

FISHERMEN'S CLAM REPORT

Surfclam - Ocean Quahog Survey
Delmarva Peninsula – Georges Bank May 23 – June 30, 2005
R/V Delaware II

Submitted to: NOAA, NEFSC

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Date: 2005

Resource Survey Report

Surfclam/Ocean Quahog



Delmarva Peninsula – Georges Bank

May 23 – June 30, 2005

R/V Delaware II

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



Scientist measuring surfclams and sorting the catch.

***** During the 2005 survey, electronic surfclam measuring boards were utilized for the first time. *****

RESOURCE SURVEY REPORT

Catch Summary

NOAA Fisheries Service
Northeast Fisheries Science Center

Surfclam - Ocean Quahog Survey
Delmarva Peninsula - Georges Bank
May 23 - June 30, 2005

The 2005 region-wide survey for Atlantic Surfclam, *Spisula solidissima*; and ocean quahog, *Arctica islandica*, was conducted in continental shelf waters, from Delmarva Peninsula to Georges Bank aboard the *R/V DELAWARE II*. The survey, conducted by the Northeast Fisheries Science Center, provides indices of abundance and recruitment for both species. In addition, tows were made at 151 non-random sites during the survey to support on-going scientific studies.

The following charts and station data describe the distribution of surfclams and ocean quahogs during the survey. Five-minute tows were made at the speed of 1.5 knots with a hydraulic jet dredge equipped with a 5-foot wide blade and submersible pump positioned on the dredge. Survey stations were randomly selected to provide unbiased abundance measurements. Therefore, these stations were not always on or near known locations of surfclam concentrations.

In this report, catch quantity is recorded in numbers of surfclams, and depth in fathoms. Percent estimates of surfclams are also given by four categories of shell height: between 0 to 4.75", 4.76 to 5.00", 5.01 to 5.50", and greater than 5.50". Distribution plots indicate relative numbers of surfclams and ocean quahogs caught on each tow.

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

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http://www.nefsc.noaa.gov/esb/Resource_Survey_Reports.htm

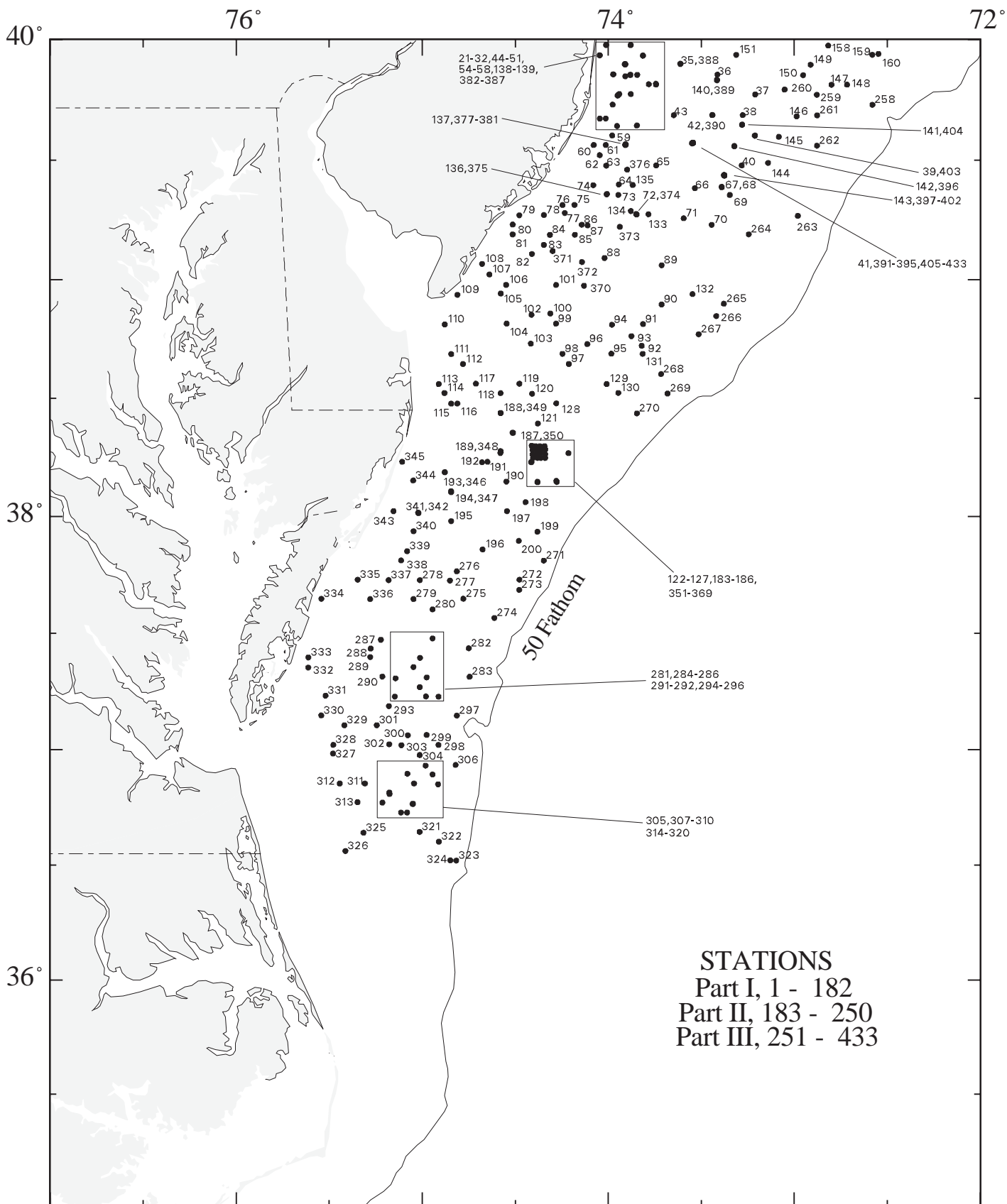


Figure 1. Dredge hauls made from R/V DELAWARE II, during National Marine Fisheries Service, Northeast Fisheries Science Center Surfclam/Ocean Quahog Survey (05 - 07), May 23 - June 30, 2005.

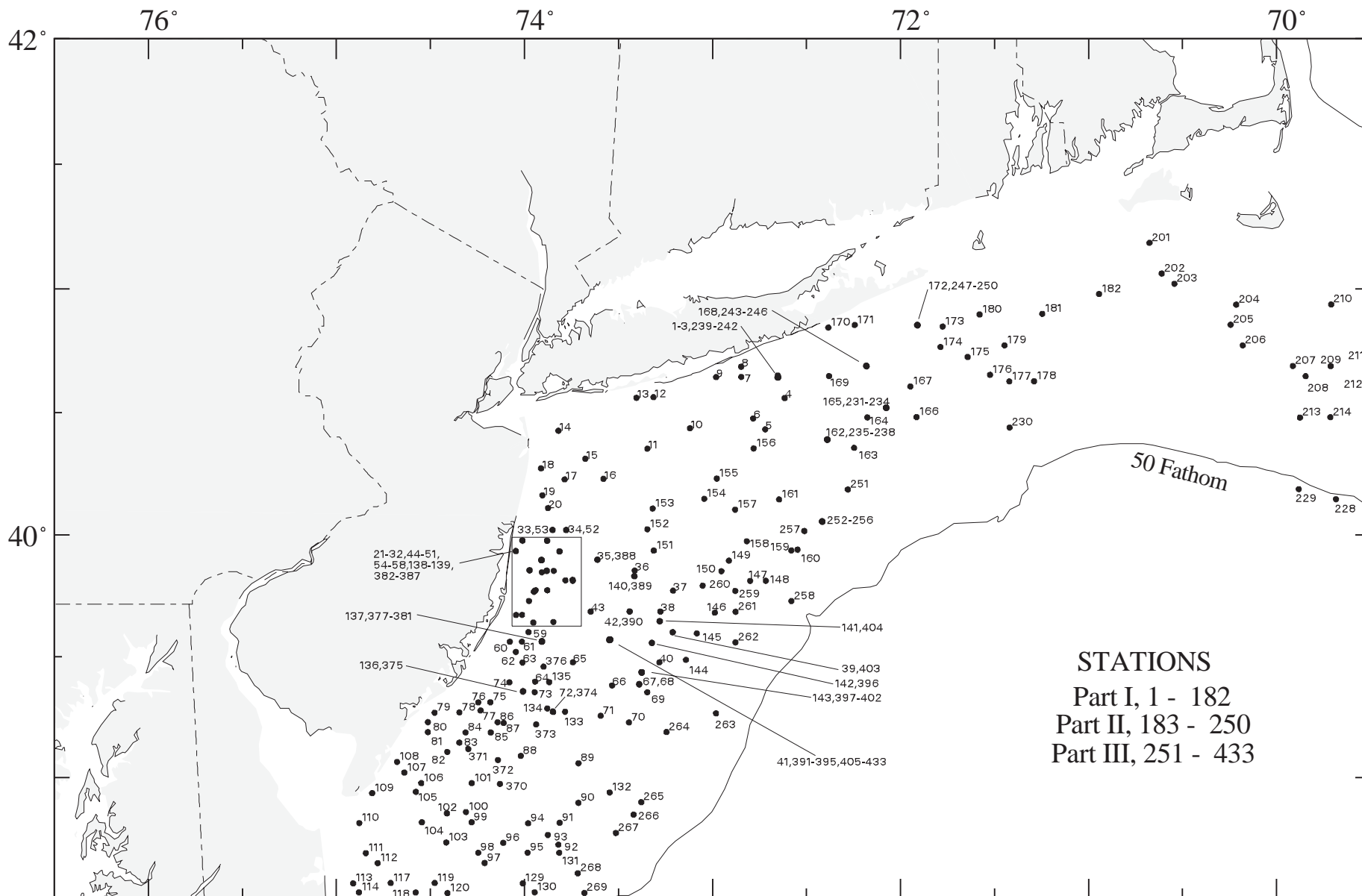


Figure 2. Dredge hauls made from R/V DELAWARE II, during National Marine Fisheries Service, Northeast Fisheries Science Center Surfclam/Ocean Quahog Survey (05 - 07), May 23 - June 30, 2005.

