2020 Scallop Survey Short Report

Habcam

Prepared by:

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1 2020 SURVEY BIOMASS ESTIMATES

Table 1.1. Summary of 2020 Habcam estimates for scallops larger than 40 mm shell height using CFF data. The SH-MW equations estimated by VIMS using data from 2016 to 2020 were used to estimate the meat weights for NLS-South-Deep, whereas the SARC 65 SH-MW equations were used for all other areas.

SAMS Area	NumMill	BmsMT	BmsMTSE	MeanWt	AvgSize	#PerM^2	#Annotated
Georges Bank							
CL2-Access-Southeast	406	6718	57	16.6	78.5	0.16	1134
CL2-Access-Southwest	775	14693	354	19	93.5	0.71	723
CL2-Ext	856	11055	200	12.9	74	0.62	1074
NLS-South-Deep	2591	29496	1020	11.4	95.5	4.13	1003
SF	884	13559	301	15.3	80	0.21	2453
Mid-Atlantic							
BI	87	1447	143	16.6	89.6	0.12	218
ET-Flex	242	5697	246	23.5	113.2	0.14	1086
ET-Open	393	10771	881	27.4	116.7	0.15	1456
HCS	302	7949	847	26.4	114.7	0.07	2258
LI	557	11228	2359	20.2	101.2	0.04	3832
NYB	388	6905	924	17.8	89.3	0.08	1675

2 FIGURES OF SURVEY COVERAGE

Twelve geostatistical models were constructed to produce the spatial count and biomass estimates of scallop for part of Georges Bank and Mid-Atlantic for 2020.

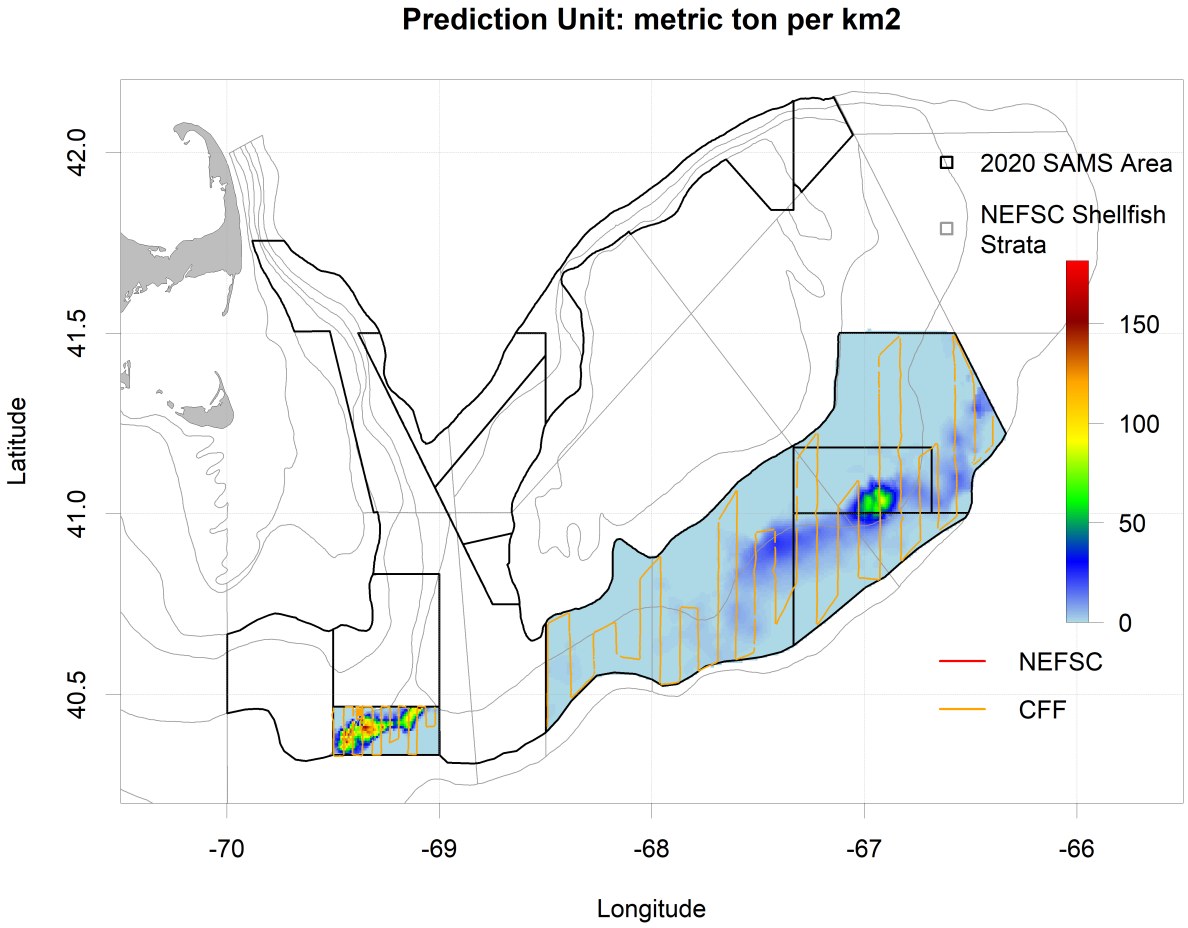
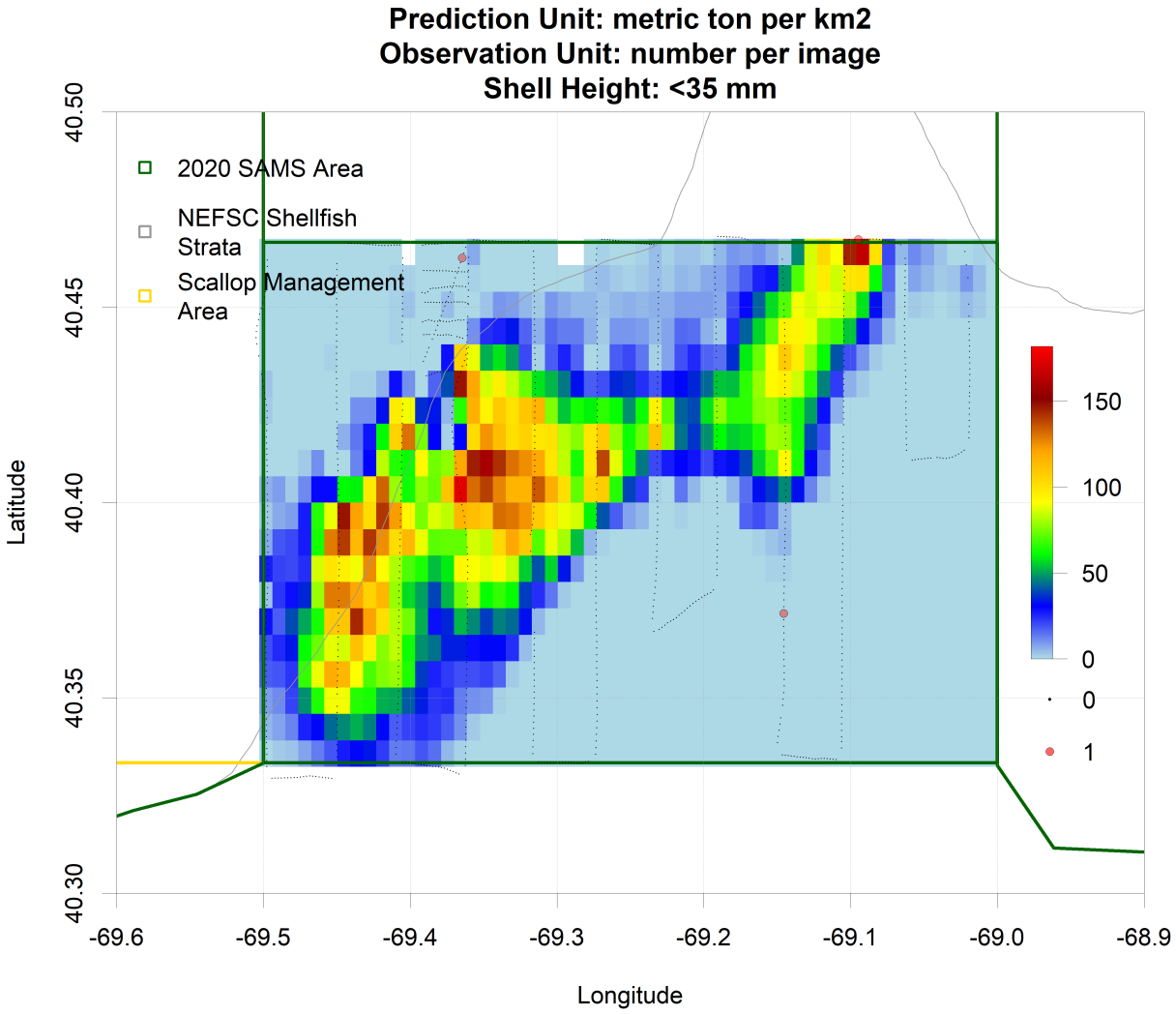


Figure 2.1. The 2020 Habcam survey tracks conducted by CFF, along with scallops number per image by size classes and 2020 Habcam biomass estimates for part of Georges Bank.



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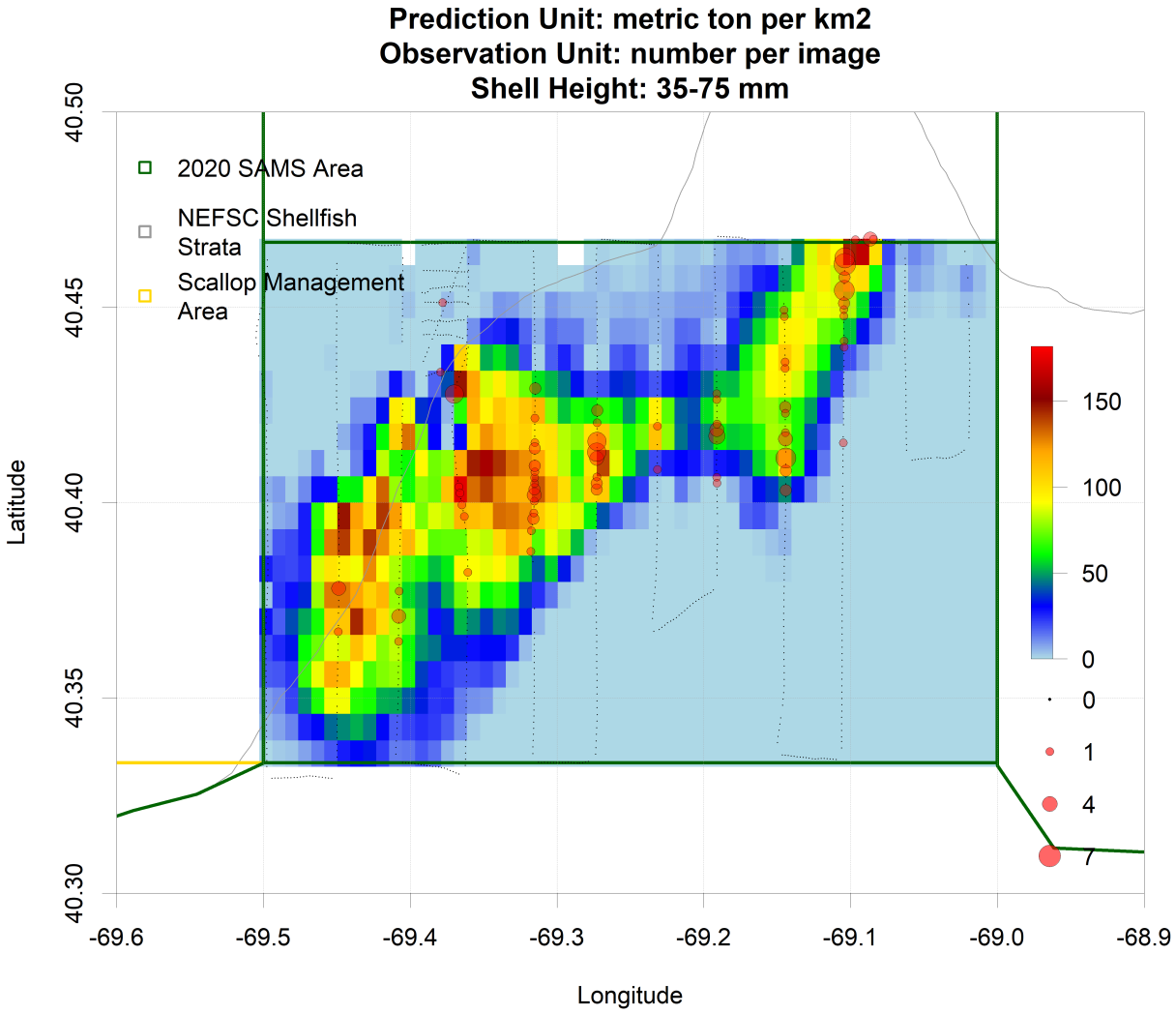

