

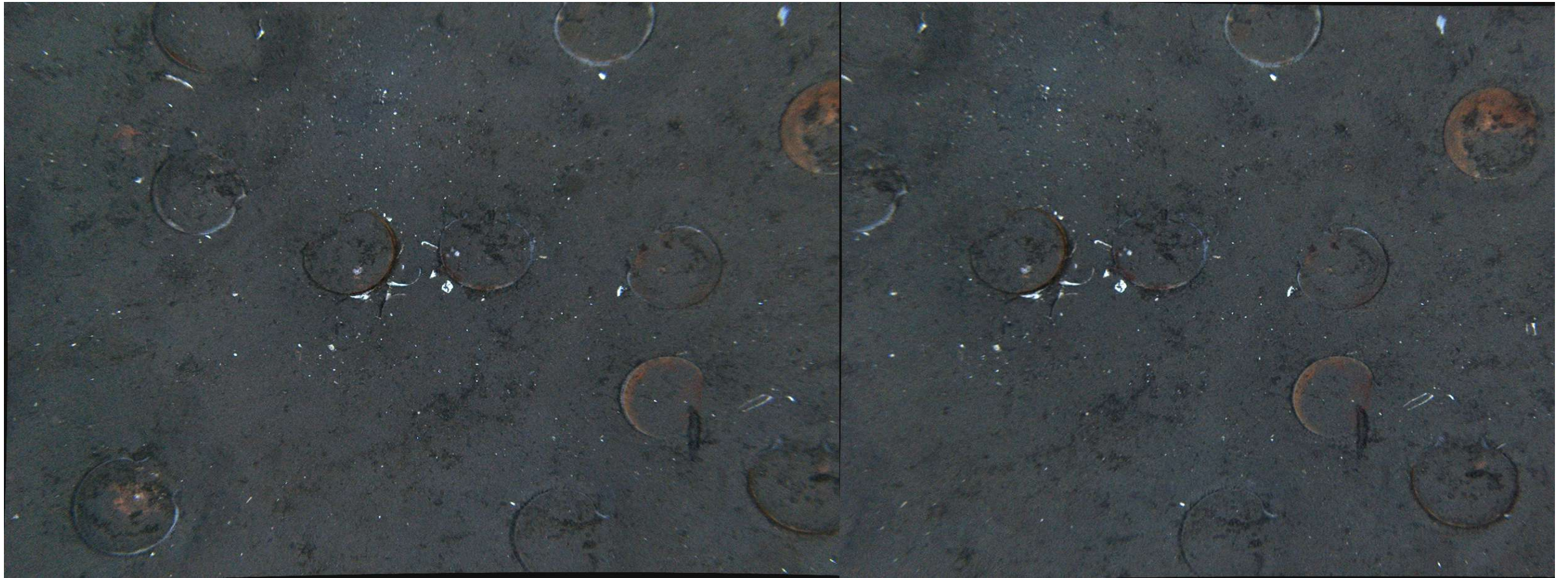


2019 NEFSC Scallop Surveys

*Dvora Hart and Jui-Han Chang
NEFSC, Woods Hole MA*

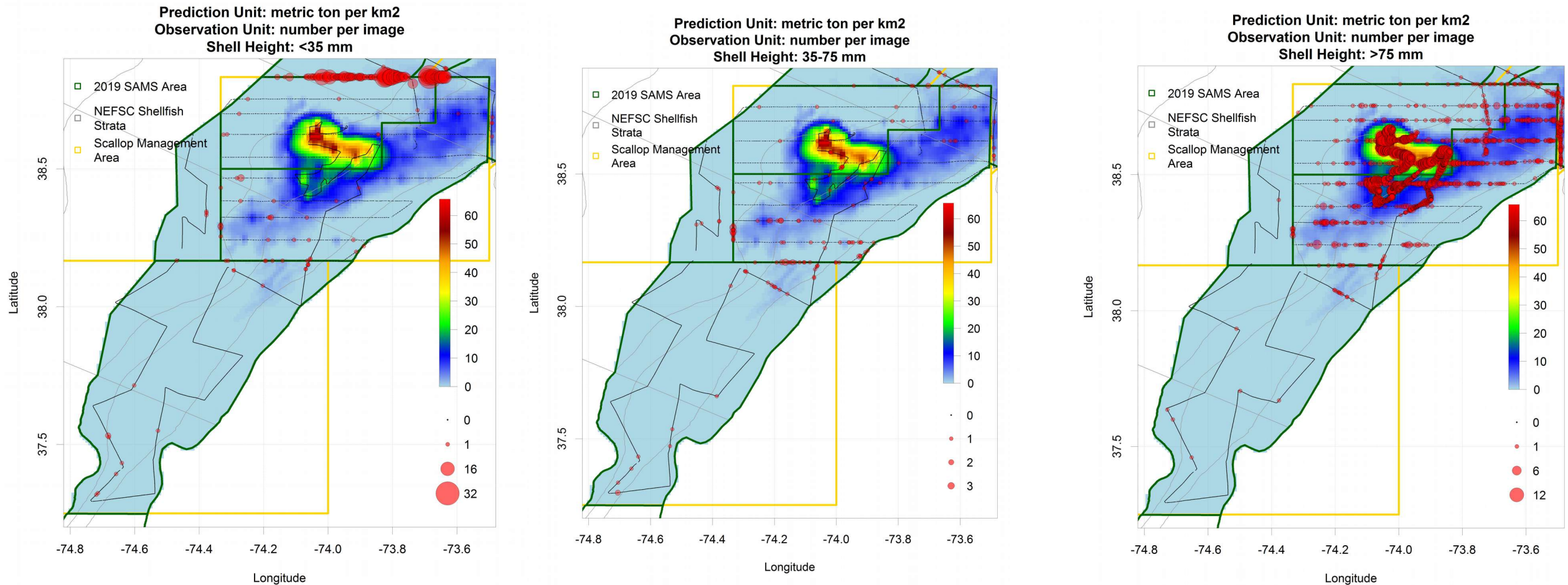
Mid-Atlantic

Habcam survey of all areas (CFF did main survey of Elephant Trunk)– best coverage to date. Main focus in Elephant Trunk was paired tows with VIMS dredge survey, many of which were in the high density “blob”.

