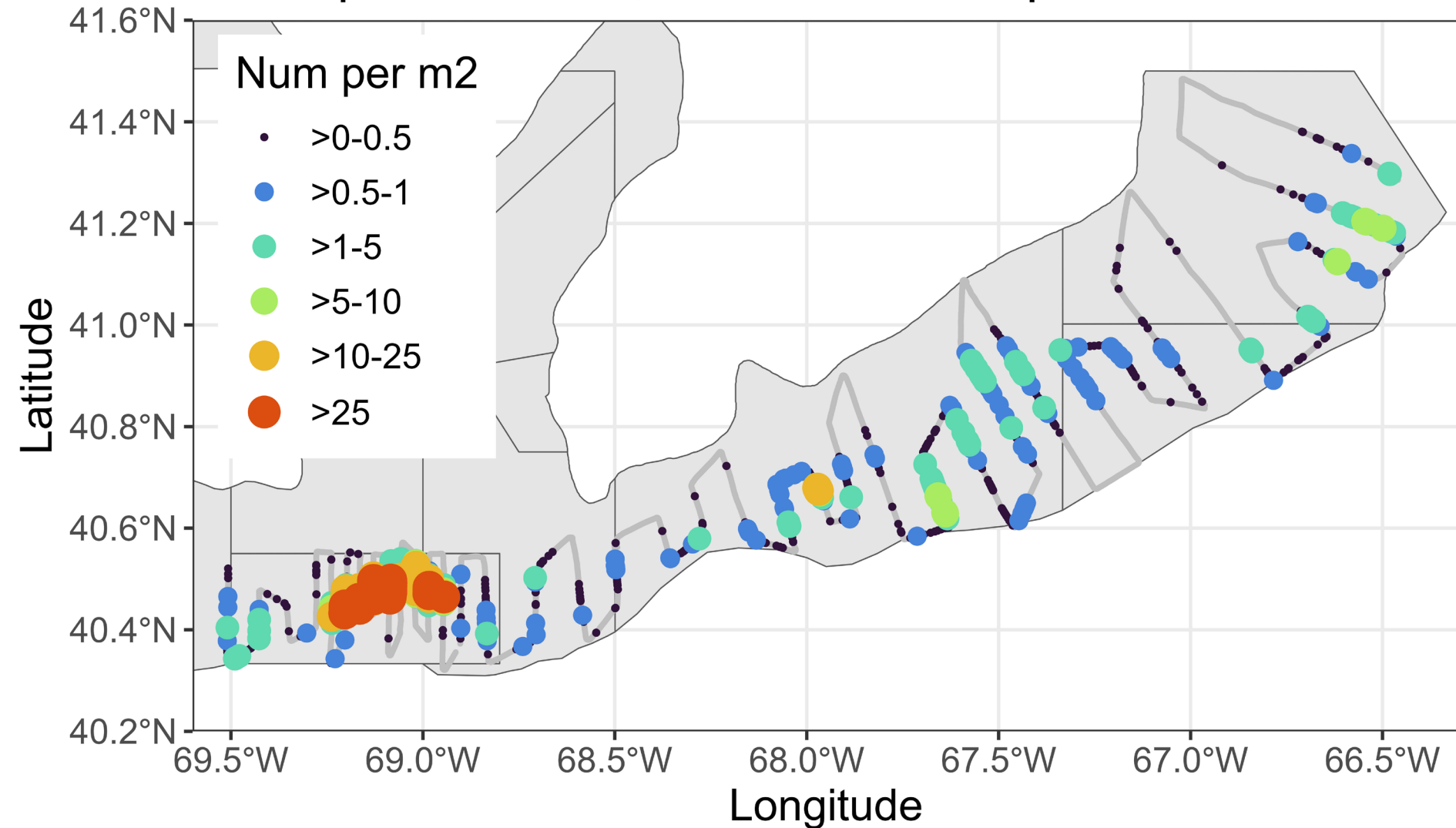
Density and Distribution- GB

Scallops under 35mm, maximum = 59 per m2



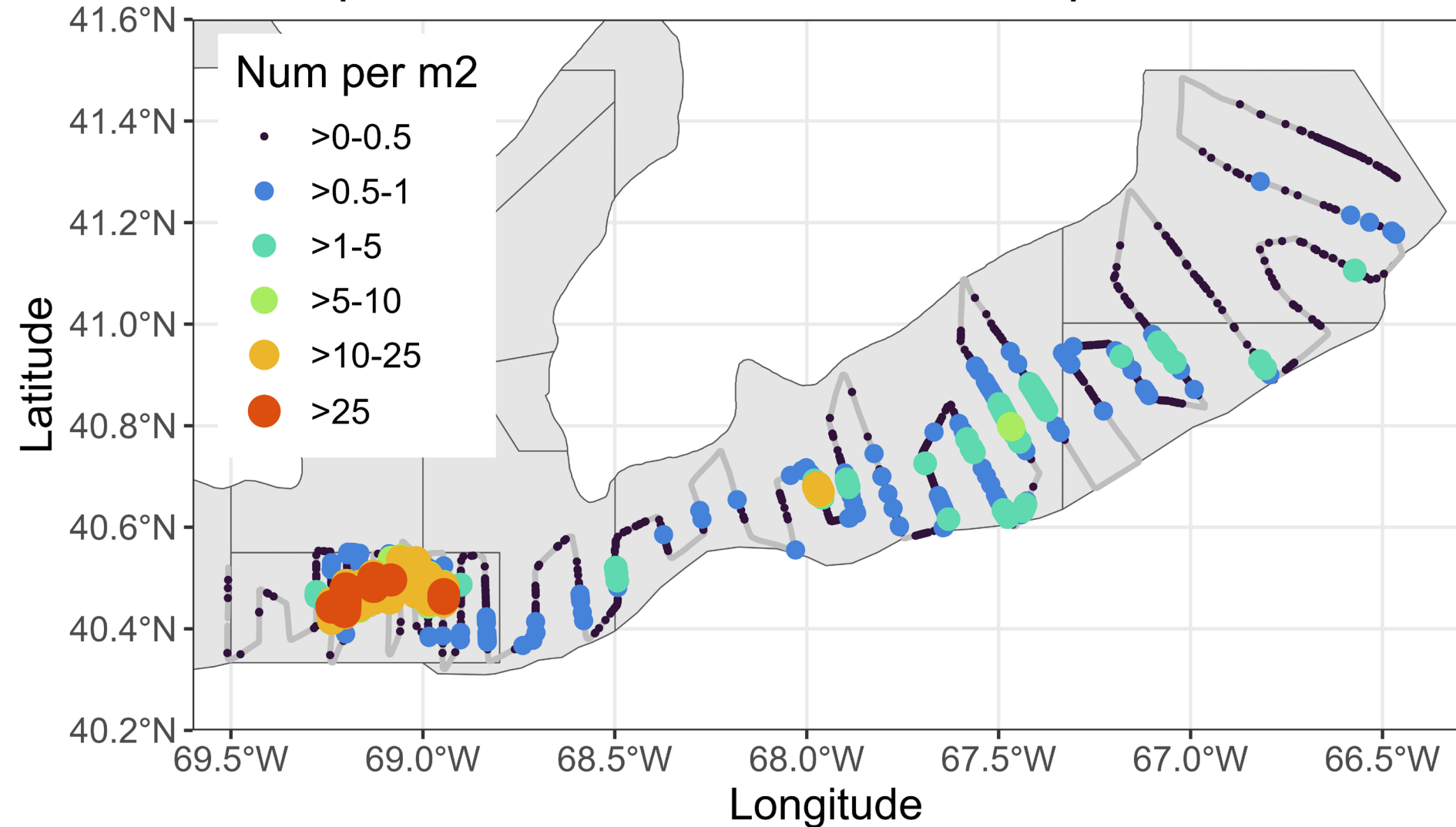
Density and Distribution- GB

Scallops 35-75mm, maximum = 74 per m2



Density and Distribution- GB

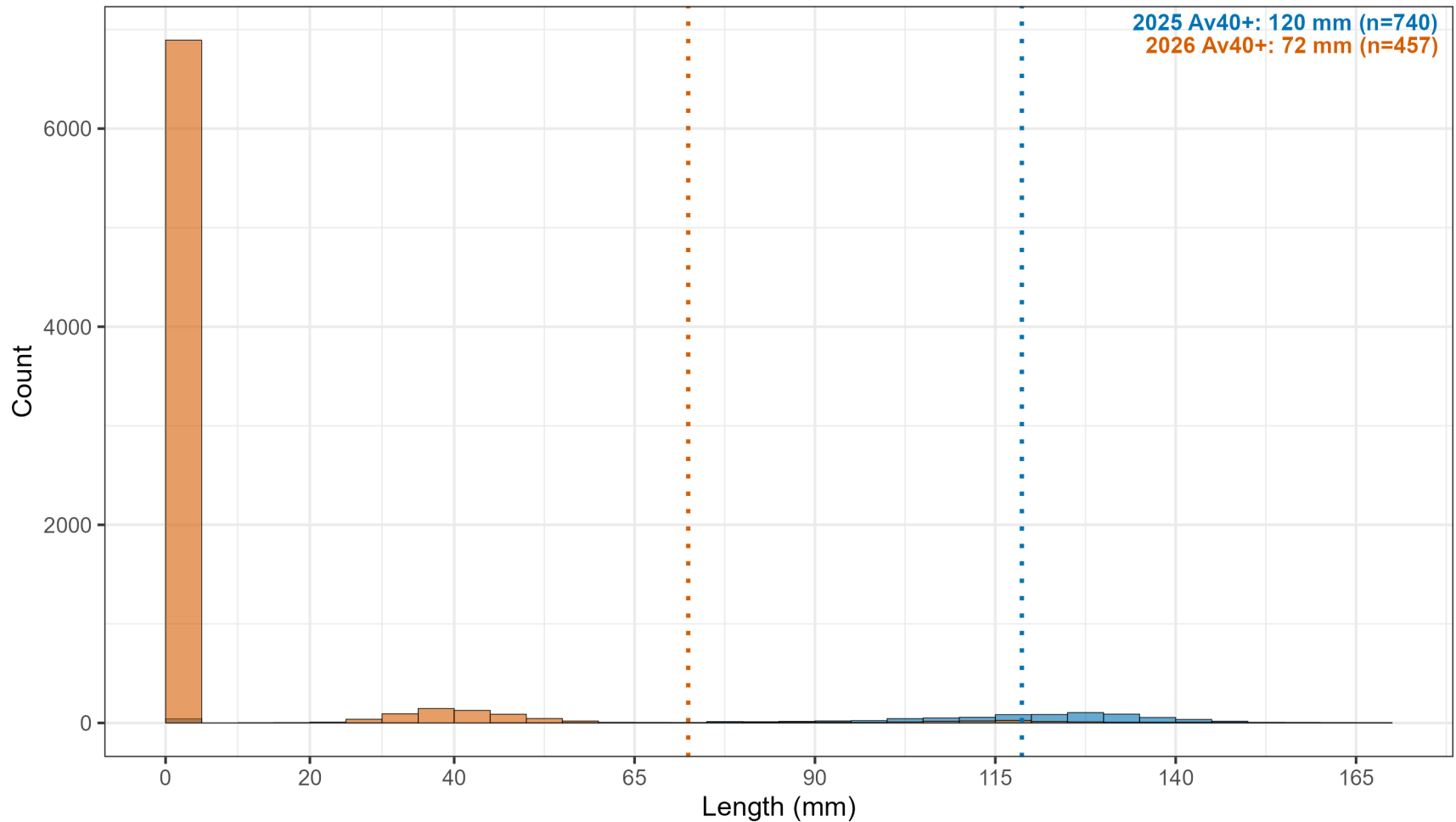
Scallops over 75mm, maximum = 37 per m2



Length Frequency Plots- GB

Length Frequency: CL2-Access

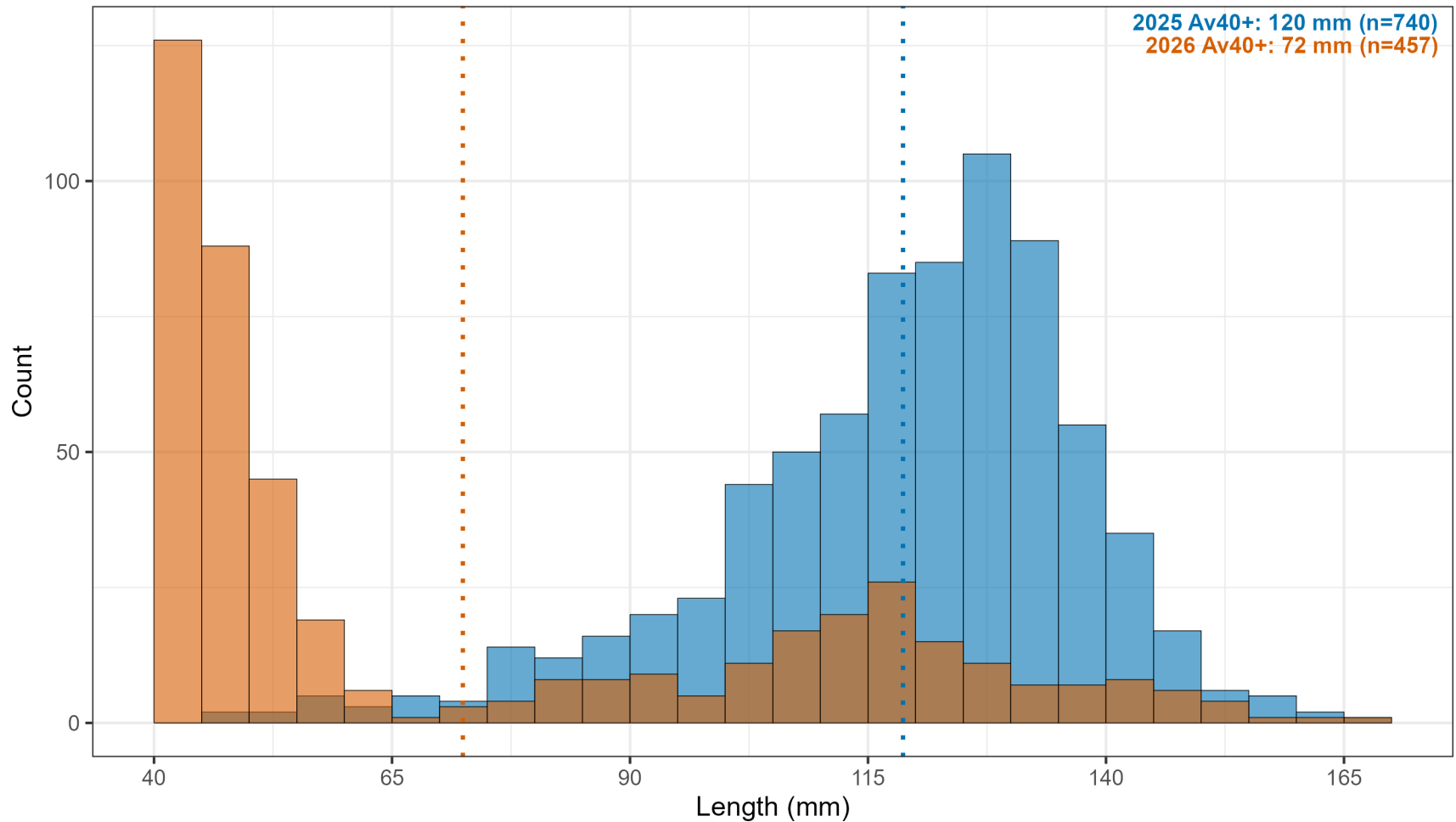
Year ■ 2025 ■ 2026



Length Frequency Plots- GB

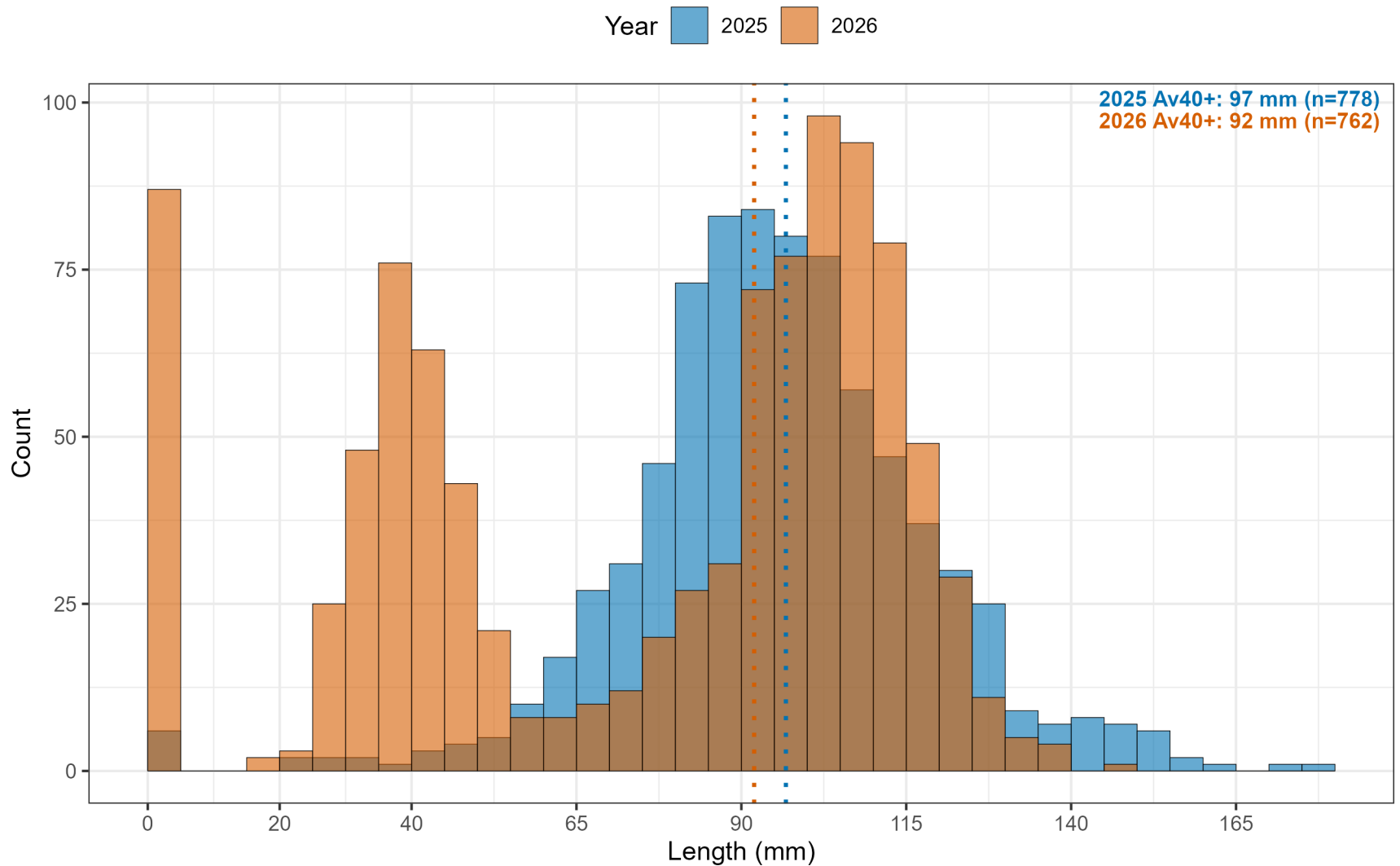
Length Frequency: CL2-Access (40 mm+)

