

2026 Scallop Survey Short Report

Gulf of Maine

Prepared by:

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1.0 METHODS

Site Selection: The Maine DMR Gulf of Maine scallop dredge survey operates as a stratified random grid survey in priority scallop areas between 30 and 120 meters in the Gulf of Maine. The survey grid was established in 2009 by overlaying a 1 km grid across the domain and identifying each grid as high, medium or low expected scallop density based upon VTR data, fleet interviews and past survey data. Prior to each survey the grid is updated with recent survey data then 240 grid cells are randomly selected with the allocation of density strata 50% randomly selected and 50% based upon the Neyman allocation using variance in density from the previous years.

Sampling Parameters: The ME DMR dredge survey utilizes two commercial vessels (approximately 40 ft LOA), that are specifically rigged for commercial scallop fishing in the Gulf of Maine, as the survey platform. The survey dredge is a 7 ft. wide New Bedford-style chain sweep dredge with 2-inch rings, 1¾ inch head bale, 5-inch twine top and 10-inch pressure plate. The dredge is equipped with rock chains and unlined. For this survey all tows were in a straight line, for a target time of 5 minutes in length at a target speed of 3.5-4 kts, covering approximately 550m. Positional location (tow start and haul back), exact speed and tow times were recorded on-board with a ruggedized tablet computer equipped with GPS. A continuous GPS track was recorded to ensure data accuracy. Pitch and roll of the drag, as well as depth and water temperature, were measured using Star-Oddi™ sensors mounted to the neck of the survey drag. The tow distance utilized for area swept analysis was calculated from the GPS log by summing the distance between each recorded point during the tow using the haversin equation.

Biological samples: All scallops in each tow were counted, sorted into bushel baskets for an estimated volume, and then weighed. All scallops and clappers were measured for shell height with an electronic measuring board (Zebra-Tech LTD ± 0.5 mm). To determine shell height-meat weight relationships, eight representative scallops were selected for meat weights at each station. These scallops were measured for shell height, shell depth and shell width and then shucked and visually examined for meat quality, common diseases/infections and other abnormalities. Scallops were weighed at sea using a motion compensated scale (M1100 PL2262 ± 0.5 g).

Data analysis: To improve comparison between our survey and the other scallop dedicated survey in the region, the drop camera survey conducted by the School of Marine Science and Technology, University of Massachusetts Dartmouth (SMAST), total and exploitable stock biomass and abundance were estimated for both the overlapping areas of interest (AOIs) and the areas outside the overlap. The area swept was calculated based on the dredge width and the distance calculated between the tow start and end points. These points were verified using the timestamps recorded on the tilt sensor. The biomass estimates were calculated using an assumed dredge efficiency of 0.4 for our standard dredge. The selectivity curve from Yochum & DuPaul 2008 was used to determine exploitable biomass.

2.0 2026 SURVEY BIOMASS ESTIMATES

ME DMR Dredge Size cutoff for estimates is 40 mm.

Area	Sub-Area		Abundance (mil.)	Biomass (mt)	SE	Avg. Weight (g)	Avg. Size (mm)	Avg. Density (#/m²)	# Tows/Drops, HabCam images annotated
NGOM	Machias Seal Island		16.9	306.8	86.6	18.2	129	0.042	21
	Platts Bank		1.5	52	32.5	34.7	139.9	0.014	15
	Ipswich Bay	SMAST domain	5.4	123.2	41.8	22.8	109.1	0.049	20
		ME DMR	0.2	4.4	4.4	22	121.5	0.001	8
	Jeffreys Ledge	SMAST domain	8.3	253.3	102.8	30.5	114.9	0.039	29
		ME DMR	2.4	82.8	43.5	34.5	127.7	0.007	19
	Stellwagen Bank (AOI from 2025)	SMAST domain	5.4	158.8	29.2	29.4	113.6	0.037	35
		ME DMR	10.6	398.6	153.8	37.6	128.4	0.019	26
	NGOM Total		50.5	1379.8	494.7	27.3	123	0.026	173
Non-NGOM	Stellwagen Bank (Stellwagen South)	SMAST domain	24.3	267.7	77.7	11	75.4	0.07	21
		ME DMR	1.6	53.3	30.6	33.3	119.2	0.008	13
	WGOM Closure								
	Ipswich Bay (MA State Waters)								
	Fippennies Ledge (Closed Area)								
	Cashes Ledge (Closed Area)								
	Non-NGOM Total		25.9	321	108.4	12.4	97.3	0.039	34