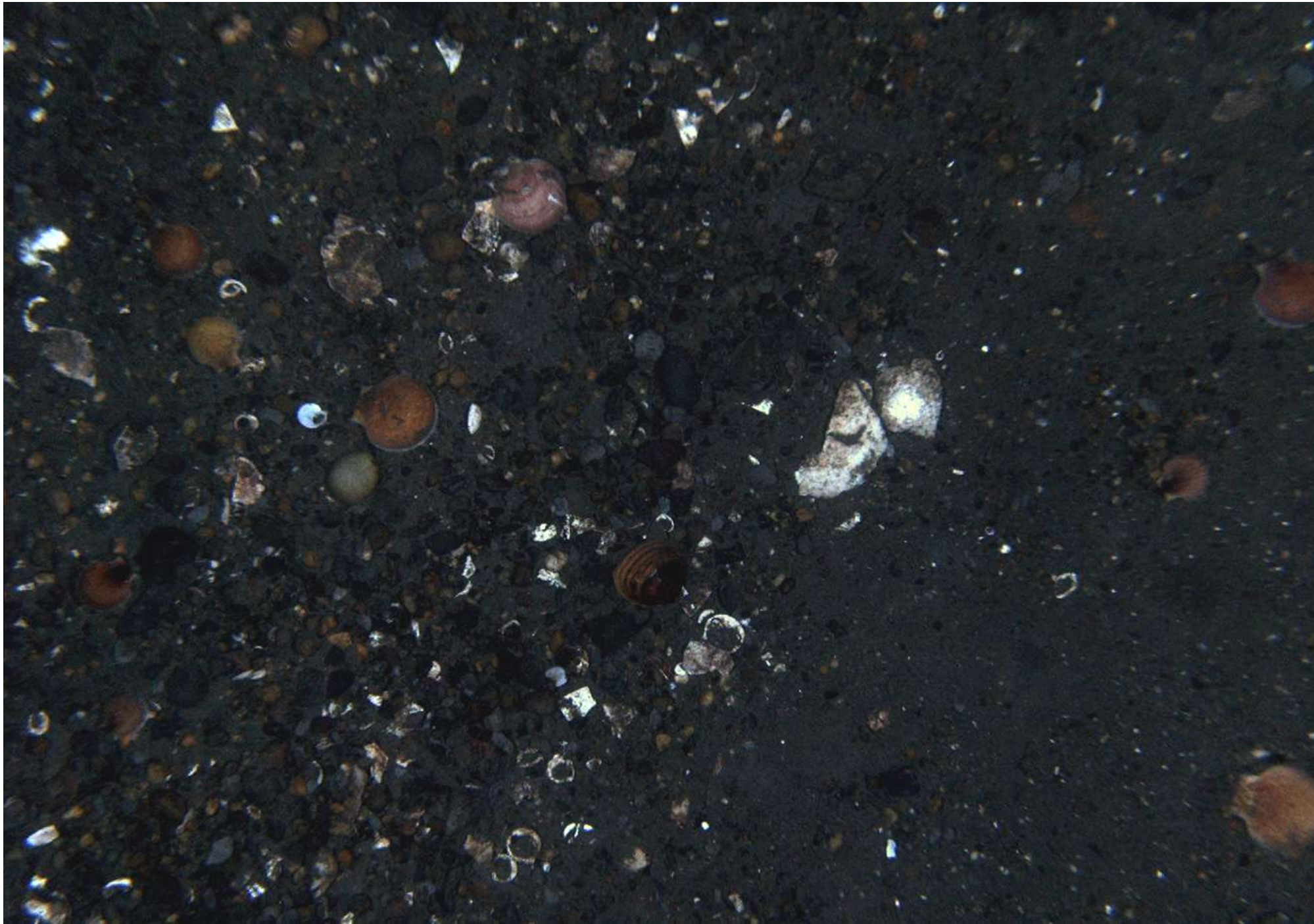


Delmarva/Elephant Trunk

One year old prerecruits observed in northern ET. Adult scallops are in the same places as previous years, especially in the “blob”. Low densities in Delmarva.

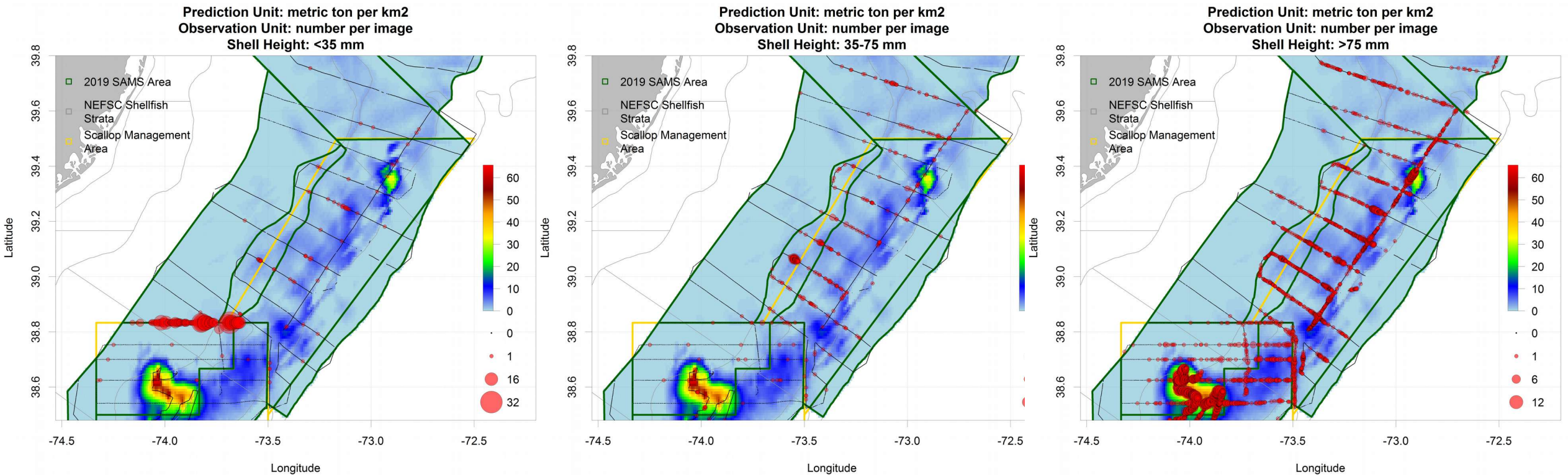


Recruitment at
northern
boundary of
Elephant Trunk



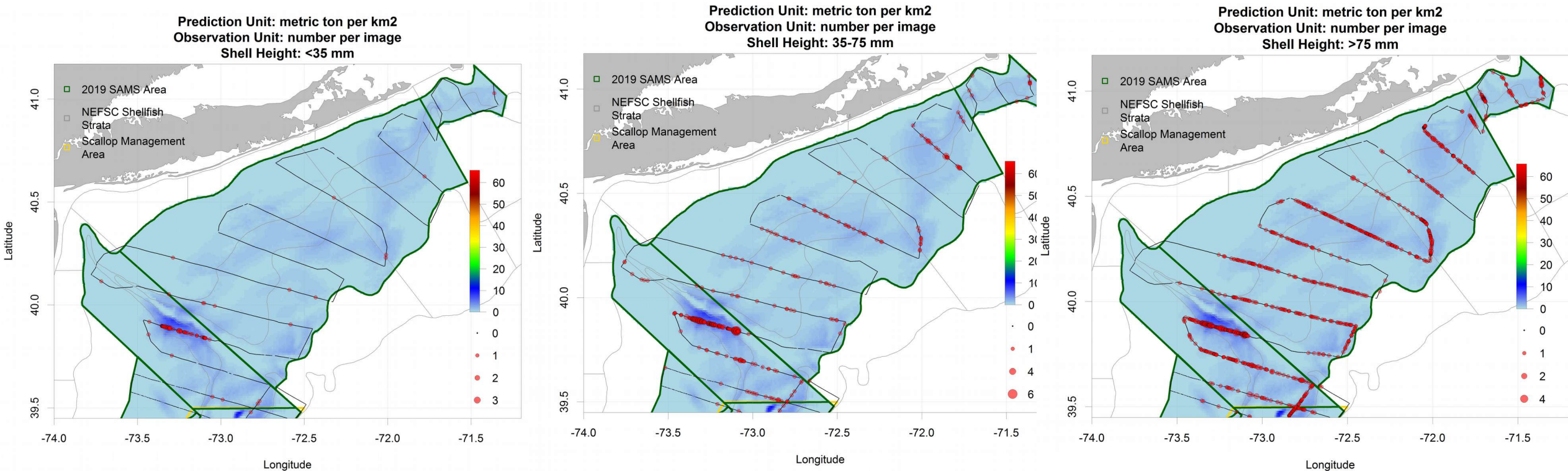
Hudson Canyon S. AA/New York Bight

Highest biomass is in the northeast portion of HCSAA, but some biomass is spread throughout this area. Low biomass in inshore areas.

