

RESOURCE SURVEY REPORT
Catch Summary
NOAA Fisheries Service
Northeast Fisheries Science Center
Sea Scallop Survey
Cape Hatteras -Georges Bank
May 11 – July 1, 2010

Submitted to: NOAA, NEFSC

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Date: 2010

Resource Survey Report

Sea Scallop Survey

Cape Hatteras – Georges Bank

11 May – 1 July 2010

UNOLS R/V *Hugh R Sharp*

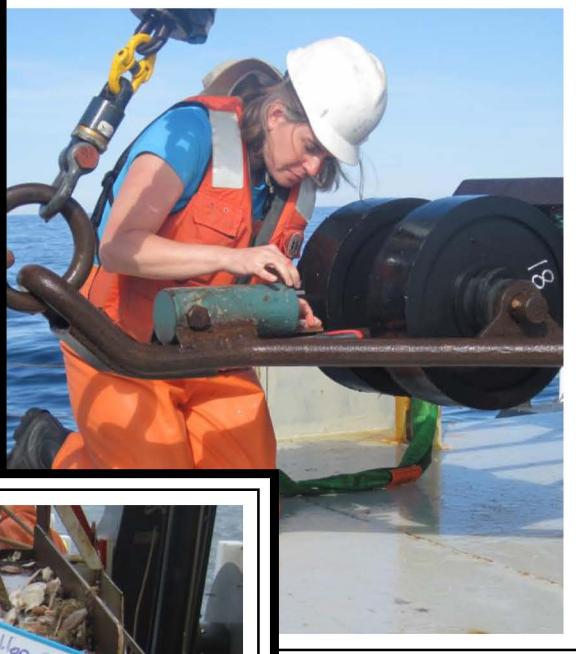


NOAA Fisheries Service
Northeast Fisheries Science Center
Woods Hole, MA 02543

R/V *Hugh R Sharp*



Teacher-at-Sea Julianne Meuller-Northcott down-loading inclinometer data.



Large catch of small scallops on north-eastern Georges Bank within Canadian waters .



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The following field notes, charts, and station data indicate the distribution of sea scallops during the 2010 sea scallop survey conducted aboard the UNOLS R/V *Hugh R. Sharp*. Fifteen-minute tows were made at a speed of 3.8 knots using a modified 8-foot New Bedford type scallop dredge. The dredge was equipped with a 5/8 inch case hardened sweep chain 69 links long, and a 2-inch ring chain bag lined with 1-1/2 inch mesh webbing to retain small scallops. The dredge frame was outfitted with a set of roller wheels on the neck. In six key rocky strata on Georges Bank, a set of rock chains was added to the dredge. For statistical purposes, stations were randomly selected and therefore were not always on or near scallop concentrations.

In this report, scallop catch is reported in numbers and by-catch is recorded in liters, depth in fathoms and bottom temperature in degrees Fahrenheit. Bottom temperature is included at selected stations because it is an environmental factor which influences sea scallop growth rates and spawning time. Catches are reported in three categories of shell height: less than or equal to 90mm (greater than 40 count), greater than 90mm (less than 40 count), and greater than or equal to 100mm (less than 30 count). The percent composition of by-catch is also given.

The data are summarized from audited catch files generated from the Fisheries Scientific Computer System (FSCS).

For further information contact Russell Brown (508-495-2380), NOAA Fisheries Service, Northeast Fisheries Science Center, 166 Water Street, Woods Hole, MA 02543. To view this report, go to the Ecosystems Surveys Branch website at: <http://www.nefsc.noaa.gov/esb> and choose:

- Resource Survey Reports
 - Available RSR
 - Select cruise type, season and year of interest

Field Notes

In an effort to share some of the natural history observations made during the sea scallop survey and describe collaborative activities with our scientific partners, we have requested that the Chief Scientists on each part of the cruise comment on some of the more interesting catches and activities aboard the UNOLS R/V *Hugh R Sharp*.

Low catches in mid-Atlantic Closed Areas

One of the more significant observations was the fact that almost all of the stations within the Elephant Trunk and Delmarva Closed Areas (CA) had very low catches. Recently, these areas have had been open to fishing and it was obvious that scallop densities had been reduced in these areas.

Catches in Open vs Closed Hudson Canyon Closed Area

There were some large scallop catches (10 baskets) in the shallow waters on the western side of the closed Hudson Canyon CA. As initially reported by stakeholders, large catches in the shallow waters west of the open Hudson Canyon CA were not observed.

Something New

Eight camera tows with the new Star-Oddi inclinometers were conducted in order to gain a better understanding of actual dredge deployment vs bottom time. Additionally, a ball bearing swivel was installed in anticipation that this would cut down on the wire twisting and number of dredge flips (only had one dredge flip during leg I).

Hague Line Catches

The difference in this year's scallop catches east and west of the Hague line on the northern edge of Georges Bank was readily apparent as we worked our way through the region. East of the Hague line, scallops on the northern edge of George's Bank were notably smaller, averaging 3.4 inches. Scallops in the northern portion of Closed Area II (CAII) on the US side of the line averaged 4.2 inches. Additionally clappers (deceased scallops with their hinges in tact) were more plentiful east of the Hague line, where clappers made up an average of 16.5% of the catch compared to 5.9% in the northern portion of CAII. Average clapper lengths followed the similar trends as live scallops in their respective areas. East of the Hague line, clappers averaged 3.2 inches and west of the line in northern CAII they averaged 4.2 inches. Scallops of all sizes on both sides of the line had significant barnacle growth on their shells, which one would expect could hinder their mobility.

Large Haul

35,019 scallops which weighed 2,632 pounds were brought aboard on station 456 in the southern part of the South Channel. This haul ranks third all-time (by numbers) in terms of the largest haul during a Northeast Fisheries Science Center Sea Scallop Survey. Interestingly, the first & second largest hauls (by numbers) happened on back-to-back stations during the 2003 Sea Scallop survey in the Elephant Trunk Closed Area. Their numbers totaled 43,212 and 35,424 respectively. The average scallop length for station

456 was 3.1 inches, while the average sizes for the first and second largest tow were 1.7 and 2.4 inches.

Additional Work

During leg 3 of the Sea Scallop survey, several secondary experiments were completed:

1. Time Trial Tows

The objective of this experiment was to evaluate whether large catches early in a tow reduced catch rates later in the tow (saturation effect). When an initial standard 15 minute tow yielded a significant amount of scallops, a time trial experiment would be conducted. Subsequently, a 10 minute, 5 minute and occasionally a 1 minute tow over a similar track line would be conducted to see if the numbers were comparable or decreased at the different tow durations.

2. Camera Work

Nine camera tows were deployed during the third leg. The camera work involved mounting a camera system to the frame above the chain bag and was positioned to look back towards the opening of the bag and cutting bar. The video serves several purposes, but it is used mostly to verify the total bottom contact time of the dredge.

3. Variance Work

Experimental variance tows were also performed. These were done by repeating a tow using the same track line and tow duration. The tows were used to quantify size-frequency variances within a station. The hypothesis was that the size-frequency should be fairly stable but that the counts would be more variable.

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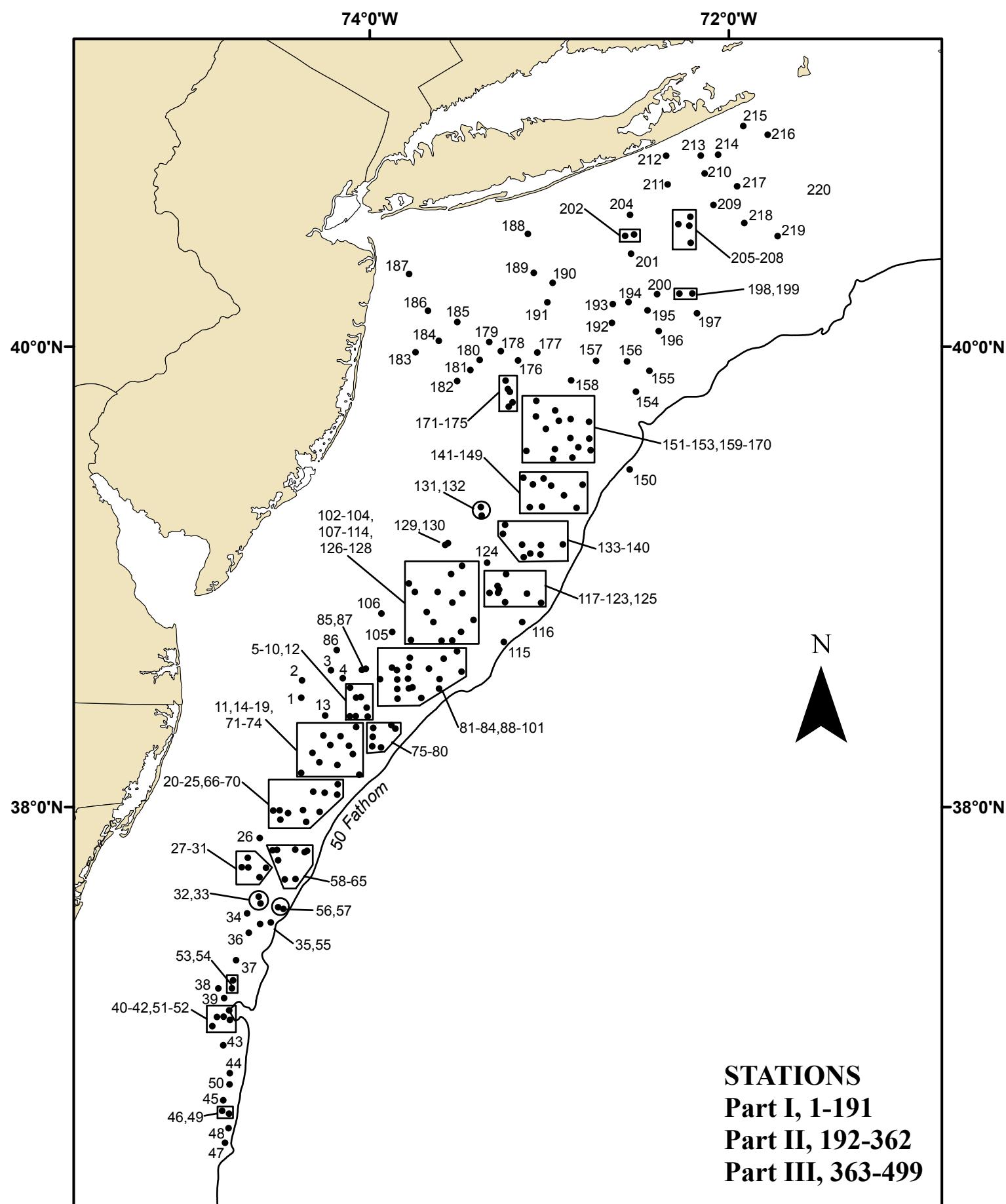


Figure 1. Dredge tows made from UNOLS R/V *Hugh R Sharp* (10-1), during NOAA Fisheries Service, Northeast Fisheries Science Center sea scallop survey, May 11 - July 1, 2010.

