



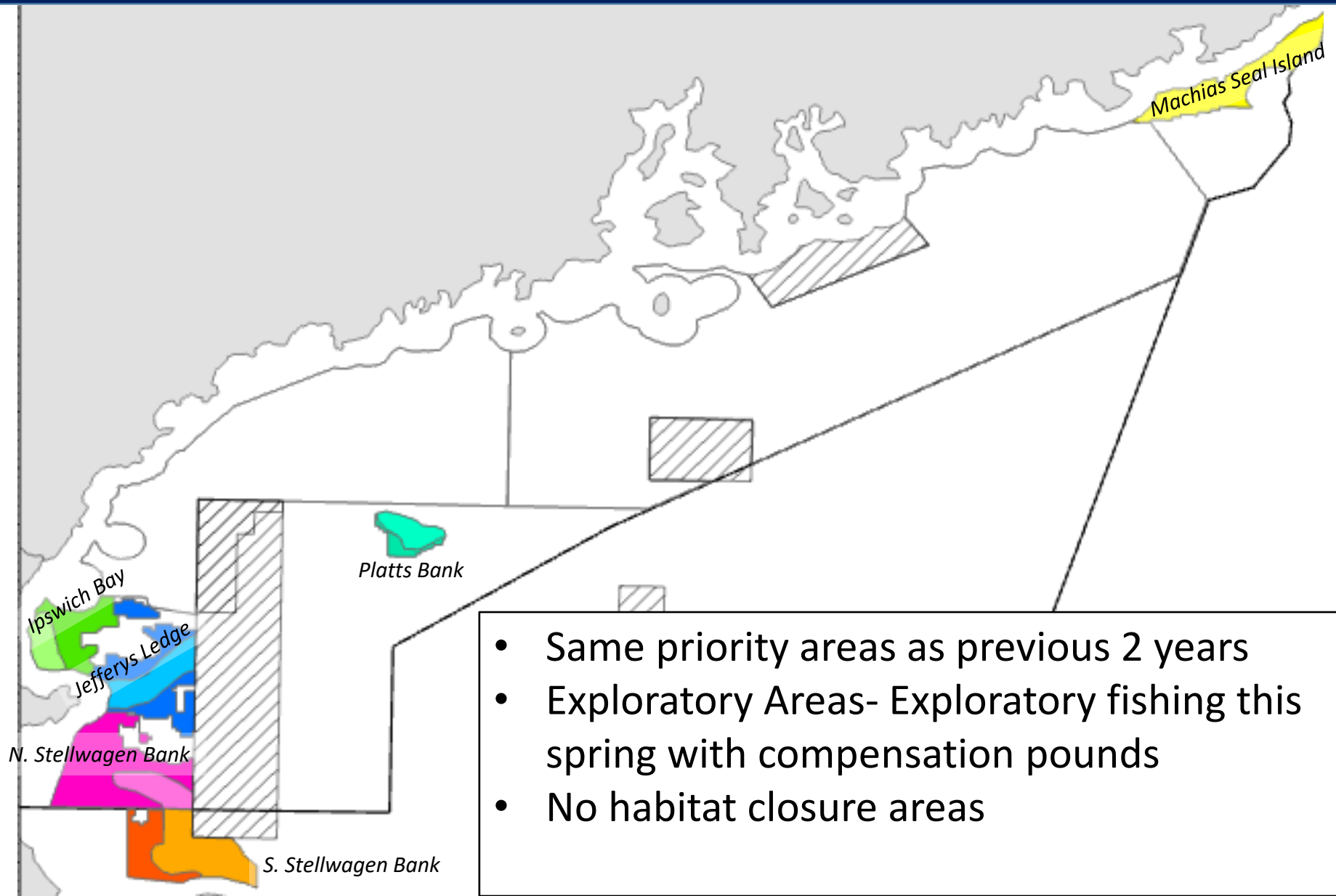
Maine DMR 2026 Gulf of Maine Scallop Dredge Survey

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Maine DMR

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Scallop PDT Meeting Bourne MA

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Survey Design-Survey Domain



- Same priority areas as previous 2 years
- Exploratory Areas- Exploratory fishing this spring with compensation pounds
- No habitat closure areas

Survey Design-Density Stratified Random Grid

Survey Grid

1 km overlaid across the domain

VTR/Fleet Interviews/Updated with survey

Station selection

50% of the stations randomly selected

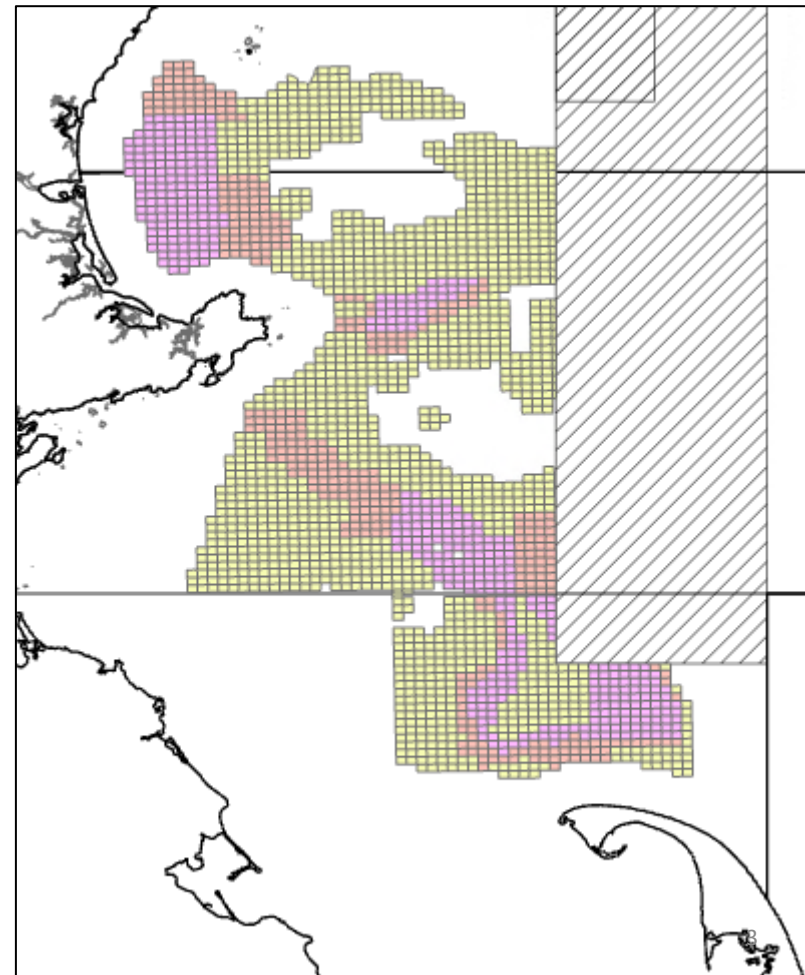
50% of the stations allocated by strata

using Neyman allocation

(25% Number, 25% Biomass)

Density Strata High Priority Areas

High Medium Low



Sampling Methods: Gear Specs & Tow Parameters



- Standard survey 7 foot dredge
 - 2 inch rings-No liner
 - 5 Inch Twine top
 - 1200 Lbs
- 5-minute straight line tow
- 3.5-4 knots
- Average tow distance 548 m
- Dominate substrate type estimated