3.0 FIGURES OF SURVEY COVERAGE

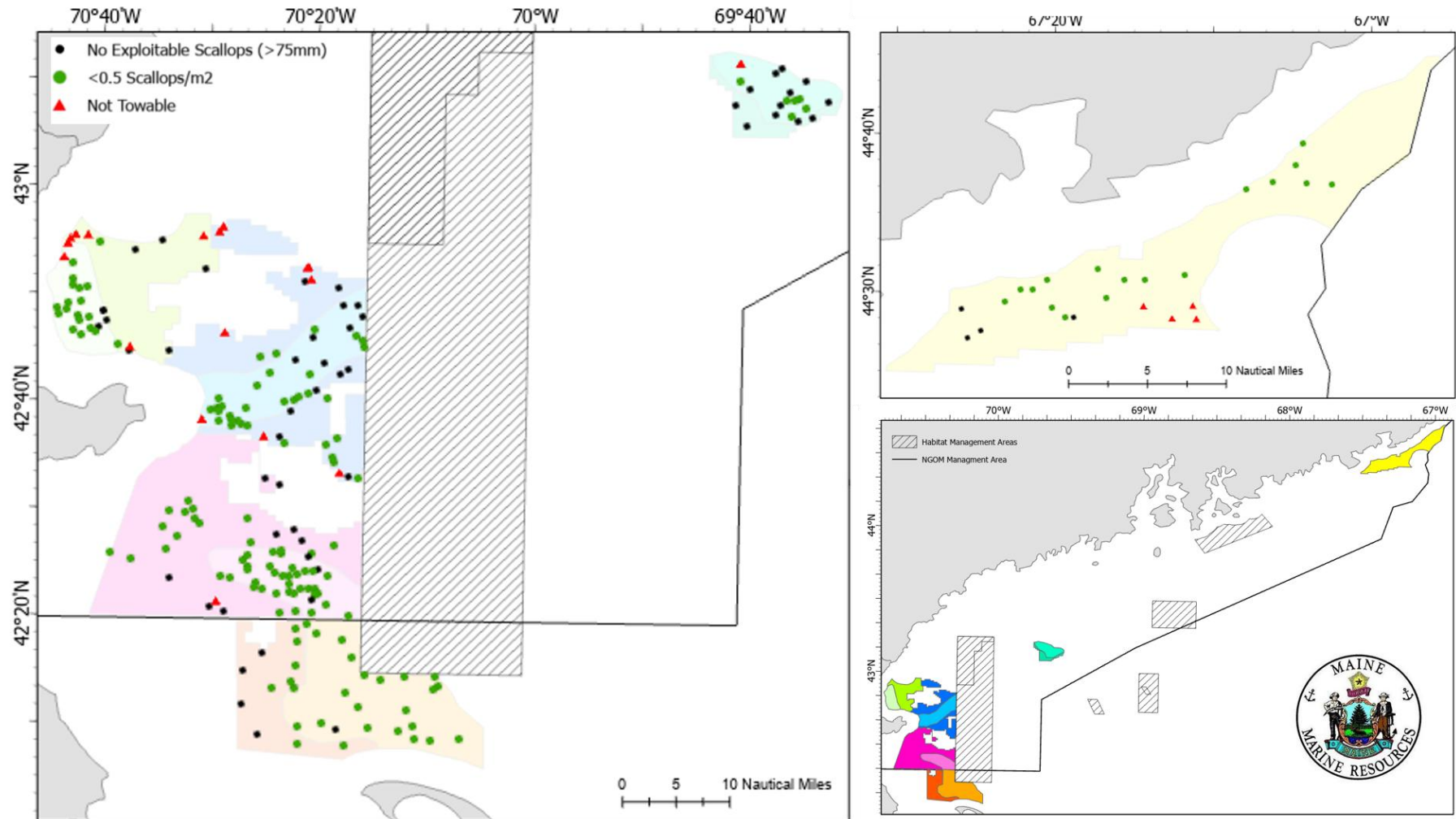


Figure 1. Map of the number of harvestable scallops per square meter for the scallops larger than 75mm shell height. The smaller lighter shaded areas within each subarea are areas overlapping with the SMAST survey. Tows with no scallops are shown as black circles, sites not towable due to fixed gear or bottom type are indicated by red triangles, the green circles are where harvestable were caught, no sites were $>0.5/m^2$.

