

# Resource Survey Report

## Bottom Trawl Survey

Cape Hatteras – Gulf of Maine

March 7 – April 21, 2006

NOAA Ship Albatross IV



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



### First and Last

Pictured on top is the first lionfish (*Pterois* sp) ever caught during a NMFS Bottom Trawl Survey. Below, fishermen Chris Mayo (left) and Lino Luis (right) pose with Fishery Biologist, John Sibunka, who made his last cruise after forty years of sailing on the NOAA Ship Albatross IV.

## Field Notes

*In an effort to share some of the natural history observations made during the bottom trawl 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 NOAA Ship ALBATROSS IV.*

### Spring Weather

An unusually good stretch of weather for this time of year allowed the Spring Bottom Trawl Survey to finish early. Leg I, which was seventeen days long, completed 175 stations from Long Island to Cape Hatteras. The second leg picked up stations south of Nantucket, completed all of George's Bank and the Great South Channel, as well as a handful of Gulf of Maine Stations – totaling 100 stations in twelve days. The third leg occupied 69 stations in the Gulf of Maine in record time and allowed the entire Spring Bottom Trawl Survey to be completed one week ahead of schedule. We used some of this extra time to add additional random stations in the Western Gulf of Maine, an area of continuing stakeholder concern in terms of survey performance. These extra stations can be expected to improve the precision of the survey indices in this area.

### An Historical First

The highlight of the first leg was the capture of a lionfish (*Pterois sp*) just south of Cape Hatteras. Although lionfish have been showing up along the east coast quite regularly over the past decade or so, this was the first time we have encountered one during our forty three years of surveying the Atlantic seaboard. Native to the Indo-Pacific, lionfish were likely introduced off of the southeastern U.S. in the early 90's, possibly through the aquarium trade. They are best known for their long spines that can deliver toxins powerful enough to pose a serious health risk to humans. The specimen was sent to the Smithsonian museum and included in their reference collection.

### Super Sized Catches

The second leg brought in two record catches. The first, at station 212, had 147 barndoor skates that weighed in at 1,304 pounds. Their total lengths ranged from 19 to 53 inches. This is triple the number of the next largest catch of barndoors, which occurred on the 2004 winter survey. It is five and a half times the third largest catch captured on the 2002 winter survey. This one catch had almost three times the total number of individuals caught between 1975 and 1990! During that time the catches of barndoor skates were extremely low. Since then, a significant increase in the number of individuals caught has been observed during our surveys. This record barndoor skate catch was exciting for all onboard, even more so for those who remember a time when it was rare to see even one barndoor during a survey.

Another record tow occurred at station 241 where we captured the largest Atlantic soft pout catch in survey history. 1,281 individuals weighed in at 4.4 pounds. This was almost double the second largest catch, which occurred in 1980. These small fish are eel-like in shape. They only reach a maximum length of six inches and they have soft, loose, translucent skin without scales. They typically inhabit deep water (1200-1800 feet) but are found shallower in the northern part of their range (New Brunswick, Canada). Our

survey regularly catches Atlantic soft pout, however it is unusual to see more than a handful of them at one time.

### **More Halibut and Young Cod**

During Leg III of the spring survey, there were two significant observations. This year Atlantic halibut were observed during fifteen different trawl hauls. Over the past five years (2001 to 2005), the highest number of tows with halibut catches was nine which occurred in 2003 and 2005. The lowest number of halibut caught was three in 2004. Also for the first time Atlantic halibut were observed on southeast Georges Bank and in the Great South Channel.

The second significant event was a catch of 890 juvenile Atlantic cod measuring two inches or less in Cape Cod Bay just south of Plymouth Harbor. Although age 0+ indices are generally less reliable than indices of older age classes in predicting future cod recruitment in the Gulf of Maine, observing large numbers of young individuals provides some hope that cod reproduction may be improving in this area. Unfortunately, as in this past fall's survey, large catches of adult Atlantic cod and Acadian redfish were noticeably missing.

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## RESOURCE SURVEY REPORT

### Catch Summary

NOAA Fisheries Service  
Northeast Fisheries Science Center

Spring Bottom Trawl Survey  
Cape Hatteras - Gulf of Maine  
March 7 - April 21, 2005

Attached are field notes, station and catch summaries and a series of geographical plots of commercial and recreational important species caught during the Northeast Fisheries Science Center's 2006 spring bottom trawl survey aboard the NOAA Ship ALBATROSS IV. Tows were made with a #36 Yankee otter trawl rigged with rollers, 5 fathom legs and 1000 pound polyvalent doors. The cod end and upper belly were lined with 1/2-inch mesh to retain young-of-the-year fish.

Because of the 30-minute tow duration, and random selection of station locations, catches can be light compared with commercial tows. Also, vessel operations are on a 24-hour basis and catches have not been adjusted for day/night differences. Nevertheless, these data can provide fishermen with useful information about the distribution and relative abundance of species inhabiting the survey area (Cape Hatteras to the Gulf of Maine).

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

For further information contact Russell Brown (508-495-2380) or Linda Despres (508-495- 2346), NOAA Fisheries, Northeast Fisheries Science Center, 166 Water Street, Woods Hole, MA 02543. To view this report on the Ecosystems Surveys Branch website, go to:  
**[http://www.nefsc.noaa.gov/esb/Resource\\_Survey\\_Reports.htm](http://www.nefsc.noaa.gov/esb/Resource_Survey_Reports.htm)**

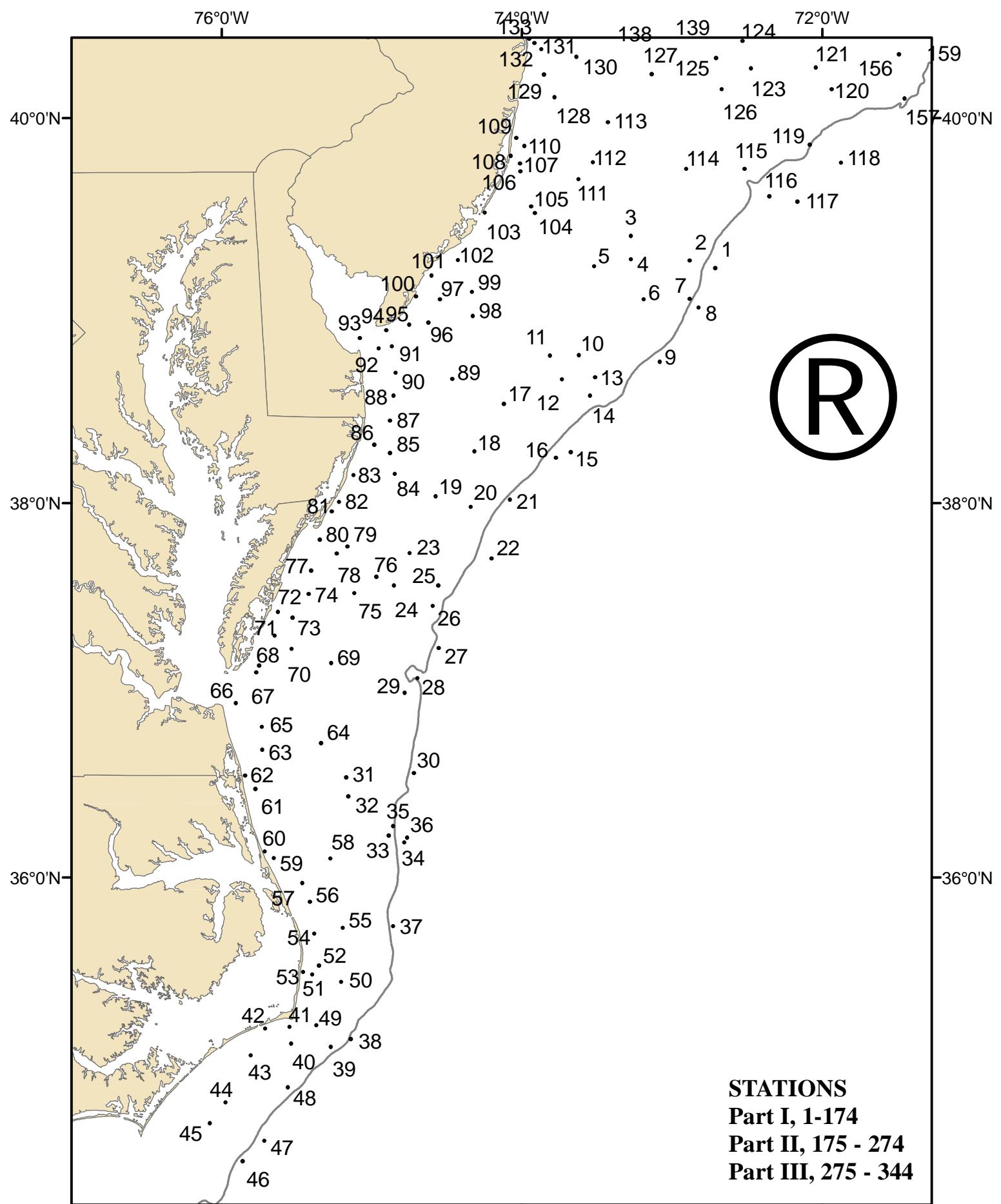


Figure 2. Trawl hauls made from NOAA Ship ALBATROSS IV (06 - 03), during NOAA Fisheries Service, Northeast Fisheries Science Center spring bottom trawl survey, March 7 - April 20, 2006.

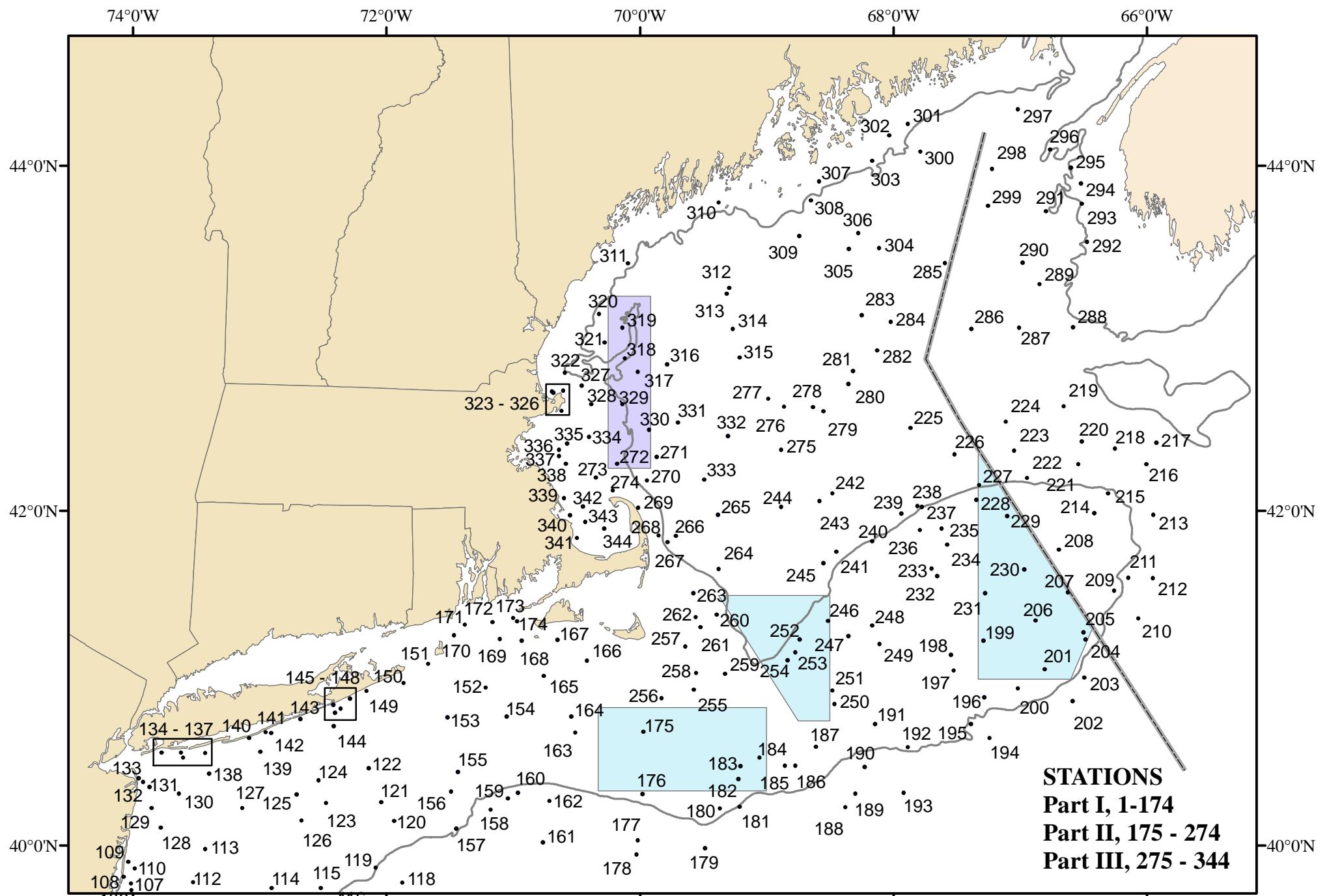


Figure 2. Trawl hauls made from NOAA Ship ALBATROSS IV (06 - 03), during NOAA Fisheries Service, Northeast Fisheries Science Center spring bottom trawl survey, March 7 - April 20, 2006.

NOAA Fisheries Service SPRING BOTTOM TRAWL SURVEY  
2006 STATION INFORMATION

Station	Date	Time	Lat	Lon	Loran			Course	Bottom	
					TD's				Depth (FM)	Temp (F)
0001	Mar-08	1054	3913.6	7242.7	X26316.5	Y42951.1	280	62.9	55.0	
0002	Mar-08	1259	3915.9	7253.0	X26385.1	Y42972.6	300	40.5	48.9	
0003	Mar-08	1539	3923.6	7316.4	X26547.6	Y43048.7	188	29.8	44.4	
0004	Mar-08	1716	3916.3	7316.3	X26539.3	Y42976.6	250	31.2	46.0	
0005	Mar-08	1919	3914.1	7331.0	X26633.1	Y42953.4	128	24.1	42.1	
0006	Mar-08	2149	3903.8	7311.3	X26495.3	Y42853.6	108	39.1	46.9	
0007	Mar-09	0022	3903.9	7252.9	X26378.1	Y42858.1	036	48.7	54.3	
0008	Mar-09	0159	3901.3	7249.4	X26354.8	Y42833.4	188	64.2	54.1	
0009	Mar-09	0453	3844.3	7304.8	X26441.9	Y42665.4	195	78.7	54.0	
0010	Mar-09	0804	3846.4	7337.2	X26638.5	Y42670.6	260	29.0	46.4	
0011	Mar-09	1014	3846.3	7348.7	X26707.8	Y42664.4	141	25.7	44.6	
0012	Mar-09	1152	3838.9	7343.9	X26669.8	Y42589.9	086	33.6	48.2	
0013	Mar-09	1342	3839.5	7330.8	X26593.2	Y42604.0	178	37.5	47.3	
0014	Mar-09	1501	3833.8	7332.7	X26599.3	Y42545.2	199	39.9	47.7	
0015	Mar-09	1738	3816.0	7340.5	X26626.8	Y42358.6	221	70.3	53.6	
0016	Mar-09	1918	3814.1	7346.3	X26657.1	Y42333.6	324	61.5	53.8	
0017	Mar-09	2235	3831.2	7407.2	X26794.5	Y42494.4	205	27.9	45.0	
0018	Mar-10	0117	3816.2	7418.9	X26837.7	Y42323.7	228	26.0	44.4	
0019	Mar-10	0432	3802.1	7434.4	X26898.3	Y42154.8	202	21.9	45.7	
0020	Mar-10	0728	3758.7	7420.4	X26820.5	Y42134.8	196	33.4	45.3	
0021	Mar-10	1105	3801.0	7404.7	X26741.3	Y42178.8	183	57.1	50.4	
0022	Mar-10	1516	3742.3	7412.1	X26758.1	Y41973.3	185	106.1	53.1	
0023	Mar-10	1955	3744.0	7444.8	X26922.2	Y41943.9	195	24.9	46.8	
0024	Mar-10	2153	3733.8	7451.1	X26937.6	Y41823.8	096	21.1	45.9	
0025	Mar-11	0004	3733.8	7433.4	X26852.3	Y41851.0	163	34.7	48.7	
0026	Mar-11	0139	3727.2	7435.6	X26854.4	Y41776.9	164	38.0	49.5	
0027	Mar-11	0344	3713.8	7433.2	X26826.5	Y41639.3	175	68.6	53.8	
0028	Mar-11	0555	3704.2	7441.6	X26853.5	Y41522.6	097	57.7	53.8	
0029	Mar-11	0736	3659.5	7446.8	X26870.6	Y41462.4	173	35.5	51.3	
0030	Mar-11	1144	3633.7	7443.1	X26825.8	Y41202.9	170	122.2	54.3	
0031	Mar-11	1451	3632.3	7510.2	X26936.8	Y41122.2	200	20.5	48.0	
0032	Mar-11	1620	3626.1	7509.3	X26925.4	Y41059.7	130	19.7	48.9	
0033	Mar-11	1840	3616.6	7451.4	X26842.0	Y41009.2	214	42.7	54.9	
0034	Mar-11	1949	3613.6	7453.2	X26846.2	Y40973.5	181	41.8	53.8	
0035	Mar-11	2221	3612.8	7445.8	X26816.0	Y40986.2	009	172.0	43.0	
0036	Mar-12	0031	3611.2	7447.0	X26819.1	Y40967.7	185	101.4	54.1	
0037	Mar-12	0348	3544.0	7451.3	X26810.8	Y40692.4	165	54.1	54.0	
0038	Mar-12	0901	3507.2	7508.4	X26840.9	Y40300.3	215	99.5	65.5	
0039	Mar-12	1052	3504.6	7516.4	X26866.6	Y40247.1	231	41.0	67.3	
0040	Mar-12	1257	3505.7	7532.1	X26922.2	Y40195.4	304	12.0	62.1	
0041	Mar-12	1415	3511.0	7532.8	X26929.8	Y40241.4	267	7.9	54.9	
0042	Mar-12	1543	3510.6	7542.5	X26962.9	Y40200.3	204	8.5	55.9	
0043	Mar-12	1723	3501.7	7548.3	X26973.3	Y40096.0	212	12.6	63.9	
0044	Mar-12	1950	3446.3	7558.4	X26990.7	Y39918.1	215	16.4	59.2	
0045	Mar-12	2130	3439.4	7604.6	X27003.5	Y39833.1	116	19.7	63.0	
0046	Mar-12	2357	3426.9	7551.5	X26948.9	Y39793.1	311	53.3	66.6	
0047	Mar-13	0159	3433.6	7542.8	X26927.2	Y39883.1	024	85.8	61.5	
0048	Mar-13	0431	3451.3	7533.4	X26912.5	Y40066.3	030	32.8	67.1	