Catch Processing

Scallops: Counts, whole shell weight, bushel volume of entire catch

- Measure for shell height
 - Subsample 8/tow for meat weight & quality

Clappers: Count and measure

Fish & Lobsters: Count, weight, and volume of entire catch

Other Bycatch: Estimate volume of all other catch by type



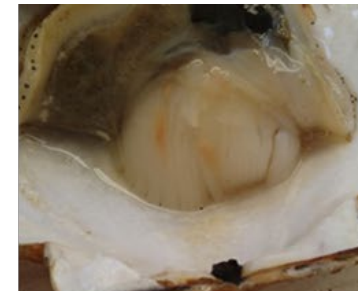
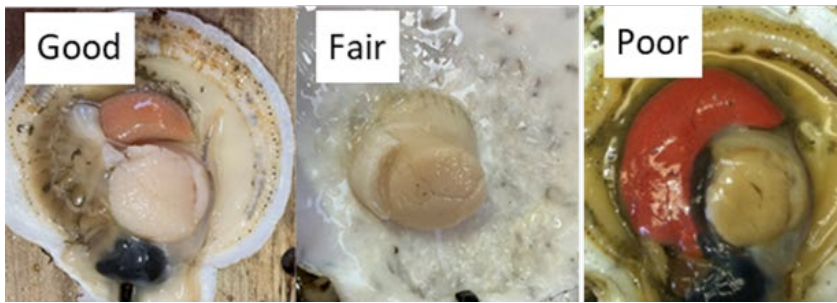
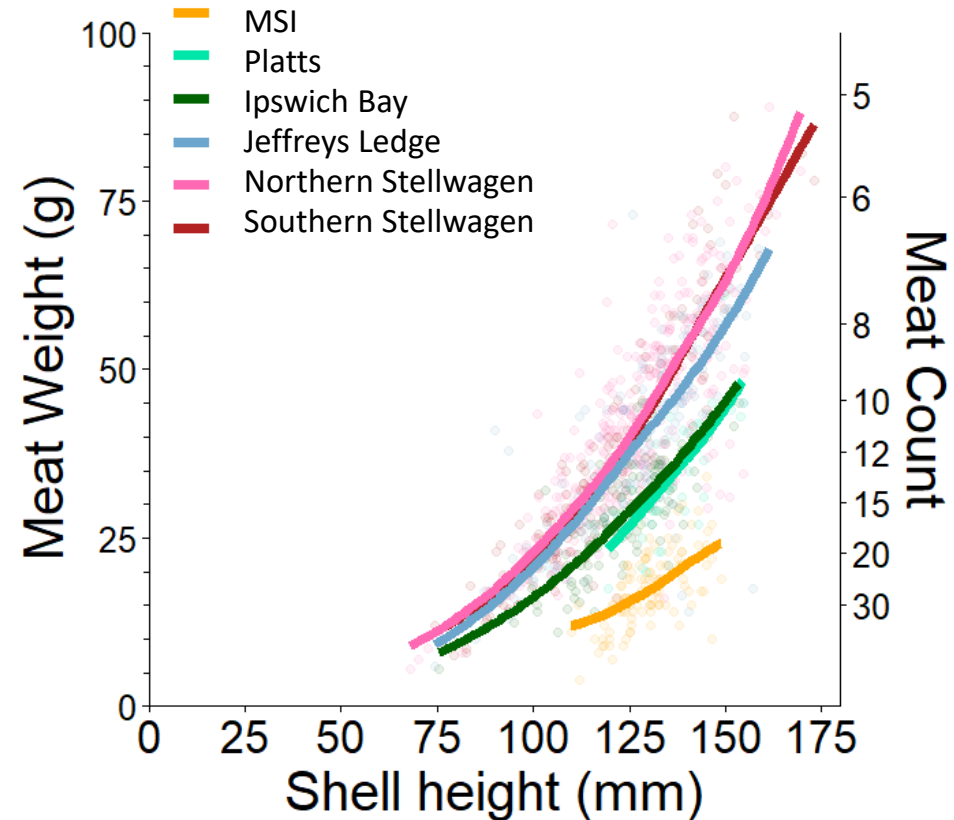
Data Analysis-Tow Parameters

- Tow Times QCed by Star Oddi Tilt Logger data and handheld GPS
- Tow starts when the winch is locked, tow ends when haulback starts
- Tow distance by sum of the distance between logged points (Haversine Equation)

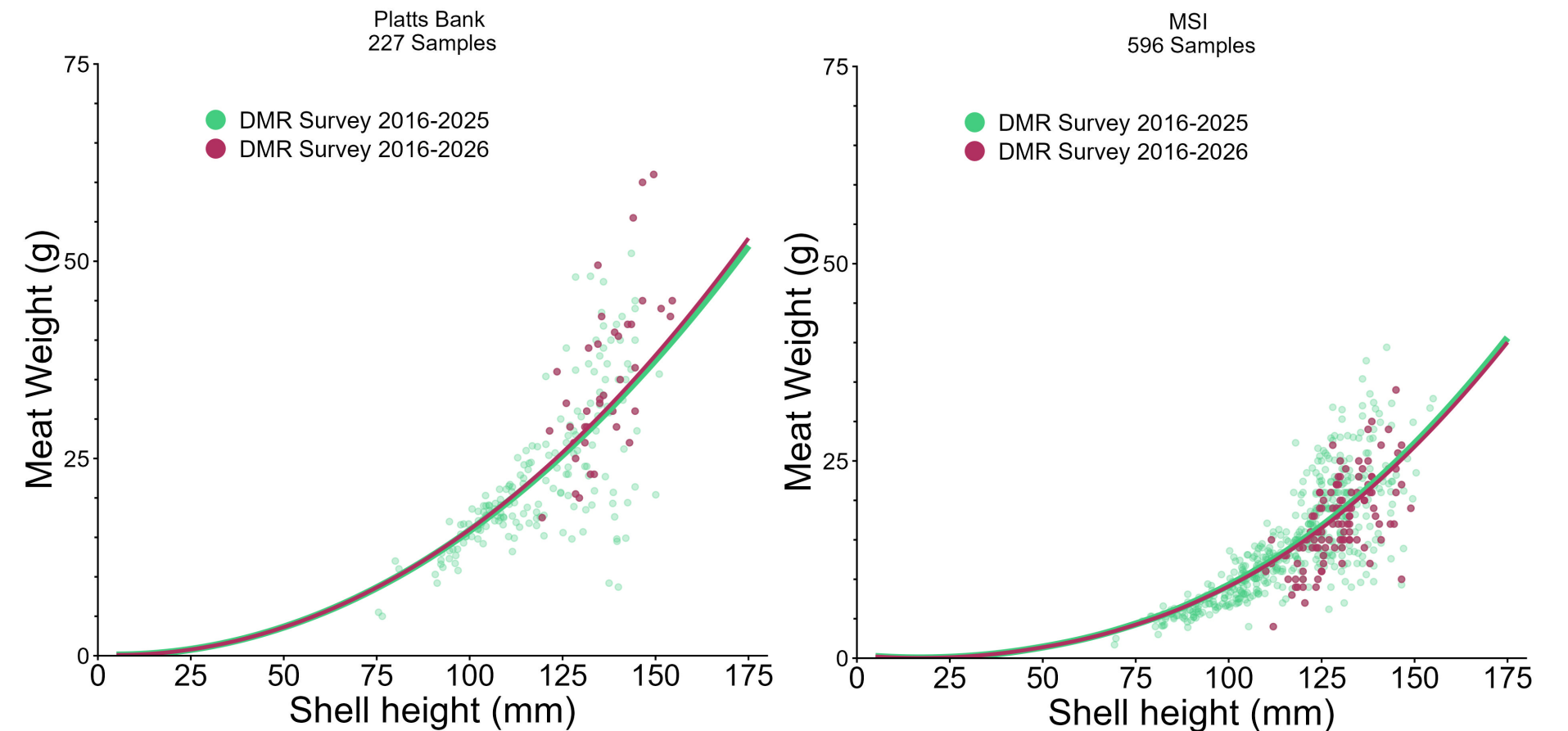


Data Analysis- Meat Weight Estimates

- 987 Samples collected for SHMW
- MSI Notably lower than other areas
 - 66% Normal, 28% Fair, 6% Poor
- Jefferys: 1 Shell blister, 1 Fair quality
- All other scallops were normal