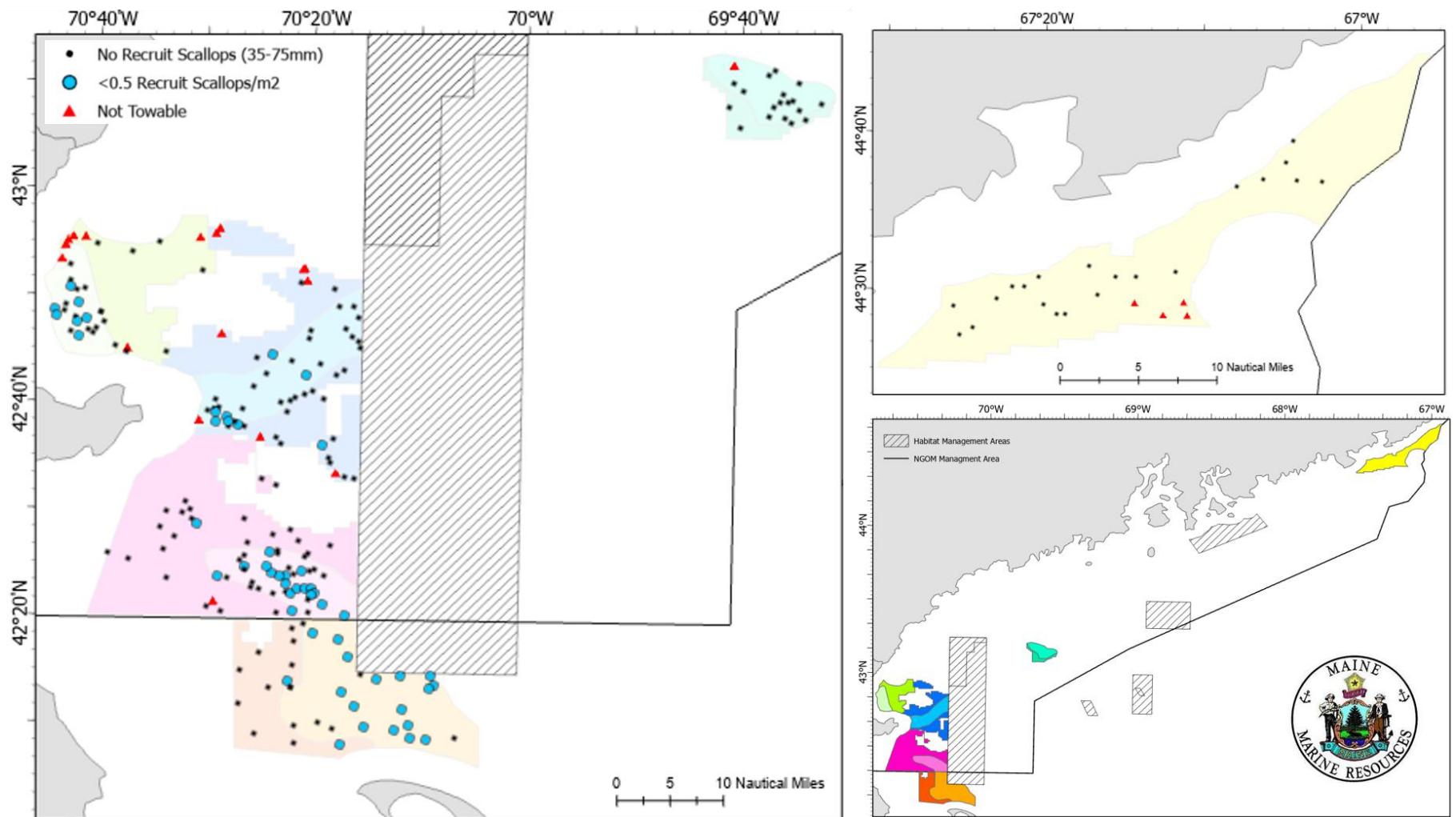


Figure 2. Map of the number of recruit scallops per square meter for the scallops 35-75mm shell height. The smaller lighter shaded areas within each subarea are areas overlapping with the SMAST survey. Tows with no scallops are shown as black circles, sites not towable due to fixed gear or bottom type are indicated by red triangles, the blue circles are where recruit were caught, no sites were >0.5/m².

