

2020 Scallop Survey Short Report

Prepared by:

Virginia Institute of Marine Science

David B. Rudders and Sally Roman



October 14, 2020

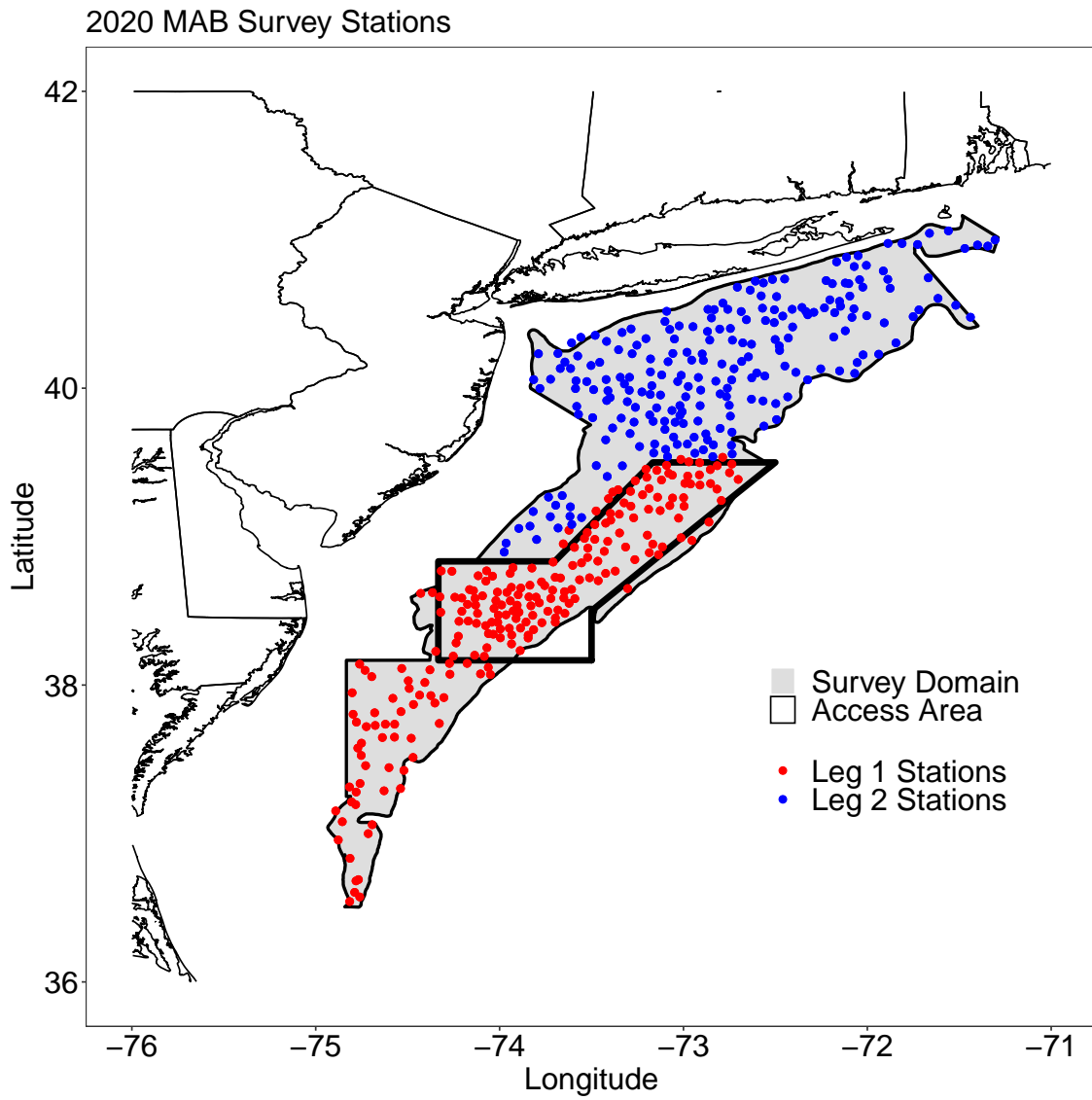
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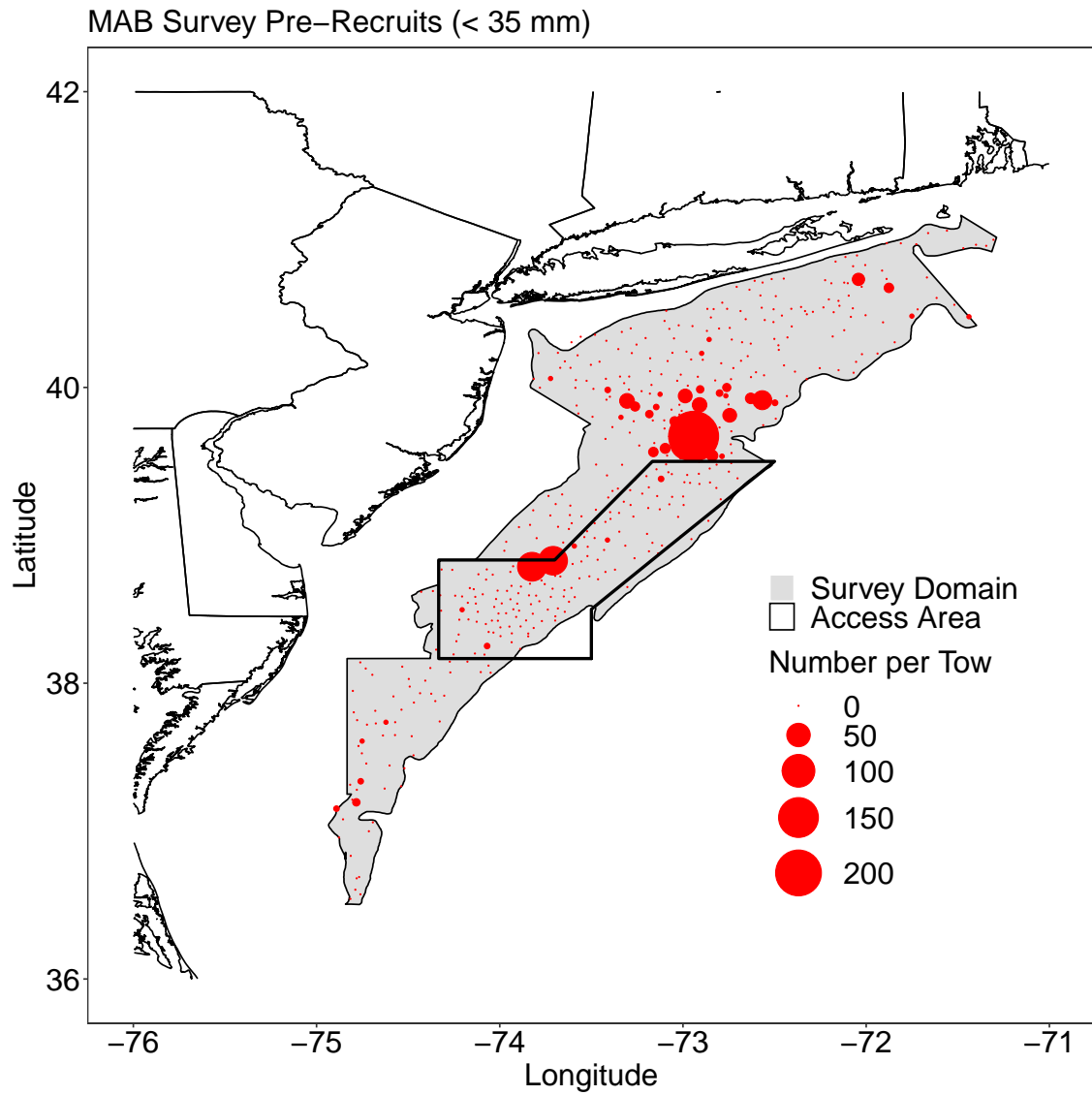
1. 2020 SURVEY BIOMASS ESTIMATES

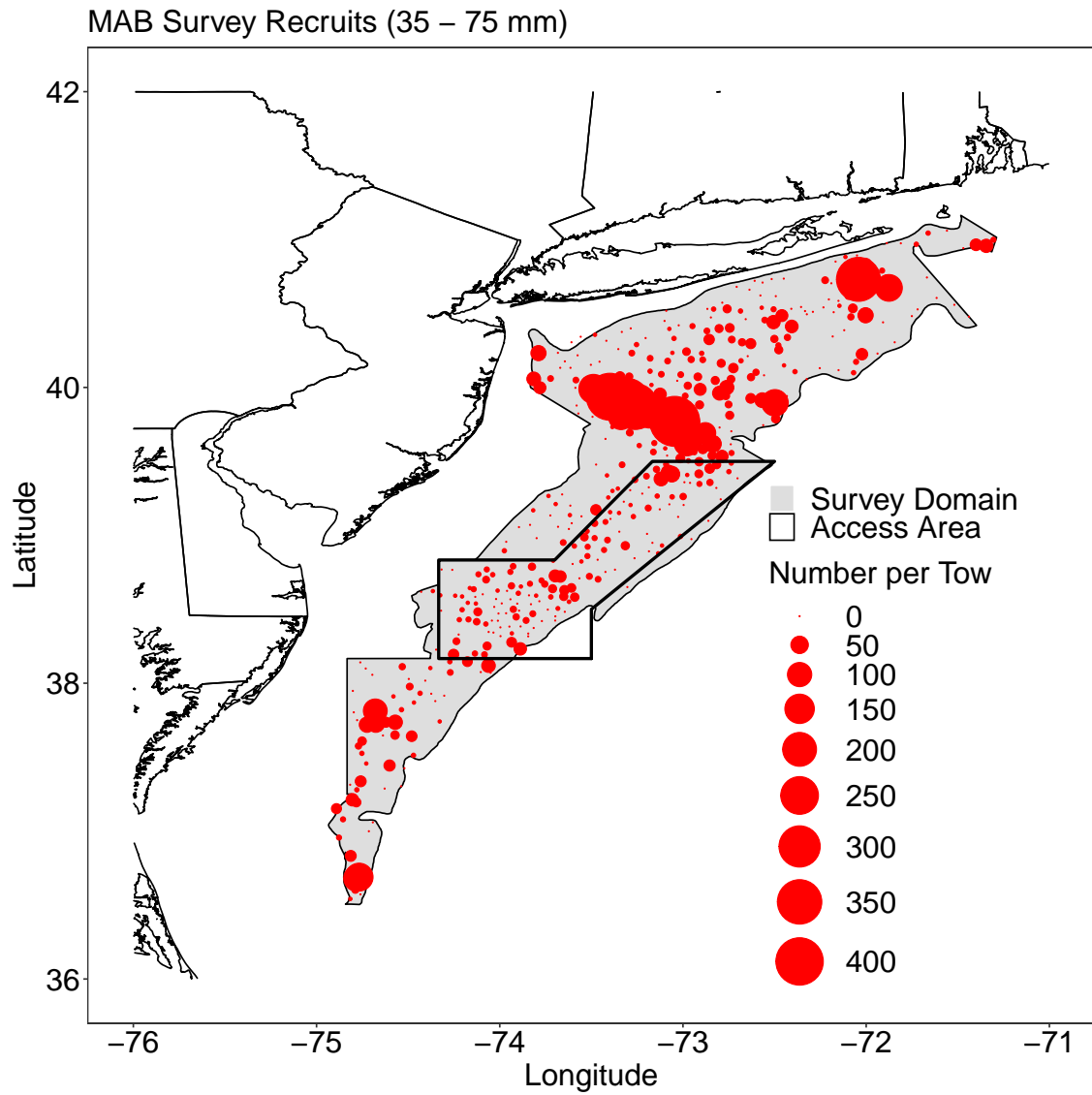
Dredge SARC 65 SH/MW, q=0.4 except NLS-South-Deep q=0.13							
GB	NumMil	BmsMT	SE	MeanWt	Avg. Size	Scallop density	# Tows/Drops, HamCam images annotated
CL1-Sliver	60,239,016	1,489.72	271.51	24.67	105.05	0.07	25
CL2-Southeast	370,563,309	51,85.14	528.15	13.66	70.83	0.2	28
CL2-Southwest	1,079,041,330	21,356.75	4,722.28	19.72	92.02	1.03	12
CL2-Ext	913,839,789	12,924.04	1,524.47	14.34	81.02	0.49	26
NLS-North	44,479,832	1,713.41	213.32	38.26	113.05	0.03	59
NLS-South-Deep	3,613,124,842	36,046.60	7,704.96	10.02	86.15	1.79	27
NLS-West	11,403,282	277.64	45.60	24.55	100.5	0.01	42
GSC	241,832,124	6,055.78	850.70	24.55	94.99	0.09	59
SF	765,698,559	6,747.69	819.44	8.81	68.2	0.42	20
MidAtlantic							
BI	25,306,075	809.49	117.8	31.29	114.82	0.03	7
LI	294,927,147	6,151.03	338.0	20.32	96.27	0.02	138
NYB	256,377,427	4,006.92	229.9	16.04	88.90	0.07	82
MAB-Nearshore	10,113,305	308.64	45.5	30.47	114.1	0.003	24
HCS	174,733,150	4,095.27	232.8	23.33	110.03	0.06	52
ET-Open	265,744,949	7,811.18	369.5	29.63	121.07	0.12	54
ET-Flex	113,945,394	3,207.99	282.5	28.34	117.29	0.08	35
DMV	36,976,500	351.48	60.5	9.52	75.29	0.01	45
VIR	16,057,046	70.87	11.1	4.71	59.99	0.01	13