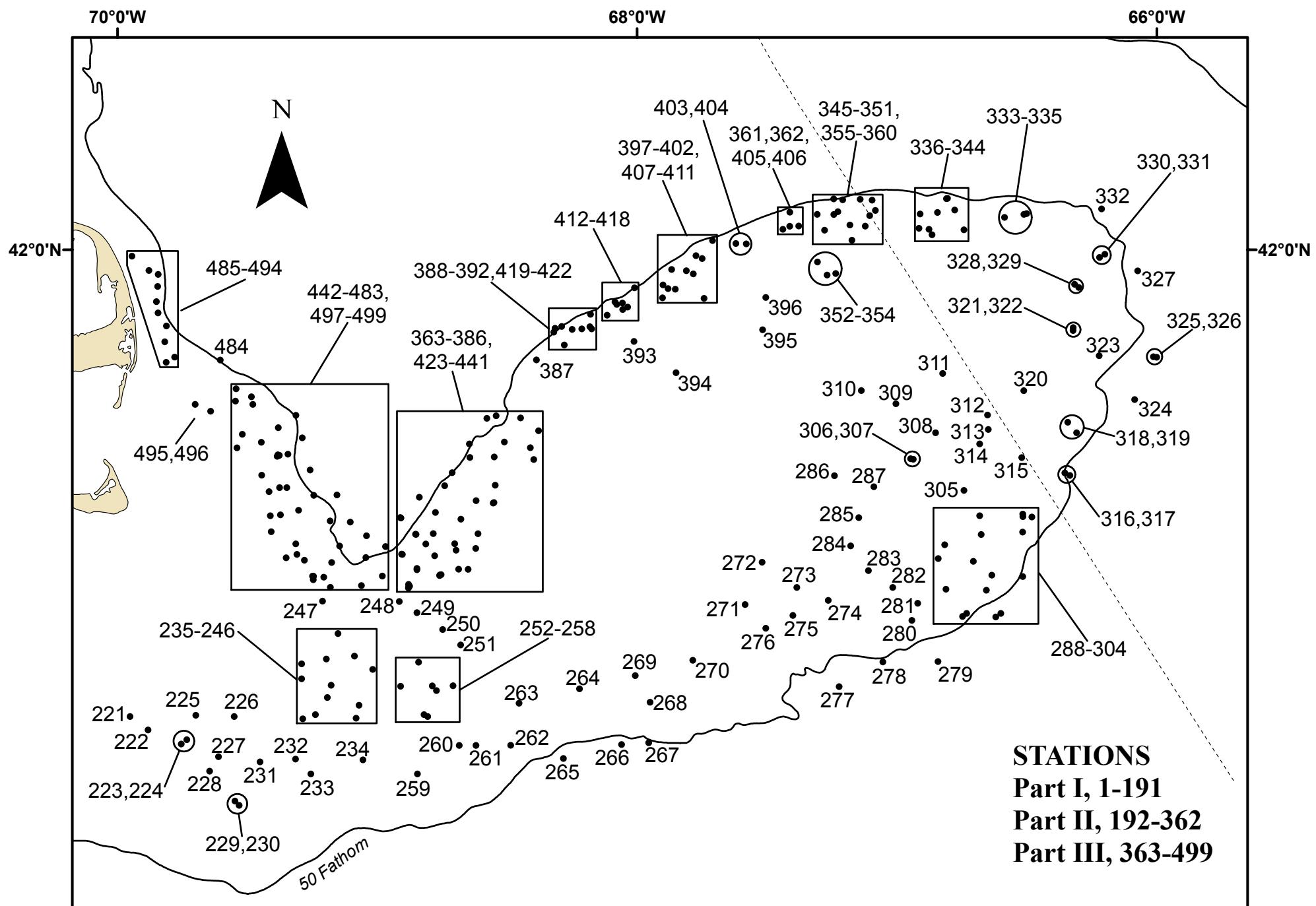


Figure 1. Dredge tows made from UNOLS R/V *Hugh R Sharp* (10-1), during NOAA Fisheries Service, Northeast Fisheries Science Center sea scallop survey, May 11 - July 1, 2010.

R/V HUGH R. SHARP 2010 SEA SCALLOP SURVEY
May 11 - July 1

Station	Station Data						Bottom (F)	Number of Scallops					By-Catch						
	Position		Loran TD's		Heading	Depth (FM)		Total No.	<90mm		>90mm		>100mm		Shell (Percentage)	Stone	Inverts	Total Vol.(lt)	
	Lat.	Long.							>40ct	<40ct	<30ct								
0001	3828.7	7422.8	X26878.7	Y42454.8	110	25.7		10	3	7	7				45	15	40	126	
0002	3833.3	7422.5	X26884.7	Y42504.8	321	24.1		25	11	14	9				65	5	30	69	
0003	3835.9	7412.8	X26833.8	Y42539.9	341	26.2	42.8	78	30	48	41				35	5	60	345	
0004	3833.9	7408.9	X26808.4	Y42521.3	142	30.1		40	17	23	19				50	5	45	230	
0005	3831.4	7406.5	X26791.0	Y42496.6	165	30.6		90	34	56	46				65	5	30	184	
0006	3828.7	7404.4	X26775.3	Y42469.6	157	32.3	44.1	45	8	37	32				15	5	80	184	
0007	3828.9	7402.8	X26766.5	Y42473.0	165	30.6		169	110	59	55				30	5	65	184	
0008	3826.1	7400.9	X26752.0	Y42445.1	166	30.6		221	143	78	69				20	5	75	104	
0009	3823.7	7400.6	X26747.1	Y42420.1	185	32.8	44.5	109	13	96	89				20	5	75	299	
0010	3823.9	7404.6	X26769.8	Y42418.8	206	32.3		233	146	87	77				10	10	80	207	
0011	3821.0	7404.4	X26764.8	Y42388.5	4	35.0		75	15	60	54				5	5	90	368	
0012	3823.8	7406.5	X26780.3	Y42416.2	225	33.4	44.5	110	50	60	55				5	5	90	230	
0013	3824.0	7414.8	X26826.7	Y42411.1	200	27.3		85	28	57	45				5	2	93	345	
0014	3818.8	7415.4	X26822.3	Y42355.0	158	32.8		843	335	508	171				20	5	75	230	
0015	3818.6	7409.6	X26790.3	Y42358.3	173	33.4	44.6	472	377	95	75				20	5	75	230	
0016	3816.3	7413.1	X26806.2	Y42330.6	177	30.1		440	295	145	125				75	15	10	161	
0017	3814.2	7419.0	X26835.2	Y42302.3	164	27.3		52	20	32	31				55	10	35	161	
0018	3811.7	7416.7	X26819.2	Y42278.0	176	25.7	44.1	81	36	45	29				70	5	25	115	
0019	3808.9	7422.8	X26847.7	Y42241.5	204	25.2		27	4	23	23				40	5	55	184	
0020	3804.0	7418.8	X26819.6	Y42193.5	195	29.0		265	9	256	227				30	5	65	253	
0021	3759.1	7422.2	X26830.6	Y42137.2	208	31.7		74	37	37	34				20	5	75	506	
0022	3758.3	7427.2	X26855.3	Y42122.5	7	29.5		403	28	375	307				20	5	75	265	
0023	3759.1	7430.0	X26870.9	Y42127.7	193	27.9		151	9	142	129				35	5	60	173	
0024	3759.0	7432.1	X26881.5	Y42124.0	215	24.6	44.4	104	14	90	83				15	5	80	322	
0025	3756.6	7429.7	X26865.6	Y42101.1	197	29.5		105	27	78	74				30	10	60	253	
0026	3751.7	7436.6	X26893.4	Y42039.2	198	27.9		5	0	5	5				55	15	30	161	
0027	3746.5	7440.6	X26905.6	Y41977.3	203	27.9	44.5	8	2	6	6				20	50	30	161	
0028	3744.0	7442.6	X26911.7	Y41947.3	213	26.8		2	0	2	2				30	55	15	138	
0029	3743.9	7440.4	X26900.7	Y41949.4	201	29.0		51	11	40	39				25	10	65	92	
0030	3743.8	7434.5	X26871.5	Y41956.8	232	30.1	44.6	216	9	207	170				50	25	25	69	
0031	3741.3	7436.7	X26878.8	Y41926.7	207	31.2		75	3	72	63				75	10	15	46	
0032	3736.2	7437.0	X26873.1	Y41871.3	205	32.3		2483	221	2262	1650				75	5	20	150	
0033	3734.3	7436.4	X26867.6	Y41851.9	226	36.6	45.7	12	1	11	10				3	2	95	265	
0034	3731.7	7440.8	X26885.2	Y41817.0	181	30.1		361	28	333	283				45	10	45	92	
0035	3728.9	7436.5	X26860.9	Y41793.9	202	37.2		1155	303	852	552				75	5	20	115	
0036	3726.6	7440.3	X26875.9	Y41763.0	166	31.7	45.9	794	142	652	560				70	5	25	115	
0037	3719.2	7444.5	X26885.6	Y41676.5	180	30.1		831	368	463	375				70	5	25	127	
0038	3711.7	7450.5	X26903.1	Y41585.1	211	30.1		9	9	0	0				5	50	45	115	
0039	3709.1	7448.5	X26890.6	Y41561.0	234	33.4	45.5	0	0	0	0				5	0	95	207	
0040	3704.2	7448.7	X26885.2	Y41508.4	181	33.9		0	0	0	0				5	50	45	276	