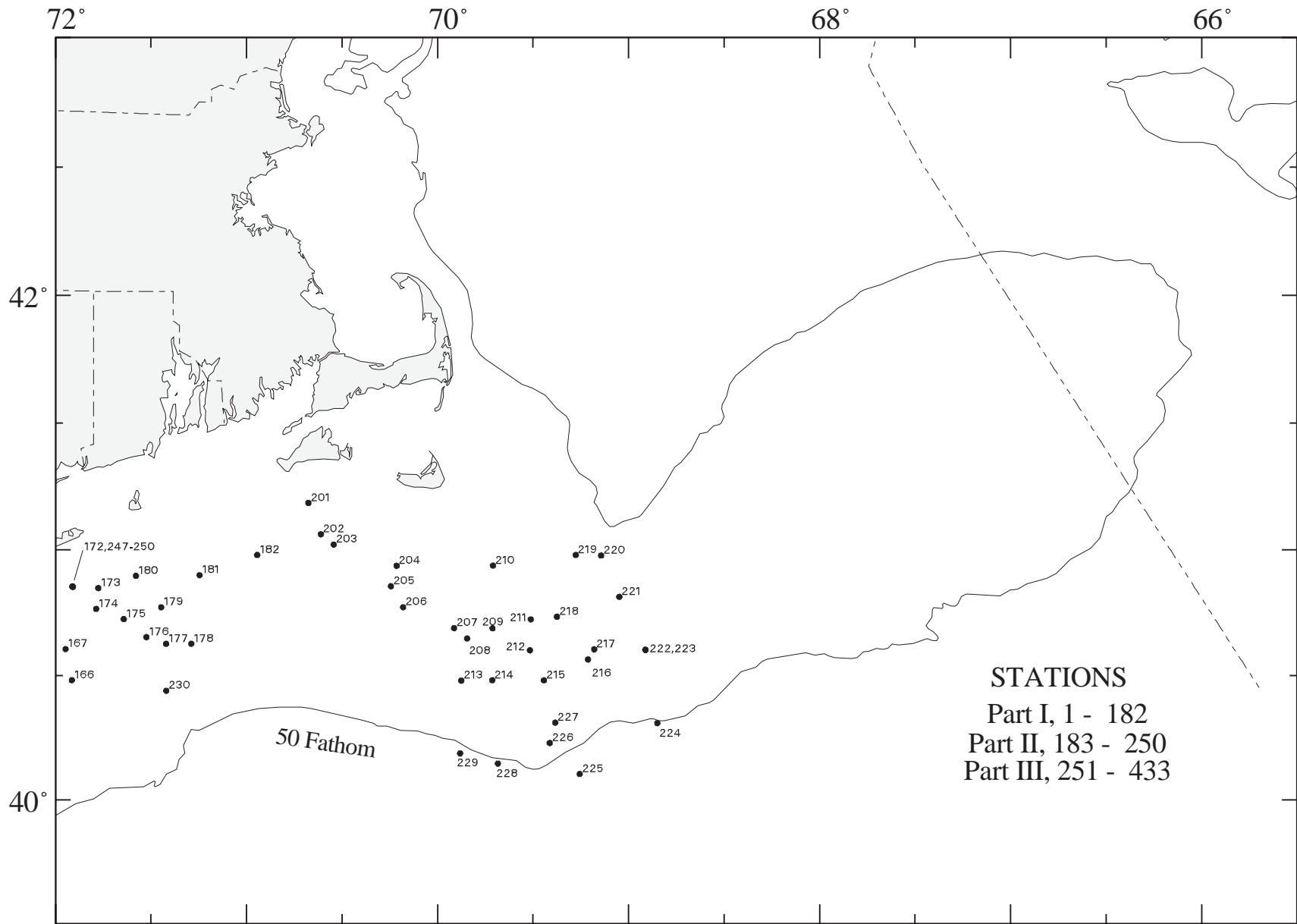


Figure 2. Dredge hauls made from R/V DELAWARE II, during National Marine Fisheries Service, Northeast Fisheries Science Center Surfclam/Ocean Quahog Survey (05 - 07), May 23 - June 30, 2005.

2005 NOAA Fisheries Service Surfclam -- Ocean Quahog Survey
R/V DELAWARE II May 23 - June 30

Station Data								Surfclams					Ocean Quahogs	
Survey Stratum	Station Number	Position		Loran		Depth (FM)	Catch Number	Percent of Survey Catch				Catch Number		
		Latitude	Longitude	Time	Delays			Heading	0-4.74"	4.76-5.00"	5.01-5.50"		>5.50"	
	05	0312	3651.2	7526.6	X27031.2	Y41289.6	186	11.5	69	100.0	0.0	0.0	0.0	0
	05	0313	3646.4	7520.8	X26999.8	Y41249.4	145	12.6	13	100.0	0.0	0.0	0.0	0
*	05	0314	3646.3	7512.8	X26966.1	Y41266.0	96	13.7	2	100.0	0.0	0.0	0.0	0
	05	0319	3643.7	7506.8	X26937.3	Y41251.5	137	17.5	12	100.0	0.0	0.0	0.0	0
*	05	0320	3643.7	7504.8	X26928.8	Y41256.1	200	15.3	4	100.0	0.0	0.0	0.0	0
	05	0321	3638.6	7500.8	X26905.6	Y41211.4	224	17.0	1	100.0	0.0	0.0	0.0	0
	05	0322	3636.1	7454.6	X26876.6	Y41200.0	178	21.3	0	0.0	0.0	0.0	0.0	0
	05	0324	3631.2	7450.9	X26855.6	Y41158.5	289	23.0	0	0.0	0.0	0.0	0.0	0
	05	0325	3638.4	7518.9	X26980.7	Y41166.9	262	14.8	2	100.0	0.0	0.0	0.0	0
	05	0326	3633.7	7524.7	X26997.9	Y41102.6	348	14.8	0	0.0	0.0	0.0	0.0	0
	06	0323	3631.2	7449.0	X26847.7	Y41163.2	270	27.3	0	0.0	0.0	0.0	0.0	0
	09	0275	3738.9	7446.7	X26924.0	Y41885.7	3	25.2	0	0.0	0.0	0.0	0.0	79
	09	0276	3745.9	7448.8	X26945.1	Y41959.1	228	20.2	43	7.0	30.2	44.2	18.6	1
	09	0277	3743.5	7451.0	X26952.0	Y41929.7	268	18.0	2	50.0	50.0	0.0	0.0	0
	09	0278	3743.6	7500.7	X26999.1	Y41916.7	213	17.5	2	100.0	0.0	0.0	0.0	0
	09	0279	3738.8	7502.7	X27000.6	Y41860.4	108	17.0	8	50.0	37.5	12.5	0.0	0
	09	0280	3736.1	7456.6	X26967.2	Y41839.9	180	19.1	12	0.0	16.7	50.0	33.3	0
	09	0281	3728.7	7456.6	X26955.6	Y41758.7	125	15.9	42	2.4	2.4	40.5	54.8	0
	09	0282	3726.1	7444.9	X26896.9	Y41749.9	183	28.4	5	100.0	0.0	0.0	0.0	14
	09	0284	3718.6	7458.5	X26949.2	Y41645.0	329	21.3	0	0.0	0.0	0.0	0.0	1
	09	0285	3723.7	7500.7	X26967.0	Y41697.0	224	18.0	11	0.0	18.2	63.6	18.2	0
	09	0286	3721.3	7502.8	X26973.0	Y41667.0	310	19.1	3	33.3	0.0	66.7	0.0	0
	09	0287	3728.3	7513.3	X27032.4	Y41726.8	227	17.5	0	0.0	0.0	0.0	0.0	0
	09	0288	3726.1	7516.6	X27043.8	Y41696.7	220	16.4	0	0.0	0.0	0.0	0.0	0
	09	0289	3723.9	7516.7	X27040.5	Y41671.9	215	15.9	0	0.0	0.0	0.0	0.0	0
	09	0290	3718.8	7512.8	X27014.5	Y41621.9	133	14.2	0	0.0	0.0	0.0	0.0	0
	09	0291	3718.4	7508.5	X26994.4	Y41625.0	211	16.4	7	100.0	0.0	0.0	0.0	0
	09	0292	3713.7	7508.8	X26988.5	Y41572.7	233	16.4	1	100.0	0.0	0.0	0.0	0
	09	0293	3711.2	7510.7	X26993.1	Y41541.7	65	16.4	4	75.0	0.0	0.0	25.0	0
	09	0294	3716.1	7500.7	X26955.6	Y41613.8	151	19.7	7	0.0	0.0	71.4	28.6	0
	09	0295	3713.7	7458.7	X26943.0	Y41591.3	96	18.0	1	0.0	0.0	100.0	0.0	0
*	09	0296	3713.7	7454.7	X26924.9	Y41598.7	169	23.5	1	0.0	0.0	100.0	0.0	0
*	09	0299	3703.8	7458.5	X26928.3	Y41484.7	290	23.5	3	33.3	33.3	33.3	0.0	0
	09	0300	3703.7	7504.6	X26955.1	Y41471.5	298	19.7	2	50.0	0.0	50.0	0.0	0
	09	0301	3706.3	7514.6	X27002.8	Y41480.3	169	19.1	0	0.0	0.0	0.0	0.0	0
	09	0302	3701.4	7510.6	X26978.0	Y41434.5	97	20.2	0	0.0	0.0	0.0	0.0	0
	09	0303	3701.1	7506.7	X26960.6	Y41439.1	128	20.8	1	100.0	0.0	0.0	0.0	0
*	09	0304	3658.6	7500.8	X26931.3	Y41424.1	177	23.5	6	50.0	33.3	16.7	0.0	0
	09	0305	3655.8	7458.9	X26919.3	Y41398.0	92	21.9	6	0.0	0.0	66.7	33.3	0
*	09	0307	3653.5	7456.6	X26906.3	Y41378.4	155	20.2	15	20.0	13.3	40.0	26.7	0
*	09	0308	3651.0	7454.8	X26895.4	Y41355.7	298	20.2	55	23.6	36.4	34.5	5.5	0
*	09	0309	3651.2	7502.6	X26929.2	Y41340.9	330	17.5	44	79.5	0.0	13.6	6.8	0
	09	0310	3653.7	7504.7	X26941.6	Y41363.2	272	21.9	1	100.0	0.0	0.0	0.0	0
	09	0311	3651.2	7518.4	X26996.7	Y41307.0	273	17.0	1	100.0	0.0	0.0	0.0	0
*	09	0315	3648.9	7510.5	X26959.9	Y41299.1	140	13.7	1	100.0	0.0	0.0	0.0	0
	09	0316	3648.5	7510.5	X26959.4	Y41294.8	139	20.2	0	0.0	0.0	0.0	0.0	0
	09	0317	3645.9	7502.9	X26923.6	Y41283.8	219	16.4	19	10.5	10.5	57.9	21.1	0
*	09	0318	3645.9	7503.0	X26924.0	Y41283.5	229	16.4	132	40.2	9.8	32.6	17.4	0