Year 2025 2026



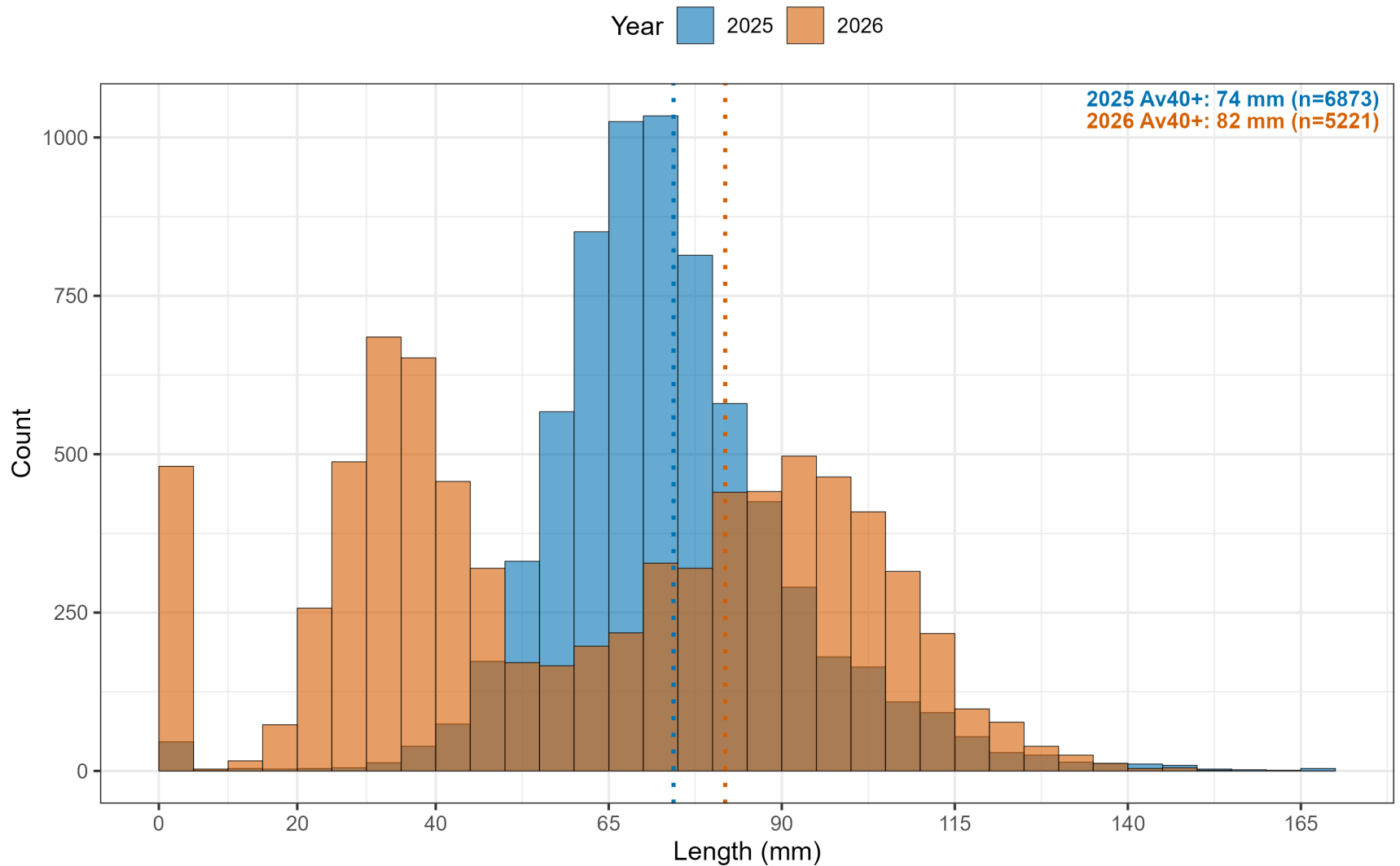
Length Frequency Plots- GB

Length Frequency: CL2-Ext



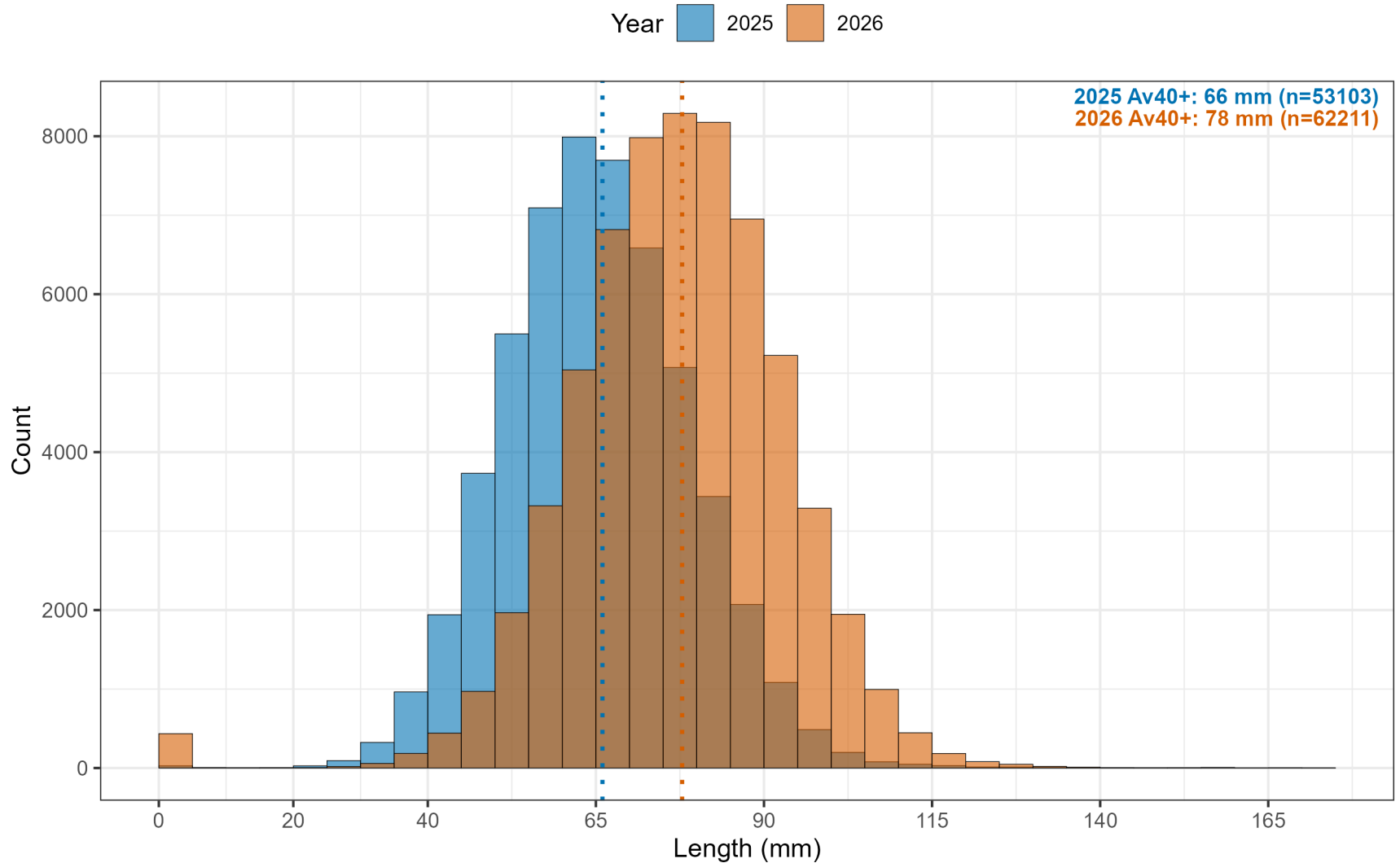
Length Frequency Plots- GB

Length Frequency: SF

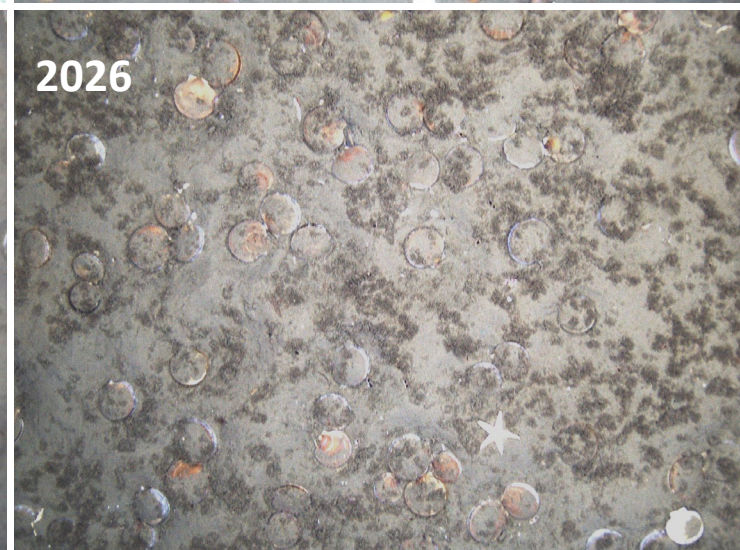
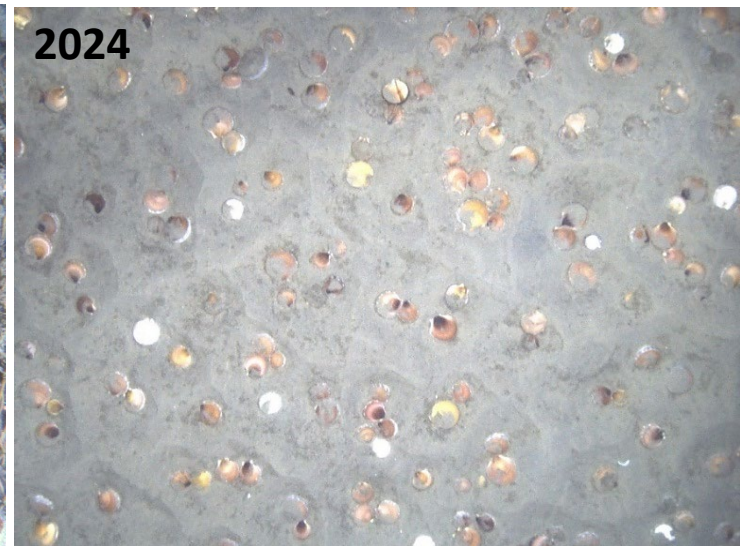
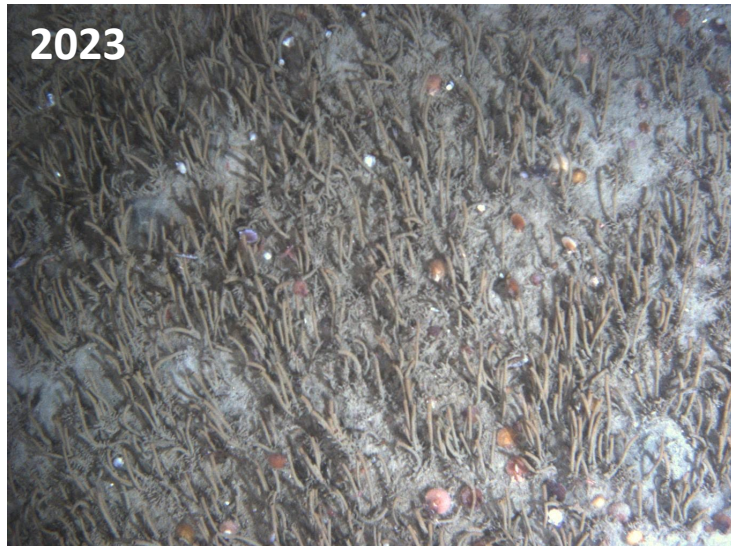