NOAA Fisheries Service SPRING BOTTOM TRAWL SURVEY  
2006 STATION INFORMATION

Station	Date	Time	Lat	Lon	Loran			Course	Bottom	
					TD's				Depth (FM)	Temp (F)
0049	Mar-13	0714	3511.6	7522.0	X26892.9	Y40287.0	027	12.0	58.5	
0050	Mar-13	0919	3525.8	7512.2	X26871.2	Y40452.3	306	17.5	61.2	
0051	Mar-13	1053	3528.3	7523.7	X26915.3	Y40435.2	038	10.9	53.8	
0052	Mar-13	1157	3531.2	7521.0	X26908.8	Y40472.2	360	13.7	59.5	
0053	Mar-13	1347	3529.0	7527.3	X26929.1	Y40430.0	036	6.3	55.6	
0054	Mar-13	1545	3541.6	7523.0	X26927.0	Y40567.1	071	13.1	56.5	
0055	Mar-13	1728	3543.5	7511.5	X26886.3	Y40622.4	336	19.7	57.2	
0056	Mar-13	1931	3551.9	7524.7	X26944.9	Y40663.9	351	13.1	48.0	
0057	Mar-13	2046	3558.1	7527.7	X26963.5	Y40718.8	044	12.3	46.9	
0058	Mar-13	2241	3606.0	7516.4	X26929.7	Y40831.8	292	18.9	48.6	
0059	Mar-14	0110	3606.1	7539.1	X27017.1	Y40769.4	326	7.9	45.7	
0060	Mar-14	0224	3608.3	7542.7	X27033.8	Y40782.5	330	6.3	46.2	
0061	Mar-14	0457	3628.6	7546.5	X27077.6	Y40994.7	331	9.8	45.9	
0062	Mar-14	0608	3632.8	7550.6	X27100.4	Y41032.2	353	6.0	46.0	
0063	Mar-14	0753	3641.2	7543.6	X27085.7	Y41141.6	066	10.9	45.5	
0064	Mar-14	1027	3643.3	7520.3	X26993.3	Y41217.1	324	12.6	47.3	
0065	Mar-14	1259	3648.6	7543.9	X27098.7	Y41223.9	306	11.2	45.5	
0066	Mar-14	1453	3656.3	7554.3	X27154.5	Y41290.5	030	6.0	45.7	
0067	Mar-14	1704	3706.0	7546.1	X27138.0	Y41417.9	002	6.6	45.7	
0068	Mar-14	1800	3708.3	7545.0	X27137.4	Y41445.3	090	8.2	45.5	
0069	Mar-14	2102	3709.0	7516.1	X27013.5	Y41507.5	306	17.0	48.7	
0070	Mar-14	2307	3713.5	7531.9	X27090.2	Y41528.2	354	12.0	45.3	
0071	Mar-15	0032	3717.7	7538.8	X27127.7	Y41564.1	354	7.9	45.1	
0072	Mar-15	0151	3725.4	7537.4	X27135.8	Y41654.5	021	5.7	46.9	
0073	Mar-15	0320	3723.6	7531.7	X27107.1	Y41643.3	042	10.1	45.5	
0074	Mar-15	0450	3731.0	7525.1	X27091.3	Y41738.6	091	10.1	45.1	
0075	Mar-15	0656	3731.4	7506.8	X27007.6	Y41771.3	058	17.2	46.2	
0076	Mar-15	0847	3736.6	7458.1	X26975.2	Y41842.7	270	15.0	46.8	
0077	Mar-15	1148	3738.5	7524.2	X27101.0	Y41824.1	277	9.0	44.6	
0078	Mar-15	1355	3743.8	7514.0	X27063.0	Y41900.1	314	10.1	44.8	
0079	Mar-15	1524	3746.1	7509.6	X27046.4	Y41931.5	318	12.3	45.1	
0080	Mar-15	1708	3748.3	7520.8	X27103.8	Y41940.9	094	7.7	45.7	
0081	Mar-15	1917	3757.2	7516.0	X27098.0	Y42048.3	047	6.3	45.3	
0082	Mar-15	2038	3800.2	7513.0	X27089.6	Y42086.8	012	7.4	45.0	
0083	Mar-15	2215	3808.7	7507.2	X27077.8	Y42189.3	086	9.0	45.3	
0084	Mar-16	0013	3809.1	7450.7	X26994.3	Y42213.3	355	10.7	45.5	
0085	Mar-16	0132	3815.8	7452.8	X27017.4	Y42284.7	298	10.1	44.2	
0086	Mar-16	0243	3818.4	7458.9	X27054.7	Y42307.9	031	8.7	44.1	
0087	Mar-16	0408	3825.9	7452.8	X27037.4	Y42397.6	003	9.6	44.1	
0088	Mar-16	0534	3833.8	7451.3	X27045.5	Y42487.4	073	13.7	44.1	
0089	Mar-16	0805	3838.9	7427.8	X26924.4	Y42561.7	264	19.4	45.3	
0090	Mar-16	1026	3840.9	7450.4	X27056.1	Y42568.3	348	9.8	45.0	
0091	Mar-16	1209	3849.1	7451.8	X27082.3	Y42659.3	283	6.6	43.7	
0092	Mar-16	1325	3848.5	7457.1	X27110.8	Y42649.3	262	6.6	44.1	
0093	Mar-16	1504	3851.7	7504.8	X27161.6	Y42680.7	175	15.6	43.7	
0094	Mar-16	1812	3854.2	7454.2	X27107.8	Y42714.8	067	6.0	43.9	
0095	Mar-16	1946	3856.0	7444.9	X27058.2	Y42739.9	090	8.5	43.3	
0096	Mar-16	2103	3856.7	7437.4	X27015.9	Y42751.2	042	7.9	43.3	

NOAA Fisheries Service SPRING BOTTOM TRAWL SURVEY  
2006 STATION INFORMATION

Station	Date	Time	Lat	Lon	Loran			Course	Bottom	
					TD's				Depth (FM)	Temp (F)
0097	Mar-16	2236	3903.8	7432.8	X27004.1	Y42832.3	113	10.1	43.0	
0098	Mar-17	0022	3858.7	7419.6	X26914.2	Y42781.3	120	18.0	44.6	
0099	Mar-17	0216	3906.2	7420.0	X26931.2	Y42862.2	267	13.4	43.7	
0100	Mar-17	0527	3904.7	7442.3	X27063.2	Y42838.6	221	6.0	43.0	
0101	Mar-17	0731	3911.3	7436.1	X27041.4	Y42913.2	063	8.5	42.8	
0102	Mar-17	0901	3916.0	7425.4	X26986.3	Y42967.0	052	8.7	43.0	
0103	Mar-17	1133	3930.8	7414.8	X26951.2	Y43127.0	023	5.5	41.5	
0104	Mar-17	1353	3930.7	7354.8	X26817.8	Y43124.3	342	13.4	41.9	
0105	Mar-17	1502	3932.7	7356.3	X26832.1	Y43145.5	332	13.7	41.7	
0106	Mar-17	1641	3943.5	7400.6	X26884.3	Y43259.1	003	10.7	41.2	
0107	Mar-17	1744	3946.0	7400.8	X26891.0	Y43284.7	358	10.4	41.0	
0108	Mar-17	1858	3948.4	7404.3	X26921.1	Y43311.4	006	6.6	41.5	
0109	Mar-17	2017	3953.8	7402.2	X26919.3	Y43367.1	145	10.7	41.0	
0110	Mar-17	2127	3951.4	7358.9	X26890.3	Y43340.8	129	11.8	41.0	
0111	Mar-17	2351	3941.1	7337.4	X26717.4	Y43226.8	104	20.0	41.9	
0112	Mar-18	0132	3946.3	7331.5	X26684.6	Y43277.4	344	19.7	42.8	
0113	Mar-18	0353	3958.6	7325.6	X26663.4	Y43395.9	126	27.6	44.6	
0114	Mar-18	0723	3944.3	7254.3	X26415.0	Y43242.1	103	40.2	47.7	
0115	Mar-18	1001	3944.2	7231.0	X26247.4	Y43231.1	130	43.2	52.2	
0116	Mar-18	1156	3935.8	7221.1	X26175.8	Y43151.6	355	58.0	54.5	
0117	Mar-18	1411	3934.2	7209.9	X26098.8	Y43133.3	047	81.7	54.9	
0118	Mar-18	1655	3946.2	7152.4	X25974.4	Y43231.3	051	114.8	54.0	
0119	Mar-18	1959	3951.8	7205.0	X26062.1	Y43285.5	359	49.8	54.5	
0120	Mar-18	2232	4008.7	7156.3	X25995.7	Y43424.6	312	39.1	51.1	
0121	Mar-19	0008	4015.5	7202.5	X26043.8	Y43486.9	322	34.2	46.4	
0122	Mar-19	0222	4028.0	7208.3	X26096.5	Y43596.8	335	31.4	46.0	
0123	Mar-19	0541	4015.2	7228.4	X26246.9	Y43506.2	301	30.6	43.7	
0124	Mar-19	0723	4023.5	7231.9	X26283.7	Y43583.0	289	26.2	43.7	
0125	Mar-19	0910	4018.4	7242.4	X26361.5	Y43547.7	300	28.7	43.7	
0126	Mar-19	1118	4008.8	7240.1	X26332.7	Y43459.6	278	30.6	44.6	
0127	Mar-19	1410	4013.4	7308.1	X26556.1	Y43524.8	254	22.7	44.8	
0128	Mar-19	1750	4006.4	7346.9	X26837.3	Y43486.8	331	16.1	43.2	
0129	Mar-19	1920	4013.4	7351.1	X26885.8	Y43560.3	008	13.9	42.3	
0130	Mar-19	2115	4018.7	7338.1	X26799.6	Y43602.3	316	14.2	42.6	
0131	Mar-19	2307	4021.1	7352.2	X26913.8	Y43638.9	314	12.6	42.6	
0132	Mar-20	0013	4023.0	7355.0	X26940.7	Y43660.4	354	9.3	41.4	
0133	Mar-20	0123	4024.2	7357.2	X26960.5	Y43674.9	002	8.7	41.4	
0134	Mar-20	0310	4033.4	7346.5	X26902.4	Y43754.8	128	8.5	43.0	
0135	Mar-20	0431	4033.5	7337.1	X26828.2	Y43744.4	107	6.6	42.4	
0136	Mar-20	0547	4031.7	7336.1	X26815.2	Y43726.4	068	9.0	43.2	
0137	Mar-20	0712	4033.4	7325.7	X26736.3	Y43730.4	125	9.8	41.4	
0138	Mar-20	0842	4026.0	7323.9	X26704.6	Y43658.8	060	15.0	41.9	
0139	Mar-20	1120	4033.8	7259.6	X26524.4	Y43703.5	058	14.5	40.8	
0140	Mar-20	1301	4038.7	7305.0	X26579.2	Y43754.9	064	7.1	41.0	
0141	Mar-20	1414	4040.9	7257.0	X26517.4	Y43764.2	066	9.8	40.6	
0142	Mar-20	1524	4040.5	7254.5	X26496.1	Y43757.7	065	12.8	41.0	
0143	Mar-20	1707	4045.7	7240.8	X26390.2	Y43784.8	054	10.1	41.5	
0144	Mar-20	1902	4043.1	7224.9	X26251.3	Y43742.5	026	18.9	41.9	

NOAA Fisheries Service SPRING BOTTOM TRAWL SURVEY  
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Station	Date	Time	Lat	Lon	Loran			Course	Bottom	
					TD's		Depth (FM)		Temp (F)	
0145	Mar-20	2036	4049.3	7221.5	X26232.7	Y43790.0	222	15.9	41.0	
0146	Mar-20	2148	4047.9	7224.3	X26253.9	Y43781.4	010	15.0	40.6	
0147	Mar-20	2256	4050.7	7225.0	X26265.2	Y43806.0	070	8.5	40.6	
0148	Mar-21	0008	4053.0	7217.2	X26202.0	Y43814.2	068	10.1	40.5	
0149	Mar-21	0119	4055.7	7209.2	X26137.4	Y43825.1	067	10.1	40.6	
0150	Mar-21	0309	4058.6	7151.8	X25989.4	Y43823.6	050	14.8	41.2	
0151	Mar-21	0525	4105.4	7140.1	X25897.0	Y43858.9	116	19.4	43.0	
0152	Mar-21	0828	4056.8	7112.8	X25646.0	Y43758.9	208	29.3	45.9	
0153	Mar-21	1059	4046.2	7131.1	X25797.6	Y43701.8	090	33.4	47.7	
0154	Mar-21	1349	4046.5	7103.0	X25562.1	Y43671.8	202	31.4	43.2	
0155	Mar-21	1700	4026.5	7126.0	X25757.5	Y43543.0	223	39.9	45.9	
0156	Mar-21	1834	4019.5	7129.3	X25786.4	Y43490.5	176	45.1	50.2	
0157	Mar-21	2033	4006.0	7127.0	X25779.9	Y43381.1	082	49.2	55.2	
0158	Mar-21	2255	4012.8	7110.4	X25653.9	Y43422.4	050	62.3	55.4	
0159	Mar-22	0023	4017.0	7102.5	X25591.3	Y43448.8	085	57.4	54.7	
0160	Mar-22	0141	4019.0	7057.6	X25553.8	Y43460.6	107	56.9	55.0	
0161	Mar-22	0500	4001.1	7045.9	X25513.8	Y43316.0	094	128.2	52.2	
0162	Mar-22	0740	4016.0	7042.6	X25459.3	Y43426.8	116	63.7	55.9	
0163	Mar-22	1117	4040.7	7030.4	X25319.2	Y43595.3	330	31.2	41.0	
0164	Mar-22	1305	4046.5	7032.5	X25320.5	Y43638.5	313	30.1	41.0	
0165	Mar-22	1527	4101.1	7045.3	X25409.3	Y43755.2	064	26.2	42.3	
0166	Mar-22	1742	4106.6	7024.9	X25231.8	Y43768.3	306	21.3	41.4	
0167	Mar-22	1942	4114.1	7038.9	X25362.7	Y43836.5	265	15.3	40.1	
0168	Mar-22	2220	4113.7	7055.9	X25515.8	Y43856.7	264	20.0	41.0	
0169	Mar-22	2349	4114.4	7106.2	X25610.4	Y43875.7	265	23.8	42.8	
0170	Mar-23	0234	4115.6	7127.8	X25807.5	Y43915.9	271	22.7	45.0	
0171	Mar-23	0410	4119.4	7122.6	X25770.2	Y43934.9	029	18.6	43.9	
0172	Mar-23	0613	4120.4	7109.7	X25655.9	Y43922.5	039	16.1	41.7	
0173	Mar-23	0738	4121.7	7059.9	X25571.1	Y43917.5	140	15.0	39.6	
0174	Mar-23	0812	4120.5	7058.0	X25551.4	Y43906.8	321	15.0		
0175	Mar-27	2305	4041.0	6958.4	W14087.2	Y43567.1	171	27.6	39.9	
0176	Mar-28	0157	4018.5	6958.7	W14164.5	Y43412.8	187	47.8	40.6	
0177	Mar-28	0503	4001.7	7000.8	X25277.3	Y43295.8	124	83.1	55.0	
0178	Mar-28	0816	3956.5	7001.5	X25296.2	Y43259.0	086	162.9	51.1	
0179	Mar-28	1150	3958.8	6929.1	W14077.2	Y43260.3	289	65.1	56.3	
0180	Mar-28	1431	4013.2	6922.0	W13995.7	Y43353.7	086	48.4	40.6	
0181	Mar-28	1603	4013.8	6912.7	W13947.7	Y43352.2	036	51.9	43.9	
0182	Mar-28	1752	4023.9	6913.3	W13915.5	Y43418.8	358	44.3	41.2	
0183	Mar-28	1909	4028.7	6912.3	W13893.4	Y43449.2	055	41.6	41.2	
0184	Mar-28	2036	4031.7	6903.2	W13837.3	Y43461.8	101	41.3	41.2	
0185	Mar-28	2218	4028.9	6851.2	W13789.8	Y43435.8	170	41.6	39.9	
0186	Mar-28	2341	4028.9	6846.3	W13766.2	Y43432.5	051	40.5	39.7	
0187	Mar-29	0131	4035.6	6836.5	W13693.7	Y43467.7	149	37.2	39.7	
0188	Mar-29	0445	4013.7	6822.6	W13711.7	Y43325.0	036	94.3	50.9	
0189	Mar-29	0652	4018.8	6817.9	W13671.8	Y43353.6	014	79.3	52.3	
0190	Mar-29	0842	4028.3	6813.5	W13615.4	Y43408.9	039	68.1	48.2	
0191	Mar-29	1109	4043.8	6808.6	W13531.8	Y43497.5	121	40.5	40.3	
0192	Mar-29	1314	4035.4	6752.9	W13496.0	Y43438.3	163	50.0	40.3	