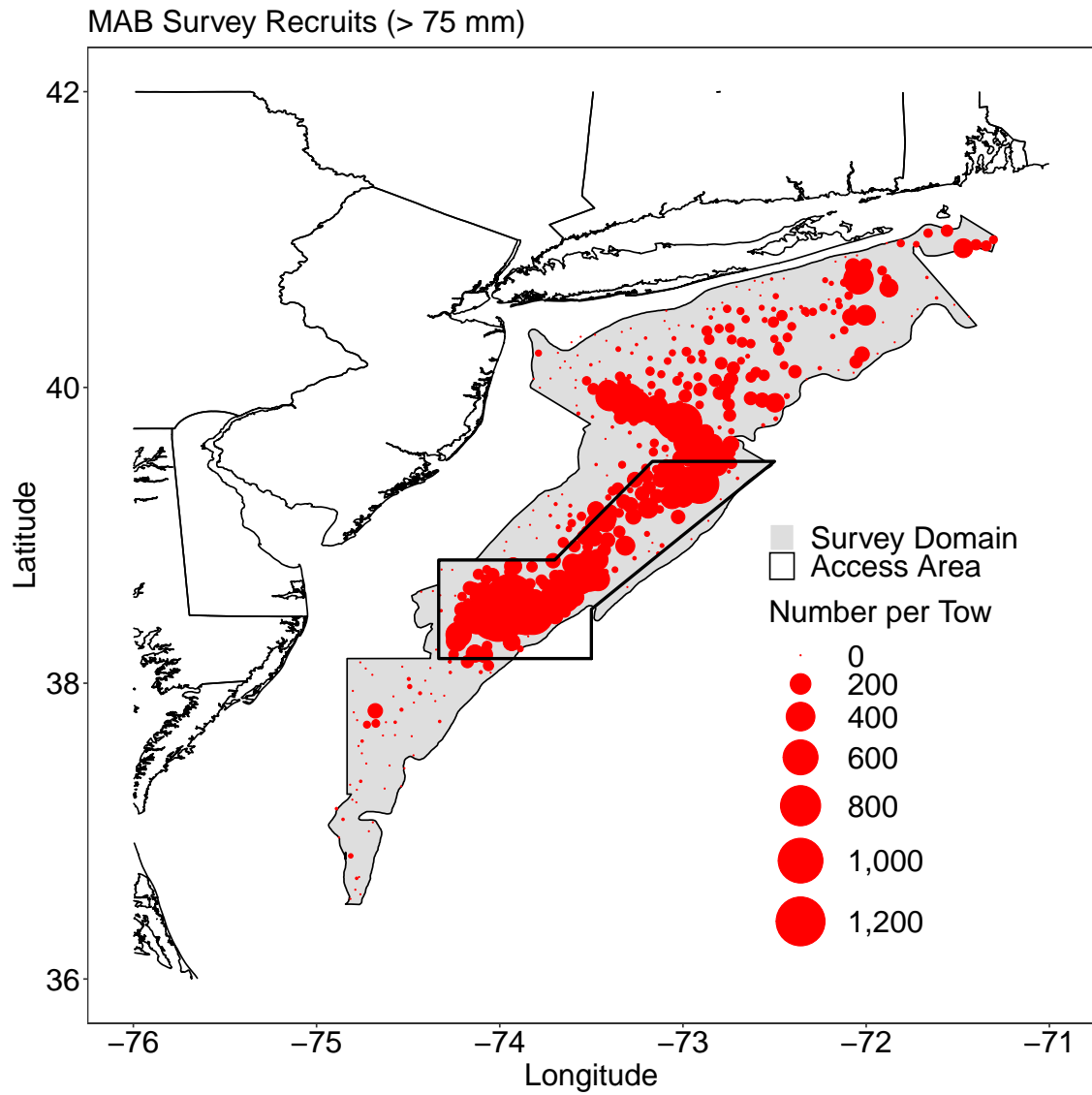
2. FIGURES OF SURVEY COVERAGE

MAB Survey

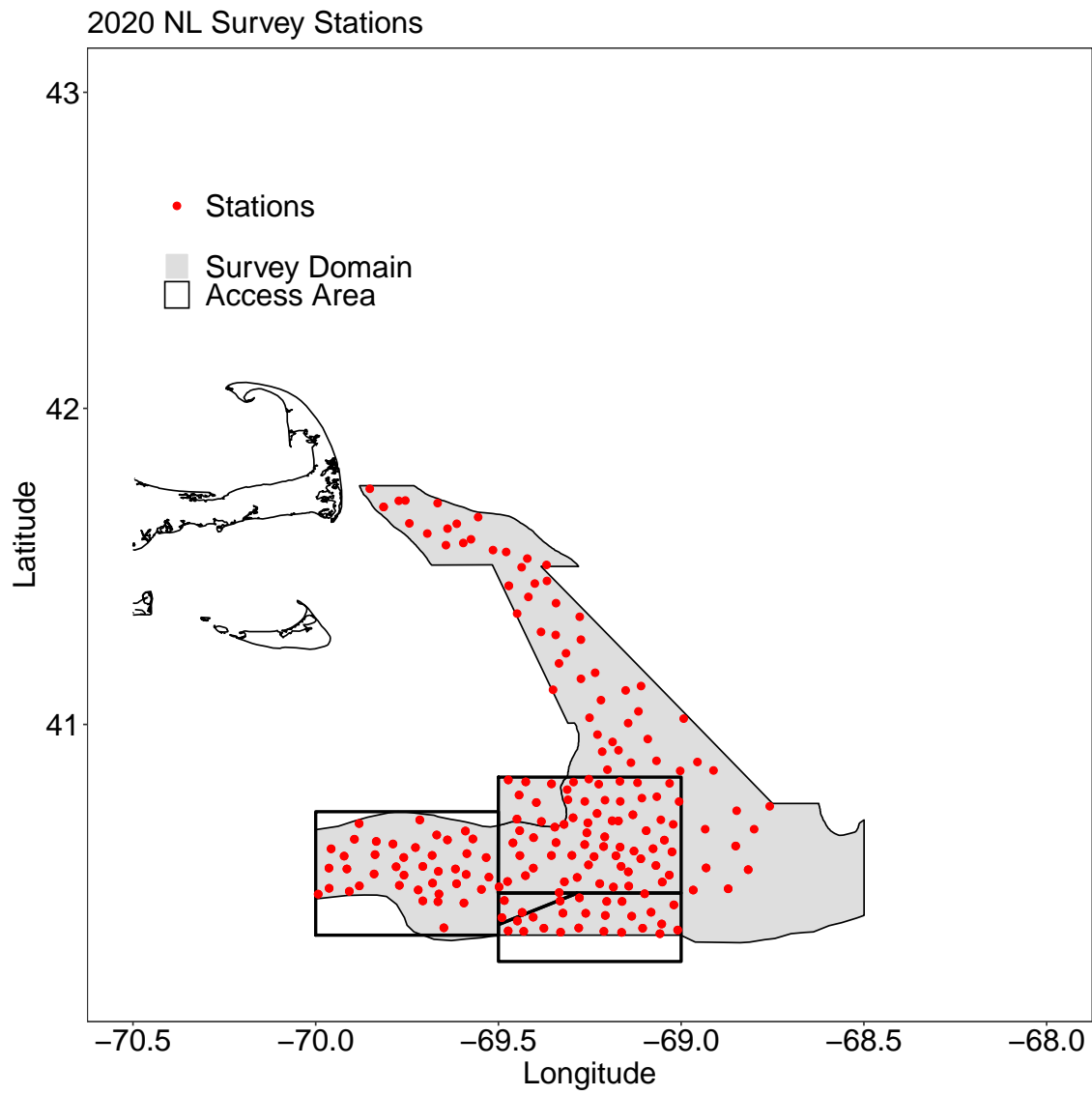


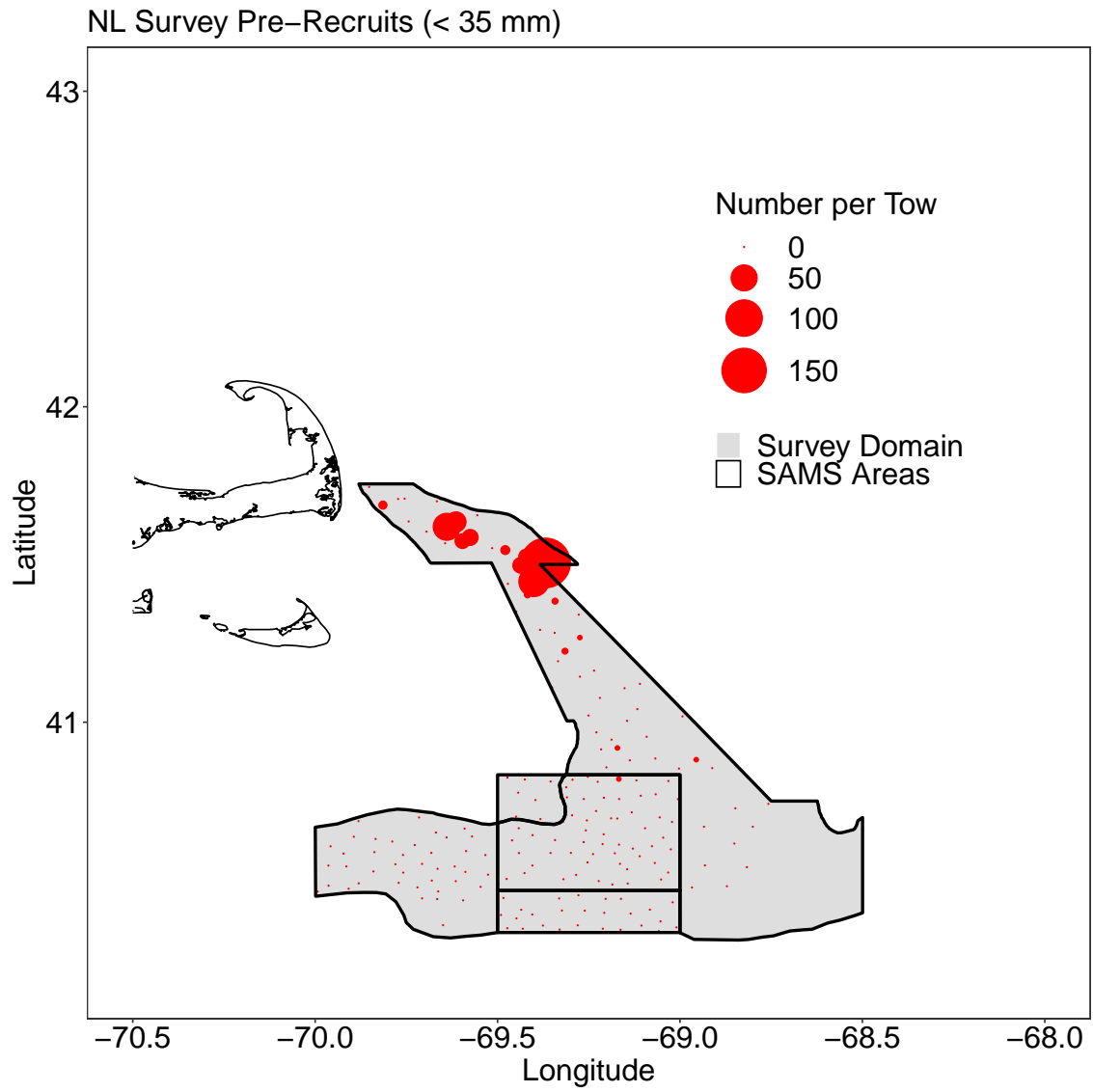


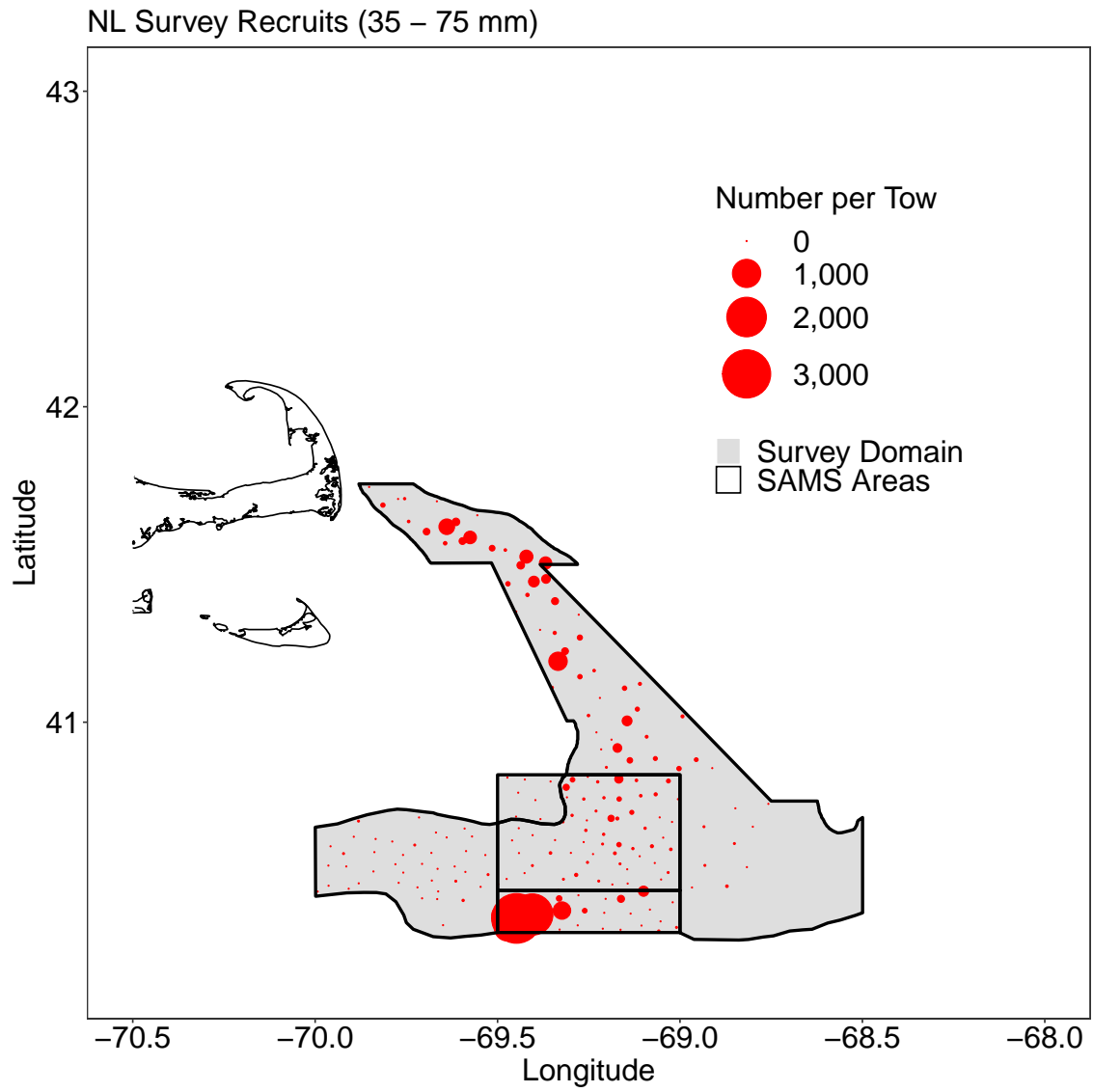


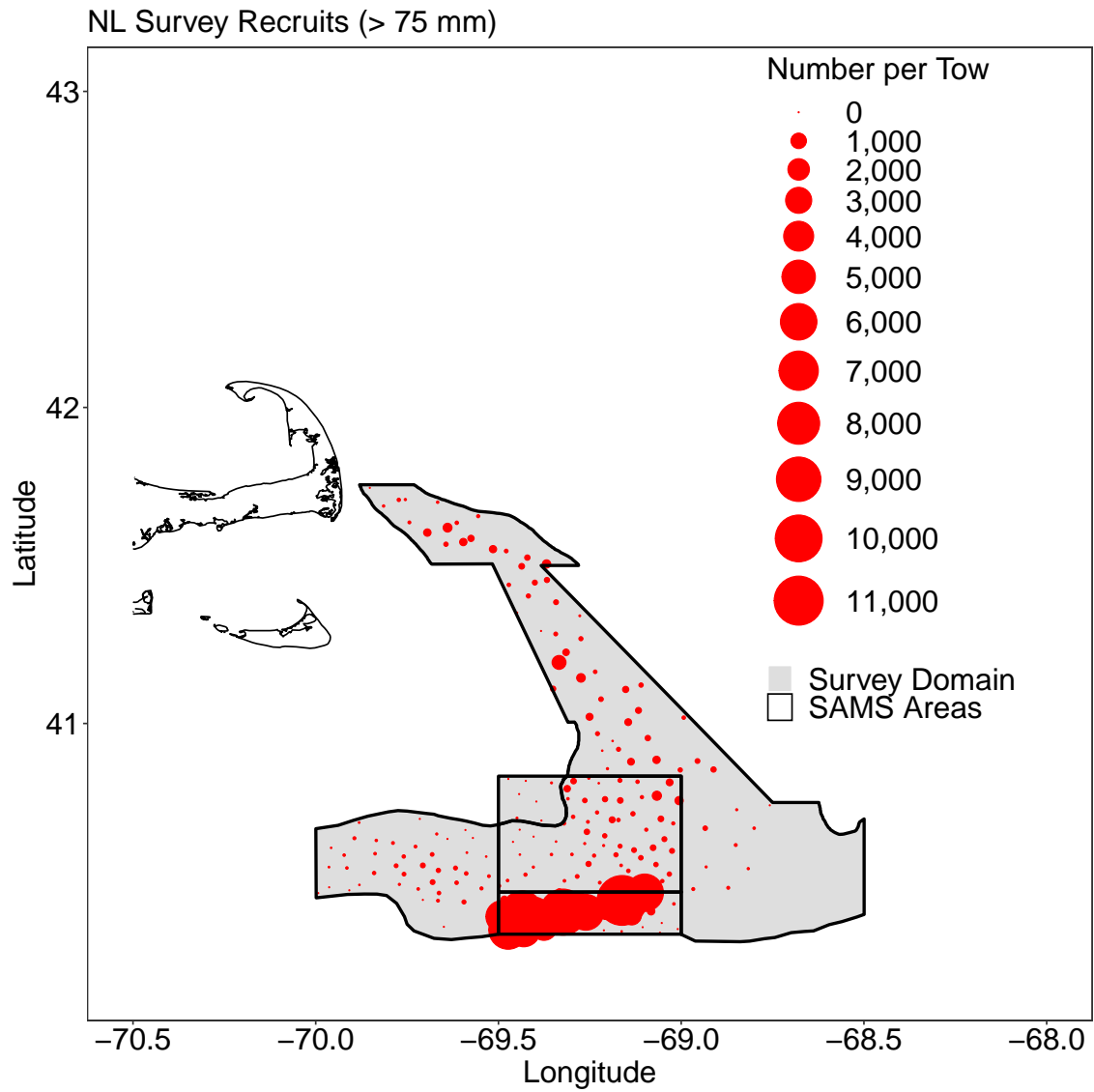


Nantucket Lightship Survey

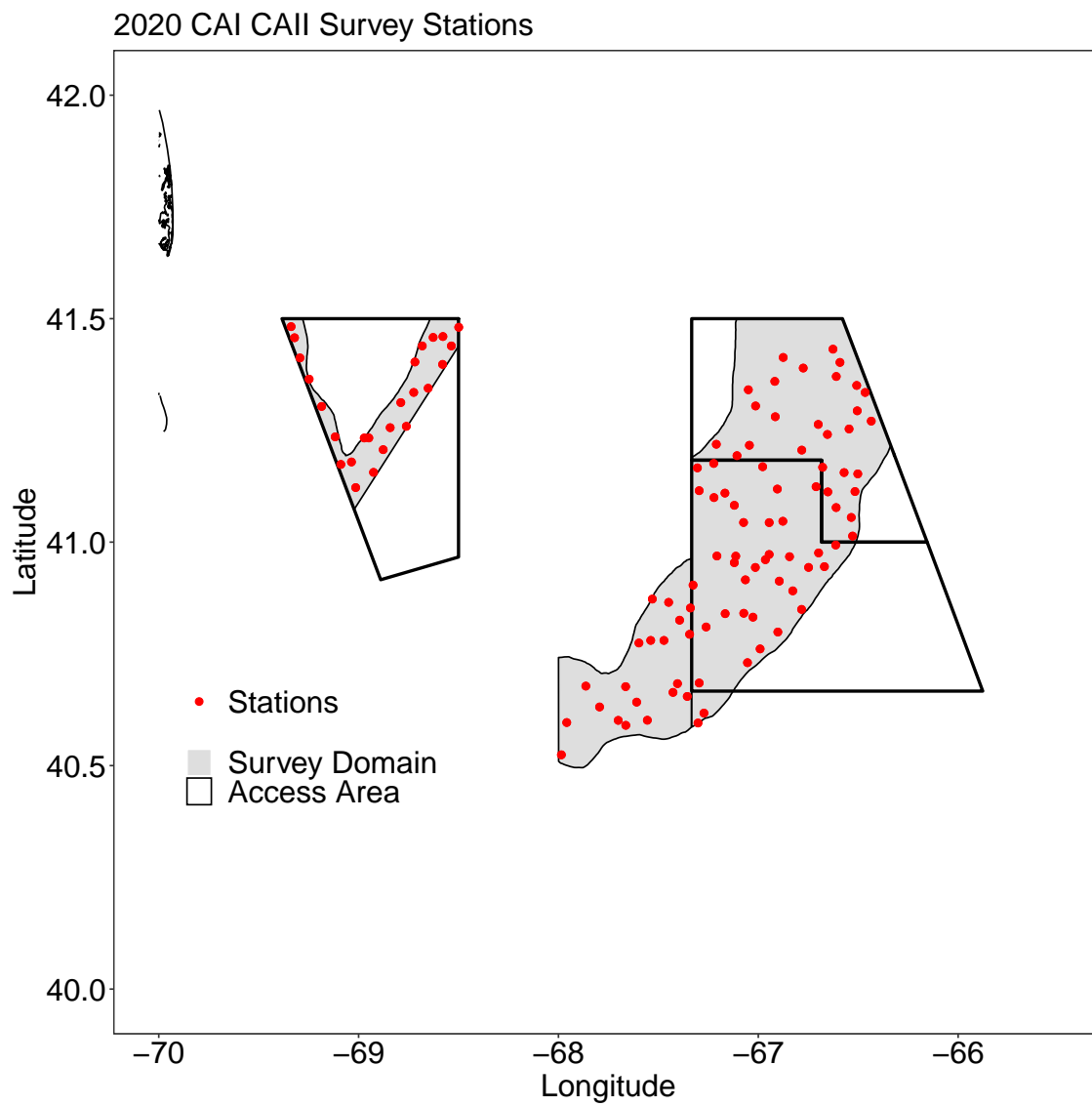


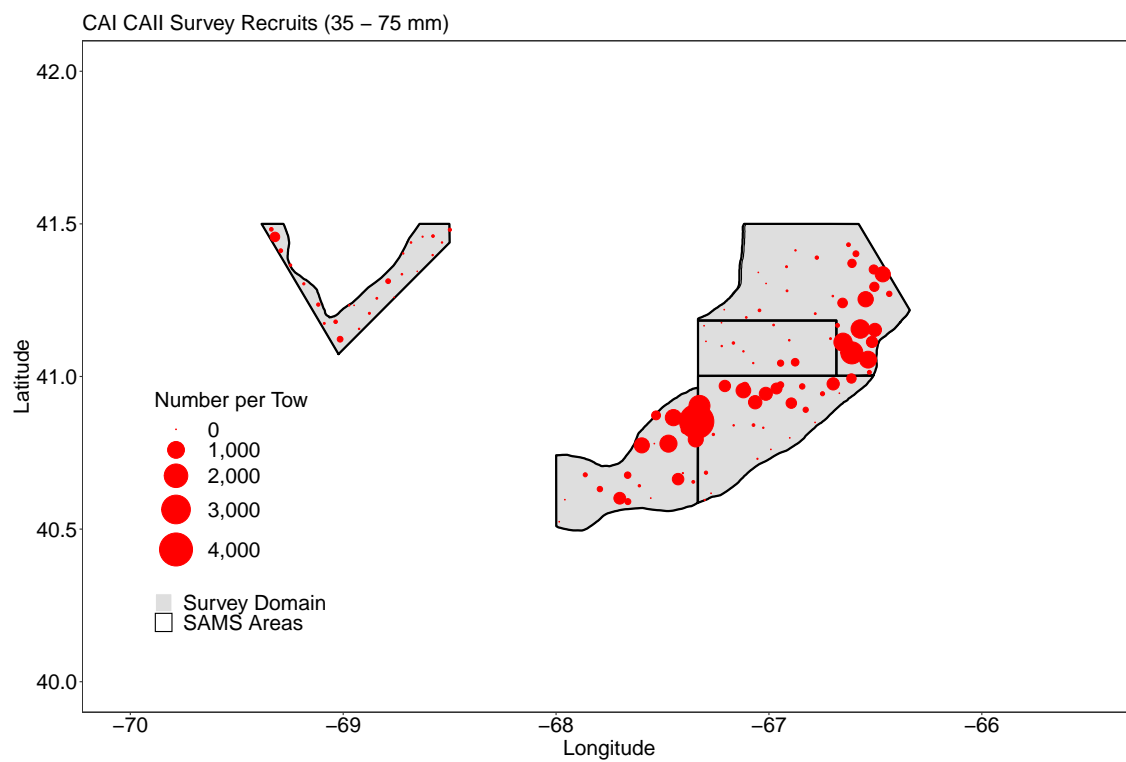
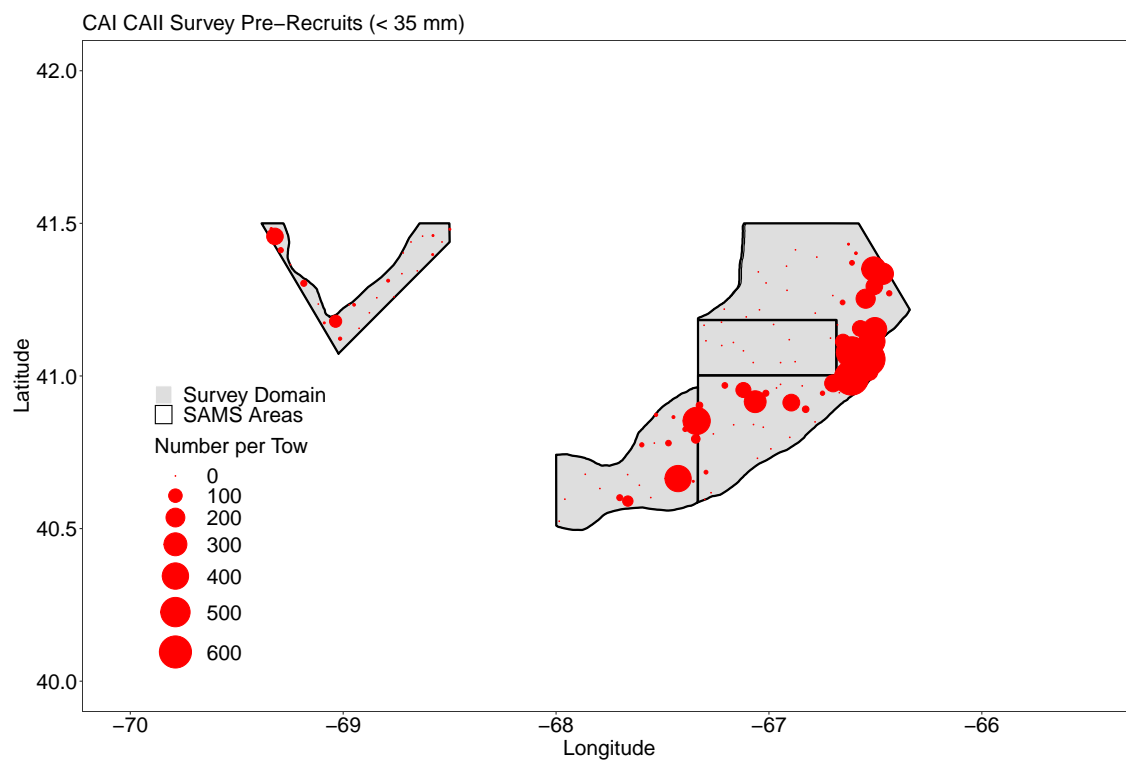


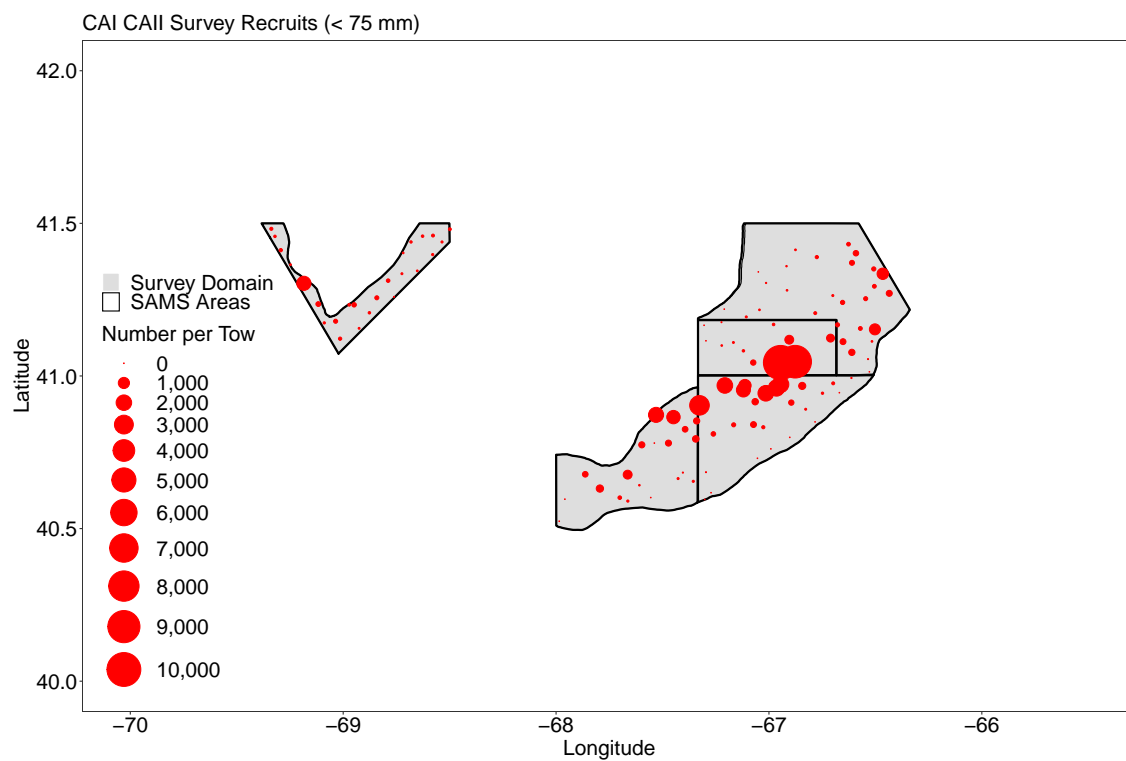




Closed Area I II Survey



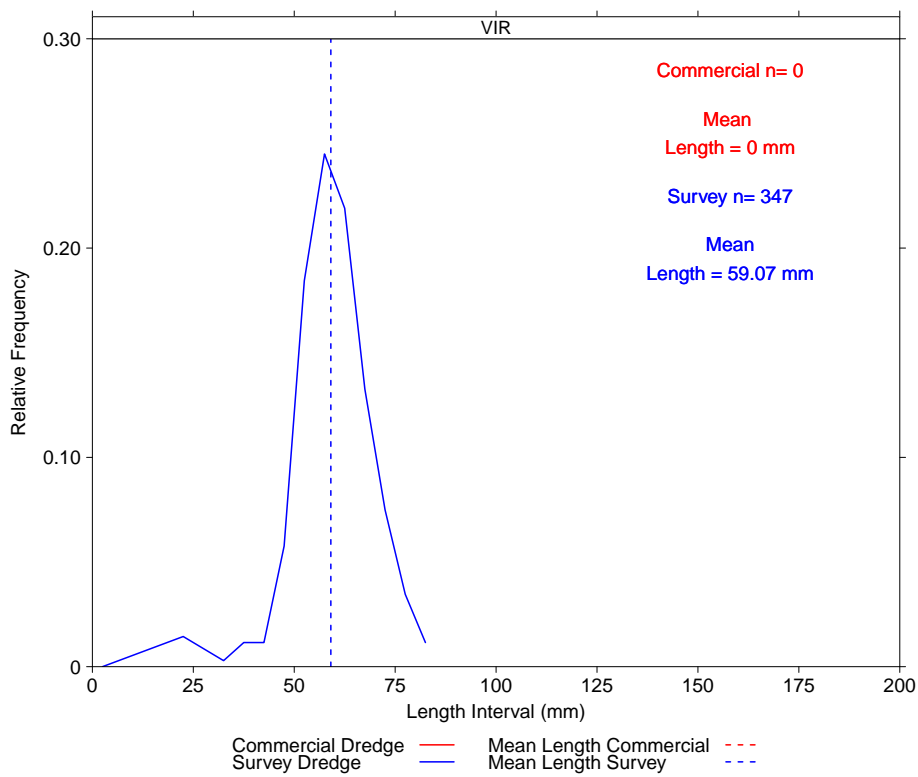