Length Frequency Plots- GB

Length Frequency: NLS-South



NLSS 2023-2026



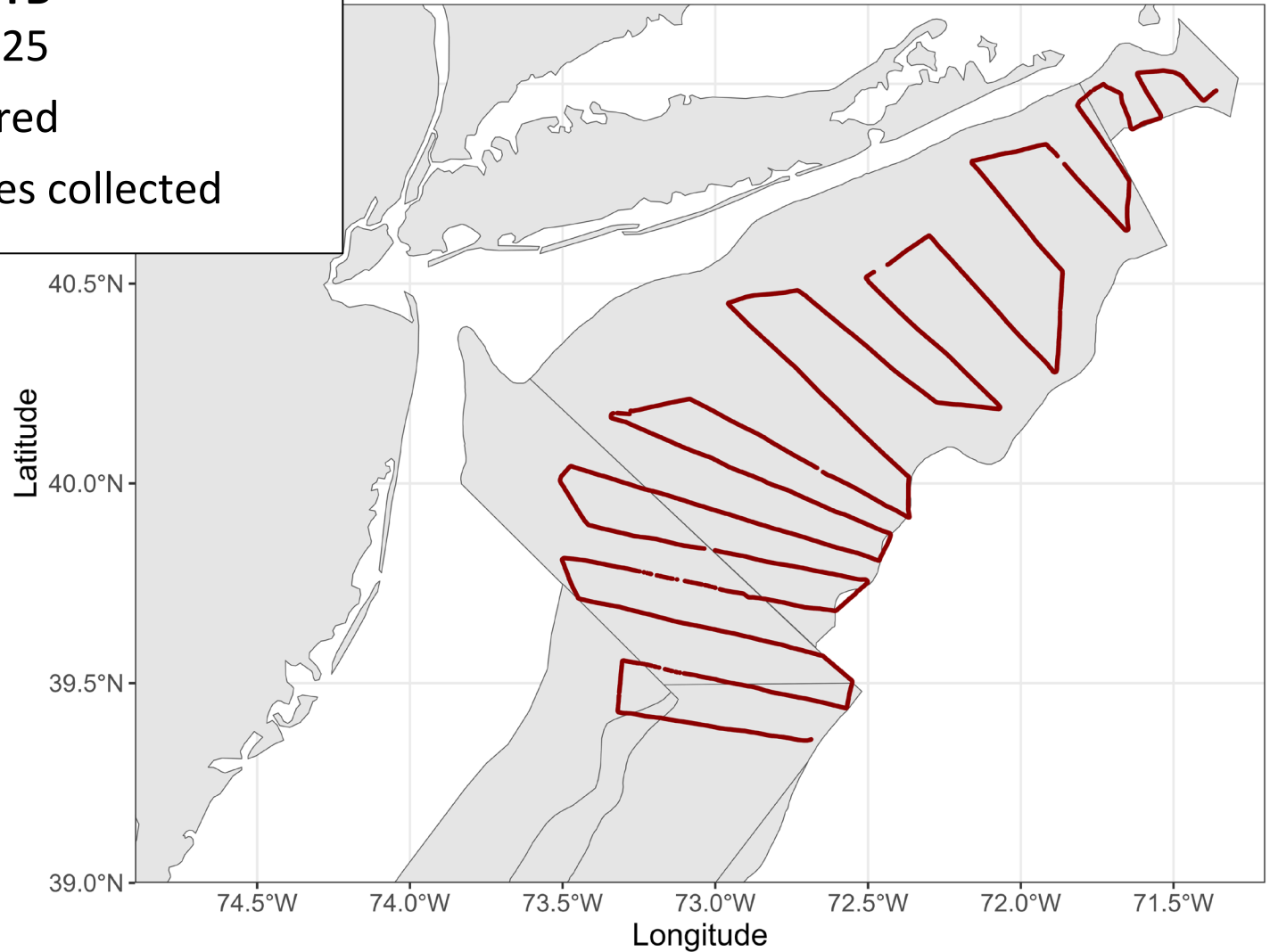
Mid-Atlantic Surveys

Leg 1- BI, LI, NYB

May 19-28, 2025

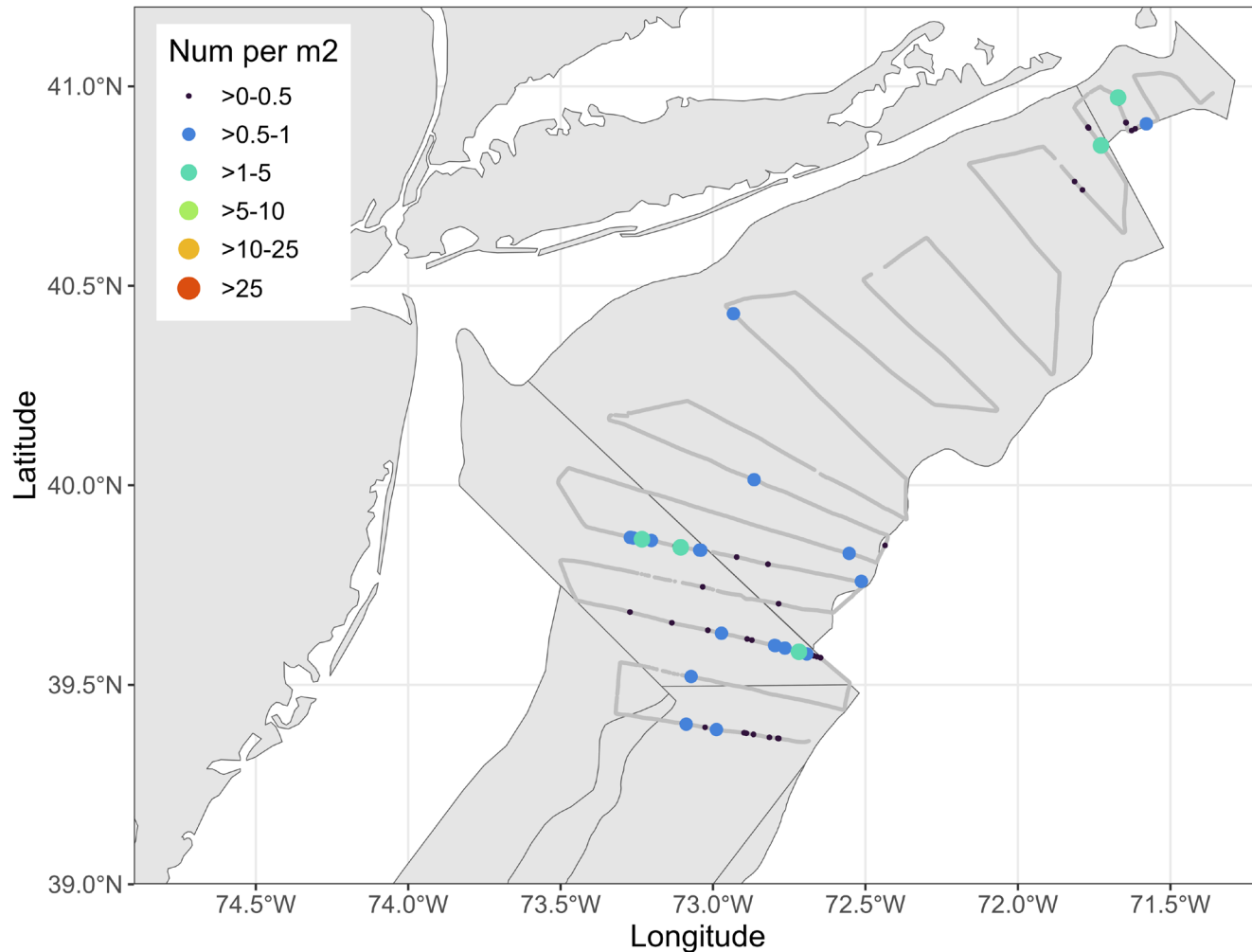
~650 nm covered

~3.1 mill images collected



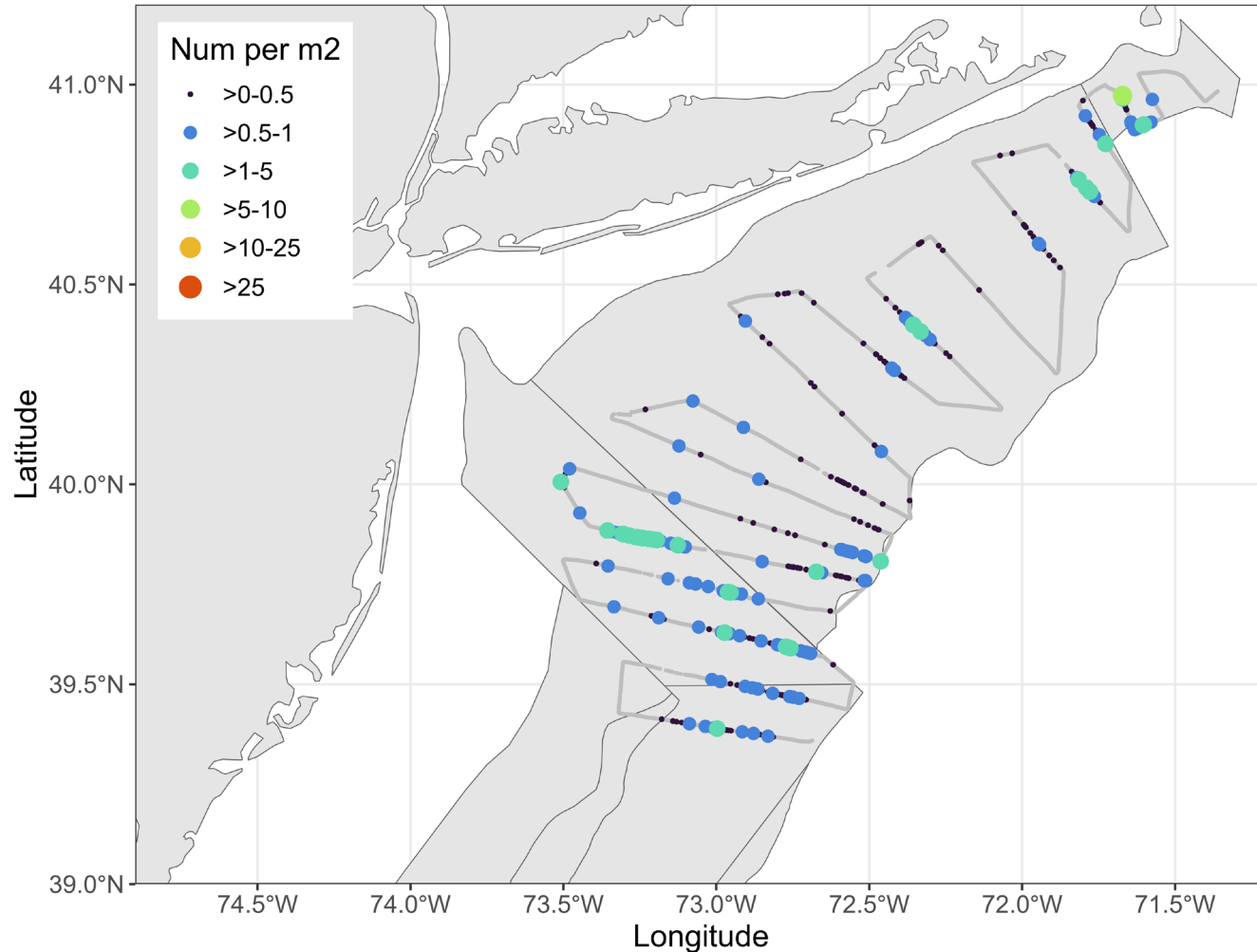
Density and Distribution- MA

Scallops under 35mm, maximum = 2 per m2