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Station	Station Data						Number of Scallops					By-Catch				
	Position		Loran		Bottom Depth (FM)	Temp (F)	Total No.	<90mm			>100mm		Shell (Percentage)	Stone	Inverts	Total Vol.(lt)
	Lat.	Long.	TD's	Heading				>40ct	<40ct	<30ct	>90mm					
0041	3704.1	7450.9	X26894.9	Y41503.0	157	33.4	0	0	0	0	10	50	40	184		
0042	3701.6	7452.5	X26898.8	Y41473.1	207	29.0	44.6	0	0	0	0	10	50	40	184	
0043	3656.5	7448.8	X26876.0	Y41426.7	173	31.7	33	33	0	0	30	15	55	92		
0044	3649.0	7446.6	X26857.4	Y41352.7	195	38.3	5	5	0	0	15	30	55	92		
0045	3641.7	7448.8	X26858.5	Y41271.8	192	31.2	45.3	3	3	0	0	25	15	60	46	
0046	3638.9	7449.2	X26857.0	Y41241.9	145	27.3	0	0	0	0	65	10	25	46		
0047	3630.3	7448.2	X26843.4	Y41155.9	23	41.6	0	0	0	0	25	10	65	265		
0048	3634.2	7447.0	X26842.6	Y41198.8	18	43.7	47.3	0	0	0	0	20	10	70	219	
0049	3638.1	7446.9	X26846.4	Y41239.1	356	35.5	0	0	0	0	20	5	75	92		
0050	3646.0	7446.7	X26854.4	Y41321.3	343	37.7	1	1	0	0	10	5	85	138		
0051	3703.3	7446.6	X26874.7	Y41503.1	348	41.0	47.3	9	9	0	0	25	50	25	115	
0052	3705.8	7446.9	X26879.1	Y41529.0	16	39.4	0	0	0	0	10	10	80	230		
0053'	3711.8	7445.9	X26882.3	Y41594.8	335	36.1	0	0	0	0	0	0	0	0		
0054'	3713.9	7445.5	X26883.2	Y41617.9	2	31.7	0	0	0	0	0	0	0	0		
0055	3729.3	7432.9	X26844.2	Y41804.1	5	34.4	718	0	718	692	5	5	90	92		
0056	3733.3	7430.5	X26837.8	Y41850.5	4	36.6	45.6	726	5	721	675	5	5	90	138	
0057	3732.9	7428.7	X26828.5	Y41849.1	2	39.9	619	10	609	560	15	5	80	104		
0058	3740.8	7424.7	X26819.0	Y41939.0	21	38.3	88	1	87	85	10	5	85	115		
0059	3740.8	7428.3	X26836.8	Y41933.7	344	38.3	45.5	695	85	610	396	45	5	50	104	
0060	3745.8	7430.5	X26854.4	Y41984.0	330	31.7		682	16	666	567	45	5	50	150	
0061	3748.5	7432.4	X26867.7	Y42010.3	304	32.8		117	3	114	111	30	10	60	150	
0062	3748.6	7430.9	X26860.3	Y42013.4	37	31.2	44.5	50	4	46	43	45	15	40	276	
0063	3748.7	7424.8	X26829.7	Y42022.9	54	34.4		1170	46	1124	814	50	10	40	138	
0064	3748.0	7421.6	X26812.7	Y42019.8	12	37.2		819	63	756	623	25	10	65	138	
0065	3748.3	7420.8	X26809.0	Y42024.1	18	37.7		1197	72	1125	1038	25	10	65	127	
0066	3756.0	7421.1	X26820.7	Y42105.5	48	34.4	44.7	37	1	36	36	30	5	65	242	
0067	3758.7	7416.6	X26801.0	Y42139.8	358	37.7		33	2	31	26	20	5	75	196	
0068	3803.7	7414.9	X26798.6	Y42194.8	8	31.7		312	137	175	160	30	5	65	115	
0069	3803.2	7410.7	X26775.8	Y42194.4	3	40.5	46.0	169	7	162	159	15	5	80	196	
0070	3805.9	7410.6	X26778.8	Y42223.0	4	37.7		1090	588	502	349	35	5	60	127	
0071	3811.0	7410.7	X26785.9	Y42276.8	4	37.7		46	4	42	38	8	2	90	207	
0072	3808.4	7403.4	X26743.4	Y42257.1	7	41.0	45.4	50	1	49	45	8	2	90	184	
0073	3813.9	7405.5	X26761.6	Y42312.7	21	33.4		496	261	235	164	45	10	45	81	
0074	3816.1	7406.8	X26771.5	Y42334.6	26	36.1		575	234	341	239	40	5	55	127	
0075	3815.9	7359.0	X26728.5	Y42340.0	55	38.8	45.2	47	11	36	31	10	0	90	242	
0076	3815.7	7356.1	X26712.4	Y42340.7	351	39.9		119	52	67	53	45	10	45	92	
0077	3818.4	7358.9	X26731.0	Y42366.2	6	37.7		9	0	9	7	5	0	95	184	
0078	3820.8	7358.7	X26732.9	Y42391.4	7	35.5	47.9	29	1	28	27	5	0	95	242	
0079	3821.5	7352.7	X26700.2	Y42404.0	187	39.4		14	0	14	11	5	0	95	219	
0080	3820.6	7351.3	X26691.4	Y42395.9	28	41.6		6	1	5	5	5	0	95	230	

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Station	Station Data						Number of Scallops					By-Catch			
	Position		Loran		Depth (FM)	Temp (F)	Bottom	Total No.	Scallops			Shell (Percentage)	Stone	Inverts	Total Vol.(lt)
	Lat.	Long.	TD's	Heading					>40ct	<40ct	<30ct				
0121'	3857.9	7317.2	X26527.4	Y42794.1	337	37.2		0	0	0	0	0	0	0	0
0122	3856.2	7317.0	X26524.6	Y42777.3	24	43.7		39	3	36	36	15	25	60	207
0123	3901.0	7314.3	X26511.8	Y42825.5	310	38.8	46.5	52	10	42	38	10	0	90	230
0124	3904.0	7320.7	X26555.1	Y42853.8	195	34.4		3838	2702	1136	1032	5	0	95	426
0125	3856.1	7319.9	X26542.6	Y42775.4	274	36.1		646	158	488	407	35	5	60	127
0126	3856.1	7328.9	X26598.5	Y42772.5	324	32.8	43.1	797	33	764	732	5	5	90	472
0127	3901.1	7332.7	X26627.9	Y42821.9	333	30.1		397	40	357	326	15	5	80	426
0128	3903.2	7329.0	X26607.0	Y42844.0	328	30.1		695	20	675	643	15	5	80	529
0129"	3908.7	7334.7	X26650.1	Y42898.6	34	26.8	42.2	0	0	0	0	0	0	0	0
0130	3909.1	7333.8	X26644.8	Y42902.8	238	27.9		217	22	195	178	15	5	80	368
0131	3918.5	7322.8	X26584.6	Y42998.1	4	26.8		402	96	306	251	10	10	80	598
0132	3916.3	7322.5	X26580.0	Y42976.2	94	26.8	45.5	379	44	335	292	15	10	75	380
0133	3913.9	7314.7	X26526.2	Y42952.7	220	33.9		825	48	777	699	20	25	55	506
0134	3911.5	7315.4	X26528.4	Y42928.9	119	33.9		1910	624	1286	984	45	15	40	242
0135	3908.7	7309.0	X26484.4	Y42902.1	195	36.6		1150	262	888	792	55	10	35	150
0136	3905.5	7308.4	X26478.0	Y42870.9	100	38.3	46.0	477	125	352	303	20	5	75	207
0137	3906.4	7306.3	X26465.2	Y42880.0	268	42.7		290	51	239	199	15	0	85	207
0138	3906.1	7302.9	X26443.2	Y42877.5	94	40.5		474	28	446	412	35	10	55	219
0139	3908.6	7302.7	X26443.6	Y42901.8	112	41.0	46.1	158	15	143	131	55	10	35	230
0140	3908.8	7255.4	X26396.6	Y42904.4	71	47.6		0	0	0	0	5	25	70	311
0141	3918.6	7302.3	X26448.4	Y42998.5	315	37.7		180	24	156	151	10	5	85	230
0142	3918.5	7306.4	X26475.6	Y42997.7	332	35.0	45.1	640	64	576	526	40	5	55	253
0143	3926.1	7308.6	X26497.4	Y43071.8	253	32.3		516	34	482	456	5	5	90	1058
0144	3924.3	7305.4	X26474.0	Y43053.9	148	36.1		1655	140	1515	1315	10	5	85	483
0145	3925.9	7301.8	X26451.0	Y43068.9	135	36.1		1085	425	660	569	25	5	70	299
0146	3924.0	7259.3	X26432.5	Y43050.3	144	34.4		544	169	375	328	70	5	25	138
0147	3921.5	7255.0	X26401.7	Y43025.9	134	39.9		698	203	495	458	15	5	80	150
0148	3918.3	7250.8	X26371.7	Y42995.2	4	42.7		49	5	44	33	15	5	80	230
0149	3924.3	7248.8	X26361.7	Y43051.8	359	39.9		863	464	399	294	75	10	15	92
0150	3928.2	7233.1	X26256.8	Y43085.4	7	59.1		1	0	1	1	5	0	95	253
0151	3933.2	7246.1	X26348.4	Y43134.9	317	38.3		260	33	227	173	25	5	70	161
0152	3936.2	7246.5	X26353.1	Y43163.1	356	37.7		253	78	175	114	25	0	75	253
0153	3940.5	7246.6	X26356.7	Y43203.3	356	38.8		154	77	77	57	45	0	55	69
0154	3948.3	7230.9	X26248.6	Y43268.1	36	35.5	44.1	1070	237	833	317	50	0	50	46
0155	3953.7	7226.5	X26218.8	Y43314.4	289	40.5		75	17	58	34	15	0	85	219
0156	3956.1	7234.0	X26275.6	Y43340.4	271	35.0		1202	72	1130	878	50	0	50	161
0157	3956.3	7244.3	X26352.5	Y43348.5	242	32.3	43.3	137	10	127	111	5	5	90	1093
0158	3951.2	7252.6	X26409.1	Y43305.9	240	31.2		170	32	138	113	5	5	90	334
0159	3941.3	7252.8	X26401.4	Y43213.1	160	37.7		516	50	466	403	15	5	80	161
0160	3936.3	7252.8	X26397.3	Y43166.0	156	34.4	43.7	489	138	351	312	15	5	80	345