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Station	Date	Time	Lat	Lon	Loran			Course	Bottom (FM)	Depth (FM)	Temp (F)
					TD's						
0193	Mar-29	1620	4019.0	6755.0	W13569.1	Y43343.4	235		114.6	54.7	
0194	Mar-29	2157	4038.8	6714.4	W13318.8	Y43435.2	305		55.2	49.6	
0195	Mar-29	2344	4043.9	6723.2	W13334.0	Y43468.7	039		51.1	45.9	
0196	Mar-30	0137	4053.5	6716.8	W13266.6	Y43517.2	318		45.4	40.8	
0197	Mar-30	0351	4103.1	6731.2	W13285.2	Y43579.6	339		33.4	40.3	
0198	Mar-30	0508	4108.8	6732.7	W13266.3	Y43611.8	058		28.7	40.5	
0199	Mar-30	0736	4113.8	6717.3	W13178.6	Y43626.8	288		29.0	40.3	
0200	Mar-30	1055	4056.6	6701.0	W13189.2	Y43523.5	121		44.8	40.5	
0201	Mar-30	1317	4103.5	6648.2	W13108.7	Y43551.5	126		41.0	39.9	
0202	Mar-30	1728	4052.2	6635.0	W13107.7	Y43484.5	208		197.7	45.1	
0203	Mar-30	2012	4100.5	6629.5	W13050.6	Y43524.5	033		69.4	48.2	
0204	Mar-30	2217	4114.2	6628.9	W12987.2	Y43593.5	335		50.3	44.8	
0205	Mar-30	2339	4116.7	6629.9	W12979.7	Y43606.7	276		49.5	44.4	
0206	Mar-31	0216	4120.9	6652.6	W13046.5	Y43644.7	041		39.4	39.6	
0207	Mar-31	0435	4131.0	6637.3	W12940.1	Y43683.8	331		44.0	40.3	
0208	Mar-31	0657	4146.2	6641.5	W12882.3	Y43762.1	144		35.3	39.7	
0209	Mar-31	1025	4131.6	6615.3	W12856.7	Y43670.2	114		50.0	42.4	
0210	Mar-31	1342	4121.6	6603.8	W12863.3	Y43613.2	063		133.4	48.9	
0211	Mar-31	1623	4136.3	6608.6	W12811.0	Y43687.4	038		53.9	41.5	
0212	Mar-31	1814	4136.1	6556.8	W12771.5	Y43677.8	031		79.3	44.6	
0213	Mar-31	2114	4158.5	6556.7	W12661.8	Y43782.3	331		58.2	44.8	
0214	Apr-01	0021	4159.0	6624.7	W12755.4	Y43808.9	045		45.9	40.6	
0215	Apr-01	0155	4205.9	6618.3	W12697.6	Y43835.4	042		50.6	41.2	
0216	Apr-01	0423	4216.3	6600.1	W12582.1	Y43866.1	310		134.2	48.7	
0217	Apr-01	0619	4223.8	6555.3	W12527.2	Y43895.1	316		114.6	48.9	
0218	Apr-01	0854	4221.8	6614.9	W12602.8	Y43904.6	312		131.8	48.4	
0219	Apr-01	1151	4236.6	6639.2	W12607.3	Y43995.6	142		103.3	49.6	
0220	Apr-01	1446	4224.2	6630.8	W12644.9	Y43931.2	170		163.5	46.4	
0221	Apr-01	1722	4216.3	6632.2	W12692.8	Y43896.3	259		141.6	46.6	
0222	Apr-01	2014	4211.4	6656.5	W12810.1	Y43897.6	274		104.2	46.6	
0223	Apr-01	2259	4221.1	6702.5	W12781.6	Y43949.6	261		174.4	46.2	
0224	Apr-02	0129	4231.2	6706.7	W12741.9	Y44001.1	251		182.1	46.0	
0225	Apr-02	0628	4229.0	6751.9	W12945.7	Y44044.2	126		118.1	46.8	
0226	Apr-02	1002	4219.8	6730.9	W12905.0	Y43975.0	316		159.9	46.2	
0227	Apr-02	1310	4208.9	6719.2	W12914.3	Y43909.4	102		75.2	42.8	
0228	Apr-02	1504	4203.8	6720.6	W12947.3	Y43885.8	114		27.6	41.5	
0229	Apr-02	1654	4158.0	6706.0	W12917.7	Y43842.8	155		34.7	40.8	
0230	Apr-02	1939	4139.2	6657.9	W12979.9	Y43741.9	178		34.2	40.3	
0231	Apr-02	2216	4130.7	6716.5	W13096.2	Y43714.9	303		25.2	41.0	
0232	Apr-03	0043	4136.8	6739.2	W13163.4	Y43767.2	320		20.0	42.1	
0233	Apr-03	0153	4139.4	6741.8	W13161.7	Y43783.7	055		20.8	41.7	
0234	Apr-03	0337	4147.9	6734.5	W13087.9	Y43820.4	310		26.0	41.9	
0235	Apr-03	0520	4153.7	6736.9	W13069.2	Y43852.4	263		20.2	41.5	
0236	Apr-03	0658	4153.0	6747.2	W13117.7	Y43859.9	041		20.2	41.4	
0237	Apr-03	0846	4201.3	6746.5	W13071.8	Y43901.2	242		81.5	45.1	
0238	Apr-03	1013	4201.6	6748.5	W13079.5	Y43905.0	248		95.7	45.5	
0239	Apr-03	1151	4159.0	6756.2	W13127.4	Y43900.3	218		96.5	45.1	
0240	Apr-03	1404	4149.0	6810.0	W13242.4	Y43863.7	253		51.7	41.4	

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Station	Date	Time	Lat	Lon	Loran			Course	Bottom Depth (FM)	Temp (F)
					TD's					
0241	Apr-03	1623	4145.4	6827.0	W13341.4	Y43863.4	071	108.5	44.4	
0242	Apr-03	1933	4206.1	6828.6	W13244.5	Y43975.2	241	95.7	43.9	
0243	Apr-03	2103	4203.4	6834.7	W13288.5	Y43968.9	269	95.4	43.7	
0244	Apr-03	2319	4201.3	6853.0	W13392.3	Y43980.8	140	73.3	41.5	
0245	Apr-04	0245	4141.3	6833.1	W13391.4	Y43848.0	170	94.3	44.1	
0246	Apr-04	0536	4120.8	6830.8	W13476.5	Y43730.4	135	37.7	41.7	
0247	Apr-04	0745	4115.4	6821.1	W13454.6	Y43690.2	086	28.7	41.2	
0248	Apr-04	1023	4119.1	6809.8	W13385.1	Y43700.4	115	23.8	41.5	
0249	Apr-04	1229	4112.5	6806.4	W13398.8	Y43660.7	126	26.2	41.4	
0250	Apr-04	1637	4051.1	6827.6	W13590.0	Y43554.4	214	29.8	40.8	
0251	Apr-04	1840	4055.9	6828.8	W13575.4	Y43584.0	212	24.6	41.2	
0252	Apr-04	2230	4114.1	6844.2	W13571.9	Y43705.3	284	40.2	41.9	
0253	Apr-05	0148	4109.6	6846.3	W13602.2	Y43680.2	236	41.8	41.5	
0254	Apr-05	0305	4106.7	6849.9	W13632.2	Y43666.8	254	40.5	41.9	
0255	Apr-05	0712	4056.2	6934.3	W13902.9	Y43644.8	296	23.8	41.4	
0256	Apr-05	0857	4053.2	6949.6	W13996.0	Y43640.2	015	18.6	41.7	
0257	Apr-05	1133	4111.7	6938.2	W13861.4	Y43747.4	196	11.8	41.5	
0258	Apr-05	1332	4102.1	6933.2	W13873.7	Y43681.5	132	21.1	41.7	
0259	Apr-05	1524	4101.8	6919.6	W13803.3	Y43665.6	008	27.3	41.5	
0260	Apr-05	1808	4123.0	6923.5	W13734.8	Y43799.8	312	21.6	41.2	
0261	Apr-05	1958	4118.5	6931.2	W13795.3	Y43781.4	325	16.7	41.5	
0262	Apr-05	2122	4122.2	6933.3	W13790.9	Y43806.4	351	17.8	41.4	
0263	Apr-05	2300	4130.7	6934.6	W13760.5	Y43860.0	359	21.9	40.6	
0264	Apr-06	0122	4139.2	6922.5	W13656.0	Y43895.2	340	94.6	43.3	
0265	Apr-06	0428	4158.5	6923.0	W13566.1	Y44006.3	240	113.2	45.5	
0266	Apr-06	0659	4150.9	6942.8	W13713.3	Y43990.4	210	73.0	42.4	
0267	Apr-06	0824	4148.7	6946.9	W13746.4	Y43983.1	305	56.6	40.6	
0268	Apr-06	0937	4151.1	6951.0	W13758.9	Y44003.0	343	30.6	40.1	
0269	Apr-06	1127	4201.0	7000.6	X25361.3	Y44075.0	320	11.5	40.1	
0270	Apr-06	1320	4210.5	6956.5	W13696.1	Y44123.0	032	95.7	41.4	
0271	Apr-06	1511	4218.9	6952.0	W13626.7	Y44162.2	254	108.0	45.5	
0272	Apr-06	1712	4216.4	7010.6	X25520.4	Y44178.4	241	24.6	39.9	
0273	Apr-06	1849	4211.6	7020.8	X25544.0	Y44168.3	121	18.9	39.7	
0274	Apr-06	2034	4207.0	7012.6	X25466.1	Y44128.8	217	33.9	39.2	
0275	Apr-11	1935	4221.4	6852.9	W13285.5	Y44086.7	348	115.4	45.7	
0276	Apr-11	2229	4239.2	6859.0	W13218.1	Y44185.6	108	97.6	45.0	
0277	Apr-12	0002	4236.4	6851.5	W13194.4	Y44160.6	088	88.6	44.1	
0278	Apr-12	0218	4236.2	6837.9	W13124.9	Y44140.2	089	109.1	45.7	
0279	Apr-12	0401	4234.8	6833.1	W13109.0	Y44126.6	087	116.7	46.0	
0280	Apr-12	0618	4244.4	6821.2	W12994.8	Y44156.3	038	103.3	46.0	
0281	Apr-12	0839	4248.9	6819.0	W12957.5	Y44174.2	040	111.8	46.0	
0282	Apr-12	1113	4256.1	6807.6	W12859.1	Y44191.7	356	97.6	46.4	
0283	Apr-12	1341	4308.3	6814.8	W12818.4	Y44256.5	110	114.0	45.7	
0284	Apr-12	1545	4306.0	6801.1	W12768.3	Y44227.1	293	88.6	45.1	
0285	Apr-12	2005	4326.4	6735.5	W12526.0	Y44278.5	144	124.1	46.2	
0286	Apr-12	2322	4303.7	6723.0	W12617.5	Y44166.0	092	109.9	47.1	
0287	Apr-13	0146	4304.0	6700.3	W12526.0	Y44139.3	094	99.5	48.4	
0288	Apr-13	0445	4304.1	6634.8	W12433.5	Y44109.6	011	64.2	45.0	

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Station	Date	Time	Lat	Lon	Loran			Course	Bottom	
					TD's				Depth (FM)	Temp (F)
0289	Apr-13	0909	4319.1	6650.7	W12398.6	Y44190.6	059	97.6	48.4	
0290	Apr-13	1123	4326.5	6658.7	W12380.9	Y44230.8	033	114.3	48.4	
0291	Apr-13	1529	4344.1	6647.7	W12229.5	Y44286.3	017	74.4	43.7	
0292	Apr-13	2012	4333.8	6628.1	W12231.3	Y44222.0	134	50.0	41.4	
0293	Apr-13	2306	4346.8	6630.6	W12157.3	Y44275.1	170	55.5	40.6	
0294	Apr-14	0313	4353.8	6631.1	W12114.0	Y44302.2	014	48.7	40.6	
0295	Apr-14	0501	4359.1	6635.8	W12093.8	Y44327.8	029	53.6	41.4	
0296	Apr-14	0718	4405.3	6645.6	W12083.0	Y44363.2	025	46.2	42.3	
0297	Apr-14	0954	4419.1	6700.9	W12038.2	Y44432.5	224	68.1	42.1	
0298	Apr-14	1248	4358.8	6713.2	W12221.6	Y44375.5	180	88.9	46.2	
0299	Apr-14	1452	4346.0	6715.1	W12315.5	Y44329.4	226	96.2	46.8	
0300	Apr-14	1929	4404.6	6747.0	W12315.0	Y44444.7	009	75.2	43.2	
0301	Apr-14	2136	4414.1	6753.0	W12272.6	Y44487.8	230	43.2	40.6	
0302	Apr-14	2342	4410.1	6801.8	W12340.1	Y44486.6	217	48.7	40.3	
0303	Apr-15	0155	4401.4	6809.9	W12439.4	Y44466.5	212	62.1	41.2	
0304	Apr-15	0543	4331.6	6806.5	W12628.8	Y44343.9	212	104.2	46.4	
0305	Apr-15	0846	4331.2	6821.0	W12700.5	Y44363.9	045	103.9	45.9	
0306	Apr-15	1038	4336.7	6816.5	W12642.1	Y44379.8	202	99.0	46.2	
0307	Apr-15	1427	4354.5	6835.1	W12612.2	Y44478.8	037	48.7	40.5	
0308	Apr-15	1708	4348.0	6839.0	W12677.3	Y44459.5	240	57.7	40.6	
0309	Apr-15	1938	4335.7	6844.5	W12789.5	Y44418.9	029	83.9	42.4	
0310	Apr-16	0143	4347.2	6922.6	W12922.4	Y44528.7	210	46.8	39.4	
0311	Apr-16	0802	4326.2	7005.6	X25930.3	Y44517.3	168	67.5	39.7	
0312	Apr-16	1226	4317.8	6917.7	W13087.8	Y44396.0	161	91.9	43.9	
0313	Apr-16	1353	4315.7	6918.8	W13107.3	Y44388.4	219	94.1	43.5	
0314	Apr-16	1600	4303.6	6915.9	W13166.1	Y44328.8	191	95.7	44.1	
0315	Apr-16	1754	4253.7	6912.7	W13208.3	Y44276.8	242	85.8	44.2	
0316	Apr-16	2117	4251.3	6946.9	W13418.8	Y44321.7	279	136.2	45.5	
0317	Apr-16	2318	4248.6	7000.8	X25686.1	Y44332.6	307	82.3	45.1	
0318	Apr-17	0043	4253.3	7006.9	X25744.4	Y44366.9	358	35.0	40.5	
0319	Apr-17	0246	4304.0	7008.2	X25815.3	Y44420.9	279	86.7	42.6	
0320	Apr-17	0442	4308.9	7019.1	X25898.2	Y44464.0	206	62.6	41.4	
0321	Apr-17	0633	4258.8	7016.6	X25826.1	Y44411.3	235	83.4	43.7	
0322	Apr-17	0902	4248.4	7035.4	X25865.7	Y44394.1	034	53.6	40.1	
0323	Apr-17	1109	4241.8	7041.6	X25863.3	Y44371.8	097	12.3	42.3	
0324	Apr-17	1210	4241.3	7040.9	X25856.2	Y44368.0	292	10.1		
0325	Apr-17	1350	4242.2	7036.2	X25832.8	Y44363.6	281	21.1	40.1	
0326	Apr-17	1601	4235.0	7036.8	X25792.6	Y44326.6	037	22.1	41.0	
0327	Apr-17	1821	4243.9	7027.4	X25792.8	Y44356.3	326	45.7	39.6	
0328	Apr-17	2034	4237.3	7022.9	X25726.0	Y44313.7	139	48.1	40.5	
0329	Apr-17	2228	4237.2	7008.1	X25647.9	Y44287.1	131	50.9	40.8	
0330	Apr-18	0037	4228.5	6955.6	W13597.4	Y44219.3	355	96.8	45.0	
0331	Apr-18	0256	4230.9	6941.8	W13503.8	Y44209.5	111	136.7	45.7	
0332	Apr-18	0541	4226.2	6918.3	W13395.6	Y44148.8	095	129.0	45.7	
0333	Apr-18	0846	4210.8	6929.5	W13539.7	Y44083.2	290	118.9	45.3	
0334	Apr-18	1407	4225.9	7024.0	X25657.8	Y44253.7	260	36.9	39.7	
0335	Apr-18	1555	4223.6	7034.3	X25704.8	Y44259.3	246	46.5	39.6	
0336	Apr-18	1748	4221.5	7038.1	X25715.6	Y44254.4	208	33.9	39.7	

NOAA Fisheries Service SPRING BOTTOM TRAWL SURVEY  
 2006 STATION INFORMATION

Station	Date	Time	Lat	Lon	Loran			Course	Bottom	
					TD's				Depth (FM)	Temp (F)
0337	Apr-18	1953	4219.2	7038.2	X25701.6	Y44241.8	140	29.5	39.7	
0338	Apr-18	2148	4216.5	7034.9	X25662.9	Y44220.3	124	30.9	39.7	
0339	Apr-19	0004	4204.3	7035.8	X25590.7	Y44151.2	181	10.1	44.8	
0340	Apr-19	0202	4158.3	7033.1	X25532.8	Y44110.6	149	16.1	44.2	
0341	Apr-19	0348	4150.2	7029.7	X25456.7	Y44056.1	338	9.3	44.4	
0342	Apr-19	0549	4201.5	7026.8	X25511.8	Y44119.2	165	25.4	40.1	
0343	Apr-19	0712	4156.0	7025.8	X25468.8	Y44085.3	107	20.8	43.2	
0344	Apr-19	0857	4153.7	7016.8	X25395.6	Y44057.0	348	17.5	40.6	

NOAA FISHERIES-NEFSC SPRING BOTTOM TRAWL SURVEY  
 ALBATROSS IV MAR 07 - APR 21, 2006  
 CATCH WEIGHTS (POUNDS) OF IMPORTANT SPECIES BY HAUL