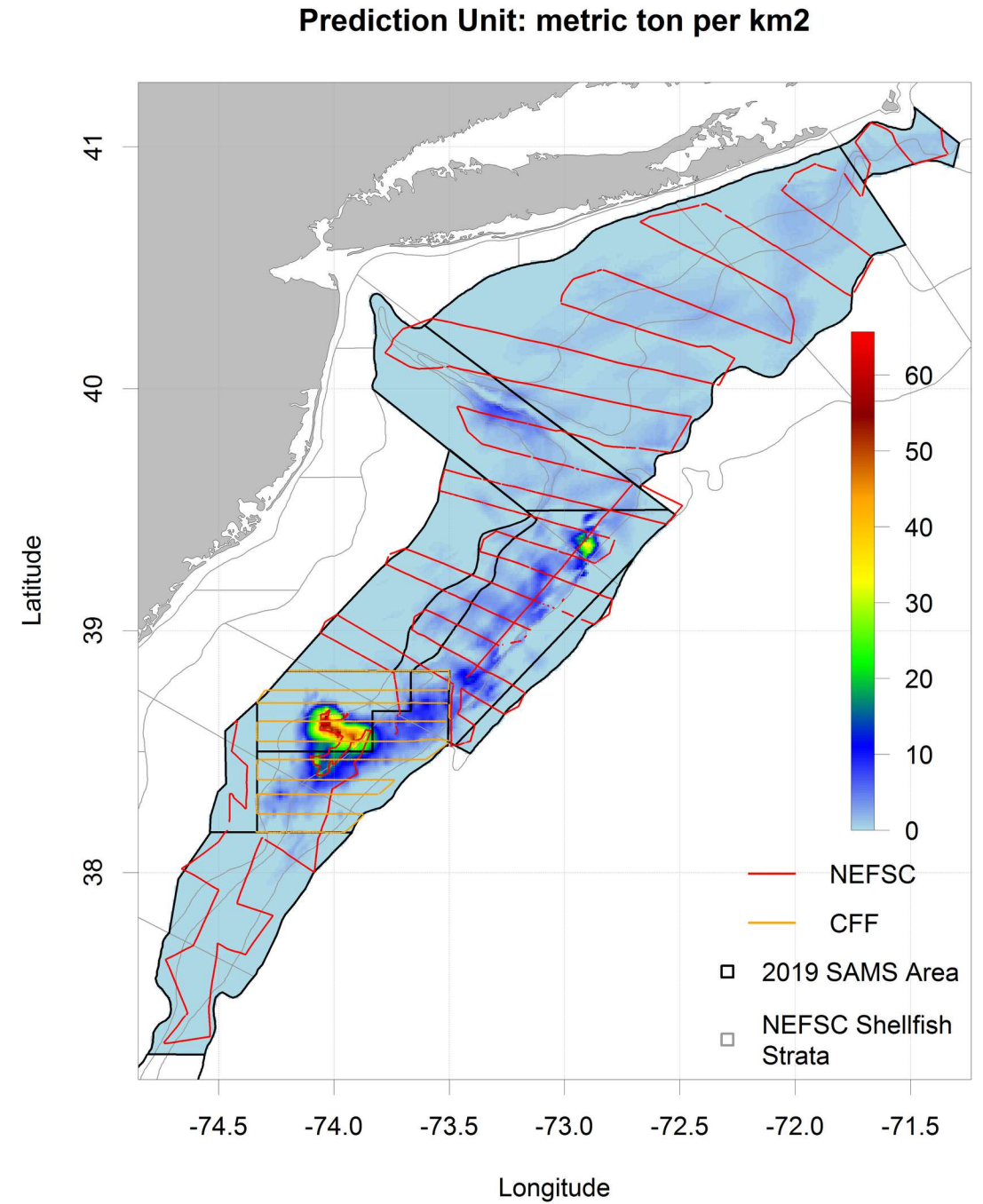


Northern Mid-Atlantic

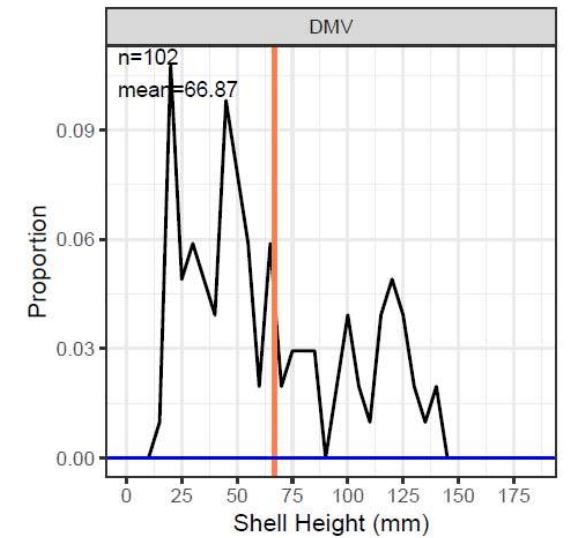
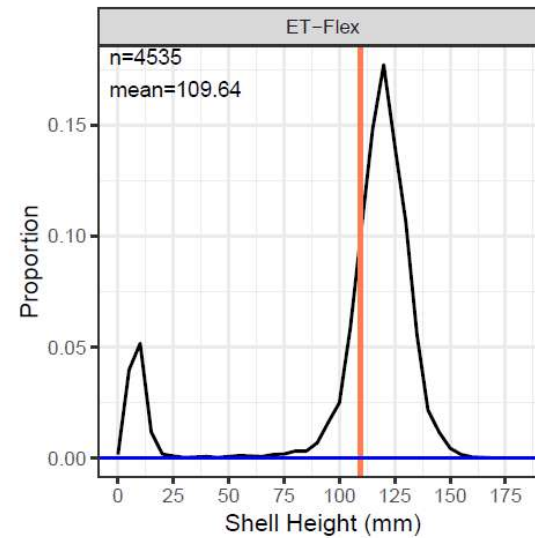
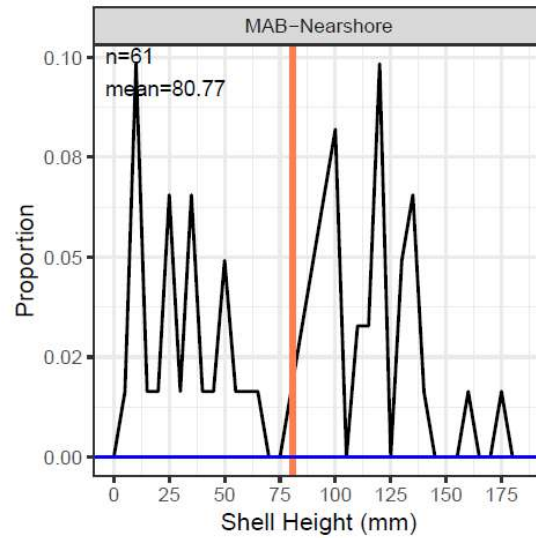
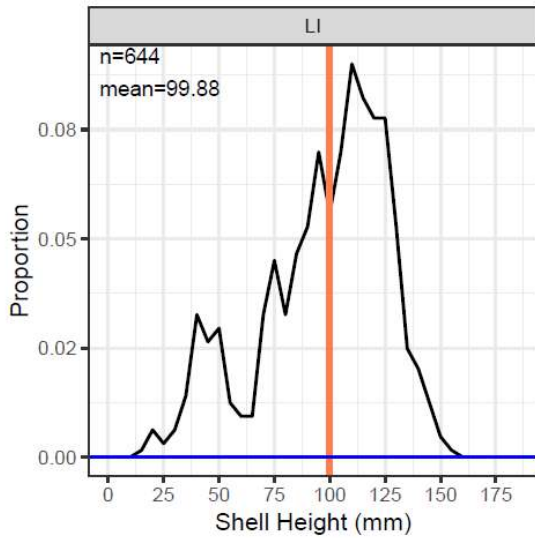
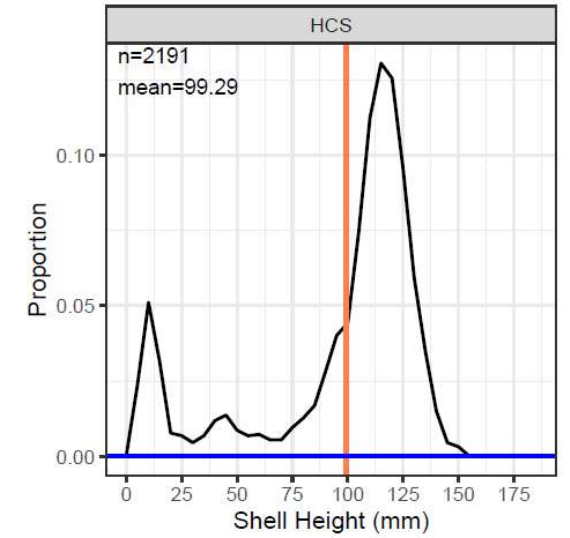
