

RESOURCE SURVEY REPORT
Catch Summary
NOAA Fisheries Service
Northeast Fisheries Science Center
Sea Scallop Survey
Cape Hatteras -Georges Bank
June 22 -August 6, 2008

Submitted to: NOAA, NEFSC

For further information contact Russell Brown
(508-495-2380) or Linda Despres (508495-2346),
National Marine Fisheries Service, Northeast
Fisheries Science Center, 166 Water Street, Woods
Hole, MA 02543.

Date: 2008

Resource Survey Report

Sea Scallop Survey

Cape Hatteras – Georges Bank

June 22 – August 6, 2008

UNOLS R/V *Hugh R. Sharp*



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



Above: dumping the catch onto the sorting table. **Left:** sea scallops fresh from the seabed.

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The following field notes, charts, and station data indicate the distribution of sea scallops during the 2008 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 now summarized from audited catch files generated from the Fisheries Scientific Computer System (FSCS).

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

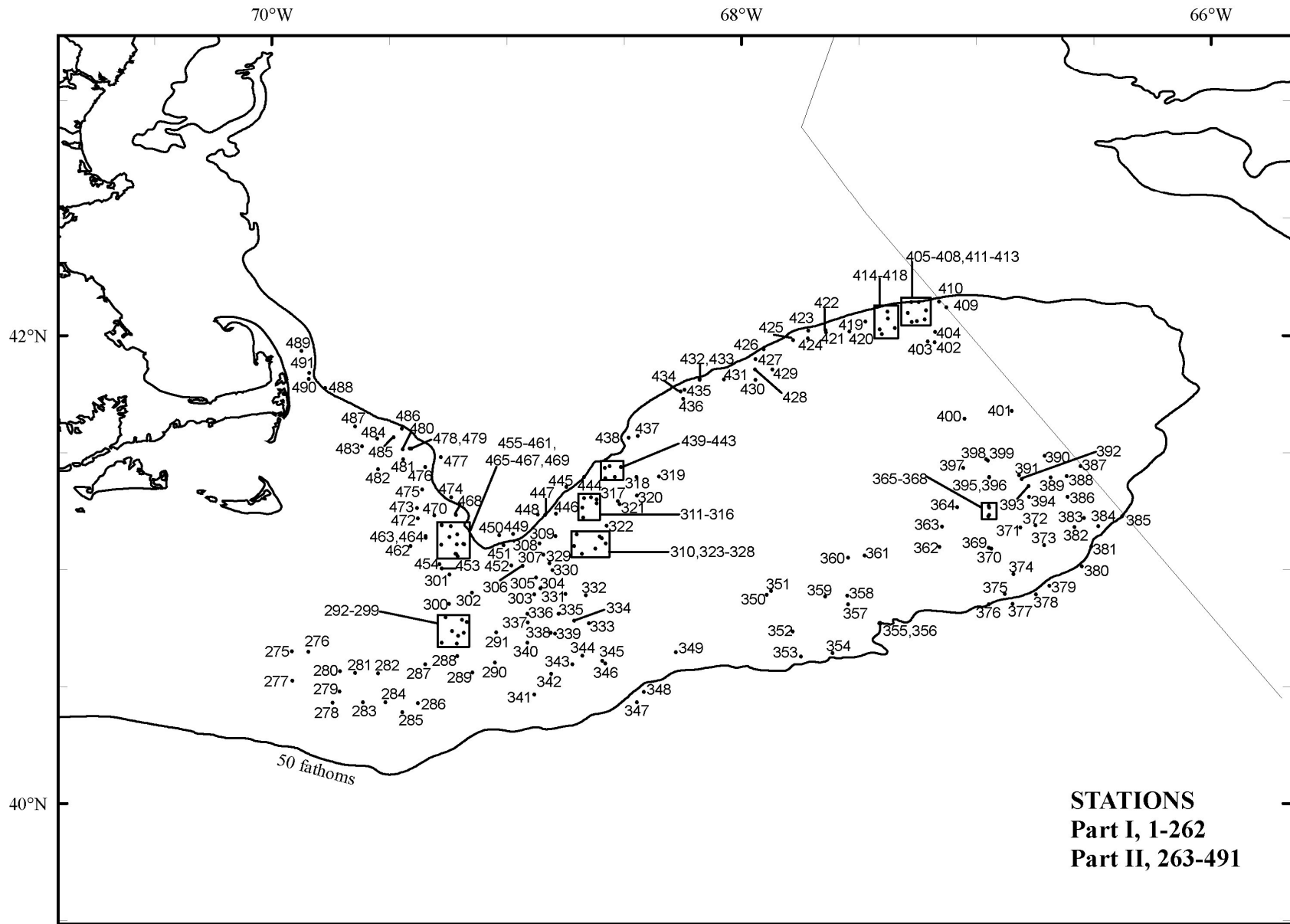


Figure 2. Dredge tows made from UNOLS R/V *Hugh R Sharp* (08 - 01), during NOAA Fisheries Service, Northeast Fisheries Science Center sea scallop survey, June 22 - August 6, 2008.

Field Notes

In an effort to share some of the natural history observations made during the sea scallop survey, we have requested that the Chief Scientists on each part of the cruise comment on some of the more interesting catches that were brought aboard the University – National Oceanographic Laboratory System (UNOLS) R/V *Hugh R. Sharp*.

R/V *Hugh R. Sharp*

For the first time since 1993, the sea scallop survey was not performed aboard the FRV *Albatross IV*, but on the 146', state-of-the-art UNOLS R/V *Hugh R. Sharp*. Go to: <http://www.ocean.udel.edu/marine/rvSharp.shtml> for more details about this vessel. The *Sharp* and her crew performed admirably on what was a very successful maiden voyage for our survey.

F/V *Kathy Marie*

For approximately 4 days in the northern portion of DELMARVA Closed Area & southern portion of Elephant Trunk Closed Area, the F/V *Kathy Marie* performed comparison tows on stations previously occupied by the *Sharp* using an underwater towed camera system and a dredge identical to the one on the R/V *Hugh R. Sharp*. During this time, the F/V *Kathy Marie* obtained over one million images which will be used to calibrate catches between the two vessels.

Sorting Table

For decades, scientists and crew aboard the FRV *Albatross IV* had to sort scallop catches on their knees on deck. Engineers from the University of Delaware designed a waist high table, allowing the scientists and vessel crew to sort the scallop catch while standing.

Rough going

Those of us who routinely sample on Georges Bank expect and accept that in certain areas there will be large rocks on deck, gear damage, hang ups, and flips. This was the first Georges Bank fishing trip for most of the R/V *Sharp*'s crew; and although we verbally prepared them for the experience, many were amazed at what we go through to obtain samples in some areas of the bank. Their persistence in coming up with solutions and improvements to their platform to handle the rigors of sampling in this region was impressive. One improvement that we benefited greatly from was a ramp designed to safely slide rocks directly over the side from the sorting table. This was much appreciated by those of us used to our old method of muscling them across the deck or repeatedly lifting them off the deck by crane.

Record catches

At station 461 in the Great South Channel, we caught 10,224 scallops, more than half of which were juveniles with shell heights less than 2 inches. Small scallops have not been observed in such large quantities in this area since 2001. In fact, this catch ranks as the 9th highest catch (in number) in the Great South Channel for the entire scallop survey history. Small juvenile scallops were present on several other stations within the Channel as well.

On the Northern Edge of Georges Bank, in Closed Area II, we had four of the five largest scallop catches for this area in survey history. Stations 405, 406, 415, and 420 caught 3,921, 5,608, 3,576, and 5,819 scallops respectively. All contained a full size range of scallops from approximately 1.2 to 6.4 inches. The only single historical survey tow on the Northern Edge capturing more scallops, occurred in 1998 when 10,528 individuals of a similar size range (1.5 to 5.8 inches) were caught.