3. LENGTH FREQUENCY PLOTS BY SAMS AREA

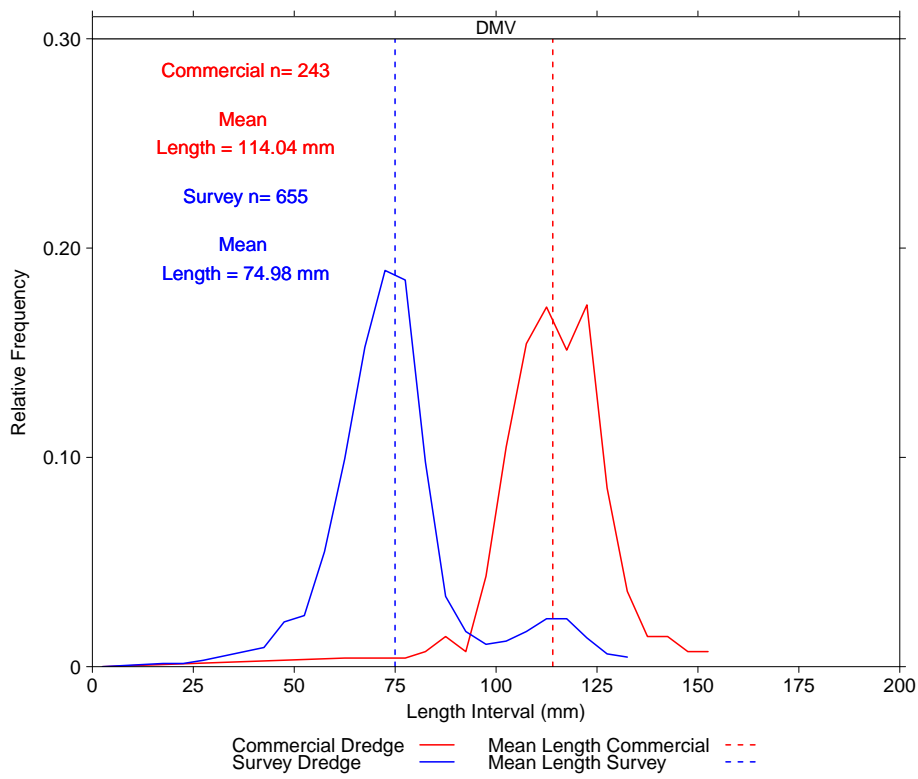
MAB Survey

Number Caught at Length by Gear
Left – Relative Length Frequency Graph
Right – Absolute Number of Scallops Caught at Length Table



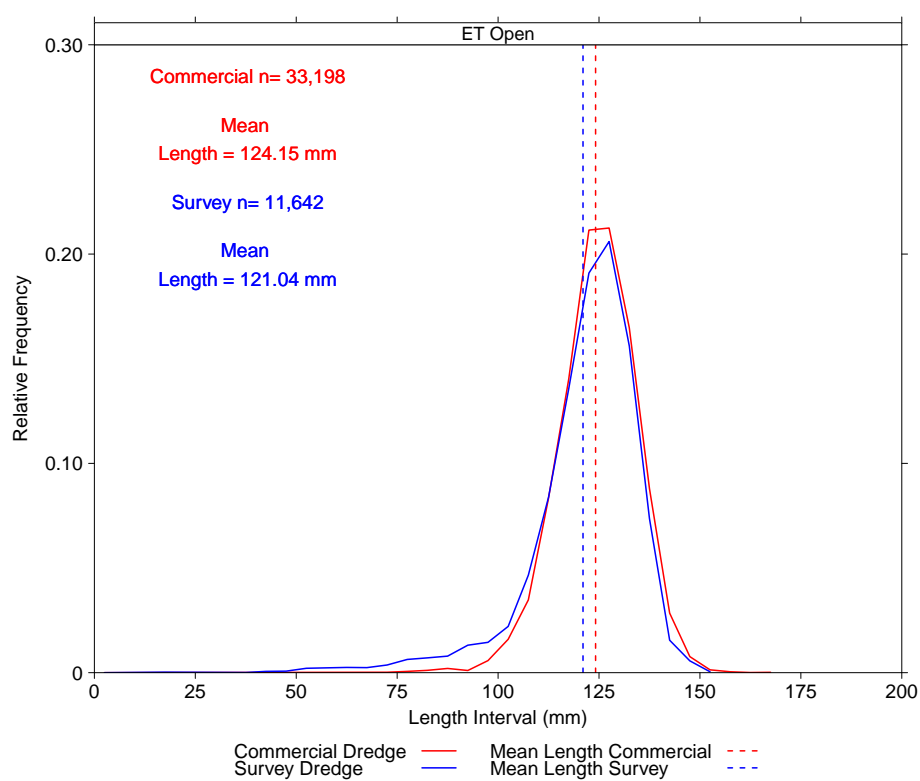
SAMS_Area	Length	Commercial	Survey
VIR	22.5	0.0	5.0
VIR	32.5	0.0	1.0
VIR	37.5	0.0	4.0
VIR	42.5	0.0	4.0
VIR	47.5	0.0	20.0
VIR	52.5	0.0	64.0
VIR	57.5	0.0	85.0
VIR	62.5	0.0	76.0
VIR	67.5	0.0	46.0
VIR	72.5	0.0	26.0
VIR	77.5	0.0	12.0
VIR	82.5	0.0	4.0