'*' Signifies a non-random station

'***' Counts Only

2005 NOAA Fisheries Service Surfclam -- Ocean Quahog Survey
R/V DELAWARE II May 23 - June 30

Station Data								Surfclams					Ocean Quahogs	
Survey Stratum	Station Number	Position		Loran		Depth (FM)	Catch Number	Percent of Survey Catch				Catch Number		
		Latitude	Longitude	Time	Delays			Heading	0-4.74"	4.76-5.00"	5.01-5.50"		>5.50"	
09	0327	3605.9	7528.7	X26977.0	Y40796.3	27	13.1	0	0.0	0.0	0.0	0.0	0	
09	0328	3701.2	7528.6	X27055.4	Y41396.5	71	14.8	0	0.0	0.0	0.0	0.0	0	
09	0329	3706.3	7525.0	X27048.2	Y41460.4	324	14.8	0	0.0	0.0	0.0	0.0	0	
09	0330	3708.8	7532.5	X27084.7	Y41474.4	23	10.9	0	0.0	0.0	0.0	0.0	0	
09	0331	3713.9	7531.1	X27087.4	Y41534.5	339	12.6	0	0.0	0.0	0.0	0.0	0	
09	0336	3738.8	7516.7	X27066.6	Y41839.3	76	12.0	8	100.0	0.0	0.0	0.0	0	
09	0337	3743.6	7510.8	X27047.5	Y41902.1	70	11.5	3	100.0	0.0	0.0	0.0	0	
09	0339	3751.0	7504.8	X27032.0	Y41993.5	61	16.4	1	100.0	0.0	0.0	0.0	0	
10	0283	3718.8	7444.7	X26886.0	Y41671.8	248	29.0	3	100.0	0.0	0.0	0.0	3	
10	0298	3701.2	7454.7	X26908.0	Y41464.4	286	26.2	2	100.0	0.0	0.0	0.0	2	
10	0306	3656.0	7449.2	X26877.1	Y41420.6	249	32.3	0	0.0	0.0	0.0	0.0	2	
11	0274	3733.9	7436.7	X26868.5	Y41847.1	321	35.5	0	0.0	0.0	0.0	0.0	6	
11	0297	3708.8	7448.8	X26891.6	Y41557.2	219	32.8	0	0.0	0.0	0.0	0.0	0	
13	0112	3838.6	7446.8	X27031.1	Y42544.9	237	10.4	2	100.0	0.0	0.0	0.0	0	
13	0116	3828.6	7448.6	X27020.4	Y42432.0	164	13.1	1	100.0	0.0	0.0	0.0	0	
13	0117	3833.7	7442.6	X26997.8	Y42493.6	140	10.4	8	25.0	0.0	0.0	75.0	0	
13	0118	3831.3	7434.7	X26949.4	Y42473.5	76	17.5	5	20.0	40.0	0.0	40.0	0	
*	13	0121	3823.6	7422.7	X26869.8	Y42399.9	209	21.9	142	76.8	4.2	9.2	9.9	45
*	13	0122	3816.2	7422.8	X26858.7	Y42320.0	64	21.9	345	78.6	10.1	7.8	3.5	4
*	13	0123	3815.9	7423.0	X26859.3	Y42316.6	49	21.9	352	75.3	8.8	11.1	4.8	19
*	13	0124	3815.9	7422.9	X26858.8	Y42316.7	176	22.4	336	74.1	9.8	11.3	4.8	18
*	13	0125	3815.9	7423.0	X26859.3	Y42316.6	102	21.9	317	71.3	11.0	9.5	8.2	13
*	13	0126	3815.9	7422.8	X26858.2	Y42316.8	123	22.4	272	76.1	10.3	8.5	5.1	21
*	13	0127	3815.9	7402.3	X26746.6	Y42336.8	258	21.9	394	74.4	11.9	7.9	5.8	20
13	0185	3808.6	7422.8	X26847.2	Y42238.3	3	24.1	148	93.2	4.7	2.0	0.0	31	
13	0186	3813.7	7424.8	X26865.6	Y42291.0	326	22.4	55	85.5	7.3	5.5	1.8	61	
13	0187	3821.2	7430.8	X26910.1	Y42366.4	338	17.0	73	4.1	4.1	17.8	74.0	0	
13	0188	3826.2	7434.7	X26940.1	Y42417.6	215	18.0	55	7.3	5.5	12.7	74.5	0	
13	0189	3816.1	7434.7	X26922.5	Y42307.0	189	22.4	0	0.0	0.0	0.0	0.0	3	
13	0190	3808.8	7432.8	X26900.4	Y42229.4	331	19.7	20	50.0	10.0	25.0	15.0	1	
13	0191	3813.8	7438.9	X26940.9	Y42277.5	284	17.0	13	15.4	7.7	7.7	69.2	0	
13	0192	3813.7	7440.7	X26950.2	Y42274.5	284	18.0	0	0.0	0.0	0.0	0.0	0	
13	0193	3811.2	7452.6	X27007.9	Y42234.1	195	10.4	5	100.0	0.0	0.0	0.0	0	
13	0194	3806.1	7450.6	X26988.2	Y42179.7	175	17.0	0	0.0	0.0	0.0	0.0	0	
13	0195	3758.7	7450.6	X26975.2	Y42097.7	84	14.2	3	66.7	0.0	0.0	33.3	0	
13	0196	3751.5	7440.5	X26912.7	Y42031.8	74	24.1	0	0.0	0.0	0.0	0.0	21	
13	0197	3801.3	7432.6	X26887.6	Y42148.3	70	24.1	22	50.0	13.6	18.2	18.2	10	
13	0198	3803.5	7426.6	X26859.7	Y42179.1	159	23.0	65	69.2	12.3	13.8	4.6	2	
*	13	0346	3811.2	7452.7	X27008.4	Y42234.0	165	10.4	9	100.0	0.0	0.0	0.0	0
*	13	0347	3806.3	7450.6	X26988.6	Y42181.9	49	16.4	2	100.0	0.0	0.0	0.0	0
*	13	0348	3816.6	7434.7	X26923.3	Y42312.5	29	22.4	0	0.0	0.0	0.0	0.0	19
*	13	0349	3826.2	7434.6	X26939.6	Y42417.6	130	17.5	56	14.3	5.4	17.9	62.5	0
*	13	0350	3821.2	7430.7	X26909.6	Y42366.5	157	18.0	38	13.2	7.9	13.2	65.8	0
*	13	0351	3813.8	7424.7	X26865.2	Y42292.2	179	23.0	166	75.9	6.6	12.0	5.4	100
*	13	0352	3808.7	7422.8	X26847.4	Y42239.3	117	24.6	61	88.5	6.6	3.3	1.6	9
*	13	0354	3816.0	7422.6	X26857.3	Y42318.0	84	22.4	287	72.1	10.1	10.5	7.3	24
*	13	0355	3816.1	7421.7	X26852.6	Y42320.0	11	24.6	37**					205
*	13	0356	3816.9	7421.7	X26853.8	Y42328.6	334	23.5	44	81.8	4.5	9.1	4.5	14

'**' Signifies a non-random station

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2005 NOAA Fisheries Service Surfclam -- Ocean Quahog Survey
R/V DELAWARE II May 23 - June 30