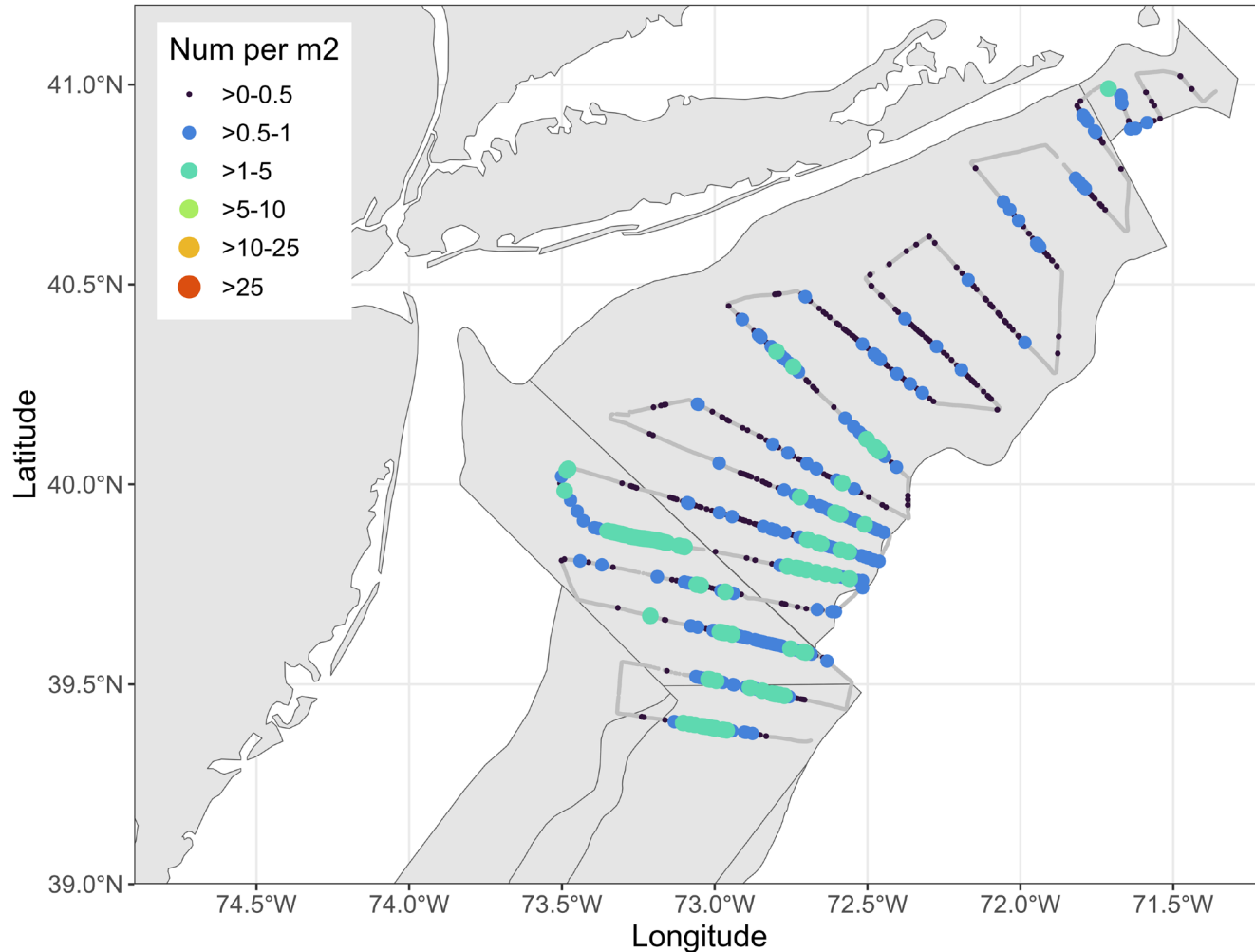
Density and Distribution- MA

Scallops 35-75mm, maximum = 7 per m²



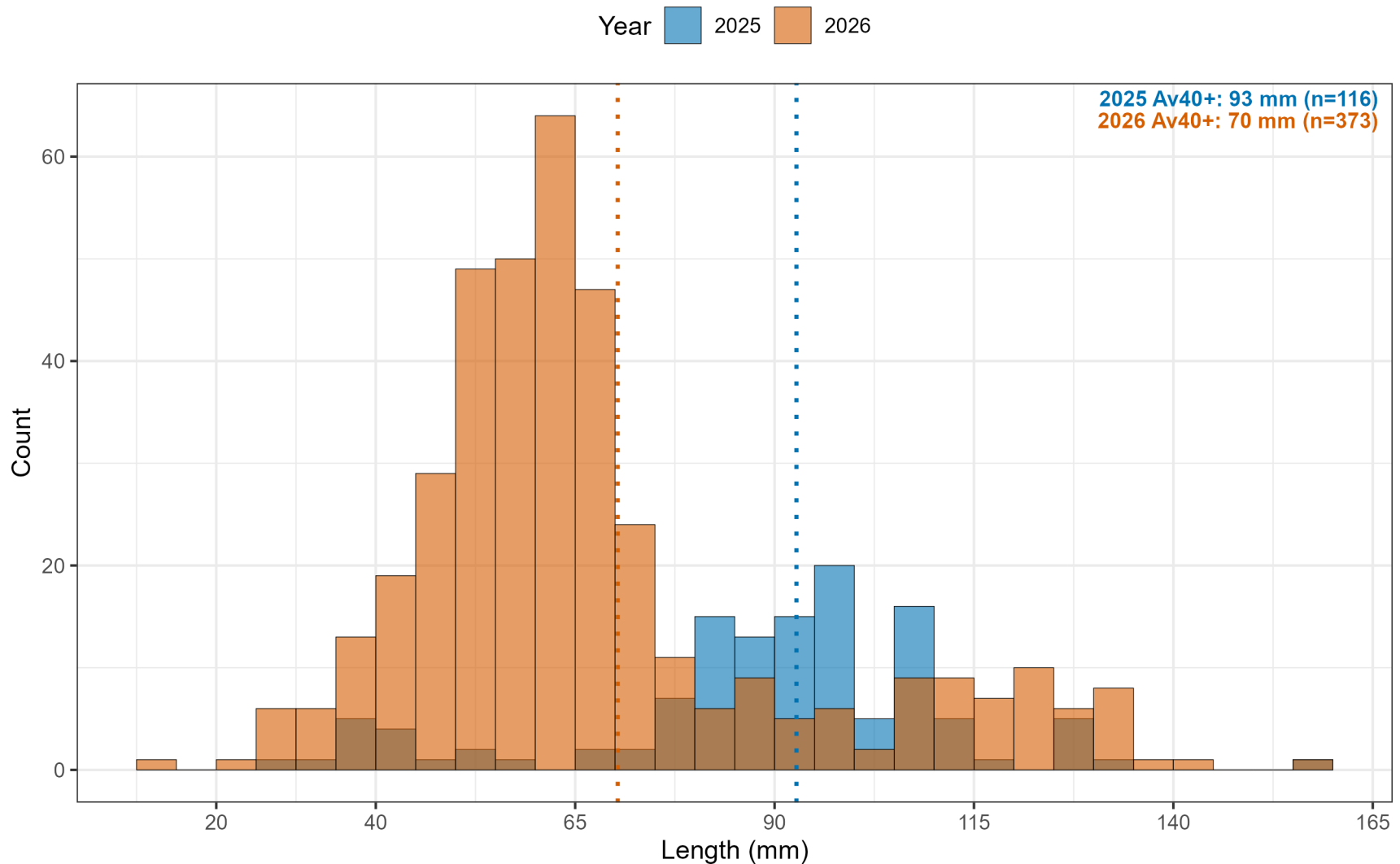
Density and Distribution- MA

Scallops over 75mm, maximum = 4 per m2



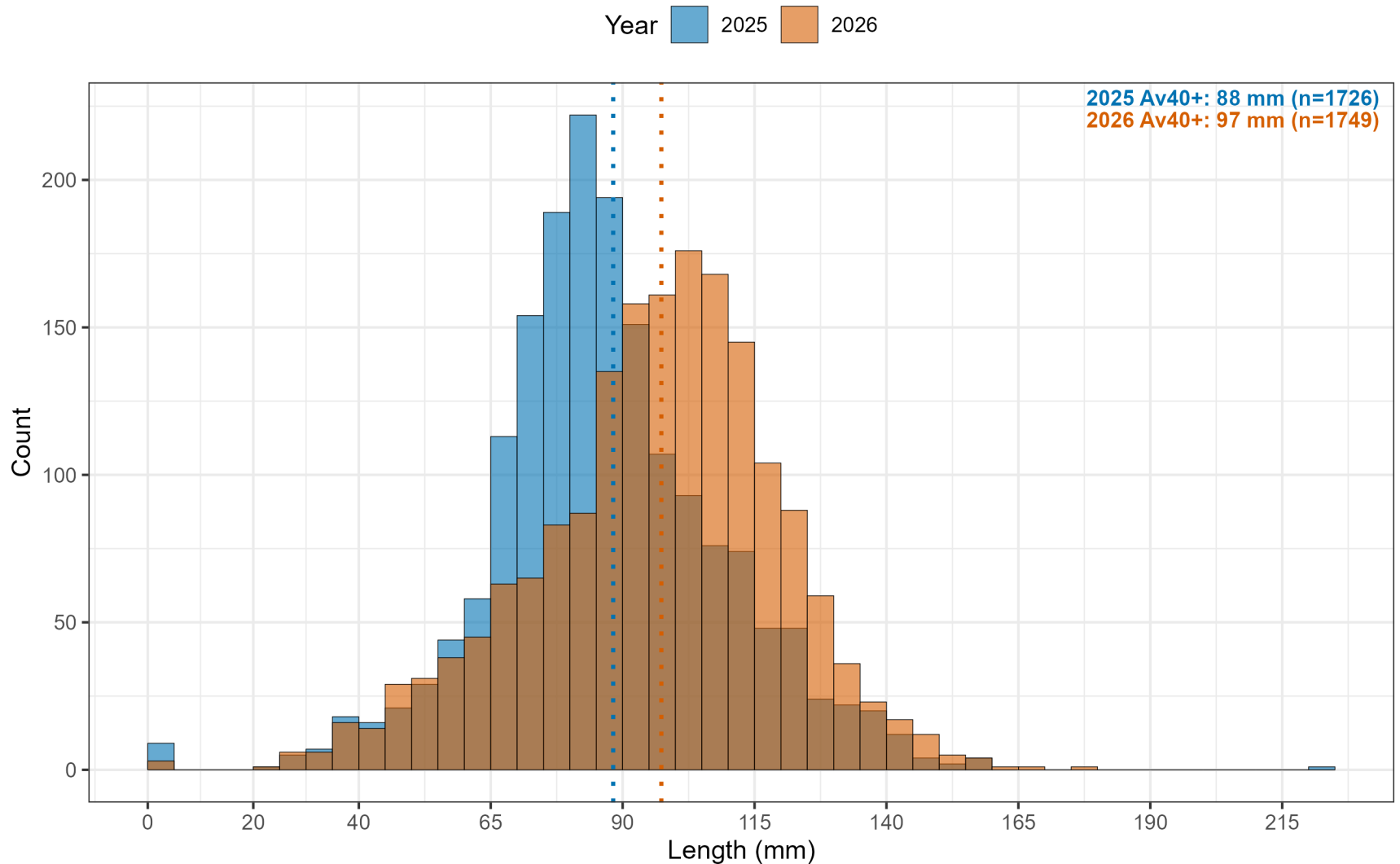
Length Frequency Plots- MA

Length Frequency: BI



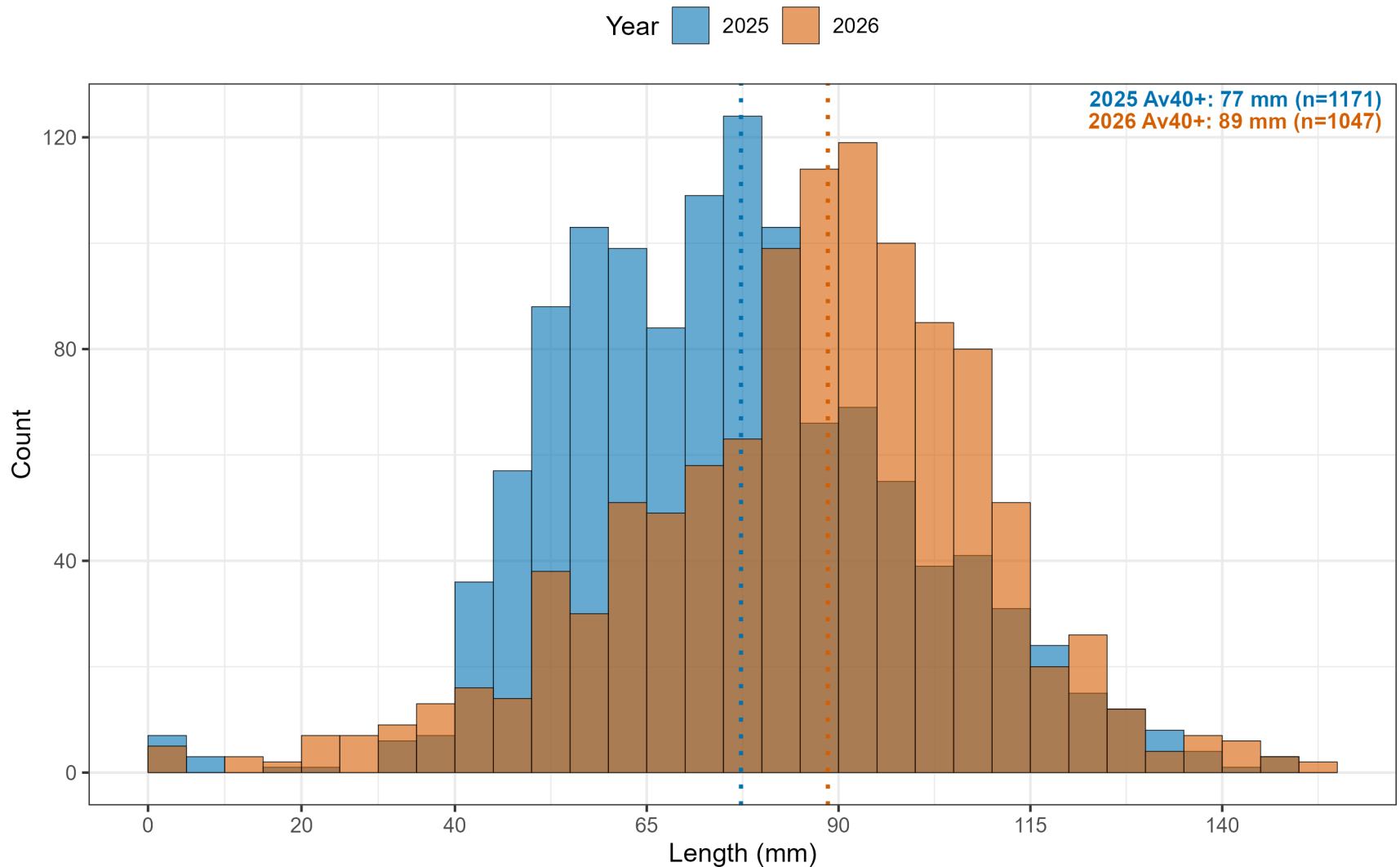
Length Frequency Plots- MA