DMR SHMW Relationships-Northern Areas



$MW = \text{Exp}(189.9926 + 2.1389 \cdot \ln(SH) - 4.5429 \cdot \text{LatDD} - 0.2476 \cdot \ln(\text{DepthM}))$

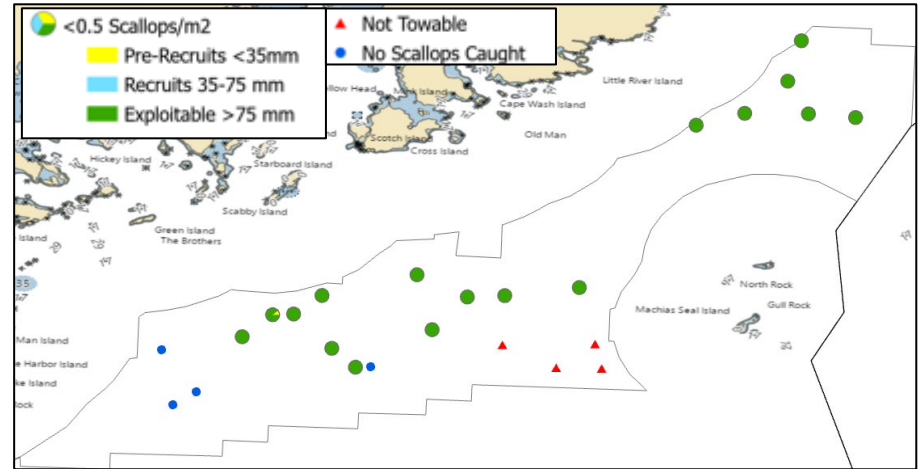
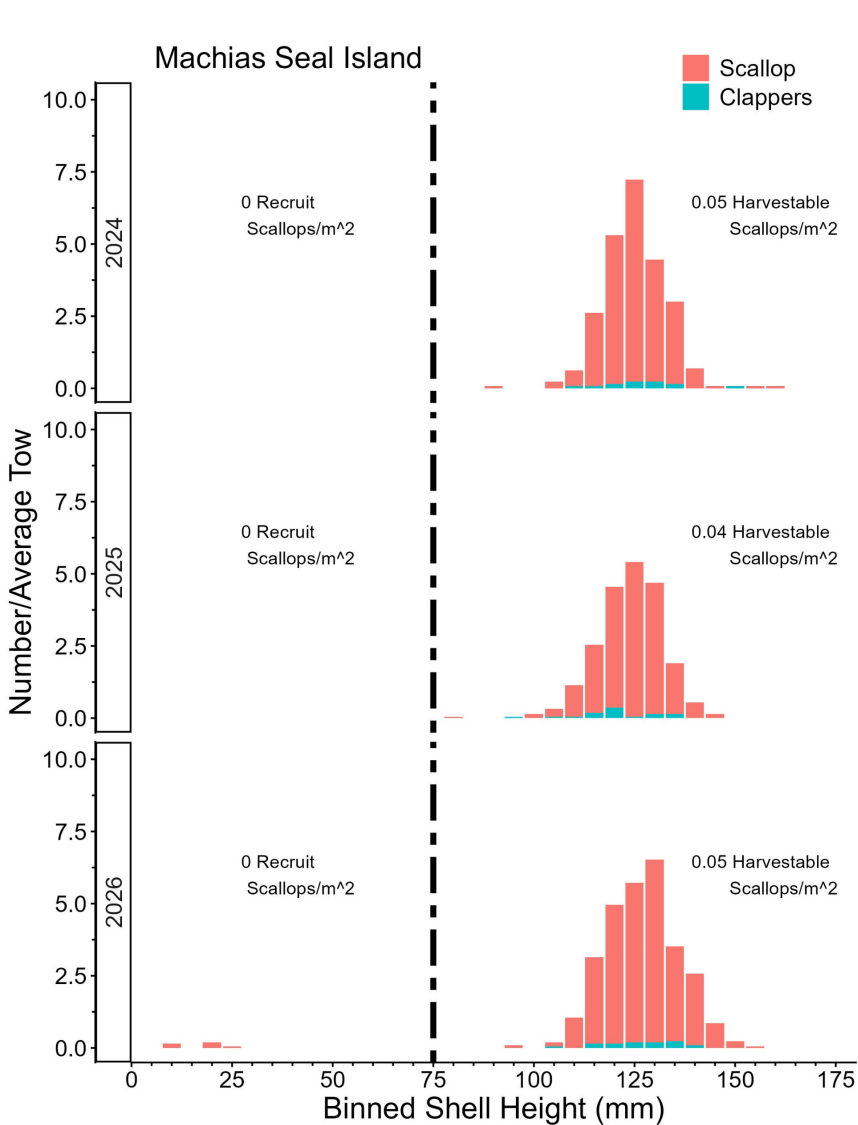
2026 equation overestimates by 4.8% compared to 2025

$MW = \exp(-4.09802 + 2.6455 \cdot \ln(SH) - 0.13945 \cdot \text{LatDD} + 0.06916 \cdot \ln(\text{DepthM}))$