STATION	ATLANTIC COD	HADDOCK	POLLOCK	WHITE HAKE	SILVER HAKE	REDFISH	GOOSEFISH	SPINY DOGFISH	YELLOWTAIL FLOUNDER	WINTER FLOUNDER	AMERICAN PLAICE	WITCH FLOUNDER	WINDOWPANE FLDR	SUMMER FLOUNDER	SCUP	BLACK SEA BASS	ATLANTIC HERRING	ATLANTIC MACKEREL	WINTER SKATE	LITTLE SKATE	BUTTERFISH	AMERICAN LOBSTER	LOLIGO	ILLEX	TOTAL OTHER *	TOTAL ALL			
	1	0	0	0	0	0	0	0	5	0	0	0	0	0	0	64	1	0	2	214	0	0	0	31	0	1	273		
2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	2	236			
3	0	0	0	0	0	0	0	426	0	0	0	0	0	0	0	0	0	3	64	0	0	0	0	3	0	1	501		
4	0	0	0	0	0	0	0	1305	0	0	0	0	0	0	0	0	0	1	122	0	0	0	0	8	0	4	1443		
5	0	0	0	0	0	0	0	130	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	164		
6	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	6	0	0	0	0	5	0	1	0	5	20		
7	0	0	0	0	1	0	0	11	0	0	0	0	0	0	11	27	6	0	0	0	0	2	4	0	1	0	417	480	
8	0	0	0	0	1	0	0	128	0	0	0	0	0	0	2	0	0	0	0	0	0	0	318	0	0	140	0	27	616
9	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	219	1	6	275		
10	0	0	0	0	0	0	20	9724	0	0	0	0	0	0	1	0	0	0	193	0	0	1	0	0	15	0	1	9955	
11	0	0	0	0	0	0	0	1189	0	0	0	0	0	0	9	0	0	1	292	0	0	0	0	4	0	3	1498		
12	0	0	0	0	0	0	0	2285	0	0	0	0	0	0	1	0	0	2	212	0	0	0	0	33	0	7	2540		
13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	12	0	127	0	0	0	10	0	41	0	2	197	
14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	15	0	15	0	0	1	0	52	0	11	97		
15	0	0	0	0	0	0	0	268	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	43	6	9	330	
16	0	0	0	0	1	0	0	1336	0	0	0	0	0	0	0	0	30	0	0	0	0	9	0	30	0	12	1418		
17	0	0	0	0	0	0	0	514	0	0	0	0	0	0	4	0	0	8	3	0	0	22	0	0	0	14	566		
18	0	0	0	0	0	0	0	9	699	0	0	0	0	0	1	0	0	9	18	2	32	0	0	1	0	2	773		
19	0	0	0	0	0	0	0	252	0	0	0	0	0	0	1	0	0	3	1	0	0	27	0	0	0	1	4	289	
20	0	0	0	0	1	0	0	2909	0	0	0	0	0	0	0	0	2	0	4	0	0	0	118	0	0	151	0	0	3185
21	0	0	0	0	0	0	0	1185	0	0	0	0	0	0	0	0	57	0	0	0	0	0	1	2	33	0	1	1279	
22	0	0	0	0	0	0	0	3039	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	73	1	14	3130		
23	0	0	0	0	0	0	0	1364	0	0	0	0	0	0	5	0	0	1	0	0	0	0	15	1	0	0	0	1	1387
24	0	0	0	0	0	0	0	2365	0	0	0	0	0	0	1	0	0	0	0	0	0	0	5	0	0	0	1	2	2374
25	0	0	0	0	0	0	0	556	0	0	0	0	0	0	3	0	1	0	0	0	0	0	1	0	0	8	0	28	597
26	0	0	0	0	0	0	0	700	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	8	0	97	807	
27	0	0	0	0	0	0	0	127	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	22	0	12	166	
28	0	0	0	0	0	0	0	570	0	0	0	0	0	0	29	0	0	0	0	0	0	0	0	0	3	403	5	57	1067
29	0	0	0	0	0	0	0	6977	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	7	23	0	9	7025	
30	0	0	0	0	0	0	6	559	0	0	0	0	0	0	28	0	0	0	0	0	0	0	0	1	0	116	3	58	771
31	0	0	0	0	0	0	0	1264	0	0	0	0	0	0	20	2	0	0	0	0	0	0	1	0	0	6	0	3	1296
32	0	0	0	0	0	0	10	1151	0	0	0	0	0	0	1	0	0	0	0	0	0	0	4	0	4	0	12	1182	
33	0	0	0	0	0	0	0	15	0	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0	18	0	65	108	
34	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	39	111	
35	0	0	0	0	0	10	0	6	96	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	38	150	
36	0	0	0	0	0	0	0	29	55	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	46	142		
37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	1	11		

NOAA FISHERIES-NEFSC SPRING BOTTOM TRAWL SURVEY  
ALBATROSS IV MAR 07 - APR 21, 2006  
CATCH WEIGHTS (POUNDS) OF IMPORTANT SPECIES BY HAUL

NOAA FISHERIES-NEFSC SPRING BOTTOM TRAWL SURVEY  
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NOAA FISHERIES-NEFSC SPRING BOTTOM TRAWL SURVEY  
 ALBATROSS IV MAR 07 - APR 21, 2006  
 CATCH WEIGHTS (POUNDS) OF IMPORTANT SPECIES BY HAUL

		ATLANTIC COD	HADDOCK	POLLOCK	WHITE HAKE	SILVER HAKE	REDFISH	GOOSEFISH	SPINY DOGFISH	YELLOWTAIL FLOUNDER	WINTER FLOUNDER	AMERICAN PLAICE	WITCH FLOUNDER	WINDOWPANE FLDR	SUMMER FLOUNDER	SCUP	BLACK SEA BASS	ATLANTIC HERRING	ATLANTIC MACKEREL	WINTER SKATE	LITTLE SKATE	BUTTERFISH	AMERICAN LOBSTER	LOLIGO	ILLEX	TOTAL OTHER *	TOTAL ALL		
114	0	0	0	0	0	1	0	0	1778	0	0	0	0	0	0	1	0	401	381	0	1	0	0	3	0	3	2956		
115	0	0	0	0	0	1	0	0	12	0	0	0	0	0	0	0	0	4	12	0	2	7	0	14	0	2	54		
116	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	11	0	3	25		
117	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	127		
118	0	0	0	0	0	6	0	6	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	21	0	9	43	
119	0	0	0	0	0	10	0	4	0	0	0	0	0	0	0	33	1	2	0	0	0	0	0	0	0	0	32	94	
120	0	0	0	0	0	2	0	7	4	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	79	106		
121	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	21	44	
122	0	0	0	0	0	0	0	0	89	12	0	0	0	0	0	2	0	245	101	7	148	0	0	0	0	0	44	648	
123	0	0	0	0	1	0	0	0	109	0	0	0	0	0	0	4	0	2	2	8	8	0	0	0	0	0	6	140	
124	0	0	0	0	0	0	0	0	50	1	0	0	0	0	0	0	0	1	46	0	0	0	0	0	0	0	9	107	
125	0	0	0	0	0	0	0	0	752	10	0	0	0	0	0	3	0	0	1	8	0	0	3	0	0	0	36	813	
126	0	0	0	0	0	0	0	0	278	0	0	0	0	0	0	0	0	24	634	0	1	0	0	0	0	0	4	941	
127	0	0	0	0	0	0	0	0	85	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	88	
128	0	0	0	0	0	0	0	0	96	0	3	0	0	0	0	0	0	1	53	0	2	0	0	0	0	0	0	155	
129	0	0	0	0	0	1	0	0	9	0	5	0	0	0	1	0	0	5	0	0	6	37	0	0	0	0	2	66	
130	0	0	0	0	1	0	0	9	0	1	0	0	0	1	0	0	0	0	0	10	34	0	0	0	0	0	0	56	
131	0	0	0	0	0	1	0	0	4	0	4	0	0	0	0	0	1	0	0	9	31	0	3	0	0	0	1	54	
132	0	0	0	0	0	0	0	0	4	0	1	0	0	0	2	0	0	0	0	0	12	16	0	0	0	0	0	0	35
133	0	0	0	0	0	0	0	0	4	0	22	0	0	0	0	0	0	0	0	7	21	0	1	0	0	0	6	61	
134	0	0	0	0	0	1	0	0	6	0	10	0	0	0	1	0	0	0	1	3	18	0	1	0	0	0	3	44	
135	0	0	0	0	0	0	0	0	11	0	3	0	0	0	0	0	0	0	0	10	42	0	0	0	0	0	2	68	
136	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	1	0	0	0	2	0	0	0	0	11	19	
137	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	5	
138	0	0	0	0	0	0	0	0	13	0	5	0	0	0	0	0	0	1	0	0	0	6	0	0	0	0	4	29	
139	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	26	0	0	0	2	0	0	0	0	0	33	
140	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	24	0	0	0	0	0	0	0	1	27		
141	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	4	22	
142	0	0	0	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	27	
143	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	4	12	
144	0	0	0	0	1	0	0	0	8	4	0	0	0	0	0	0	0	0	0	0	45	0	0	0	0	0	6	73	
145	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	12	23	0	0	0	0	0	1	37	
146	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	5	11	0	0	0	0	0	0	17	
147	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	3	22	0	0	0	0	0	0	29	
148	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	10	
149	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	2	14	0	0	0	0	0	0	19	
150	0	0	0	0	0	0	0	0	5	0	15	0	0	0	1	0	0	0	0	5	23	0	0	0	0	0	4	53	
151	0	0	0	0	8	0	0	5	0	52	0	0	0	0	0	0	0	8	9	29	9	0	0	0	0	0	54	174	

NOAA FISHERIES-NEFSC SPRING BOTTOM TRAWL SURVEY  
 ALBATROSS IV MAR 07 - APR 21, 2006  
 CATCH WEIGHTS (POUNDS) OF IMPORTANT SPECIES BY HAUL

		ATLANTIC COD	HADDOCK	POLLOCK	WHITE HAKE	SILVER HAKE	REDFISH	GOOSEFISH	SPINY DOGFISH	YELLOWTAIL FLOUNDER	WINTER FLOUNDER	AMERICAN PLAICE	WITCH FLOUNDER	WINDOWPANE FLDR	SUMMER FLOUNDER	SCUP	BLACK SEA BASS	ATLANTIC HERRING	ATLANTIC MACKEREL	WINTER SKATE	LITTLE SKATE	BUTTERFISH	AMERICAN LOBSTER	LOLIGO	ILLEX	TOTAL OTHER *	TOTAL ALL		
152	0	0	0	0	0	0	0	0	9	7	4	0	0	0	0	0	0	6	42	0	1	3	1	0	0	0	8	86	
153	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	42	14	7	0	2	0	0	0	18	84		
154	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	39	14	0	3	0	0	0	0	1	63		
155	0	0	0	0	0	0	2	0	10	7	0	0	0	0	0	0	0	16	8	0	0	4	0	1	0	41	102		
156	0	0	0	0	3	6	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	56		
157	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	61		
158	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	43		
159	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	69	111		
160	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	24	0	0	0	0	0	0	0	0	0	10	92		
161	0	0	0	0	0	5	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	24		
162	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	173		
163	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	10		
164	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	15		
165	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	3	4	0	0	0	0	0	20	35		
166	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
167	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	21	0	0	0	0	24		
168	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	23	0	0	0	0	0	26		
169	0	0	0	0	0	9	0	0	0	0	6	0	0	0	0	0	0	240	1	408	280	0	5	0	0	217	1167		
170	0	0	0	0	0	23	0	0	0	0	27	0	0	0	1	1	0	0	33	8	12	151	0	14	0	0	35	305	
171	0	0	0	0	0	2	0	0	0	0	3	0	0	0	0	0	0	21	3	18	72	0	0	0	0	35	175		
172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	1	0	0	0	0	0	0	6	18		
173	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
174	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	5		
175	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	33	71	0	0	0	0	4	109		
176	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	15	8	0	0	0	0	0	17	43	
177	0	0	0	0	0	0	0	12	5	0	0	0	0	0	0	0	0	0	0	0	14	0	6	0	0	80	0	16	133
178	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	4	11		
179	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	32	0	2	42
180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
181	0	0	0	0	1	0	0	13	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0	4	23	
182	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	21	28		
183	0	0	0	0	0	0	0	11	1	0	0	0	0	0	0	0	0	0	0	19	14	0	0	0	0	5	50		
184	0	0	0	0	0	0	0	8	0	0	0	0	0	0	1	0	0	0	0	8	13	0	0	0	0	7	37		
185	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	2	9		
186	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	8	0	0	0	0	2	12		
187	0	5	0	0	0	0	0	12	2	0	0	0	0	2	0	0	0	0	171	262	0	0	0	0	0	22	476		
188	0	0	0	0	10	0	5	0	0	0	0	0	0	1	0	2	0	0	72	1	2	0	0	119	2	56	270		
189	0	0	0	0	6	0	3	12	1	0	0	1	0	84	0	0	2	0	74	0	1	0	14	0	54	0	252		

NOAA FISHERIES-NEFSC SPRING BOTTOM TRAWL SURVEY  
ALBATROSS IV MAR 07 - APR 21, 2006  
CATCH WEIGHTS (POUNDS) OF IMPORTANT SPECIES BY HAUL

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ALBATROSS IV MAR 07 - APR 21, 2006  
CATCH WEIGHTS (POUNDS) OF IMPORTANT SPECIES BY HAUL

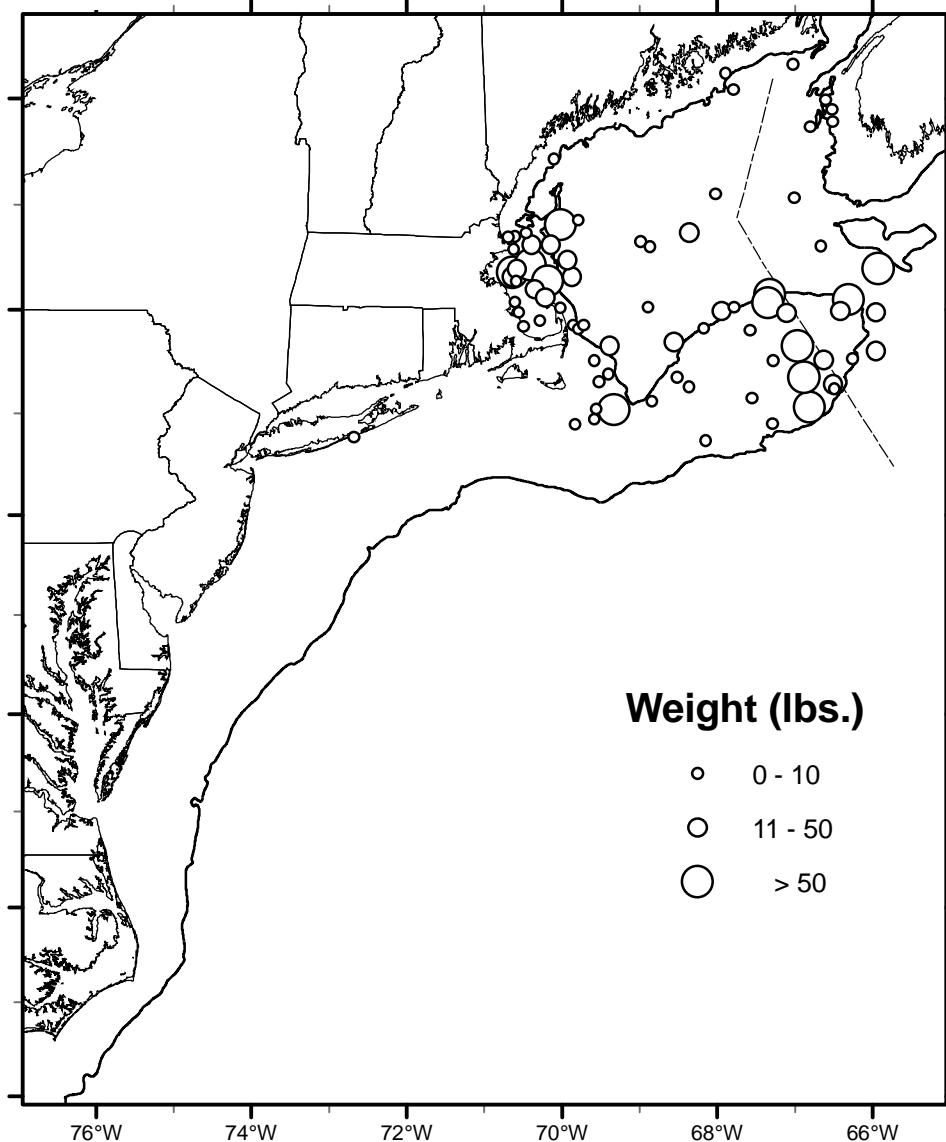
NOAA FISHERIES-NEFSC SPRING BOTTOM TRAWL SURVEY  
ALBATROSS IV MAR 07 - APR 21, 2006  
CATCH WEIGHTS (POUNDS) OF IMPORTANT SPECIES BY HAUL

NOAA FISHERIES-NEFSC SPRING BOTTOM TRAWL SURVEY  
 ALBATROSS IV MAR 07 - APR 21, 2006  
 CATCH WEIGHTS (POUNDS) OF IMPORTANT SPECIES BY HAUL