Length Frequency: LI



Length Frequency Plots- MA

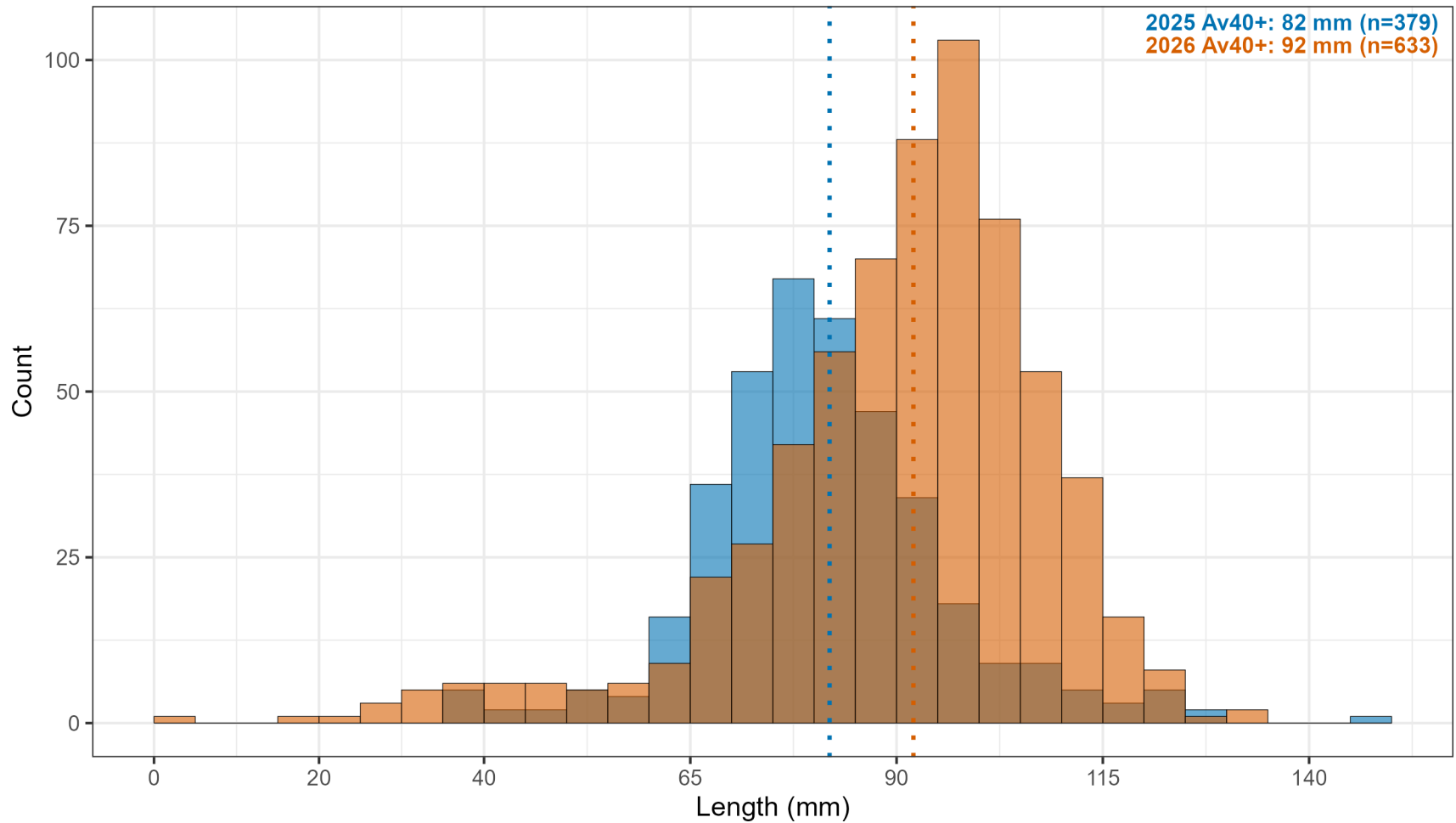
Length Frequency: NYB

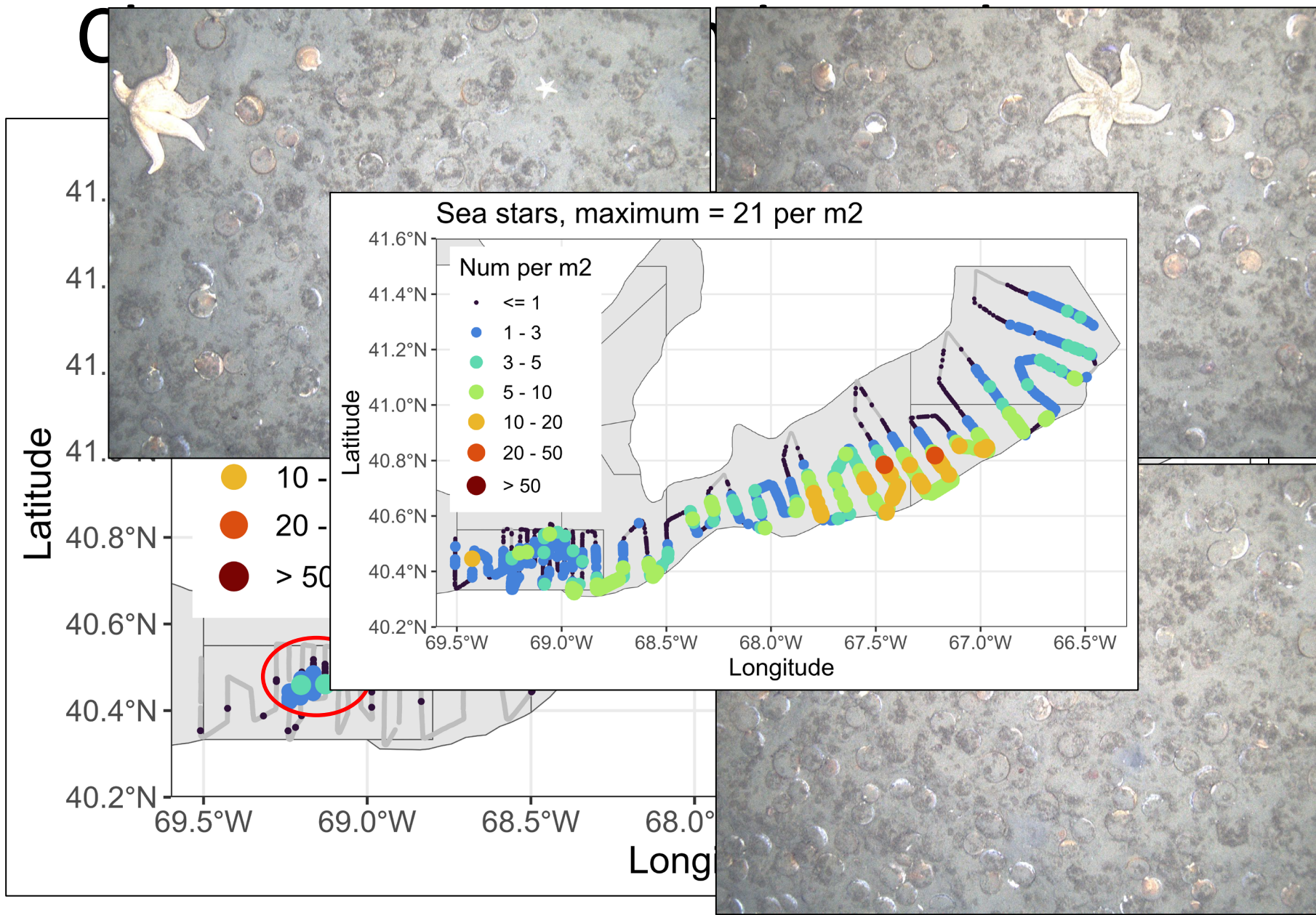


Length Frequency Plots- MA

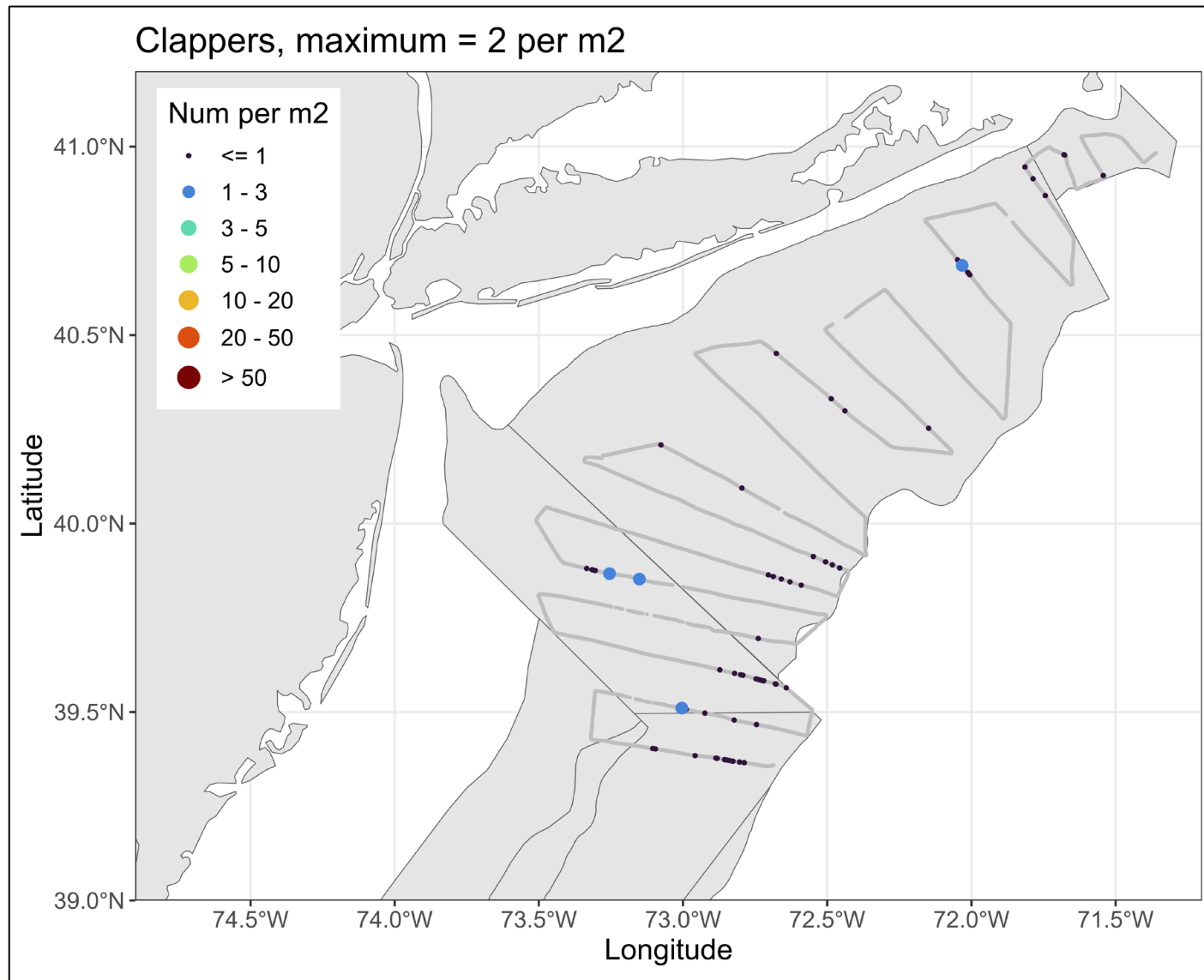
Length Frequency: HCS

Year ■ 2025 ■ 2026

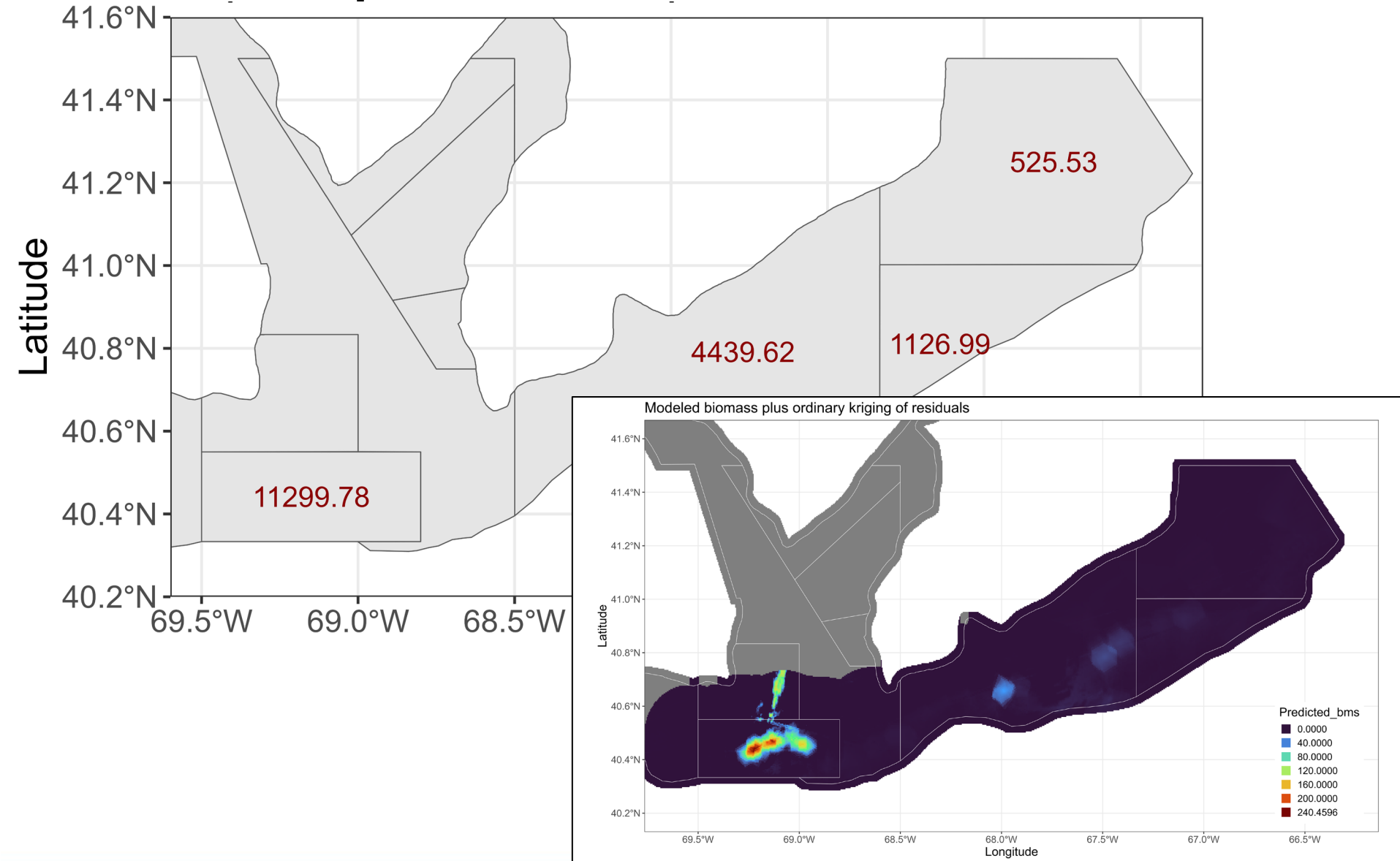




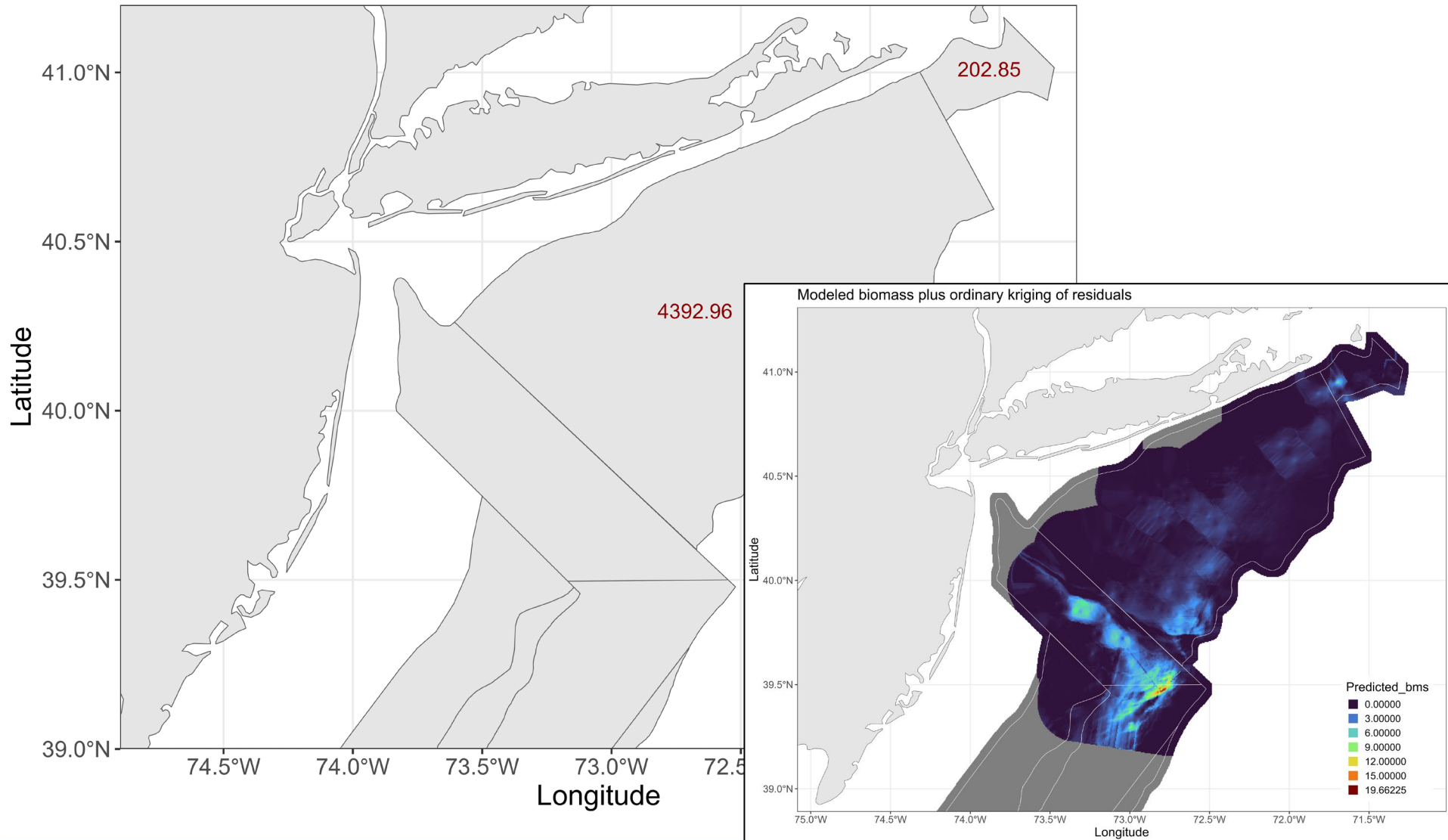