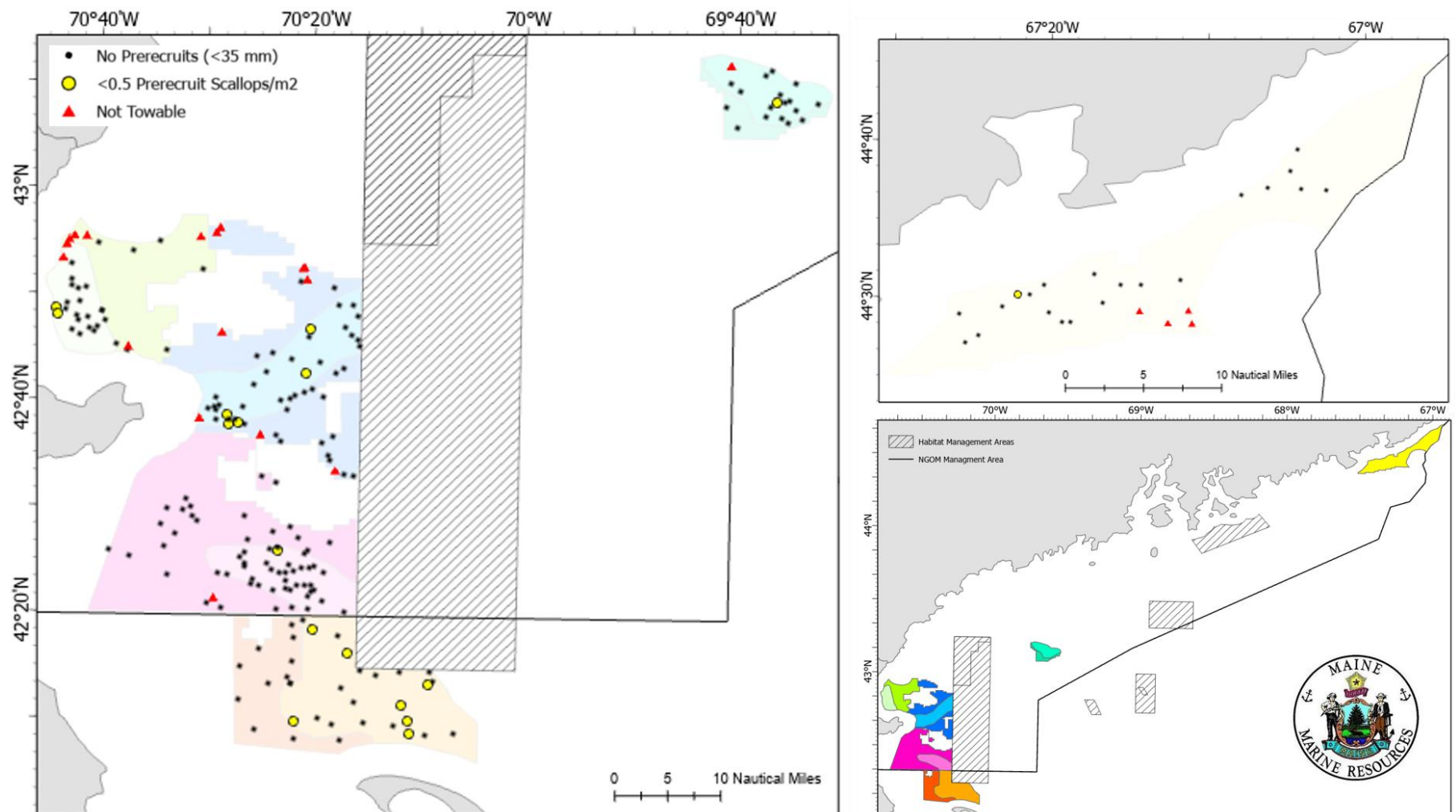
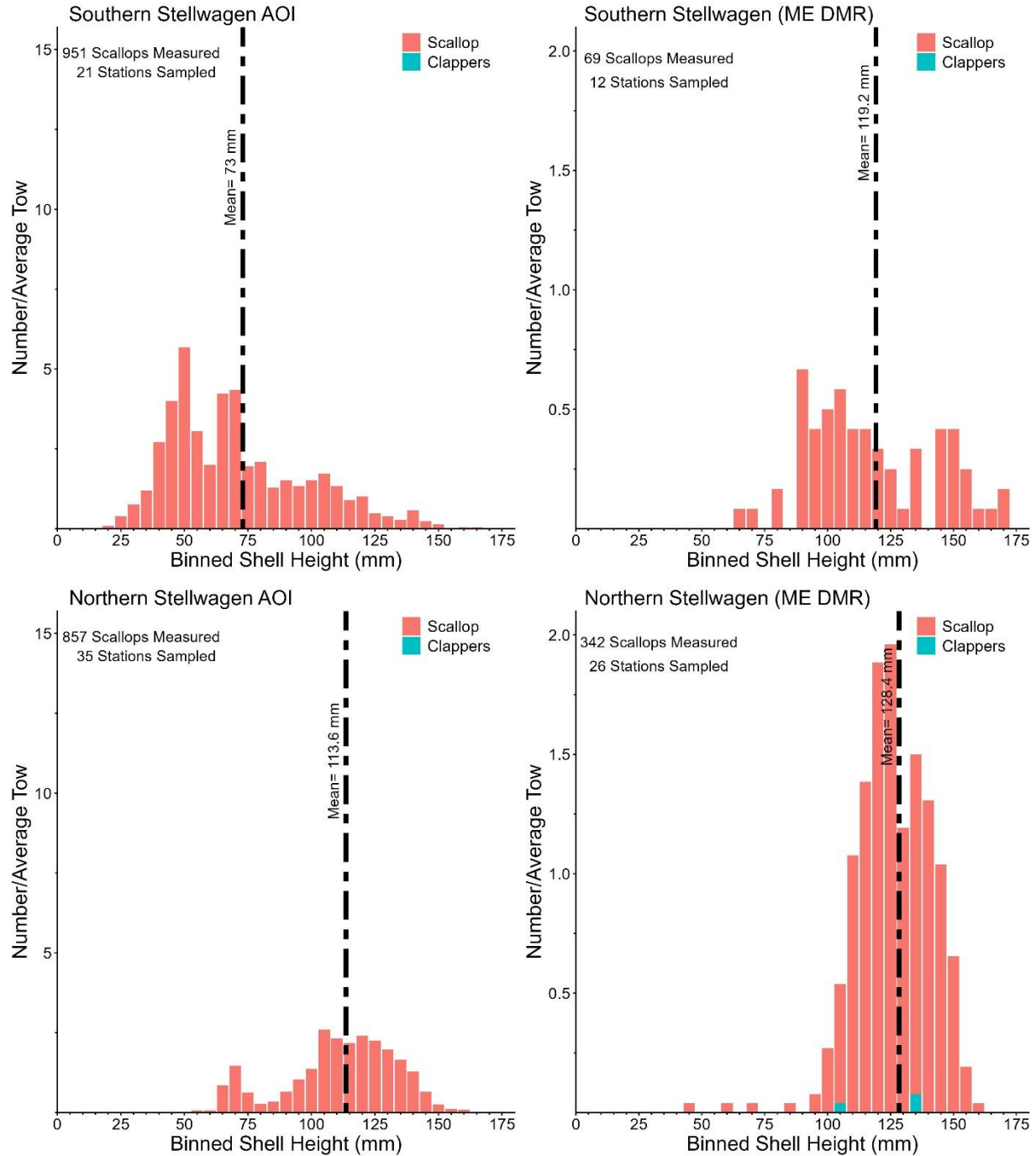