Station Data								Surfclams					Ocean Quahogs	
Survey Stratatum	Station Number	Position		Loran		Depth (FM)	Catch Number	Percent of Survey Catch				Catch Number		
		Latitude	Longitude	Time	Delays			Heading	0-4.74"	4.76-5.00"	5.01-5.50"		>5.50"	
*	13	0357	3816.9	7423.1	X26861.4	Y42327.2	316	24.1	0	0.0	0.0	0.0	0.0	52
*	13	0358	3816.9	7424.4	X26868.4	Y42326.0	177	21.9	290	68.3	10.0	12.8	9.0	43
*	13	0359	3815.7	7424.4	X26866.6	Y42313.0	185	23.0	206**					162
*	13	0360	3814.8	7424.2	X26864.1	Y42303.5	95	21.9	176	64.8	8.5	14.8	11.9	53
*	13	0361	3814.8	7422.7	X26856.0	Y42305.0	99	23.0	246**					26
*	13	0362	3814.8	7421.7	X26850.6	Y42306.0	115	24.1	232	78.9	8.2	8.6	4.3	63
*	13	0363	3814.8	7420.3	X26843.1	Y42307.4	41	24.1	318**					21
*	13	0364	3815.8	7420.3	X26844.6	Y42318.2	40	25.7	58	89.7	6.9	3.4	0.0	52
*	13	0365	3817.0	7420.3	X26846.4	Y42331.0	25	24.6	131**					50
*	13	0366	3817.8	7420.5	X26848.7	Y42339.4	252	24.1	90	87.8	7.8	3.3	1.1	26
*	13	0367	3817.8	7422.0	X26856.8	Y42338.0	225	23.0	53**					48
*	13	0368	3817.8	7423.4	X26864.4	Y42336.6	251	21.9	92	75.0	7.6	10.9	6.5	2
*	13	0369	3817.9	7424.6	X26871.1	Y42336.6	261	22.4	43**					120
	14	0183	3816.0	7412.8	X26804.1	Y42327.7	216	29.0	1	100.0	0.0	0.0	0.0	59
	14	0184	3808.7	7416.6	X26814.4	Y42246.1	277	25.7	111	93.7	4.5	1.8	0.0	14
	14	0200	3753.6	7428.8	X26856.7	Y42070.0	235	30.6	0	0.0	0.0	0.0	0.0	30
*	14	0353	3809.0	7416.7	X26815.4	Y42249.2	355	25.7	100	100.0	0.0	0.0	0.0	10
	15	0199	3756.0	7422.8	X26829.4	Y42103.4	250	33.9	0	0.0	0.0	0.0	0.0	66
	15	0271	3748.6	7420.7	X26808.9	Y42027.4	236	36.6	0	0.0	0.0	0.0	0.0	53
	15	0272	3743.7	7428.6	X26842.1	Y41964.2	212	33.9	0	0.0	0.0	0.0	0.0	385
	15	0273	3741.1	7428.7	X26839.1	Y41936.3	192	33.9	0	0.0	0.0	0.0	0.0	23
	17	0095	3841.2	7305.9	X26446.7	Y42634.4	322	25.7	2	100.0	0.0	0.0	0.0	105
	17	0096	3843.7	7406.7	X26810.8	Y42626.9	249	27.3	0	0.0	0.0	0.0	0.0	43
	17	0097	3838.7	7412.7	X26837.8	Y42569.9	325	24.6	12	83.3	0.0	8.3	8.3	17
	17	0098	3841.2	7414.7	X26853.4	Y42595.3	20	22.4	42	69.0	7.1	4.8	19.0	51
	17	0099	3848.8	7416.8	X26878.9	Y42675.8	359	21.3	0	0.0	0.0	0.0	0.0	11
	17	0100	3851.4	7418.6	X26894.3	Y42702.9	63	17.5	19	15.8	5.3	21.1	57.9	10
	17	0102	3851.1	7424.7	X26929.8	Y42696.5	205	17.5	0	0.0	0.0	0.0	0.0	0
	17	0103	3843.8	7424.9	X26917.1	Y42617.0	319	17.5	4	0.0	0.0	50.0	50.0	0
	17	0104	3848.8	7432.7	X26972.0	Y42667.0	354	12.6	14	21.4	0.0	14.3	64.3	0
	17	0119	3833.6	7428.6	X26919.6	Y42503.4	152	20.2	13	38.5	15.4	0.0	46.2	24
	17	0120	3831.1	7424.5	X26892.2	Y42479.5	140	23.5	2	100.0	0.0	0.0	0.0	82
	17	0128	3828.7	7416.7	X26844.6	Y42459.8	127	23.0	20	85.0	0.0	10.0	5.0	19
	18	0129	3833.6	7400.5	X26759.8	Y42524.2	153	29.0	0	0.0	0.0	0.0	0.0	163
	18	0130	3831.3	7356.7	X26734.9	Y42502.8	43	29.0	1	100.0	0.0	0.0	0.0	31
	18	0131	3841.2	7348.9	X26702.3	Y42611.0	45	27.3	0	0.0	0.0	0.0	0.0	104
	19	0268	3836.1	7342.9	X26660.9	Y42562.1	159	31.7	0	0.0	0.0	0.0	0.0	41
	19	0269	3831.2	7340.8	X26643.4	Y42513.3	257	36.1	0	0.0	0.0	0.0	0.0	29
	19	0270	3826.1	7350.7	X26694.3	Y42453.3	252	34.4	0	0.0	0.0	0.0	0.0	214
*	21	0029	3948.7	7344.5	X26782.0	Y43306.7	131	15.9	42	9.5	2.4	7.1	81.0	0
	21	0040	3928.6	7316.9	X26556.8	Y43097.5	268	20.2	61	36.1	16.4	8.2	39.3	6
	21	0041	3934.1	7332.9	X26674.5	Y43155.4	80	20.8	78	10.3	3.8	12.8	73.1	0
	21	0042	3941.2	7326.4	X26640.1	Y43224.5	243	17.5	196	39.3	8.7	14.3	37.8	0
	21	0043	3941.1	7338.8	X26727.3	Y43227.6	273	17.5	40	37.5	7.5	12.5	42.5	1
	21	0044	3938.6	7350.7	X26805.4	Y43205.5	283	15.3	23	0.0	0.0	4.3	95.7	0
	21	0049	3904.9	7344.6	X26708.0	Y42857.8	197	16.4	63	6.3	1.6	3.2	88.9	0
	21	0065	3928.6	7344.5	X26744.6	Y43101.5	152	17.5	22	4.5	0.0	13.6	81.8	0
	21	0066	3922.9	7332.0	X26651.6	Y43042.5	100	25.2	0	0.0	0.0	0.0	0.0	141

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2005 NOAA Fisheries Service Surfclam -- Ocean Quahog Survey
R/V DELAWARE II May 23 - June 30

Station Data								Surfclams					Ocean Quahogs	
Survey Stratum	Station Number	Position		Loran		Depth (FM)	Catch Number	Percent of Survey Catch				Catch Number		
		Latitude	Longitude	Time	Delays			Heading	0-4.74"	4.76-5.00"	5.01-5.50"		>5.50"	
	21	0067	3923.1	7323.3	X26593.5	Y43043.9	136	25.7	0	0.0	0.0	0.0	0.0	0
	21	0068	3923.2	7323.4	X26594.3	Y43044.9	184	25.2	2	50.0	50.0	0.0	0.0	134
	21	0070	3913.7	7326.6	X26603.9	Y42950.0	283	23.5	26	92.3	3.8	3.8	0.0	59
	21	0071	3915.3	7335.6	X26664.8	Y42965.6	324	26.2	0	0.0	0.0	0.0	0.0	78
	21	0072	3916.3	7350.8	X26765.5	Y42974.8	341	20.8	108	4.6	3.7	24.1	67.6	3
	21	0087	3913.6	7406.6	X26862.2	Y42944.6	176	14.2	6	16.7	0.0	16.7	66.7	0
	21	0088	3905.4	7401.1	X26812.6	Y42858.9	115	19.1	0	0.0	0.0	0.0	0.0	86
	21	0089	3903.5	7342.7	X26694.0	Y42843.8	196	22.4	2	0.0	0.0	100.0	0.0	7
	21	0090	3853.7	7342.7	X26680.9	Y42743.1	237	22.4	12	66.7	0.0	16.7	16.7	4
	21	0091	3848.7	7348.7	X26710.8	Y42688.9	230	26.2	0	0.0	0.0	0.0	0.0	51
	21	0093	3845.7	7352.5	X26729.6	Y42655.8	334	24.6	3	100.0	0.0	0.0	0.0	38
	21	0094	3848.6	7358.8	X26771.4	Y42682.9	215	25.7	1	100.0	0.0	0.0	0.0	50
	21	0101	3858.6	7416.8	X26896.9	Y42781.3	230	16.4	0	0.0	0.0	0.0	0.0	76
*	21	0133	3916.4	7347.0	X26740.9	Y42976.1	314	20.2	31	3.2	6.5	35.5	54.8	3
*	21	0134	3917.2	7352.7	X26779.3	Y42984.0	3	20.2	39	2.6	5.1	30.8	61.5	5
*	21	0135	3923.7	7352.0	X26786.2	Y43051.5	28	15.9	9	11.1	11.1	0.0	77.8	0
*	21	0142	3933.4	7319.3	X26579.3	Y43145.3	163	19.7	102	30.4	7.8	17.6	44.1	2
*	21	0143	3926.2	7322.6	X26592.7	Y43074.6	105	18.6	108	38.9	6.5	13.0	41.7	1
*	21	0370	3858.4	7407.8	X26841.8	Y42782.6	10	18.0	5	80.0	0.0	0.0	20.0	18
*	21	0371	3907.1	7417.9	X26920.3	Y42872.5	90	15.3	0	0.0	0.0	0.0	0.0	0
*	21	0372	3904.4	7408.4	X26856.3	Y42846.3	82	16.4	0	0.0	0.0	0.0	0.0	48
*	21	0373	3913.2	7356.2	X26795.0	Y42941.9	86	18.0	12	8.3	16.7	16.7	58.3	2
*	21	0374	3916.4	7350.9	X26766.3	Y42975.8	350	20.2	63	15.9	11.1	15.9	57.1	2
*	21	0390	3941.1	7326.4	X26640.0	Y43223.5	273	17.5	21	47.6	4.8	14.3	33.3	0
*	21	0391	3934.2	7332.8	X26673.9	Y43156.4	99	20.8	242	7.4	0.4	22.3	69.8	0
*	21	0392	3934.2	7332.7	X26673.2	Y43156.4	140	20.8	146**					0
*	21	0393	3934.2	7332.8	X26673.9	Y43156.4	54	20.8	64	18.8	1.6	18.8	60.9	1
*	21	0394	3934.3	7332.6	X26672.7	Y43157.3	51	20.8	55**					2
*	21	0395	3934.2	7332.9	X26674.6	Y43156.4	3	20.8	84**					0
*	21	0396	3933.3	7319.3	X26579.2	Y43144.3	200	19.1	39	33.3	7.7	10.3	48.7	0
*	21	0397	3926.1	7322.5	X26591.9	Y43073.6	32	18.0	155	37.4	2.6	11.6	48.4	3
*	21	0398	3926.0	7322.5	X26591.8	Y43072.7	3	17.5	30	43.3	13.3	13.3	30.0	3
*	21	0399	3926.1	7322.5	X26591.9	Y43073.6	350	18.0	62	27.4	9.7	8.1	54.8	10
*	21	0400	3926.1	7322.6	X26592.6	Y43073.7	100	18.0	118**					9
*	21	0401	3926.2	7322.5	X26592.0	Y43074.6	250	18.0	132	37.1	4.5	11.4	47.0	9
*	21	0402	3926.2	7322.6	X26592.7	Y43074.6	133	18.0	164**					7
*	21	0405	3934.2	7332.6	X26672.6	Y43156.3	68	20.8	231	7.8	1.7	21.6	68.8	0
*	21	0406	3934.2	7332.7	X26673.2	Y43156.4	74	20.2	223**					0
*	21	0407	3934.2	7332.7	X26673.2	Y43156.4	79	20.2	152**					2
*	21	0408	3934.2	7332.6	X26672.6	Y43156.3	86	20.2	199**					1
*	21	0409	3934.2	7332.7	X26673.2	Y43156.4	86	20.2	301**					1
*	21	0410	3934.2	7332.7	X26673.2	Y43156.4	79	20.2	65	6.2	3.1	20.0	70.8	0
*	21	0411	3934.2	7332.7	X26673.2	Y43156.4	77	20.8	161**					2
*	21	0412	3934.2	7332.7	X26673.2	Y43156.4	84	20.8	119**					0
*	21	0413	3934.2	7332.7	X26673.2	Y43156.4	86	20.8	86	11.6	9.3	18.6	60.5	2
*	21	0414	3934.2	7332.7	X26673.2	Y43156.4	82	20.8	331**					1
*	21	0415	3934.2	7332.7	X26673.2	Y43156.4	74	21.3	112**					0
*	21	0416	3934.2	7332.7	X26673.2	Y43156.4	83	20.8	194**					1

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R/V DELAWARE II May 23 - June 30