2026 equation underestimates by 2% compared to 2025

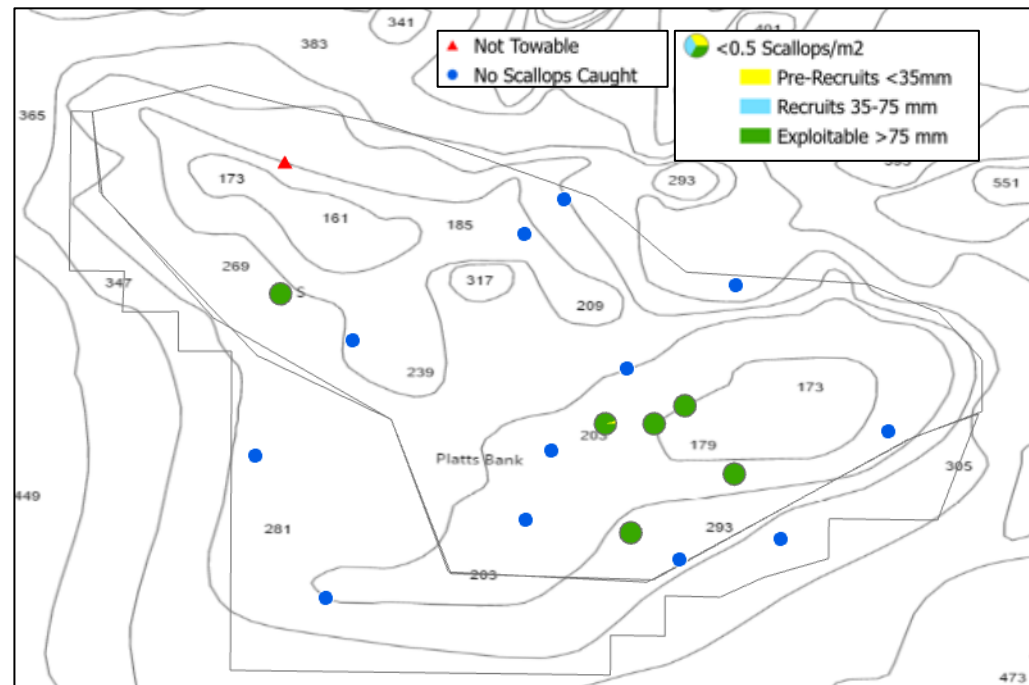
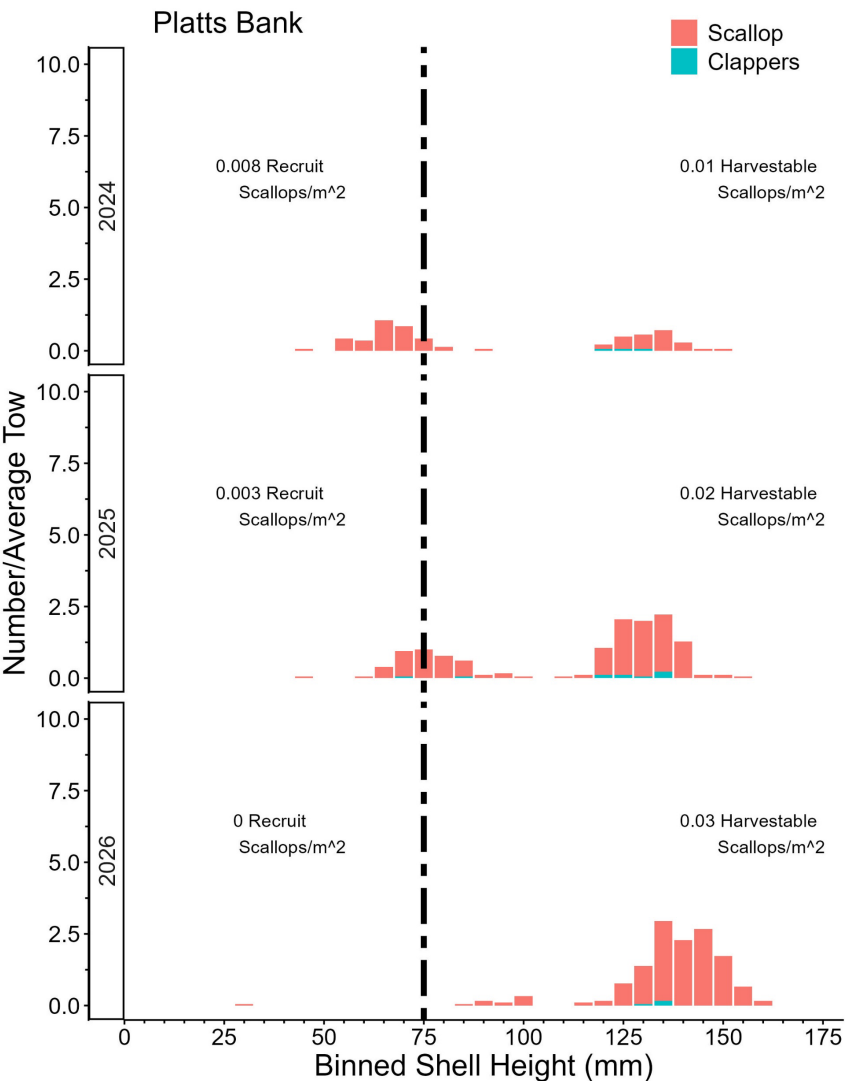
GLMM: SH + Depth + Latitude + Area
Stations as random effect

Machias Seal Island



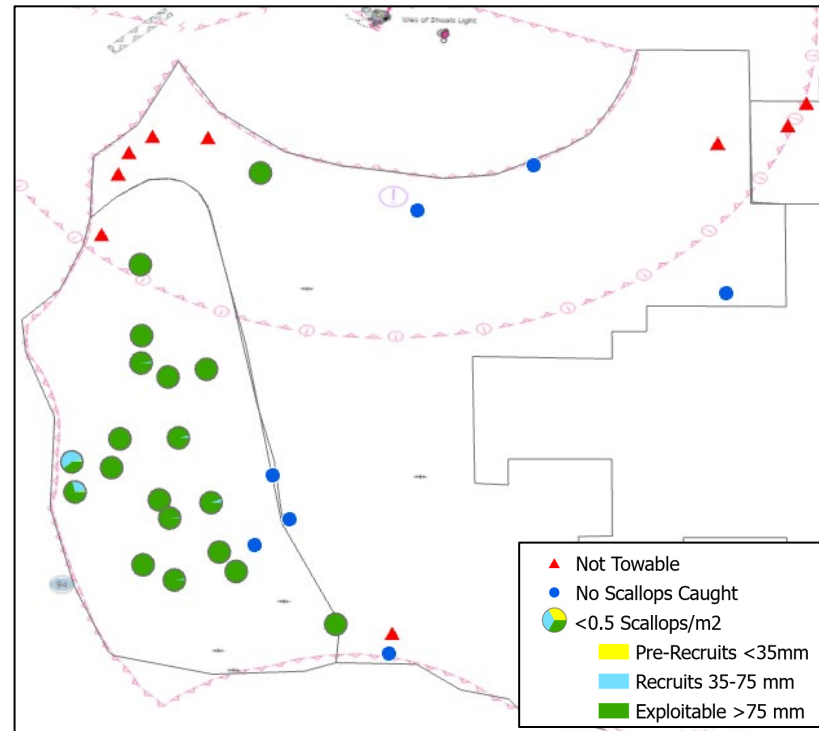
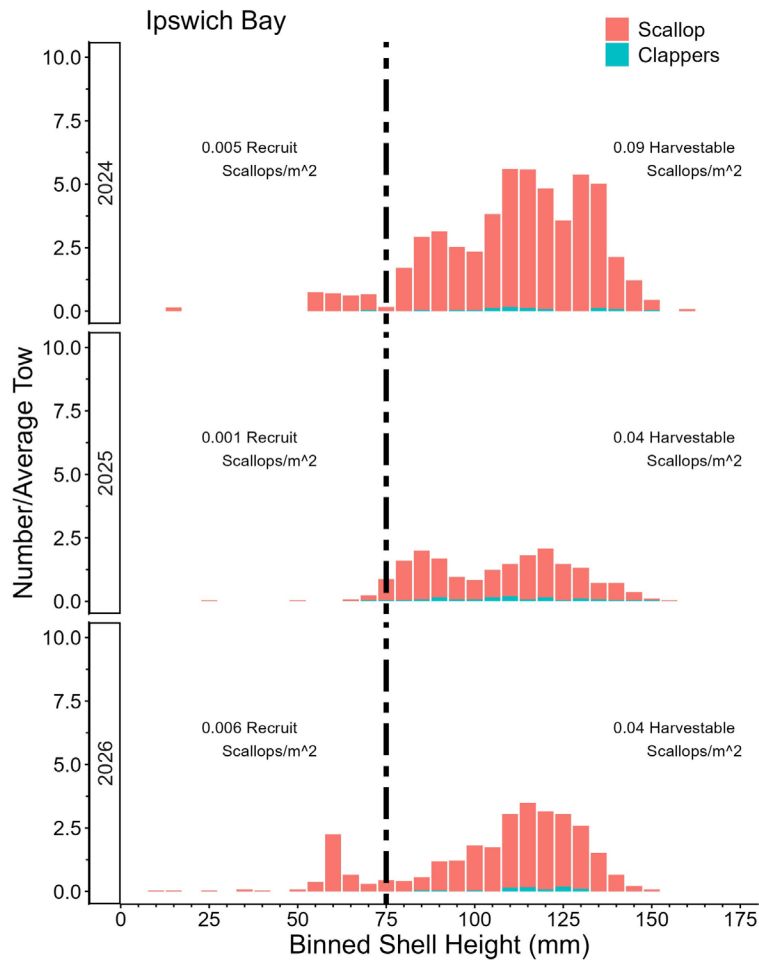
- Biomass $\approx$ 2024
- Few scallops <100mm
- Fair/poor meat quality
- Estimated Biomass = 306.8 MT