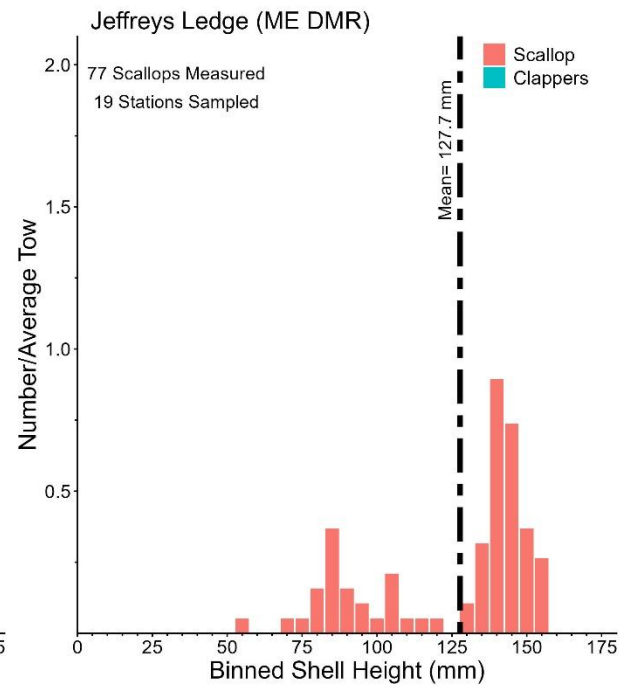
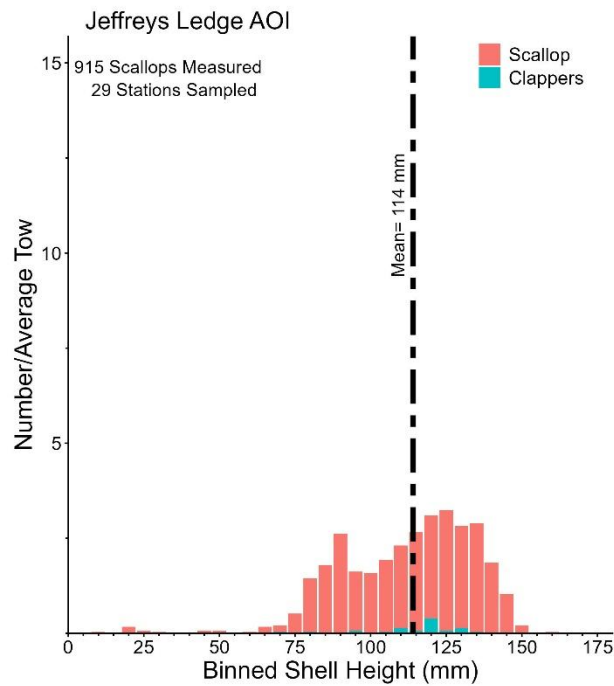
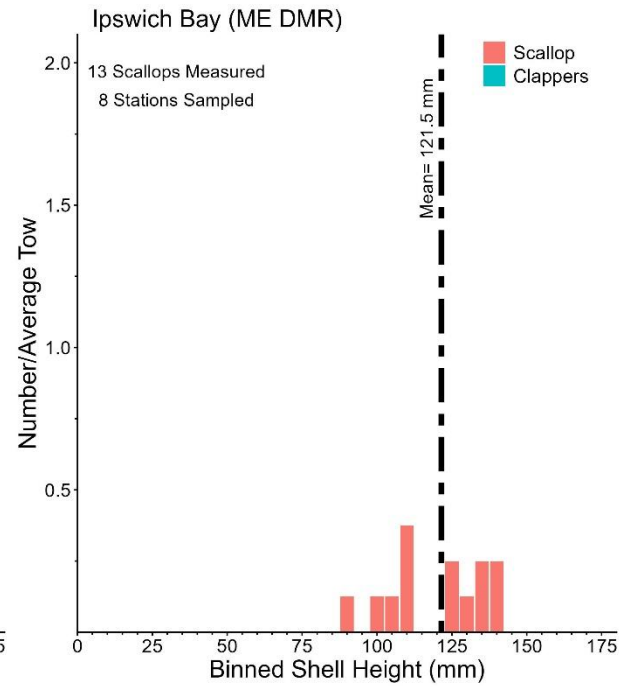