Clapper Density and Distribution



Exploitable Biomass - GB



Exploitable Biomass - MA



Acknowledgements

Atlantic Shellfish, Inc

- Warren and Stacy Alexander
- Capt Paulo Cristelo
- Alan Baker
- Fabrication/dock staff

Jon Howland

Lane Abrams

Ryan Silva

NEFSC and NEFMC staff

CFF at-sea staff

2026 annotation crew



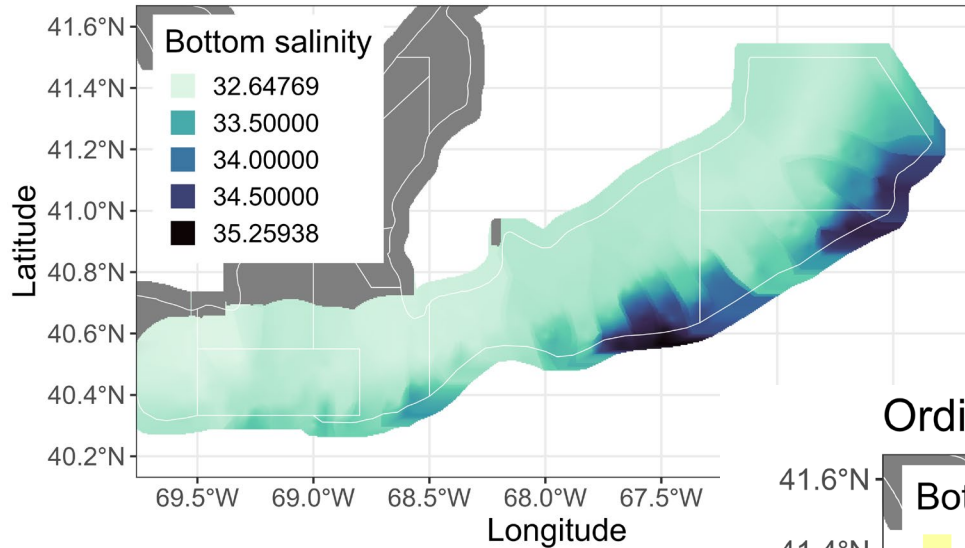
Questions?