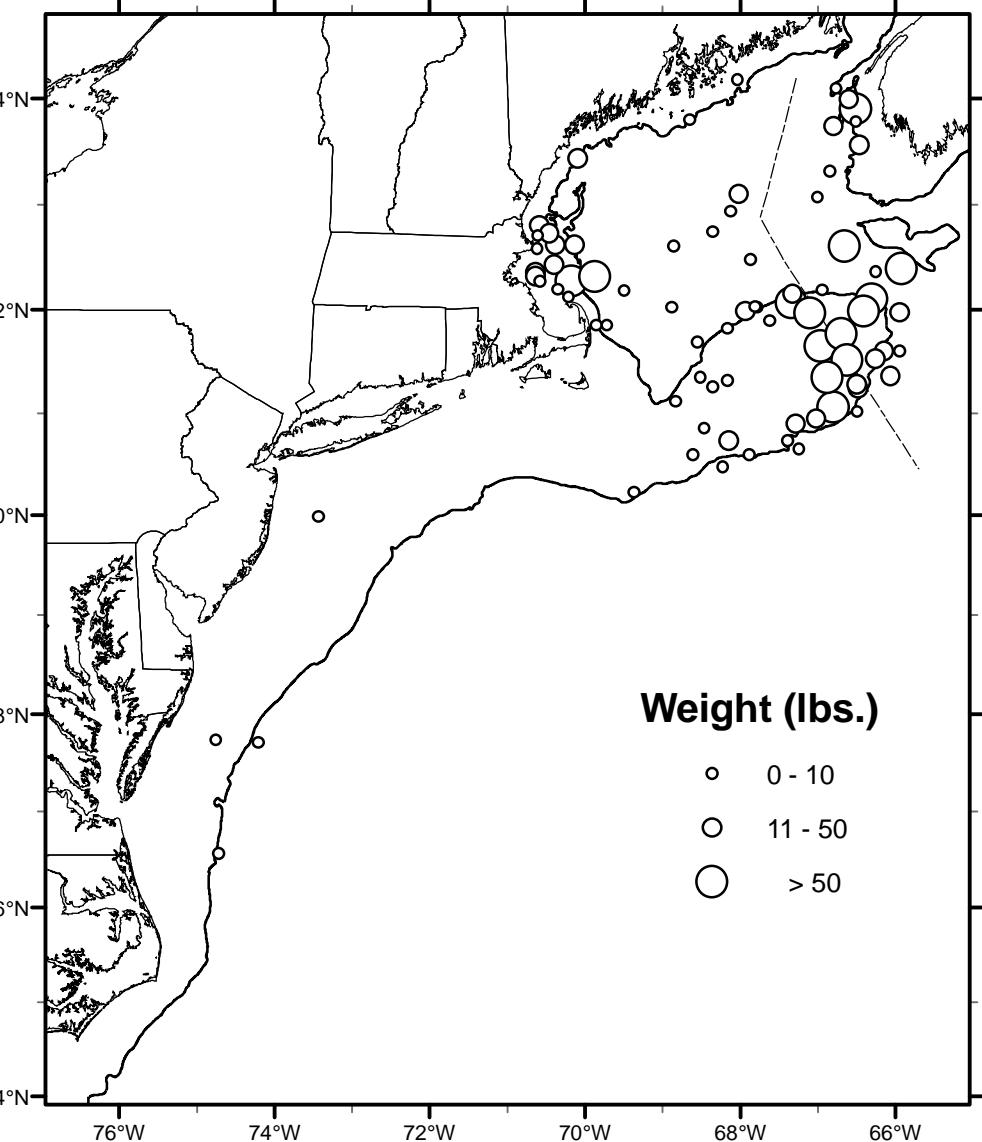
	ATLANTIC COD	HADDOCK	POLLOCK	WHITE HAKE	SILVER HAKE	REDFISH	GOOSEFISH	SPINY DOGFISH	YELLOWTAIL FLOUNDER	WINTER FLOUNDER	AMERICAN PLAICE	WITCH FFLOUNDER	WINDOWPANE FLDR	SUMMER FLOUNDER	SCUP	BLACK SEA BASS	ATLANTIC HERRING	ATLANTIC MACKEREL	WINTER SKATE	LITTLE SKATE	BUTTERFISH	AMERICAN LOBSTER	LOLIGO	ILLEX	TOTAL OTHER *	TOTAL ALL
342	0	0	0	0	0	0	0	29	0	1	0	0	0	0	0	0	4	0	0	2	0	0	0	0	28	80
343	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	5	0	0	0	0	17	0	0	432	456
344	0	0	0	0	0	0	0	9	0	2	0	0	0	0	0	0	33	0	0	0	0	1	0	0	51	96
TOTAL	1852	3645	965	270	306	1222	343	66680	380	677	475	151	137	489	481	144	2148	2850	2261	2585	1086	1002	2236	19	14945	107349

\* "Total other" in southern areas are comprised primarily of rays, large sharks and spotted hake.

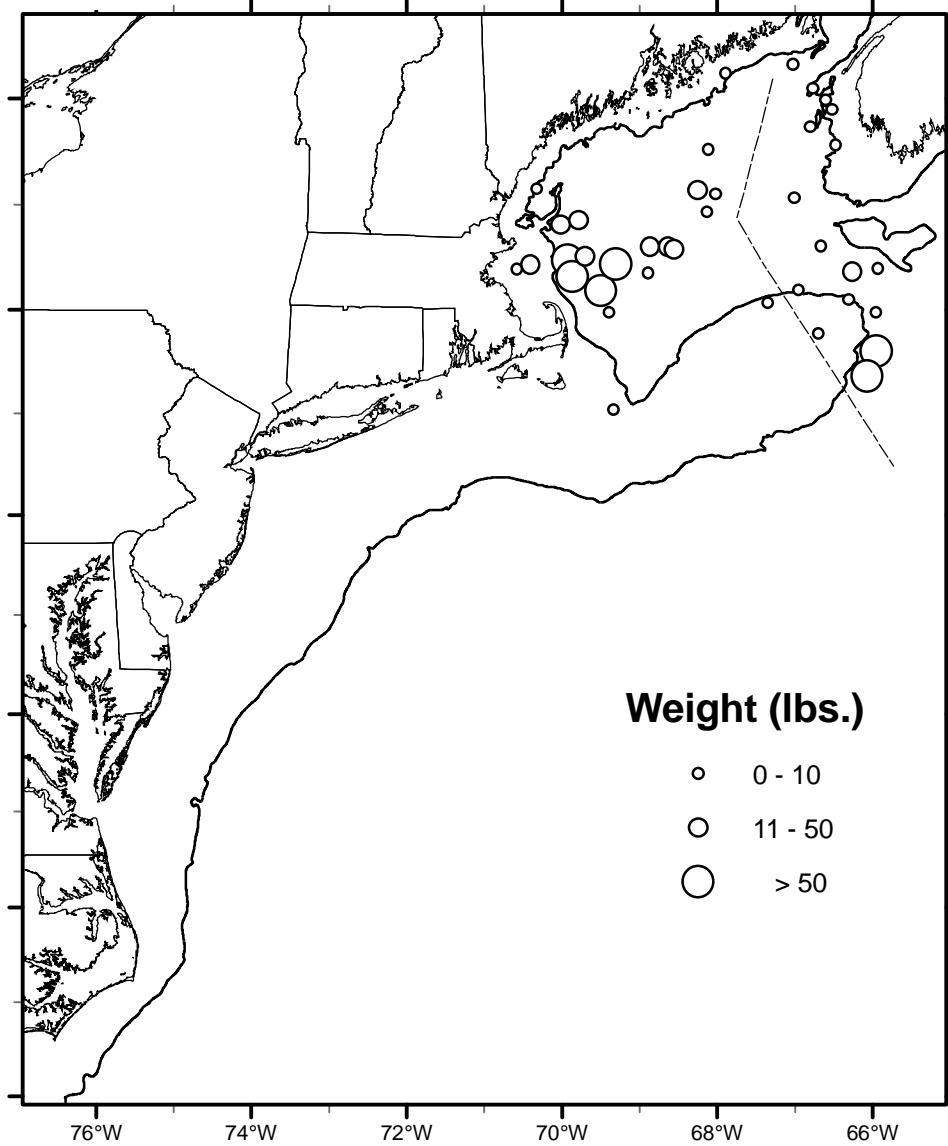
**COD**  
**NOAA Fisheries Service**  
**Bottom Trawl Survey**  
**7 March to 21 April 2006**



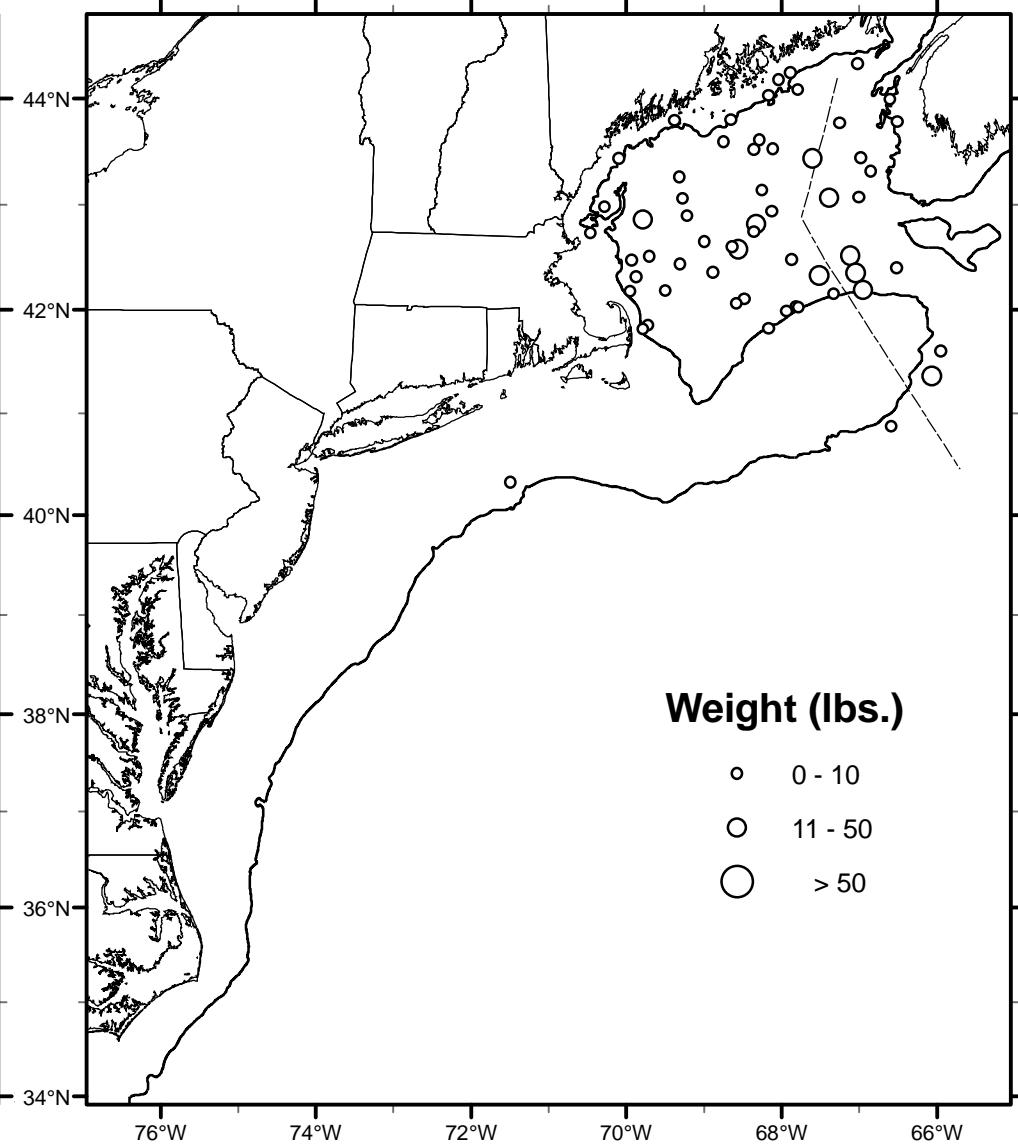
**HADDOCK**  
**NOAA Fisheries Service**  
**Bottom Trawl Survey**  
**7 March to 21 April 2006**



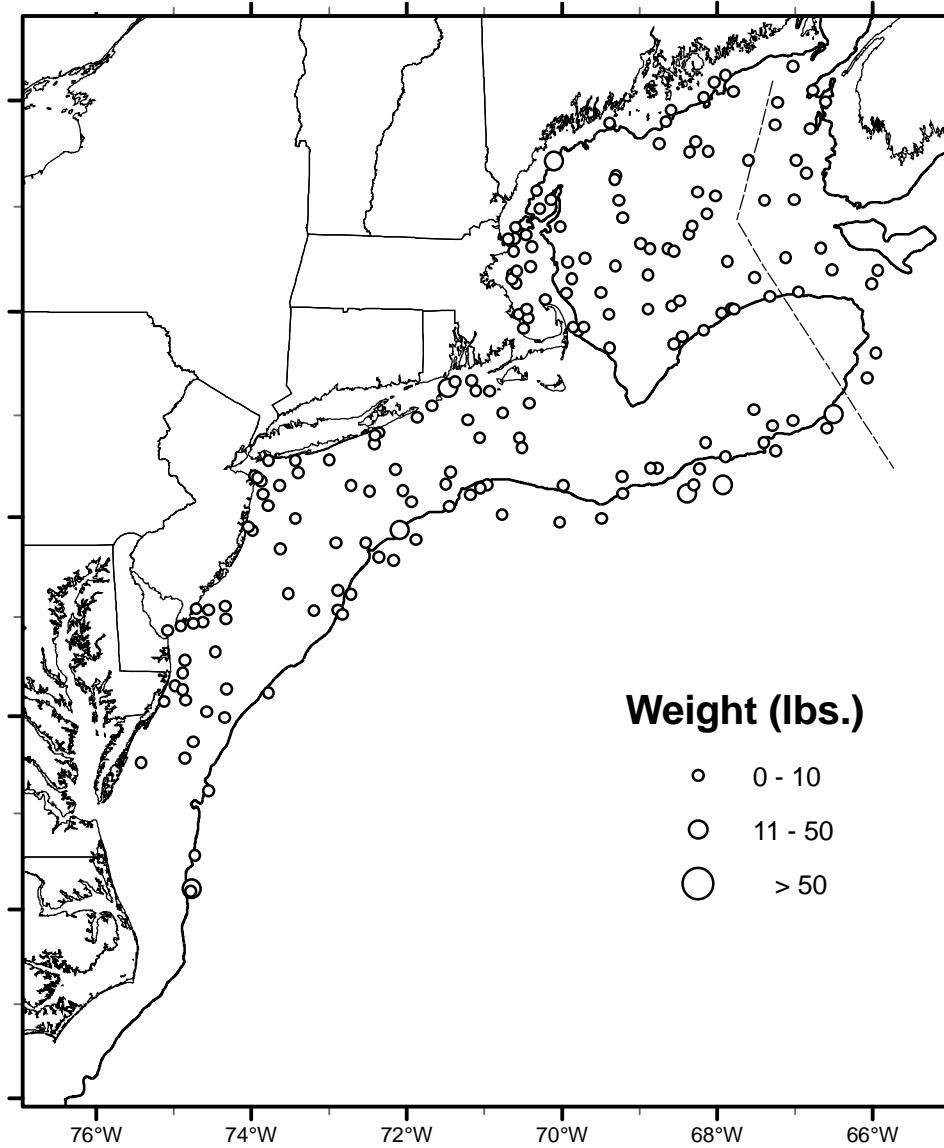
**POLLOCK**  
NOAA Fisheries Service  
Bottom Trawl Survey  
7 March to 21 April 2006



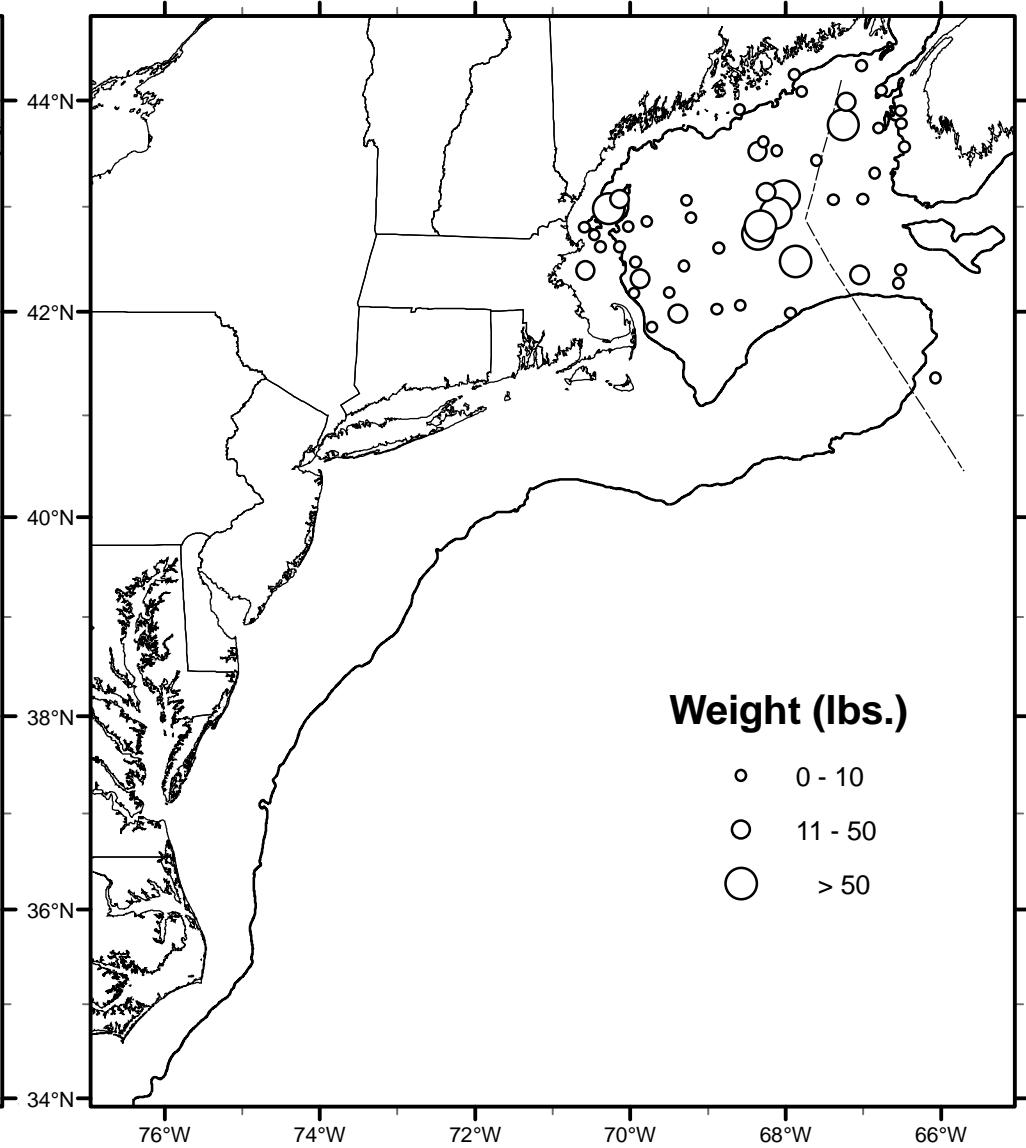
**WHITE HAKE**  
NOAA Fisheries Service  
Bottom Trawl Survey  
7 March to 21 April 2006