R/V HUGH R. SHARP 2010 SEA SCALLOP SURVEY
May 11 - July 1

Station	Station Data						Number of Scallops					By-Catch			
	Position		Loran		Depth (FM)	Temp (F)	Bottom	Total No.	Scallops			Shell (Percentage)	Stone	Inverts	Total Vol.(lt)
	Lat.	Long.	TD's	Heading					>40ct	<40ct	<30ct				
0161	3934.0	7250.2	X26377.4	Y43143.5	230	35.0		463	168	295	250	60	5	35	58
0162	3931.3	7252.2	X26389.4	Y43118.6	274	34.4		662	468	194	169	75	5	20	69
0163	3930.9	7258.6	X26433.3	Y43116.2	4	32.8	43.6	537	349	188	159	50	5	45	253
0164	3933.5	7258.0	X26431.4	Y43140.9	299	34.4		388	127	261	233	10	10	80	863
0165	3933.0	7307.6	X26497.6	Y43138.5	311	24.1		115	33	82	68	5	10	85	748
0166	3938.7	7301.0	X26457.2	Y43191.4	56	33.4	43.1	62	12	50	42	5	5	90	449
0167	3940.8	7256.7	X26428.7	Y43209.9	4	36.1		321	81	240	203	10	5	85	345
0168	3943.5	7257.9	X26439.9	Y43235.9	275	37.7		415	123	292	181	15	45	40	138
0169	3941.9	7304.4	X26484.7	Y43223.3	359	28.4	42.7	1274	866	408	260	10	5	85	311
0170	3945.9	7304.3	X26488.6	Y43261.5	304	30.1		759	348	411	285	9	1	90	345
0171	3944.5	7313.5	X26553.0	Y43252.0	321	24.6		370	119	251	223	5	10	85	828
0172	3945.6	7312.2	X26545.1	Y43262.1	322	24.6	42.1	355	74	281	235	5	15	80	506
0173'	3948.3	7313.1	X26555.3	Y43288.6	329	24.1		0	0	0	0	0	0	0	0
0174'	3949.0	7313.7	X26560.6	Y43295.7	309	25.2		0	0	0	0	0	0	0	0
0175	3951.2	7314.5	X26569.6	Y43317.4	22	26.8	42.8	1502	988	514	382	20	55	25	437
0176	3956.4	7310.4	X26546.9	Y43365.2	58	40.5		17	13	4	0	30	20	50	196
0177	3958.4	7303.9	X26501.2	Y43380.2	299	27.3		305	162	143	93	15	5	80	265
0178	3958.7	7316.1	X26592.8	Y43390.7	269	36.6		6	2	4	1	25	0	75	138
0179	4001.1	7320.0	X26625.9	Y43416.4	295	27.9		4016	3232	784	408	25	0	75	150
0180	3956.5	7323.2	X26641.8	Y43373.7	196	26.8	40.8	871	427	444	360	20	55	25	276
0181	3953.9	7326.3	X26660.2	Y43349.9	239	24.1		133	22	111	93	5	0	95	690
0182	3951.0	7330.7	X26687.1	Y43323.5	331	20.8		341	52	289	278	10	10	80	679
0183	3958.5	7344.6	X26803.0	Y43406.0	353	17.5	41.8	3	3	0	0	5	2	93	656
0184	4001.4	7336.8	X26751.7	Y43430.3	307	19.1		5	1	4	1	5	2	93	966
0185	4006.2	7330.6	X26715.0	Y43473.5	307	26.2		1100	86	1014	848	10	45	45	161
0186	4009.1	7340.4	X26795.0	Y43509.4	64	36.1	41.2	0	0	0	0	0	1	99	391
0187	4018.5	7346.7	X26865.2	Y43608.0	3	20.2		4	0	4	3	15	35	50	150
0188	4028.8	7307.1	X26576.1	Y43666.9	60	16.4		9	6	3	1	10	5	85	1265
0189	4018.8	7305.1	X26541.7	Y43572.4	110	21.9	43.3	294	100	194	171	5	0	95	989
0190	4016.3	7258.8	X26487.9	Y43543.5	201	24.6		116	54	62	48	5	5	90	575
0191	4011.3	7300.5	X26493.6	Y43498.7	223	26.2		71	30	41	35	5	0	95	472
0192	4006.0	7239.0	X26321.2	Y43433.2	44	30.6	44.1	151	45	106	98	10	5	85	828
0193	4010.8	7238.7	X26323.6	Y43476.2	3	32.3		369	166	203	150	15	5	80	506
0194	4011.3	7233.4	X26282.8	Y43476.3	113	35.0		187	27	160	117	15	5	80	380
0195	4009.2	7227.1	X26232.3	Y43452.6	138	35.0	44.5	145	32	113	106	5	10	85	196
0196	4003.9	7223.3	X26199.8	Y43403.0	84	36.1		663	142	521	356	10	5	85	184
0197	4008.4	7210.6	X26104.9	Y43432.8	314	39.4		5	2	3	1	8	2	90	150
0198	4013.5	7212.1	X26118.4	Y43477.8	276	35.5	44.7	63	5	58	56	10	3	87	265
0199	4013.5	7216.5	X26152.7	Y43481.5	300	33.9		59	0	59	58	10	3	87	276
0200	4013.4	7223.9	X26210.5	Y43486.9	312	33.4		47	3	44	41	10	3	87	460

R/V HUGH R. SHARP 2010 SEA SCALLOP SURVEY
May 11 - July 1

Station	Station Data						Number of Scallops					By-Catch			
	Position		Loran		Depth (FM)	Temp (F)	Total No.	Bottom			Shell (Percentage)	Stone	Inverts	Total Vol.(lt)	
	Lat.	Long.	TD's	Heading				>40ct	<40ct	<30ct					
0201	4023.7	7232.6	X26289.3	Y43585.0	231	26.8	44.1	266	160	106	90	15	5	80	472
0202	4028.2	7234.6	X26311.1	Y43626.3	351	24.6		174	120	54	38	10	5	85	644
0203	4028.6	7231.6	X26287.2	Y43626.6	84	25.2		313	225	88	66	5	2	93	828
0204	4033.6	7233.0	X26305.3	Y43671.4	77	22.4	44.7	45	15	30	22	10	0	90	644
0205	4031.2	7216.8	X26168.8	Y43632.9	76	30.1		13	2	11	10	10	0	90	322
0206	4026.5	7212.7	X26131.1	Y43589.0	333	32.8		19	7	12	12	5	0	95	184
0207	4030.8	7213.2	X26138.9	Y43625.7	44	31.7	44.6	32	6	26	24	15	0	85	207
0208	4033.1	7212.8	X26137.8	Y43644.5	12	30.6		23	4	19	16	15	0	85	253
0209	4036.2	7205.1	X26076.8	Y43661.6	69	30.1		27	0	27	26	15	0	85	460
0210	4044.2	7208.0	X26109.8	Y43730.5	225	24.6	44.5	48	2	46	46	2	3	95	2185
0211	4041.4	7220.4	X26211.1	Y43722.7	252	22.4		301	29	272	243	5	0	95	863
0212	4048.7	7220.9	X26226.3	Y43783.9	54	16.4		0	0	0	0	5	0	95	1311
0213	4048.7	7209.3	X26126.9	Y43768.7	112	23.0		164	19	145	102	15	5	80	1012
0214	4048.9	7203.5	X26077.4	Y43762.8	115	22.4		333	8	325	306	10	10	80	1415
0215	4056.2	7155.1	X26014.8	Y43809.4	100	18.0		0	0	0	0	7	3	90	196
0216	4054.0	7147.0	X25941.3	Y43781.5	135	25.7		216	92	124	94	40	40	20	92
0217	4040.9	7157.2	X26014.9	Y43690.7	38	27.9		68	24	44	38	15	5	80	207
0218	4031.5	7154.8	X25988.5	Y43611.9	181	35.0		21	9	12	4	20	5	75	69
0219	4028.2	7143.6	X25896.6	Y43573.7	41	39.9	44.6	0	0	0	0	15	5	80	46
0220	4038.2	7134.9	X25827.1	Y43643.9	8	39.4		0	0	0	0	5	0	95	138
0221	4038.7	6957.0	W14087.9	Y43550.5	74	30.1		0	0	0	0	20	0	80	115
0222	4036.3	6952.8	W14074.0	Y43530.6	144	33.4	46.1	0	0	0	0	5	0	95	115
0223	4033.8	6945.2	W14042.8	Y43507.4	112	36.1		55	0	55	55	5	2	93	46
0224	4034.6	6943.9	W14033.2	Y43511.7	117	35.0		306	1	305	305	10	5	85	161
0225	4038.9	6941.8	W14007.0	Y43538.7	281	29.5	49.2	5	0	5	5	7	2	91	380
0226	4038.7	6933.0	W13961.9	Y43530.0	80	27.3		4	0	4	4	5	2	93	771
0227	4031.6	6936.6	W14006.0	Y43485.9	205	37.2		406	2	404	404	20	10	70	713
0228	4029.0	6938.6	W14025.4	Y43470.1	181	38.8	46.2	29	5	24	19	80	10	10	1081
0229"	4023.8	6932.8	W14013.7	Y43431.1	141	37.7		0	0	0	0	0	0	0	0
0230	4023.0	6931.8	W14011.4	Y43425.0	321	37.7		14	2	12	12	70	10	20	472
0231	4030.7	6927.0	W13960.1	Y43472.7	39	32.8		50	1	49	49	50	10	40	138
0232	4031.2	6918.8	W13916.9	Y43469.9	90	35.0	45.9	22	3	19	18	5	0	95	1909
0233	4028.6	6915.2	W13908.3	Y43450.4	61	40.5		8	2	6	4	10	0	90	69
0234	4031.0	6903.2	W13840.1	Y43457.4	58	42.1		15	3	12	11	45	5	50	598
0235	4038.4	6904.8	W13820.3	Y43505.6	17	41.0	46.9	302	154	148	132	50	0	50	483
0236	4040.6	6904.1	W13808.4	Y43518.9	20	45.4		122	19	103	98	45	0	55	529
0237	4046.9	6901.0	W13768.6	Y43555.9	35	42.1		734	44	690	648	45	5	50	207
0238	4049.3	6905.2	W13780.1	Y43574.4	185	39.9	50.1	1561	191	1370	1166	40	10	50	345
0239	4044.2	6910.6	W13827.1	Y43546.9	203	39.4		1783	439	1344	1014	40	20	40	391
0240	4042.0	6911.4	W13839.5	Y43533.6	189	37.2		353	98	255	164	50	0	50	207