Station Data								Surfclams					Ocean Quahogs	
Survey Stratum	Station Number	Position Latitude Longitude		Loran Time Delays Heading		Depth (FM)	Catch Number	Percent of Survey Catch				Catch Number		
								0-4.74"	4.76-5.00"	5.01-5.50"	>5.50"			
*	21	0417	3934.2	7332.7	X26673.2	Y43156.4	85	20.8					149**	2
*	21	0418	3934.2	7332.7	X26673.2	Y43156.4	88	20.8					181**	0
*	21	0419	3934.2	7332.7	X26673.2	Y43156.4	83	20.8					141**	0
*	21	0420	3934.2	7332.7	X26673.2	Y43156.4	84	20.2					141**	0
*	21	0421	3934.2	7332.7	X26673.2	Y43156.4	92	20.2					196**	1
*	21	0422	3934.2	7332.7	X26673.2	Y43156.4	81	20.2					178	0
*	21	0423	3934.2	7332.7	X26673.2	Y43156.4	77	20.8	10.7	1.7	10.1	77.5	118**	2
*	21	0424	3934.2	7332.7	X26673.2	Y43156.4	83	20.8					112**	1
*	21	0425	3934.2	7332.7	X26673.2	Y43156.4	92	20.8					67**	1
*	21	0426	3934.2	7332.7	X26673.2	Y43156.4	92	20.8	2.0	2.0	17.3	78.6	98	1
*	21	0427	3934.2	7332.7	X26673.2	Y43156.4	78	21.3					72**	0
*	21	0428	3934.2	7332.6	X26672.6	Y43156.3	93	20.8					42**	0
*	21	0429	3934.2	7332.7	X26673.2	Y43156.4	102	20.8					39**	0
*	21	0430	3934.2	7332.7	X26673.2	Y43156.4	83	20.2					231**	1
*	21	0431	3934.2	7332.7	X26673.2	Y43156.4	74	20.2					38**	1
*	21	0432	3934.2	7332.7	X26673.2	Y43156.4	86	20.2					18**	0
*	21	0433	3934.2	7332.7	X26673.2	Y43156.4	97	20.2					57**	0
	22	0069	3921.2	7320.8	X26574.4	Y43024.9	224	26.8	2	100.0	0.0	0.0	0.0	101
	22	0092	3843.2	7349.1	X26706.0	Y42631.6	257	26.2	0	0.0	0.0	0.0	0.0	45
	22	0132	3856.3	7332.8	X26623.0	Y42773.2	10	27.3	1	100.0	0.0	0.0	0.0	64
	23	0263	3901.6	7258.8	X26414.3	Y42834.7	206	38.3	0	0.0	0.0	0.0	0.0	22
	23	0264	3911.3	7314.7	X26523.6	Y42927.0	219	33.9	0	0.0	0.0	0.0	0.0	164
	23	0265	3853.9	7322.7	X26557.9	Y42752.5	206	32.8	0	0.0	0.0	0.0	0.0	27
	23	0266	3850.8	7325.1	X26569.8	Y42720.6	225	37.7	0	0.0	0.0	0.0	0.0	222
	23	0267	3846.2	7330.8	X26599.9	Y42671.8	241	37.2	0	0.0	0.0	0.0	0.0	27
	25	0016	4013.7	7334.8	X26762.7	Y43550.3	234	15.9	0	0.0	0.0	0.0	0.0	66
	25	0017	4013.6	7347.1	X26856.2	Y43559.5	226	19.1	0	0.0	0.0	0.0	0.0	1
*	25	0034	4001.2	7346.7	X26824.3	Y43434.5	150	14.8	36	22.2	0.0	8.3	69.4	2
	25	0035	3953.9	7336.7	X26736.0	Y43355.4	130	16.4	71	21.1	2.8	9.9	66.2	17
	25	0036	3951.2	7324.8	X26644.6	Y43322.6	146	23.0	59	98.3	1.7	0.0	0.0	25
	25	0037	3946.3	7312.6	X26548.9	Y43269.0	200	25.7	14	100.0	0.0	0.0	0.0	35
	25	0038	3941.1	7316.6	X26570.6	Y43220.0	160	23.5	46	76.1	10.9	8.7	4.3	33
	25	0039	3936.0	7312.7	X26536.6	Y43169.0	189	22.4	68	69.1	7.4	11.8	11.8	19
	25	0052	4001.2	7346.6	X26823.6	Y43434.5	194	14.8	62	14.5	0.0	8.1	77.4	3
*	25	0140	3949.9	7324.9	X26643.2	Y43309.8	152	21.9	83	88.0	8.4	3.6	0.0	20
*	25	0141	3938.7	7316.8	X26568.8	Y43196.6	221	21.9	89	61.8	7.9	15.7	14.6	12
	25	0144	3929.2	7308.4	X26499.2	Y43101.9	34	23.0	46	54.3	23.9	13.0	8.7	56
*	25	0388	3953.9	7336.7	X26736.0	Y43355.4	140	16.4	79	19.0	1.3	16.5	63.3	11
*	25	0389	3949.8	7324.9	X26643.1	Y43308.9	222	21.9	140	95.7	3.6	0.0	0.7	27
*	25	0403	3936.0	7312.7	X26536.6	Y43169.0	338	22.4	106	69.8	12.3	6.6	11.3	43
*	25	0404	3938.8	7316.7	X26568.2	Y43197.6	256	21.9	114	65.8	9.6	10.5	14.0	20
	26	0145	3935.7	7300.5	X26450.8	Y43162.6	114	25.2	15	86.7	13.3	0.0	0.0	66
	26	0151	3956.1	7318.7	X26607.9	Y43367.2	324	30.1	0	0.0	0.0	0.0	0.0	1
	26	0152	4001.4	7320.8	X26632.4	Y43419.9	348	27.3	0	0.0	0.0	0.0	0.0	76
	27	0146	3940.9	7259.2	X26446.6	Y43211.8	343	33.9	2	100.0	0.0	0.0	0.0	139
	27	0260	3947.5	7303.1	X26481.7	Y43276.2	341	33.9	0	0.0	0.0	0.0	0.0	21
	27	0261	3941.1	7252.6	X26399.8	Y43211.2	165	37.2	0	0.0	0.0	0.0	0.0	12
	27	0262	3933.5	7252.6	X26393.8	Y43139.5	168	33.9	0	0.0	0.0	0.0	0.0	33

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Station Data								Surfclams					Ocean Quahogs	
Survey Stratum	Station Number	Position Latitude Longitude		Loran Time Delays Heading		Depth (FM)	Catch Number	Percent of Survey Catch				Catch Number		
								0-4.74"	4.76-5.00"	5.01-5.50"	>5.50"			
	29	0001	4038.4	7239.2	X26364.2	Y43720.2	276	19.1	0	0.0	0.0	0.0	0.0	3
	29	0002	4003.9	7239.1	X26320.1	Y43414.3	328	19.1	0	0.0	0.0	0.0	0.0	0
	29	0003	4038.5	7239.0	X26362.7	Y43720.8	211	19.1	0	0.0	0.0	0.0	0.0	331
	29	0004	4033.4	7236.9	X26337.3	Y43674.1	218	21.9	0	0.0	0.0	0.0	0.0	49
	29	0005	4025.8	7243.1	X26376.8	Y43614.2	249	24.6	0	0.0	0.0	0.0	0.0	70
	29	0006	4028.5	7247.0	X26412.5	Y43642.3	239	23.5	0	0.0	0.0	0.0	0.0	38
	29	0007	4038.6	7250.8	X26461.2	Y43736.1	259	15.9	0	0.0	0.0	0.0	0.0	48
	29	0010	4026.1	7307.1	X26570.8	Y43642.0	242	18.0	1	0.0	0.0	0.0	100.0	10
	29	0011	4021.1	7320.7	X26669.0	Y43608.9	240	17.5	0	0.0	0.0	0.0	0.0	1
	29	0153	4006.5	7319.1	X26628.6	Y43467.9	75	21.9	0	0.0	0.0	0.0	0.0	65
	29	0154	4008.8	7302.6	X26506.1	Y43477.1	34	24.6	1	100.0	0.0	0.0	0.0	75
	29	0155	4013.8	7258.6	X26482.6	Y43520.3	62	24.6	0	0.0	0.0	0.0	0.0	115
*	29	0239	4038.5	7239.0	X26362.7	Y43720.8	311	18.6	0	0.0	0.0	0.0	0.0	125
*	29	0240	4038.5	7239.1	X26363.5	Y43720.9	206	19.1	0	0.0	0.0	0.0	0.0	180
*	29	0241	4038.4	7239.1	X26363.4	Y43720.1	249	19.1	0	0.0	0.0	0.0	0.0	181
*	29	0242	4038.5	7239.1	X26363.5	Y43720.9	110	19.1	0	0.0	0.0	0.0	0.0	62
	30	0147	3948.7	7248.0	X26373.1	Y43280.3	92	32.8	0	0.0	0.0	0.0	0.0	210
	30	0148	3948.7	7242.9	X26336.0	Y43277.7	297	31.2	0	0.0	0.0	0.0	0.0	64
	30	0149	3953.7	7254.7	X26427.1	Y43330.5	260	30.1	0	0.0	0.0	0.0	0.0	200
	30	0156	4021.2	7246.8	X26400.1	Y43576.8	242	26.2	0	0.0	0.0	0.0	0.0	159
	30	0157	4006.2	7252.7	X26426.5	Y43445.3	219	26.8	0	0.0	0.0	0.0	0.0	314
	30	0158	3958.4	7249.0	X26389.6	Y43370.8	178	30.1	0	0.0	0.0	0.0	0.0	222
	30	0162	4023.3	7223.3	X26214.0	Y43572.3	131	29.0	0	0.0	0.0	0.0	0.0	342
*	30	0235	4023.3	7223.3	X26214.0	Y43572.3	278	29.0	0	0.0	0.0	0.0	0.0	121
*	30	0236	4023.2	7223.3	X26213.9	Y43571.4	237	29.0	0	0.0	0.0	0.0	0.0	262
*	30	0237	4023.4	7223.3	X26214.1	Y43573.1	358	29.0	0	0.0	0.0	0.0	0.0	205
*	30	0238	4023.4	7223.4	X26214.9	Y43573.2	168	29.0	0	0.0	0.0	0.0	0.0	86
	31	0150	3951.1	7257.1	X26442.0	Y43307.4	128	35.5	0	0.0	0.0	0.0	0.0	393
	31	0159	3956.2	7234.8	X26281.6	Y43341.8	107	33.4	0	0.0	0.0	0.0	0.0	105
	31	0160	3956.4	7232.8	X26266.9	Y43342.4	343	36.6	0	0.0	0.0	0.0	0.0	6
	31	0161	4008.7	7238.7	X26321.5	Y43457.3	56	30.1	0	0.0	0.0	0.0	0.0	228
	31	0163	4021.3	7214.8	X26144.2	Y43546.9	34	33.4	0	0.0	0.0	0.0	0.0	208
	31	0251	4011.1	7216.8	X26153.7	Y43461.0	231	36.1	0	0.0	0.0	0.0	0.0	2
	31	0252	4003.3	7224.9	X26211.6	Y43398.8	261	35.0	0	0.0	0.0	0.0	0.0	713
*	31	0253	4003.3	7225.0	X26212.4	Y43398.9	199	35.5	0	0.0	0.0	0.0	0.0	593
*	31	0254	4003.3	7225.0	X26212.4	Y43398.9	172	35.5	0	0.0	0.0	0.0	0.0	259
*	31	0255	4003.3	7225.0	X26212.4	Y43398.9	137	35.5	0	0.0	0.0	0.0	0.0	158
*	31	0256	4003.2	7224.9	X26211.6	Y43397.9	325	35.5	0	0.0	0.0	0.0	0.0	371
	31	0257	4000.9	7230.7	X26254.0	Y43381.5	200	36.1	0	0.0	0.0	0.0	0.0	1
	31	0258	3943.7	7234.8	X26274.5	Y43228.1	270	39.9	0	0.0	0.0	0.0	0.0	0
	31	0259	3946.2	7252.7	X26405.0	Y43259.2	308	38.3	0	0.0	0.0	0.0	0.0	0
	33	0168	4041.2	7210.8	X26129.8	Y43709.3	282	25.2	0	0.0	0.0	0.0	0.0	263
	33	0169	4038.8	7222.8	X26227.7	Y43703.8	352	23.0	0	0.0	0.0	0.0	0.0	187
	33	0171	4051.2	7214.6	X26176.2	Y43796.0	101	16.4	1	100.0	0.0	0.0	0.0	76
	33	0172	4051.2	7154.6	X26003.7	Y43769.5	148	21.3	2	100.0	0.0	0.0	0.0	226
*	33	0243	4041.3	7210.9	X26130.8	Y43710.3	3	25.2	0	0.0	0.0	0.0	0.0	528
*	33	0244	4041.2	7210.8	X26129.8	Y43709.3	316	25.2	0	0.0	0.0	0.0	0.0	277
*	33	0245	4041.3	7210.9	X26130.8	Y43710.3	214	25.2	0	0.0	0.0	0.0	0.0	446