Platts Bank



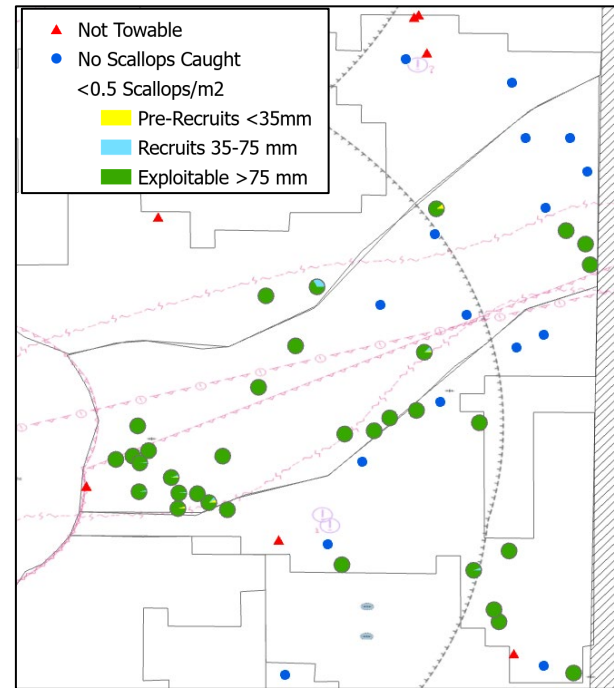
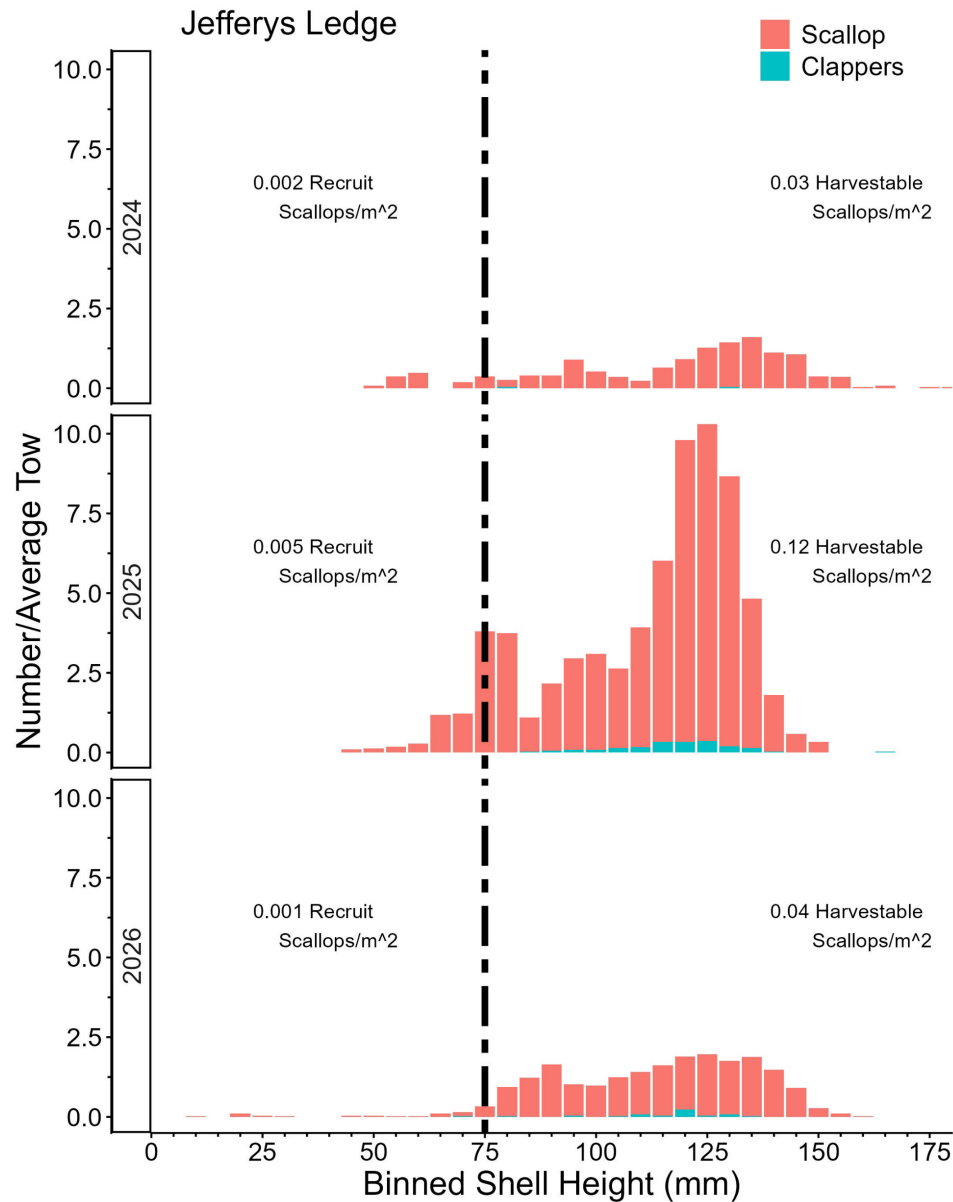
- 20% Increase in biomass compared to 2025
 - 25% Decline in abundance
- 2022 Cohort slower growth than predicted using GB parameters (100-110)
- Estimated Biomass = 52 MT