R/V HUGH R. SHARP 2010 SEA SCALLOP SURVEY
May 11 - July 1

Station	Station Data						Number of Scallops					By-Catch					
	Position		Loran		Depth (FM)	Temp (F)	Bottom	Total No.	<90mm			>100mm		Shell (Percentage)	Stone	Inverts	Total Vol.(lt)
	Lat.	Long.	TD's	Heading					>40ct	<40ct	<30ct	>224					
0241	4039.0	6914.2	W13865.0	Y43516.7	237	35.5	47.6	147	9	138	127	20	5	75	391		
0242	4038.3	6917.1	W13882.2	Y43514.5	33	31.7		471	2	469	457	30	10	60	219		
0243	4045.3	6917.4	W13857.3	Y43559.6	9	30.6		2134	326	1808	1280	70	15	15	702		
0244	4047.9	6917.4	W13847.3	Y43576.1	14	31.2	50.6	234	5	229	224	55	20	25	380		
0245	4048.8	6911.7	W13814.8	Y43576.8	22	37.2		48	1	47	42	60	20	20	69		
0246	4053.2	6909.0	W13783.8	Y43602.0	26	36.6		908	432	476	264	20	50	30	265		
0247	4058.9	6912.6	W13779.2	Y43640.8	53	38.8	48.4	45	1	44	41	30	50	20	81		
0248	4058.9	6854.8	W13689.4	Y43624.3	112	43.7		1189	13	1176	1167	20	20	60	138		
0249	4056.9	6850.8	W13677.8	Y43608.6	190	39.4		1169	29	1140	1125	40	30	30	161		
0250	4054.0	6844.8	W13660.4	Y43585.9	162	36.6	51.5	56	1	55	54	75	20	5	230		
0251	4051.2	6840.7	W13651.9	Y43565.6	175	35.5		4	0	4	4	5	15	80	414		
0252	4044.1	6842.4	W13688.7	Y43523.9	215	38.3		112	24	88	78	10	0	90	564		
0253"	4043.2	6846.3	W13711.1	Y43521.3	324	35.5	49.0	0	0	0	0	0	0	0	0		
0254	4044.1	6847.2	W13711.9	Y43527.6	138	35.0		89	26	63	53	25	0	75	150		
0255	4048.2	6850.4	W13711.2	Y43555.3	344	36.6		24	1	23	22	5	10	85	518		
0256	4044.0	6854.5	W13747.9	Y43532.6	211	38.3		124	53	71	53	10	0	90	552		
0257"	4039.0	6849.1	W13741.0	Y43497.5	137	36.1	47.6	0	0	0	0	0	0	0	0		
0258	4038.7	6848.3	W13738.3	Y43495.1	284	36.1		80	24	56	50	15	0	85	265		
0259	4028.5	6850.7	W13788.6	Y43433.1	4	41.6		3	0	3	3	50	0	50	184		
0260	4033.6	6841.0	W13723.0	Y43458.4	81	37.2		33	9	24	13	50	0	50	92		
0261	4033.6	6837.1	W13704.5	Y43455.8	74	38.3	45.6	61	8	53	52	50	0	50	311		
0262	4033.6	6829.1	W13666.9	Y43450.5	71	44.3		29	4	25	24	65	5	30	127		
0263	4041.0	6827.2	W13628.9	Y43493.9	55	35.0		3	0	3	3	5	0	95	1025		
0264	4043.5	6813.2	W13554.1	Y43498.9	65	37.7	47.6	77	29	48	26	75	5	20	552		
0265	4031.3	6816.9	W13619.5	Y43428.8	28	54.1		0	0	0	0	45	5	50	104		
0266	4033.7	6803.5	W13549.6	Y43434.9	97	54.7		20	18	2	0	85	10	5	1196		
0267	4034.1	6757.3	W13520.4	Y43433.5	115	51.9	48.5	21	18	3	2	80	15	5	1208		
0268	4041.2	6756.9	W13490.0	Y43474.5	347	45.9		39	0	39	37	85	10	5	196		
0269	4045.9	6800.4	W13486.3	Y43504.0	322	39.9		103	44	59	55	80	0	20	345		
0270	4048.6	6747.1	W13416.2	Y43510.4	65	37.7	46.1	17	1	16	15	45	10	45	196		
0271	4058.3	6735.0	W13322.4	Y43556.2	32	38.3		46	1	45	41	75	0	25	414		
0272	4105.7	6731.1	W13273.2	Y43593.9	33	33.4		7	2	5	5	75	0	25	311		
0273	4101.3	6723.1	W13258.9	Y43564.1	116	38.3	47.9	64	5	59	49	75	5	20	322		
0274	4059.0	6715.8	W13238.7	Y43546.5	264	42.1		129	19	110	95	70	10	20	138		
0275	4056.4	6724.0	W13284.1	Y43538.0	257	42.7		129	17	112	93	75	0	25	173		
0276	4054.2	6730.2	W13319.7	Y43530.2	225	42.1		81	6	75	65	75	0	25	150		
0277	4043.9	6713.3	W13293.1	Y43462.7	108	53.0		6	6	0	0	45	5	50	322		
0278	4048.3	6703.2	W13233.7	Y43480.6	38	52.5		21	16	5	1	75	5	20	863		
0279	4048.3	6650.4	W13183.2	Y43473.1	341	59.6	53.4	12	12	0	0	75	20	5	1265		
0280	4055.5	6656.5	W13176.1	Y43515.0	346	46.5		95	19	76	53	85	5	10	115		

R/V HUGH R. SHARP 2010 SEA SCALLOP SURVEY

May 11 - July 1

Station	Station Data						Bottom Temp (F)	Number of Scallops				By-Catch				
	Position		Loran TD's		Depth (FM)	Heading		Total No.	<90mm >40ct	>90mm <40ct	>100mm <30ct	Shell (Percentage)	Stone	Inverts	Total Vol.(lt)	
	Lat.	Long.														
0281	4058.5	6655.2	W13157.9	Y43530.1	72	41.0		205	18	187	138	45	5	50	173	
0282	4101.3	6700.9	W13168.2	Y43548.6	296	39.9	45.9	359	21	338	330	40	15	45	184	
0283	4104.3	6706.5	W13177.4	Y43568.4	185	36.6		84	28	56	52	60	5	35	184	
0284	4108.6	6710.6	W13174.8	Y43594.2	2	35.5		66	6	60	59	45	10	45	230	
0285	4113.5	6708.7	W13144.8	Y43618.7	15	33.9	47.1	1	0	1	1	15	0	85	253	
0286	4120.8	6714.3	W13134.0	Y43661.4	320	28.4		0	0	0	0	85	0	15	104	
0287	4118.9	6705.3	W13106.2	Y43644.3	112	33.9		0	0	0	0	5	0	95	1242	
0288	4108.8	6648.9	W13087.5	Y43579.7	111	40.5	46.1	344	32	312	303	20	20	60	345	
0289	4106.4	6650.4	W13104.1	Y43568.3	229	40.5		216	20	196	190	15	10	75	322	
0290	4101.0	6648.6	W13121.1	Y43538.9	137	41.6		707	98	609	415	15	5	80	345	
0291"	4056.2	6644.8	W13127.5	Y43511.4	58	51.4	48.6	0	0	0	0	0	0	0	0	
0292	4056.8	6643.8	W13121.0	Y43513.9	234	50.3		6	5	1	1	95	3	2	1645	
0293"	4056.1	6637.1	W13098.5	Y43506.2	75	58.5		0	0	0	0	0	0	0	0	
0294	4056.8	6636.0	W13091.3	Y43509.2	274	58.5		11	11	0	0	45	50	5	2116	
0295	4100.8	6639.3	W13086.3	Y43531.9	44	46.5		452	180	272	79	80	5	15	81	
0296	4103.2	6630.9	W13044.0	Y43539.0	5	53.0	54.6	36	29	7	3	90	2	8	357	
0297	4103.5	6638.0	W13069.4	Y43545.1	305	45.4		918	150	768	522	90	3	7	161	
0298	4105.9	6642.3	W13075.1	Y43560.3	320	43.7		536	55	481	350	90	2	8	127	
0299	4110.6	6640.5	W13047.0	Y43583.2	345	44.8	46.0	126	22	104	69	50	5	45	150	
0300	4111.0	6630.9	W13009.1	Y43578.7	40	51.4		1504	504	1000	804	90	2	8	265	
0301	4113.6	6628.8	W12989.5	Y43590.5	25	51.4		2700	1544	1156	424	88	8	4	127	
0302"	4113.7	6630.8	W12996.5	Y43592.3	19	51.4	46.0	0	0	0	0	0	0	0	0	
0303	4114.1	6630.9	W12995.0	Y43594.4	152	51.4		3669	2570	1099	833	85	10	5	127	
0304	4113.8	6640.8	W13033.6	Y43599.8	156	42.7		176	37	139	131	75	5	20	127	
0305	4118.3	6644.5	W13027.1	Y43625.4	357	42.1		100	12	88	87	50	0	50	69	
0306"	4123.7	6656.2	W13047.5	Y43661.9	271	37.2	48.3	0	0	0	0	0	0	0	0	
0307	4123.8	6656.8	W13049.4	Y43662.9	166	37.2		11	1	10	10	25	0	75	368	
0308	4128.3	6651.0	W13005.4	Y43681.2	28	38.8		28	0	28	28	45	5	50	230	
0309	4133.3	6700.2	W13017.7	Y43714.1	314	33.4		2	0	2	2	45	0	55	230	
0310	4135.6	6708.2	W13038.7	Y43732.7	331	32.8	51.6	0	0	0	0	45	25	30	184	
0311	4138.5	6649.4	W12950.1	Y43731.1	86	37.7		0	0	0	0	10	0	90	311	
0312	4131.3	6639.0	W12945.1	Y43686.7	130	43.2		45	0	45	45	50	0	50	104	
0313	4128.8	6638.8	W12956.2	Y43674.1	170	44.3	46.2	48	0	48	47	50	0	50	161	
0314	4126.3	6640.8	W12975.6	Y43663.1	155	45.4		114	7	107	105	25	0	75	207	
0315	4124.0	6631.1	W12950.0	Y43644.3	136	51.9		440	71	369	281	85	5	10	207	
0316"	4121.3	6621.2	W12926.3	Y43623.7	103	50.9	51.5	0	0	0	0	0	0	0	0	
0317	4120.9	6620.0	W12923.8	Y43620.9	303	53.0		55	19	36	36	90	5	5	92	
0318	4128.3	6618.4	W12883.5	Y43656.1	341	49.2		296	181	115	77	90	5	5	69	
0319	4130.1	6620.5	W12882.5	Y43666.5	354	49.2		1478	1052	426	225	85	5	10	69	
0320	4135.6	6630.6	W12893.1	Y43701.2	4	44.8	48.3	22	3	19	16	40	5	55	207	