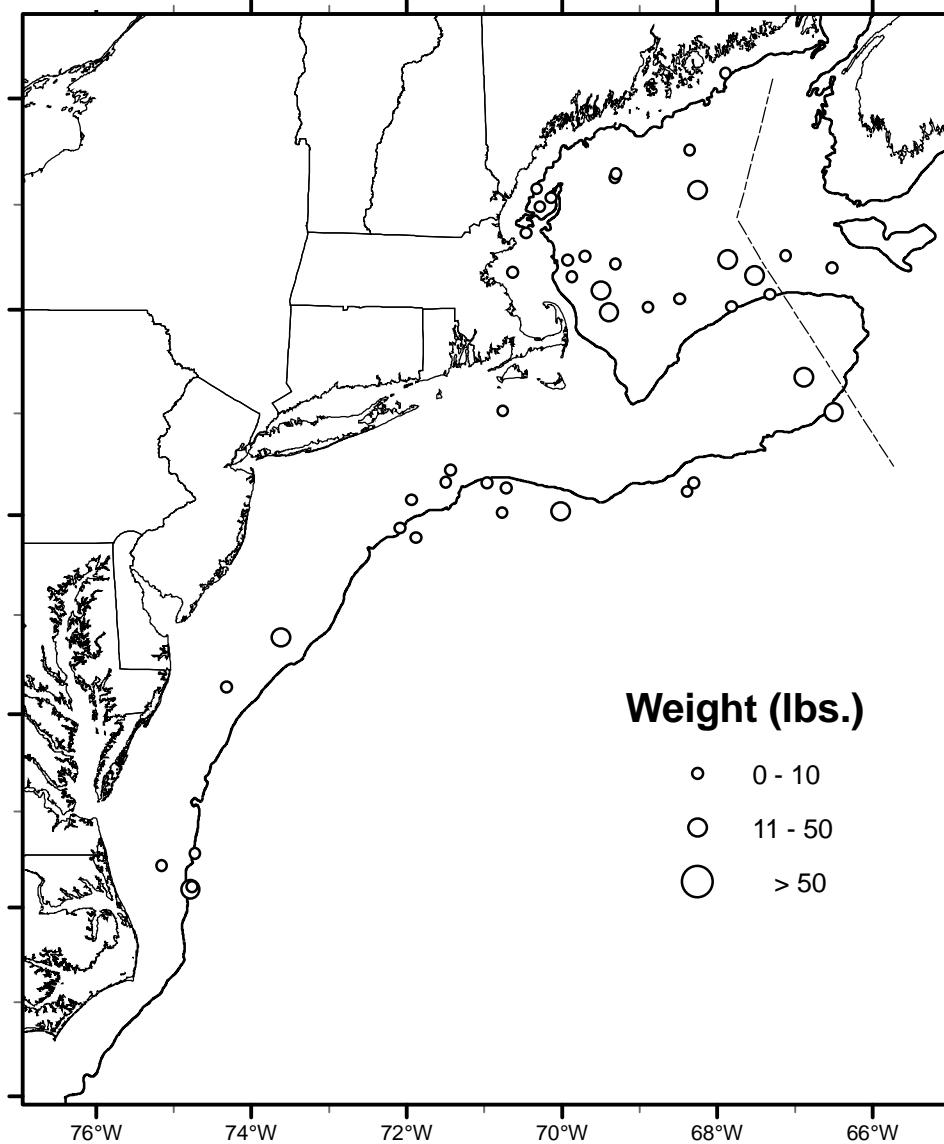
**SILVER HAKE**  
NOAA Fisheries Service  
Bottom Trawl Survey  
7 March to 21 April 2006



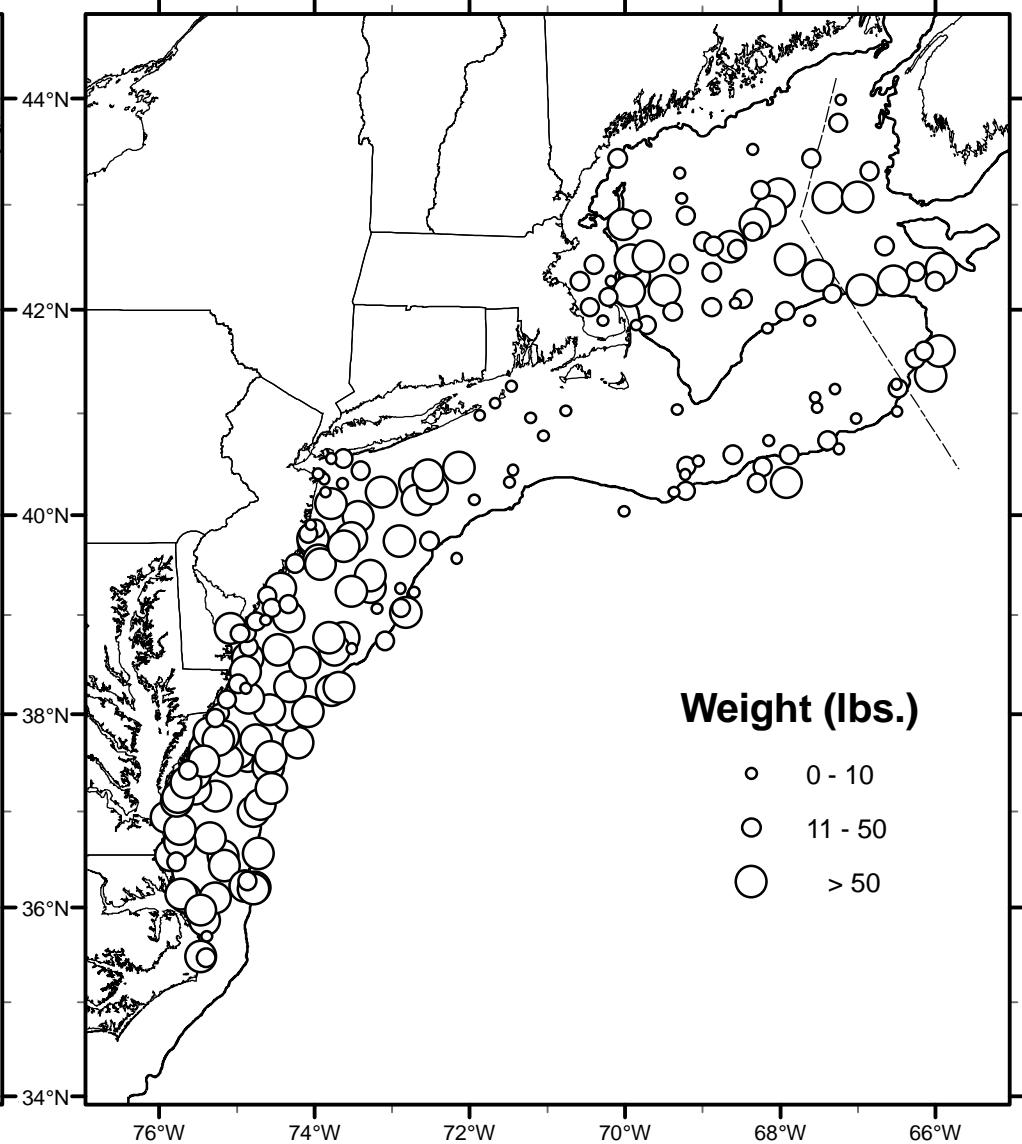
**ACADIAN REDFISH**  
NOAA Fisheries Service  
Bottom Trawl Survey  
7 March to 21 April 2006



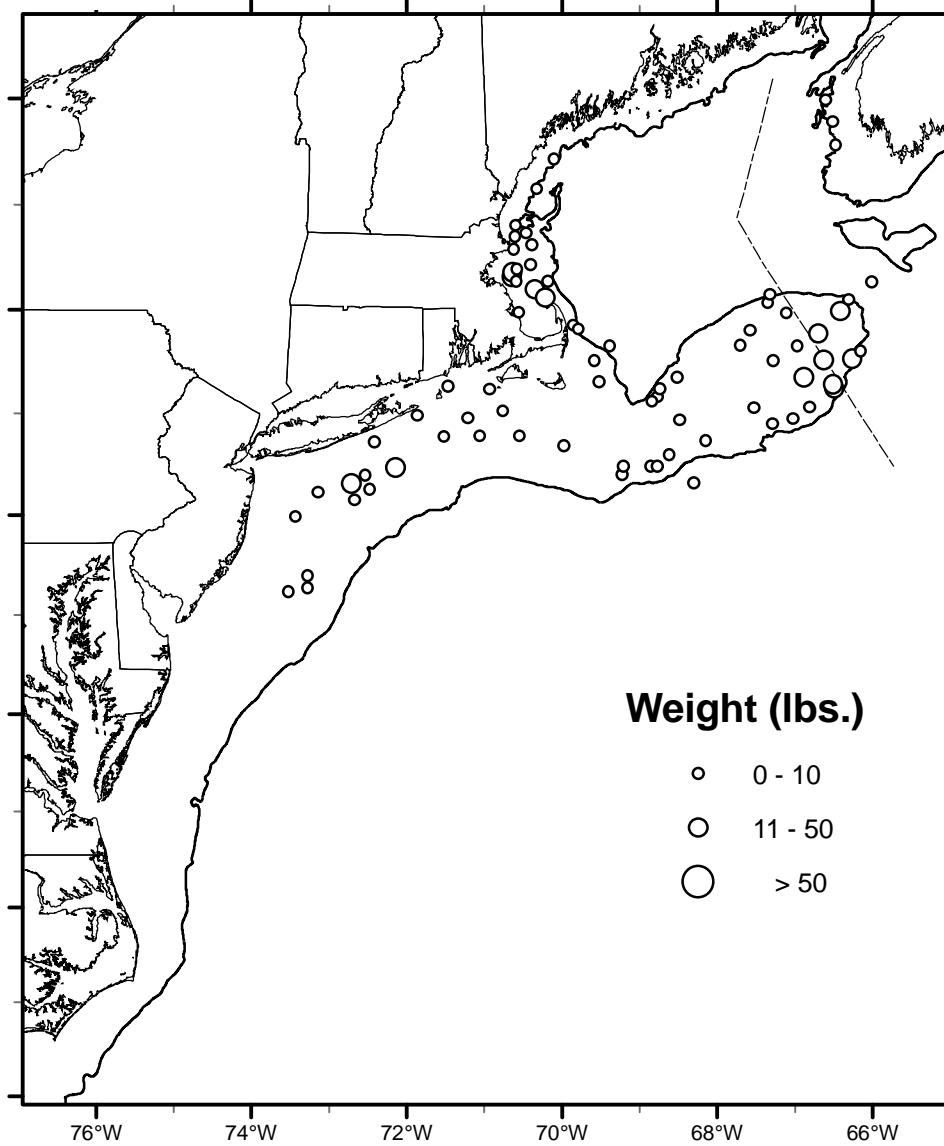
**GOOSEFISH**  
NOAA Fisheries Service  
Bottom Trawl Survey  
7 March to 21 April 2006



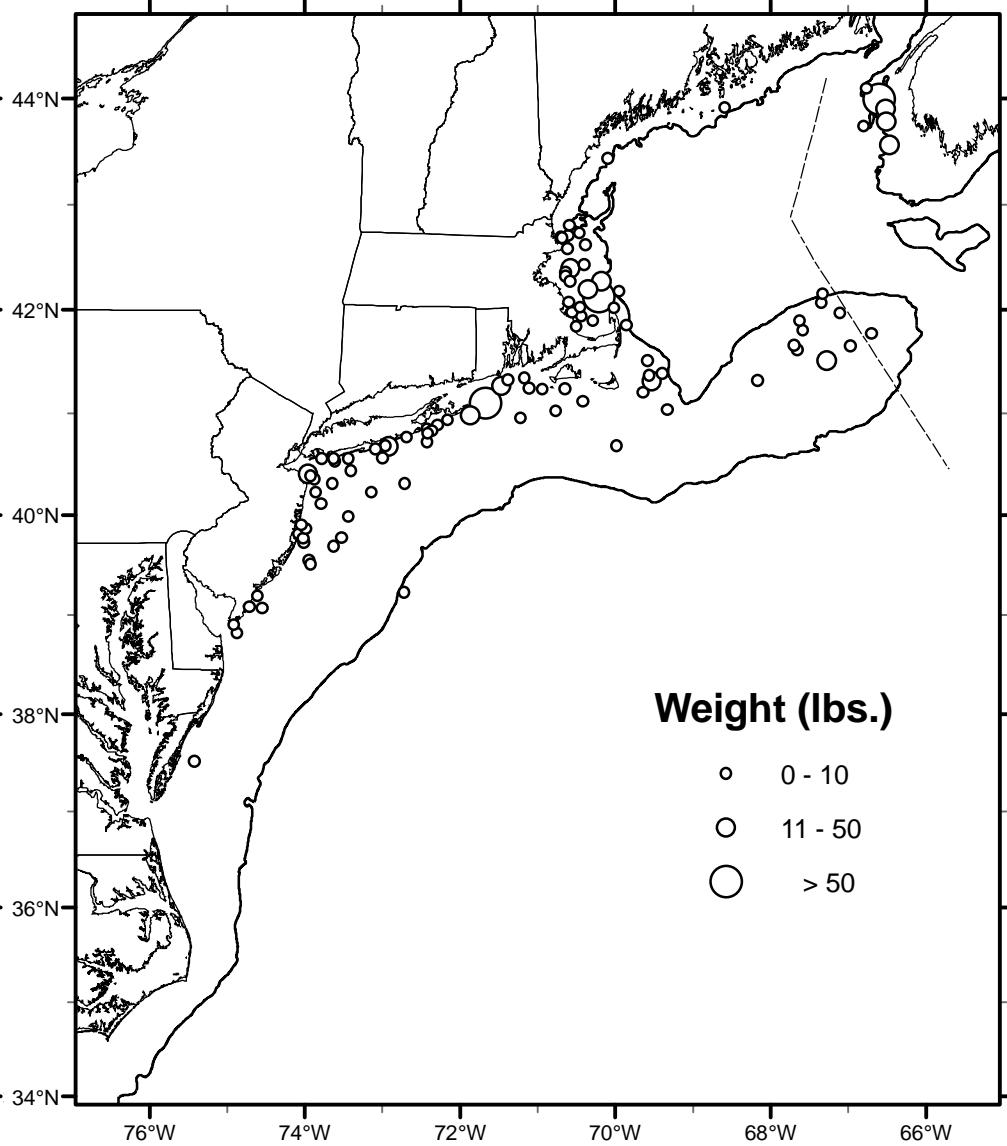
**SPINY DOGFISH**  
NOAA Fisheries Service  
Bottom Trawl Survey  
7 March to 21 April 2006



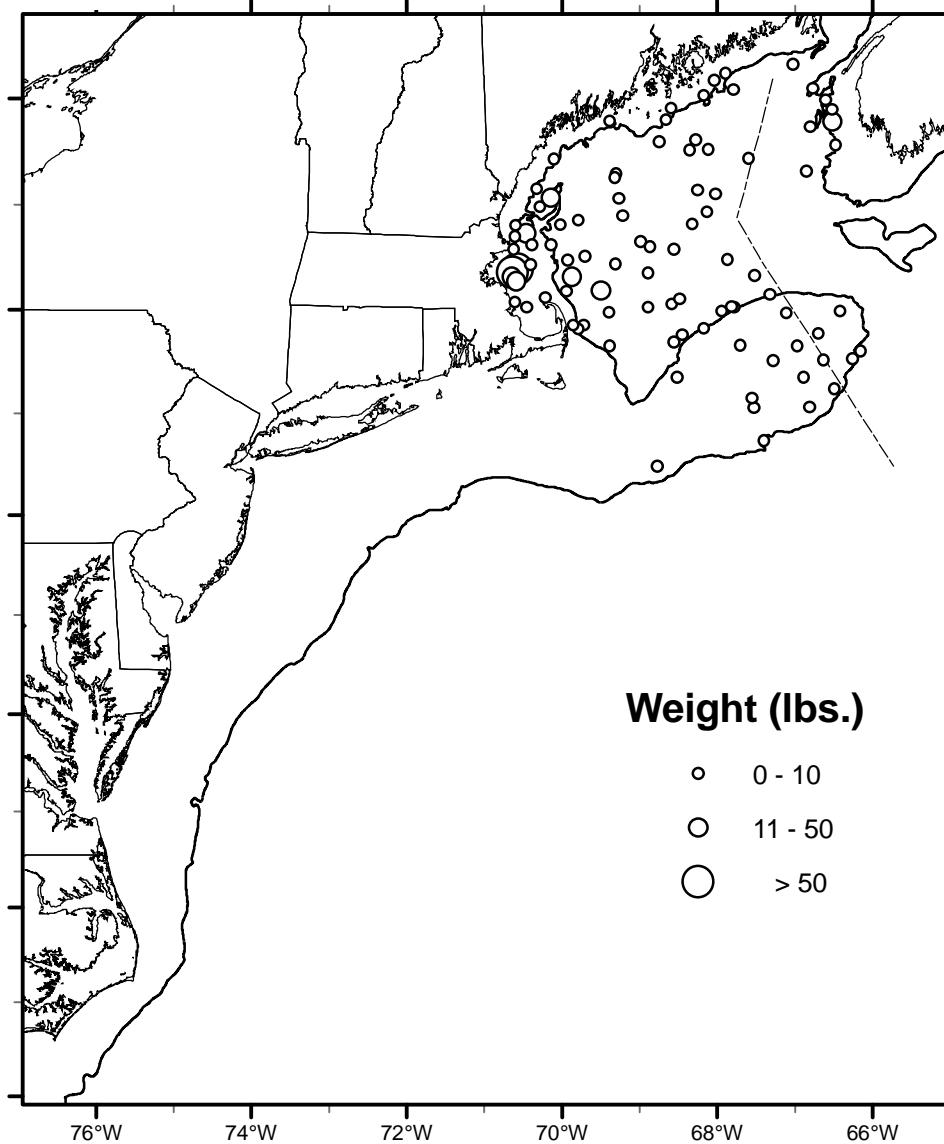
**YELLOWTAIL FLOUNDER**  
NOAA Fisheries Service  
Bottom Trawl Survey  
7 March to 21 April 2006