'*' Signifies a non-random station

'***' Counts Only

2005 NOAA Fisheries Service Surfclam -- Ocean Quahog Survey
R/V DELAWARE II May 23 - June 30

Station Data								Surfclams					Ocean Quahogs
Survey Stratum	Station Number	Position Latitude Longitude		Loran Time Delays Heading		Depth (FM)	Catch Number	Percent of Survey Catch				Catch Number	
								0-4.74"	4.76-5.00"	5.01-5.50"	>5.50"		
* 33	0246	4041.2	7210.9	X26130.7	Y43709.5	13	25.2	0	0.0	0.0	0.0	0.0	332
* 33	0247	4051.2	7154.6	X26003.7	Y43769.5	122	21.9	4	100.0	0.0	0.0	0.0	270
* 33	0248	4051.1	7154.5	X26002.7	Y43768.6	292	21.9	1	100.0	0.0	0.0	0.0	229
* 33	0249	4051.1	7154.6	X26003.5	Y43768.7	204	21.9	1	100.0	0.0	0.0	0.0	261
* 33	0250	4051.2	7154.6	X26003.7	Y43769.5	82	21.3	1	100.0	0.0	0.0	0.0	267
34	0167	4036.3	7156.8	X26007.9	Y43653.0	325	29.0	0	0.0	0.0	0.0	0.0	134
34	0173	4050.8	7146.5	X25933.3	Y43756.0	223	27.3	0	0.0	0.0	0.0	0.0	167
35	0164	4028.7	7210.6	X26115.8	Y43605.3	64	31.7	0	0.0	0.0	0.0	0.0	273
35	0165	4031.1	7204.5	X26067.7	Y43618.9	127	31.2	0	0.0	0.0	0.0	0.0	413
35	0166	4028.8	7154.8	X25987.2	Y43589.8	352	37.2	0	0.0	0.0	0.0	0.0	5
35	0174	4045.8	7147.2	X25934.5	Y43717.7	186	30.1	0	0.0	0.0	0.0	0.0	45
35	0175	4043.4	7138.5	X25859.0	Y43688.6	155	37.2	0	0.0	0.0	0.0	0.0	5
35	0230	4026.3	7125.2	X25751.0	Y43540.8	288	38.8	0	0.0	0.0	0.0	0.0	21
* 35	0231	4031.0	7204.5	X26067.7	Y43618.0	214	31.7	0	0.0	0.0	0.0	0.0	828
* 35	0232	4031.1	7204.6	X26068.5	Y43619.0	296	31.2	0	0.0	0.0	0.0	0.0	657
* 35	0233	4031.0	7204.5	X26067.7	Y43618.0	169	31.7	0	0.0	0.0	0.0	0.0	470
* 35	0234	4031.1	7204.5	X26067.7	Y43618.9	266	31.2	0	0.0	0.0	0.0	0.0	524
38	0181	4053.9	7114.7	X25661.2	Y43739.7	22	30.1	0	0.0	0.0	0.0	0.0	142
38	0182	4058.7	7056.6	X25506.4	Y43752.3	70	26.2	0	0.0	0.0	0.0	0.0	49
39	0176	4039.1	7131.4	X25798.2	Y43647.0	141	37.2	0	0.0	0.0	0.0	0.0	0
39	0177	4037.5	7125.2	X25747.2	Y43627.9	96	35.0	0	0.0	0.0	0.0	0.0	24
39	0178	4037.5	7117.3	X25682.9	Y43619.6	341	34.4	0	0.0	0.0	0.0	0.0	18
39	0179	4046.2	7126.8	X25761.5	Y43696.4	326	35.0	0	0.0	0.0	0.0	0.0	52
39	0180	4053.7	7134.7	X25834.1	Y43763.2	102	30.6	0	0.0	0.0	0.0	0.0	304
41	0201	4111.1	7040.5	X25372.8	Y43818.3	136	17.0	1	100.0	0.0	0.0	0.0	1
41	0202	4103.6	7036.6	X25333.4	Y43762.1	129	23.5	0	0.0	0.0	0.0	0.0	237
41	0203	4101.2	7032.6	X25300.0	Y43740.8	113	24.6	0	0.0	0.0	0.0	0.0	0
41	0204	4056.1	7012.8	X25156.8	Y43683.7	215	16.4	0	0.0	0.0	0.0	0.0	36
41	0205	4051.3	7014.6	X25183.5	Y43653.1	162	22.4	0	0.0	0.0	0.0	0.0	98
41	0206	4046.3	7010.8	X25176.9	Y43615.1	130	23.0	0	0.0	0.0	0.0	0.0	219
45	0207	4041.3	6954.8	W14067.0	Y43566.1	126	25.7	0	0.0	0.0	0.0	0.0	111
45	0210	4056.2	6942.5	W13946.2	Y43652.8	111	18.0	3	66.7	0.0	0.0	33.3	0
45	0211	4043.4	6930.7	W13932.7	Y43558.7	190	26.2	0	0.0	0.0	0.0	0.0	1
45	0218	4044.0	6922.5	W13888.2	Y43555.6	52	25.7	0	0.0	0.0	0.0	0.0	0
46	0209	4041.2	6942.7	W14003.3	Y43554.7	40	26.8	1	100.0	0.0	0.0	0.0	28
46	0212	4036.0	6930.9	W13960.9	Y43510.5	246	30.6	0	0.0	0.0	0.0	0.0	490
46	0219	4058.7	6916.5	W13800.0	Y43643.3	84	25.2	0	0.0	0.0	0.0	0.0	1
47	0208	4038.8	6950.7	W14054.1	Y43545.7	76	30.6	0	0.0	0.0	0.0	0.0	171
47	0213	4028.7	6952.5	W14098.6	Y43478.7	94	39.4	0	0.0	0.0	0.0	0.0	0
47	0214	4028.8	6942.8	W14047.8	Y43471.9	99	38.8	0	0.0	0.0	0.0	0.0	14
47	0215	4028.8	6926.6	W13964.8	Y43459.9	41	35.0	0	0.0	0.0	0.0	0.0	987
47	0216	4033.8	6912.7	W13876.8	Y43482.2	18	36.6	0	0.0	0.0	0.0	0.0	174
47	0217	4036.2	6910.7	W13857.9	Y43496.1	358	41.0	0	0.0	0.0	0.0	0.0	176
47	0220	4058.6	6908.6	W13760.0	Y43635.2	132	38.3	0	0.0	0.0	0.0	0.0	0
47	0222	4036.0	6854.6	W13779.3	Y43482.9	0	29.0	0	0.0	0.0	0.0	0.0	0
47	0223	4036.1	6854.7	W13779.4	Y43483.6	185	37.2	2	100.0	0.0	0.0	0.0	863
48	0221	4048.7	6902.9	W13771.0	Y43568.7	190	44.3	0	0.0	0.0	0.0	0.0	61
48	0224	4018.5	6850.9	W13826.2	Y43370.0	236	51.9	0	0.0	0.0	0.0	0.0	36

'*' Signifies a non-random station

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2005 NOAA Fisheries Service Surfclam -- Ocean Quahog Survey
R/V DELAWARE II May 23 - June 30