Kevin McIntosh
Chief Scientist
Survey Leg I
508-495-2293
Kevin.McIntosh@noaa.gov

Stacy Rowe
Chief Scientist
Survey Leg II
508-495-2021
Stacy.Rowe@noaa.gov

UNOLS RV HUGH R SHARP 2008 SEA SCALLOP
June 22 - August 06

Station	Position		Loran		Bottom		Number of Scallops				By-Catch				
	Lat.	Long.	TD's	heading	Depth (FM)	Temp (F)	Total No.	<90mm >40ct	>90mm <40ct	>100mm <30ct	Shell	Stone	Inverts	Total Vol. (lt)	
0001	3808.6	7418.4	X26823.9	Y422243.1	177	23.5	47.4	134	85	49	44	90	5	5	184
0002	3806.2	7417.4	X26815.2	Y42218.6	79	26.2		1306	1182	124	120	90	5	5	184
0003	3803.9	7424.5	X26849.3	Y42185.9	150	21.9		2813	2685	128	113	75	5	20	92
0004	3759.3	7422.3	X26831.3	Y42139.2	225	31.7	47.2	219	94	125	124	20	5	75	345
0005	3758.9	7424.0	X26839.6	Y42132.9	299	31.2		124	14	110	109	20	5	75	368
0006	3758.8	7429.0	X26865.3	Y42125.7	131	27.9		273	83	190	188	30	5	65	230
0007	3756.2	7426.7	X26849.7	Y42100.6	137	30.1	47.7	368	164	204	196	20	10	70	186
0008	3754.2	7426.6	X26846.4	Y42079.3	220	31.7		217	72	145	136	35	5	60	276
0009	3751.2	7424.8	X26833.1	Y42049.5	150	34.4		1109	657	452	371	40	5	55	184
0010	3751.3	7426.8	X26843.4	Y42047.9	322	32.8	47.9	225	78	147	142	40	5	55	138
0011	3756.9	7432.0	X26877.9	Y42101.4	211	27.9		123	25	98	97	75	15	10	184
0012	3756.4	7434.5	X26889.9	Y42092.8	205	25.2		195	125	70	62	55	15	30	92
0013	3753.9	7434.2	X26884.6	Y42066.2	238	28.4	48.4	52	7	45	43	50	10	40	138
0014	3751.4	7432.7	X26873.3	Y42041.1	179	29.5		644	348	296	270	35	35	30	184
0015	3748.6	7432.9	X26870.3	Y42010.7	94	30.6		324	165	159	148	35	10	55	184
0016	3745.5	7434.3	X26872.9	Y41975.4	336	31.2	47.7	127	26	101	97	30	20	50	138
0017	3748.6	7436.6	X26888.8	Y42005.6	344	29.5		228	86	142	134	25	25	50	207
0018	3749.0	7439.1	X26901.9	Y42006.5	141	26.8		174	28	146	146	50	10	40	184
0019	3751.7	7442.6	X26923.5	Y42031.2	186	23.5	49.0	123	121	2	2	85	5	10	207
0020	3746.6	7440.2	X26903.8	Y41978.9	212	27.9		68	7	61	60	15	5	80	230
0021	3741.4	7442.7	X26908.3	Y41918.9	182	27.9		153	41	112	107	25	5	70	322
0022	3741.4	7434.7	X26869.1	Y41930.7	153	33.4	47.7	4796	3970	826	546	60	5	35	127
0023	3741.2	7433.6	X26863.4	Y41930.1	34	31.2									
0024	3742.2	7432.4	X26858.9	Y41942.6	218	32.8		685	208	477	421	55	5	40	138
0025	3739.0	7434.5	X26864.8	Y41905.2	203	31.7		4100	3638	462	346	75	5	20	92
0026	3738.9	7436.9	X26876.4	Y41900.5	178	33.9	48.0	4570	3216	1354	822	65	5	30	92
0027	3737.2	7440.8	X26892.9	Y41876.3	175	31.2		779	471	308	272	70	10	20	92
0028	3734.0	7440.7	X26887.9	Y41841.9	155	31.2		830	524	306	245	55	10	35	104
0029	3733.6	7438.6	X26877.3	Y41840.9	340	31.7	49.1	754	548	206	170	60	15	25	92
0030	3734.6	7436.6	X26869.0	Y41854.8	191	35.0		59	10	49	49	5	5	90	161
0031	3733.7	7434.9	X26859.6	Y41847.8	154	34.4		1667	187	1480	1315	60	10	30	184
0032	3728.4	7434.1	X26848.8	Y41792.6	245	35.5	49.7	1971	106	1865	1490	90	5	5	115
0033	3728.9	7437.1	X26863.7	Y41792.9	313	36.1		2749	1816	933	735	85	5	10	138
0034	3728.2	7440.6	X26879.4	Y41779.7	296	30.6									
0035	3729.0	7441.8	X26886.2	Y41786.3	171	30.6	50.3	543	219	324	242	50	10	40	115
0036	3728.9	7442.6	X26889.9	Y41783.9	212	27.9									
0037	3728.0	7443.1	X26891.0	Y41773.4	12	29.0		3944	3780	164	110	30	30	40	46
0038	3723.8	7440.6	X26873.5	Y41732.5	214	32.8		574	109	465	434	85	5	10	276
0039	3719.0	7442.6	X26876.5	Y41677.7	189	33.9									
0040	3717.9	7442.7	X26875.6	Y41665.8	5	33.9		506	94	412	384	80	10	10	138

UNOLS RV HUGH R SHARP 2008 SEA SCALLOP
June 22 - August 06

Station	Position		Station Data			Bottom		Number of Scallops				By-Catch			
	Lat.	Long.	Loran TD's	heading	Depth (FM)	Temp (F)	Total No.	<90mm >40ct	>90mm <40ct	>100mm <30ct	Shell	Stone	Inverts	Total Vol. (lt)	
0041	3716.3	7444.4	X26881.3	Y41645.6	219	33.4	51.8	180	38	142	133	30	5	65	230
0042	3711.5	7446.8	X26886.0	Y41589.9	171	32.8		11	1	10	8	20	5	75	230
0043	3706.4	7449.1	X26889.8	Y41531.1	108	32.3		5	5	0	0	20	10	70	299
0044	3706.4	7452.7	X26905.9	Y41524.0	195	29.5	51.1	0	0	0	0	15	5	80	345
0045	3701.7	7452.9	X26900.7	Y41473.4	149	27.9		5	5	0	0	20	10	70	322
0046	3701.3	7448.8	X26882.0	Y41477.4	178	33.9		136	22	114	99	20	20	60	322
0047	3656.0	7447.0	X26867.5	Y41425.2	161	33.4	51.7	136	135	1	1	10	80	10	368
0048	3651.3	7448.9	X26870.1	Y41371.7	154	29.5		2028	2016	12	0	40	50	10	368
0049	3643.8	7446.7	X26851.9	Y41298.4	193	37.2		1	1	0	0	5	20	75	230
0050	3636.9	7446.5	X26843.4	Y41227.7	181	44.3	56.2	0	0	0	0	5	30	65	299
0051	3635.0	7446.8	X26842.6	Y41207.5	176	43.7		0	0	0	0	1	39	60	230
0052	3631.0	7448.7	X26846.2	Y41161.9	359	32.8		22	22	0	0	60	30	10	184
0053	3633.5	7448.7	X26848.9	Y41187.5	5	27.3	55.5	0	0	0	0	85	5	10	161
0054	3638.4	7448.7	X26854.4	Y41237.9	7	28.4		60	59	1	0	50	40	10	138
0055	3648.3	7448.5	X26864.8	Y41341.2	8	29.5		439	437	2	1	85	10	5	138
0056	3653.2	7446.9	X26863.7	Y41396.0	16	33.9	52.1	488	487	1	0	70	10	20	184
0057	3700.8	7446.7	X26872.0	Y41476.4	2	37.2		216	75	141	99	5	85	10	276
0058	3705.6	7446.7	X26878.0	Y41527.3	2	45.4		2	2	0	0	5	85	10	368
0059	3716.1	7443.3	X26876.0	Y41645.5	52	33.4	52.4	1205	124	1081	1030	85	5	10	138
0060	3720.7	7442.4	X26877.9	Y41696.2	17	33.9		529	50	479	464	40	40	20	230
0061	3730.4	7440.6	X26882.4	Y41803.3	351	32.3		1631	823	808	532	65	5	30	92
0062	3730.7	7431.0	X26836.9	Y41822.1	30	37.2	49.1	1863	108	1755	1344	80	5	15	92
0063	3730.6	7432.4	X26843.5	Y41818.7	1	37.7		978	38	940	798	65	5	30	161
0064	3738.2	7432.8	X26855.4	Y41899.2	48	33.4		287	48	239	217	55	5	40	104
0065	3740.8	7426.5	X26827.9	Y41936.4	347	36.6	48.8	1457	225	1232	1034	50	15	35	230
0066	3740.3	7424.6	X26817.8	Y41933.9	359	37.7		284	41	243	203	70	5	25	138
0067	3743.0	7425.5	X26825.8	Y41961.2	20	36.6		963	93	870	758	65	5	30	127
0068	3744.2	7426.2	X26830.8	Y41973.0	240	36.6	48.4	344	36	308	276	75	5	20	138
0069	3743.6	7430.0	X26848.9	Y41961.1	315	32.8		719	409	310	269	35	20	45	138
0070	3745.9	7429.1	X26847.5	Y41987.0	52	33.9		213	57	156	149	30	20	50	115
0071	3746.7	7424.9	X26827.6	Y42001.4	193	36.1	48.3	1017	213	804	708	30	20	50	115
0072	3748.2	7424.8	X26829.1	Y42017.5	3	34.4		4113	3321	792	609	60	10	30	127
0073	3748.2	7421.6	X26812.9	Y42021.9	19	37.7		1444	148	1296	1000	60	10	30	92
0074	3753.1	7418.9	X26805.5	Y42077.5	346	40.5	51.0	619	31	588	528	25	25	50	184
0075	3753.5	7416.7	X26794.8	Y42084.6	352	38.8		189	11	178	156	25	15	60	230
0076	3755.8	7420.0	X26814.7	Y42104.8	315	37.2		133	22	111	110	20	5	75	322
0077	3800.7	7419.0	X26816.1	Y42158.2	21	32.3	47.6	299	42	257	241	20	10	70	230
0078	3801.1	7415.3	X26797.3	Y42166.8	24	36.1		1001	79	922	874	40	5	55	184
0079	3800.8	7412.9	X26784.4	Y42166.5	12	39.4		1355	39	1316	1162	70	5	25	92
0080	3803.2	7414.6	X26796.4	Y42189.9	345	35.0	47.9	733	285	448	335	60	2	38	104