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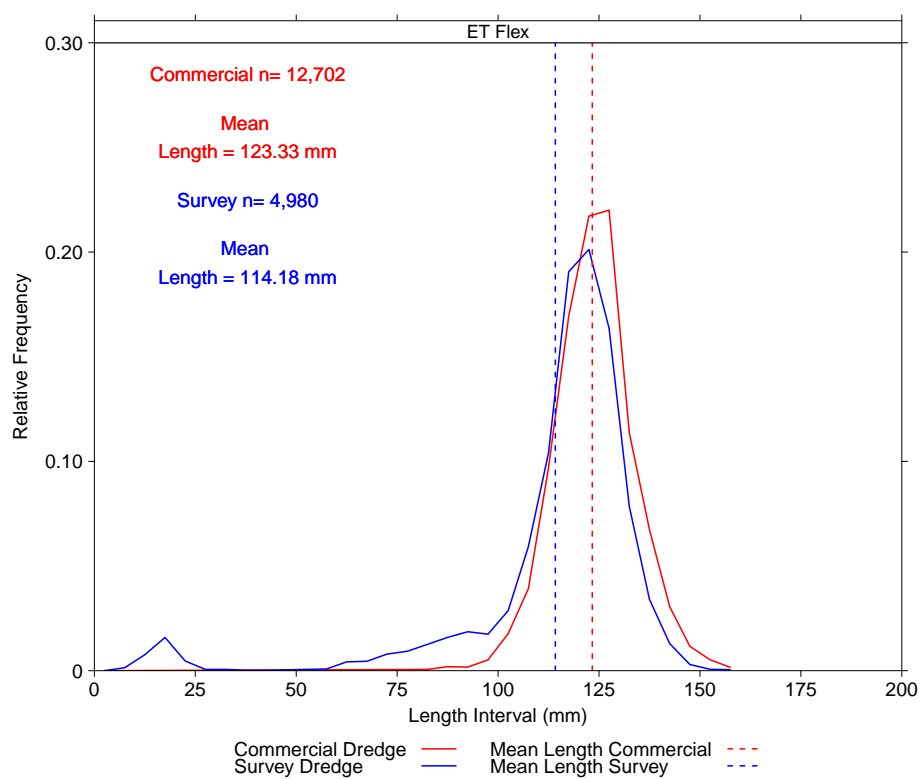
SAMS_Area	Length	Commercial	Survey
DMV	17.5	0.0	1.0
DMV	22.5	0.0	1.0
DMV	27.5	0.0	2.0
DMV	42.5	0.0	6.0
DMV	47.5	0.0	14.0
DMV	52.5	0.0	16.0
DMV	57.5	0.0	36.0
DMV	62.5	1.0	65.0
DMV	67.5	0.0	100.0
DMV	72.5	0.0	124.0
DMV	77.5	1.0	121.0
DMV	82.5	2.0	64.0
DMV	87.5	4.0	22.0
DMV	92.5	2.0	11.0
DMV	97.5	10.0	7.0
DMV	102.5	26.0	8.0
DMV	107.5	38.0	11.0
DMV	112.5	42.0	15.0
DMV	117.5	37.0	15.0
DMV	122.5	42.0	9.0
DMV	127.5	21.0	4.0
DMV	132.5	9.0	3.0
DMV	137.5	4.0	0.0
DMV	142.5	4.0	0.0
DMV	147.5	2.0	0.0
DMV	152.5	2.0	0.0

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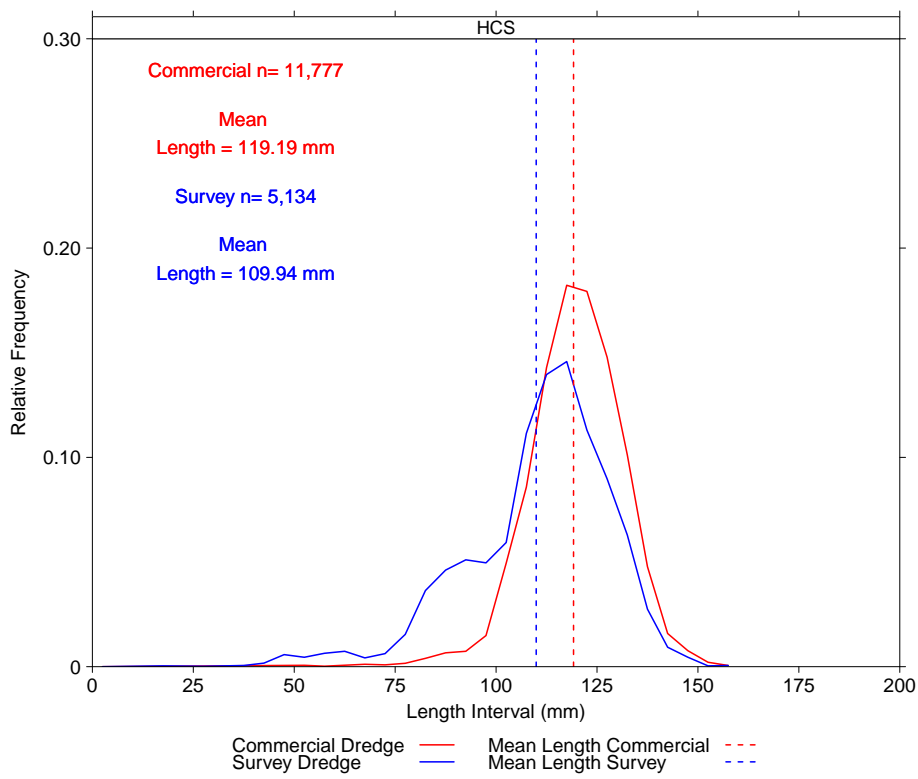
SAMS_Area	Length	Commercial	Survey
ET_Open	17.5	0.0	3.0
ET_Open	37.5	0.0	1.0
ET_Open	42.5	0.0	7.0
ET_Open	47.5	0.0	8.0
ET_Open	52.5	0.0	24.0
ET_Open	57.5	0.0	27.0
ET_Open	62.5	0.0	29.0
ET_Open	67.5	0.0	28.0
ET_Open	72.5	7.0	43.0
ET_Open	77.5	20.0	74.0
ET_Open	82.5	37.0	82.0
ET_Open	87.5	67.0	92.0
ET_Open	92.5	34.0	153.0
ET_Open	97.5	192.0	169.0
ET_Open	102.5	529.0	257.0
ET_Open	107.5	1,155.0	543.0
ET_Open	112.5	2,770.0	976.0
ET_Open	117.5	4,656.0	1,579.0
ET_Open	122.5	7,020.0	2,223.0
ET_Open	127.5	7,053.0	2,398.0
ET_Open	132.5	5,471.0	1,818.0
ET_Open	137.5	2,920.0	857.0
ET_Open	142.5	945.0	181.0
ET_Open	147.5	255.0	66.0
ET_Open	152.5	45.0	5.0
ET_Open	157.5	14.0	0.0
ET_Open	162.5	2.0	0.0
ET_Open	167.5	6.0	0.0

Number Caught at Length by Gear
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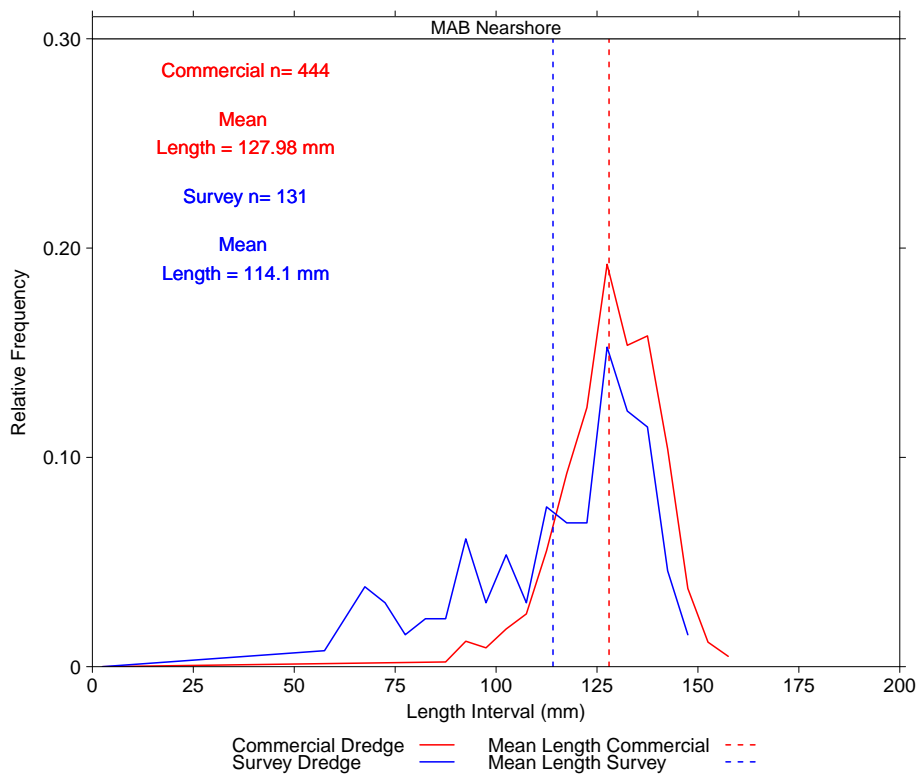
SAMS_Area	Length	Commercial	Survey
ET_Flex	7.5	0.0	7.0
ET_Flex	12.5	0.0	38.0
ET_Flex	17.5	0.0	79.0
ET_Flex	22.5	0.0	23.0
ET_Flex	27.5	0.0	3.0
ET_Flex	32.5	0.0	3.0
ET_Flex	37.5	0.0	1.0
ET_Flex	42.5	0.0	1.0
ET_Flex	52.5	0.0	3.0
ET_Flex	57.5	0.0	4.0
ET_Flex	62.5	0.0	21.0
ET_Flex	67.5	0.0	22.0
ET_Flex	72.5	0.0	40.0
ET_Flex	77.5	0.0	46.0
ET_Flex	82.5	8.0	63.0
ET_Flex	87.5	24.0	79.0
ET_Flex	92.5	22.0	93.0
ET_Flex	97.5	66.0	87.0
ET_Flex	102.5	224.0	143.0
ET_Flex	107.5	497.0	295.0
ET_Flex	112.5	1,233.0	519.0
ET_Flex	117.5	2,151.0	949.0
ET_Flex	122.5	2,759.0	1,002.0
ET_Flex	127.5	2,794.0	815.0
ET_Flex	132.5	1,444.0	391.0
ET_Flex	137.5	856.0	170.0
ET_Flex	142.5	389.0	65.0
ET_Flex	147.5	148.0	15.0
ET_Flex	152.5	66.0	3.0
ET_Flex	157.5	20.0	2.0

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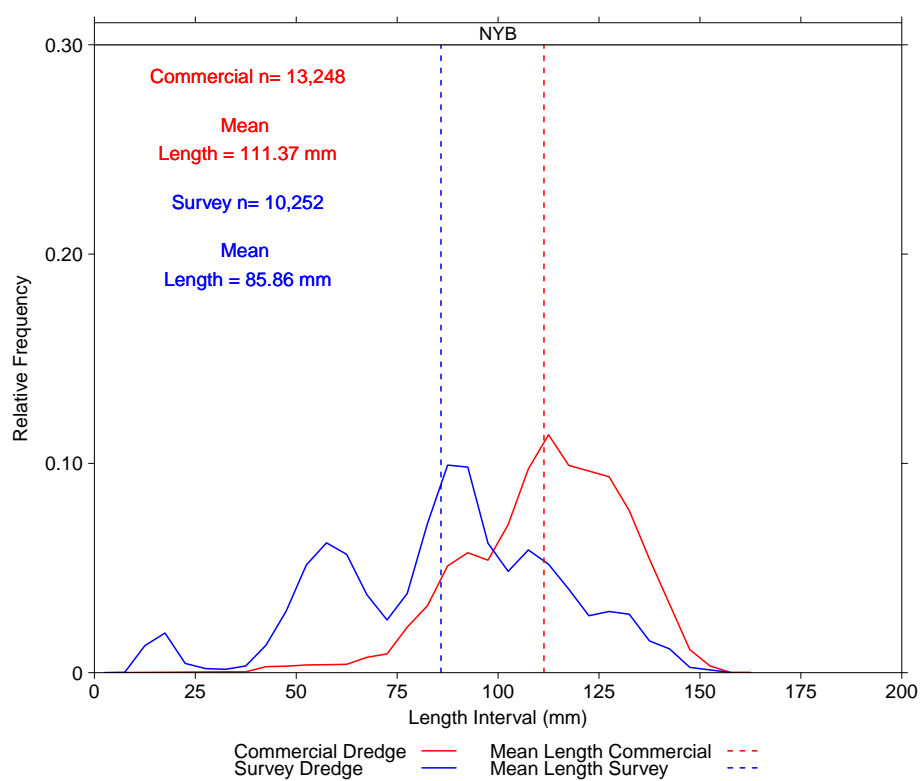
SAMS_Area	Length	Commercial	Survey
HCS	17.5	0.0	2.0
HCS	27.5	0.0	1.0
HCS	37.5	0.0	3.0
HCS	42.5	0.0	9.0
HCS	47.5	0.0	30.0
HCS	52.5	8.0	23.0
HCS	57.5	3.0	33.0
HCS	62.5	0.0	38.0
HCS	67.5	14.0	22.0
HCS	72.5	10.0	32.0
HCS	77.5	19.0	79.0
HCS	82.5	47.0	187.0
HCS	87.5	78.0	237.0
HCS	92.5	87.0	262.0
HCS	97.5	175.0	255.0
HCS	102.5	582.0	305.0
HCS	107.5	1,010.0	572.0
HCS	112.5	1,683.0	717.0
HCS	117.5	2,146.0	748.0
HCS	122.5	2,112.0	580.0
HCS	127.5	1,741.0	461.0
HCS	132.5	1,192.0	323.0
HCS	137.5	563.0	141.0
HCS	142.5	187.0	48.0
HCS	147.5	90.0	23.0
HCS	152.5	25.0	2.0
HCS	157.5	7.0	3.0

Number Caught at Length by Gear
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SAMS_Area	Length	Commercial	Survey
MAB_Nearshore	57.5	0.0	1.0
MAB_Nearshore	62.5	0.0	3.0
MAB_Nearshore	67.5	0.0	5.0
MAB_Nearshore	72.5	0.0	4.0
MAB_Nearshore	77.5	0.0	2.0
MAB_Nearshore	82.5	0.0	3.0
MAB_Nearshore	87.5	1.0	3.0
MAB_Nearshore	92.5	5.0	8.0
MAB_Nearshore	97.5	4.0	4.0
MAB_Nearshore	102.5	8.0	7.0
MAB_Nearshore	107.5	11.0	4.0
MAB_Nearshore	112.5	25.0	10.0
MAB_Nearshore	117.5	41.0	9.0
MAB_Nearshore	122.5	55.0	9.0
MAB_Nearshore	127.5	85.0	20.0
MAB_Nearshore	132.5	68.0	16.0
MAB_Nearshore	137.5	70.0	15.0
MAB_Nearshore	142.5	46.0	6.0
MAB_Nearshore	147.5	17.0	2.0
MAB_Nearshore	152.5	5.0	0.0
MAB_Nearshore	157.5	2.0	0.0

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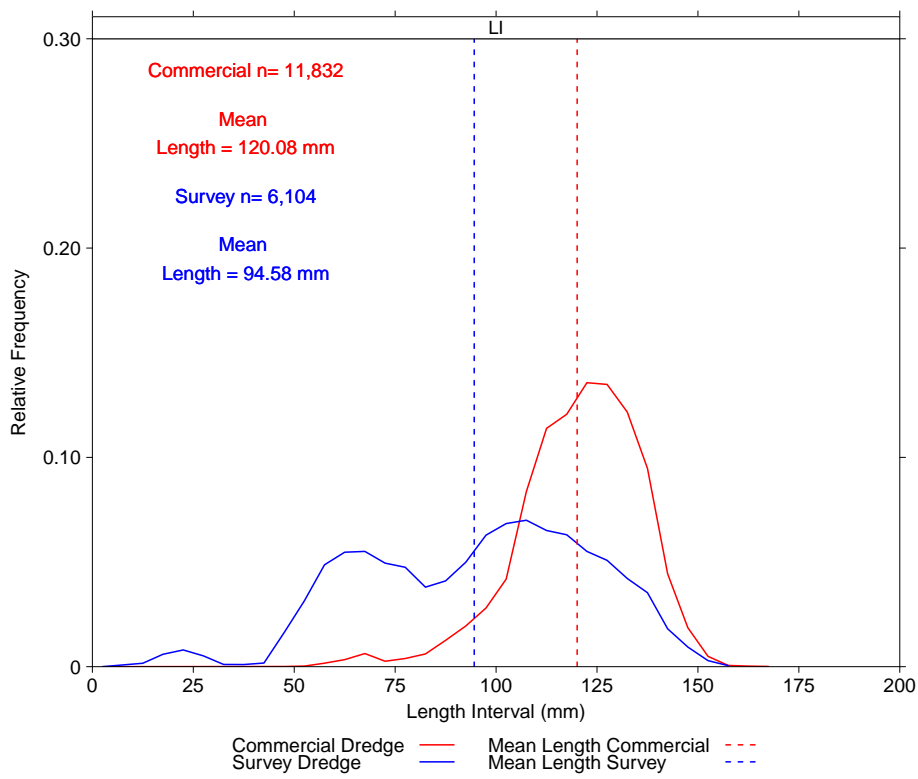


SAMS_Area	Length	Commercial	Survey
NYB	7.5	0.0	1.0
NYB	12.5	0.0	132.0
NYB	17.5	0.0	194.0
NYB	22.5	0.0	45.0
NYB	27.5	0.0	20.0
NYB	32.5	5.0	17.0
NYB	37.5	5.0	33.0
NYB	42.5	38.0	134.0
NYB	47.5	41.0	301.0
NYB	52.5	49.0	528.0
NYB	57.5	50.0	636.0
NYB	62.5	53.0	579.0
NYB	67.5	97.0	382.0
NYB	72.5	119.0	258.0
NYB	77.5	288.0	388.0
NYB	82.5	424.0	730.0
NYB	87.5	676.0	1,017.0
NYB	92.5	759.0	1,007.0
NYB	97.5	712.0	634.0
NYB	102.5	937.0	496.0
NYB	107.5	1,290.0	601.0
NYB	112.5	1,506.0	531.0
NYB	117.5	1,312.0	409.0
NYB	122.5	1,276.0	279.0
NYB	127.5	1,240.0	300.0
NYB	132.5	1,026.0	286.0
NYB	137.5	719.0	156.0
NYB	142.5	433.0	116.0
NYB	147.5	145.0	26.0
NYB	152.5	43.0	14.0
NYB	157.5	2.0	1.0
NYB	162.5	2.0	0.0