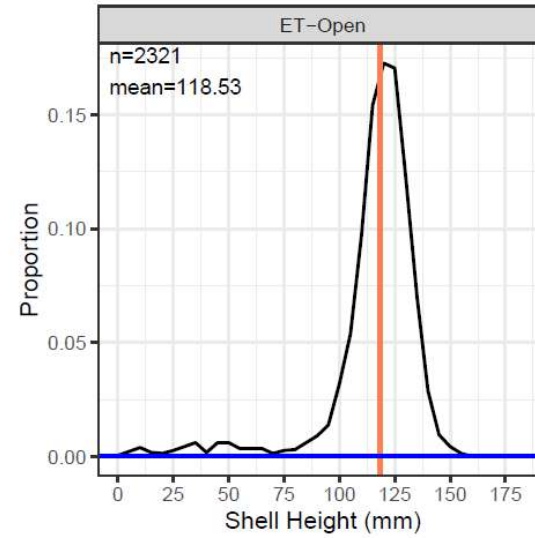
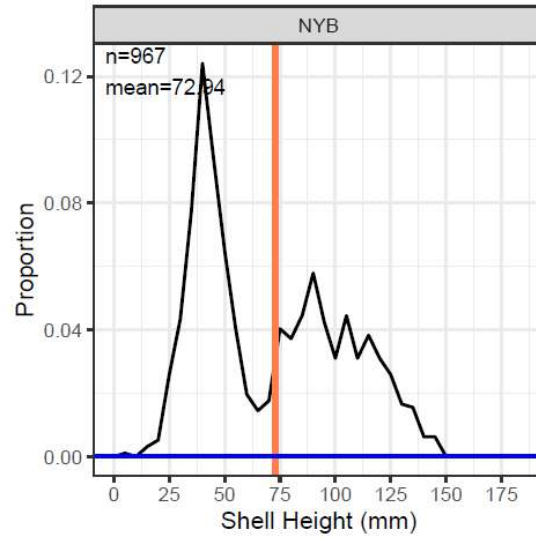
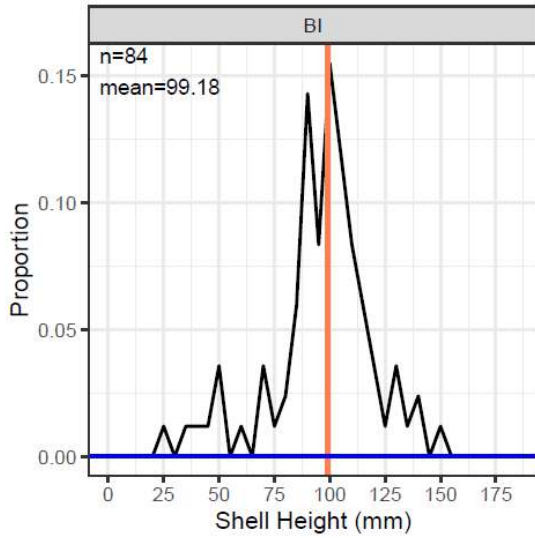
As is common, the highest biomass is located on the north rim of Hudson Canyon. Moderate biomass elsewhere, mainly at intermediate depths.