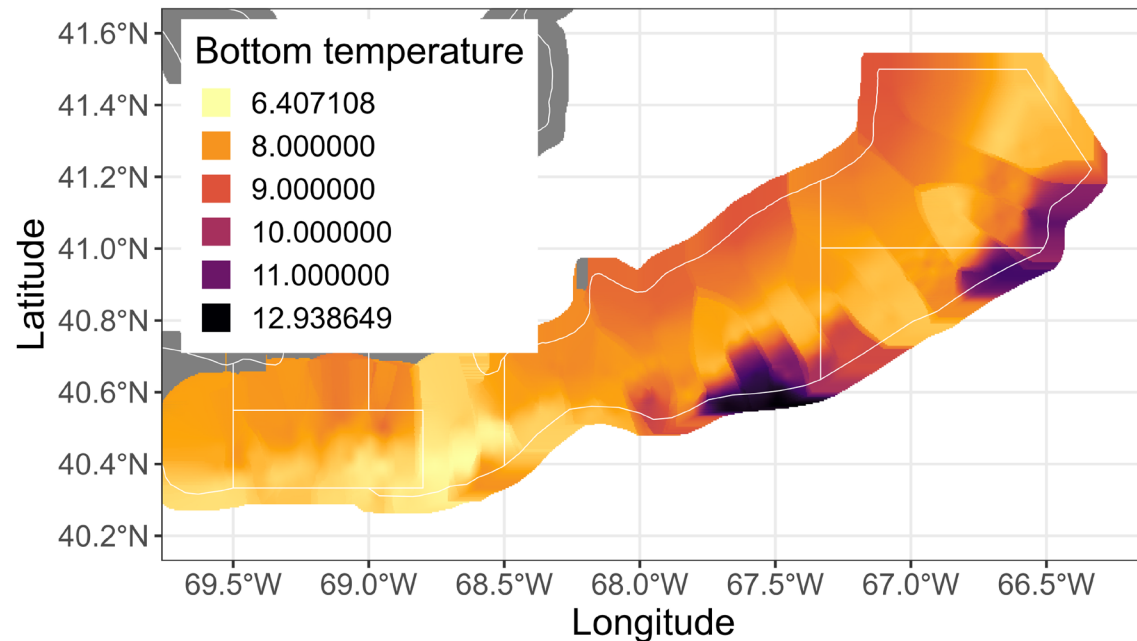
Tasha O'Hara
tohara@cfarm.org

OK Temperature and Salinity - GB

Ordinary kriging bottom salinity

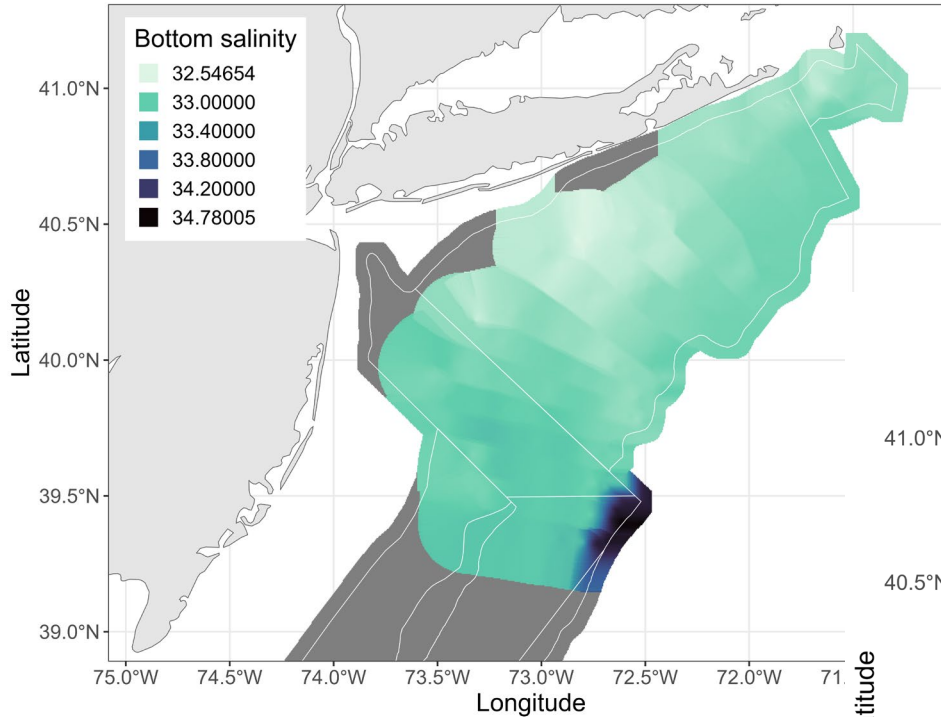


Ordinary kriging bottom temperature

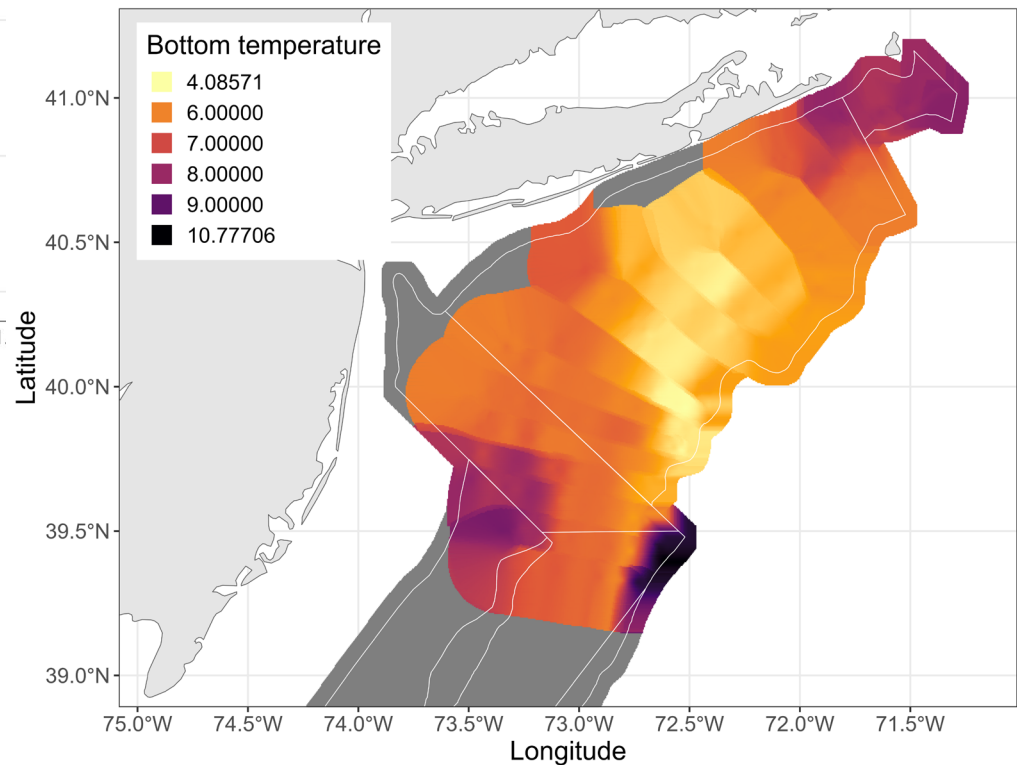


OK Temperature and Salinity - MA

Ordinary kriging bottom salinity

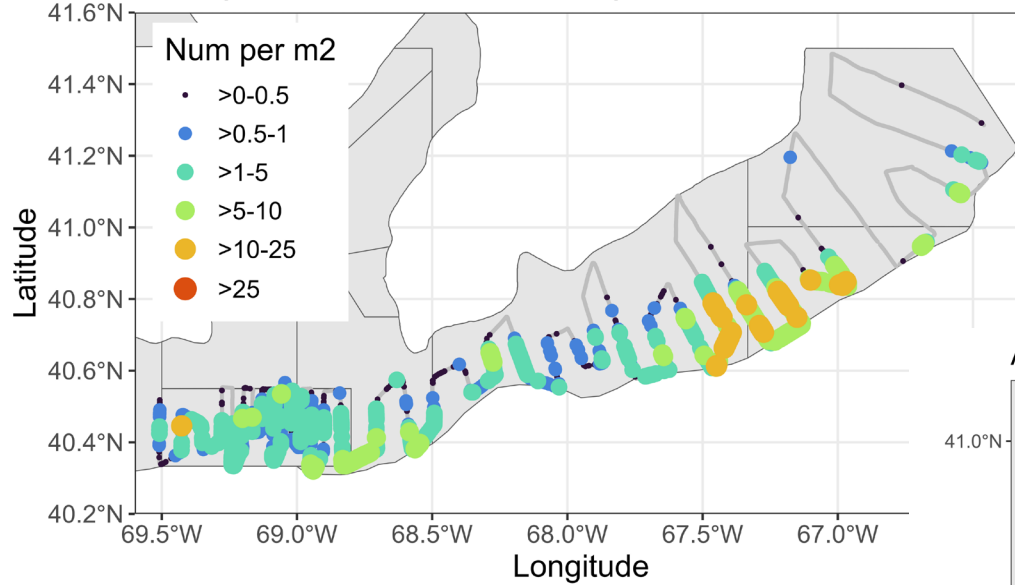


Ordinary kriging bottom temperature

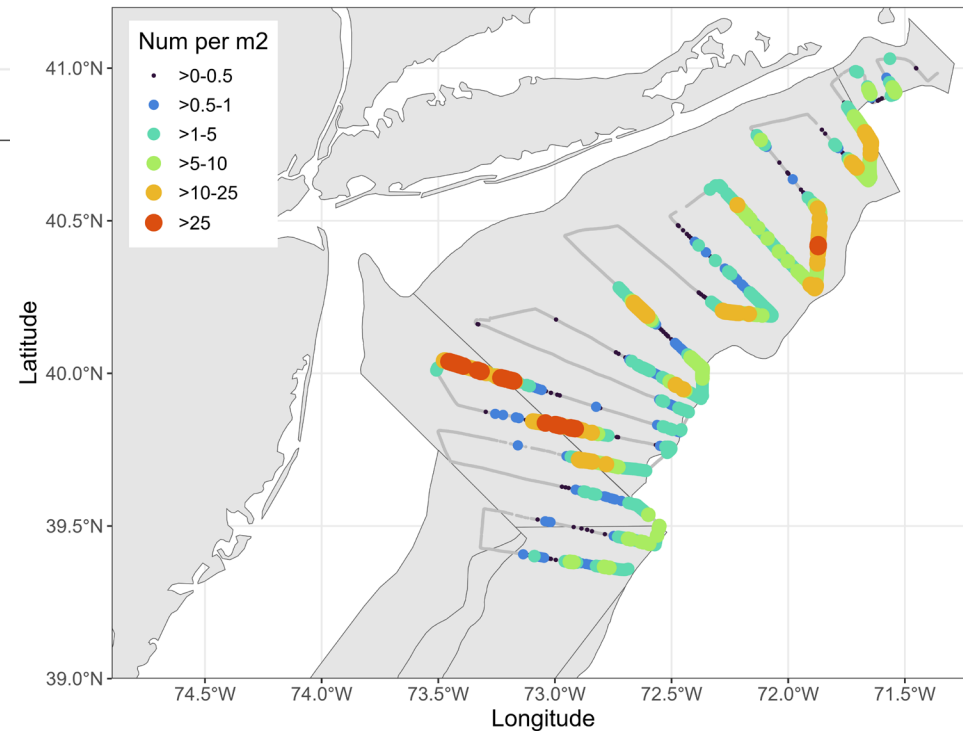


Astropecten spp

Astropecten, maximum = 21 per m2

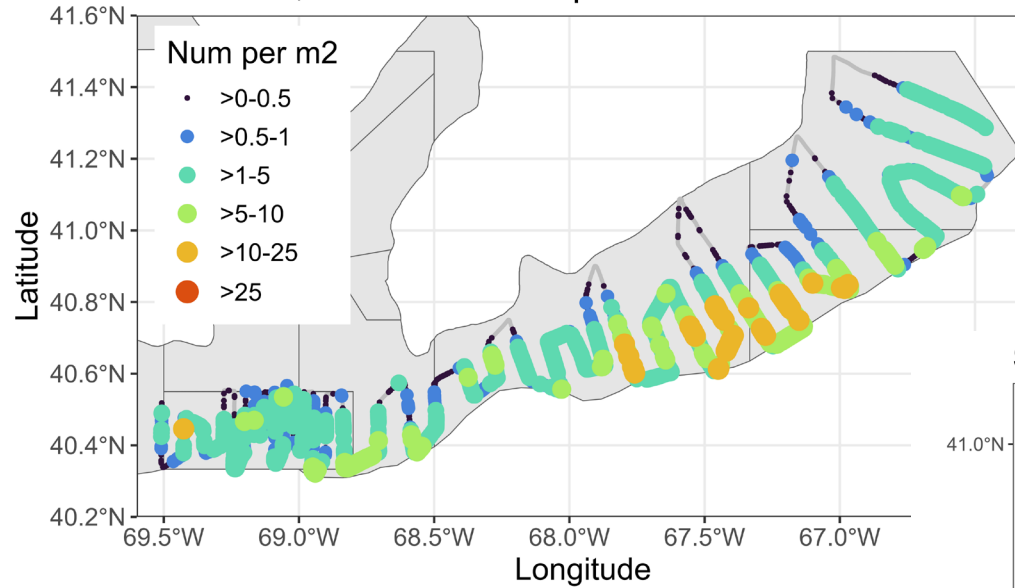


Astropecten, maximum = 62 per m2

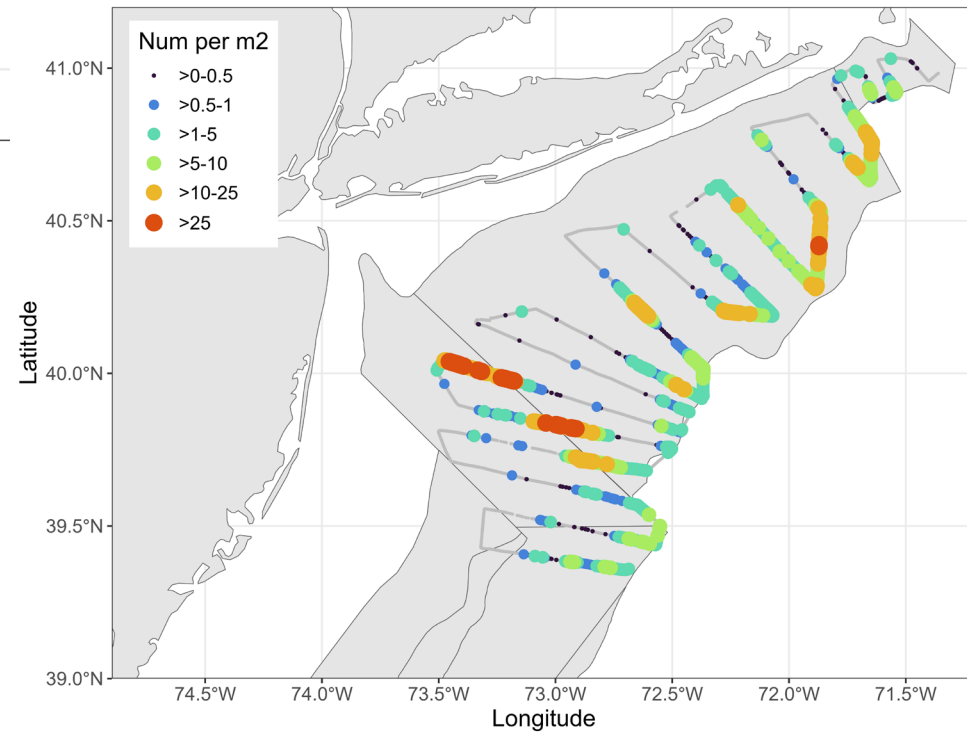


All sea stars

Sea stars, maximum = 21 per m2

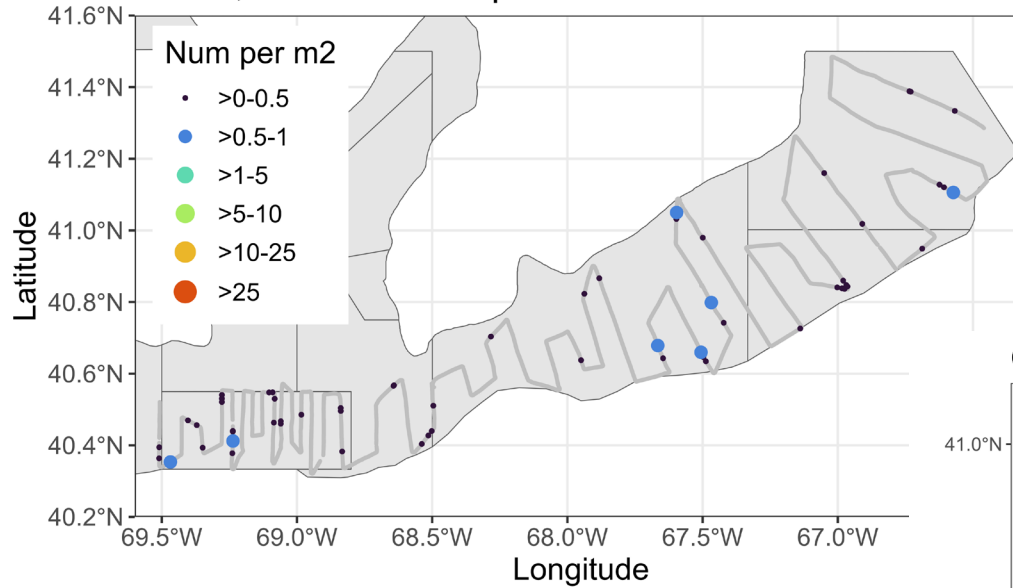


Sea stars, maximum = 64 per m2

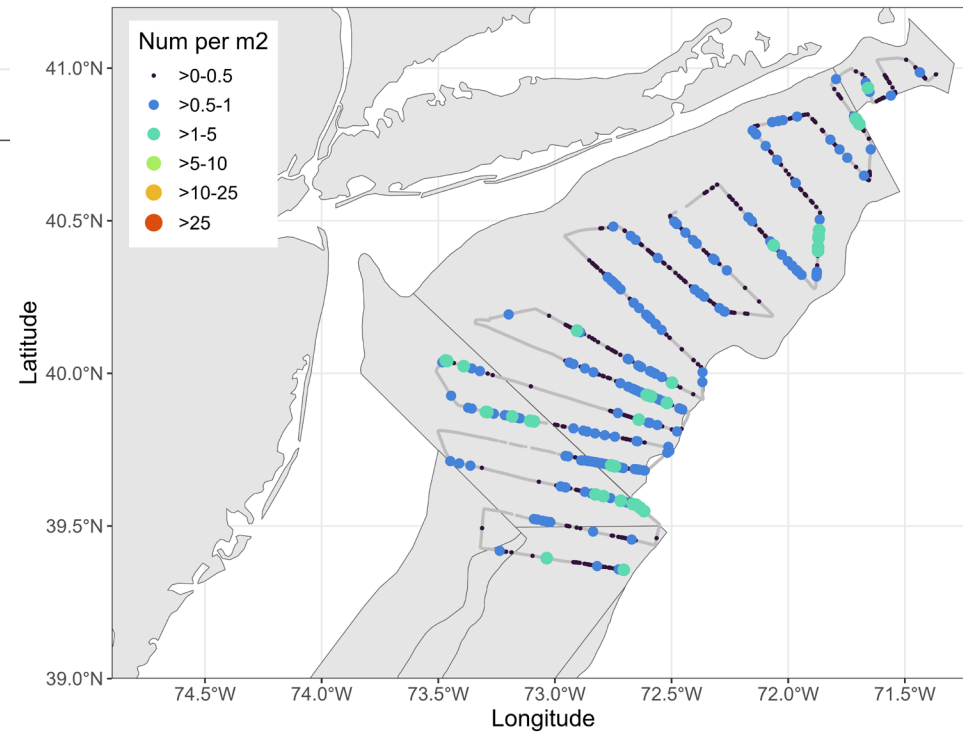


Cancer crabs

Crabs, maximum = 1 per m2

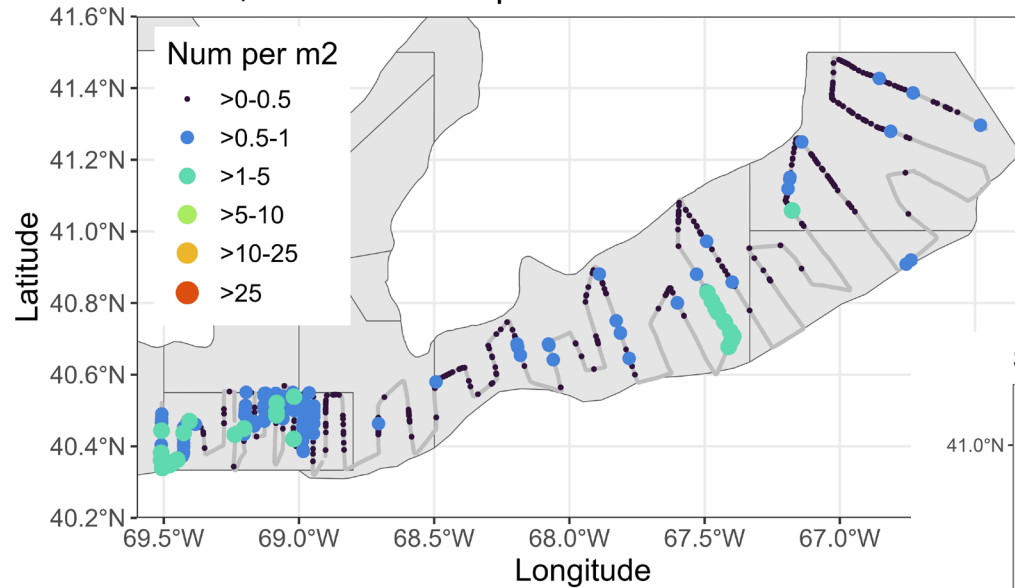


Crabs, maximum = 3 per m2

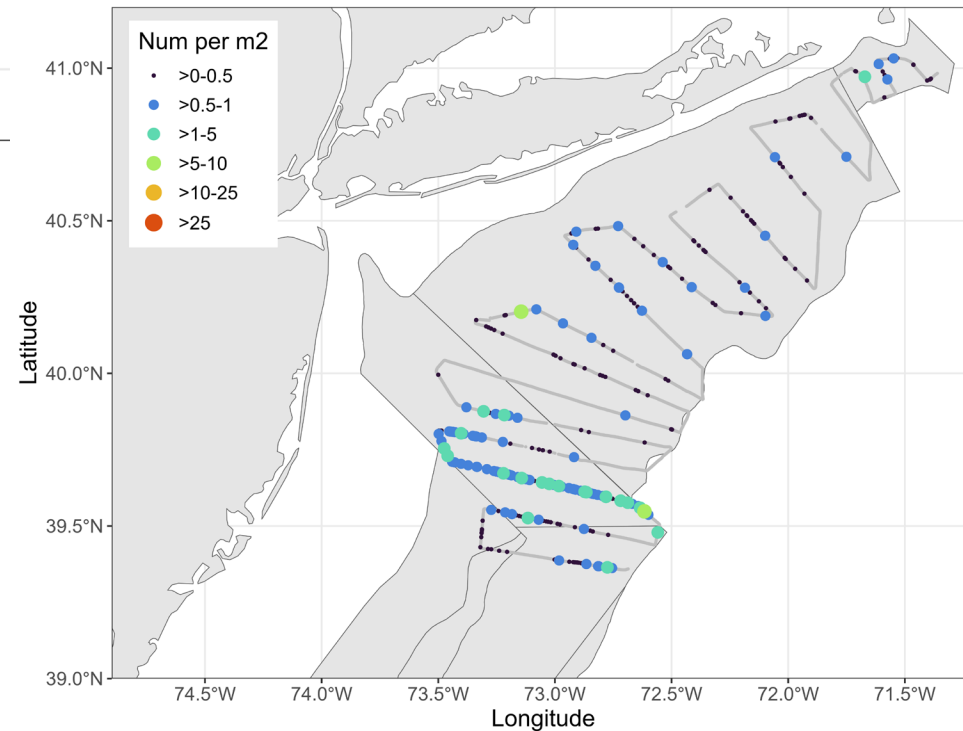