UNOLS RV HUGH R SHARP 2008 SEA SCALLOP
June 22 - August 06

Station	Position		Station Data			Bottom		Number of Scallops				By-Catch			
	Lat.	Long.	Loran TD's	heading	Depth (FM)	Temp (F)	Total No.	<90mm >40ct	>90mm <40ct	>100mm <30ct	Shell	Stone (Percentage)	Inverts	Total Vol. (lt)	
0081	3804.4	7416.4	X26807.5	Y42200.6	225	27.9		1189	640	549	273	75	5	20	115
0082	3805.6	7415.0	X26801.7	Y42214.9	26	27.3		530	316	214	148	70	5	25	184
0083	3808.1	7414.4	X26801.9	Y42242.1	322	21.3	47.0	130	94	36	33	80	15	5	138
0084	3809.7	7416.2	X26813.7	Y42257.2	210	24.1		290	105	185	174	70	5	25	138
0085	3808.0	7413.8	X26798.5	Y42241.7	30	23.5		425	271	154	140	75	5	20	115
0086	3809.1	7408.9	X26773.8	Y42258.6	161	39.4	50.7	1059	73	986	894	40	35	25	253
0087	3806.2	7409.7	X26774.3	Y42227.1	68	39.4		170	7	163	130	20	15	65	161
0088	3808.5	7405.8	X26756.4	Y42255.6	97	38.8		5148	402	4746	3600	95	2	3	92
0089	3810.8	7407.0	X26765.7	Y42278.5	40	38.8	51.0								
0090	3811.7	7406.3	X26763.1	Y42288.7	222	33.9		3261	549	2712	2364	95	3	2	127
0091	3813.3	7406.7	X26767.3	Y42305.2	6	36.1		3067	2089	978	801	85	5	10	92
0092	3813.2	7401.1	X26736.8	Y42309.7	28	40.5		25	1	24	18	5	5	90	115
0093	3815.7	7356.7	X26715.7	Y42340.1	358	38.3	53.1	1569	94	1475	1340	30	20	50	92
0094	3816.6	7358.5	X26726.6	Y42347.8	205	38.8									
0095	3815.6	7358.5	X26725.4	Y42337.3	350	38.3		345	68	277	248	25	15	60	138
0096	3818.1	7358.6	X26729.0	Y42363.3	353	38.3		90	13	77	71	10	5	85	184
0097	3815.4	7404.9	X26760.2	Y42329.0	350	35.5	47.4	182	63	119	114	20	10	70	161
0098	3815.7	7407.1	X26772.6	Y42330.1	33	37.2		1585	345	1240	1078	75	10	15	138
0099	3815.8	7414.9	X26815.3	Y42323.5	26	29.0		319	150	169	157	40	5	55	161
0100	3813.2	7417.0	X26822.9	Y42293.7	26	29.0	47.4								
0101	3814.2	7416.3	X26820.6	Y42305.0	205	26.2		345	164	181	168	70	5	25	253
0102	3818.1	7418.7	X26839.3	Y42344.4	355	26.8		150	23	127	121	75	20	5	276
0103	3820.6	7416.6	X26831.6	Y42373.1	352	29.0		151	17	134	128	40	5	55	345
0104	3823.1	7414.6	X26824.3	Y42401.7	355	30.1	46.9	207	38	169	155	40	5	55	276
0105	3830.3	7414.6	X26835.3	Y42478.6	4	24.1		251	134	117	97	25	25	50	322
0106	3830.4	7408.8	X26802.6	Y42484.2	9	27.9	46.5	260	123	137	125	40	15	45	368
0107	3830.7	7406.8	X26791.7	Y42488.9	17	29.0		293	64	229	222	50	10	40	184
0108	3828.3	7408.7	X26799.0	Y42462.0	4	29.5		316	172	144	140	55	5	40	230
0109	3825.8	7412.6	X26817.2	Y42432.2	0	29.0	46.9	225	109	116	113	40	5	55	230
0110	3820.8	7410.8	X26799.9	Y42380.6	14	30.6		546	233	313	296	55	5	40	161
0111	3820.7	7404.4	X26764.4	Y42385.3	357	35.5		110	32	78	74	5	5	90	230
0112	3823.3	7406.6	X26780.1	Y42410.8	352	31.7	46.9	326	19	307	303	35	15	50	207
0113	3824.0	7404.7	X26770.5	Y42419.8	186	33.4		818	96	722	700	45	5	50	173
0114	3825.8	7404.6	X26772.4	Y42438.9	348	32.8		219	17	202	200	10	5	85	230
0115	3826.5	7402.7	X26762.6	Y42447.8	184	31.2	46.4	920	44	876	864	65	5	30	184
0116	3829.4	7401.0	X26756.9	Y42479.7	352	29.5		695	165	530	502	20	20	60	253
0117	3826.8	7358.5	X26739.3	Y42454.4	179	30.6		372	2	370	356	20	10	70	138
0118	3821.6	7400.7	X26745.0	Y42398.0	186	35.0	49.0	11	0	11	11	25	10	65	138
0119	3820.8	7358.8	X26733.4	Y42391.3	21	36.1		31	1	30	30	5	5	90	219
0120	3820.8	7357.1	X26724.0	Y42392.9	46	35.5		21	0	21	21	2	3	95	150

UNOLS RV HUGH R SHARP 2008 SEA SCALLOP
June 22 - August 06

Station	Station Data				Bottom		Number of Scallops				By-Catch				
	Position		Loran TD's	heading	Depth (FM)	Temp (F)	Total No.	<90mm >40ct	>90mm <40ct	>100mm <30ct	Shell	Stone		Inverts	Total Vol.(lt)
	Lat.	Long.										(Percentage)			
0121	3824.0	7354.8	X26715.0	Y42428.2	183	35.0	47.4	514	23	491	454	35	25	40	184
0122	3820.8	7352.7	X26699.4	Y42396.7	356	39.9		20	0	20	19	5	5	90	150
0123	3823.3	7348.8	X26680.4	Y42425.9	20	39.9		4	0	4	4	3	2	95	207
0124	3826.1	7344.7	X26660.3	Y42458.1	360	39.4	55.1	37	0	37	37	5	5	90	207
0125	3826.8	7348.1	X26680.4	Y42462.6	3	36.1		89	3	86	79	2	2	96	253
0126	3828.4	7348.7	X26685.6	Y42478.7	351	33.4		1122	40	1082	908	60	1	39	184
0127	3828.5	7350.7	X26697.1	Y42478.2	1	32.8	47.2	5005	336	4669	3717	90	7	3	92
0128	3828.2	7354.7	X26719.6	Y42472.0	355	32.8		2100	95	2005	1810	70	5	25	196
0129	3828.2	7356.7	X26730.9	Y42470.4	357	31.2		2432	158	2274	2046	85	5	10	138
0130	3831.8	7352.7	X26712.6	Y42510.9	182	31.2	46.1	3604	190	3414	3192	95	2	3	92
0131	3830.7	7348.8	X26688.9	Y42502.4	7	34.4		5977	469	5508	4304	92	2	6	69
0132	3832.4	7346.5	X26677.6	Y42521.6	351	33.9		9581	533	9048	6838	93	2	5	23
0133	3833.1	7342.7	X26656.4	Y42531.4	2	34.4	51.3	5285	301	4984	3892	96	1	3	46
0134	3830.7	7340.9	X26643.4	Y42508.1	1	38.3		345	12	333	287	5	5	90	184
0135	3830.7	7338.8	X26631.3	Y42509.6	19	38.3		37	14	23	20	1	3	96	127
0136	3833.1	7336.8	X26622.2	Y42535.4	11	37.2	52.6	43	21	22	5	5	5	90	230
0137	3835.7	7340.7	X26647.6	Y42559.4	351	35.0		5824	336	5488	4452	95	3	2	35
0138	3838.1	7342.7	X26662.0	Y42582.7	359	34.4		5272	280	4992	4216	95	3	2	138
0139	3835.4	7342.6	X26658.4	Y42555.1	346	34.4	49.7	4459	280	4179	3479	95	3	2	92
0140	3835.5	7344.2	X26667.8	Y42555.1	8	33.9		4683	266	4417	3703	95	2	3	92
0141	3833.4	7350.6	X26702.5	Y42529.1	1	31.2									
0142	3833.3	7350.7	X26702.9	Y42527.9	4	30.6		6622	99	6523	5808	95	3	2	46
0143	3833.0	7352.9	X26715.2	Y42523.3	330	31.2	46.2	2094	38	2056	1968	80	3	17	173
0144	3833.1	7356.4	X26735.5	Y42521.9	355	30.1		538	115	423	398	58	2	40	230
0145	3835.7	7354.9	X26730.3	Y42550.0	14	30.1		288	32	256	241	10	2	88	311
0146	3838.0	7354.7	X26732.2	Y42574.2	358	27.3	46.4	2961	2804	157	125	40	2	58	322
0147	3837.9	7356.7	X26743.7	Y42571.9	355	26.2		1497	1367	130	105	40	3	57	196
0148	3838.1	7358.6	X26755.0	Y42572.7	4	27.3		768	624	144	139	45	2	53	184
0149	3838.0	7400.6	X26766.5	Y42570.4	11	28.4	46.3	158	24	134	134	35	2	63	265
0150	3836.0	7404.7	X26787.4	Y42546.6	15	30.6		401	24	377	373	35	2	63	322
0151	3833.4	7404.7	X26783.6	Y42519.1	20	31.2		424	32	392	386	50	2	48	230
0152	3835.6	7411.0	X26823.0	Y42537.9	24	29.0	46.9	151	6	145	143	50	1	49	460
0153	3840.6	7406.8	X26806.5	Y42593.9	12	25.7		158	27	131	118	30	20	50	368
0154	3845.8	7412.8	X26850.1	Y42645.8	5	25.2		285	223	62	50	20	10	70	391
0155	3845.7	7400.8	X26779.0	Y42651.4	9	26.8	46.7	185	4	181	175	20	20	60	276
0156	3849.4	7354.5	X26746.8	Y42693.4	202	23.5		855	706	149	138	35	5	60	184
0157	3845.5	7348.7	X26706.6	Y42655.7	10	25.7		404	107	297	229	75	15	10	265
0158	3843.4	7348.1	X26700.3	Y42634.2	351	28.4	46.3	1173	384	789	495	60	10	30	184
0159	3845.9	7338.7	X26647.1	Y42664.9	16	30.1		427	34	393	368	5	5	90	644
0160	3846.3	7332.7	X26611.4	Y42671.9	200	36.1		309	1	308	301	30	3	67	299