Ipswich Bay



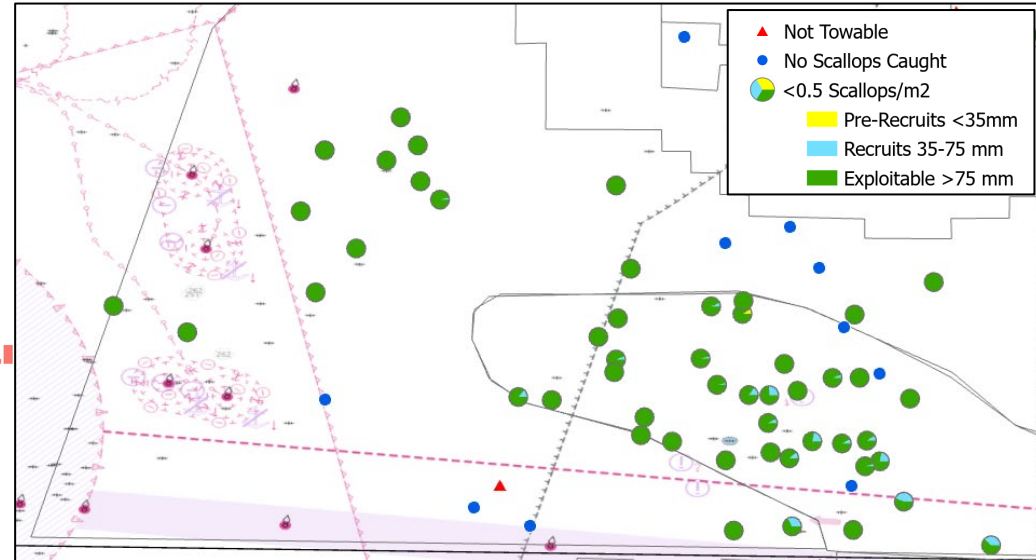
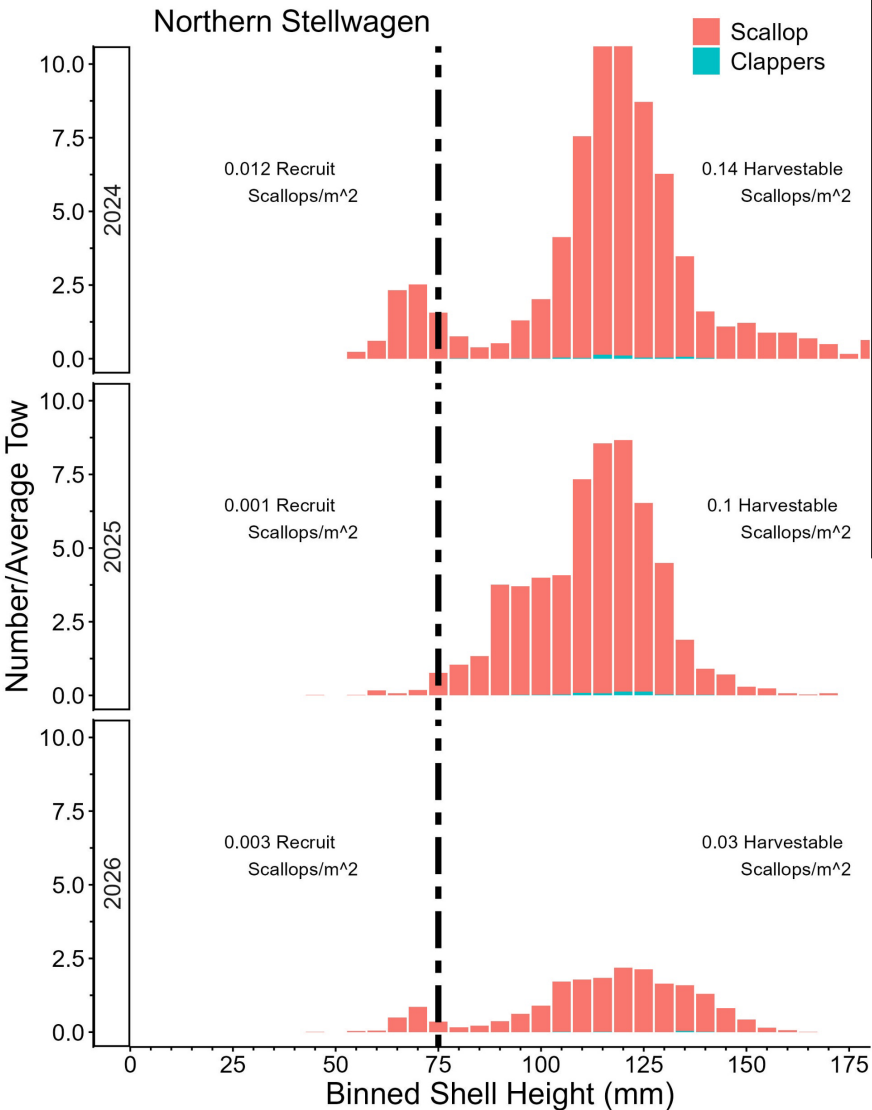
- Decline of 21% in biomass from 2025
- Few scallops outside the SMAST survey footprint
- Estimated Biomass = 127.6 MT

Jeffreys Ledge



- Decline in AOI-No high density tows
- Few recruits
- Estimated Biomass = 336.1 MT