Number Caught at Length by Gear

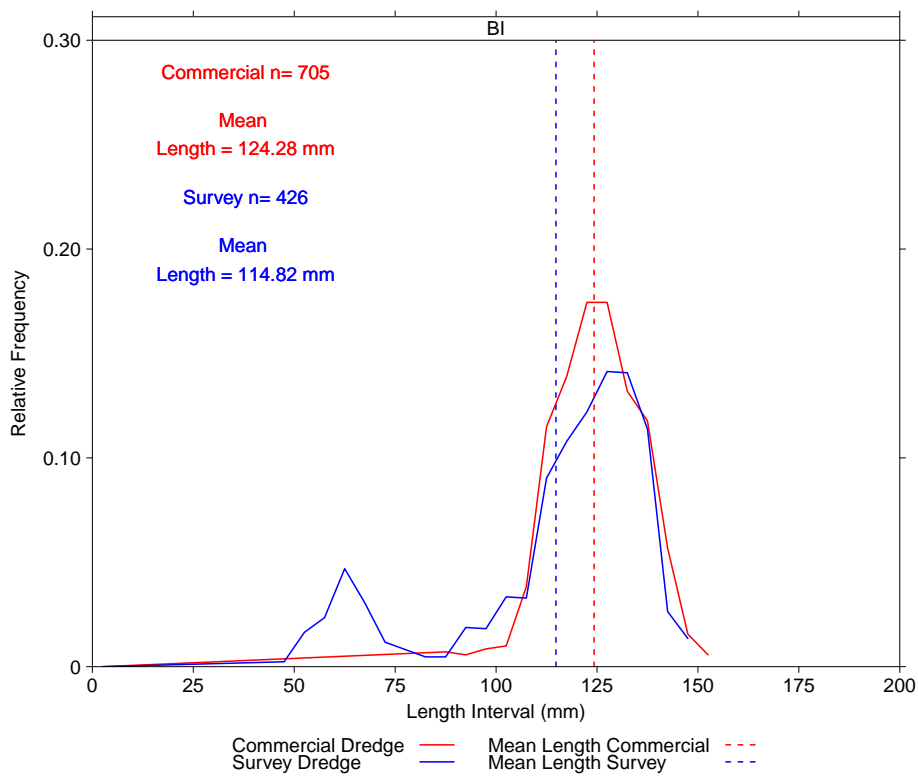
Left – Relative Length Frequency Graph

Right – Absolute Number of Scallops Caught at Length Table



SAMS_Area	Length	Commercial	Survey
LI	12.5	0.0	10.0
LI	17.5	0.0	36.0
LI	22.5	0.0	49.0
LI	27.5	0.0	32.0
LI	32.5	0.0	6.0
LI	37.5	0.0	6.0
LI	42.5	0.0	11.0
LI	47.5	1.0	99.0
LI	52.5	3.0	192.0
LI	57.5	20.0	297.0
LI	62.5	40.0	334.0
LI	67.5	74.0	336.0
LI	72.5	31.0	302.0
LI	77.5	46.0	290.0
LI	82.5	72.0	232.0
LI	87.5	149.0	250.0
LI	92.5	230.0	305.0
LI	97.5	332.0	384.0
LI	102.5	495.0	417.0
LI	107.5	990.0	427.0
LI	112.5	1,347.0	397.0
LI	117.5	1,427.0	385.0
LI	122.5	1,605.0	336.0
LI	127.5	1,596.0	310.0
LI	132.5	1,439.0	257.0
LI	137.5	1,121.0	216.0
LI	142.5	525.0	110.0
LI	147.5	220.0	57.0
LI	152.5	58.0	18.0
LI	157.5	7.0	3.0
LI	162.5	3.0	0.0
LI	167.5	1.0	0.0

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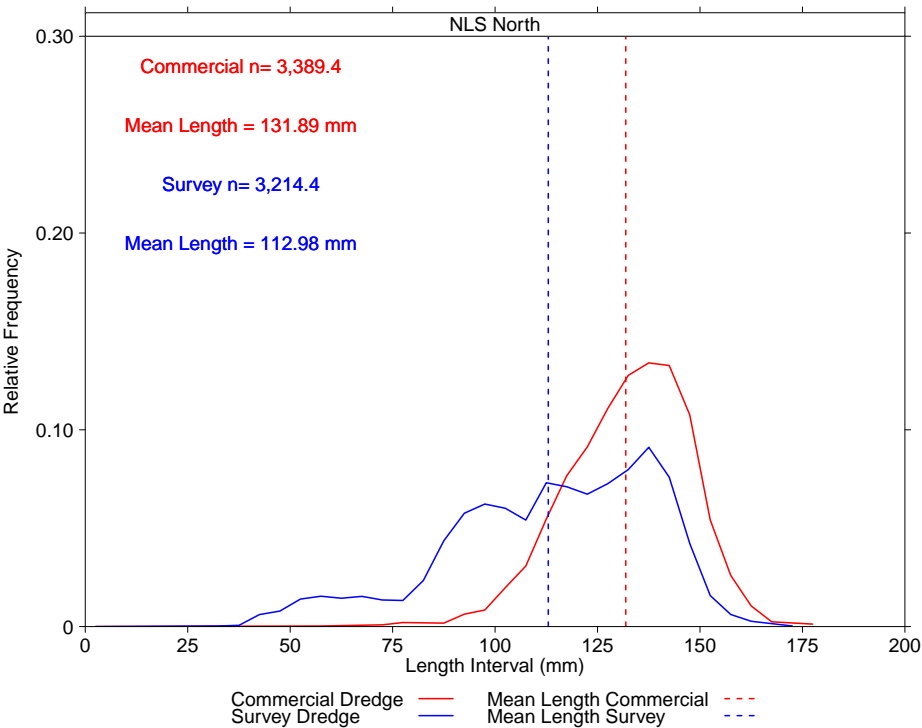
SAMS_Area	Length	Commercial	Survey
BI	47.5	0.0	1.0
BI	52.5	0.0	7.0
BI	57.5	0.0	10.0
BI	62.5	0.0	20.0
BI	67.5	0.0	13.0
BI	72.5	0.0	5.0
BI	82.5	0.0	2.0
BI	87.5	5.0	2.0
BI	92.5	4.0	8.0
BI	97.5	6.0	8.0
BI	102.5	7.0	14.0
BI	107.5	27.0	14.0
BI	112.5	81.0	38.0
BI	117.5	98.0	46.0
BI	122.5	123.0	52.0
BI	127.5	123.0	60.0
BI	132.5	93.0	60.0
BI	137.5	83.0	48.0
BI	142.5	40.0	11.0
BI	147.5	11.0	6.0
BI	152.5	4.0	0.0

Nantucket Lightship Survey

Number Caught at Length by Gear

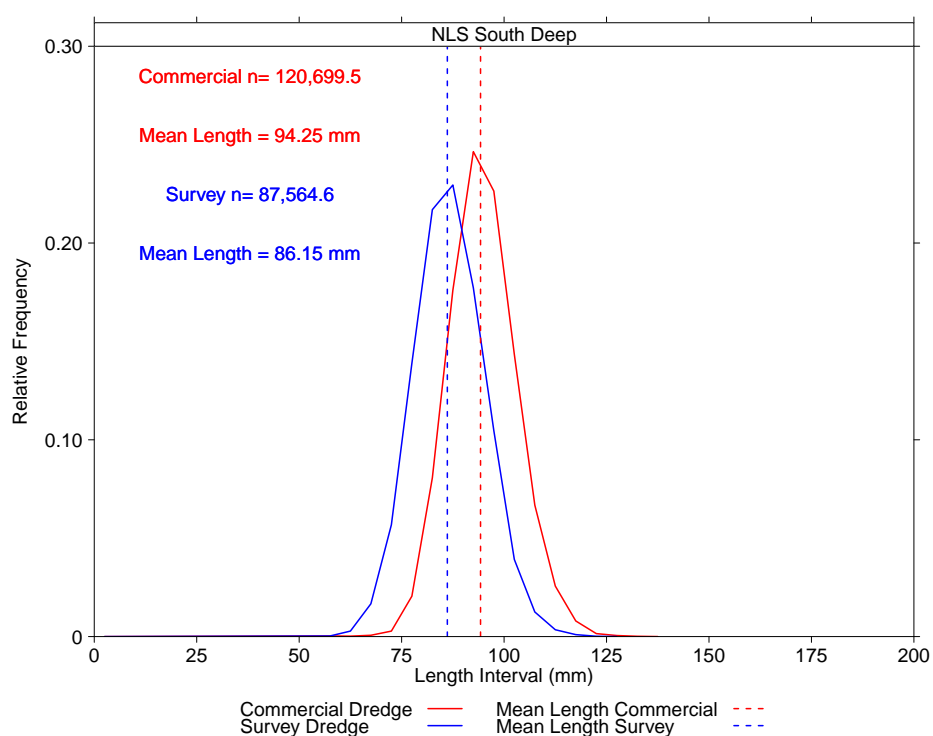
Left – Relative Length Frequency Graph

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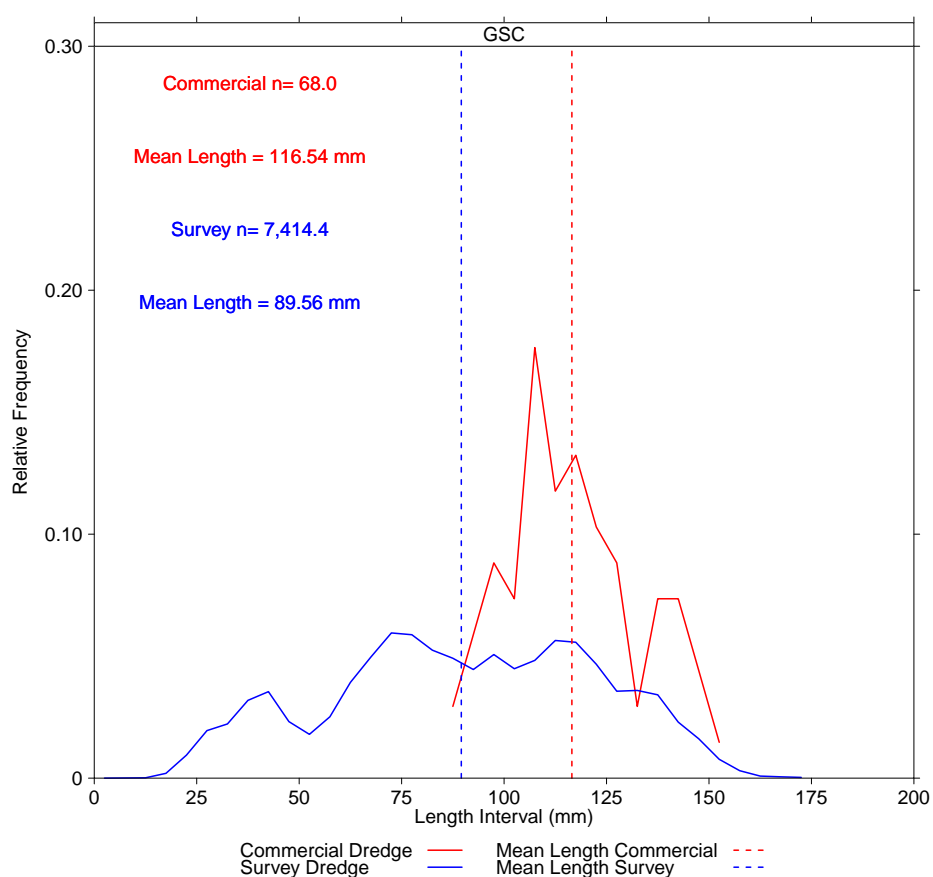
SAMS_Area	Length	Commercial	Survey
NLS_North	32.5	0.0	1.0
NLS_North	37.5	0.0	2.0
NLS_North	42.5	0.0	20.0
NLS_North	47.5	0.0	25.0
NLS_North	52.5	0.0	45.0
NLS_North	57.5	1.0	50.0
NLS_North	62.5	0.0	46.0
NLS_North	67.5	0.0	49.0
NLS_North	72.5	3.0	43.0
NLS_North	77.5	7.0	43.0
NLS_North	82.5	0.0	75.0
NLS_North	87.5	6.0	140.0
NLS_North	92.5	21.0	185.0
NLS_North	97.5	28.0	200.0
NLS_North	102.5	67.0	193.0
NLS_North	107.5	104.0	174.0
NLS_North	112.5	185.0	235.0
NLS_North	117.5	260.0	228.0
NLS_North	122.5	309.0	216.0
NLS_North	127.5	376.0	233.0
NLS_North	132.5	433.0	256.0
NLS_North	137.5	454.0	293.0
NLS_North	142.5	450.0	244.0
NLS_North	147.5	365.0	136.0
NLS_North	152.5	184.0	51.0
NLS_North	157.5	88.0	20.0
NLS_North	162.5	36.0	9.0
NLS_North	167.5	8.0	0.0
NLS_North	172.5	0.0	1.0
NLS_North	177.5	4.0	0.0

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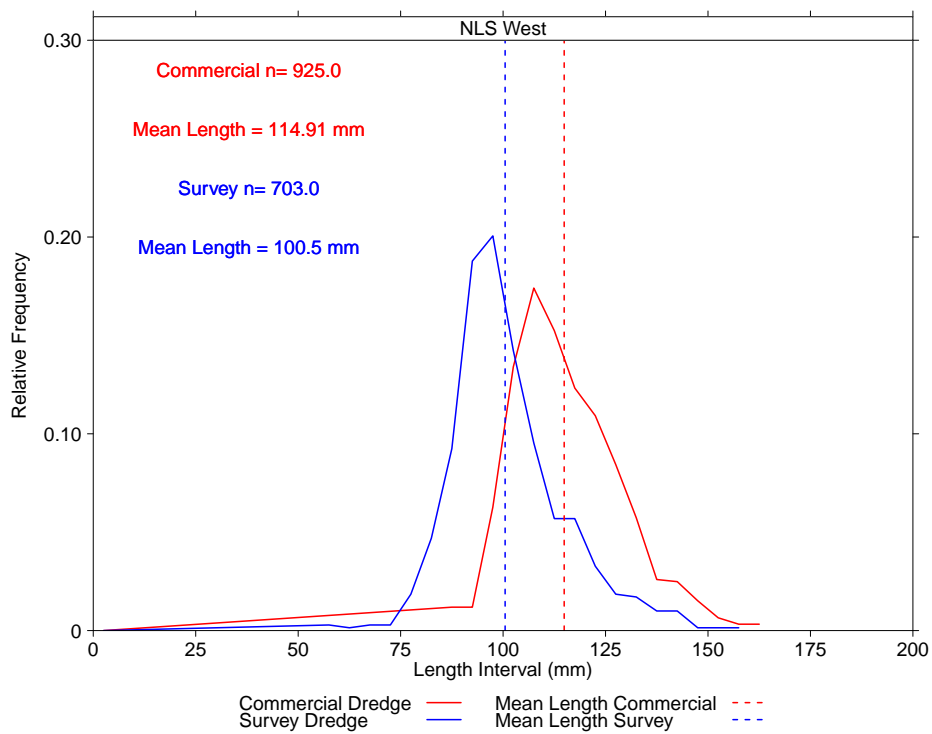
SAMS_Area	Length	Commercial	Survey
NLS_South_Deep	57.5	40.0	25.0
NLS_South_Deep	62.5	26.0	244.0
NLS_South_Deep	67.5	80.0	1,460.0
NLS_South_Deep	72.5	335.0	4,973.0
NLS_South_Deep	77.5	2,477.0	12,156.0
NLS_South_Deep	82.5	9,739.0	18,997.0
NLS_South_Deep	87.5	21,242.0	20,095.0
NLS_South_Deep	92.5	29,743.0	15,520.0
NLS_South_Deep	97.5	27,324.0	9,160.0
NLS_South_Deep	102.5	17,310.0	3,432.0
NLS_South_Deep	107.5	8,064.0	1,095.0
NLS_South_Deep	112.5	3,097.0	304.0
NLS_South_Deep	117.5	957.0	87.0
NLS_South_Deep	122.5	182.0	15.0
NLS_South_Deep	127.5	64.0	1.0
NLS_South_Deep	132.5	18.0	0.0
NLS_South_Deep	137.5	1.0	0.0

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 Left – Relative Length Frequency Graph
 Right – Absolute Number of Scallops Caught at Length Table



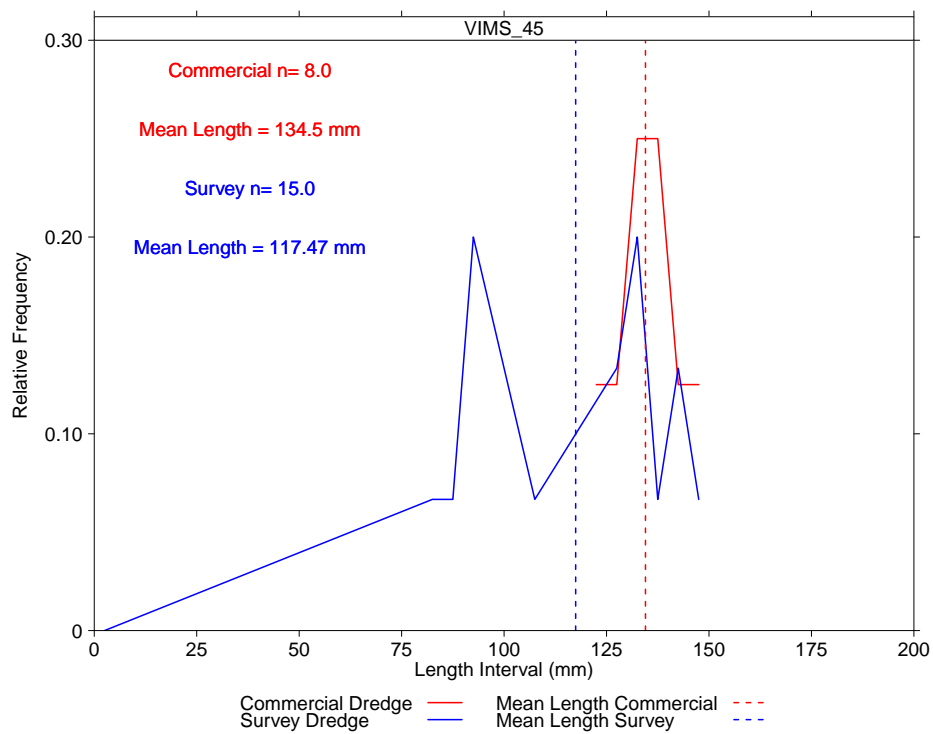
SAMS_Area	Length	Commercial	Survey
GSC	12.5	0.0	1.0
GSC	17.5	0.0	15.0
GSC	22.5	0.0	70.0
GSC	27.5	0.0	144.0
GSC	32.5	0.0	165.0
GSC	37.5	0.0	236.0
GSC	42.5	0.0	263.0
GSC	47.5	0.0	172.0
GSC	52.5	0.0	133.0
GSC	57.5	0.0	186.0
GSC	62.5	0.0	291.0
GSC	67.5	0.0	368.0
GSC	72.5	0.0	441.0
GSC	77.5	0.0	436.0
GSC	82.5	0.0	389.0
GSC	87.5	2.0	364.0
GSC	92.5	0.0	330.0
GSC	97.5	6.0	376.0
GSC	102.5	5.0	332.0
GSC	107.5	12.0	358.0
GSC	112.5	8.0	418.0
GSC	117.5	9.0	413.0
GSC	122.5	7.0	346.0
GSC	127.5	6.0	264.0
GSC	132.5	2.0	267.0
GSC	137.5	5.0	253.0
GSC	142.5	5.0	170.0
GSC	147.5	0.0	120.0
GSC	152.5	1.0	57.0
GSC	157.5	0.0	23.0
GSC	162.5	0.0	6.0
GSC	167.5	0.0	4.0
GSC	172.5	0.0	2.0