UNOLS RV HUGH R SHARP 2008 SEA SCALLOP
June 22 - August 06

Station	Position		Loran		Bottom		Number of Scallops				By-Catch				
	Lat.	Long.	TD's	heading	Depth (FM)	Temp (F)	Total No.	<90mm >40ct	>90mm <40ct	>100mm <30ct	Shell	Stone (Percentage)	Inverts	Total Vol.(lt)	
0161	3840.6	7332.8	X26606.2	Y42614.1	6	35.5	50.1	3734	74	3660	3408	90	2	8	46
0162	3838.3	7334.8	X26615.7	Y42589.6	6	33.9		4317	24	4293	3996	92	1	7	15
0163	3835.8	7332.9	X26602.1	Y42565.4	22	39.9		39	5	34	24	10	2	88	184
0164	3840.9	7328.8	X26582.7	Y42619.3	30	38.8	53.7	2412	688	1724	772	88	2	10	81
0165	3838.3	7316.2	X26505.9	Y42600.4	330	59.1		1	0	1	0	5	5	90	92
0166	3845.8	7322.3	X26548.2	Y42671.8	334	43.2		165	13	152	103	40	5	55	150
0167	3846.4	7324.4	X26561.4	Y42676.8	357	42.1	54.4	51	4	47	34	10	85	5	276
0168	3850.8	7332.7	X26616.2	Y42717.5	8	31.7		1920	1693	227	126	5	5	90	414
0169	3850.6	7338.8	X26653.2	Y42712.9	13	31.2		381	96	285	128	5	4	91	552
0170	3853.1	7344.6	X26691.8	Y42736.1	347	24.1	46.4	97	40	57	52	5	2	93	552
0171	3855.6	7336.7	X26646.3	Y42764.8	5	26.2		155	37	118	63	2	10	88	713
0172	3855.7	7324.8	X26572.7	Y42769.8	15	36.1		1802	1523	279	154	5	5	90	92
0173	3853.2	7318.5	X26531.4	Y42747.0	7	40.5	51.0	330	173	157	95	5	5	90	253
0174	3856.5	7314.1	X26506.8	Y42781.1	39	41.0									
0175	3855.8	7314.4	X26508.1	Y42774.1	46	38.8		604	168	436	206	70	5	25	92
0176	3858.4	7308.0	X26470.2	Y42801.5	79	44.3		232	175	57	3	85	2	13	207
0177	3901.1	7302.5	X26437.4	Y42829.1	12	42.7	52.4	19	14	5	2	1	98	1	506
0178	3905.7	7304.4	X26452.5	Y42873.4	342	40.5		93	37	56	30	20	5	75	92
0179	3908.4	7255.5	X26397.0	Y42900.6	70	47.6		1	0	1	0	25	15	60	253
0180	3908.5	7302.2	X26440.3	Y42900.9	324	38.3	49.8	282	123	159	121	40	10	50	161
0181	3908.2	7310.7	X26494.9	Y42897.0	349	36.6		1168	745	423	261	80	5	15	31
0182	3906.0	7314.3	X26516.2	Y42874.8	324	37.7		664	310	354	235	70	3	27	46
0183	3901.1	7318.2	X26536.5	Y42825.6	202	38.3	49.0	67	10	57	57	25	35	40	276
0184	3903.2	7322.8	X26567.7	Y42845.4	7	32.8		2823	2148	675	270	15	3	82	345
0185	3906.6	7328.7	X26609.0	Y42878.4	182	29.5		1315	857	458	96	5	3	92	1656
0186	3913.4	7338.3	X26679.7	Y42946.0	336	25.7	46.7	225	106	119	51	10	5	85	702
0187	3903.9	7338.7	X26669.3	Y42848.9	168	27.3		272	128	144	108	5	2	93	874
0188	3901.0	7332.5	X26626.5	Y42820.9	332	29.5		1044	353	691	270	5	40	55	943
0189	3908.8	7332.2	X26634.1	Y42900.0	342	26.8	45.4	209	130	79	47	5	1	94	1058
0190	3916.0	7321.9	X26575.7	Y42973.2	328	27.9		2680	2400	280	171	7	2	91	1058
0191	3923.1	7318.8	X26563.2	Y43043.5	14	29.5		561	383	178	53	10	2	88	598
0192	3920.8	7312.6	X26519.1	Y43020.4	344	33.9	46.2	52	12	40	37	5	2	93	1288
0193	3923.3	7308.8	X26496.0	Y43044.6	13	34.4		1003	802	201	132	25	3	72	690
0194	3926.5	7305.0	X26473.3	Y43075.1	127	36.6		1325	1085	240	120	25	8	67	368
0195	3923.4	7301.0	X26443.5	Y43044.7	173	36.1	47.9	1112	796	316	156	75	5	20	92
0196	3920.6	7304.7	X26466.0	Y43018.0	17	35.0		1878	1490	388	184	75	5	20	58
0197	3918.8	7308.9	X26492.5	Y43000.7	204	35.5		468	194	274	206	25	3	72	322
0198	3916.2	7306.4	X26473.6	Y42975.4	14	36.1	48.6	260	76	184	152	25	3	72	115
0199	3913.5	7302.7	X26447.1	Y42949.2	22	40.5		73	13	60	44	20	10	70	161
0200	3915.7	7258.8	X26423.1	Y42970.5	29	39.9		374	44	330	260	50	5	45	69

UNOLS RV HUGH R SHARP 2008 SEA SCALLOP
June 22 - August 06

Station	Position		Loran		Bottom			Number of Scallops				By-Catch			
	Lat.	Long.	TD's	heading	Depth (FM)	Temp (F)	Total No.	<90mm >40ct	>90mm <40ct	>100mm <30ct	Shell	Stone (Percentage)	Inverts	Total Vol.(lt)	
0201	3918.1	7255.5	X26402.8	Y42993.5	36	39.4	49.7	349	66	283	178	5	5	90	127
0202	3920.4	7253.2	X26388.9	Y43015.3	24	38.3		376	74	302	188	20	10	70	115
0203	3915.7	7247.1	X26346.0	Y42970.4	28	49.2		3	2	1	1	5	10	85	161
0204	3921.0	7242.1	X26315.1	Y43020.0	360	55.2	54.2	0	0	0	0	2	2	96	138
0205	3922.6	7248.7	X26360.0	Y43035.7	4	42.1		44	30	14	5	5	5	90	115
0206	3926.0	7244.6	X26334.1	Y43067.1	13	43.7		13	4	9	6	35	5	60	230
0207	3928.2	7244.6	X26335.2	Y43087.7	19	42.1	51.1	252	203	49	46	10	5	85	92
0208	3928.4	7251.8	X26384.6	Y43091.0	8	35.5		264	102	162	113	85	5	10	92
0209	3932.9	7246.9	X26353.7	Y43132.3	14	37.7		323	205	118	90	95	2	3	115
0210	3937.9	7250.7	X26383.8	Y43180.4	352	36.1	47.7	64	7	57	55	20	5	75	253
0211	3943.5	7248.6	X26373.2	Y43232.1	26	40.5		5	0	5	5	5	5	90	161
0212	3943.6	7252.7	X26402.7	Y43234.7	26	40.5		6	1	5	4	20	3	77	196
0213	3940.6	7259.2	X26446.3	Y43208.9	341	34.4	45.2	371	129	242	54	15	10	75	460
0214	3935.9	7256.7	X26424.3	Y43163.4	333	34.4		325	143	182	58	35	5	60	437
0215	3933.4	7300.5	X26448.7	Y43140.6	338	37.2		207	167	40	23	10	2	88	506
0216	3936.0	7314.7	X26550.6	Y43169.6	345	21.9	46.2								
0217	3936.7	7315.1	X26554.3	Y43176.6	171	21.3		21	15	6	6	5	35	60	1702
0218	3943.6	7302.7	X26474.4	Y43238.9	26	30.1		1106	952	154	53	45	10	45	322
0219	3951.1	7254.6	X26423.7	Y43306.1	21	34.4		122	71	51	45	60	5	35	345
0220	4001.7	7254.2	X26432.4	Y43404.8	229	29.0	44.9	109	27	82	48	10	40	50	1081
0221	3956.5	7258.4	X26457.8	Y43358.9	216	29.0		109	36	73	49	10	5	85	598
0222	3953.7	7304.5	X26499.5	Y43336.0	274	38.3		4	2	2	2	10	7	83	92
0223	3947.9	7304.5	X26492.4	Y43280.7	342	31.7	45.5	941	846	95	63	20	10	70	161
0224	3944.3	7308.5	X26516.9	Y43248.0	192	25.2		743	683	60	35	5	10	85	1288
0225	3943.2	7316.4	X26572.0	Y43240.5	357	21.9		428	405	23	14	5	15	80	828
0226	3948.6	7331.2	X26686.5	Y43299.9	83	19.1	46.6	47	26	21	19	5	5	90	736
0227	3951.1	7319.2	X26603.7	Y43318.8	81	25.7		943	766	177	79	15	5	80	345
0228	3953.4	7313.0	X26561.8	Y43337.8	282	31.2		667	522	145	100	10	85	5	679
0229	3955.8	7314.2	X26574.2	Y43361.6	304	39.4	46.1	0	0	0	0	3	2	95	161
0230	3955.7	7318.3	X26604.3	Y43363.0	184	30.1		601	508	93	54	30	50	20	598
0231	3958.3	7322.2	X26637.5	Y43390.6	311	34.4		2	2	0	0	1	0	99	207
0232	4000.5	7334.4	X26732.1	Y43419.8	340	20.8	46.0	90	47	43	26	15	2	83	598
0233	4005.7	7326.4	X26682.4	Y43465.6	344	24.1		204	96	108	40	70	5	25	69
0234	4005.8	7332.9	X26731.5	Y43471.2	328	37.2		2	0	2	1	5	5	90	115
0235	4008.8	7344.8	X26827.4	Y43509.7	25	18.0	46.0	244	171	73	49	10	5	85	805
0236	4013.4	7342.7	X26822.3	Y43553.9	350	18.6		94	90	4	3	85	10	5	96
0237	4021.0	7323.1	X26687.7	Y43610.3	55	18.0		117	20	97	85	35	5	60	874
0238	4028.3	7313.2	X26624.2	Y43668.9	55	17.0	49.7	7	5	2	2	3	2	95	1196
0239	4028.9	7257.3	X26496.9	Y43657.1	91	21.9		65	6	59	54	30	5	65	92
0240	4033.1	7254.8	X26484.1	Y43692.0	13	18.0		10	5	5	4	2	3	95	1794