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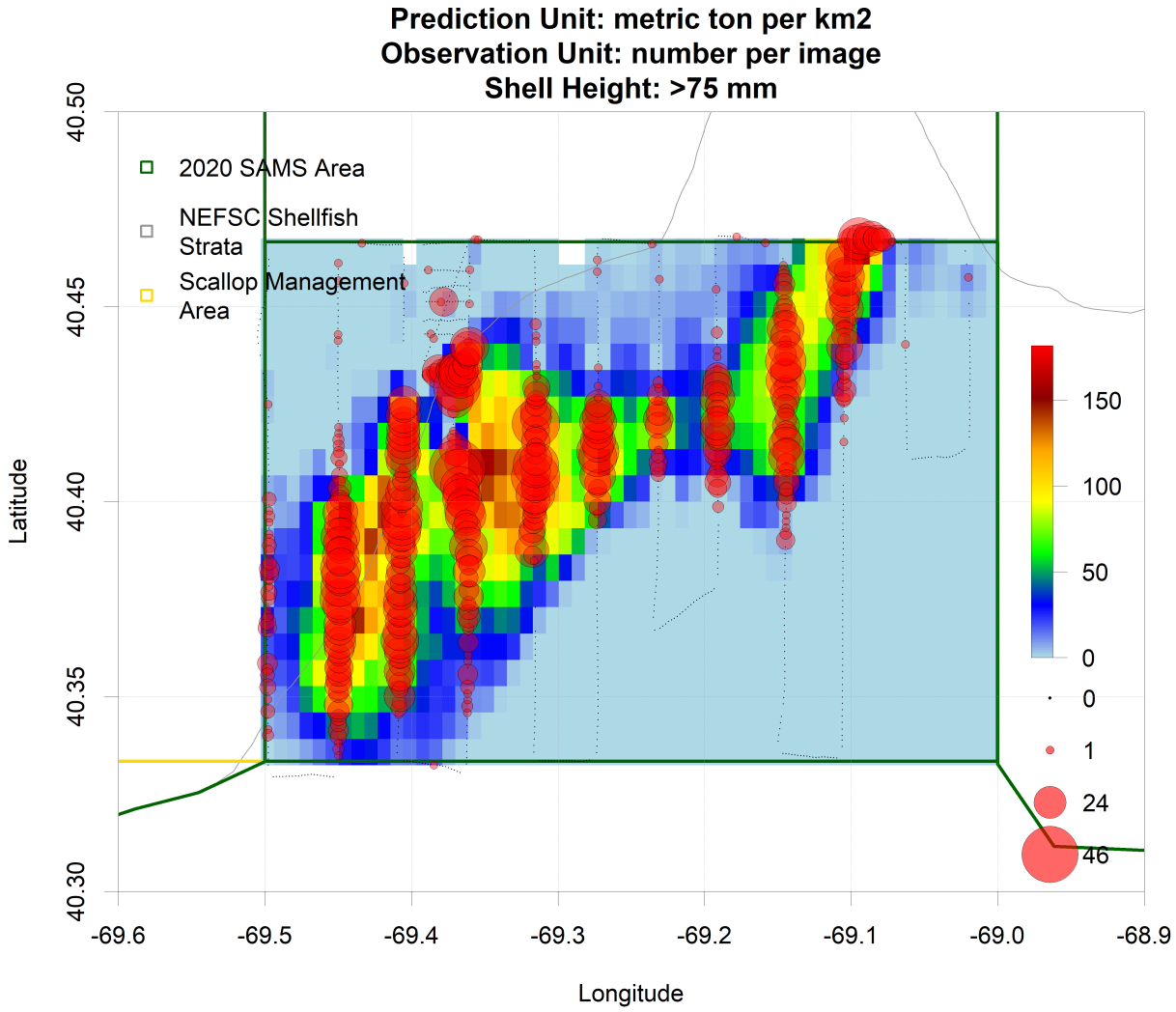

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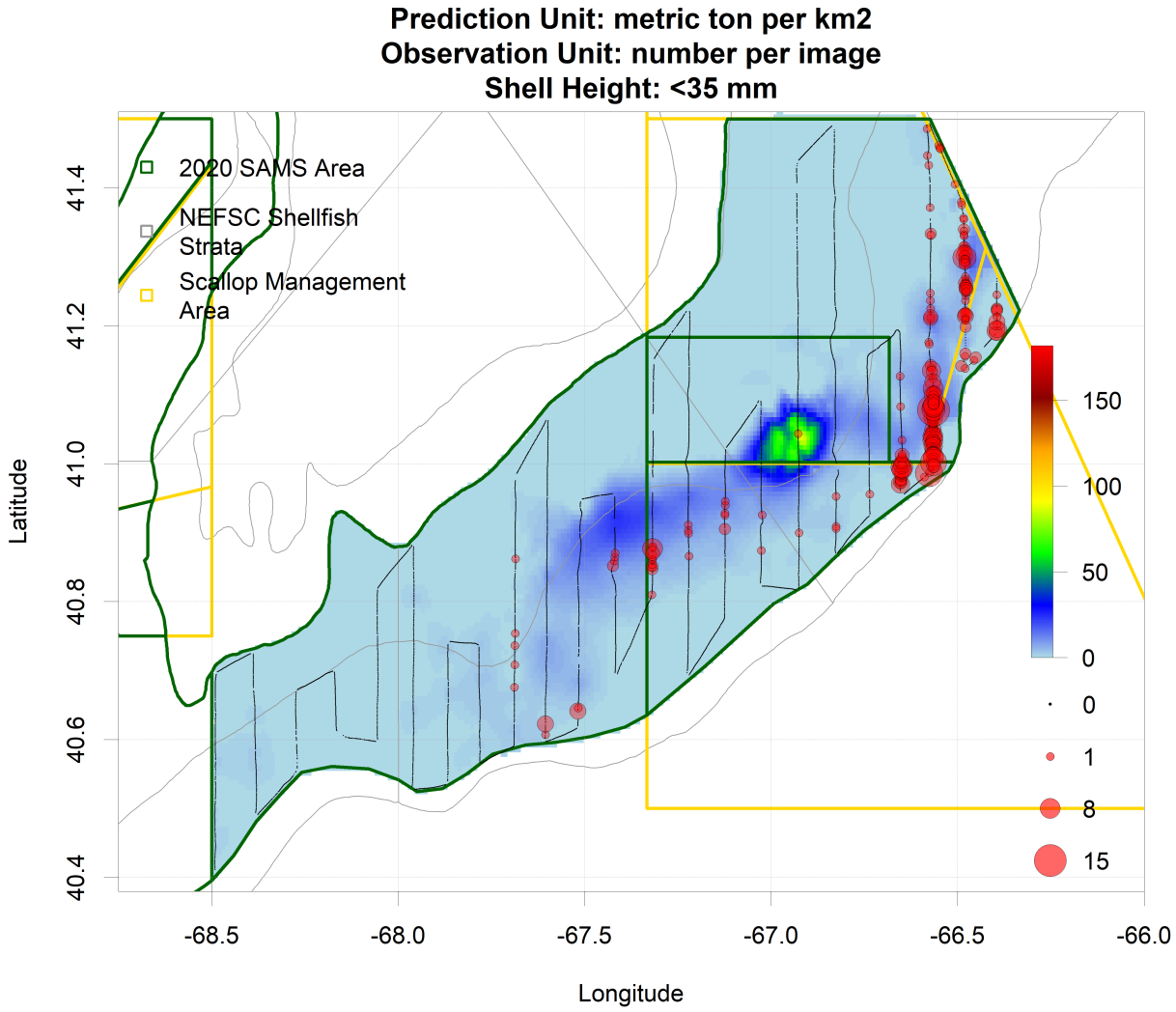

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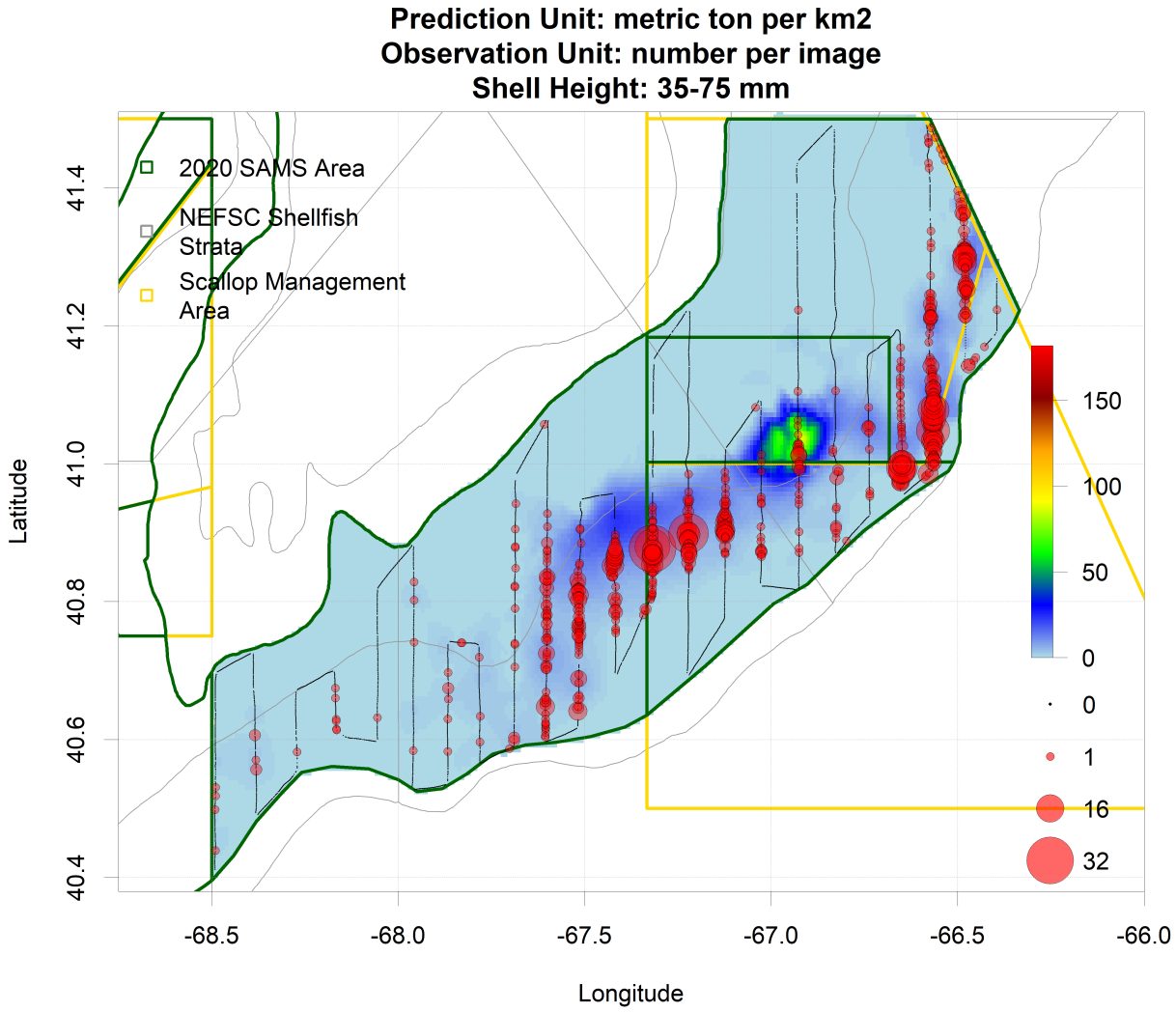