R/V HUGH R. SHARP 2010 SEA SCALLOP SURVEY
May 11 - July 1

Station	Station Data						Bottom (F)	Number of Scallops				By-Catch				
	Position		Loran		Depth (FM)	Temp (F)		Total No.	Scallops			Shell (Percentage)	Stone	Inverts	Total Vol. (lt)	
	Lat.	Long.	TD's	Heading					>40ct	<40ct	<30ct					
0321"	4146.0	6619.3	W12801.5	Y43742.5	74	44.8		0	0	0	0	0	0	0	0	
0322	4146.5	6619.2	W12798.6	Y43744.8	146	45.4		125	53	72	63	75	5	20	81	
0323	4141.6	6613.2	W12801.4	Y43716.5	140	49.8		390	127	263	225	75	0	25	115	
0324	4134.0	6605.0	W12809.3	Y43673.9	151	54.7	51.3	58	52	6	5	75	0	25	115	
0325"	4141.5	6600.7	W12758.7	Y43706.3	195	53.6		0	0	0	0	0	0	0	0	
0326	4141.4	6600.0	W12756.8	Y43705.3	271	53.6		30	15	15	12	75	0	25	46	
0327	4156.3	6604.4	W12698.6	Y43778.6	326	52.5		411	148	263	131	25	25	50	368	
0328"	4153.4	6618.0	W12760.1	Y43776.5	0		46.2	0	0	0	0	0	0	0	0	
0329	4154.0	6618.9	W12760.3	Y43780.1	183	44.8		11632	6416	5216	1488	10	15	75	161	
0330"	4158.6	6613.2	W12717.2	Y43796.8	61	46.5		0	0	0	0	0	0	0	0	
0331	4159.2	6611.9	W12709.7	Y43798.5	146	48.7		984	180	804	586	25	60	15	621	
0332	4207.0	6612.7	W12672.7	Y43835.2	203	56.9		1683	519	1164	729	10	85	5	1116	
0333"	4206.2	6630.0	W12737.8	Y43847.4	283	45.4	44.9	0	0	0	0	0	0	0	0	
0334	4206.0	6630.6	W12741.1	Y43847.0	321	45.9		1415	1004	411	381	5	90	5	564	
0335	4205.5	6635.1	W12760.1	Y43848.9	297	46.5		2112	1636	476	328	10	85	5	1081	
0336	4203.4	6644.4	W12805.6	Y43847.8	331	38.8		7140	5892	1248	432	50	10	40	759	
0337	4206.8	6646.6	W12796.2	Y43866.0	190	39.4	42.9	3010	2315	695	145	50	45	5	966	
0338"	4208.7	6648.5	W12793.5	Y43876.9	237	52.5		0	0	0	0	0	0	0	0	
0339	4208.8	6648.3	W12792.2	Y43877.2	245	53.6		164	62	102	70	20	75	5	690	
0340	4206.3	6650.6	W12814.1	Y43867.6	210	37.7		4690	2690	2000	360	25	50	25	1564	
0341"	4202.5	6651.8	W12838.6	Y43850.6	334	43.2	48.7	0	0	0	0	0	0	0	0	
0342	4203.5	6652.5	W12836.1	Y43856.1	2	38.8		6456	2064	4392	2304	70	25	5	690	
0343	4203.6	6654.8	W12844.4	Y43858.8	55	35.5		6110	1989	4121	2730	55	10	35	414	
0344	4206.1	6654.6	W12830.6	Y43870.6	137	37.2		12838	5204	7634	1298	60	15	25	575	
0345	4206.7	6704.9	W12868.0	Y43883.8	167	33.9	47.1	17244	13012	4232	1082	75	10	15	230	
0346	4208.5	6705.7	W12861.7	Y43893.3	295	39.4		37	19	18	16	5	85	10	127	
0347	4208.6	6708.4	W12872.0	Y43896.6	318	47.0		4314	3439	875	325	35	15	50	173	
0348	4205.8	6706.2	W12877.9	Y43880.8	332	29.5	43.4	2893	1074	1819	1700	50	15	35	851	
0349	4204.0	6707.3	W12891.8	Y43873.2	132	31.7		2786	1299	1487	998	75	5	20	414	
0350	4204.2	6710.8	W12904.9	Y43877.7	173	28.4		1311	368	943	693	90	0	10	736	
0351	4201.6	6710.3	W12916.4	Y43864.5	222	30.1	51.1	2348	468	1880	1708	75	10	15	1104	
0352	4155.8	6714.1	W12961.9	Y43839.8	323	32.3		70	18	52	48	45	15	40	483	
0353	4155.6	6716.0	W12970.8	Y43840.7	336	30.6		1027	5	1022	1012	50	25	25	1334	
0354	4157.8	6718.3	W12969.0	Y43853.9	335	30.6	51.8	535	8	527	518	50	25	25	1104	
0355	4203.3	6716.7	W12933.7	Y43879.4	24	25.2		4056	561	3495	3168	50	25	25	920	
0356	4206.5	6713.6	W12904.2	Y43891.8	124	30.1		249	37	212	167	20	65	15	449	
0357	4208.5	6712.5	W12889.1	Y43900.3	295	52.5	42.4	619	46	573	568	30	10	60	184	
0358	4208.7	6714.5	W12896.2	Y43903.4	294	59.1		30	11	19	17	10	5	85	184	
0359	4206.0	6714.5	W12910.5	Y43890.3	328	28.4	41.7	371	58	313	222	20	40	40	529	
0360	4206.0	6718.3	W12926.2	Y43894.3	301	30.1		3563	196	3367	2464	60	25	15	782	

R/V HUGH R. SHARP 2010 SEA SCALLOP SURVEY
May 11 - July 1

Station	Station Data								Number of Scallops					By-Catch			
	Position		Loran		Bottom	Depth (FM)	Temp (F)	Total No.	Number of Scallops			Shell (Percentage)	Stone	Inverts	Total		
	Lat.	Long.	TD's	Heading					<90mm	>90mm	>100mm						
0361	4204.0	6722.6	W12954.6	Y43889.0	194	27.9		2115	870	1245	1105	25	50	25	506		
0362	4204.0	6724.7	W12963.4	Y43891.2	180	29.5		626	230	396	358	20	75	5	322		
0363	4101.9	6852.7	W13666.5	Y43640.6	187	39.9	52.4	2432	14	2418	2418	25	10	65	276		
0364	4104.4	6850.8	W13646.5	Y43653.8	206	39.4		613	10	603	595	25	70	5	368		
0365	4104.6	6850.8	W13645.7	Y43655.0	212	39.4		752	6	746	742	20	60	20	276		
0366	4108.9	6848.7	W13616.9	Y43678.7	354	45.4		16	4	12	12	0	10	90	552		
0367	4110.7	6847.0	W13600.7	Y43687.7	31	43.7	46.2	436	37	399	375	90	5	5	322		
0368	4106.8	6846.7	W13616.0	Y43664.3	178	39.9		1668	63	1605	1536	50	40	10	150		
0369	4103.5	6845.4	W13623.7	Y43643.5	78	36.1		3081	216	2865	2635	80	10	10	736		
0370	4104.5	6841.1	W13598.4	Y43645.5	169	34.4	53.2	596	12	584	573	50	10	40	207		
0371	4104.5	6838.9	W13587.7	Y43643.5	183	35.5		878	44	834	772	40	10	50	207		
0372	4108.9	6842.0	W13583.9	Y43672.3	185	37.2		3484	735	2749	2085	60	20	20	506		
0373	4107.8	6841.7	W13587.2	Y43665.5	340	35.0		2384	752	1632	1234	25	5	70	255		
0374	4108.1	6837.2	W13563.9	Y43663.1	23	33.9	53.8	37	3	34	32	25	50	25	184		
0375	4110.7	6836.7	W13550.2	Y43677.9	0	35.0		100	2	98	95	10	85	5	69		
0376	4113.2	6840.6	W13558.3	Y43696.2	354	35.5		225	3	222	215	10	10	80	368		
0377	4116.5	6837.1	W13526.5	Y43711.9	130	36.6	49.3	588	95	493	357	10	80	10	184		
0378	4116.0	6833.2	W13509.8	Y43705.2	187	36.1		6	1	5	3	10	5	85	644		
0379	4116.1	6833.0	W13508.4	Y43705.6	188	35.0		1	0	1	0	1	1	98	644		
0380	4119.2	6832.7	W13493.0	Y43723.1	187	37.2	52.9	50	0	50	48	1	0	99	920		
0381	4124.1	6832.9	W13471.7	Y43751.3	173	47.6		151	19	132	132	25	10	65	184		
0382	4126.7	6830.6	W13448.5	Y43763.7	186	48.7		446	110	336	333	25	5	70	92		
0383	4123.6	6823.8	W13430.1	Y43739.3	278	36.1	52.2	3	1	2	2	5	5	90	736		
0384	4125.7	6824.6	W13424.2	Y43751.9	348	37.2		5	1	4	4	5	5	90	1242		
0385	4128.6	6822.7	W13401.6	Y43766.2	179	31.2		25	0	25	24	5	5	90	1080		
0386	4130.9	6826.8	W13410.5	Y43783.3	0	43.2	48.9	34	9	25	22	50	20	30	529		
0387	4140.9	6823.2	W13345.3	Y43834.6	59	27.9		7	2	5	5	80	10	10	414		
0388	4143.5	6816.7	W13301.5	Y43841.5	19	30.6		7	0	7	5	30	20	50	380		
0389	4146.2	6814.9	W13279.6	Y43854.1	48	44.8	48.7	64	21	43	33	50	20	30	196		
0390	4146.3	6812.7	W13268.7	Y43852.2	198	38.8		49	13	36	31	5	5	90	345		
0391"	4146.6	6810.8	W13258.3	Y43851.7	166	37.2		0	0	0	0	0	0	0	0		
0392	4146.3	6810.4	W13257.9	Y43849.7	310	35.0		22	3	19	18	5	5	90	805		
0393	4144.1	6800.7	W13223.8	Y43827.6	209	18.6	54.8	0	0	0	0	5	90	5	184		
0394	4138.7	6750.9	W13205.9	Y43788.9	307	15.3		0	0	0	0	98	1	1	1380		
0395	4146.1	6730.9	W13081.6	Y43807.5	305	24.6		0	0	0	0	25	25	50	276		
0396	4151.7	6730.2	W13050.3	Y43835.4	332	23.0	54.6	2	1	1	1	25	10	65	276		
0397	4151.6	6744.5	W13113.1	Y43849.6	213	19.7		2	1	1	1	50	10	40	828		
0398	4151.6	6754.1	W13156.1	Y43859.9	213	30.6		11	0	11	11	5	5	90	184		
0399	4153.2	6752.8	W13142.1	Y43866.7	3	29.5	53.5	22	0	22	22	10	5	85	920		
0400	4153.1	6751.1	W13134.9	Y43864.4	17	26.8		0	0	0	0	5	5	90	1288		