Number Caught at Length by Gear
 Left – Relative Length Frequency Graph
 Right – Absolute Number of Scallops Caught at Length Table



SAMS_Area	Length	Commercial	Survey
NLS_West	57.5	0.0	2.0
NLS_West	62.5	0.0	1.0
NLS_West	67.5	0.0	2.0
NLS_West	72.5	0.0	2.0
NLS_West	77.5	0.0	13.0
NLS_West	82.5	0.0	33.0
NLS_West	87.5	11.0	65.0
NLS_West	92.5	11.0	132.0
NLS_West	97.5	58.0	141.0
NLS_West	102.5	124.0	100.0
NLS_West	107.5	161.0	67.0
NLS_West	112.5	141.0	40.0
NLS_West	117.5	114.0	40.0
NLS_West	122.5	101.0	23.0
NLS_West	127.5	78.0	13.0
NLS_West	132.5	53.0	12.0
NLS_West	137.5	24.0	7.0
NLS_West	142.5	23.0	7.0
NLS_West	147.5	14.0	1.0
NLS_West	152.5	6.0	1.0
NLS_West	157.5	3.0	1.0
NLS_West	162.5	3.0	0.0

Number Caught at Length by Gear
 Left – Relative Length Frequency Graph
 Right – Absolute Number of Scallops Caught at Length Table



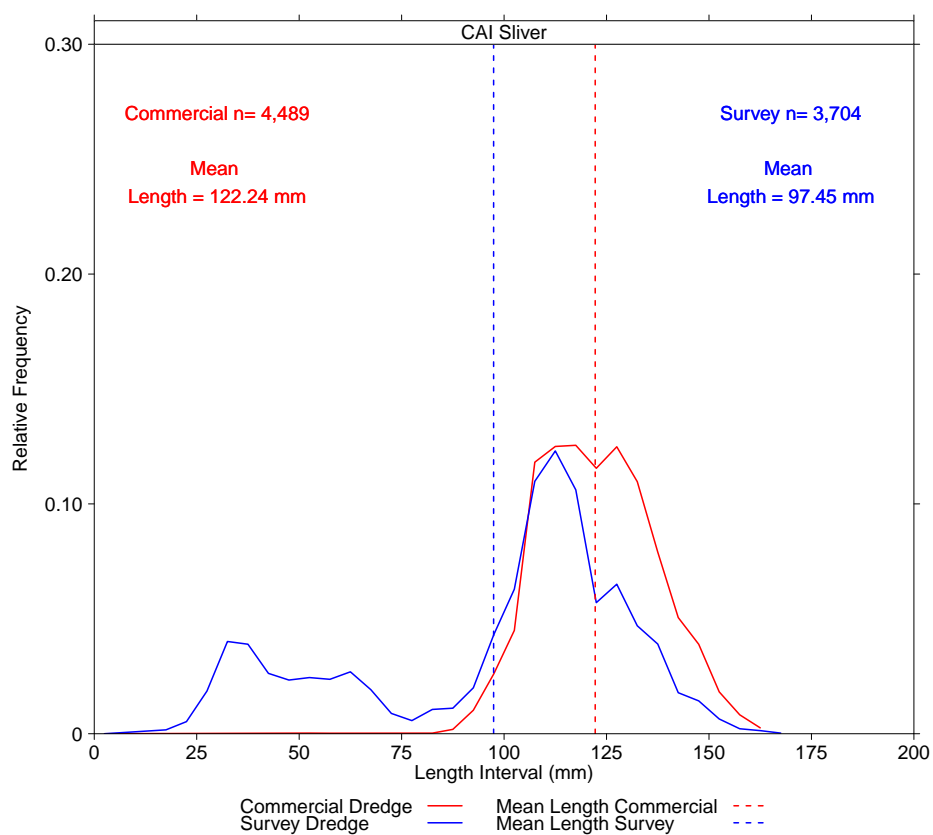
SAMS_Area	Length	Commercial	Survey
VIMS_45	82.5	0.0	1.0
VIMS_45	87.5	0.0	1.0
VIMS_45	92.5	0.0	3.0
VIMS_45	107.5	0.0	1.0
VIMS_45	122.5	1.0	0.0
VIMS_45	127.5	1.0	2.0
VIMS_45	132.5	2.0	3.0
VIMS_45	137.5	2.0	1.0
VIMS_45	142.5	1.0	2.0
VIMS_45	147.5	1.0	1.0

Closed Area I II Survey

Number Caught at Length by Gear

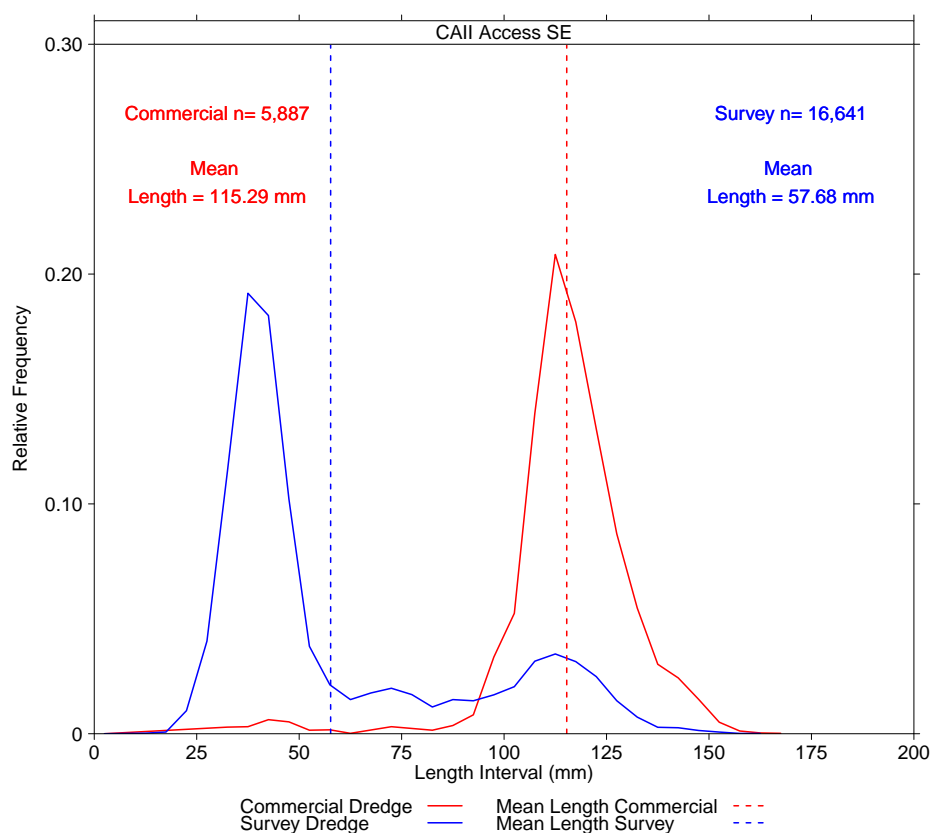
Left – Relative Length Frequency Graph

Right – Absolute Number of Scallops Caught at Length Table



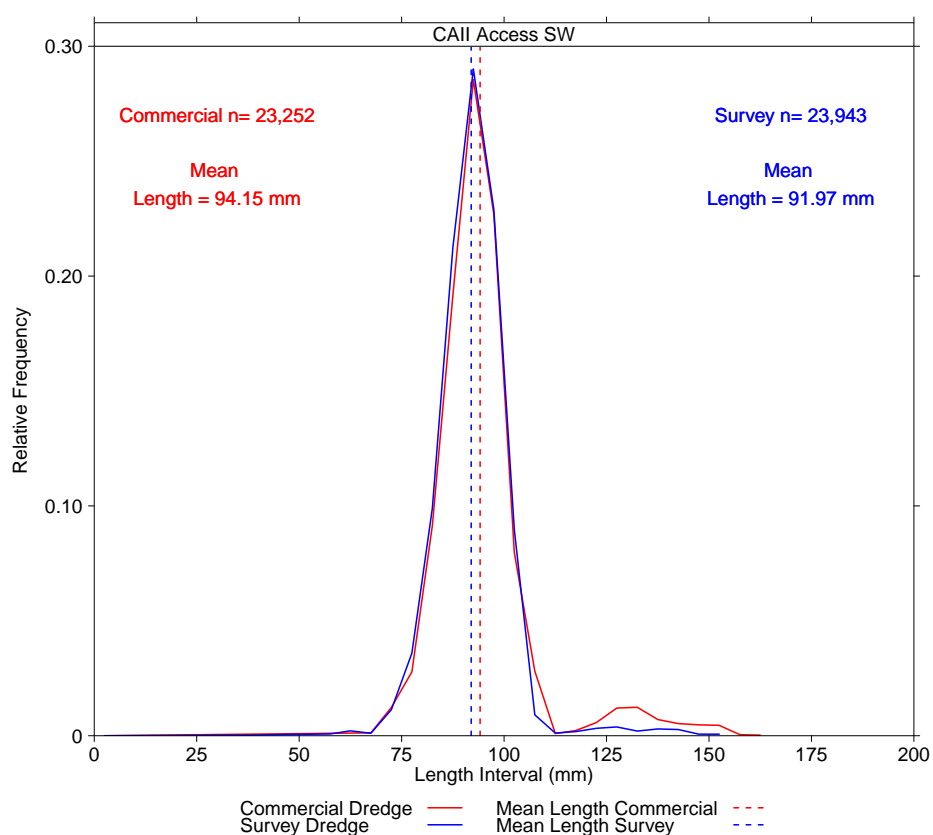
SAMS_Area	Length	Commercial	Survey
CAI_Sliver	17.5	0.0	6.0
CAI_Sliver	22.5	0.0	20.0
CAI_Sliver	27.5	0.0	69.0
CAI_Sliver	32.5	0.0	149.0
CAI_Sliver	37.5	0.0	144.0
CAI_Sliver	42.5	0.0	97.0
CAI_Sliver	47.5	0.0	86.0
CAI_Sliver	52.5	1.0	90.0
CAI_Sliver	57.5	1.0	88.0
CAI_Sliver	62.5	0.0	100.0
CAI_Sliver	67.5	0.0	71.0
CAI_Sliver	72.5	0.0	33.0
CAI_Sliver	77.5	0.0	21.0
CAI_Sliver	82.5	1.0	39.0
CAI_Sliver	87.5	8.0	41.0
CAI_Sliver	92.5	46.0	74.0
CAI_Sliver	97.5	117.0	160.0
CAI_Sliver	102.5	202.0	233.0
CAI_Sliver	107.5	530.0	407.0
CAI_Sliver	112.5	561.0	456.0
CAI_Sliver	117.5	563.0	393.0
CAI_Sliver	122.5	519.0	211.0
CAI_Sliver	127.5	560.0	241.0
CAI_Sliver	132.5	492.0	174.0
CAI_Sliver	137.5	355.0	144.0
CAI_Sliver	142.5	227.0	66.0
CAI_Sliver	147.5	175.0	53.0
CAI_Sliver	152.5	82.0	24.0
CAI_Sliver	157.5	37.0	8.0
CAI_Sliver	162.5	11.0	5.0
CAI_Sliver	167.5	0.0	1.0

Number Caught at Length by Gear
 Left – Relative Length Frequency Graph
 Right – Absolute Number of Scallops Caught at Length Table



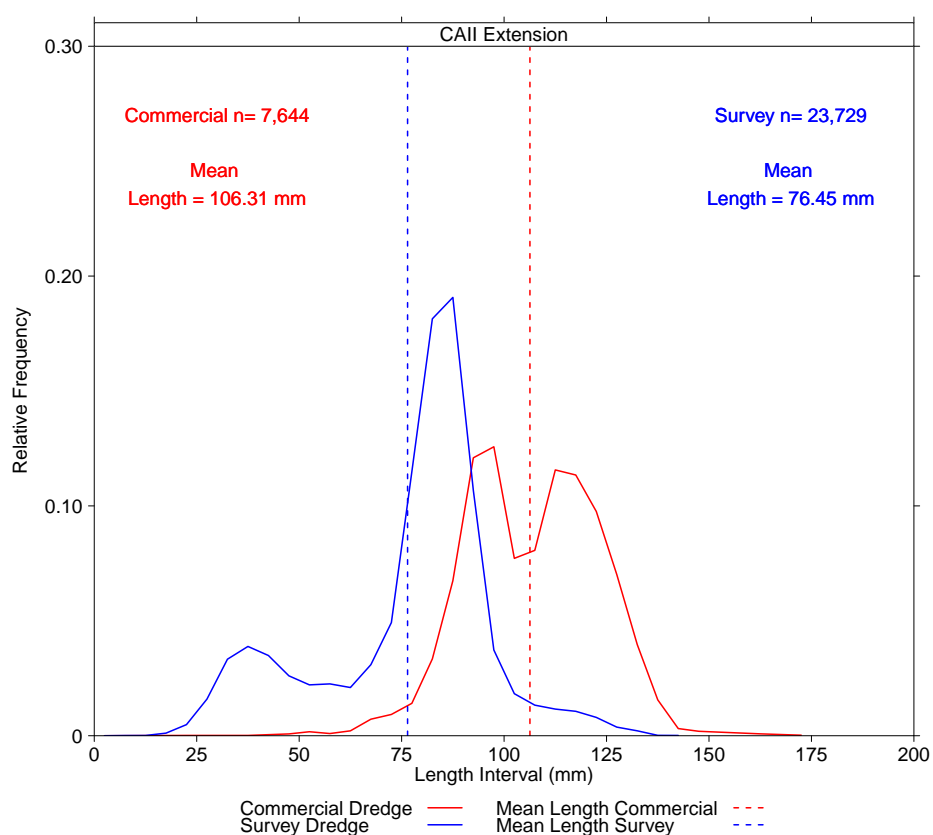
SAMS Area	Length	Commercial	Survey
CAII_Access_SE	12.5	0.0	4.0
CAII_Access_SE	17.5	0.0	12.0
CAII_Access_SE	22.5	0.0	167.0
CAII_Access_SE	27.5	0.0	671.0
CAII_Access_SE	32.5	17.0	1,901.0
CAII_Access_SE	37.5	18.0	3,189.0
CAII_Access_SE	42.5	36.0	3,028.0
CAII_Access_SE	47.5	30.0	1,699.0
CAII_Access_SE	52.5	9.0	633.0
CAII_Access_SE	57.5	10.0	354.0
CAII_Access_SE	62.5	1.0	247.0
CAII_Access_SE	67.5	0.0	295.0
CAII_Access_SE	72.5	18.0	329.0
CAII_Access_SE	77.5	0.0	283.0
CAII_Access_SE	82.5	9.0	194.0
CAII_Access_SE	87.5	21.0	247.0
CAII_Access_SE	92.5	48.0	239.0
CAII_Access_SE	97.5	196.0	282.0
CAII_Access_SE	102.5	308.0	341.0
CAII_Access_SE	107.5	820.0	525.0
CAII_Access_SE	112.5	1,228.0	578.0
CAII_Access_SE	117.5	1,055.0	522.0
CAII_Access_SE	122.5	780.0	413.0
CAII_Access_SE	127.5	512.0	239.0
CAII_Access_SE	132.5	322.0	120.0
CAII_Access_SE	137.5	178.0	47.0
CAII_Access_SE	142.5	143.0	43.0
CAII_Access_SE	147.5	88.0	23.0
CAII_Access_SE	152.5	30.0	12.0
CAII_Access_SE	157.5	7.0	2.0
CAII_Access_SE	162.5	2.0	2.0
CAII_Access_SE	167.5	1.0	0.0

Number Caught at Length by Gear
 Left – Relative Length Frequency Graph
 Right – Absolute Number of Scallops Caught at Length Table