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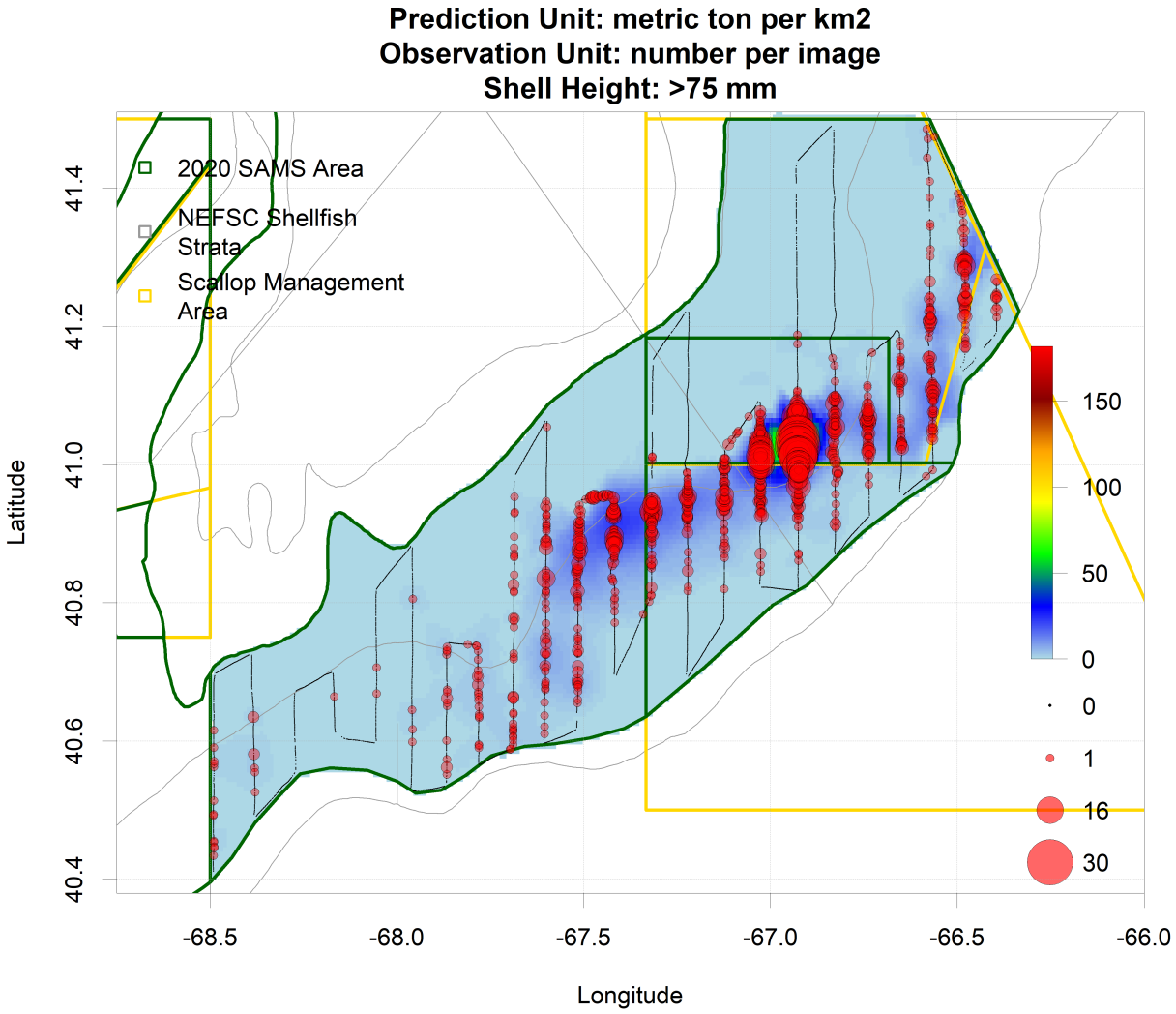

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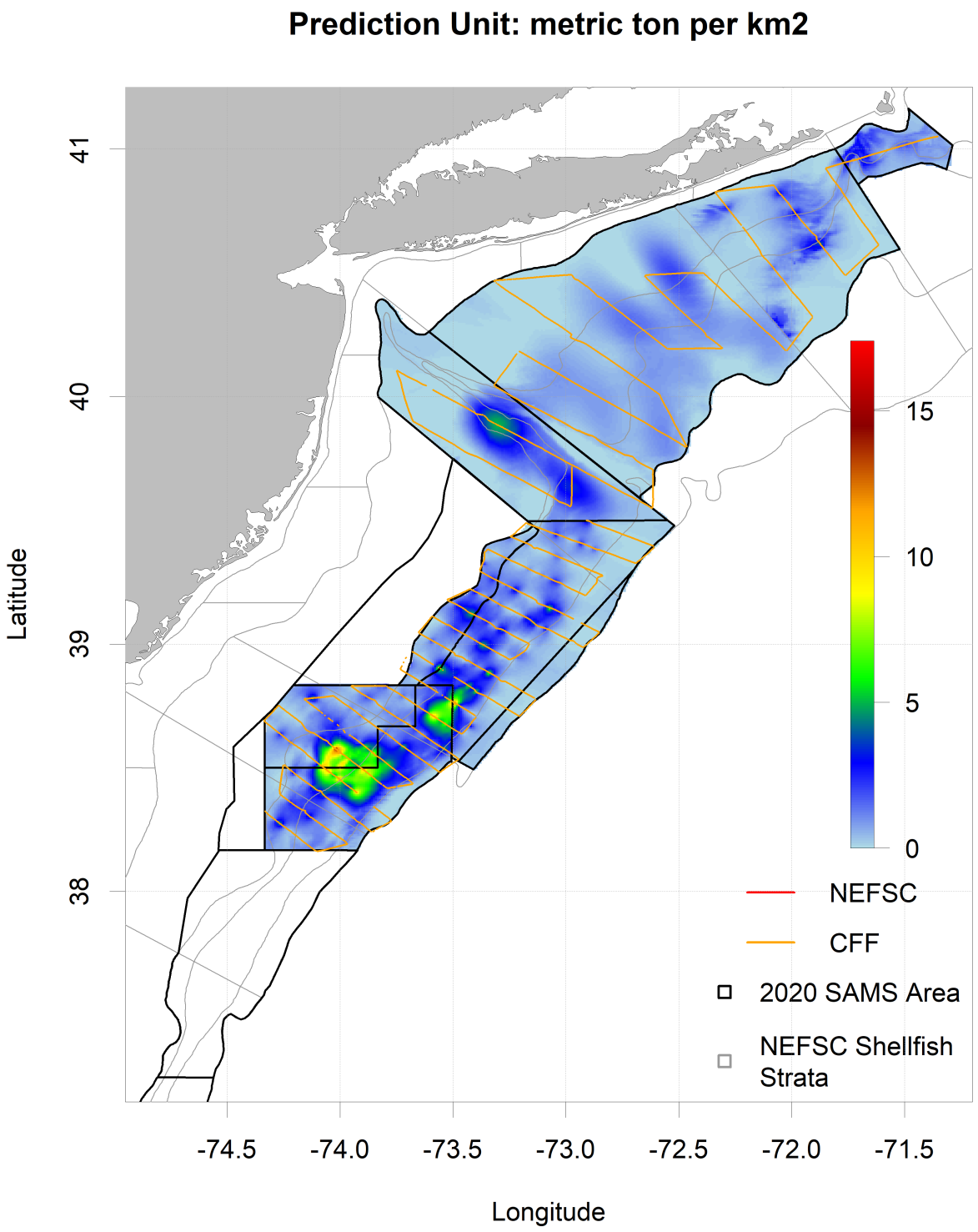
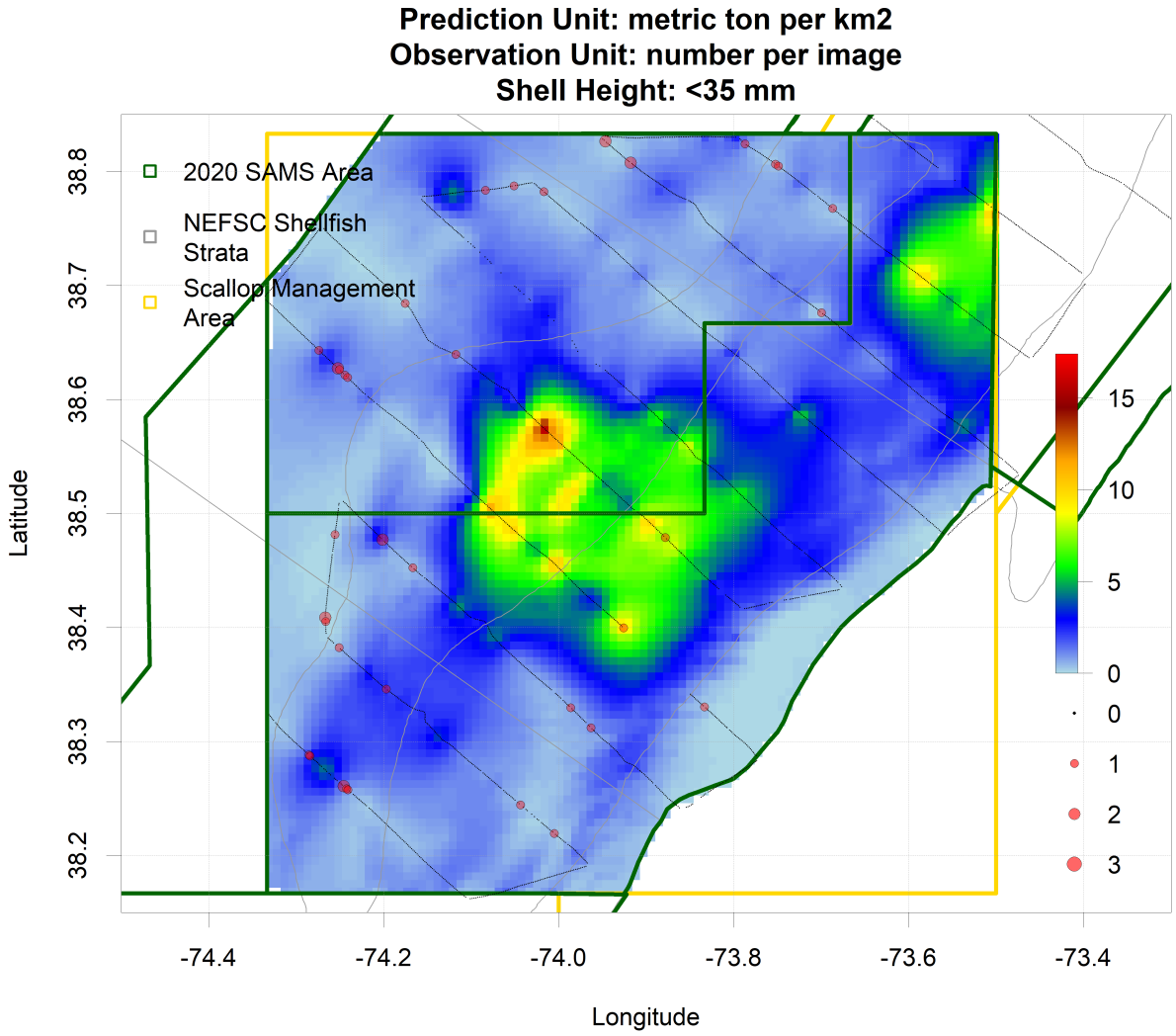


Figure 2.2. The 2020 Habcam survey tracks conducted by CFF, along with scallops number per image by size classes and 2020 Habcam biomass estimates for part of Mid-Atlantic.