R/V HUGH R. SHARP 2010 SEA SCALLOP SURVEY
May 11 - July 1

Station	Station Data						Bottom (FM)	Temp (F)	Number of Scallops				By-Catch					
	Position		Loran TD's		Heading	Depth (FM)			Total No.	<90mm >40ct	>90mm <40ct	>100mm <30ct	Shell (Percentage)	Stone	Inverts	Total Vol.(lt)		
	Lat.	Long.																
0401	4155.8	6747.0	W13102.7	Y43873.8	21	29.0			10	0	10	10	2	3	95	1449		
0402	4158.4	6744.9	W13080.0	Y43884.8	18	32.3	50.8		8	0	8	8	5	5	90	414		
0403	4201.0	6737.1	W13032.2	Y43889.5	40	30.6			329	25	304	296	90	5	5	92		
0404	4200.9	6734.7	W13022.3	Y43886.4	231	27.9			2312	788	1524	1420	85	5	10	207		
0405	4203.4	6726.3	W12973.3	Y43889.9	110	30.1	46.0		1937	921	1016	904	10	80	10	414		
0406	4206.4	6724.7	W12950.8	Y43903.0	2	47.6			629	256	373	178	40	20	40	46		
0407	4201.5	6742.5	W13053.3	Y43897.9	226	53.0			189	62	127	44	45	10	45	207		
0408	4158.9	6746.3	W13083.6	Y43888.9	247	38.8	53.9		33	12	21	18	45	10	45	184		
0409	4156.3	6748.6	W13107.3	Y43878.1	219	32.8			22	4	18	13	90	5	5	1702		
0410	4156.5	6751.9	W13121.1	Y43882.8	246	47.0			188	17	171	128	45	10	45	207		
0411	4153.9	6753.9	W13143.5	Y43871.6	250	35.0	52.2		13	0	13	13	10	5	85	368		
0412	4153.4	6800.5	W13176.1	Y43876.2	208	54.7			648	262	386	161	5	25	70	230		
0413'	4150.0	6802.1	W13200.7	Y43860.2	259	36.6			0	0	0	0	0	0	0	0		
0414'	4149.6	6803.2	W13207.8	Y43859.3	258	37.2			0	0	0	0	0	0	0	0		
0415	4150.9	6805.0	W13209.6	Y43868.1	255	51.4			2512	1742	770	300	10	50	40	368		
0416'	4150.5	6804.6	W13209.8	Y43865.5	77	46.5			0	0	0	0	0	0	0	0		
0417'	4150.7	6803.3	W13202.7	Y43865.2	78	44.3			0	0	0	0	0	0	0	0		
0418	4148.6	6806.8	W13229.6	Y43857.9	67	38.8	47.9		46	7	39	32	25	5	70	299		
0419	4148.8	6810.7	W13246.8	Y43863.3	246	51.9			16	5	11	7	1	9	90	414		
0420'	4146.7	6817.3	W13288.5	Y43859.4	245	56.9			0	0	0	0	0	0	0	0		
0421'	4146.4	6818.9	W13297.6	Y43859.6	245	59.1			0	0	0	0	0	0	0	0		
0422	4145.7	6819.2	W13302.6	Y43856.2	55	52.5			4	0	4	4	5	25	70	690		
0423	4131.2	6832.5	W13436.8	Y43791.0	257	56.3	42.3		14	1	13	13	5	10	85	414		
0424	4130.8	6834.6	W13448.9	Y43791.0	2	57.4			4	0	4	4	3	2	95	161		
0425	4126.3	6838.7	W13490.0	Y43769.8	356	52.5			4221	3732	489	249	3	2	95	207		
0426	4124.0	6838.5	W13499.5	Y43756.5	193	52.5	42.4		587	414	173	103	60	10	30	184		
0427	4121.3	6842.6	W13532.0	Y43745.2	198	53.0			917	637	280	165	40	20	40	207		
0428	4119.1	6844.4	W13550.8	Y43734.3	194	50.9			137	91	46	14	5	5	90	483		
0429	4117.1	6850.2	W13588.6	Y43728.6	214	56.9	42.2		6416	6000	416	76	40	30	30	276		
0430	4114.4	6846.5	W13582.1	Y43709.0	190	42.1			11	3	8	8	1	1	98	2070		
0431	4113.4	6854.4	W13625.9	Y43711.0	195	55.2			663	441	222	204	10	5	85	529		
0432	4113.5	6854.6	W13626.5	Y43711.8	202	54.7			1019	738	281	263	5	5	90	552		
0433	4110.6	6851.0	W13621.0	Y43691.0	226	50.3	44.8		95	7	88	86	5	5	90	529		
0434	4110.6	6851.1	W13621.5	Y43691.1	232	50.3			56	6	50	49	7	3	90	207		
0435	4103.4	6845.5	W13624.6	Y43643.0	38	35.5			2128	184	1944	1824	80	5	15	690		
0436	4103.5	6845.2	W13622.7	Y43643.3	52	36.1			1044	182	862	782	50	25	25	322		
0437	4101.2	6852.7	W13669.4	Y43636.4	8	39.4			2015	0	2015	2015	50	10	40	460		
0438	4101.5	6852.7	W13668.1	Y43638.2	8	39.4			1370	10	1360	1360	85	5	10	437		
0439	4101.5	6852.5	W13667.2	Y43638.0	3	39.4			868	0	868	868	80	10	10	299		
0440	4107.1	6854.1	W13651.5	Y43673.2	188	47.6			164	56	108	98	25	25	50	184		

R/V HUGH R. SHARP 2010 SEA SCALLOP SURVEY
May 11 - July 1

Station	Station Data						Bottom (FM)	Temp (F)	Number of Scallops				By-Catch					
	Position		Loran		Heading	Depth (FM)			Total No.	<90mm >40ct	>90mm <40ct	>100mm <30ct	Shell (Percentage)	Stone	Inverts	Total Vol.(lt)		
	Lat.	Long.	TD's															
0441	4107.1	6854.3	W13652.5	Y43673.3	189	47.6			661	105	556	518	30	40	30	253		
0442	4108.5	6858.0	W13665.1	Y43685.3	206	55.2	44.1		60	21	39	30	5	5	90	782		
0443	4110.3	6902.4	W13679.7	Y43700.5	225	59.1			2529	2458	71	62	90	5	5	138		
0444	4106.5	6902.6	W13696.8	Y43677.8	344	54.1			180	37	143	143	65	5	30	115		
0445	4103.3	6858.8	W13691.1	Y43654.7	4	46.5	45.5		1350	36	1314	1308	10	70	20	230		
0446"	4101.6	6903.6	W13722.3	Y43648.9	3	43.7			0	0	0	0	0	0	0	0		
0447	4101.3	6910.8	W13760.2	Y43654.0	331	31.7			35	6	29	22	50	25	25	161		
0448	4103.1	6912.3	W13760.5	Y43666.5	336	29.5	51.2		270	50	220	190	25	50	25	184		
0449	4103.3	6914.7	W13772.0	Y43670.1	14	31.2			4398	1668	2730	2100	25	50	25	414		
0450	4102.7	6914.7	W13774.5	Y43666.4	9	35.0			5450	3515	1935	1360	25	50	25	368		
0451	4103.3	6914.6	W13771.5	Y43670.0	3	31.2			2773	1107	1666	1505	25	50	25	322		
0452	4103.3	6914.9	W13773.0	Y43670.3	2	31.2			1263	522	741	624	25	50	25	138		
0453	4106.1	6916.8	W13771.3	Y43689.5	352	32.3			11218	6421	4797	2691	25	50	25	368		
0454	4107.1	6918.5	W13776.0	Y43697.4	196	30.6	49.1		8956	3345	5611	2540	25	50	25	230		
0455	4106.5	6921.0	W13791.5	Y43696.3	149	26.8			239	31	208	193	50	40	10	1702		
0456	4108.9	6918.8	W13770.1	Y43708.8	184	30.1			35019	28623	6396	2568	45	45	10	552		
0457	4105.7	6910.5	W13740.5	Y43680.7	349	35.5	44.8		283	39	244	218	10	10	80	483		
0458	4108.5	6908.6	W13719.0	Y43695.9	354	53.6			443	398	45	18	10	45	45	274		
0459	4112.7	6906.2	W13688.8	Y43718.9	218	73.3			4	4	0	0	30	40	30	92		
0460	4112.9	6910.8	W13711.6	Y43724.9	229	50.9	41.7		460	424	36	12	45	10	45	115		
0461	4117.4	6909.2	W13684.0	Y43750.3	206	57.4			4588	4534	54	39	30	10	60	207		
0462	4117.4	6914.6	W13712.0	Y43756.2	223	51.9			15912	15871	41	32	25	50	25	138		
0463	4114.8	6918.1	W13741.5	Y43744.2	209	37.2	44.4		246	32	214	171	10	40	50	644		
0464	4114.0	6922.3	W13767.0	Y43743.9	233	28.4			2969	154	2815	2491	40	10	50	920		
0465	4111.1	6924.4	W13790.2	Y43728.3	352	24.1			187	8	179	175	25	50	25	1472		
0466	4113.8	6924.6	W13780.0	Y43745.2	196	24.6	43.6		361	9	352	349	25	50	25	1104		
0467	4118.0	6924.9	W13763.7	Y43771.2	26	21.9			6	0	6	5	25	25	50	230		
0468	4118.7	6922.5	W13747.9	Y43772.8	4	25.2			12	0	12	12	25	25	50	92		
0469	4118.7	6920.8	W13738.9	Y43770.9	44	35.0	41.9		336	147	189	125	25	50	25	184		
0470	4121.8	6915.4	W13697.0	Y43783.5	162	61.8			60	48	12	7	25	50	25	345		
0471	4124.5	6920.6	W13712.6	Y43805.6	183	36.6			668	488	180	92	45	10	45	115		
0472	4124.4	6922.5	W13723.1	Y43807.2	200	30.1			14000	11320	2680	280	45	10	45	184		
0473	4120.9	6926.6	W13760.2	Y43790.8	191	16.4			12	4	8	7	10	45	45	299		
0474	4125.7	6932.3	W13770.0	Y43826.7	348	18.6			32	17	15	14	45	45	10	460		
0475	4128.0	6931.1	W13753.4	Y43839.2	23	20.2	45.4		486	80	406	379	10	60	30	736		
0476	4126.6	6926.7	W13735.8	Y43825.4	184	24.1			301	39	262	213	5	90	5	460		
0477	4129.1	6922.8	W13703.8	Y43835.7	189	37.2			3571	3283	288	90	5	90	5	230		
0478	4127.4	6917.3	W13682.2	Y43819.1	206	51.4	41.4		453	438	15	13	90	5	5	104		
0479	4131.3	6918.7	W13672.1	Y43843.9	207	58.0			197	40	157	151	10	80	10	276		
0480	4133.2	6928.7	W13717.1	Y43867.4	354	32.8			0	0	0	0	2	95	3	92		