Mid-Atlantic Biomass Density



Habcam Mid-Atlantic Shell Heights



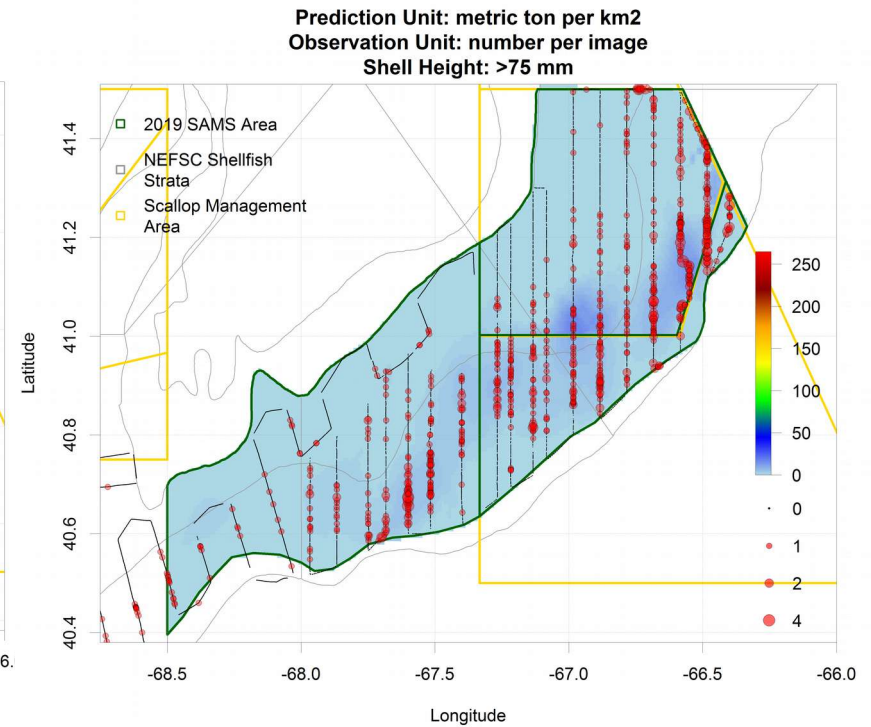
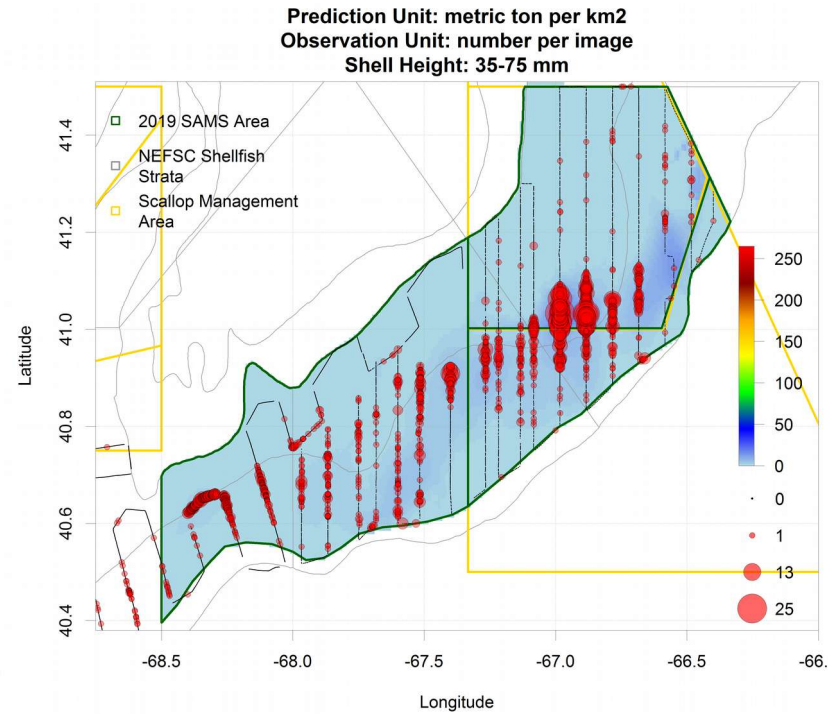
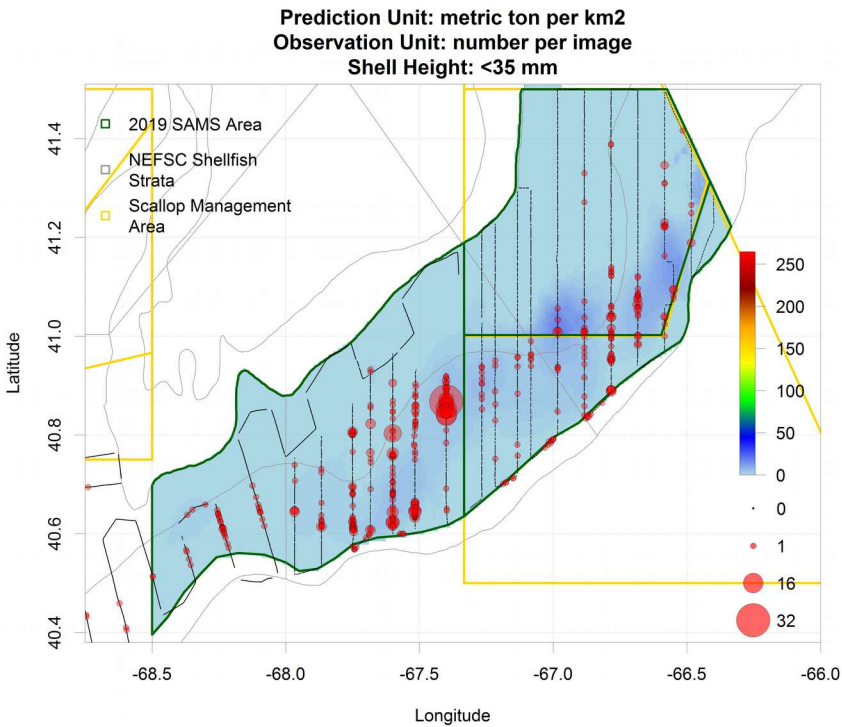
Georges Bank

105 Dredge tows in Great South Channel, Northern and Southern Flanks, Closed Area I South and Closed Area II North. VIMS covered Closed Area II South, Nantucket Lightship and their extensions as well as most of Closed Area I.

Habcam coverage of Southern Flank as well as Nantucket Lightship, Closed Area II South and Closed Area II Extension (surveyed by CFF)

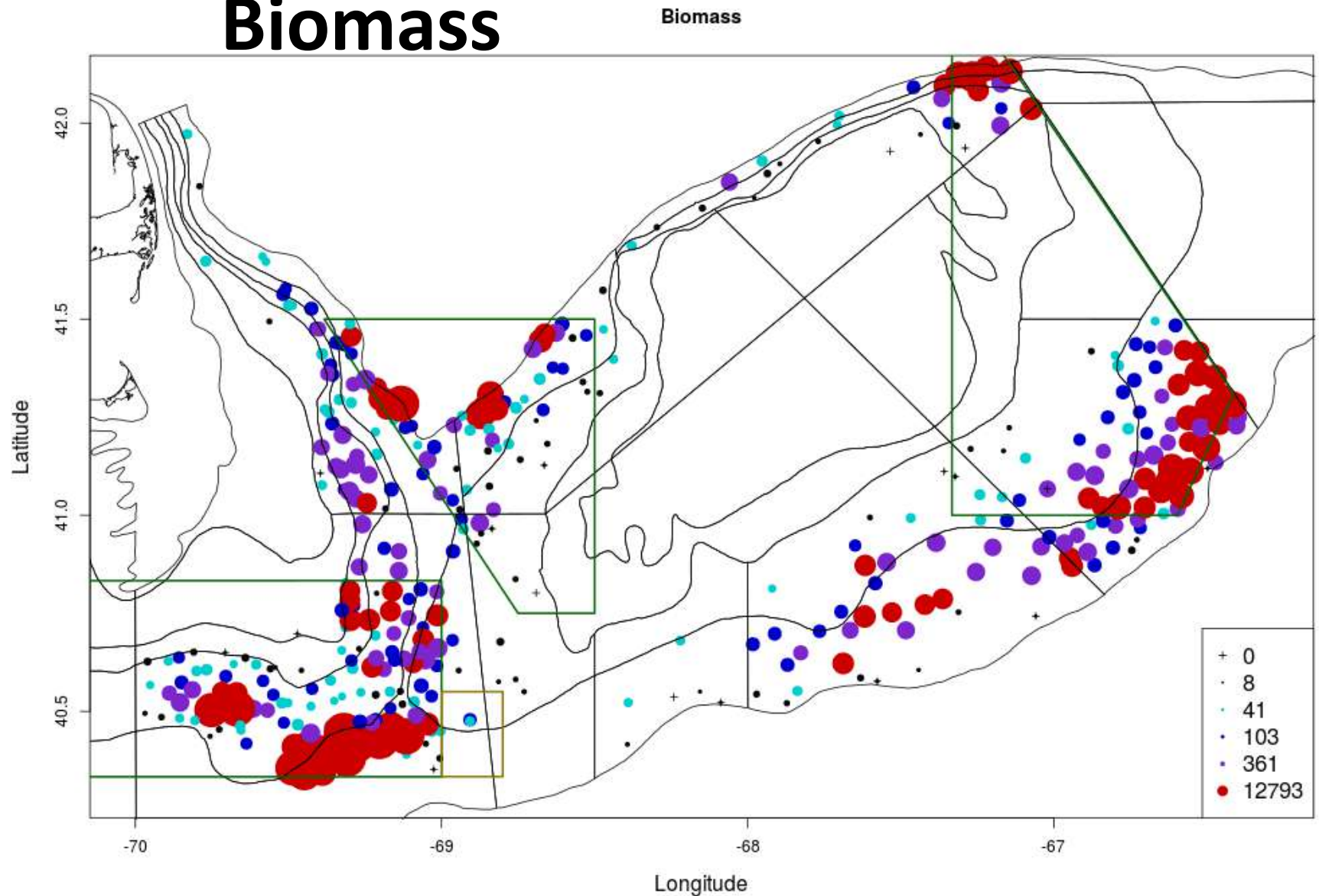
Southern Flank – Habcam

Moderately strong recruitment throughout the southern flank, especially to the east and at intermediate depths.