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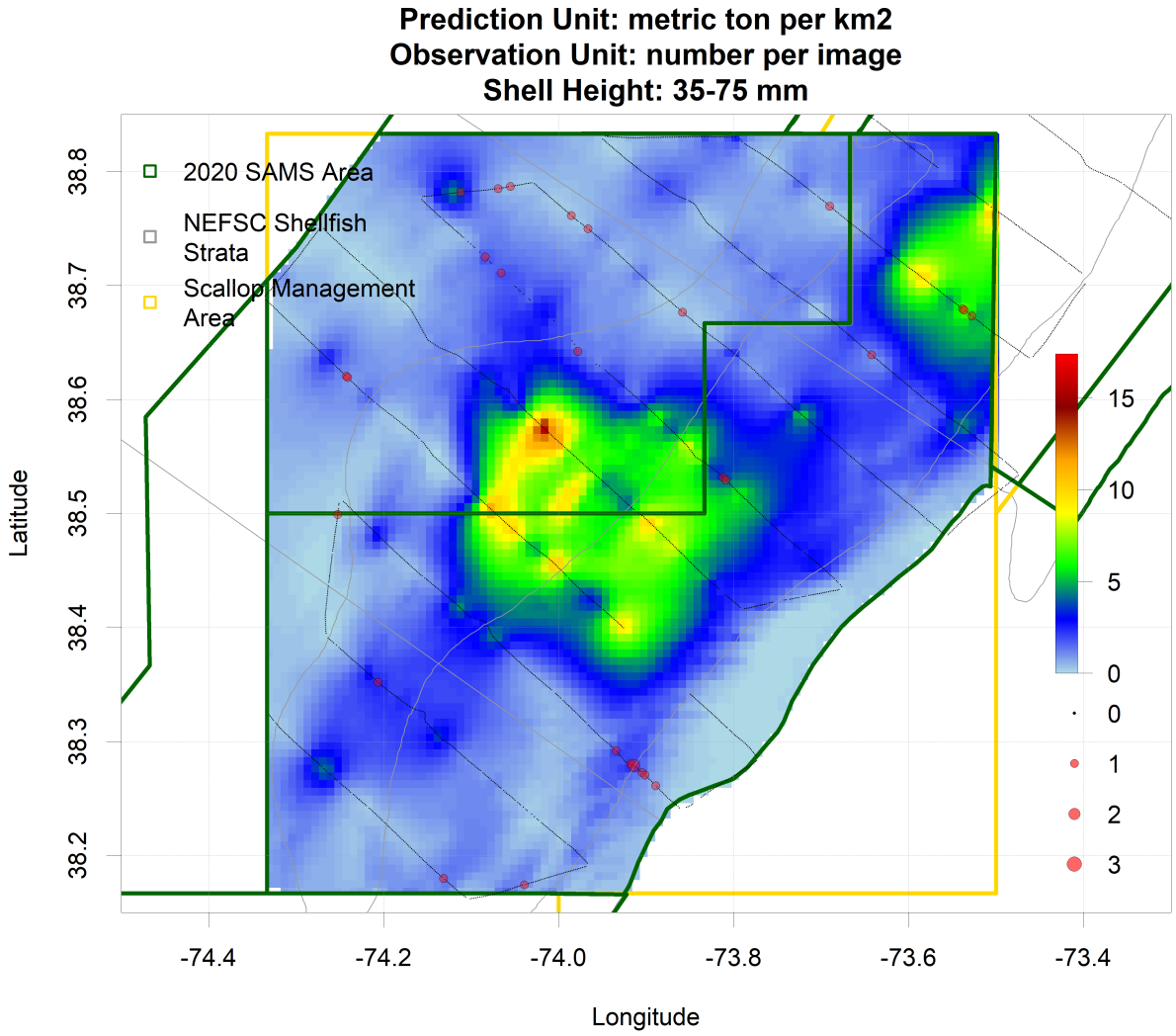

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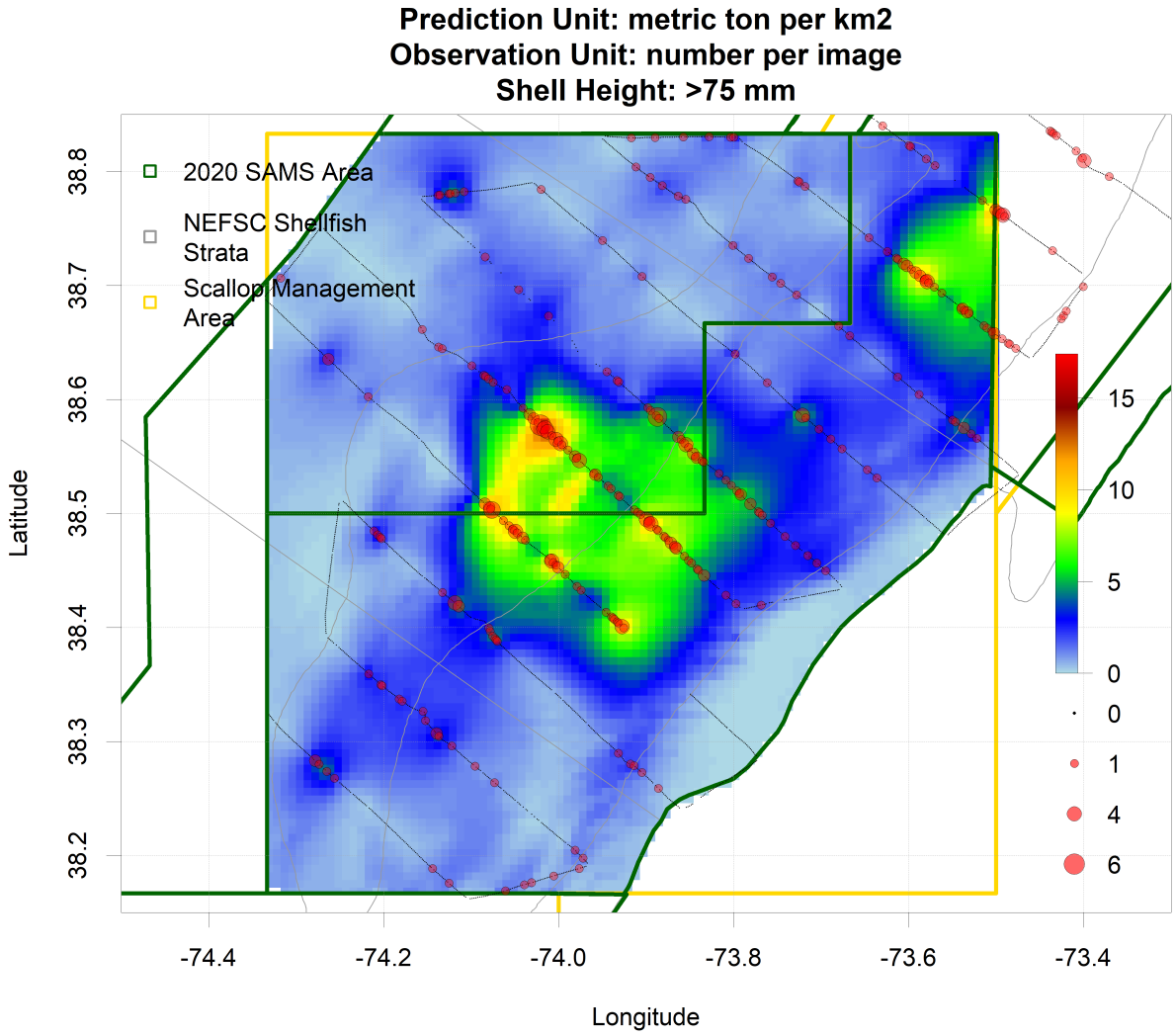

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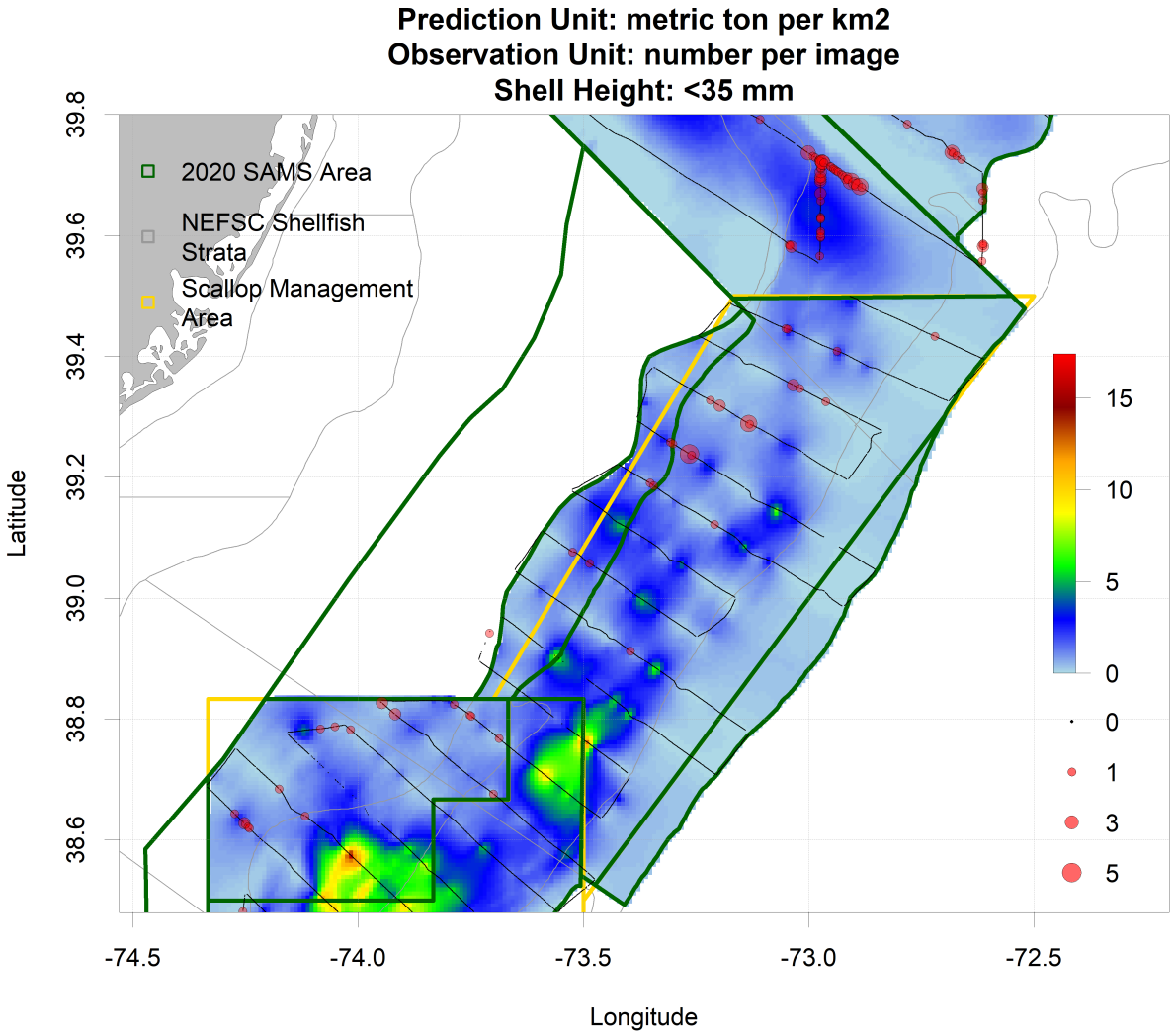