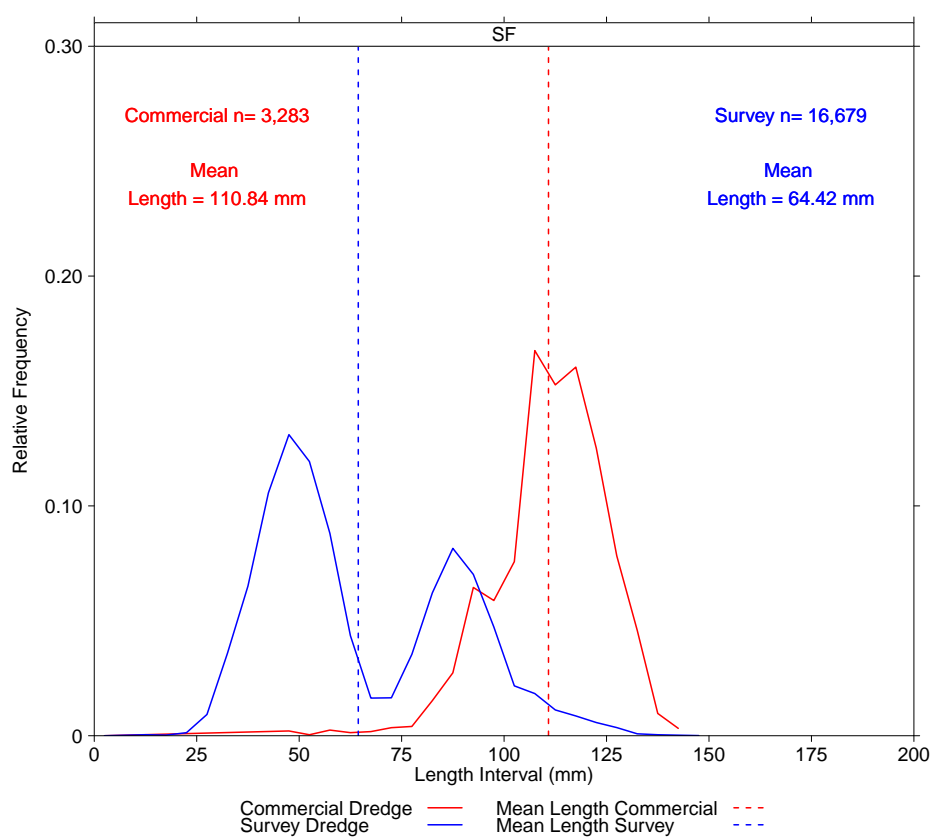
SAMS_Area	Length	Commercial	Survey
CAII_Access_SW	17.5	0.0	3.0
CAII_Access_SW	32.5	0.0	7.0
CAII_Access_SW	37.5	0.0	7.0
CAII_Access_SW	57.5	0.0	19.0
CAII_Access_SW	62.5	0.0	51.0
CAII_Access_SW	67.5	29.0	26.0
CAII_Access_SW	72.5	286.0	271.0
CAII_Access_SW	77.5	646.0	860.0
CAII_Access_SW	82.5	2,126.0	2,371.0
CAII_Access_SW	87.5	4,454.0	5,083.0
CAII_Access_SW	92.5	6,637.0	6,946.0
CAII_Access_SW	97.5	5,274.0	5,482.0
CAII_Access_SW	102.5	1,852.0	2,145.0
CAII_Access_SW	107.5	653.0	217.0
CAII_Access_SW	112.5	22.0	28.0
CAII_Access_SW	117.5	52.0	43.0
CAII_Access_SW	122.5	133.0	77.0
CAII_Access_SW	127.5	280.0	92.0
CAII_Access_SW	132.5	288.0	48.0
CAII_Access_SW	137.5	164.0	70.0
CAII_Access_SW	142.5	123.0	65.0
CAII_Access_SW	147.5	110.0	16.0
CAII_Access_SW	152.5	105.0	16.0
CAII_Access_SW	157.5	11.0	0.0
CAII_Access_SW	162.5	6.0	0.0

ENumber Caught at Length by Gear
 Left – Relative Length Frequency Graph
 Right – Absolute Number of Scallops Caught at Length Table



SAMS_Area	Length	Commercial	Survey
CAII_Ext	7.5	0.0	2.0
CAII_Ext	12.5	0.0	2.0
CAII_Ext	17.5	0.0	27.0
CAII_Ext	22.5	1.0	115.0
CAII_Ext	27.5	1.0	378.0
CAII_Ext	32.5	0.0	790.0
CAII_Ext	37.5	1.0	922.0
CAII_Ext	42.5	0.0	828.0
CAII_Ext	47.5	6.0	618.0
CAII_Ext	52.5	13.0	525.0
CAII_Ext	57.5	7.0	535.0
CAII_Ext	62.5	16.0	498.0
CAII_Ext	67.5	55.0	734.0
CAII_Ext	72.5	71.0	1,168.0
CAII_Ext	77.5	108.0	2,727.0
CAII_Ext	82.5	256.0	4,305.0
CAII_Ext	87.5	515.0	4,526.0
CAII_Ext	92.5	924.0	2,532.0
CAII_Ext	97.5	961.0	885.0
CAII_Ext	102.5	590.0	434.0
CAII_Ext	107.5	616.0	316.0
CAII_Ext	112.5	884.0	275.0
CAII_Ext	117.5	867.0	252.0
CAII_Ext	122.5	746.0	189.0
CAII_Ext	127.5	536.0	89.0
CAII_Ext	132.5	303.0	51.0
CAII_Ext	137.5	119.0	4.0
CAII_Ext	142.5	24.0	3.0
CAII_Ext	147.5	15.0	0.0
CAII_Ext	162.5	6.0	0.0
CAII_Ext	172.5	2.0	0.0

Number Caught at Length by Gear
Left – Relative Length Frequency Graph
Right – Absolute Number of Scallops Caught at Length Table



SAMS_Area	Length	Commercial	Survey
SF	12.5	0.0	7.0
SF	17.5	0.0	5.0
SF	22.5	0.0	22.0
SF	27.5	0.0	154.0
SF	32.5	0.0	598.0
SF	37.5	0.0	1,086.0
SF	42.5	0.0	1,763.0
SF	47.5	7.0	2,185.0
SF	52.5	1.0	1,990.0
SF	57.5	8.0	1,468.0
SF	62.5	4.0	726.0
SF	67.5	6.0	273.0
SF	72.5	12.0	275.0
SF	77.5	13.0	591.0
SF	82.5	50.0	1,037.0
SF	87.5	90.0	1,360.0
SF	92.5	212.0	1,171.0
SF	97.5	193.0	789.0
SF	102.5	249.0	362.0
SF	107.5	550.0	306.0
SF	112.5	501.0	187.0
SF	117.5	527.0	144.0
SF	122.5	411.0	96.0
SF	127.5	257.0	59.0
SF	132.5	150.0	14.0
SF	137.5	32.0	7.0
SF	142.5	11.0	4.0
SF	147.5	0.0	1.0

4 ADDITIONAL SENSITIVITY ANALYSES

Comparison of NLS-South-Deep biomass estimates using SARC 65 SH/MW estimates and VIMS SH/MW equation using $q=0.4$.

	SARC 65 SH/MW	VIMS SH/MW 2016-2020
NLS-North	1,713.41	1,725.24
NLS-West	277.64	254.55
NLS-South	11,715.14	12,547.05

Dredge surveys - compare biomass estimates in high density areas using a reduced dredge efficiency. Biomass estimates are shown using the SARC 65 SH/MW and VIMS 2016-2020 SH/MW parameters.

	No adjustment ($q=0.4$)		Reduced efficiency ($q=0.13$)	
	NumMill	BiomassMT	NumMill	BiomassMT
NLS-South-Deep-SARC SHMW	1,174,265,573	11,715.14	3,613,124,841	36,046.60
NLS-South-Deep-VIMS SHMW	1,174,265,573	12,547.05	3,613,124,841	38,606.31

5. SPECIAL COMMENTS

RECRUITMENT

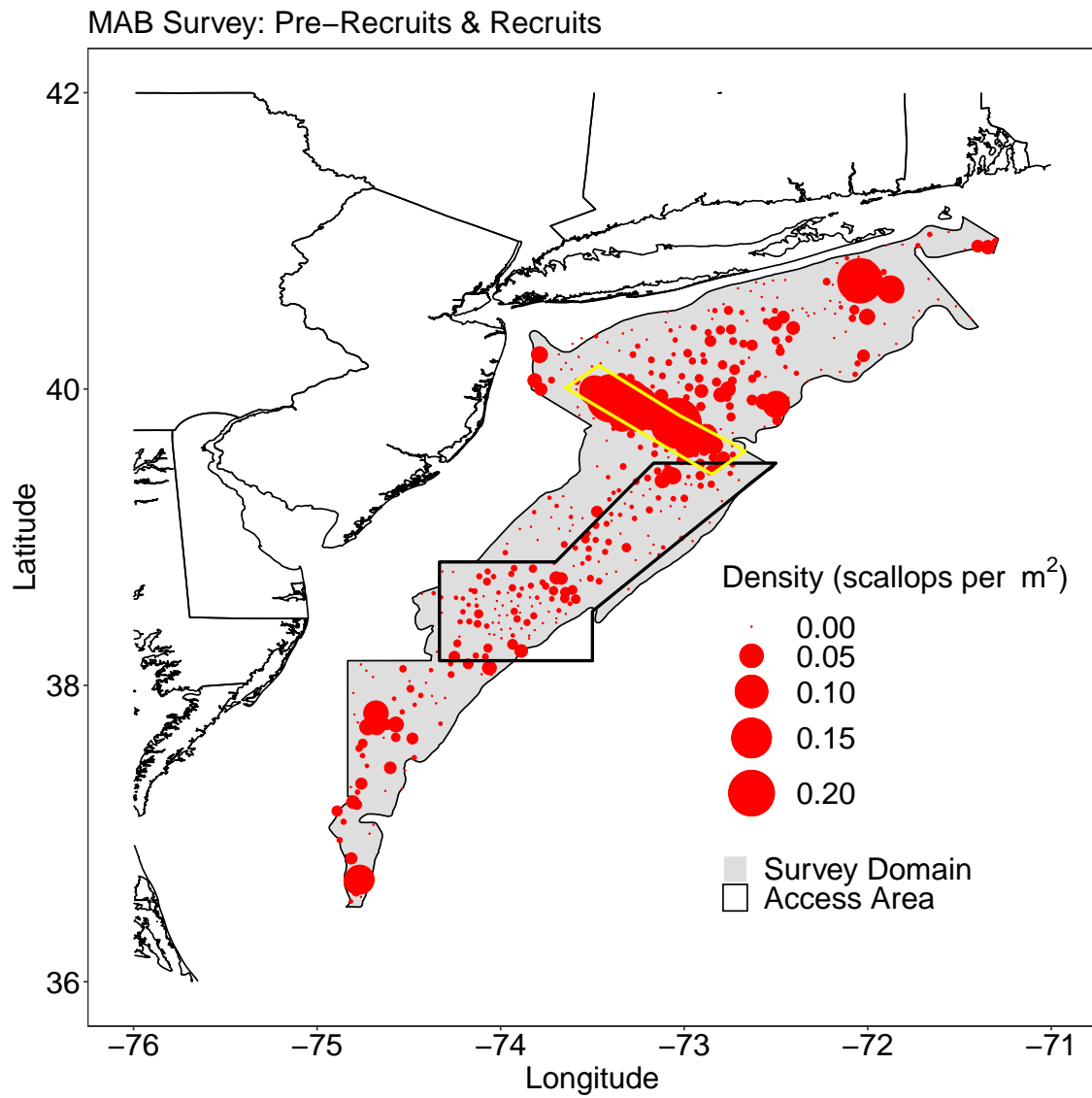
Recruitment (scallops < 35 mm) was observed in the CAII survey domain in the SF, CAII Ext, and CAII Southeast SAMS Areas. In the SF SAMS Area, recruitment was more dispersed compared to recruitment observed in the CAII Ext or CAII Southeast SAMS Areas. In these two SAMS Areas, recruitment was concentrated along the 50 fathom depth contour. The largest area of recruitment was observed in the southeast portion of the CAII Southeast SAMS Area. Scallops ranging in size from 35 - 75 mm were also observed along the 50 fathom depth contour in the CAII Ext and CAII Southeast SAMS Areas. This size range of scallops was also more dispersed in the SF SAMS Area. Very little recruitment was observed in the CAI Sliver SAMS Area in CAI.

For the NL survey, recruits (scallops < 35 mm) were observed in the northern portion of the GSC SAMS Area and scallops ranging in size from 35 - 75 mm were observed mostly in the GSC.

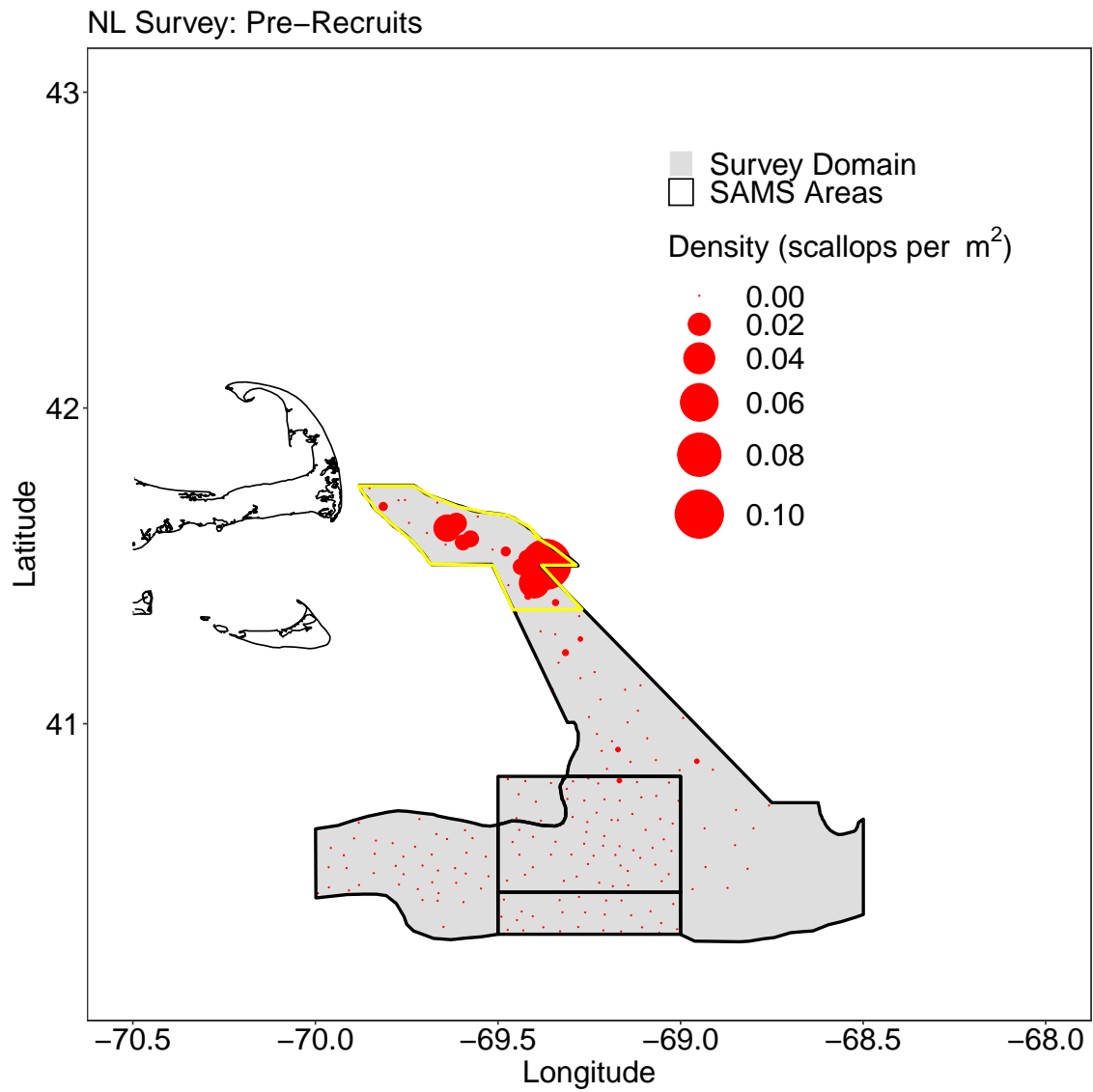
Small scale recruitment was observed throughout the open area in the Mid-Atlantic, mainly in the NYB, LI, and BI SAMS Areas. The highest concentrations of recruits were observed in the HCS SAMS Area around the Gully.

In the maps provided below, yellow polygons denote areas identified during this year's surveys where pre-recruit scallops (< 35 mm) were observed. For the Mid-Atlantic survey, the area highlighted includes scallops up to 75 mm in length.