UNOLS RV HUGH R SHARP 2008 SEA SCALLOP
June 22 - August 06

Station	Position		Station Data			Bottom		Number of Scallops				By-Catch			
	Lat.	Long.	Loran TD's	heading	Depth (FM)	Temp (F)	Total No.	<90mm >40ct	>90mm <40ct	>100mm <30ct	Shell	Stone (Percentage)	Inverts	Total Vol. (lt)	
0241	4026.9	7243.5	X26381.7	Y43624.3	192	24.1	45.4	101	41	60	45	10	3	87	736
0242	4033.5	7224.8	X26237.4	Y43661.3	25	24.6		223	170	53	38	6	3	91	1656
0243	4040.8	7226.9	X26264.9	Y43725.6	25	20.8		58	55	3	3	5	2	93	1610
0244	4045.8	7223.6	X26244.7	Y43763.4	58	18.6	50.5	53	46	7	2	5	2	93	1610
0245	4041.3	7216.7	X26179.7	Y43717.3	206	26.2		61	11	50	46	10	7	83	736
0246	4033.2	7218.8	X26187.5	Y43652.0	10	29.0		21	0	21	19	20	15	65	253
0247	4035.7	7215.0	X26158.7	Y43668.7	33	27.3	45.5	34	0	34	34	15	10	75	345
0248	4038.4	7206.9	X26094.0	Y43681.7	32	28.4		70	1	69	63	10	5	85	345
0249	4035.9	7155.1	X25993.5	Y43647.9	62	30.6		26	5	21	14	10	5	85	782
0250	4040.8	7152.9	X25978.6	Y43684.8	20	30.1	44.7	69	7	62	53	35	5	60	173
0251	4048.5	7146.9	X25934.4	Y43738.5	25	29.5		46	8	38	33	5	15	80	92
0252	4048.4	7153.2	X25988.3	Y43745.6	53	23.0		192	107	85	64	10	5	85	667
0253	4050.9	7148.7	X25952.4	Y43759.6	356	25.2	46.1	230	222	8	5	15	15	70	598
0254	4056.4	7148.3	X25955.7	Y43801.8	236	23.0		70	42	28	18	15	5	80	161
0255	4054.2	7200.7	X26060.6	Y43801.3	193	18.0		25	25	0	0	5	2	93	713
0256	4019.1	7216.6	X26157.0	Y43529.8	196	32.3	44.9	42	6	36	32	5	2	93	1265
0257	4014.1	7213.0	X26125.7	Y43483.7	166	33.9		51	6	45	44	10	5	85	207
0258	4011.5	7208.6	X26090.4	Y43457.8	192	36.6		0	0	0	0	3	1	96	115
0259	4008.7	7220.8	X26183.3	Y43443.3	340	39.4	48.2	4	2	2	2	5	5	90	92
0260	4011.2	7226.8	X26231.4	Y43470.0	274	37.2		7	3	4	3	5	1	94	161
0261	4011.3	7234.4	X26290.6	Y43477.1	252	34.4		74	50	24	18	25	3	72	288
0262	3959.0	7241.1	X26330.9	Y43371.2	182	32.8	44.9	366	288	78	51	20	5	75	529
0263	3908.2	7306.9	X26470.4	Y42897.4	35	39.9	47.7								
0264	3909.3	7305.9	X26464.8	Y42908.3	228	39.9		492	240	252	177	80	5	15	184
0265	3916.0	7302.7	X26449.0	Y42973.4	14	39.9		668	229	439	358	80	5	15	46
0266	3946.1	7234.7	X26274.9	Y43250.0	40	33.9		2995	2833	162	124	85	10	5	58
0267	3953.4	7236.6	X26293.1	Y43317.4	351	32.3	48.4	1054	976	78	40	75	5	20	115
0268	3958.6	7230.8	X26253.3	Y43360.9	351	36.1		69	16	53	52	10	5	85	92
0269	4015.9	7246.6	X26391.3	Y43528.9	352	28.4		67	14	53	30	10	5	85	679
0270	4011.1	7158.5	X26012.6	Y43446.3	325	38.8	49.8	69	29	40	33	15	3	82	184
0271	4013.5	7156.8	X25999.7	Y43465.1	64	36.1		16	12	4	4	10	3	87	184
0272	4018.6	7200.3	X26027.8	Y43510.7	302	35.5		46	43	3	1	75	3	22	46
0273	4026.1	7148.9	X25938.9	Y43561.9	64	38.3	49.9	0	0	0	0	7	3	90	46
0274	4031.0	7146.5	X25920.6	Y43599.1	340	37.2		0	0	0	0	20	2	78	23
0275	4039.0	6954.9	W14075.7	Y43550.7	167	29.5		0	0	0	0	5	2	93	92
0276	4039.0	6950.6	W14052.9	Y43546.9	188	30.6	48.1	0	0	0	0	7	2	91	115
0277	4031.5	6954.7	W14100.6	Y43499.6	190	36.6		0	0	0	0	70	5	25	34
0278	4025.8	6944.4	W14066.3	Y43452.8	12	39.9		0	0	0	0	80	3	17	46
0279	4028.8	6942.7	W14047.2	Y43471.8	20	38.8	48.7	0	0	0	0	65	3	32	23
0280	4034.0	6942.6	W14028.6	Y43506.7	313	35.5		792	0	792	792	88	2	10	173

UNOLS RV HUGH R SHARP 2008 SEA SCALLOP
June 22 - August 06

Station	Station Data				Bottom		Number of Scallops				By-Catch				
	Position Lat. Long.	Loran TD's	heading	Depth (FM)	Temp (F)	Total No.	<90mm >40ct	>90mm <40ct	>100mm <30ct	Shell	Stone (Percentage)	Inverts	Total Vol. (lt)		
0281	4033.5	6938.7	W14010.1	Y43500.2	14	36.6		339	3	336	334	75	5	20	414
0282	4033.4	6932.9	W13980.6	Y43495.0	27	34.4	48.4	4	0	4	4	5	50	45	173
0283	4026.0	6936.7	W14026.0	Y43448.6	9	37.7		27	6	21	19	85	5	10	851
0284	4025.9	6931.0	W13997.3	Y43443.8	43	36.1		152	1	151	143	90	5	5	472
0285	4023.4	6926.7	W13984.3	Y43424.2	3	39.4	46.5	5	0	5	4	5	5	90	138
0286	4025.8	6922.6	W13955.3	Y43437.3	7	39.9		5	0	5	5	15	5	80	81
0287	4035.7	6920.8	W13910.5	Y43500.6	9	32.3		156	4	152	147	25	15	60	1196
0288	4037.8	6912.6	W13861.4	Y43507.8	13	33.9	48.8	105	10	95	89	65	5	30	184
0289	4033.6	6908.8	W13858.1	Y43478.0	14	37.7		83	2	81	74	5	90	5	426
0290	4036.1	6902.9	W13819.6	Y43489.6	68	41.0		91	4	87	75	30	8	62	253
0291	4043.9	6902.7	W13788.8	Y43538.6	35	43.2	48.4	279	7	272	251	30	10	60	472
0292	4043.8	6910.9	W13830.1	Y43544.6	66	32.8		1304	342	962	652	40	50	10	437
0293	4041.0	6912.7	W13849.9	Y43528.3	16	31.2									
0294	4041.2	6916.6	W13868.8	Y43532.7	349	29.5	50.0	537	128	409	365	55	30	15	552
0295	4044.2	6914.0	W13844.2	Y43549.7	52	35.0		1210	204	1006	806	45	15	40	368
0296	4043.0	6912.4	W13840.8	Y43540.8	343	32.8	50.5	266	24	242	216	40	5	55	276
0297	4046.5	6910.2	W13816.2	Y43561.1	301	37.7									
0298	4047.0	6911.4	W13820.3	Y43565.2	100	37.7		2536	522	2014	1635	70	7	23	391
0299	4047.8	6915.6	W13838.5	Y43573.9	41	31.7		2130	95	2035	1750	35	40	25	460
0300	4051.2	6914.7	W13820.6	Y43594.6	34	30.6	51.9	305	122	183	125	25	70	5	736
0301	4058.7	6914.6	W13790.2	Y43641.5	355	35.5		1416	1025	391	167	5	85	10	920
0302	4054.1	6908.8	W13779.2	Y43607.5	181	37.7		877	404	473	116	20	50	30	276
0303	4053.6	6853.0	W13702.2	Y43590.5	64	43.7	50.5	396	72	324	252	20	70	10	276
0304	4055.2	6851.4	W13687.8	Y43598.8	43	38.3		304	22	282	254	45	25	30	230
0305	4057.9	6852.5	W13682.1	Y43616.2	347	39.4		1400	95	1305	1215	40	20	40	322
0306	4100.9	6855.9	W13686.6	Y43637.5	47	41.6	51.9	34	9	25	22	30	5	65	81
0307	4103.8	6850.6	W13648.1	Y43650.1	113	39.9		1171	170	1001	698	50	45	5	506
0308	4106.6	6851.6	W13641.2	Y43667.8	40	43.2		560	180	380	336	65	7	28	138
0309	4108.6	6847.5	W13612.3	Y43675.8	120	41.6	47.7	443	206	237	171	40	20	40	253
0310	4109.0	6842.0	W13583.4	Y43672.9	190	35.5		1074	660	414	283	55	10	35	414
0311	4113.4	6840.4	W13556.4	Y43697.2	85	35.0		332	161	171	135	25	45	30	299
0312	4115.9	6840.6	W13546.3	Y43711.9	353	37.2	53.1	96	35	61	56	60	5	35	138
0313	4118.3	6840.2	W13533.7	Y43725.4	295	41.6		204	45	159	155	90	5	5	46
0314	4118.5	6838.5	W13524.4	Y43724.9	125	42.1									
0315	4118.0	6837.0	W13519.3	Y43720.5	295	38.8		52	27	25	22	85	5	10	69
0316	4117.0	6837.0	W13523.8	Y43714.7	147	37.2	49.9	173	106	67	56	15	75	10	138
0317	4117.5	6831.6	W13495.3	Y43712.3	316	32.8		37	5	32	24	15	25	60	495
0318	4123.7	6826.9	W13444.5	Y43742.9	95	39.4		15	1	14	14	15	15	70	506
0319	4123.9	6821.1	W13415.8	Y43738.3	118	33.9	56.6	98	42	56	42	30	60	10	736
0320	4118.9	6826.7	W13465.4	Y43715.5	190	34.4		38	5	33	31	40	20	40	437