Station Data								Surfclams					Ocean Quahogs	
Survey Stratum	Station Number	Position		Loran		Depth (FM)	Catch Number	Percent of Survey Catch				Catch Number		
		Latitude	Longitude	Time	Delays			Heading	0-4.74"	4.76-5.00"	5.01-5.50"		>5.50"	
48	0225	4006.2	6915.3	W13986.2	Y43303.2	258	56.9	0	0.0	0.0	0.0	0.0	0	
48	0226	4013.7	6924.7	W14007.4	Y43358.3	46	46.5	0	0.0	0.0	0.0	0.0	0	
48	0227	4018.6	6923.0	W13982.3	Y43389.9	254	43.7	0	0.0	0.0	0.0	0.0	41	
48	0228	4008.8	6941.0	W14105.0	Y43334.6	296	51.4	0	0.0	0.0	0.0	0.0	0	
48	0229	4011.2	6952.9	W14157.8	Y43358.2	284	51.9	0	0.0	0.0	0.0	0.0	0	
83	0332	3721.2	7536.7	X27125.0	Y41607.7	22	7.1	0	0.0	0.0	0.0	0.0	0	
83	0333	3723.8	7536.7	X27129.8	Y41637.4	37	6.6	1	100.0	0.0	0.0	0.0	0	
84	0334	3738.8	7532.5	X27139.7	Y41815.8	53	6.6	1	100.0	0.0	0.0	0.0	0	
84	0335	3743.7	7520.8	X27094.9	Y41888.8	136	9.8	1	100.0	0.0	0.0	0.0	0	
84	0338	3748.7	7506.8	X27037.5	Y41965.0	59	8.7	0	0.0	0.0	0.0	0.0	0	
84	0340	3756.1	7502.7	X27031.0	Y42053.4	65	12.6	0	0.0	0.0	0.0	0.0	0	
85	0115	3828.6	7450.6	X27031.2	Y42430.2	181	12.0	0	0.0	0.0	0.0	0.0	0	
85	0341	3800.9	7501.3	X27032.9	Y42108.9	0	11.5	0	0.0	0.0	0.0	0.0	0	
85	0342	3800.7	7501.2	X27032.0	Y42106.8	236	9.3	5	100.0	0.0	0.0	0.0	0	
85	0343	3801.3	7509.2	X27073.0	Y42103.7	72	9.3	1	100.0	0.0	0.0	0.0	0	
85	0344	3809.1	7502.9	X27056.7	Y42199.2	337	10.4	0	0.0	0.0	0.0	0.0	0	
85	0345	3813.8	7506.4	X27084.0	Y42248.4	70	6.6	3	100.0	0.0	0.0	0.0	0	
86	0111	3841.1	7450.6	X27057.6	Y42570.1	163	8.2	2	100.0	0.0	0.0	0.0	0	
86	0113	3833.6	7454.6	X27063.4	Y42482.9	176	10.9	0	0.0	0.0	0.0	0.0	0	
86	0114	3831.3	7452.8	X27048.7	Y42458.6	350	9.3	0	0.0	0.0	0.0	0.0	0	
87	0082	3906.4	7424.6	X26960.1	Y42863.0	81	12.6	48	4.2	2.1	4.2	89.6	0	
87	0083	3908.7	7420.7	X26941.0	Y42889.1	94	13.1	4	0.0	0.0	0.0	100.0	0	
87	0105	3856.4	7434.6	X26998.9	Y42749.6	56	8.7	36	11.1	8.3	5.6	75.0	0	
87	0106	3858.6	7432.9	X26993.6	Y42774.6	307	6.6	8	75.0	0.0	0.0	25.0	0	
87	0107	3901.2	7438.3	X27031.4	Y42801.0	328	6.6	3	66.7	0.0	0.0	33.3	0	
87	0108	3903.9	7440.6	X27051.3	Y42829.9	280	8.2	0	0.0	0.0	0.0	0.0	0	
87	0109	3856.1	7448.6	X27080.1	Y42739.4	218	7.1	1	0.0	0.0	0.0	100.0	0	
87	0110	3848.6	7452.7	X27086.1	Y42652.9	188	8.7	0	0.0	0.0	0.0	0.0	0	
88	0059	3936.1	7358.7	X26855.2	Y43181.4	208	13.7	6	16.7	0.0	0.0	83.3	0	
88	0060	3933.7	7404.7	X26890.7	Y43157.2	157	9.3	31	0.0	3.2	12.9	83.9	0	
88	0061	3933.7	7400.8	X26864.4	Y43156.7	224	13.1	8	12.5	0.0	12.5	75.0	0	
88	0062	3931.2	7402.7	X26872.0	Y43130.7	211	12.6	18	5.6	0.0	16.7	77.8	0	
88	0063	3928.5	7400.6	X26852.4	Y43102.1	180	13.1	7	0.0	0.0	14.3	85.7	0	
88	0064	3923.8	7356.6	X26816.8	Y43052.7	67	14.2	15	0.0	0.0	60.0	40.0	0	
88	0073	3921.2	7356.7	X26812.6	Y43025.5	323	14.8	10	0.0	10.0	10.0	80.0	0	
88	0074	3923.6	7404.8	X26870.3	Y43050.7	224	10.9	29	17.2	0.0	3.4	79.3	0	
88	0075	3918.7	7410.8	X26899.2	Y42998.3	281	13.1	0	0.0	0.0	0.0	0.0	0	
88	0076	3918.7	7414.7	X26924.2	Y42997.9	195	13.1	8	12.5	0.0	0.0	87.5	1	
88	0077	3916.7	7414.0	X26915.6	Y42976.6	282	10.4	12	16.7	0.0	0.0	83.3	0	
88	0078	3916.2	7420.7	X26957.0	Y42970.2	284	8.2	21	19.0	0.0	9.5	71.4	0	
88	0079	3916.1	7428.6	X27006.4	Y42967.8	242	8.2	57	0.0	3.5	35.1	61.4	0	
88	0080	3913.8	7430.8	X27014.7	Y42942.2	216	9.3	4	0.0	0.0	0.0	100.0	0	
88	0081	3911.3	7430.8	X27009.0	Y42914.8	205	9.8	24	0.0	0.0	20.8	79.2	0	
88	0084	3911.2	7418.7	X26933.7	Y42916.6	131	11.5	22	9.1	0.0	0.0	90.9	0	
88	0085	3911.2	7410.7	X26883.6	Y42918.3	106	12.0	15	26.7	0.0	6.7	66.7	0	
88	0086	3913.7	7408.5	X26874.5	Y42945.3	117	13.7	21	19.0	0.0	0.0	81.0	0	
*	88	0136	3921.3	7400.5	X26837.7	Y43026.5	220	14.2	48	2.1	0.0	18.8	79.2	0
*	88	0137	3933.7	7354.5	X26821.8	Y43155.6	119	13.7	6	0.0	0.0	100.0	0	

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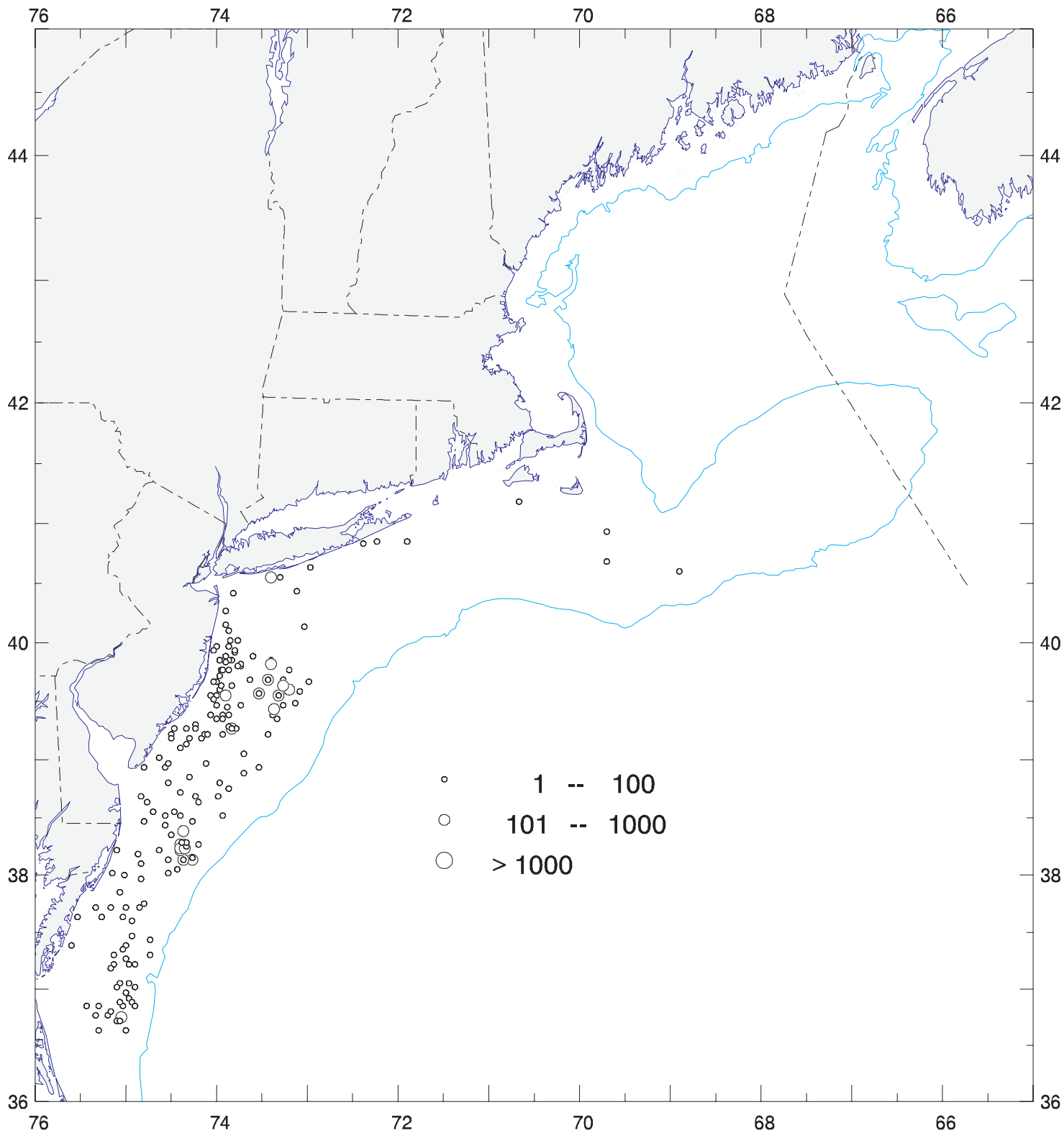
2005 NOAA Fisheries Service Surfclam -- Ocean Quahog Survey
R/V DELAWARE II May 23 - June 30