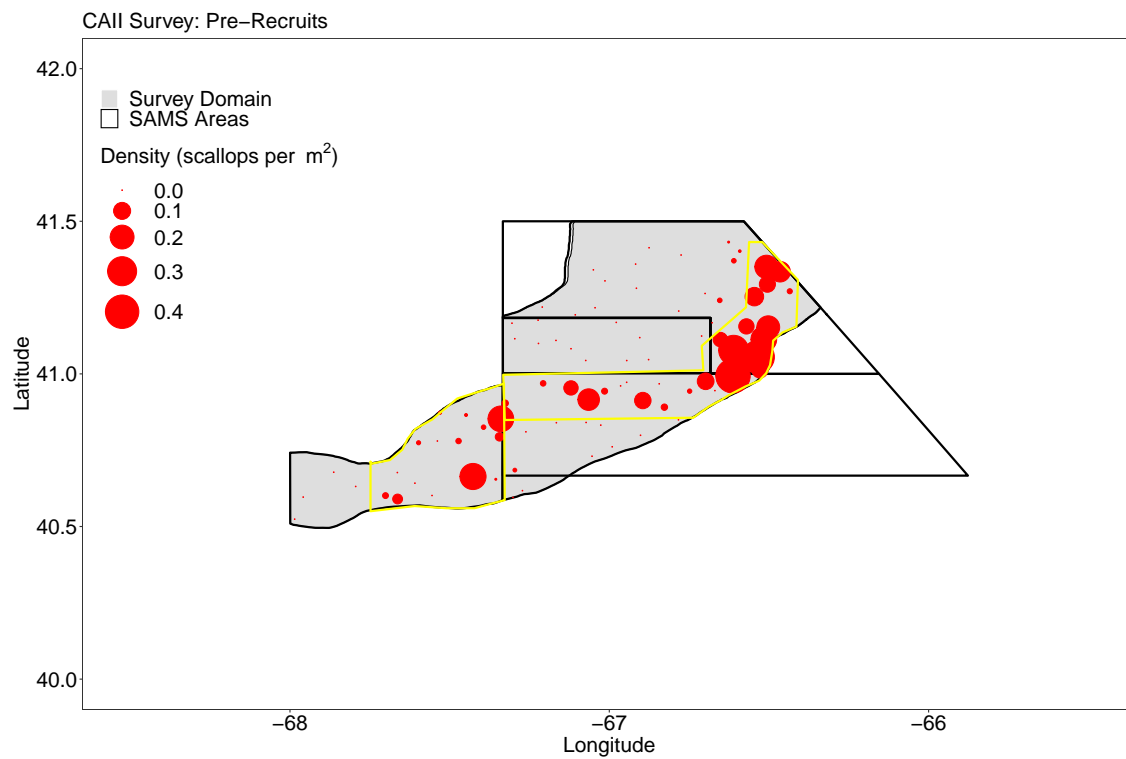
MAB Survey



Nantucket Lightship Survey



Closed Area I II Survey



MAB SURVEY NEMATODE DISTRIBUTION

The prevalence and intensity of nematodes present in scallops in the MAB has been monitored by VIMS since 2015. Prevalence is defined as the number of scallops observed to be infected with nematodes out of all scallops sampled for SHMW analysis at the station-level. Intensity is defined as the number of lesions observed in infected scallops. Figures 1 and 2 below illustrate the spatial distribution of the prevalence and intensity of nematode infected scallops observed in the VIMS surveys for 2015 - 2020. The majority of infected scallops have been observed in the southern extent of the resource (VIR, DMV, and the ET SAMS Areas). Since 2016, nematode infected scallops have also been detected in the HCS, although the distribution is patchy and prevalence is low (20 percent or less of scallops are infected). The distribution of infected scallops observed in 2020 was broader in distribution compared to 2019 for both prevalence and intensity. The ET Open and ET Flex SAMS Areas were identified as hot spots with high proportions of infected scallops, as well as the greatest number of lesions observed per scallop. The distribution of infected scallops in these two areas was patchy in terms of the number of lesions observed per scallop. A higher percentage of infected scallops were also observed in the HCS SAMS Area compared to 2018 and 2019. The number of infected scallops in the southern portion of the resource area has continued to decline since 2018. This decline may be related to a decline in biomass in the southern portion of the resource. Very few infected scallops were observed in the MAB Nearshore, NYB or the open areas off of LI and BI.

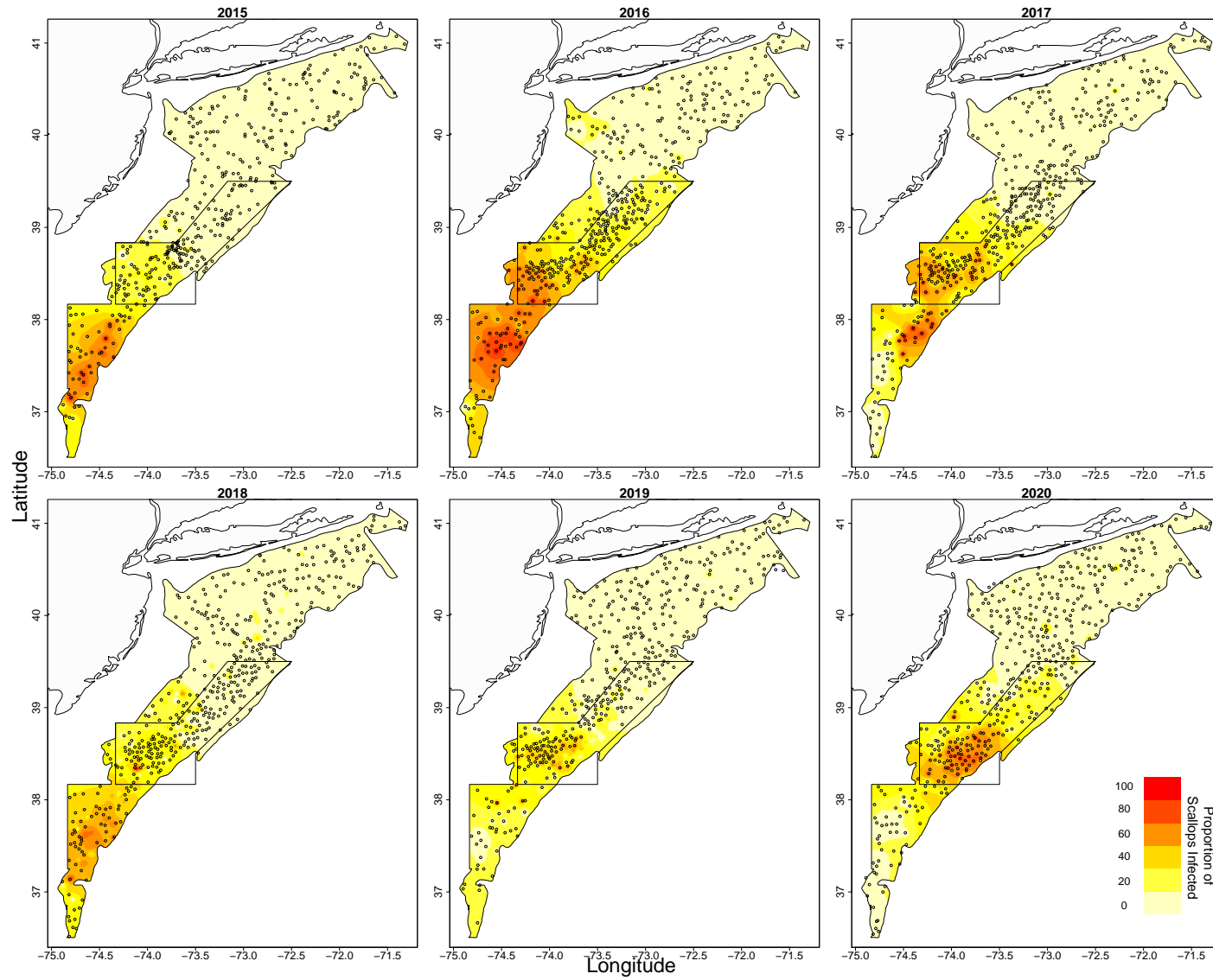


Figure 1: Proportion of nematode infected scallops as a percentage of all scallops assessed during SHMW analysis at the station-level by year for 2015 - 2020 from the VIMS dredge survey.

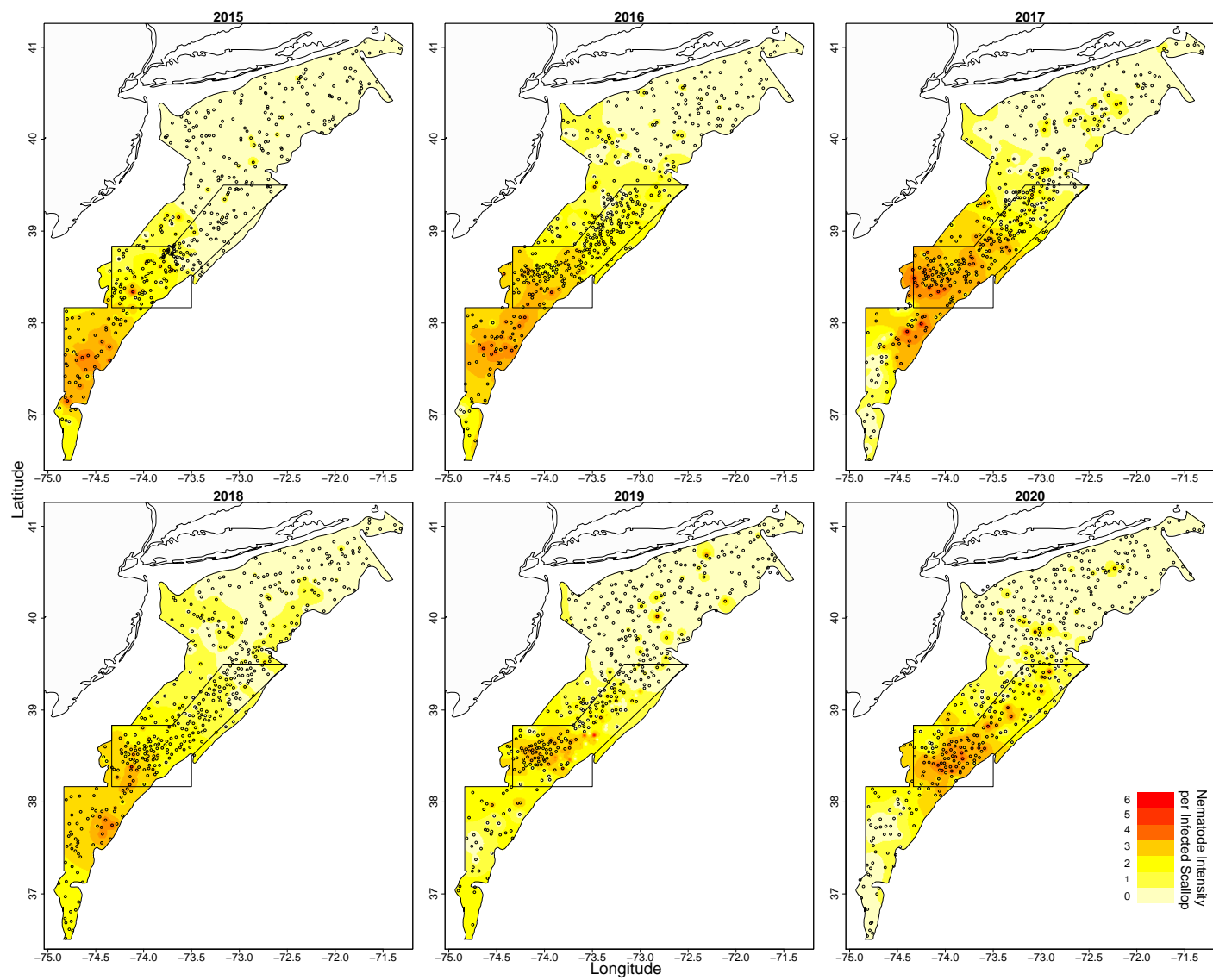
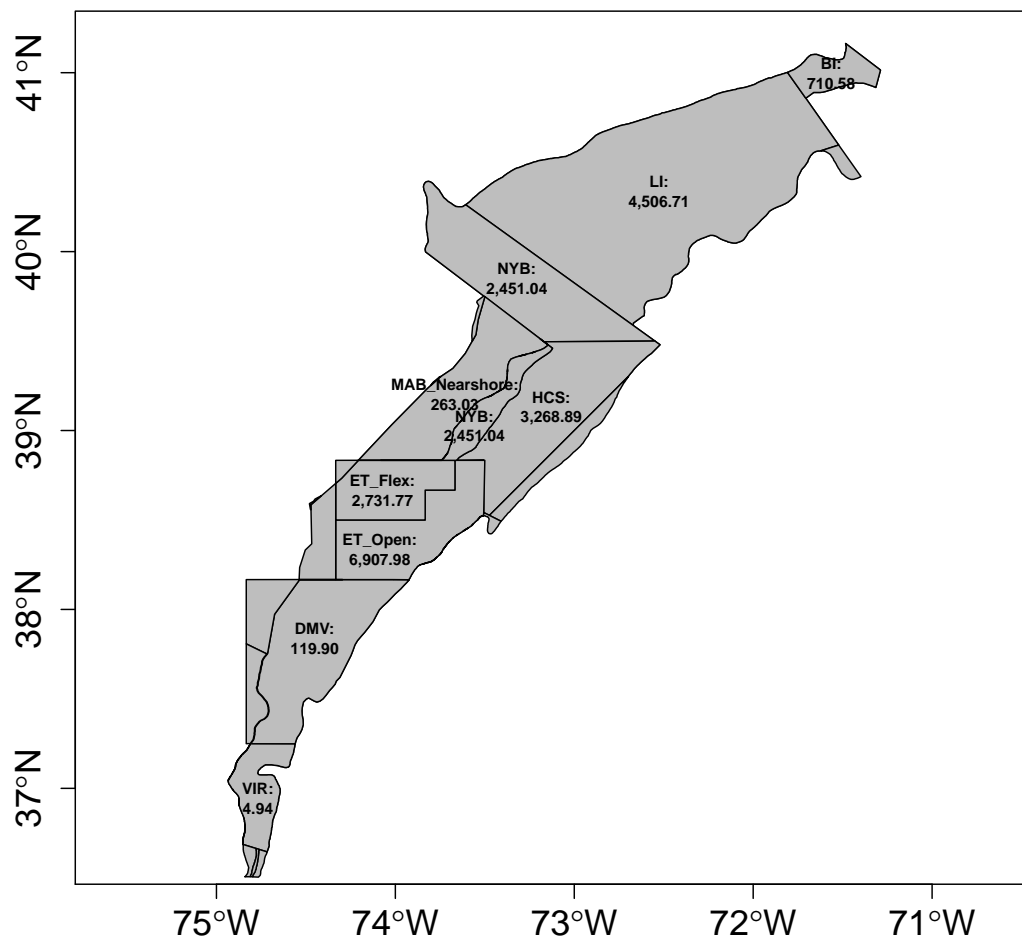


Figure 2: Intensity of nematode lesions observed in infected scallops assessed during SHMW analysis at the station-level by year for 2015 - 2020 from the VIMS dredge survey.

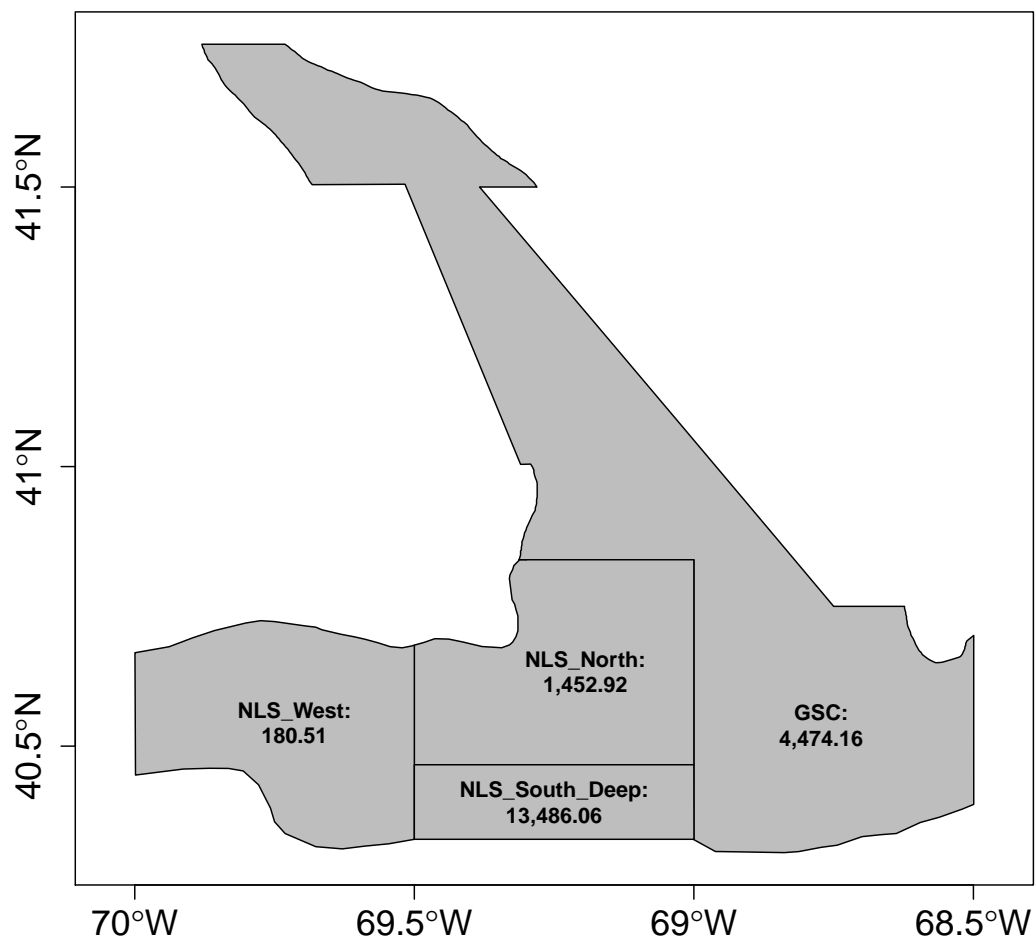
6. EXPLOITABLE BIOMASS ESTIMATES FOR 2020 (CURRENT FY)

GB	Survey Dredge			
	NumMil	Exploitable BmsMT	SE	MeanWt
CL1-Sliver	25,572,713.36	771.53	124.31	30.06
CAIL- Access_SE	87,949,981.20	2,023.67	239.78	22.26
CL2- Southwest	304,456,907.01	6,457.26	1,335.72	21.02
CL2-Ext	195,225,368.72	3,284.64	357.53	16.93
NLS-North	31,788,409	1,452.92	186.06	45.44
NLS-South- Deep	1,198,497,854	13,486.06	2,913.35	11.31
NLS-West	6,436,164	180.51	28.10	28.04
GSC	123,007,928	4,474.16	519.91	36.39
SF	125,645,975.57	1,762.33	217.18	14.03
MidAtlantic				
BI	19,630,844.76	710.58	108.53	35.98
LI	157,273,548.04	4,506.71	219.61	28.44
NYB	103,794,798.02	2,451.04	118.85	23.71
MAB- Nearshore	7,427,940.85	263.03	40.48	35.4
HCS	124,751,173.18	3,268.89	185.61	26.02
ET-Open	223,223,434.07	6,907.98	337.21	30.9
ET-Flex	90,048,252.84	2,731.77	244.25	29.91
DMV	7,787,589.56	119.90	21.03	15.43
VIR	937,183.24	4.94	0.60	5.77

MAB Survey Exploitable Biomass Estimates by SAMS Area from Survey Dredge



Nantucket Lightship Survey Exploitable Biomass Estimates by SAMS Area from
Survey Dredge



Closed Area I II Survey Exploitable Biomass Estimates by SAMS Area from
Survey Dredge