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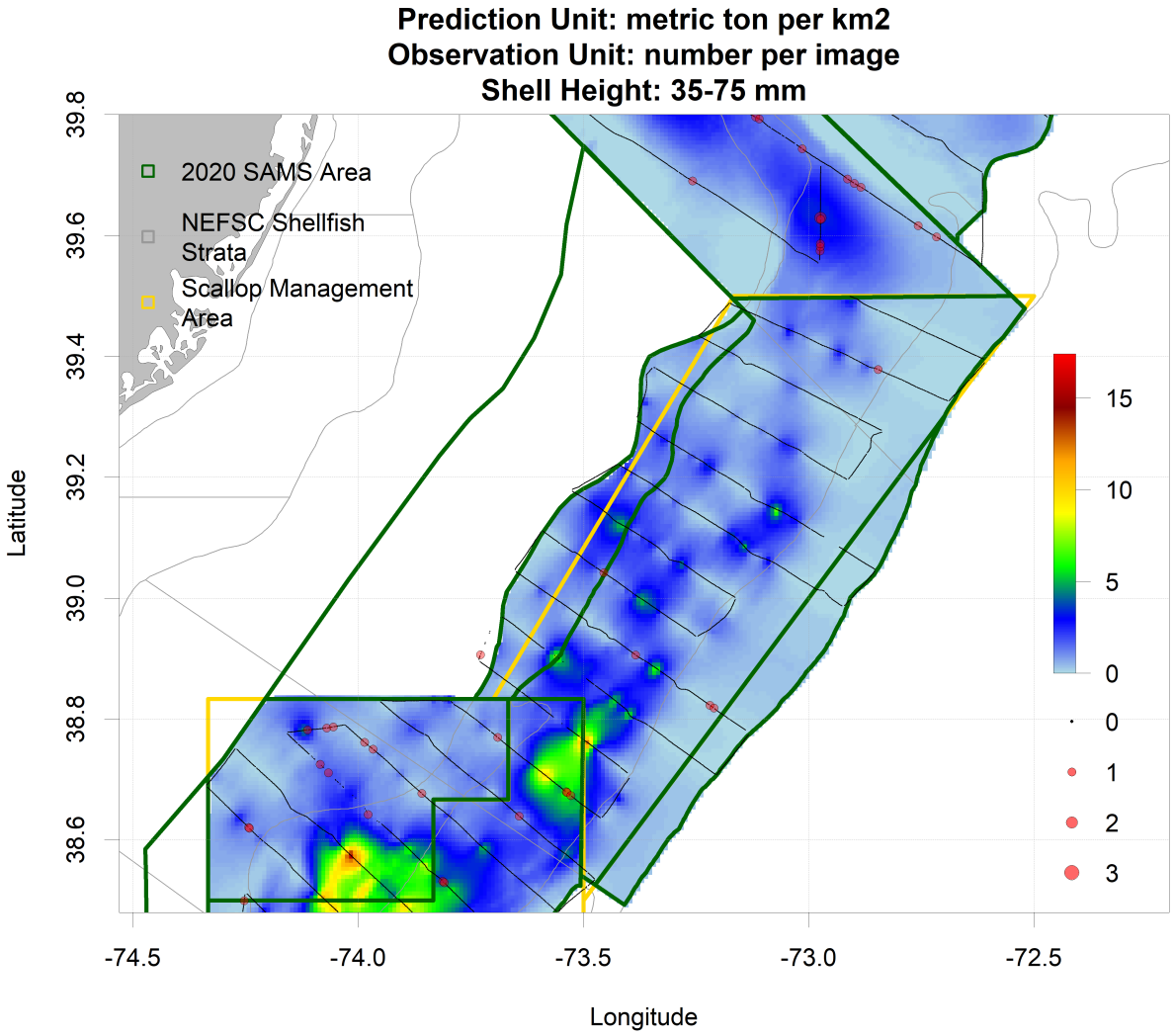

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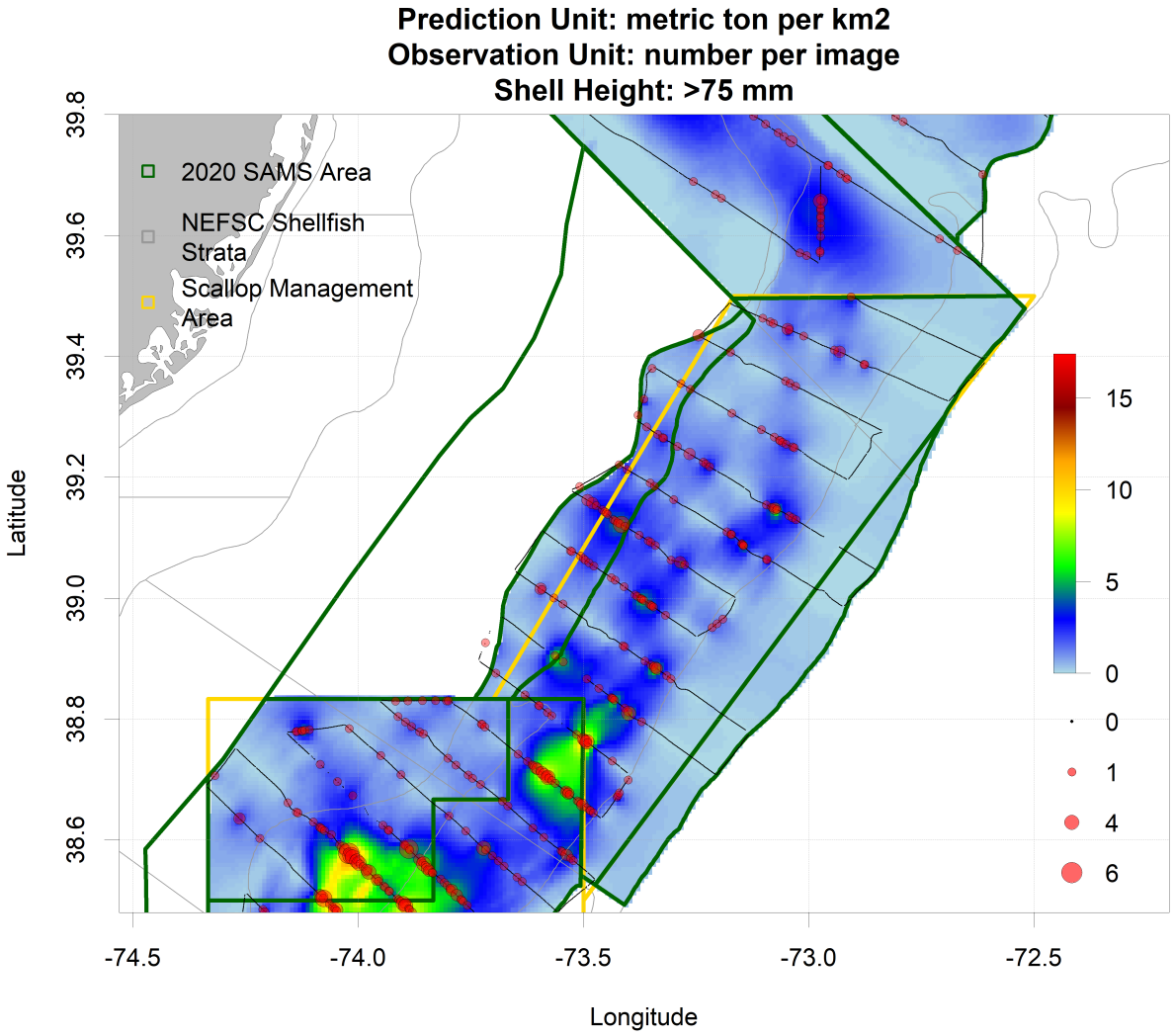

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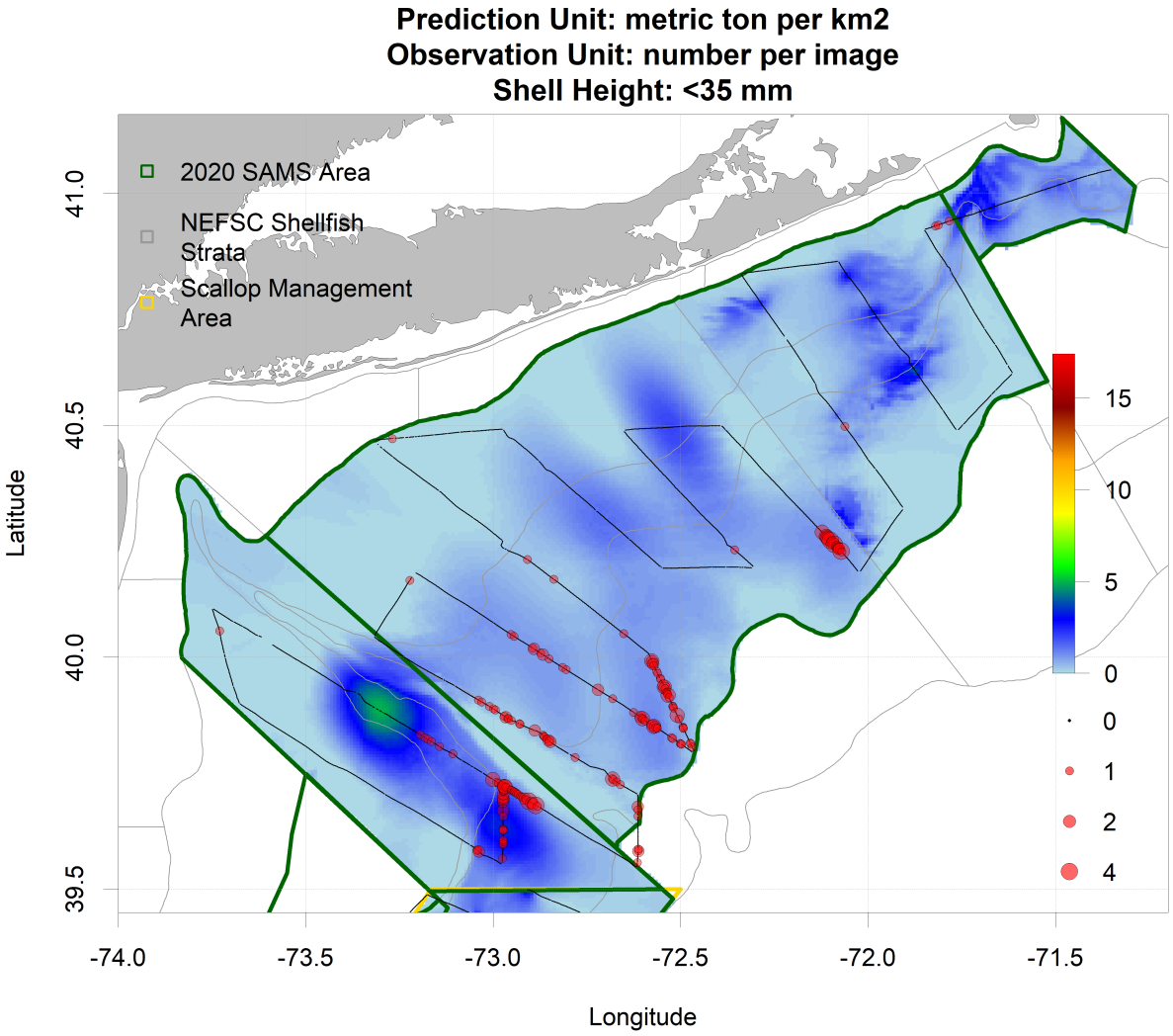