UNOLS RV HUGH R SHARP 2008 SEA SCALLOP
June 22 - August 06

Station	Position		Station Data			Bottom		Number of Scallops				By-Catch			
	Lat.	Long.	Loran TD's	heading	Depth (FM)	Temp (F)	Total No.	<90mm >40ct	>90mm <40ct	>100mm <30ct	Shell	Stone (Percentage)	Inverts	Total Vol. (lt)	
0321	4116.8	6831.1	W13496.0	Y43707.8	143	33.4		5	0	5	5	20	20	60	391
0322	4111.2	6834.5	W13537.3	Y43678.7	214	37.2	58.2	211	84	127	103	35	20	45	299
0323	4108.1	6835.7	W13556.7	Y43661.7	286	33.4		131	5	126	111	25	45	30	391
0324	4108.4	6836.2	W13557.8	Y43663.9	111	35.5									
0325	4106.6	6834.7	W13558.3	Y43652.0	97	30.6	57.4	780	60	720	696	25	65	10	414
0326	4105.4	6837.3	W13576.1	Y43647.3	340	32.8		35	4	31	26	15	10	75	460
0327	4106.1	6842.7	W13599.4	Y43656.4	360	32.3		1366	142	1224	1137	60	30	10	430
0328	4104.0	6840.7	W13598.6	Y43642.2	187	35.5	56.4	540	120	420	375	60	20	20	345
0329	4101.6	6849.1	W13649.9	Y43635.5	168	36.6		12	0	12	11	12	5	83	242
0330	4059.8	6848.3	W13653.5	Y43623.9	110	37.7		10	6	4	3	15	5	80	299
0331	4053.7	6845.0	W13662.6	Y43584.3	121	38.3	54.8	3	0	3	3	5	15	80	1518
0332	4053.5	6839.7	W13637.7	Y43578.6	177	32.8		0	0	0	0	5	15	80	1461
0333	4046.3	6839.0	W13663.6	Y43534.6	188	32.3		20	3	17	17	15	5	80	276
0334	4046.9	6842.7	W13679.0	Y43541.2	256	35.0	52.9	69	4	65	65	10	3	87	1242
0335	4048.7	6846.7	W13691.1	Y43555.3	243	35.5		81	8	73	70	25	10	65	874
0336	4048.7	6854.7	W13730.3	Y43561.8	176	38.3		198	20	178	157	25	60	15	483
0337	4046.5	6854.6	W13738.5	Y43548.2	182	38.3	52.5	68	8	60	52	25	25	50	621
0338	4043.8	6848.7	W13720.4	Y43526.9	109	37.7									
0339	4043.5	6847.6	W13716.2	Y43524.2	290	36.1		129	52	77	69	25	60	15	345
0340	4041.2	6854.7	W13759.8	Y43515.4	184	37.7		90	15	75	61	90	5	5	782
0341	4028.0	6853.0	W13801.6	Y43431.5	24	42.7	47.0	1	0	1	1	15	65	20	322
0342	4033.2	6848.6	W13760.9	Y43461.1	33	38.3		15	15	0	0	20	65	15	253
0343	4035.7	6843.2	W13725.4	Y43472.9	31	35.0		83	21	62	59	25	70	5	621
0344	4037.9	6840.6	W13704.5	Y43484.6	4	35.5	47.6	44	30	14	12	5	5	90	230
0345	4036.6	6835.5	W13685.3	Y43473.1	122	36.1									
0346	4035.9	6834.7	W13684.2	Y43468.2	10	36.6		91	67	24	22	60	5	35	230
0347	4026.0	6826.7	W13684.9	Y43402.6	12	55.8		28	25	3	0	75	3	22	173
0348	4028.6	6824.9	W13666.7	Y43417.4	36	53.0	48.3	44	37	7	2	55	40	5	437
0349	4038.8	6816.7	W13589.1	Y43473.5	40	44.8		5	2	3	2	30	65	5	92
0350	4053.5	6753.5	W13423.7	Y43542.7	63	34.4									
0351	4054.5	6752.4	W13414.6	Y43547.6	204	33.9		48	10	38	22	90	2	8	506
0352	4044.2	6746.8	W13433.3	Y43485.2	214	39.4	48.2	262	122	140	85	80	7	13	92
0353	4037.7	6744.7	W13450.8	Y43446.7	12	43.7		338	92	246	219	80	5	15	115
0354	4038.6	6736.7	W13412.8	Y43447.0	6	47.6		43	8	35	25	40	45	15	897
0355	4046.2	6724.7	W13330.6	Y43482.3	25	50.3	46.7								
0356	4046.4	6724.6	W13329.3	Y43483.3	185	50.3		10	0	10	10	50	40	10	748
0357	4051.1	6732.7	W13343.6	Y43514.7	355	43.2		213	35	178	45	70	10	20	184
0358	4053.3	6732.9	W13335.0	Y43527.0	27	41.6		111	20	91	44	2	3	95	92
0359	4053.0	6738.6	W13360.7	Y43529.3	13	39.4	47.9	76	25	51	36	15	5	80	184
0360	4103.1	6732.7	W13291.6	Y43580.9	11	35.0		25	1	24	24	85	5	10	368

UNOLS RV HUGH R SHARP 2008 SEA SCALLOP
June 22 - August 06

Station	Position		Station Data			Bottom		Number of Scallops				By-Catch			
	Lat.	Long.	Loran TD's	heading	Depth (FM)	Temp (F)	Total No.	<90mm >40ct	>90mm <40ct	>100mm <30ct	Shell	Stone (Percentage)	Inverts	Total Vol.(lt)	
0361	4103.5	6728.5	W13271.9	Y43580.0	8	35.0		36	4	32	31	45	5	50	414
0362	4105.8	6709.4	W13182.4	Y43578.4	5	35.5	49.0	123	2	121	120	70	5	25	437
0363	4111.0	6708.7	W13156.2	Y43605.5	359	33.9		148	6	142	133	85	1	14	368
0364	4116.0	6704.8	W13117.6	Y43628.8	356	34.4		16	2	14	14	85	1	14	322
0365	4116.3	6656.8	W13084.3	Y43624.3	150	37.7	48.3								
0366	4115.9	6656.7	W13085.7	Y43622.1	358	37.7		60	10	50	49	60	0	40	230
0367	4114.0	6656.7	W13094.4	Y43612.3	165	37.7									
0368	4113.7	6656.8	W13096.2	Y43610.8	20	38.3		88	14	74	71	75	0	25	92
0369	4105.3	6656.1	W13131.4	Y43566.5	7	39.9									
0370	4105.6	6656.8	W13132.8	Y43568.5	196	38.8		682	186	496	300	70	2	28	138
0371	4110.8	6648.7	W13077.7	Y43590.0	7	40.5	47.5	747	167	580	382	80	1	19	92
0372	4111.3	6644.9	W13060.7	Y43589.9	194	41.6		888	93	795	756	55	2	43	276
0373	4106.3	6642.6	W13074.4	Y43562.5	190	44.8		1390	202	1188	1146	55	2	43	69
0374	4058.9	6650.5	W13137.7	Y43529.2	205	42.1		442	292	150	133	85	5	10	92
0375	4053.7	6652.7	W13169.0	Y43503.1	221	50.3		60	3	57	53	85	5	10	1426
0376	4051.1	6656.7	W13195.9	Y43491.7	194	51.4		55	49	6	5	90	5	5	1058
0377	4051.2	6650.7	W13172.0	Y43488.6	7	53.6		398	395	3	2	60	30	10	828
0378	4053.7	6644.7	W13137.9	Y43498.2	3	54.7		842	842	0	0	75	20	5	1564
0379	4055.8	6641.3	W13115.8	Y43507.2	61	53.6		59	59	0	0	90	0	10	1564
0380	4100.9	6633.0	W13062.0	Y43528.5	32	53.0		908	900	8	4	70	10	20	230
0381	4105.9	6630.6	W13030.9	Y43552.6	352	50.9		1160	992	168	84	50	20	30	230
0382	4110.8	6634.8	W13024.6	Y43580.4	34	48.7		950	412	538	538	85	5	10	115
0383	4113.2	6632.4	W13004.7	Y43590.9	357	50.3		7126	6010	1116	1108	80	2	18	115
0384	4111.2	6628.8	W13000.4	Y43578.3	20	53.0		1225	802	423	235	95	1	4	184
0385	4113.7	6622.7	W12966.6	Y43586.9	194	50.9		672	662	10	2	80	15	5	345
0386	4118.7	6636.7	W12995.6	Y43621.8	20	46.5		1040	322	718	356	88	1	11	69
0387	4126.4	6633.3	W12946.9	Y43657.9	184	48.1		537	202	335	289	95	1	4	713
0388	4123.9	6636.8	W12971.8	Y43648.0	314	48.7		248	77	171	134	92	1	7	127
0389	4123.6	6640.9	W12988.7	Y43649.6	356	44.8	47.6	179	49	130	106	92	3	5	161
0390	4129.1	6642.5	W12968.8	Y43678.5	207	42.1		70	10	60	56	90	2	8	242
0391	4124.2	6649.0	W13017.0	Y43658.8	179	41.6									
0392	4123.2	6648.3	W13019.0	Y43653.2	351	40.5		133	15	118	109	90	2	8	242
0393	4121.4	6646.6	W13020.8	Y43642.8	250	42.1	48.1	136	28	108	106	55	5	40	161
0394	4118.6	6646.5	W13033.4	Y43628.4	308	40.5		123	37	86	84	50	5	45	115
0395	4123.6	6656.6	W13049.5	Y43661.7	325	37.2									
0396	4123.7	6656.6	W13049.1	Y43662.2	138	37.2		21	8	13	13	35	25	40	299
0397	4126.0	6703.4	W13065.3	Y43679.5	72	33.4	52.9	0	0	0	0	1	2	97	1265
0398	4128.0	6656.9	W13030.0	Y43684.4	1	36.6									
0399	4128.3	6657.4	W13030.5	Y43686.4	68	36.6		9	5	4	4	5	10	85	483
0400	4138.7	6703.0	W13002.6	Y43743.9	127	35.0		0	0	0	0	2	3	95	161

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June 22 - August 06

Station	Station Data					Number of Scallops				By-Catch					
	Position		Loran TD's	heading	Bottom		Total No.	<90mm >40ct	>90mm <40ct	>100mm <30ct	Shell	Stone (Percentage)	Inverts	Total Vol.(lt)	
	Lat.	Long.			Depth (FM)	Temp (F)									
0401	4140.7	6650.9	W12945.1	Y43743.3	171	37.7	56.1	0	0	0	0	65	5	30	322
0402	4158.3	6710.6	W12934.8	Y43848.6	328	27.3									
0403	4158.5	6712.4	W12941.1	Y43851.4	334	28.4		2998	1526	1472	1254	70	15	15	644
0404	4200.9	6710.5	W12920.9	Y43861.3	345	30.1	56.9	2714	948	1766	1503	80	12	8	782
0405	4203.4	6716.5	W12932.4	Y43879.7	326	25.7		3921	759	3162	2841	88	6	6	375
0406	4203.7	6715.2	W12925.5	Y43879.8	149	26.2		5608	1984	3624	2552	55	35	10	426
0407	4204.1	6713.2	W12915.2	Y43879.7	167	26.2	51.7	3342	779	2563	2479	70	20	10	299
0408	4206.5	6712.8	W12900.9	Y43891.0	192	30.1		27	8	19	17	5	15	80	322
0409	4207.2	6707.6	W12876.2	Y43889.0	183	35.0		2004	546	1458	1368	85	10	5	552
0410	4208.6	6709.4	W12876.0	Y43897.6	208	48.7	48.2	8000	7150	850	845	35	15	50	299
0411	4208.5	6714.7	W12898.1	Y43902.7	223	61.8		1921	991	930	930	45	2	53	368
0412	4208.6	6716.5	W12905.0	Y43905.0	205	78.7									
0413	4205.8	6717.5	W12923.9	Y43892.5	281	28.4	43.4	4822	2418	2404	1764	90	5	5	276
0414	4206.1	6722.7	W12944.0	Y43899.4	218	39.4		2308	2084	224	56	80	5	15	230
0415	4204.3	6722.5	W12952.6	Y43890.4	177	29.0		3576	2226	1350	408	15	70	15	782
0416	4201.9	6720.8	W12958.1	Y43876.8	184	27.9	57.5	3009	2163	846	294	60	30	10	1219
0417	4201.5	6724.7	W12976.5	Y43878.8	213	26.8									
0418	4200.3	6724.0	W12979.8	Y43872.2	320	26.8		1716	1417	299	111	55	40	5	989
0419	4203.6	6728.3	W12980.8	Y43893.1	303	31.2		196	126	70	37	8	88	4	276
0420	4201.0	6732.4	W13011.9	Y43884.5	320	25.7	49.9	5819	5045	774	200	40	50	10	288
0421	4201.3	6738.5	W13036.7	Y43892.5	227	38.3									
0422	4200.8	6738.4	W13038.9	Y43889.9	340	30.6		137	48	89	66	75	5	20	127
0423	4201.2	6742.9	W13056.6	Y43896.8	204	55.8									
0424	4159.2	6743.1	W13067.9	Y43886.9	176	32.3	53.7	27	6	21	15	5	1	94	702
0425	4158.7	6746.7	W13086.4	Y43888.3	173	46.5		115	95	20	19	8	2	90	621
0426	4156.5	6754.3	W13131.9	Y43885.4	228	55.8		12	5	7	7	5	5	90	426
0427	4153.9	6756.3	W13154.4	Y43874.2	250	42.7	51.8	272	187	85	50	15	5	80	184
0428	4151.2	6756.5	W13169.0	Y43860.4	253	32.8		17	2	15	13	25	5	70	759
0429	4151.2	6752.1	W13149.1	Y43855.6	271	24.6		69	5	64	55	70	5	25	391
0430	4148.6	6756.3	W13181.2	Y43846.6	301	24.6	56.2	17	2	15	15	60	3	37	161
0431	4148.7	6804.5	W13218.4	Y43855.9	281	35.0		28	1	27	25	35	5	60	759
0432	4148.7	6810.6	W13246.8	Y43862.6	255	50.3									
0433	4149.0	6810.6	W13245.3	Y43864.2	282	49.8									
0434	4146.0	6814.5	W13278.7	Y43852.6	258	42.1	44.8								
0435	4145.7	6815.6	W13285.4	Y43852.2	53	42.7		9	6	3	2	5	5	90	506
0436	4143.7	6814.9	W13292.0	Y43840.7	98	27.9		9	0	9	9	35	5	60	414
0437	4134.3	6826.5	W13393.0	Y43801.8	188	30.6		9	1	8	8	10	5	85	322
0438	4133.7	6828.8	W13407.0	Y43801.0	175	49.8	47.3	26	4	22	21	70	2	28	92
0439	4126.2	6830.8	W13451.8	Y43761.0	218	48.7		327	29	298	292	88	2	10	46
0440	4123.8	6832.4	W13470.6	Y43749.1	272	44.8		111	18	93	87	88	2	10	104