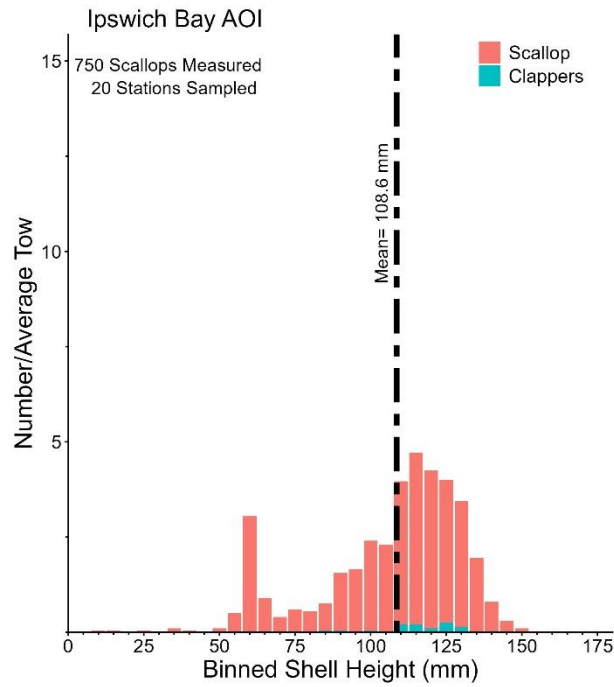
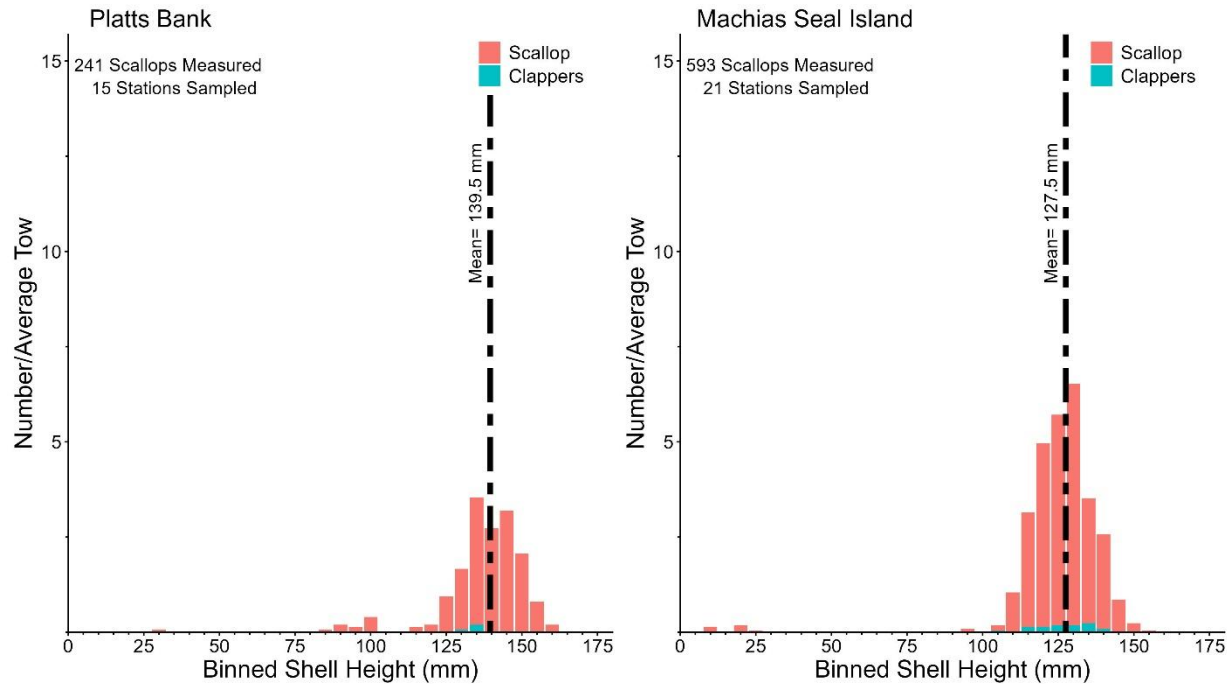