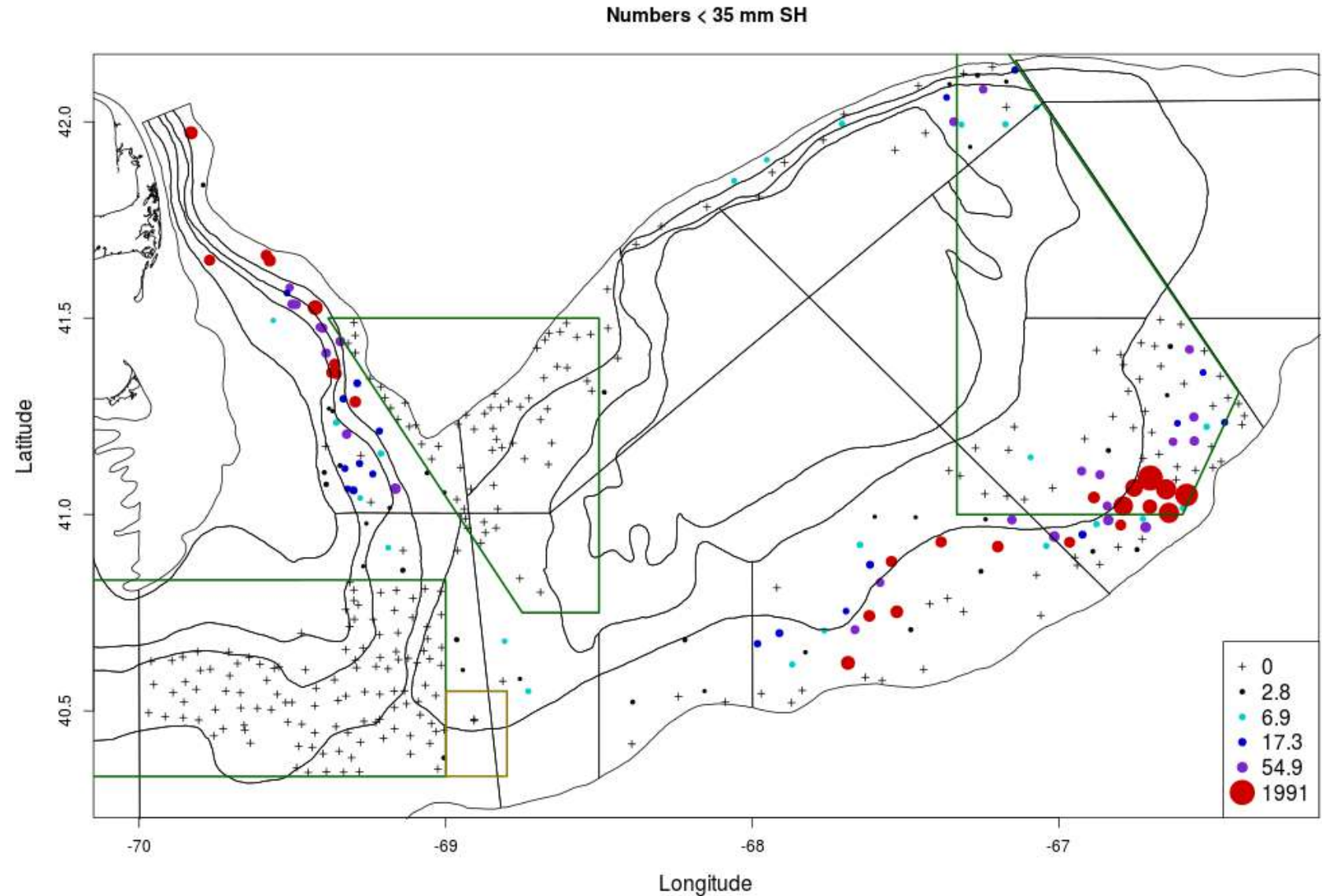
Georges Bank Dredge Survey - Biomass

Biomass concentrations in CA-I, CA-II North and South, and Nantucket Lightship, all in relatively deep water



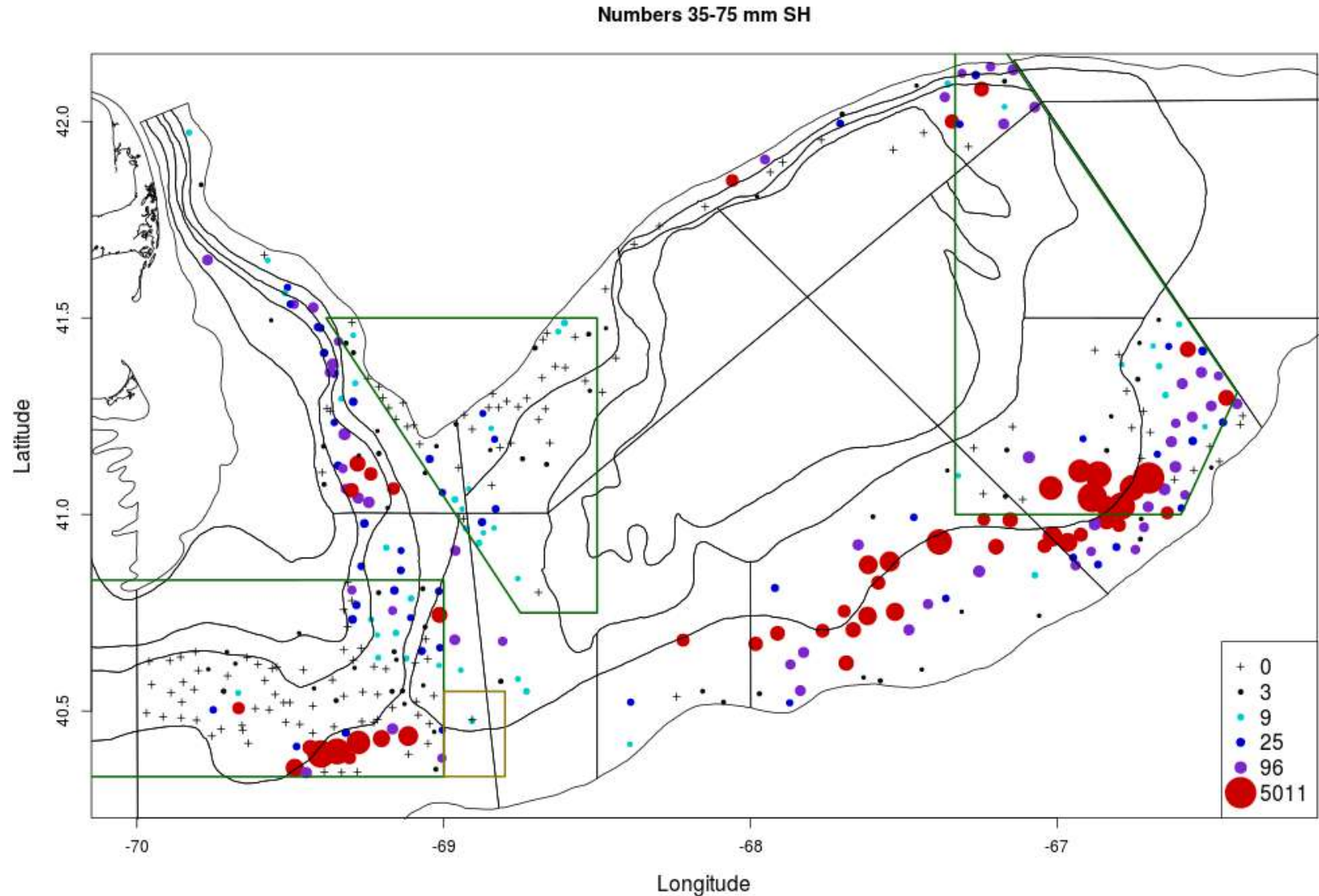
Georges Bank Dredge Survey - Prerecruits