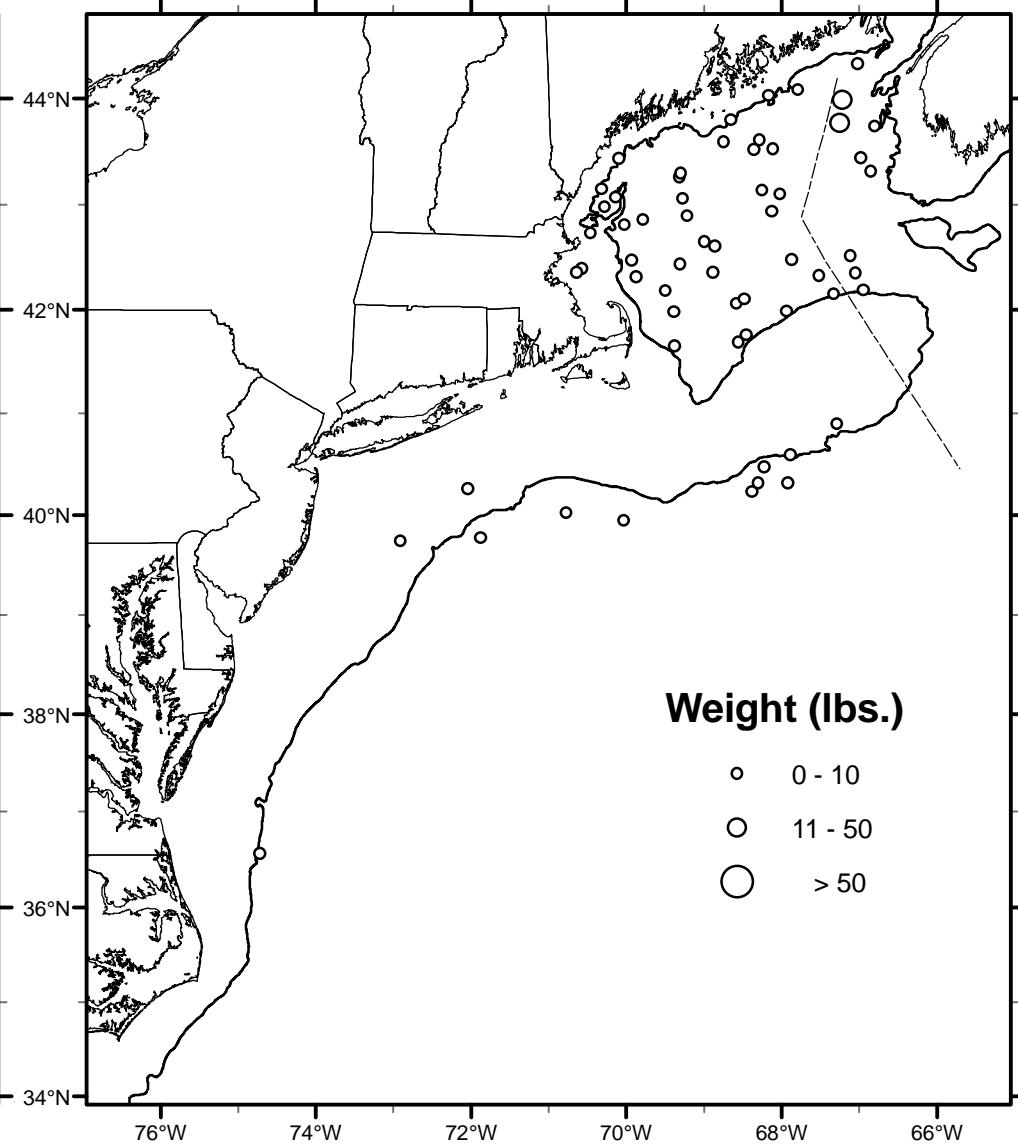
**WINTER FLOUNDER**  
NOAA Fisheries Service  
Bottom Trawl Survey  
7 March to 21 April 2006



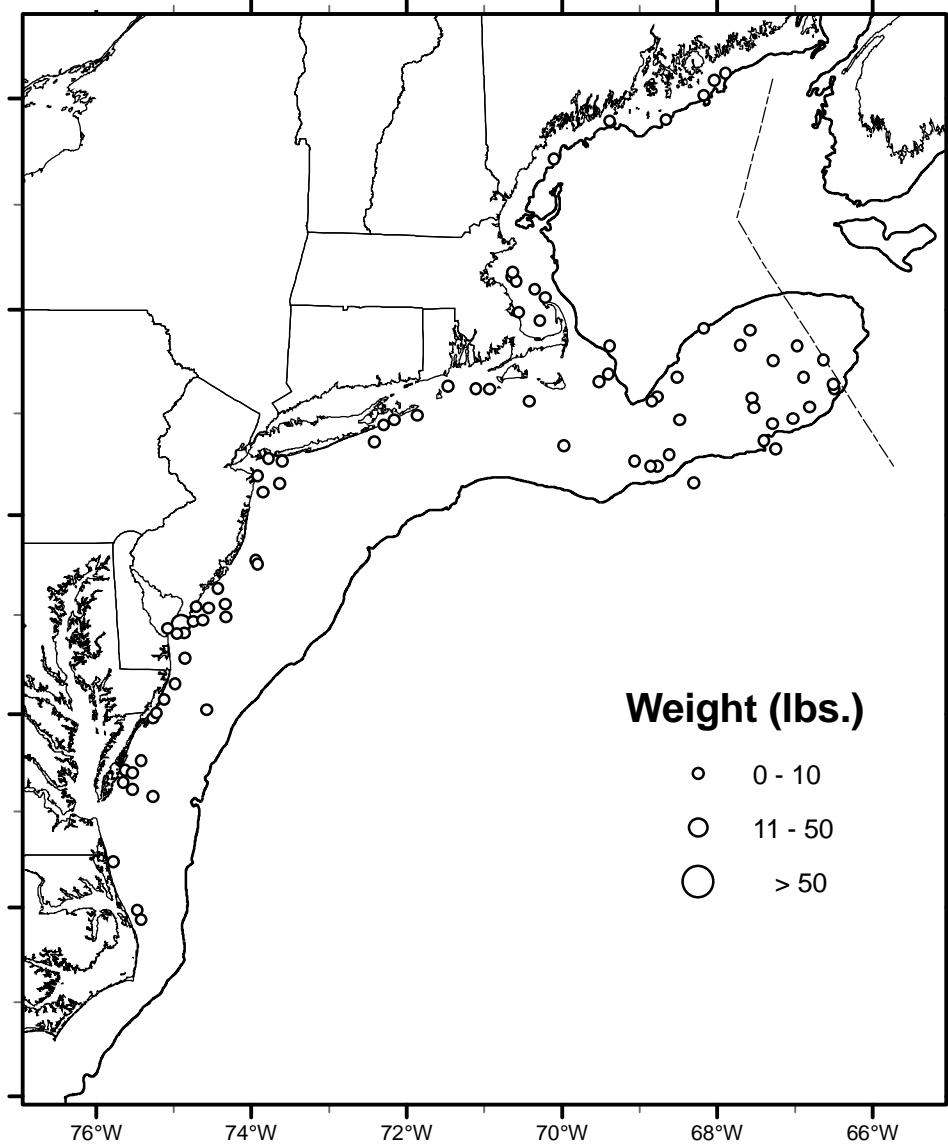
**AMERICAN PLAICE**  
NOAA Fisheries Service  
Bottom Trawl Survey  
7 March to 21 April 2006



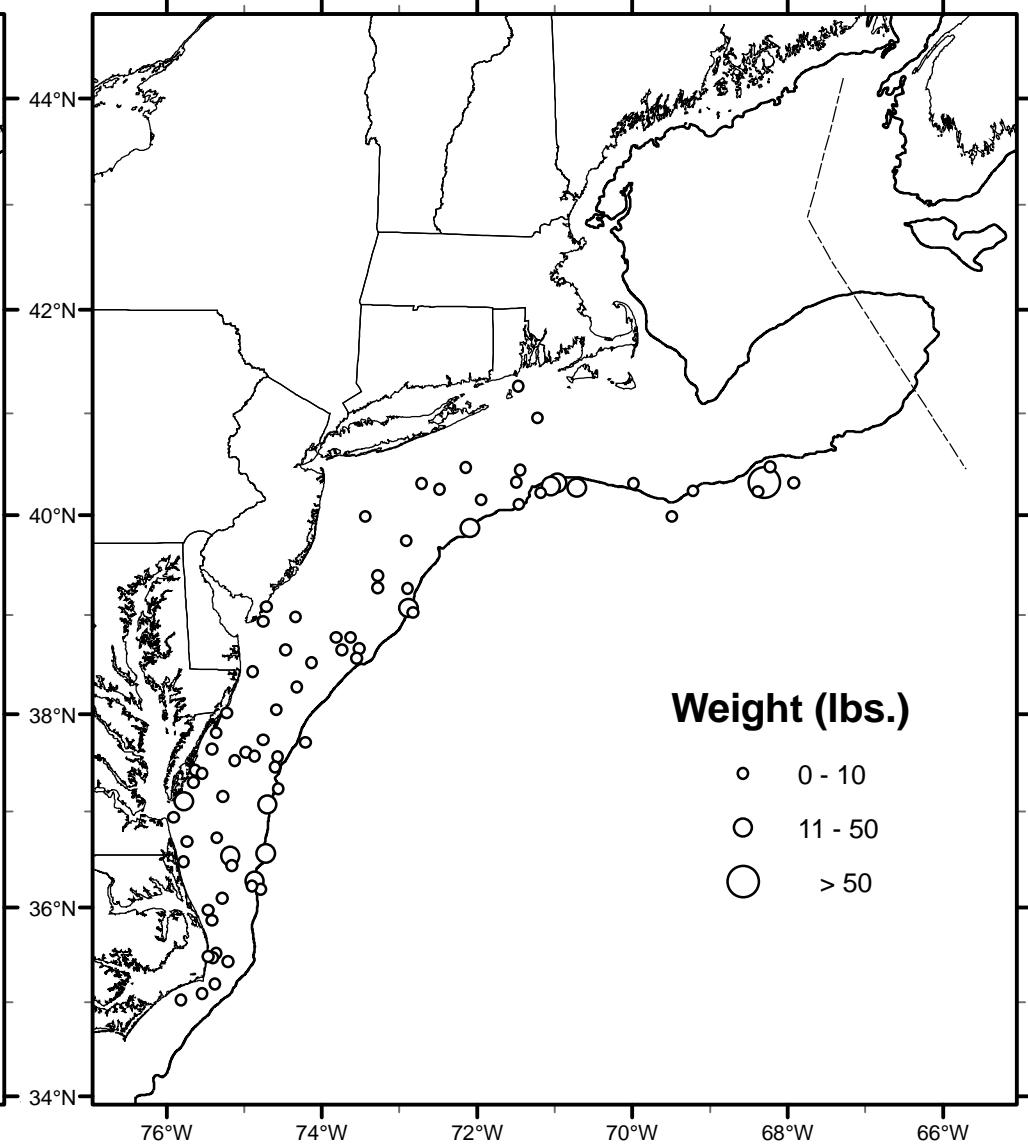
**WITCH FLOUNDER**  
NOAA Fisheries Service  
Bottom Trawl Survey  
7 March to 21 April 2006



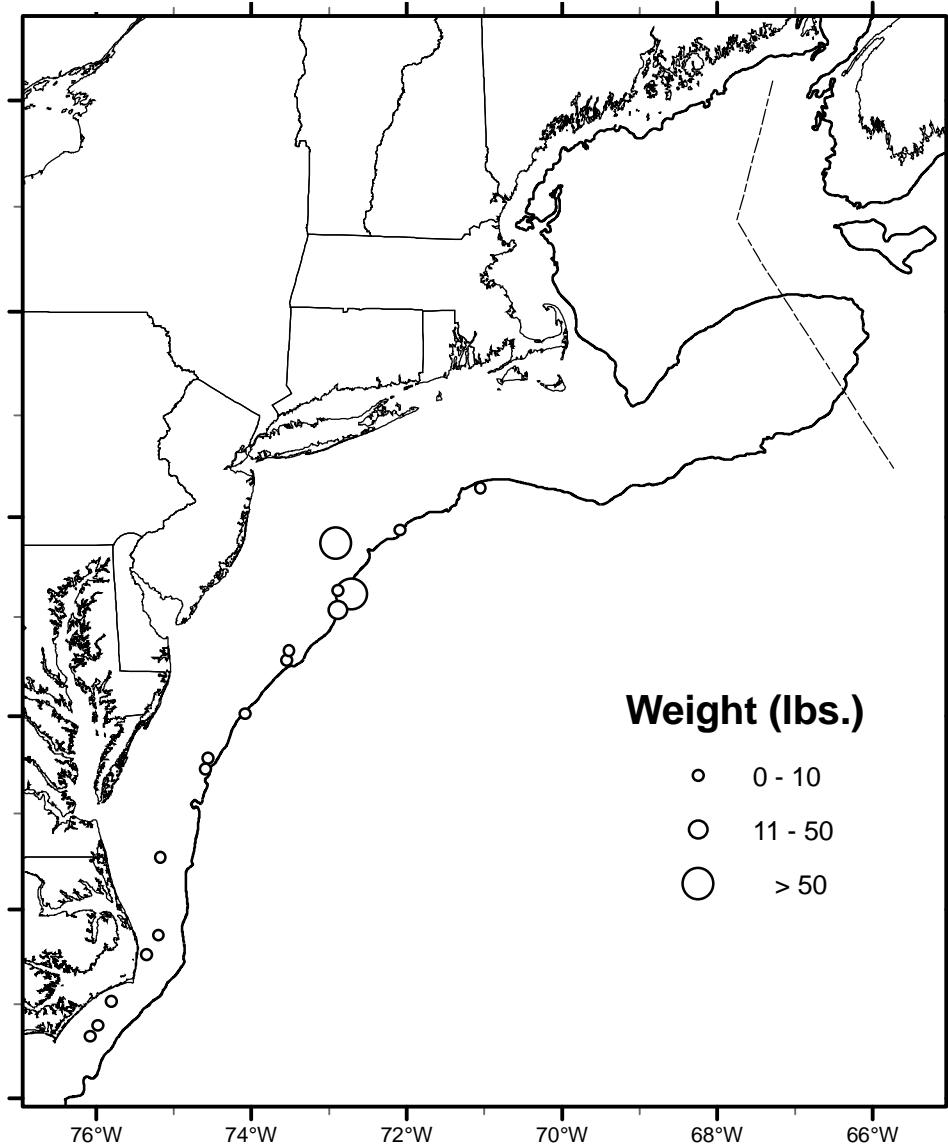
**WINDOWPANE FLOUNDER**  
NOAA Fisheries Service  
Bottom Trawl Survey  
7 March to 21 April 2006



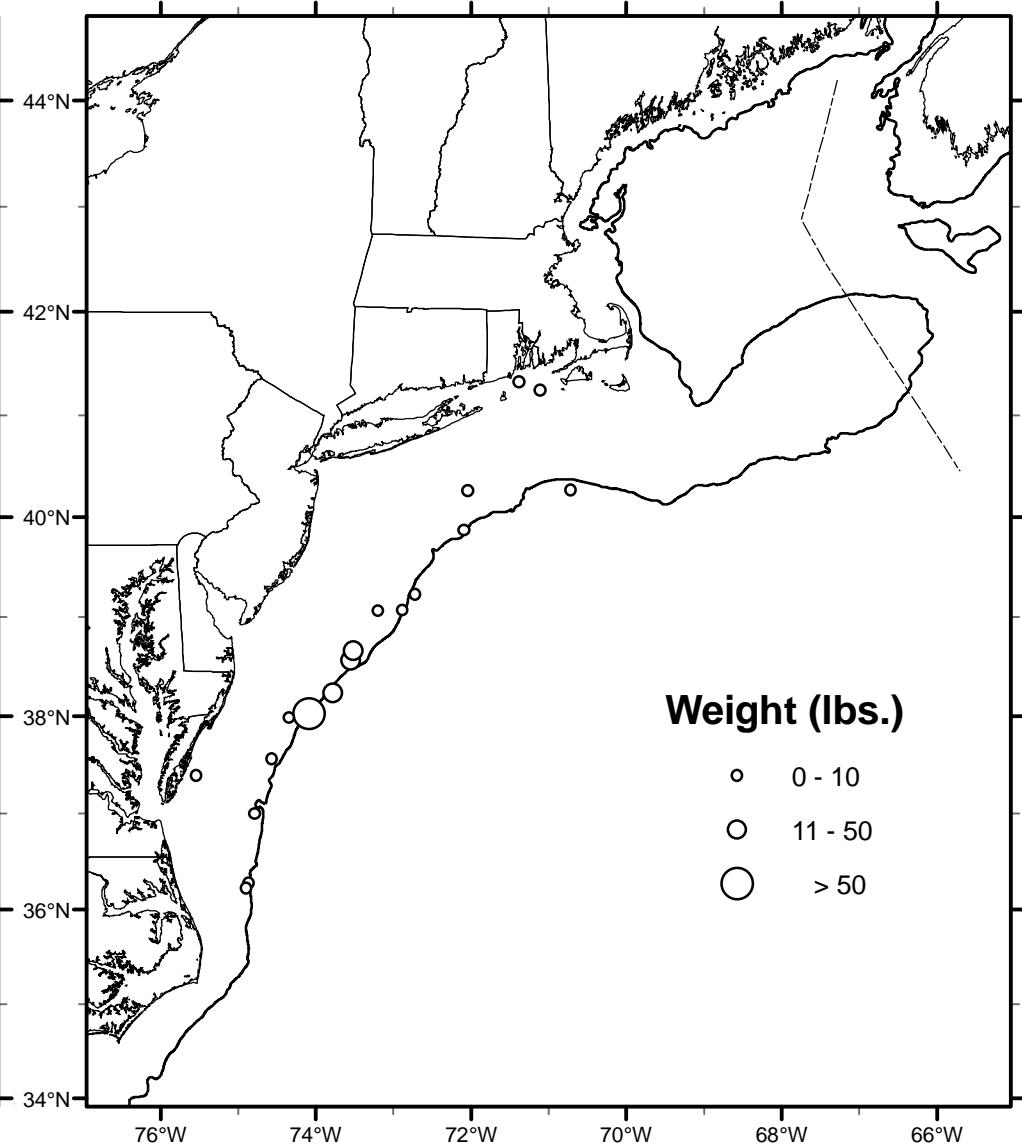
**SUMMER FLOUNDER**  
NOAA Fisheries Service  
Bottom Trawl Survey  
7 March to 21 April 2006