Figure 3. Map of the number prerecruit scallops per square meter for the scallops less than 35mm shell height. The smaller lighter shaded areas within each subarea are areas overlapping with the SMAST survey. Tows with no scallops are shown as black circles, sites not towable due to fixed gear or bottom type are indicated by red triangles, the yellow circles are where prerecruit were caught, no sites were $>0.5/m^2$.

4.0 LENGTH FREQUENCY PLOTS BY SAMS AREA







Size Frequency Plots. Scallops and clappers were measured to the nearest 0.1 mm using Zebra Tech© shellfish measuring boards then binned into 5mm increments. The total number of scallops in each survey area for each size bin were divided by the number of valid tows to calculate the number of scallops/average tow. Black dashed lines represent the mean size for each survey area. The AOI's are the areas which overlapped with the SMAST survey domain and have the same y-axis scale for each area.

5.0 EXPLOITABLE BIOMASS ESTIMATES FOR 2026 (CURRENT FY)

Size cutoff for estimates is 40 mm.

Area	Sub-Area		Exp. Abundance (mil.)	Exp. Biomass (mt)	SE	Avg. Weight (g)
NGOM	Machias Seal Island		15	276.8	79.5	18.5
	Platts Bank		1.4	49.5	31.6	35.4
	Ipswich Bay	SMAST domain	3.5	96.5	34	27.6
		ME DMR	0.1	3.6	3.6	36
	Jeffreys Ledge	SMAST domain	6.2	216.5	92.7	34.9
		ME DMR	1.8	75.2	41.9	41.8
	Stellwagen Bank (AOI from 2025)	SMAST domain	3.5	126	23.8	36
		ME DMR	9.1	360.1	142.2	39.6
	NGOM Total		40.7	1204.3	449.3	
Non-NGOM	Stellwagen Bank (Stellwagen South)	SMAST domain	4.7	140	39.6	29.8
		ME DMR	1.1	45	28.1	40.9
	WGOM Closure					
	Ipswich Bay (MA State Waters)					
	Fippennies Ledge (Closed Area)					
	Cashes Ledge (Closed Area)					
	Non-NGOM Total		5.8	185	67.7	

6.0 COMPARISON WITH PREVIOUS YEARS ESTIMATES

Area	Sub-Area		Abundance (mil.)			Biomass (MT)			Exploitable Biomass (MT)		
			2025	2026	Percent Difference (%)	2025	2026	Percent difference (%)	2025	2026	Percent Difference (%)
NGOM	Machias Seal Island		12.3	16.9	37%	213.6	306.8	44%	187.4	276.8	48%
	Platts Bank		2	1.5	-25%	43.3	52	20%	35.6	49.5	39%
	Ipswich Bank	SMAST domain	6.6	5.4	-18%	157.5	123.2	-22%	119.6	96.5	-19%
		ME DMR	0.1	0.2	100%	4	4.4	10%	3.7	3.6	-3%
	Jeffreys Ledge	SMAST domain	13.4	8.3	-38%	349.1	253.3	-27%	278.9	216.5	-22%
		ME DMR	0.9	2.4	167%	37.7	82.8	120%	35.8	75.2	110%
	Stellwagen Bank (AOI from 2025)	SMAST domain	19.2	5.4	-72%	548.2	158.8	-71%	408.3	126	-69%
		ME DMR	2.9	10.6	266%	98.5	398.6	305%	85.6	360.1	321%
	NGOM Total		57.4	50.5	-12%	1452	1379.8	-5%	1155	1204.3	4%
Non-NGOM	Stellwagen Bank (Stellwagen South)	SMAST domain	24.8	24.3	-2%	393.6	267.7	-32%	190.8	140	-27%
		ME DMR	1.1	1.6	45%	32.4	53.3	65%	26.3	45	71%
	WGOM Closure										
	Ipswich Bay (MA State Waters)										
	Fippennies Ledge (Closed Area)										
	Cashes Ledge (Closed Area)										
	Non-NGOM Total		25.9	25.9	0%	426	321	-25%	217.1	185	-15%

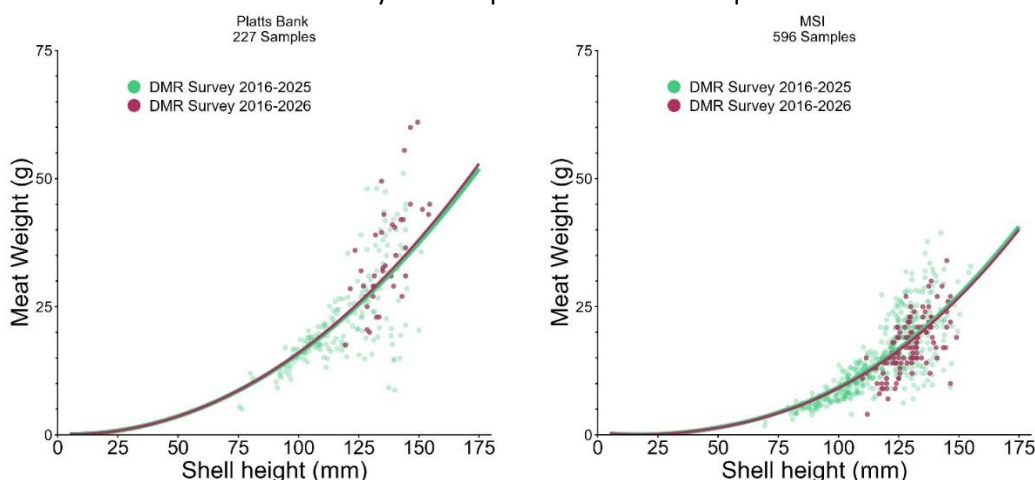
7.0 SHELL-HEIGHT MEAT WEIGHT COMPARISONS

Shell height to meat weight relationships for the southern areas were updated by SMAST using the combined DMR SMAST data set including data collected during this survey year. For the northern areas (Platts Bank and Machias Seal Island) the SHMW equations were updated utilizing meat weights collected during the ME DMR surveys from 2019-2026. The updated equations are:

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

$$\text{MSI_MTW_g} = \exp(-4.09802 + 2.65455 \cdot \ln(\text{SH}) - 0.13945 \cdot \text{LatDD} + 0.06916 \cdot \ln(\text{DepthM}))$$

There was a slight difference for both areas with the 2026 equation underestimated by 2% compared to the 2025 equation for MSI and overestimating by 4.8% for Platts Bank. Overall, the updated 2026 equations underestimated biomass by 1% compared to the 2025 equations.