R/V HUGH R. SHARP 2010 SEA SCALLOP SURVEY
May 11 - July 1

Station	Station Data						Number of Scallops					By-Catch					
	Position		Loran		Depth (FM)	Temp (F)	Bottom	Total No.	<90mm			>100mm		Shell (Percentage)	Stone	Inverts	Total Vol.(lt)
	Lat.	Long.	TD's	Heading					>40ct	<40ct	<30ct	>90mm	>100mm				
0481	4134.5	6929.0	W13712.9	Y43875.5	178	37.7		7	4	3	2	10	75	15	920		
0482	4133.8	6932.7	W13736.2	Y43876.0	171	30.6	42.1	295	80	215	180	25	50	25	782		
0483	4135.9	6932.5	W13725.6	Y43888.2	166	38.3		415	299	116	82	25	25	50	184		
0484	4140.9	6936.2	W13723.0	Y43922.7	335	62.3		36	3	33	33	10	80	10	368		
0485	4141.4	6946.7	W13779.3	Y43939.7	314	27.9	42.2	386	79	307	260	25	50	25	828		
0486	4146.8	6948.6	W13765.1	Y43974.4	163	45.4		3	1	2	2	75	20	5	136		
0487	4151.0	6950.9	W13758.5	Y44002.4	17	32.8		8	3	5	5	2	95	3	782		
0488	4155.7	6950.5	W13733.9	Y44029.2	340	39.4	41.2	0	0	0	0	2	95	3	414		
0489	4156.4	6952.7	W13743.2	Y44036.5	344	30.6		21	0	21	21	20	50	30	276		
0490	4158.8	6956.6	W13754.2	Y44056.2	13	21.3		7	0	7	7	30	50	20	299		
0491	4153.6	6950.6	W13744.5	Y44017.2	338	37.2	41.3	2	0	2	2	5	90	5	161		
0492	4149.0	6950.6	W13766.2	Y43990.2	358	39.9		4	0	4	4	95	2	3	115		
0493	4144.1	6949.0	W13779.9	Y43959.0	154	30.6		49	8	41	40	85	5	10	713		
0494	4140.5	6948.7	W13794.6	Y43937.0	0	18.6		301	72	229	207	5	90	5	1012		
0495	4133.2	6942.0	W13790.0	Y43884.2	299	15.9		75	1	74	74	20	60	20	288		
0496	4132.0	6938.4	W13775.5	Y43872.4	201	24.1		9	2	7	7	10	60	30	230		
0497	4124.4	6922.9	W13725.2	Y43807.7	180	26.8		15960	13680	2280	240	25	65	10	230		
0498	4124.3	6922.7	W13724.6	Y43806.9	171	27.3		5152	3906	1246	105	10	80	10	230		
0499	4124.2	6923.0	W13726.6	Y43806.6	172	25.7		13	3	10	8	2	95	3	414		

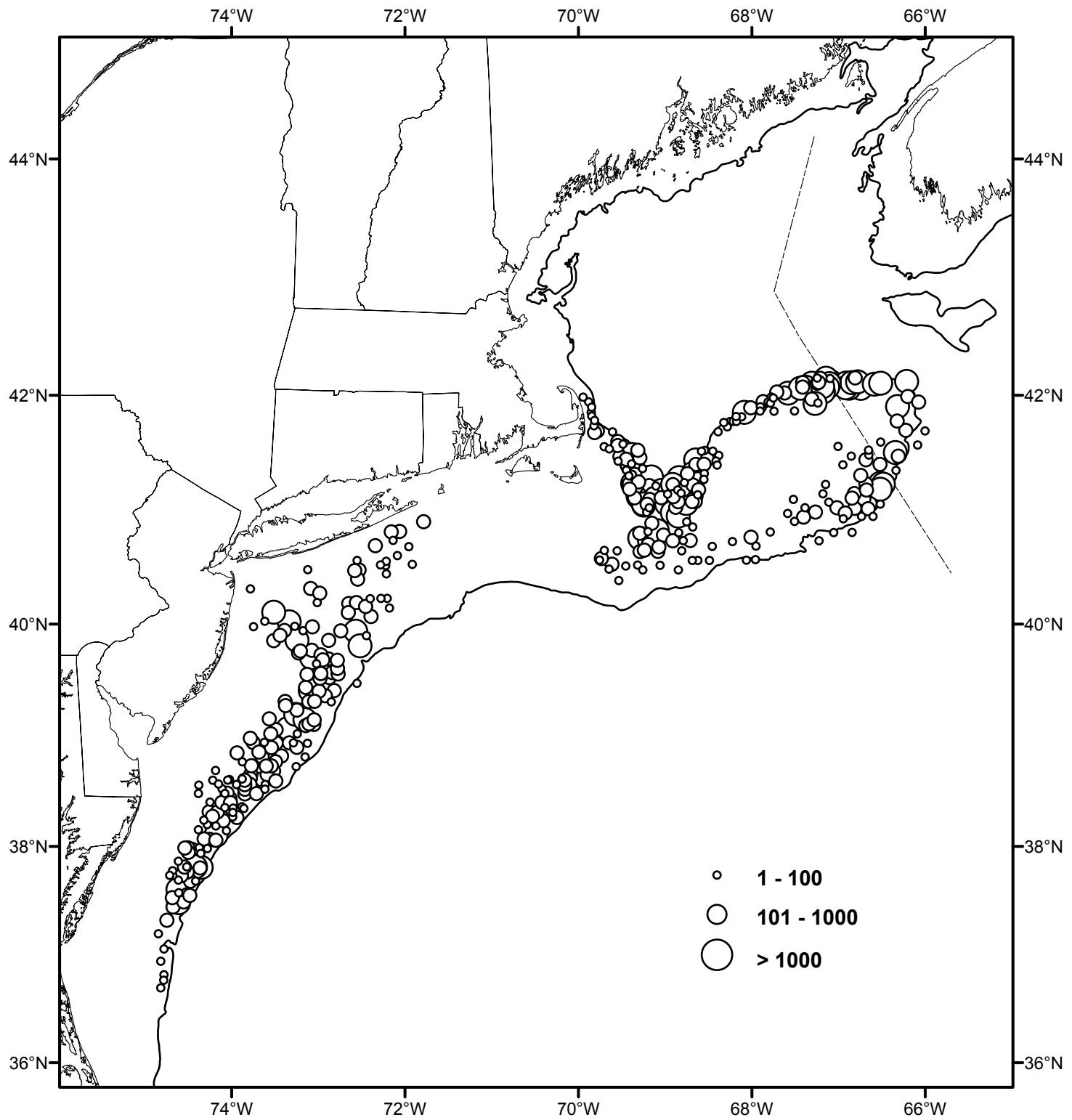
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393490 207488 176325 122576

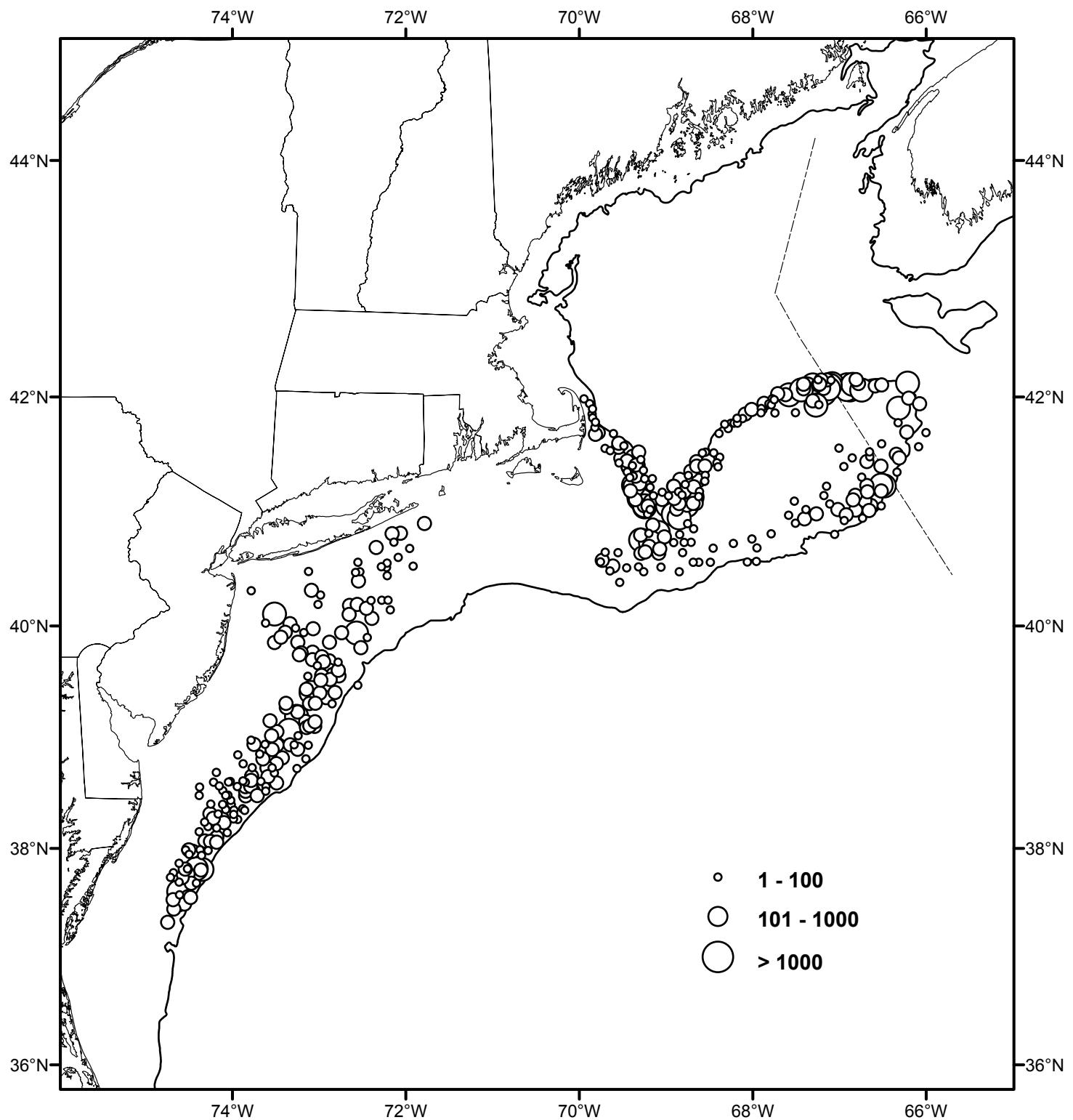
' Camera tow

" Dredge flip

NEFSC SEA SCALLOP SURVEY 2010
NOAA Fisheries Service
SEA SCALLOPS - Number/Tow
Total Number



NEFSC SEA SCALLOP SURVEY 2010
NOAA Fisheries Service
SEA SCALLOPS - Number/Tow
Greater Than or Equal To 90mm



NEFSC SEA SCALLOP SURVEY 2010
NOAA Fisheries Service
SEA SCALLOPS - Number/Tow
Less Than 90mm