Northern Stellwagen

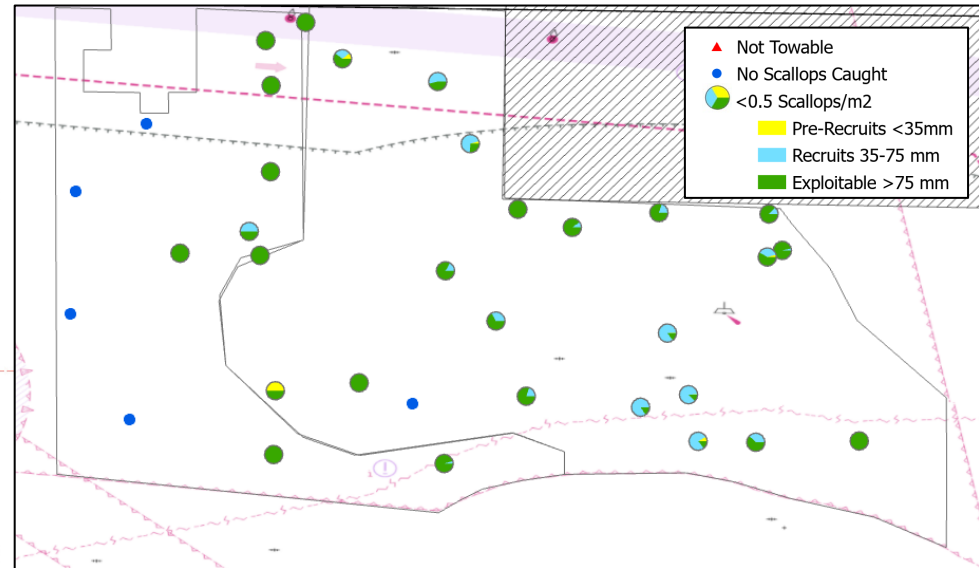
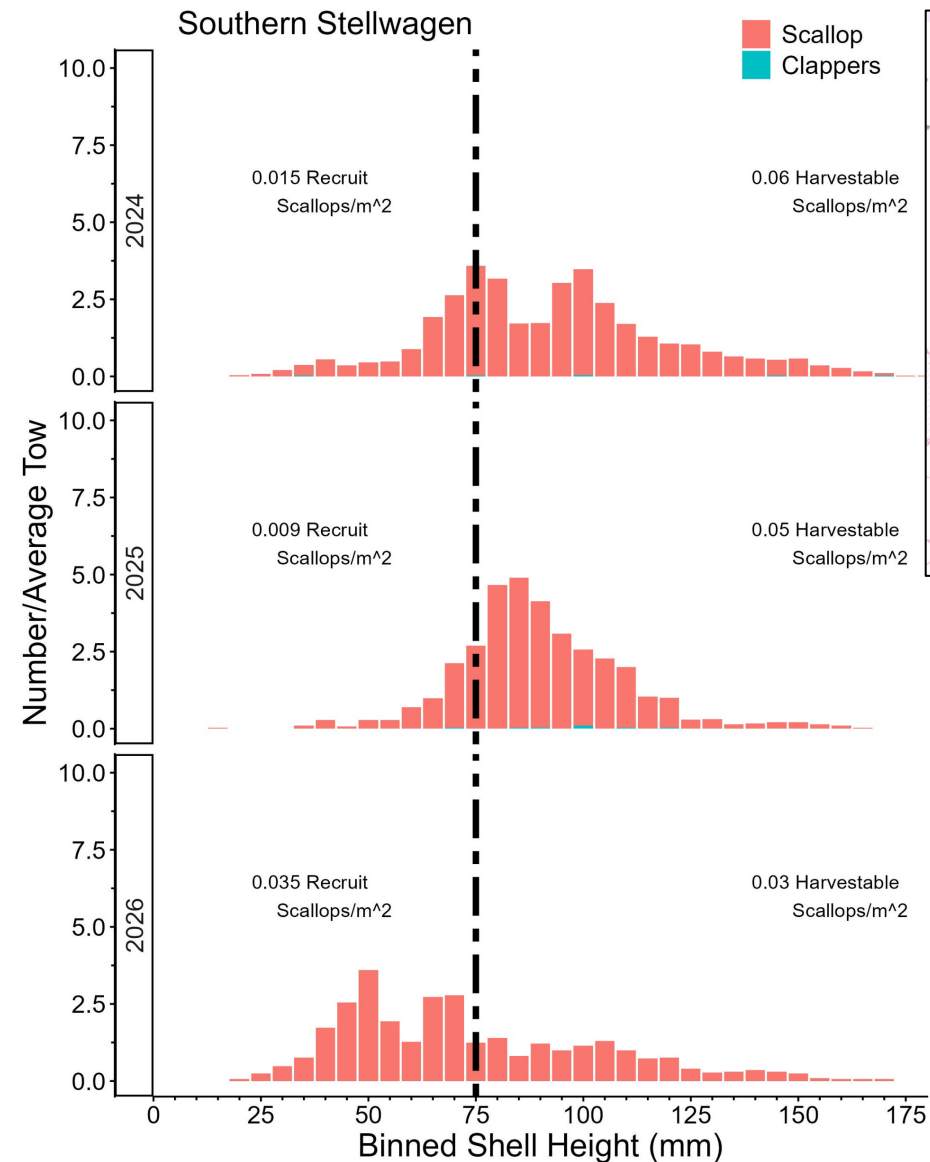


71% Decline in biomass in AOI

- No stations with >0.5 scallops per meter
- No strong signal of recruits or pre-recruits
- Large increase in scallops between Stellwagen and Gloucester

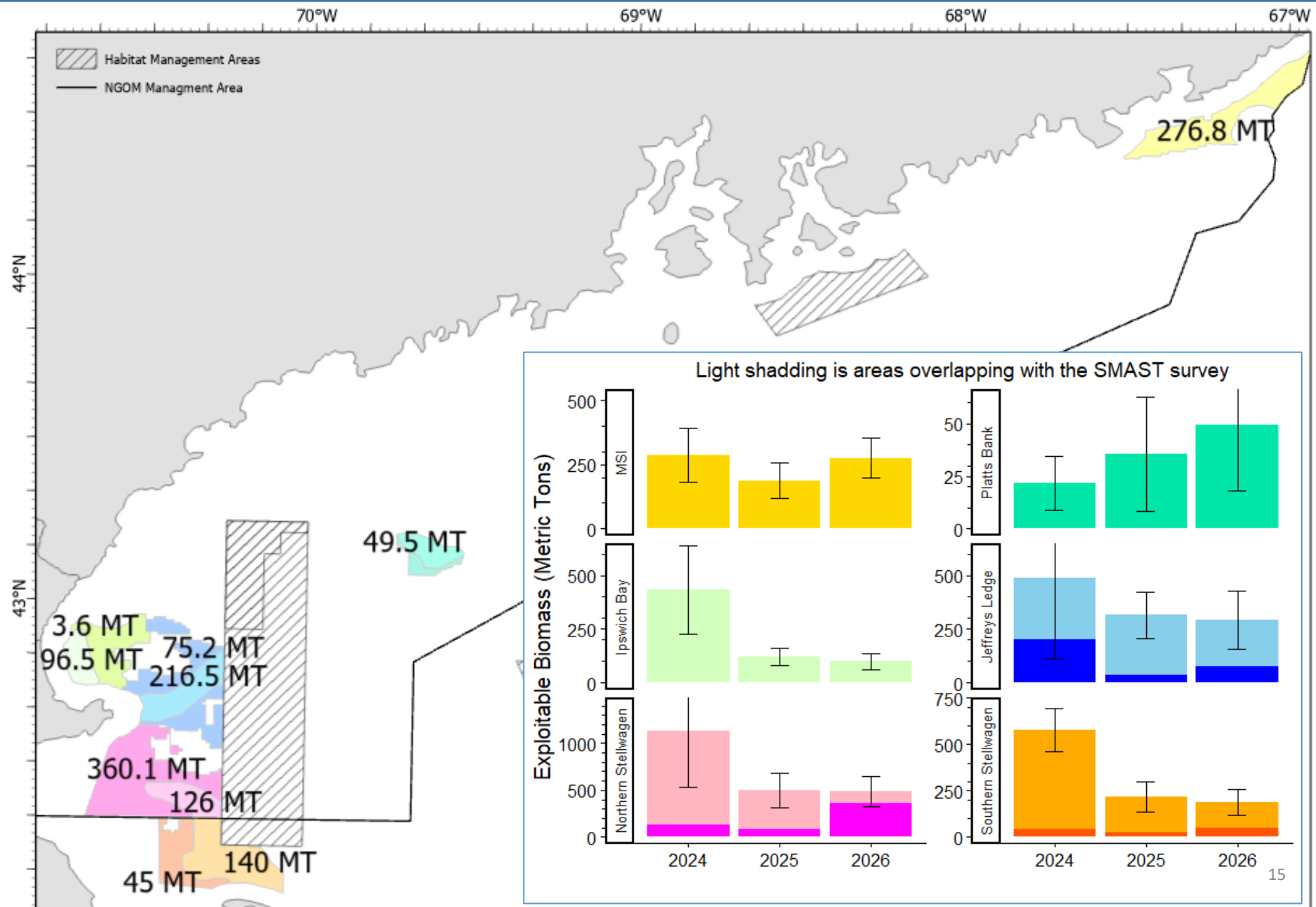
*Concern about biomass outside the AOI being
~50% of the biomass in NGOM