Pre-recruits observed mainly in southeast GB and in the northern portion of GSC



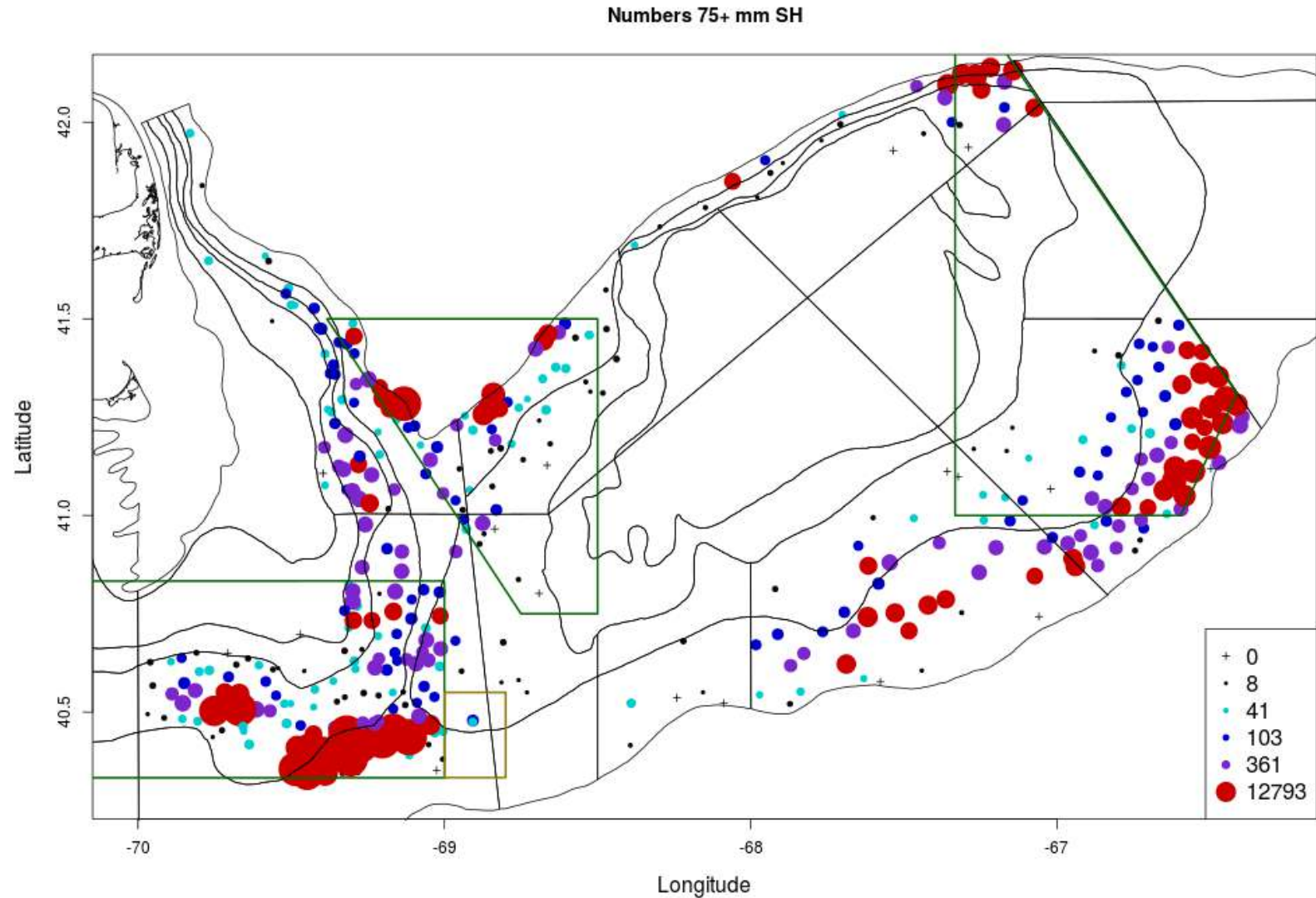
Georges Bank Dredge Survey - Recruits

Moderate recruitment (better than last several years), mainly in Closed Area II, the southern flank, and in the southern Great South Channel. Some 7 year old “Peter Pans” still 2 year old recruit sized.



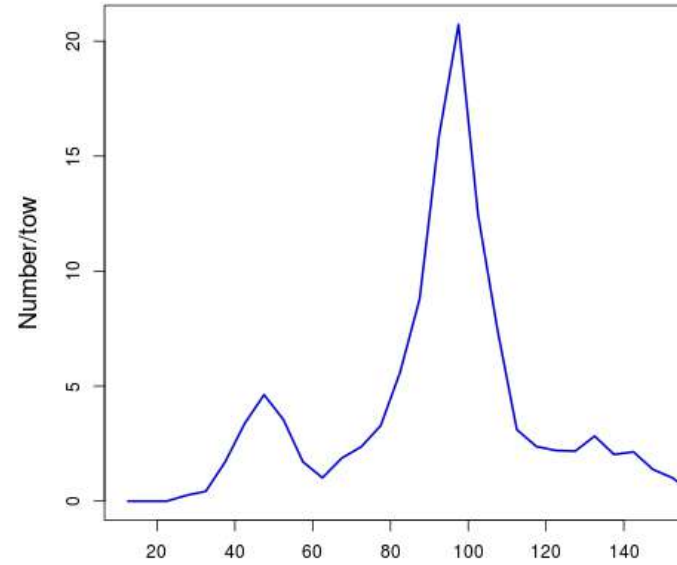
Georges Bank Dredge Survey – 75 mm +

Numbers > 75mm plot
similar to biomass plot

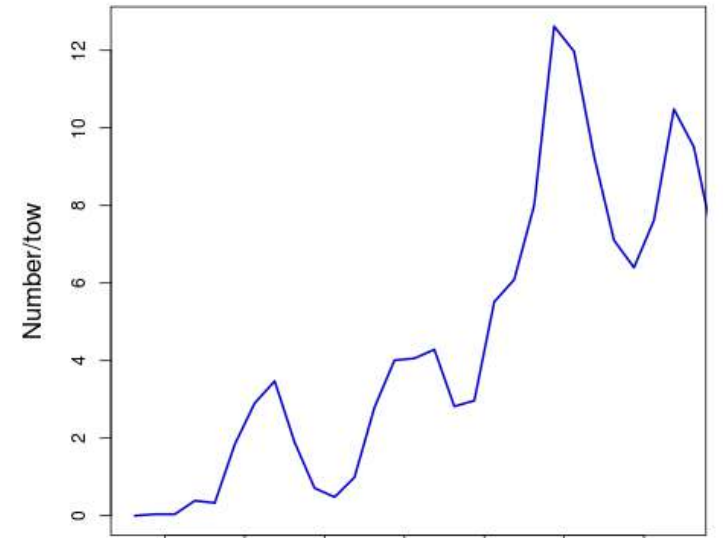


Shell heights from the dredge survey – some recruitment in all areas, but highest in Southern Flank