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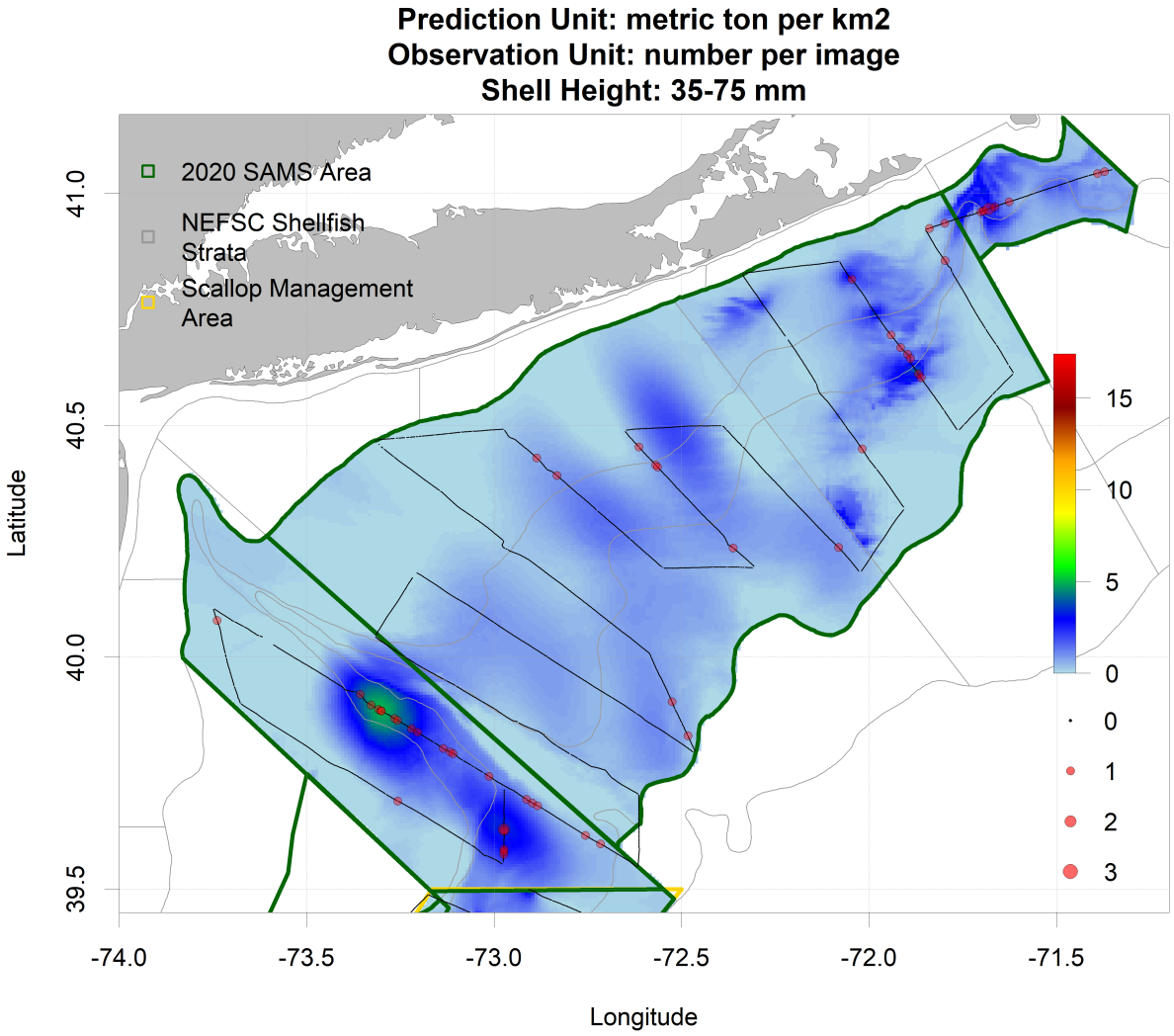

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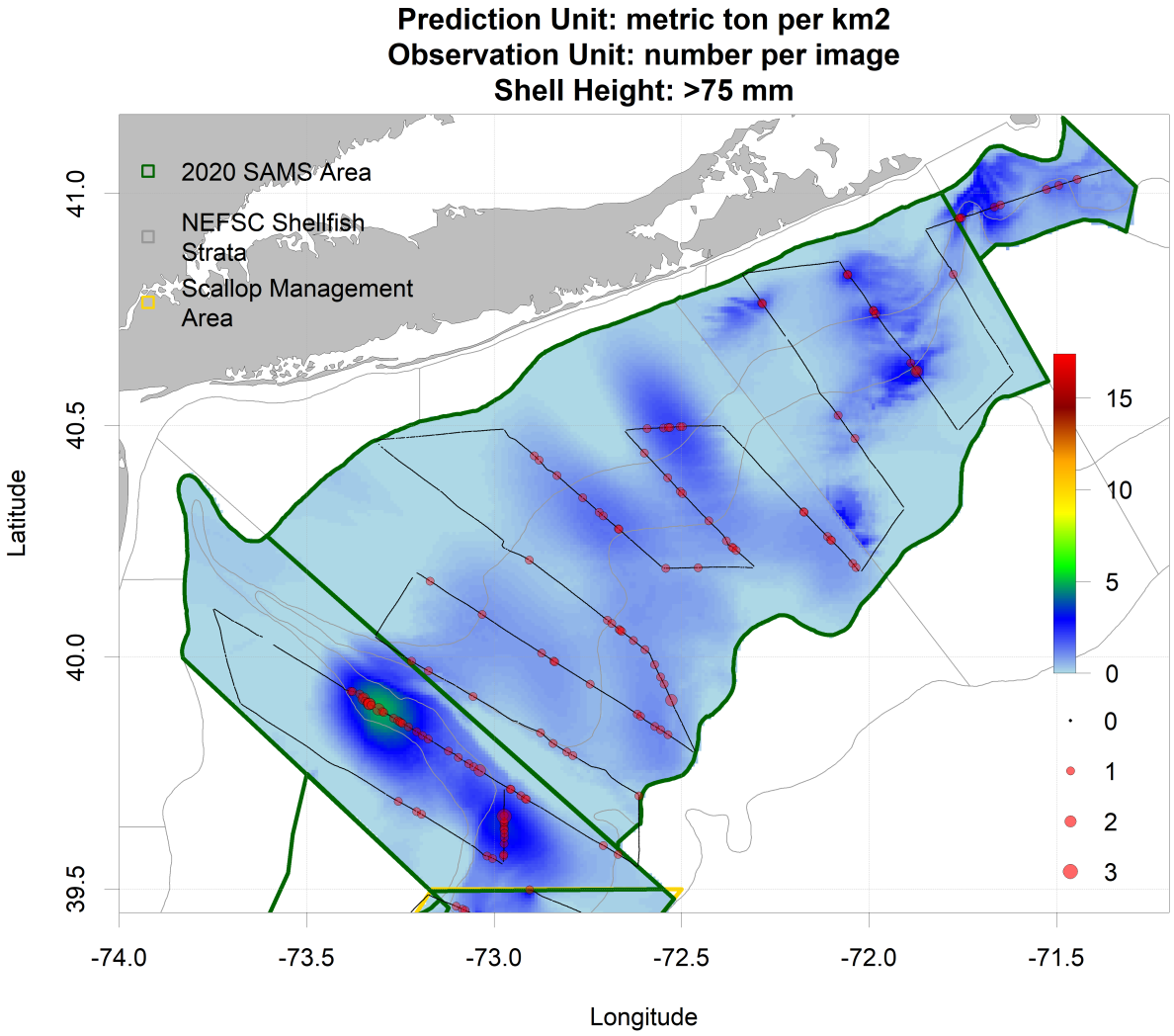

Figure 2.2. Continued.

3 LENGTH FREQUENCY PLOTS BY SAMS AREA

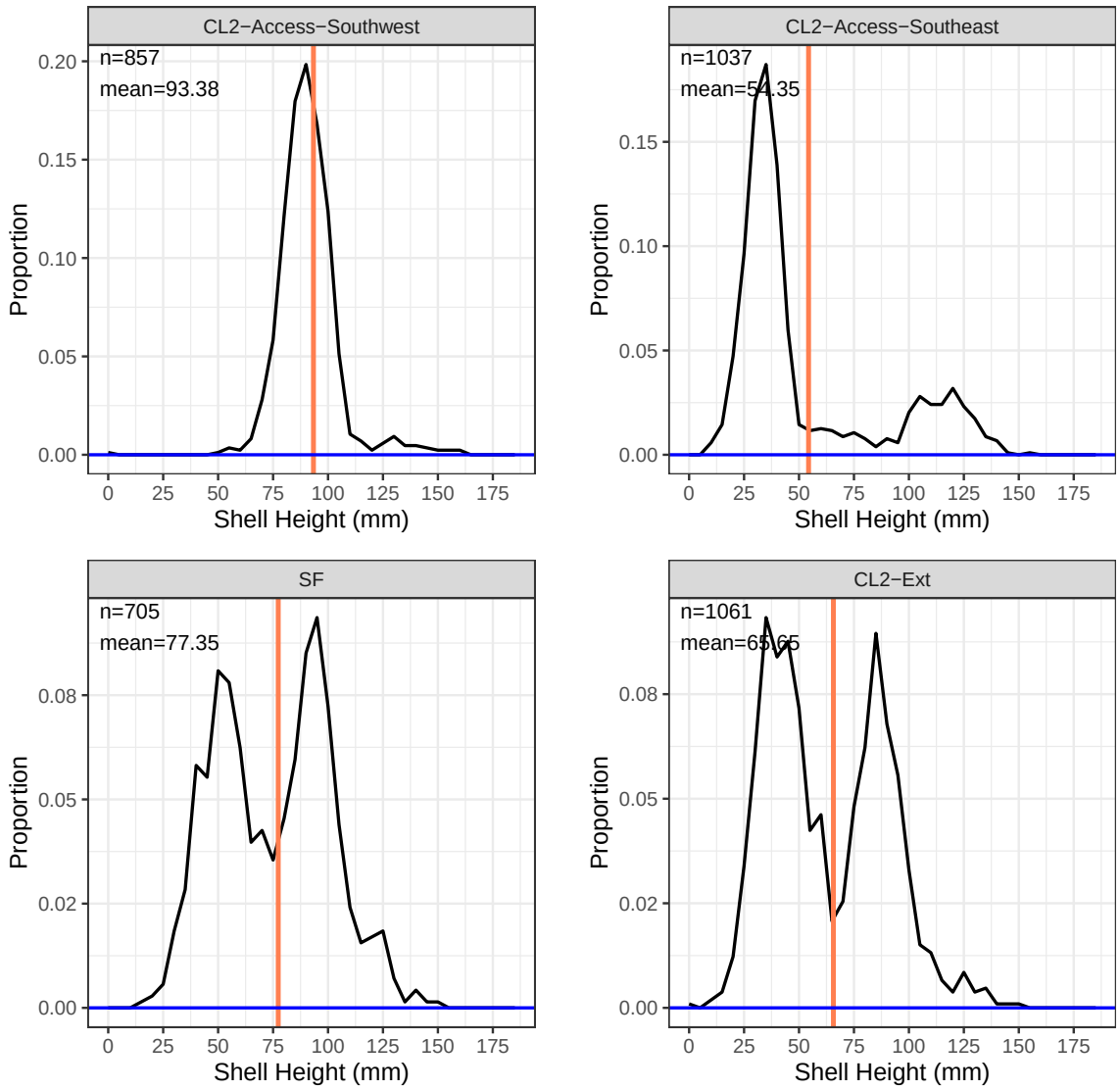

Figure 3.1. The 2020 Habcam size frequencies, mean shell height, and its sample size by SAMS area for all scallops using CFF data for part of Georges Bank.

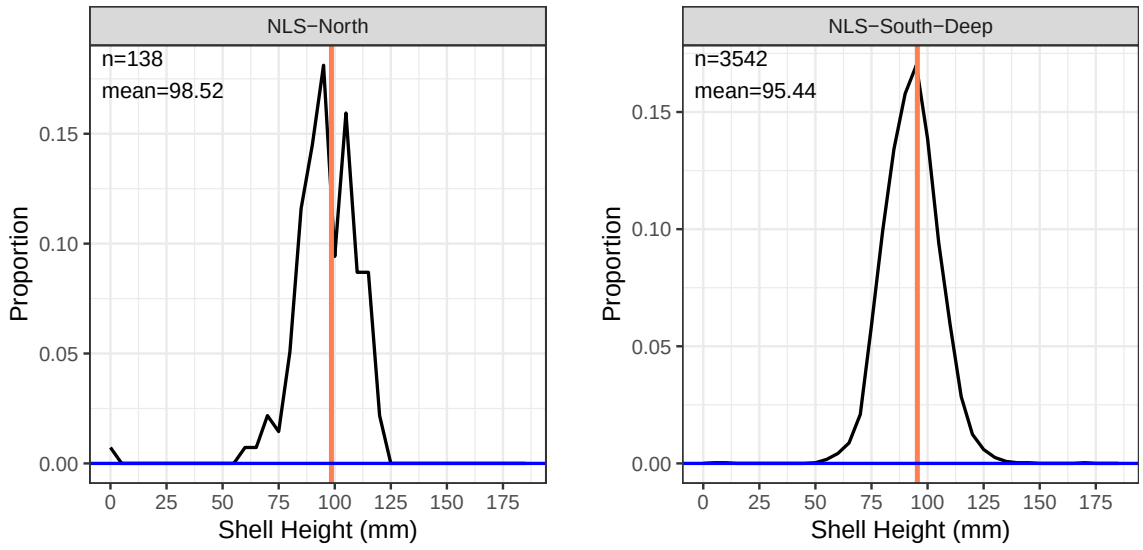

Figure 3.1. Continued.