Station Data								Surfclams				Ocean Quahogs	
Survey Stratum	Station Number	Position Latitude Longitude		Loran Time Delays Heading		Depth (FM)	Catch Number	Percent of Survey Catch				Catch Number	
								0-4.74"	4.76-5.00"	5.01-5.50"	>5.50"		
* 88	0375	3921.5	7400.4	X26837.4	Y43028.6	74	14.2	62	4.8	3.2	25.8	66.1	0
* 88	0376	3927.5	7353.9	X26805.8	Y43091.1	28	15.3	25	12.0	4.0	24.0	60.0	0
* 88	0377	3933.7	7354.4	X26821.1	Y43155.6	8	13.7	55	0.0	3.6	10.9	85.5	0
* 88	0378	3933.8	7354.4	X26821.3	Y43156.6	80	14.8	28	0.0	3.6	3.6	92.9	0
* 88	0379	3933.8	7354.4	X26821.3	Y43156.6	126	14.8	8	12.5	0.0	0.0	87.5	0
* 88	0380	3933.8	7354.4	X26821.3	Y43156.6	162	14.8	94**					0
* 88	0381	3933.8	7354.3	X26820.6	Y43156.6	251	14.8	102	2.0	2.0	9.8	86.3	0
	89	0019	4009.7	X26899.9	Y43525.7	217	12.6	46	19.6	10.9	21.7	47.8	0
	89	0020	4006.6	X26879.6	Y43493.0	215	14.2	78	1.3	2.6	6.4	89.7	0
* 89	0021	3953.8	7354.5	X26864.2	Y43363.4	215	13.7	52	15.4	0.0	3.8	80.8	0
* 89	0022	3951.3	7358.4	X26886.3	Y43339.4	200	10.9	14	0.0	0.0	0.0	100.0	0
* 89	0023	3956.0	7402.7	X26928.0	Y43390.1	28	9.8	1	100.0	0.0	0.0	0.0	0
* 89	0024	3958.6	7400.6	X26919.3	Y43416.0	205	11.5	2	50.0	0.0	0.0	50.0	0
* 89	0025	3958.6	7352.7	X26862.2	Y43411.6	207	13.1	35	8.6	0.0	8.6	82.9	0
	89	0026	3943.8	X26870.2	Y43261.6	223	12.6	13	46.2	0.0	0.0	53.8	0
* 89	0027	3946.0	7305.7	X26498.8	Y43263.1	220	13.1	75	8.0	2.7	9.3	80.0	0
	89	0028	3946.4	X26835.3	Y43286.5	213	14.2	58	5.2	6.9	17.2	70.7	0
	89	0030	3951.2	X26830.6	Y43334.9	260	14.2	11	0.0	9.1	0.0	90.9	0
* 89	0031	3951.2	7352.8	X26846.3	Y43335.9	152	13.7	36	2.8	0.0	8.3	88.9	0
* 89	0032	3955.9	7348.8	X26827.9	Y43382.0	12	14.2	54	5.6	0.0	7.4	87.0	0
* 89	0033	4001.2	7351.0	X26855.8	Y43437.1	154	12.6	16	18.8	0.0	6.2	75.0	0
	89	0045	3940.3	X26877.8	Y43225.7	266	11.5	22	9.1	0.0	4.5	86.4	0
	89	0046	3940.3	X26891.5	Y43226.2	275	9.3	27	3.7	0.0	3.7	92.6	0
	89	0047	3946.4	X26861.3	Y43287.8	271	12.6	0	0.0	0.0	0.0	0.0	0
	89	0048	3946.2	X26862.9	Y43285.9	250	12.0	58	3.4	1.7	19.0	75.9	0
	89	0050	3951.1	X26846.1	Y43334.8	227	13.7	67	14.9	7.5	14.9	62.7	0
	89	0051	3956.0	X26828.1	Y43383.0	28	14.2	63	19.0	1.6	9.5	69.8	0
	89	0053	4001.2	X26855.8	Y43437.1	140	12.6	30	26.7	3.3	0.0	70.0	0
	89	0054	3958.6	X26862.2	Y43411.6	241	13.7	12	75.0	0.0	0.0	25.0	0
	89	0055	3958.6	X26919.3	Y43416.0	200	11.5	37	13.5	0.0	5.4	81.1	0
	89	0056	3956.0	X26928.0	Y43390.1	59	10.4	25	0.0	4.0	28.0	68.0	0
	89	0057	3953.8	X26864.2	Y43363.4	247	13.7	81	8.6	0.0	4.9	86.4	0
	89	0058	3951.3	X26885.6	Y43339.3	219	11.5	17	5.9	5.9	0.0	88.2	0
* 89	0138	3938.4	7357.1	X26849.0	Y43205.0	292	13.1	10	20.0	10.0	0.0	70.0	0
* 89	0139	3948.8	7346.9	X26799.2	Y43308.8	98	15.3	27	7.4	3.7	3.7	85.2	0
* 89	0382	3953.8	7354.5	X26864.2	Y43363.4	164	13.7	79	26.6	0.0	11.4	62.0	0
* 89	0383	3953.8	7354.5	X26864.2	Y43363.4	276	13.7	40	37.5	0.0	2.5	60.0	0
* 89	0384	3953.8	7354.5	X26864.2	Y43363.4	200	13.7	143**					0
* 89	0385	3953.8	7354.6	X26865.0	Y43363.4	61	13.7	55	25.5	1.8	5.5	67.3	0
* 89	0386	3953.8	7354.6	X26865.0	Y43363.4	110	13.1	37**					0
* 89	0387	3950.8	7354.4	X26856.8	Y43332.5	187	12.6	46	19.6	0.0	8.7	71.7	0
	90	0015	4018.6	X26818.5	Y43603.5	233	13.1	0	0.0	0.0	0.0	0.0	16
	90	0018	4016.3	X26920.5	Y43592.9	222	11.5	45	15.6	2.2	15.6	66.7	0
	91	0012	4033.7	X26681.1	Y43725.4	240	11.5	66	7.6	0.0	6.1	86.4	0
	91	0013	4033.5	X26724.4	Y43729.8	240	8.7	131	1.5	7.6	35.1	55.7	0
	91	0014	4025.5	X26901.8	Y43679.7	221	16.4	1	0.0	0.0	0.0	100.0	0
	92	0008	4041.1	X26465.9	Y43758.1	253	13.7	0	0.0	0.0	0.0	0.0	100
	92	0009	4038.6	X26527.6	Y43746.0	240	11.5	96	12.5	2.1	10.4	75.0	0
	93	0170	4050.6	X26247.5	Y43802.4	82	9.8	27	63.0	3.7	0.0	33.3	5

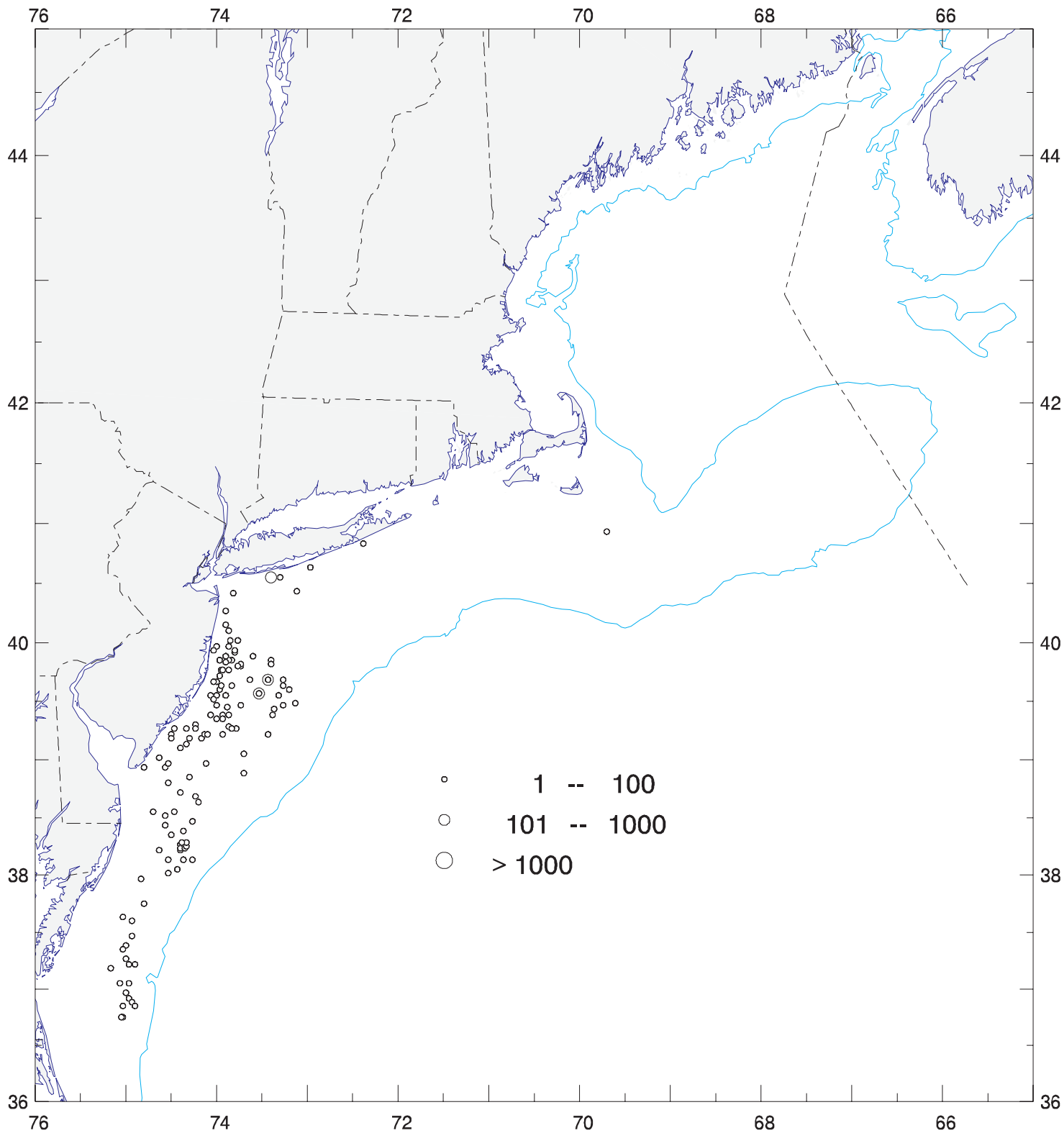
'*' Signifies a non-random station

'**' Counts Only

NOAA Fisheries Service Surfclam Ocean Quahog Survey
SURFCLAMS - Number/Tow
Total Number



NOAA Fisheries Service Surfclam Ocean Quahog Survey
SURFCLAMS - Number/Tow
Greater Than 5 inches



NOAA Fisheries Service Surfclam Ocean Quahog Survey
OCEAN QUAHOG - Number/Tow
Total Number