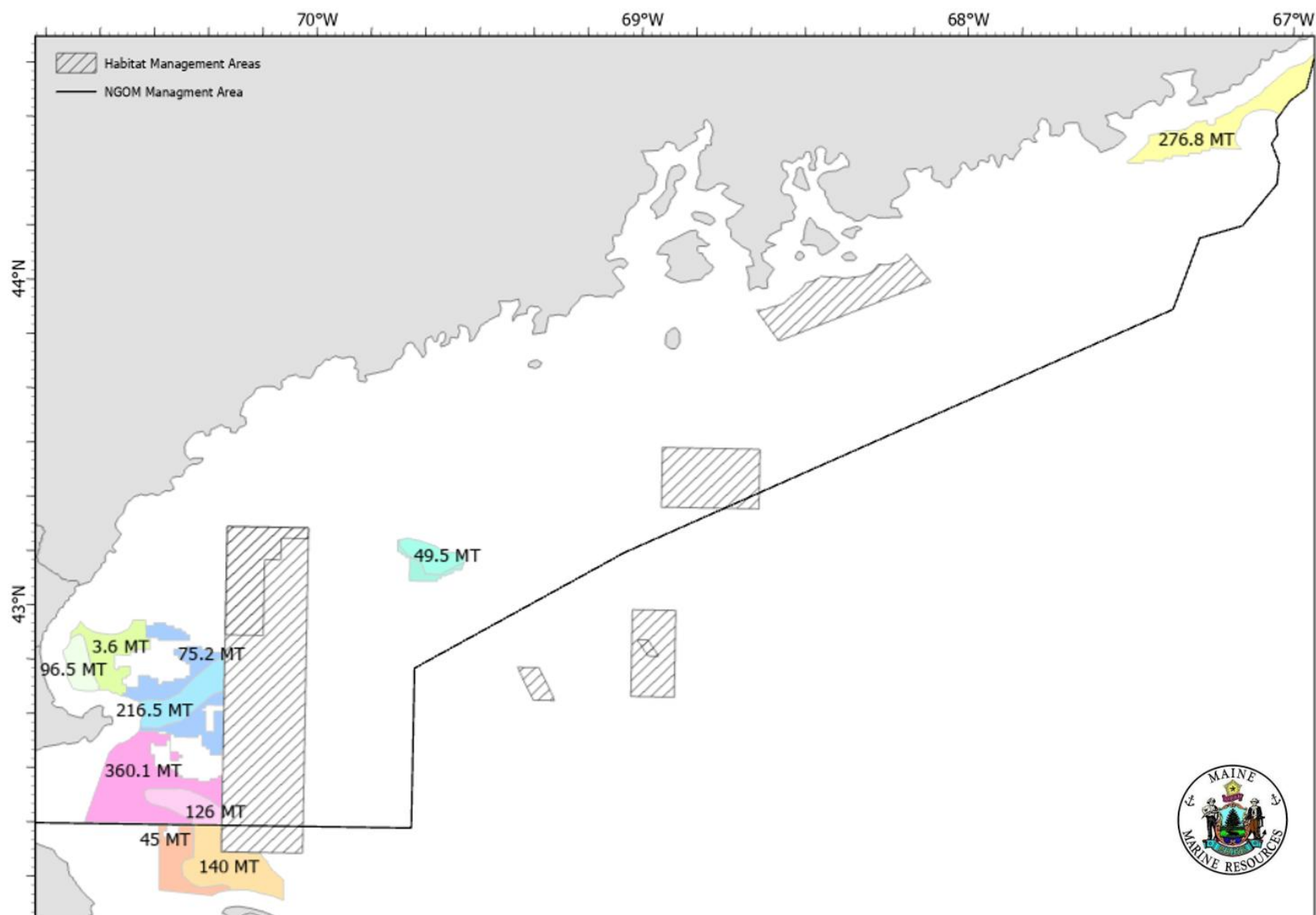
Shell Height to Meat Weight Relationship Plots. Recorded shell height and meat weight of all scallops sampled on ME DMR scallop surveys from 2019-2026 for Platts Bank and Machias Seal Island. Data from this current year is dark red. The fitted curves represent the predicted meat weight using each years relationship for average conditions.

8.0 SPECIAL COMMENTS

The exploratory areas in the NGOM which have been sampled in recent years were not included in the 2026 survey domain, but data will be collected during exploratory fishing in these areas utilizing compensation pounds.

The large increase in density in the area on Stellwagen Bank outside the SMAST survey domain was within the medium density strata between the high density on Stellwagen and Gloucester. This area had an average density of 0.01 scallops/m² from 9 stations in the 2025 survey and an average density of 0.4/m² scallops from 12 stations in the 2026 survey. Despite the best efforts to collected representative data it is possible that the random site selection contributed to this large difference.

Meat quality was visually estimated for each scallop measured for meat weights (n=987). There was one observation of shell blistering from a scallop on Jefferys ledge. In the Machias Seal Island area 28% of the meats were “fair” quality and 6% were “poor”. In the southern stations there was one fair quality scallop, also on Jefferys Ledge.



Survey domain of the 2026 ME DMR survey with estimated biomass (MT) of exploitable scallops labeled in each area.