Snails (whelks, moon snails, other)

Snails, maximum = 5 per m2

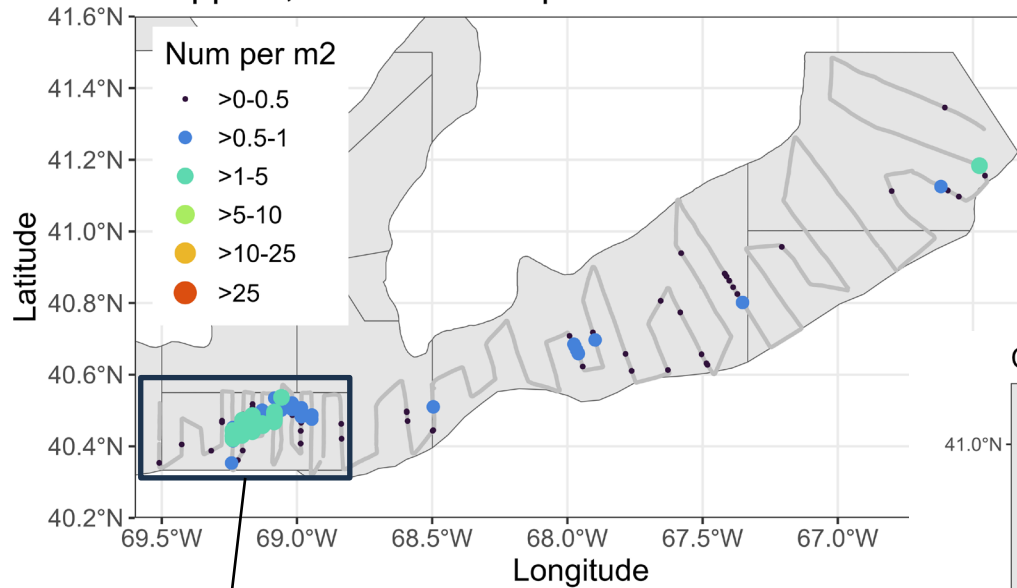


Snails, maximum = 7 per m2

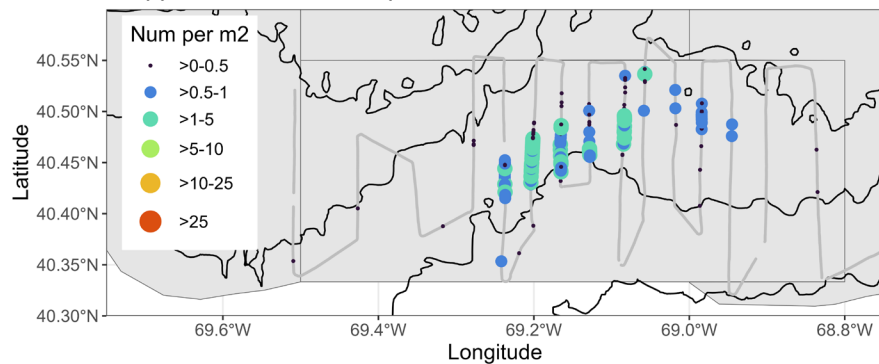


Clappers

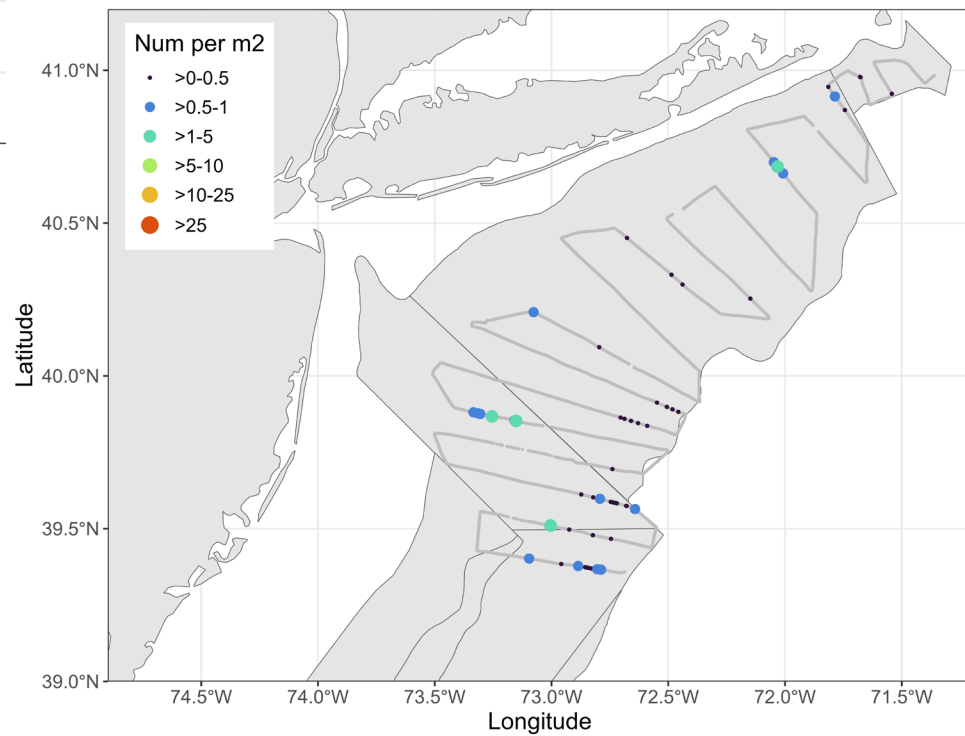
Clappers, maximum = 4 per m2



Clappers, maximum = 4 per m2



Clappers, maximum = 2 per m2



Total Biomass

		Abundance (mil.)			Biomass (mil.)			Exploitable Biomass (mil.)		
Region	Area	2025	2026	% Diff	2025	2026	% Diff	2025	2026	% Diff
GB	CL2-South (Access)	67.27	88.26	31.20%	1590.25	737.99	-53.59%	1410.7	525.53	-62.75%
	CL2-Extension	128.18	107.75	-15.94%	1880.34	1599.25	-14.95%	1252.6	1126.99	-10.03%
	NLS-South	6976.54	4784.45	-31.42%	28208.76	36649.54	29.92%	4465.7	11299.8	153.03%
	SF	1008.23	673.08	-33.24%	7438.78	8309.86	11.71%	2518.2	4439.62	76.30%
MA	Block Island	22.71	45.21	99.08%	347.06	392.35	13.05%	206.39	202.85	-1.72%
	Long Island	429.11	350.51	-18.32%	6008.53	6170.09	2.69%	3439	4392.96	27.74%