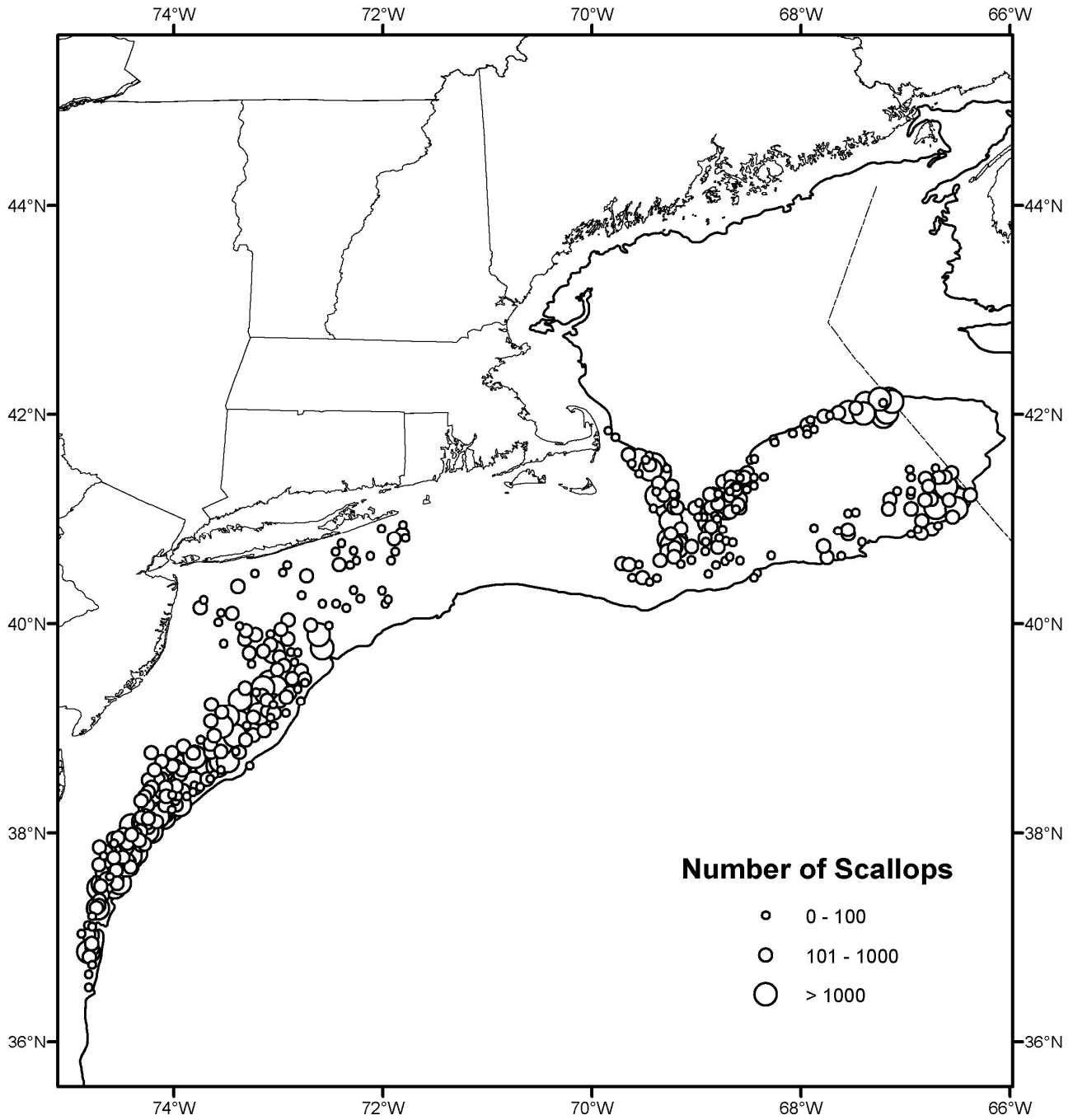
UNOLS RV HUGH R SHARP 2008 SEA SCALLOP
June 22 - August 06

Station	Position		Station Data			Bottom		Number of Scallops				By-Catch			
	Lat.	Long.	Loran TD's	heading	Depth (FM)	Temp (F)	Total No.	<90mm >40ct	>90mm <40ct	>100mm <30ct	Shell	Stone (Percentage)	Inverts	Total Vol. (lt)	
0441	4123.4	6834.7	W13483.7	Y43749.2	171	48.7	44.7	30	10	20	20	20	2	78	104
0442	4126.5	6833.6	W13464.0	Y43765.6	256	51.4									
0443	4126.0	6834.9	W13472.7	Y43764.2	75	51.9									
0444	4123.8	6840.2	W13508.8	Y43757.1	231	54.1		298	132	166	153	60	10	30	405
0445	4121.2	6844.7	W13542.9	Y43746.8	49	58.0	41.3	650	450	200	187	75	5	20	161
0446	4114.3	6847.4	W13587.0	Y43709.3	231	43.2		4	3	1	1	5	1	94	437
0447	4114.0	6850.1	W13601.7	Y43710.2	263	51.9		255	130	125	109	15	2	83	230
0448	4114.1	6852.0	W13610.8	Y43712.7	215	55.2	42.1	197	44	153	151	15	5	80	276
0449	4109.2	6858.4	W13664.1	Y43689.9	222	58.0		66	6	60	60	45	10	45	414
0450	4108.7	6901.9	W13684.0	Y43690.4	290	56.3									
0451	4106.3	6900.8	W13688.6	Y43674.8	352	53.6	44.5	154	21	133	126	35	5	60	138
0452	4101.0	6858.8	W13700.7	Y43640.8	126	44.3		20	9	11	5	60	10	30	46
0453	4100.2	6916.6	W13794.5	Y43652.7	357	27.9									
0454	4101.3	6917.1	W13792.6	Y43660.1	169	31.2									
0455	4104.1	6913.0	W13760.0	Y43673.4	161	30.6	45.2								
0456	4103.9	6912.9	W13760.3	Y43672.0	180	30.6									
0457	4103.3	6912.5	W13760.7	Y43667.9	355	31.2									
0458	4106.5	6911.1	W13740.2	Y43686.2	162	35.0									
0459	4106.5	6910.8	W13738.7	Y43685.9	175	37.7		185	101	84	59	5	40	55	644
0460	4106.5	6912.7	W13748.5	Y43687.8	194	33.4		376	209	167	146	5	40	55	414
0461	4106.4	6916.7	W13769.5	Y43691.3	210	31.2	46.8	10224	9788	436	272	25	65	10	736
0462	4106.0	6924.6	W13812.4	Y43696.9	357	21.9		1	1	0	0	90	6	4	414
0463	4108.6	6920.6	W13780.7	Y43708.8	1	27.3									
0464	4108.1	6920.7	W13783.3	Y43705.9	9	27.9									
0465	4108.3	6914.6	W13750.7	Y43700.8	20	30.1	43.1	876	520	356	300	35	45	20	621
0466	4109.0	6912.6	W13737.5	Y43703.0	191	37.7		15	9	6	4	5	55	40	495
0467	4111.1	6914.3	W13737.4	Y43717.6	185	36.6									
0468	4114.0	6912.9	W13717.8	Y43733.8	191	50.3	42.0	13	13	0	0	5	90	5	230
0469	4111.4	6916.6	W13748.1	Y43721.9	209	30.6									
0470	4111.4	6916.6	W13748.1	Y43721.9	197	31.2									
0471	4113.9	6918.5	W13747.4	Y43739.1	240	33.4		638	413	225	208	20	60	20	506
0472	4113.1	6922.7	W13772.9	Y43738.8	357	27.9	44.4	2978	2528	450	250	35	50	15	598
0473	4115.8	6922.9	W13762.5	Y43755.6	10	29.0		59	31	28	27	5	75	20	276
0474	4118.5	6914.1	W13704.6	Y43762.2	7	54.7		537	530	7	4	15	80	5	368
0475	4120.5	6921.6	W13735.4	Y43782.7	19	28.4	44.0	591	456	135	127	15	5	80	161
0476	4126.2	6920.8	W13706.1	Y43816.1	180	38.8		3141	3110	31	28	45	45	10	552
0477	4128.8	6916.8	W13673.3	Y43826.8	182	59.6		45	5	40	39	75	5	20	161
0478	4131.0	6924.7	W13705.5	Y43849.4	190	38.3	43.3								
0479	4131.0	6924.3	W13703.3	Y43848.9	331	37.7		1146	770	376	202	50	40	10	368
0480	4130.8	6926.5	W13716.1	Y43850.4	349	31.7		820	583	237	193	35	55	10	598