Southern Stellwagen

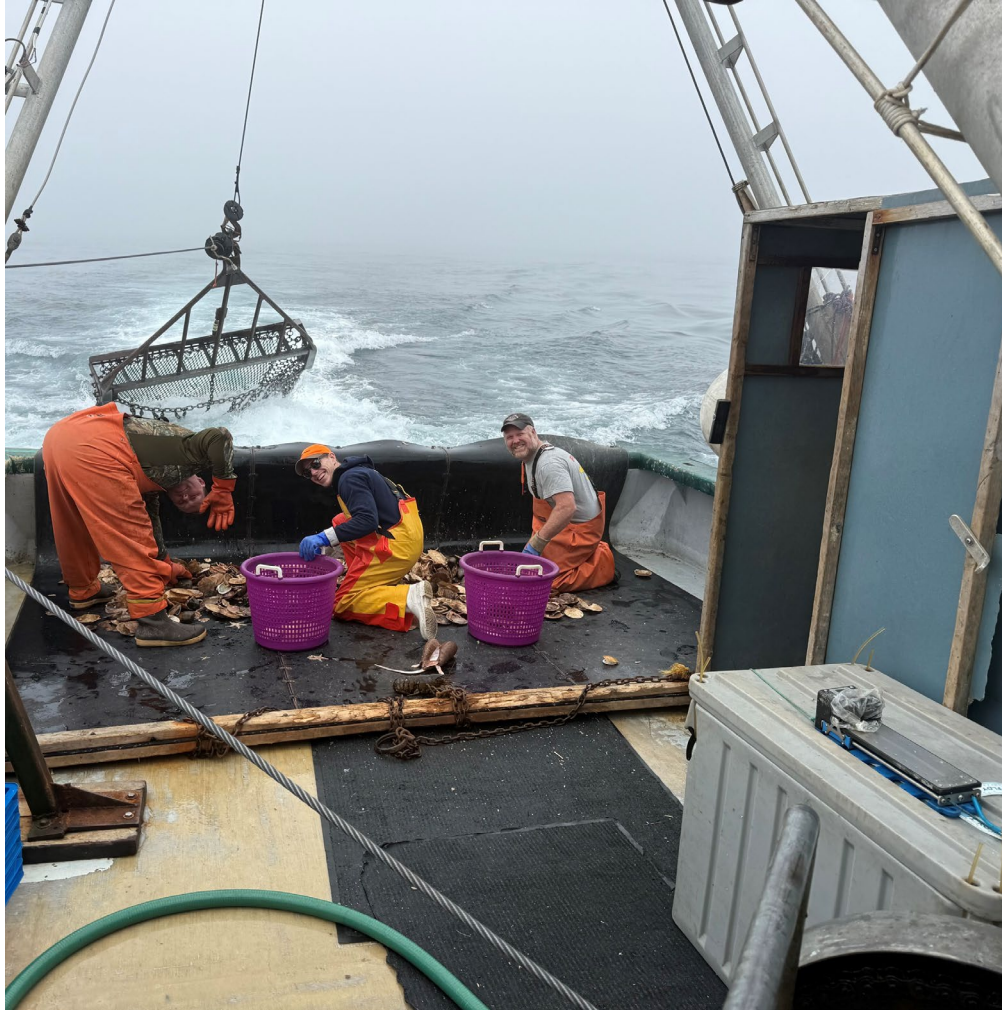


- 25% Decline in biomass compared to 2025
- High abundance of 2-year-olds
- Lower densities, but larger scallops outside AOI
- Estimated Biomass = 321 MT

Exploitable Biomass

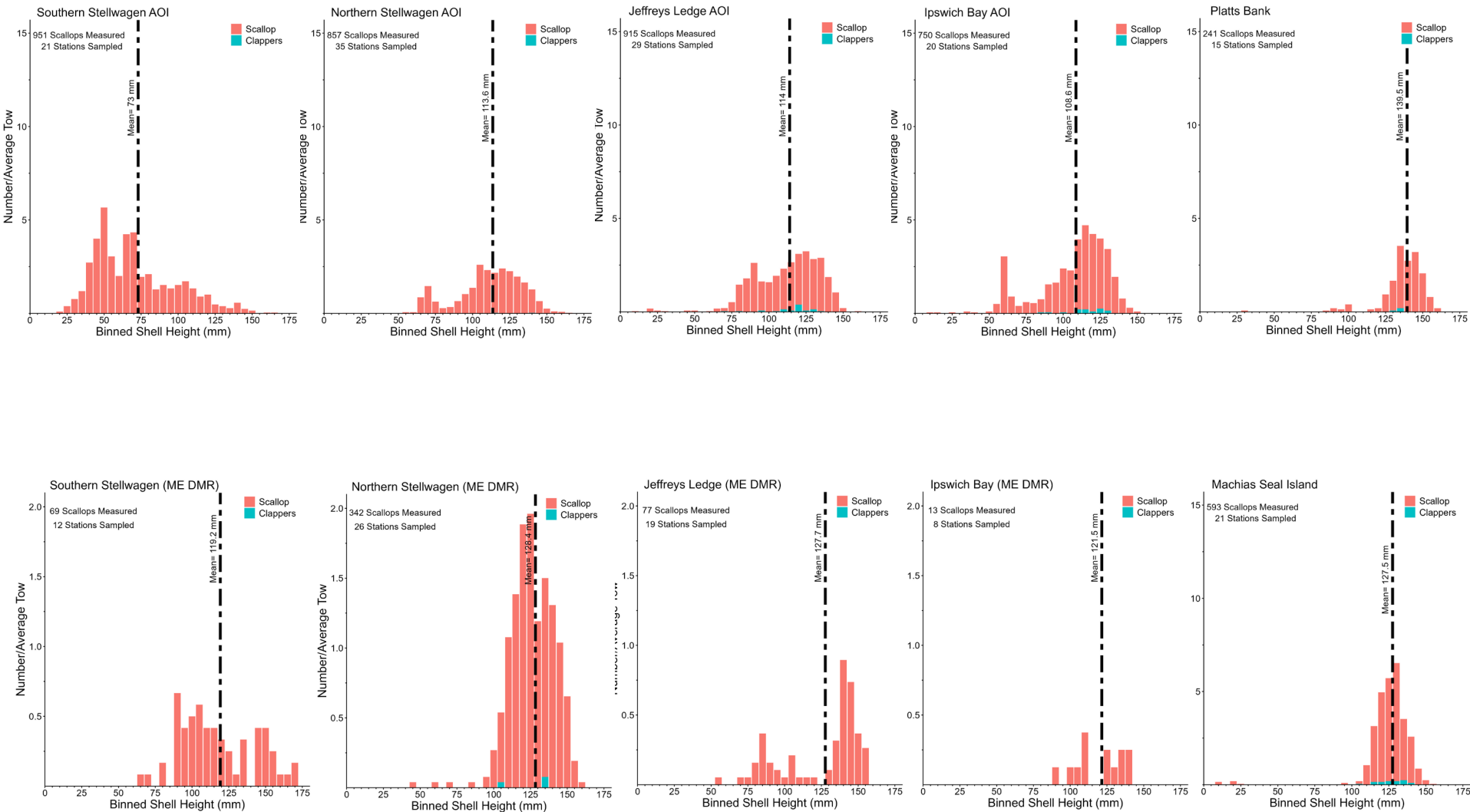


Acknowledgements



- Captains & Crew
 - F/V Whitney & Ashley*
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- Sea Sampling Technicians
 - Zachary May, Ethan Mackie
- DMR Finance Team
- Funding though the sea scallop RSA Program

Backup Slide- Size Frequency



Backup Slide SHMW