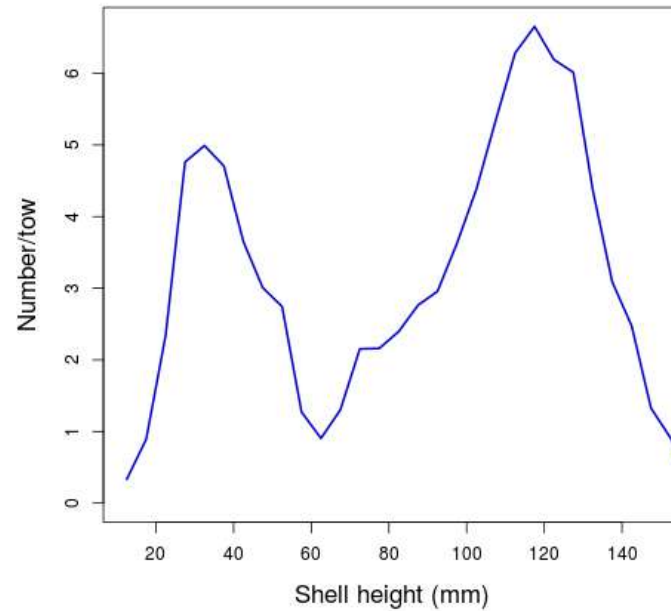
Northern Flank



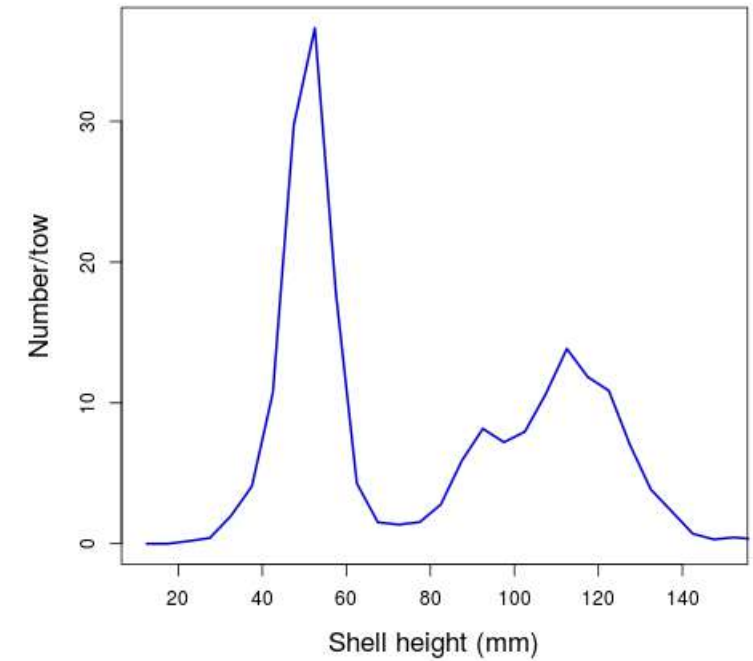
Closed Area II (N)



Great South Channel



Southern Flank



Combined survey estimates, and comparison to FW30 projections

Projections generally in line with 2019 observations, except in NLS-West

Region	Subarea	Dredge				DropCam				Habcam				Mean				Projections (FW 30)	
		Num	Bmsmt	SE	MeanWt	Num	Bmsmt	SE	MeanWt	Num	Bmsmt	SE	MeanWt	Num	Bmsmt	SE	MeanWt	Bmsmt	Dif f
GB	CL1ACC	18.4	693	84	35.6	36	1049	203	29					27	871	73	32.1	1681	-810
GB	CL1NA	259.0	7857	912	29.5	154	3487	786	23					206	5672	401	27.5	7149	-1477
GB	CL-2(N)	154.0	5778	2026	37.5	184.1	5,926	1,608	32					169	5852	862	34.6	7333	-1481
GB	CL-2(S)	1671.0	20689	1129	15.4					1035	11710	356	11.3	1353	16200	592	12.0	10129	6071
GB	CL2Ext	312.1	5568	566	17.4					653	6714	117	10.3	483	6141	289	12.7	6016	125
GB	NLSAccN	81.5	3368	210	41.3	122	4669	693	38.2	71	3066	379	42.9	92	3701	272	40.4	4096	-395
GB	NLSAccS-Shallo	117.6	1721	426	14.6	305	3815	2785	12.5	219	3420	9	15.6	214	2985	939	14.0	2747	238
GB	NLSAccS-Deep	1176.1	11898	1182	10.1	4839	50993	9151	10.5	3829	46060	871	12	3281	36317	3089	11.1	38036	-1719
GB	NLS-W	195.3	3276	664	16.7	838	13312	6266	15.9	623	12575	3618	20.2	552	9721	2422	17.6	41751	-32030
GB	NF	91.0	1585	735	17.5	57.2	1,008	372	18					74	1297	275	17.5	1260	37
GB	GSC	296.0	7302	1354	24.7	439	6135	1000	14.0					368	6719	561	18.3	12990	-6272
GB	GSC-45	1.7	83	30	49.5									2	83	30	49.5		
GB	SF	686.8	12216	2127	17.8					1074	8514	188	7.9	880	10365	1068	11.8	5697	4668
GB	TOTAL	5060.3	82034	3937	16.2									7701	105922	4386	13.8	138885	-32963
MAB	BI	94.9	1515	254	17.3	47	1076	305	23	37	850	8	22.7	60	1147	132	19.2	3095	-1948
MAB	LI	407.3	9079	350	22.4	501	9417	962	19	570	12282	769	21.6	493	10259	427	20.8	13569	-3310
MAB	NYB	537.8	7425	523	14.8	464	7032	1288	15	487	7091	330	14.6	496	7183	476	14.5	7068	115
MAB	MA inshore	53.4	1265	181	23.7					26	1020	7	39.6	40	1143	91	28.8	1120	23
MAB	HCSAA	380.4	8544	775	22.6	580	10185	783	18	762	18303	2273	24	574	12344	842	21.5	12884	-540
MAB	ET Open	592.0	15105	897	25.8	888	18051	1187	20	634	17215	229	27.1	705	16790	502	23.8	17828	-1038
MAB	ET Flex	523.6	13529	1174	25.5	771	19654	2711	25	778	24357	457	31.3	691	19180	996	27.8	22389	-3209
MAB	DMV	20.3	203	43	10.5	89	374	111	4	47	599	58	12.8	52	392	44	7.5	1627	-1235
MAB	VIR	4.2	14	1	3.0									4	14	1	3.3		
MAB	TOTAL	2614.0	56679	1811	21.7	3340.7	65789	3473	19.7	3341.0	81717	2476	24.5	3115	68452	1546	22.0	79580	-11128
TotalOpen		2505	46255	2687	219									2951	44741	1271	204	52442	-7701
TOTAL	TOTAL	7674	138713	4333	18.1									10816	174374	4651	16.1	218465	-44091



Possible causes of the large decline observed in NLS-West

1. Little growth observed between 2018 and 2019
2. Increased natural mortality
3. Discard mortality (Highgrading?)