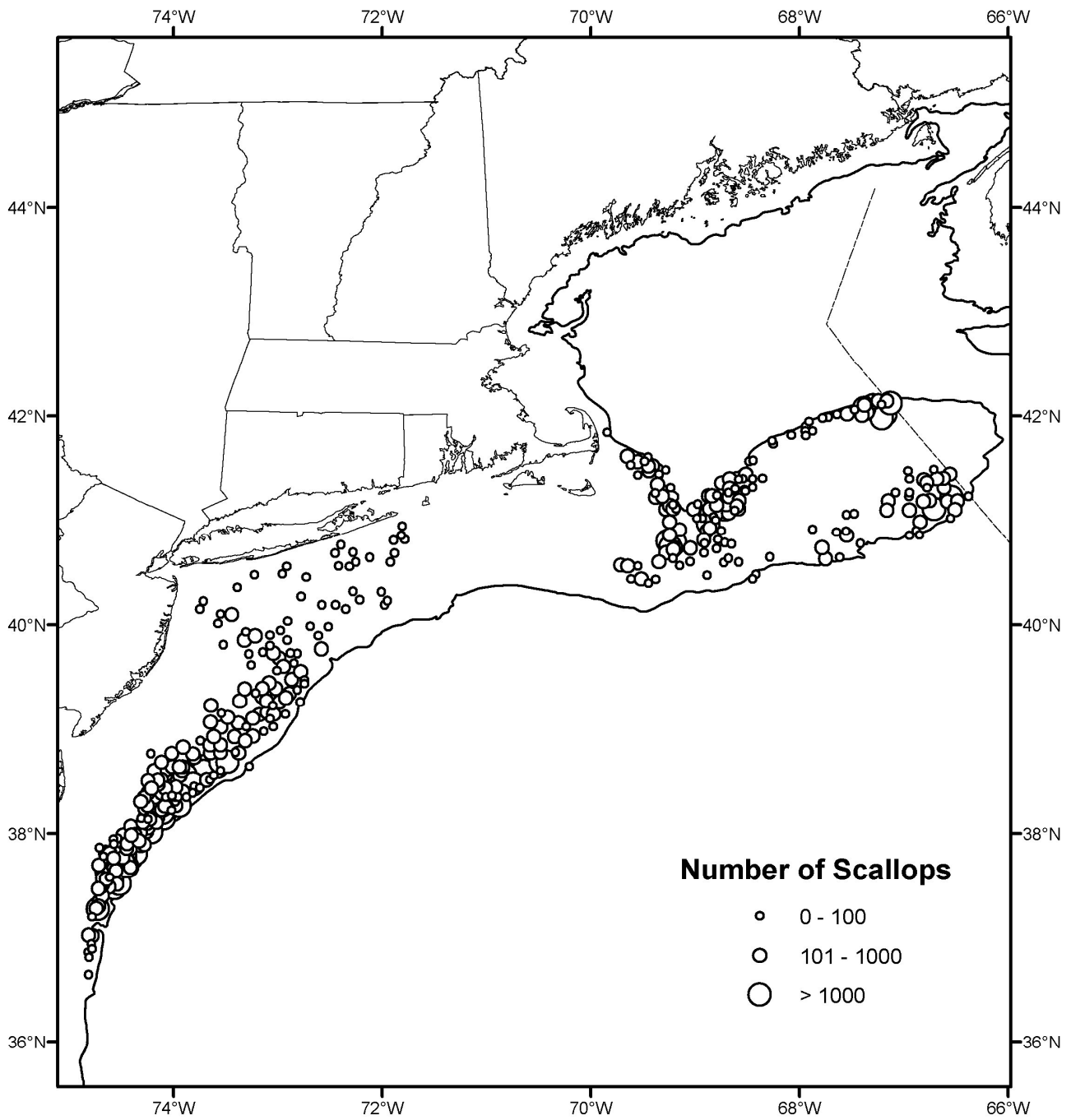
UNOLS RV HUGH R SHARP 2008 SEA SCALLOP
June 22 - August 06

Station	Position		Loran		Depth (FM)	Bottom		Number of Scallops				By-Catch			
	Lat.	Long.	TD's	heading		Temp (F)	Total No.	<90mm >40ct	>90mm <40ct	>100mm <30ct	Shell	Stone (Percentage)	Inverts	Total Vol.(lt)	
0481	4128.2	6926.4	W13727.1	Y43834.7	5	23.5		1106	738	368	276	30	60	10	667
0482	4125.7	6932.9	W13773.2	Y43827.4	22	17.0	48.2	1	0	1	1	5	85	10	368
0483	4131.6	6936.9	W13769.0	Y43868.1	40	20.8		34	1	33	30	5	65	30	460
0484	4133.6	6933.0	W13738.7	Y43875.2	192	31.7		1342	824	518	462	35	60	5	460
0485	4133.9	6928.9	W13715.1	Y43871.8	161	36.6	43.3	12	6	6	6	75	5	20	690
0486	4136.1	6926.8	W13693.7	Y43882.2	165	52.5		53	40	13	13	35	15	50	621
0487	4136.7	6938.8	W13756.6	Y43901.1	192	41.6		347	243	104	90	15	54	31	207
0488	4146.5	6946.4	W13754.1	Y43969.6	354	58.5	42.8	2	2	0	0	5	80	15	92
0489	4156.0	6952.4	W13743.4	Y44033.8	340	31.2									
0490	4148.8	6950.5	W13766.6	Y43988.9	6	39.9									
0491	4150.4	6950.4	W13758.5	Y43998.2	4	37.2		36	4	32	31	35	25	40	207
Total								339418	151119	186564	149653				

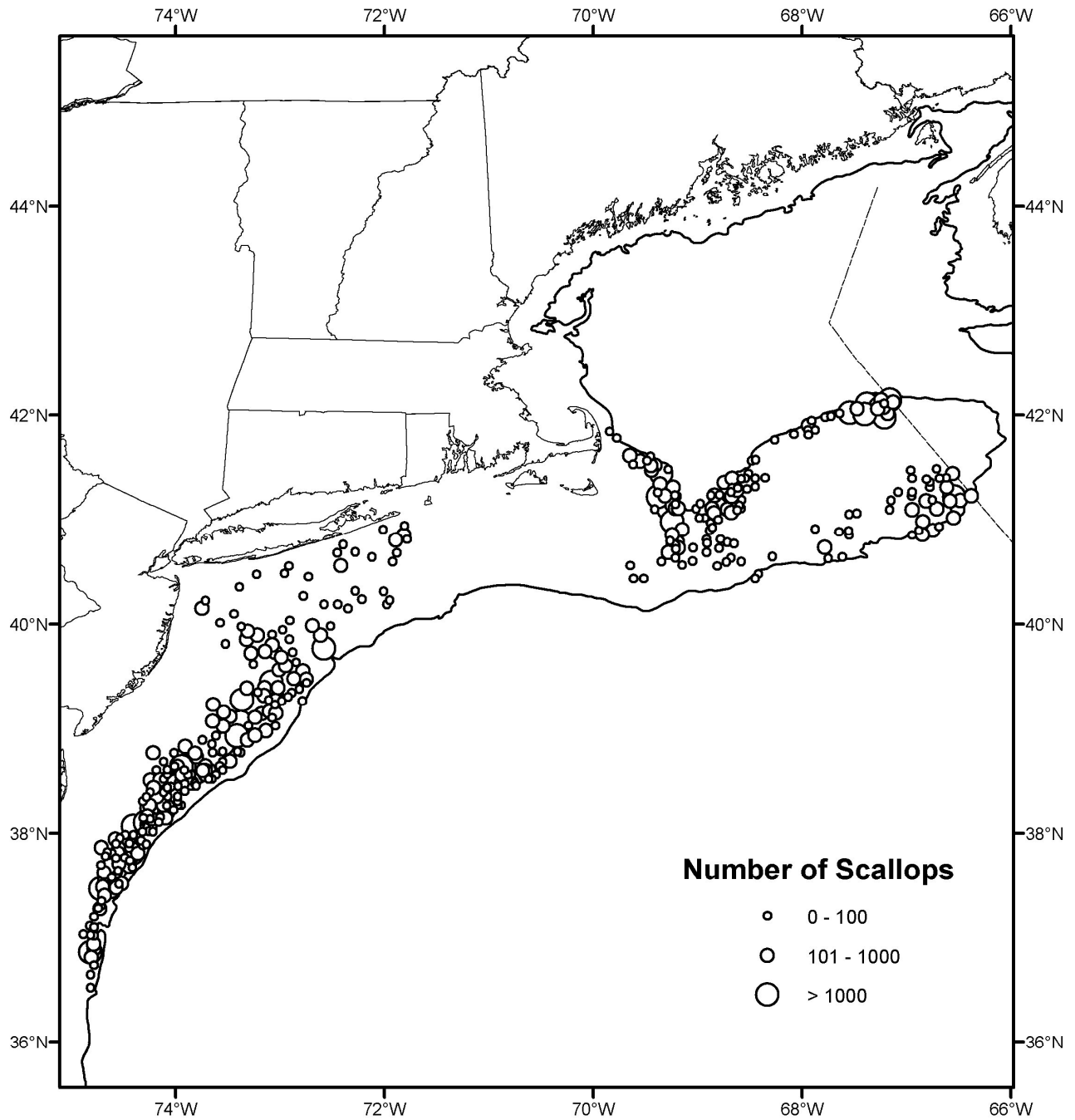
NEFSC SEA SCALLOP SURVEY 2008
NOAA Fisheries Service
SEA SCALLOPS - Number/Tow
Total Number



NEFSC SEA SCALLOP SURVEY 2008
NOAA Fisheries Service
SEA SCALLOPS - Number/Tow
Greater Than or Equal to 90 mm



NEFSC SEA SCALLOP SURVEY 2008
NOAA Fisheries Service
SEA SCALLOPS - Number/Tow
Less Than 90 mm



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