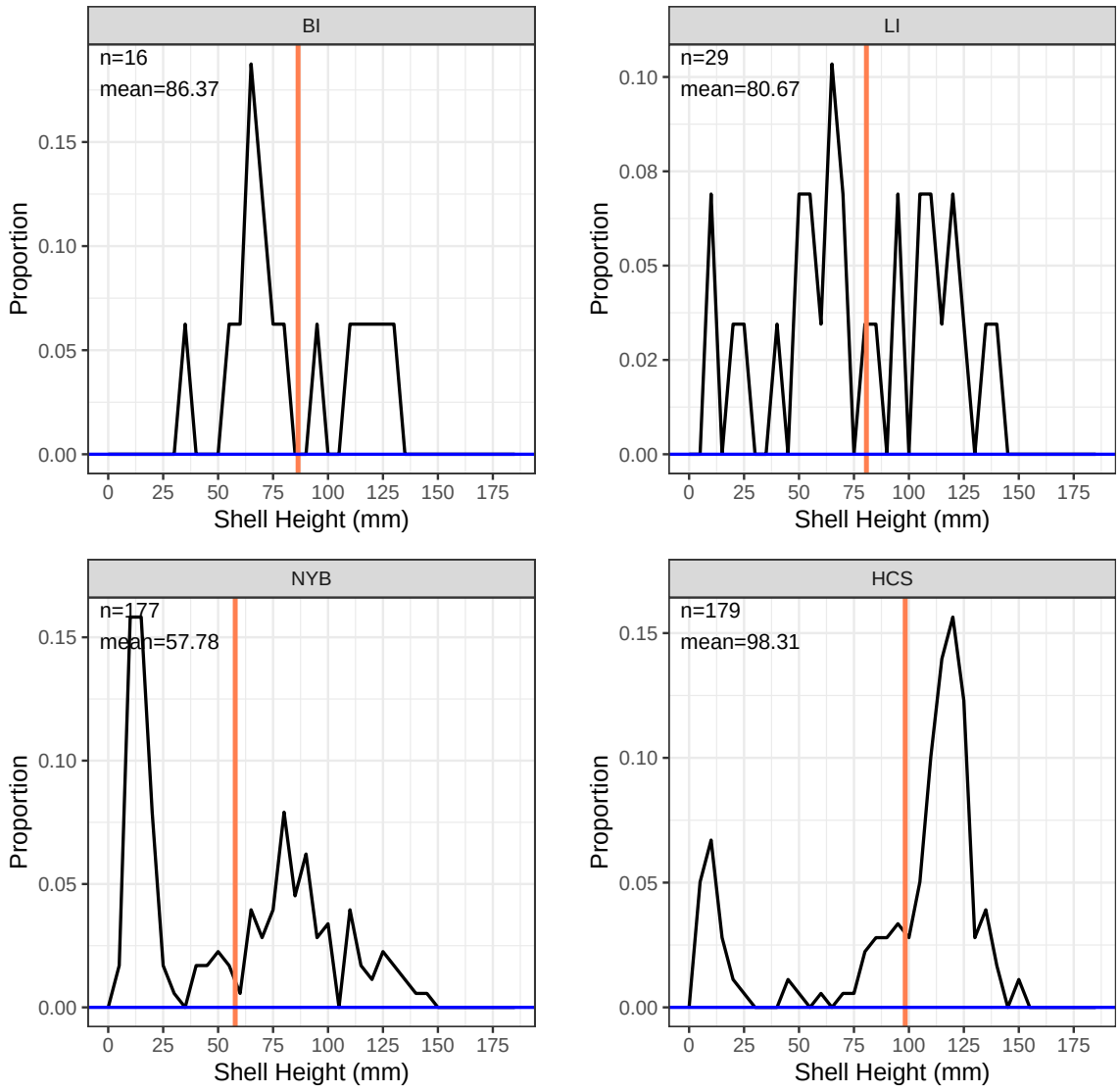

Figure 3.2. The 2020 Habcam size frequencies, mean shell height, and its sample size by SAMS area for all scallops using CFF data for part of Mid-Atlantic.

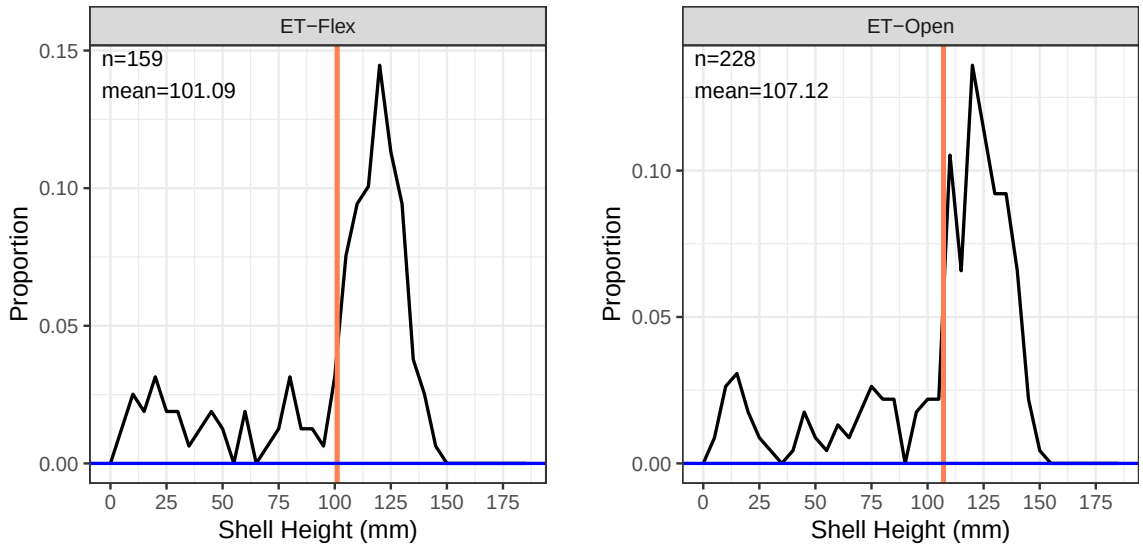

Figure 3.2. Continued.

4 ADDITIONAL SENSITIVITY ANALYSES

The differences between 2020 Habcam biomass estimates in the NLS-South-Deep area using VIMS 2016-2019, VIMS 2016-2020, and SARC 65 SH-MW equations are less than 10% (Table 4.1).

Table 4.1. Comparison of 2020 Habcam biomass estimates (40+ mm) using VIMS 2016-2019, VIMS 2016-2020, and SARC 65 SH-MW equations for the NLS-South-Deep area.

SAMS Area	BmsMT (VIMS 16-20)	BmsMT (VIMS 16-19)	BmsMT (SARC 65)	%Diff (VIMS 16-19 V.S. 16-20)	%Diff (SARC 65 V.S. 16-20)
NLS-South-Deep	29496	28655	27360	-2.85	-7.24

5 SPECIAL COMMENTS

The Habcam spatial count estimates for part of Georges Bank and Mid-Atlantic for 2020 are in Figures 5.1 and 5.2. The Habcam spatial biomass estimates can be found in Section 2 Figures 2.1 and 2.2. The Habcam spatial count estimates for recruits (<35 mm) for CL2-Access-Southeast, CL2-Access-Southwest, CL2-Ext, SF, and part of NYB and LI are in Figures 5.3 and 5.4.

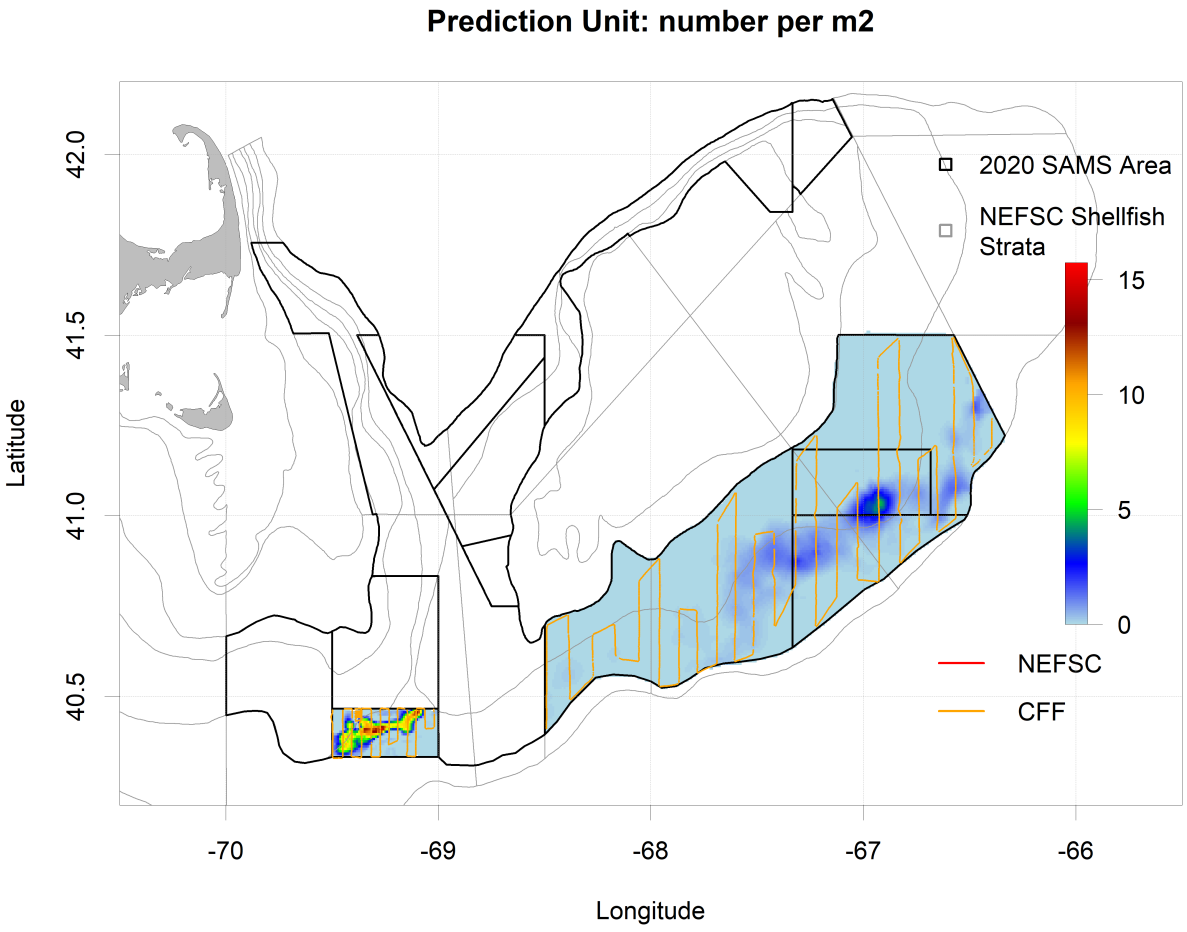

Figure 5.1. The 2020 Habcam survey tracks conducted by CFF, along with 2020 Habcam count estimates for part of Georges Bank.

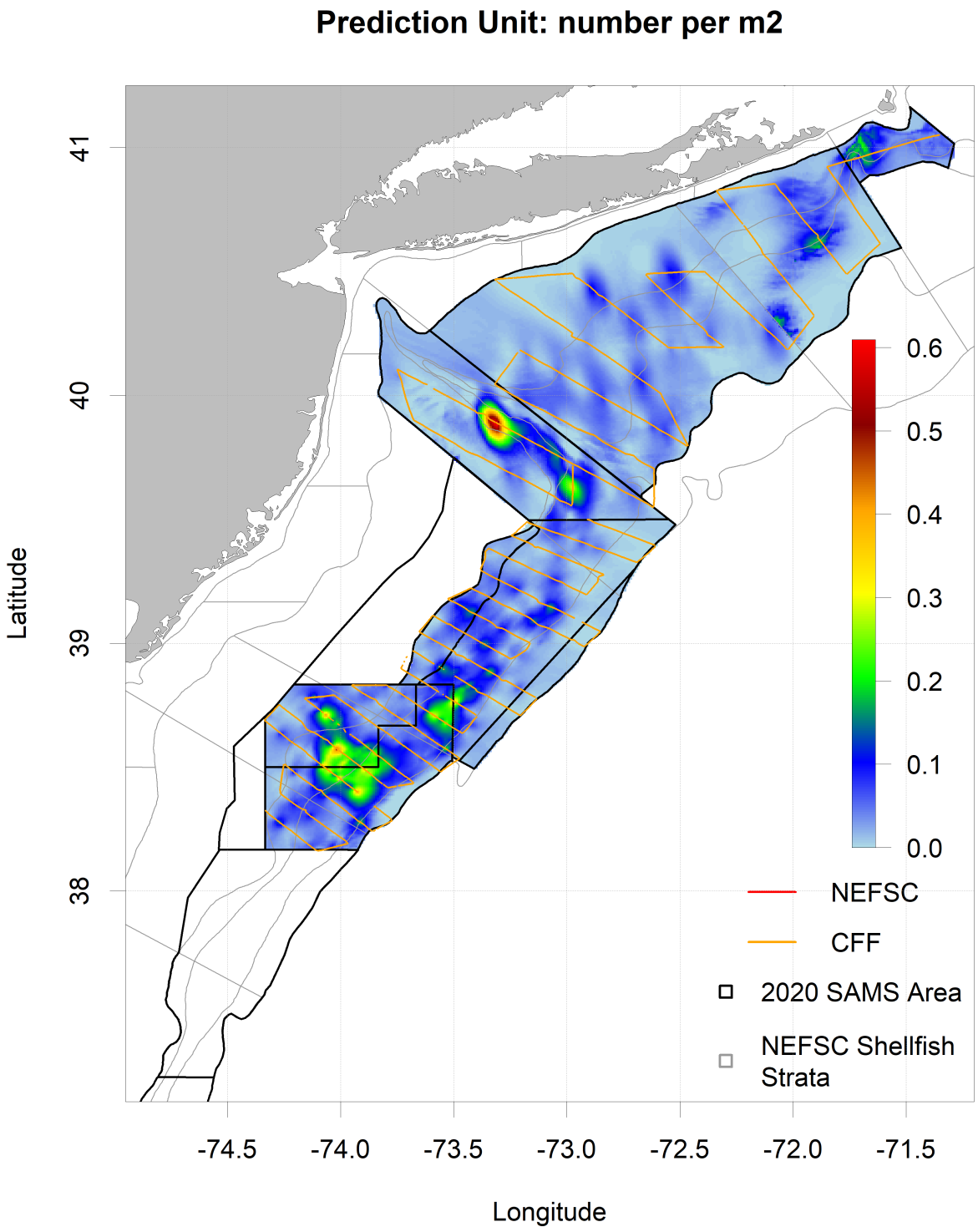

Figure 5.2. The 2020 Habcam survey tracks conducted by CFF, along with 2020 Habcam count estimates for part of Mid-Atlantic.

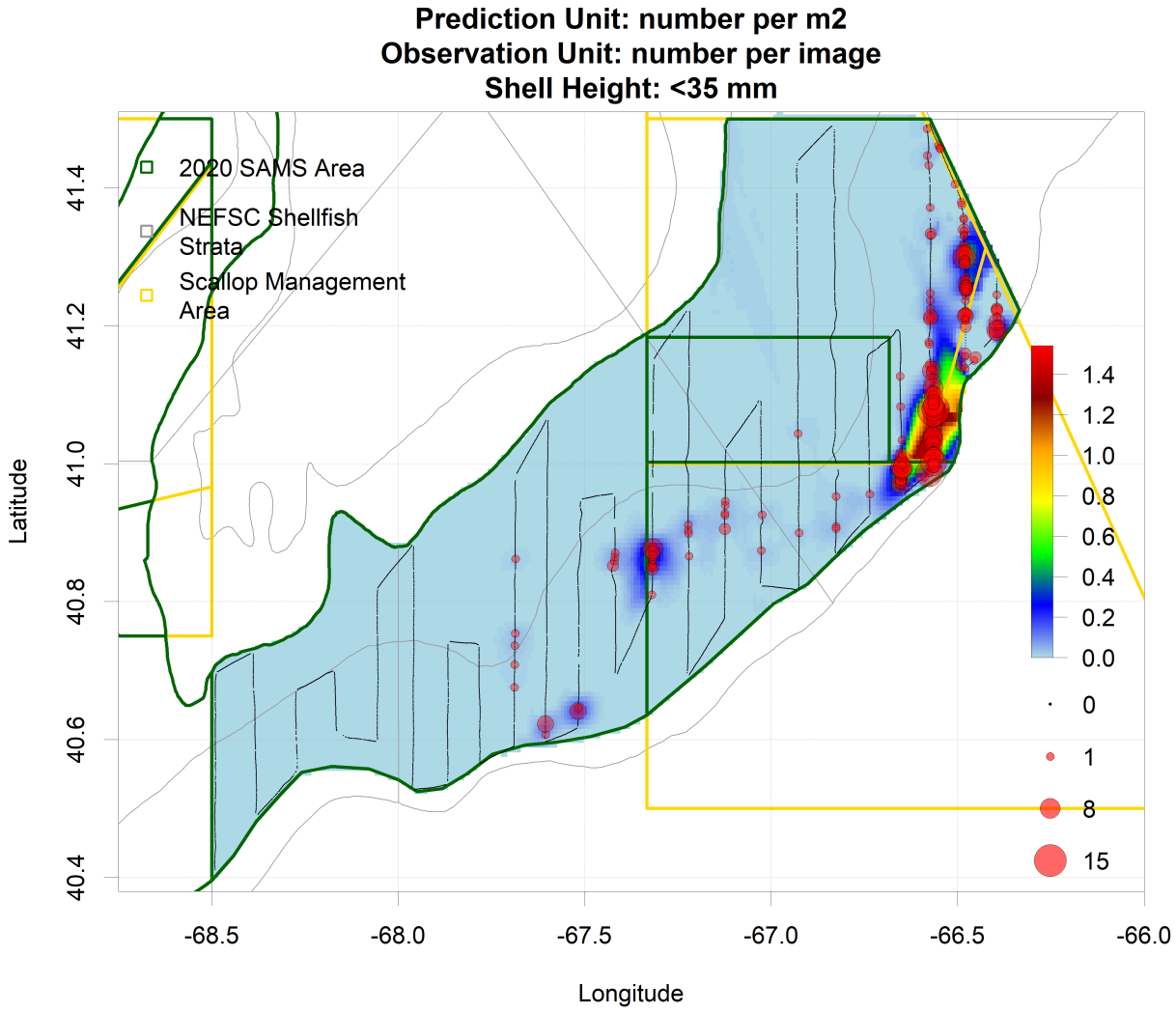

Figure 5.3. The 2020 Habcam recruit count estimates for CL2-Access-Southeast, CL2-Access-Southwest, CL2-Ext, and SF.

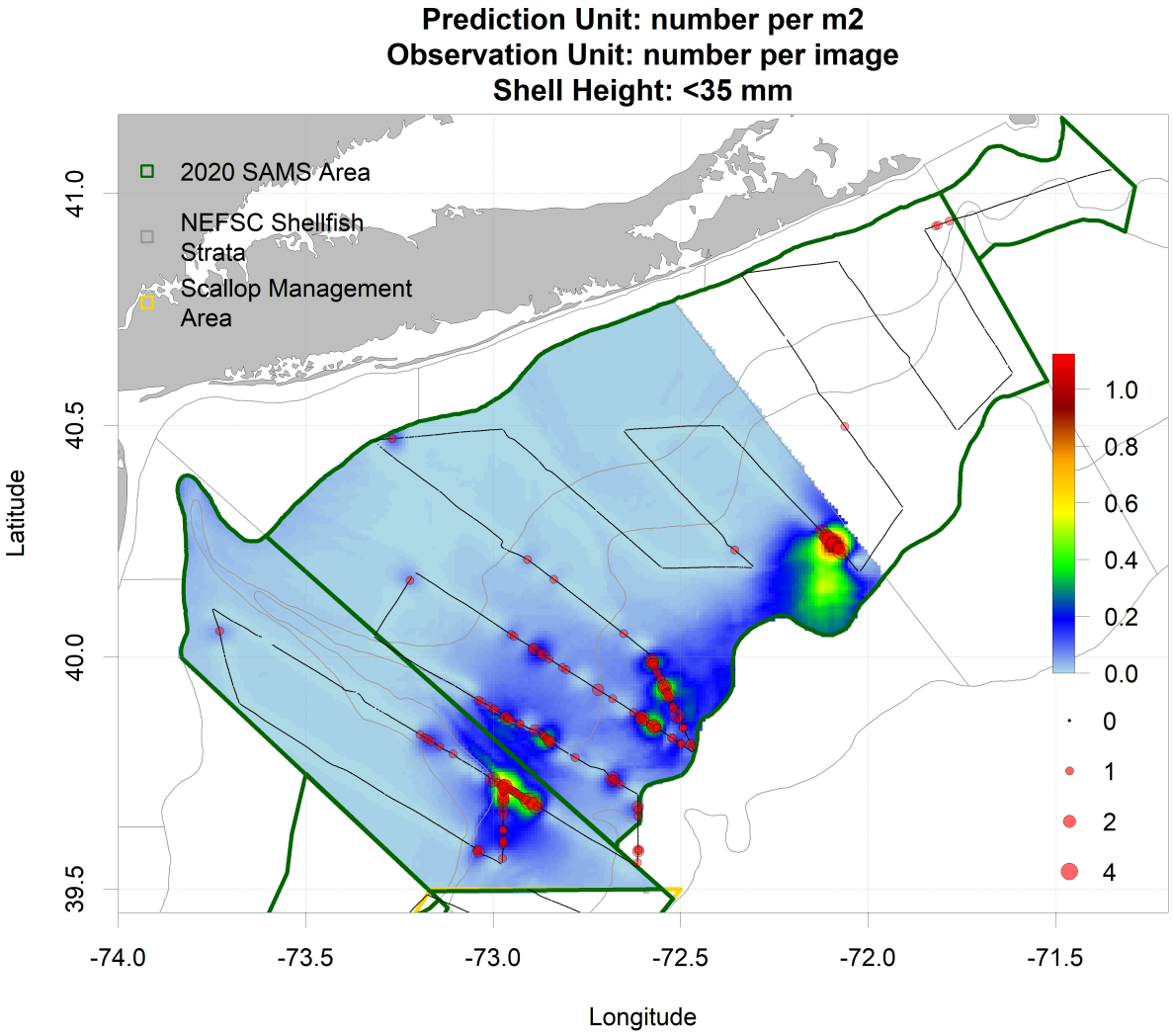

Figure 5.4. The 2020 Habcam recruit count estimates for part of NYB and LI.

6 EXPLOITABLE BIOMASS ESTIMATES FOR 2020 (CURRENT FY)

Table 6.1. Summary of 2020 Habcam estimates for exploitable scallops using CFF data. The VIMS 2016-2020 SH-MW equations were used to estimate the meat weights for NLS-South-Deep, whereas the SARC 65 SH-MW equations were used for all other areas. Yochum and DuPaul 4-inch ring selectivity was used for exploitable cutoff.

SAMS Area	ExNumMill	ExBmsMT	ExBmsMTSE	ExMeanWt
Georges Bank				
CL2-Access-Southeast	144.8	5034.8	42.8	34.8
CL2-Access-Southwest	307.1	7075.7	170.4	23
CL2-Ext	179.9	4643	84.2	25.8
NLS-South-Deep	1166.5	15733.9	543.9	13.5
SF	254.7	7138.5	158.7	28
Mid-Atlantic				
BI	32.8	941.5	93.2	28.7
ET-Flex	184.3	4944.5	213.9	26.8
ET-Open	305.3	9636	788	31.6
HCS	234.9	6820.4	727.2	29
LI	299.6	8643.5	1816	28.9
NYB	144	4076.3	545.4	28.3