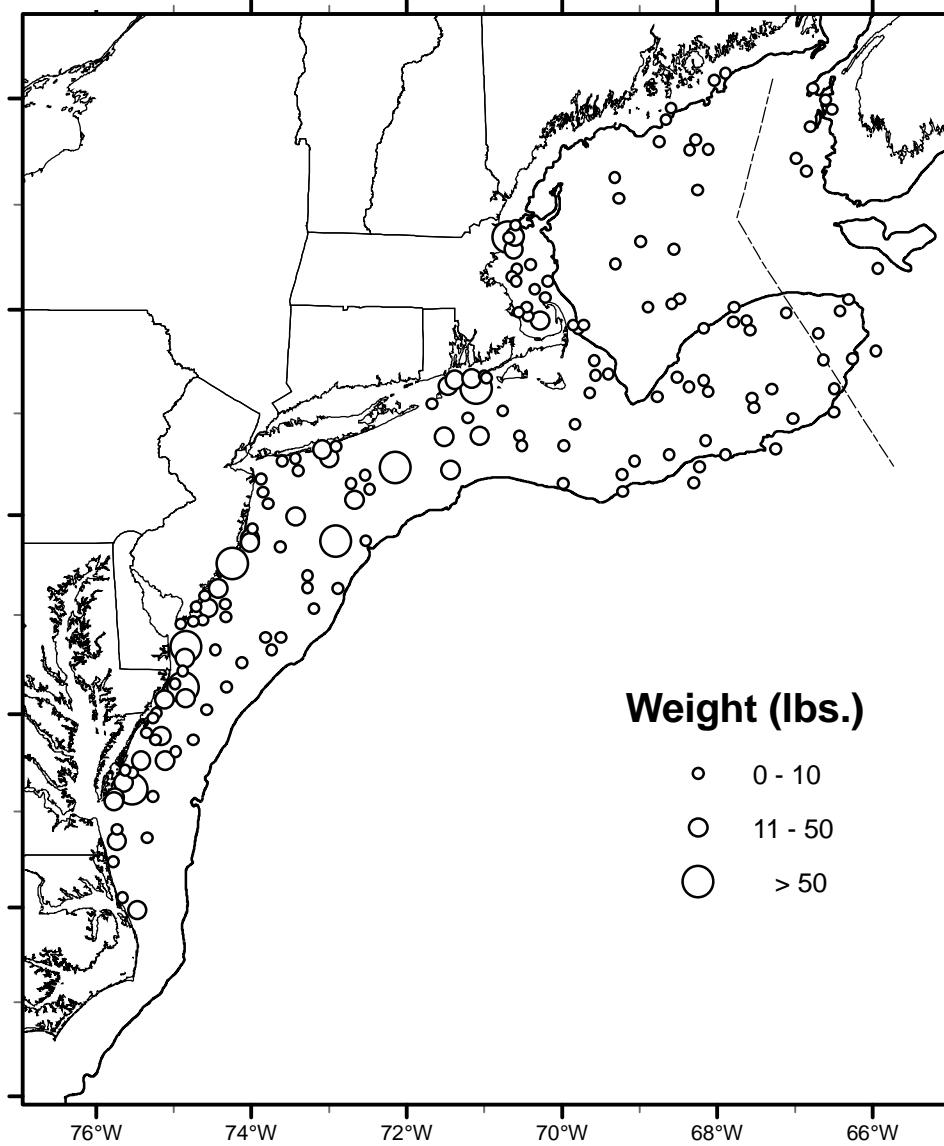
**SCUP**  
**NOAA Fisheries Service**  
**Bottom Trawl Survey**  
**7 March to 21 April 2006**



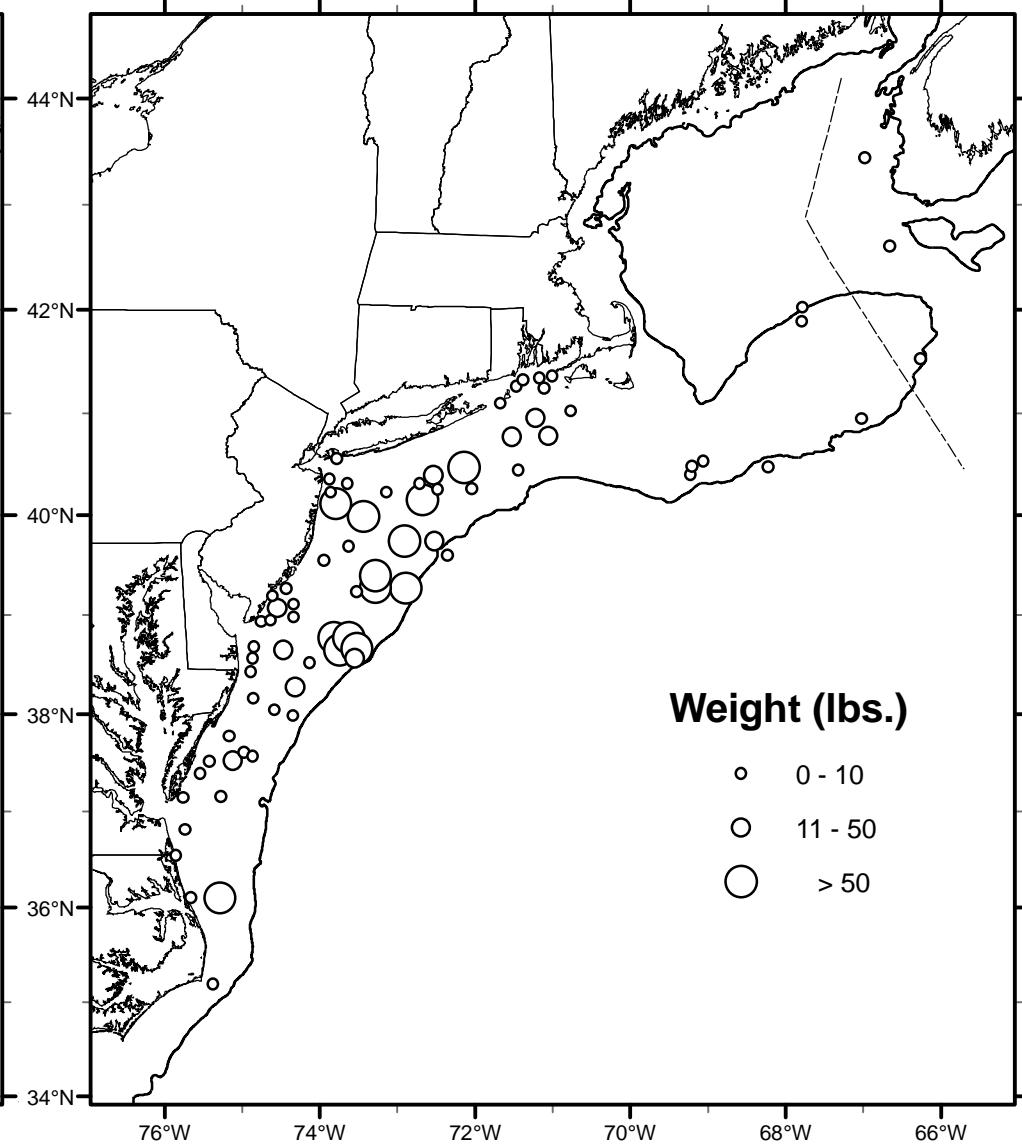
**BLACK SEA BASS**  
**NOAA Fisheries Service**  
**Bottom Trawl Survey**  
**7 March to 21 April 2006**



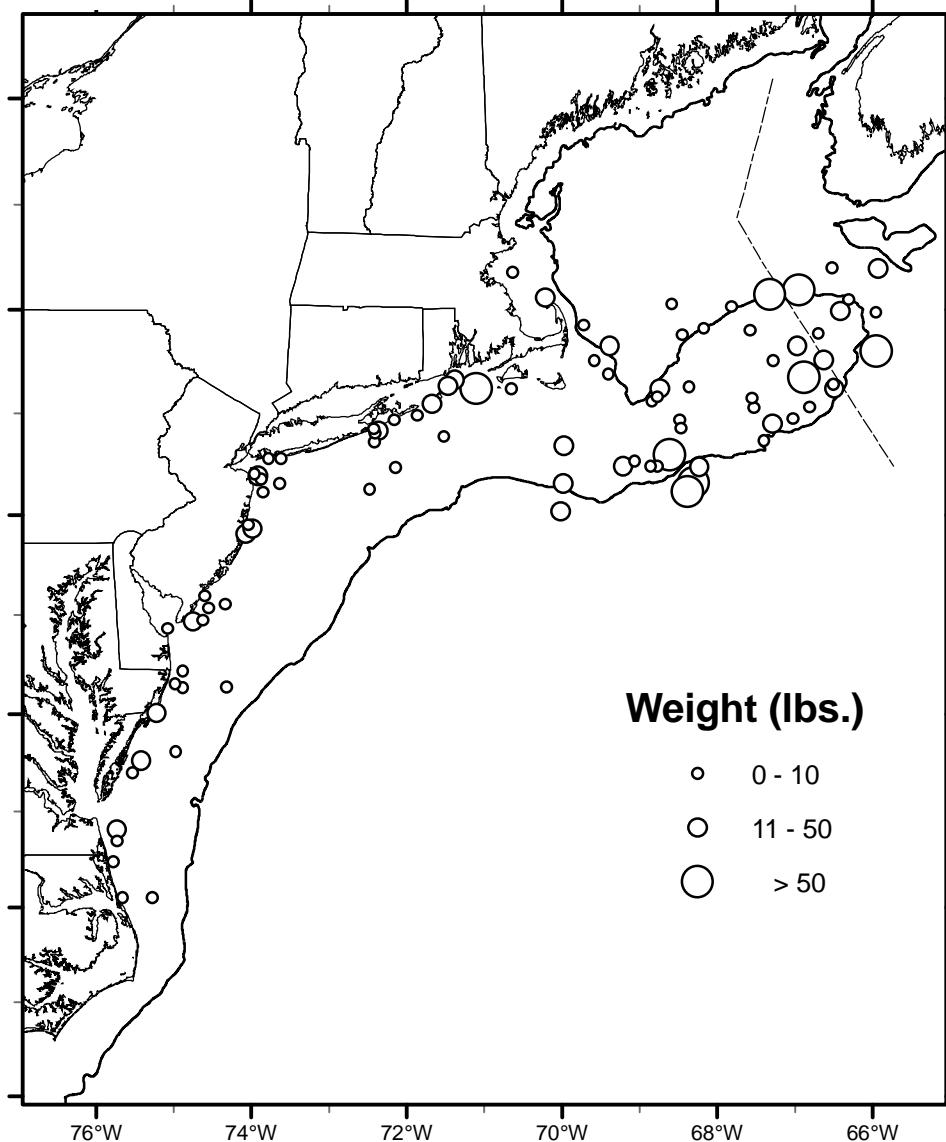
**ATLANTIC HERRING**  
NOAA Fisheries Service  
Bottom Trawl Survey  
7 March to 21 April 2006



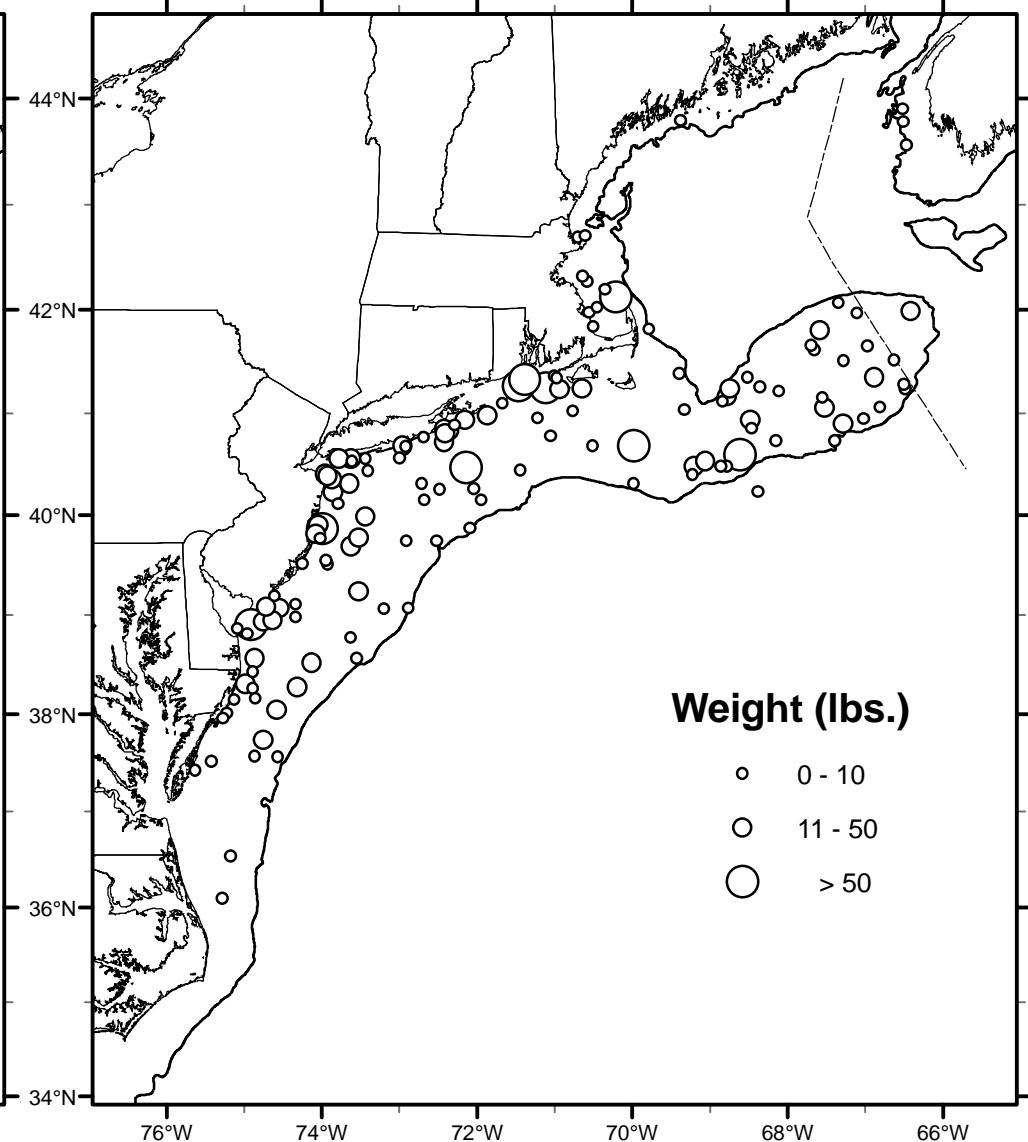
**ATLANTIC MACKEREL**  
NOAA Fisheries Service  
Bottom Trawl Survey  
7 March to 21 April 2006



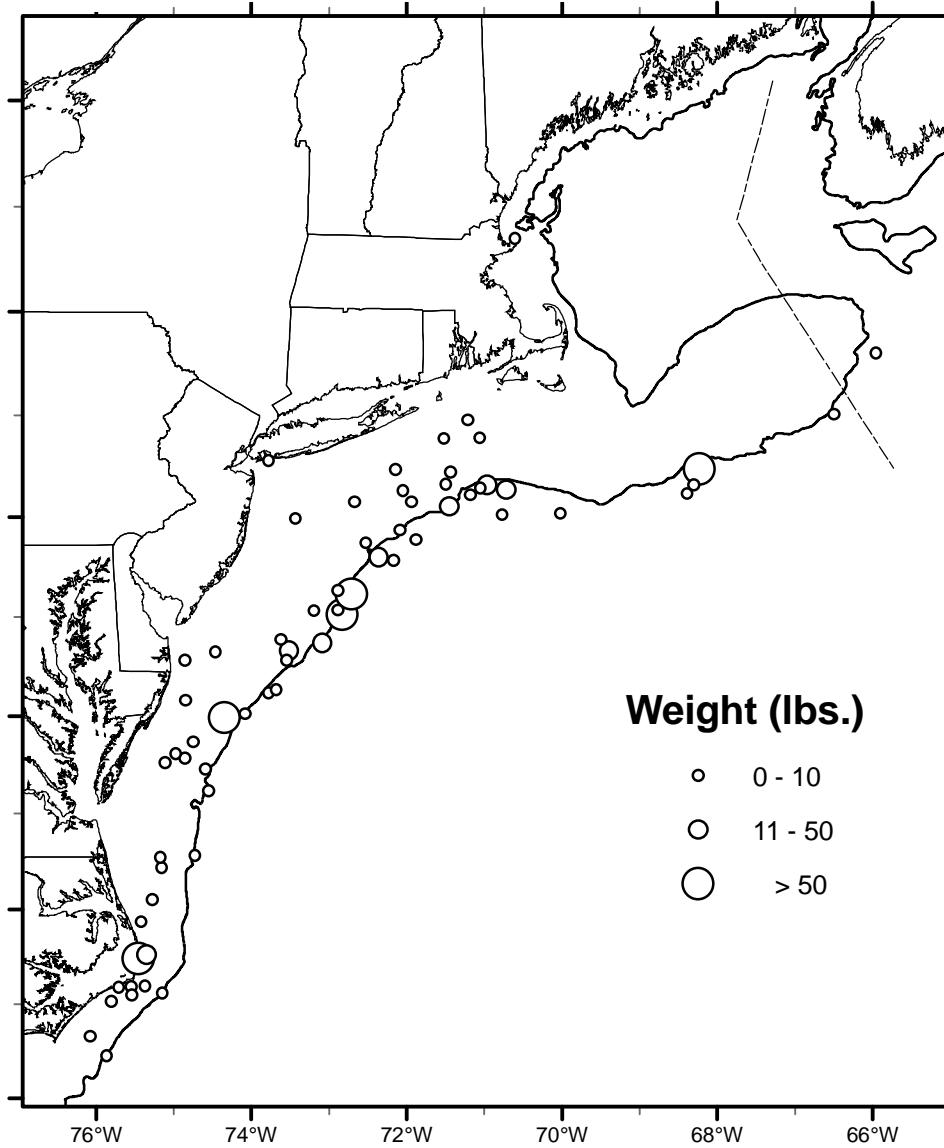
**WINTER SKATE**  
NOAA Fisheries Service  
Bottom Trawl Survey  
7 March to 21 April 2006



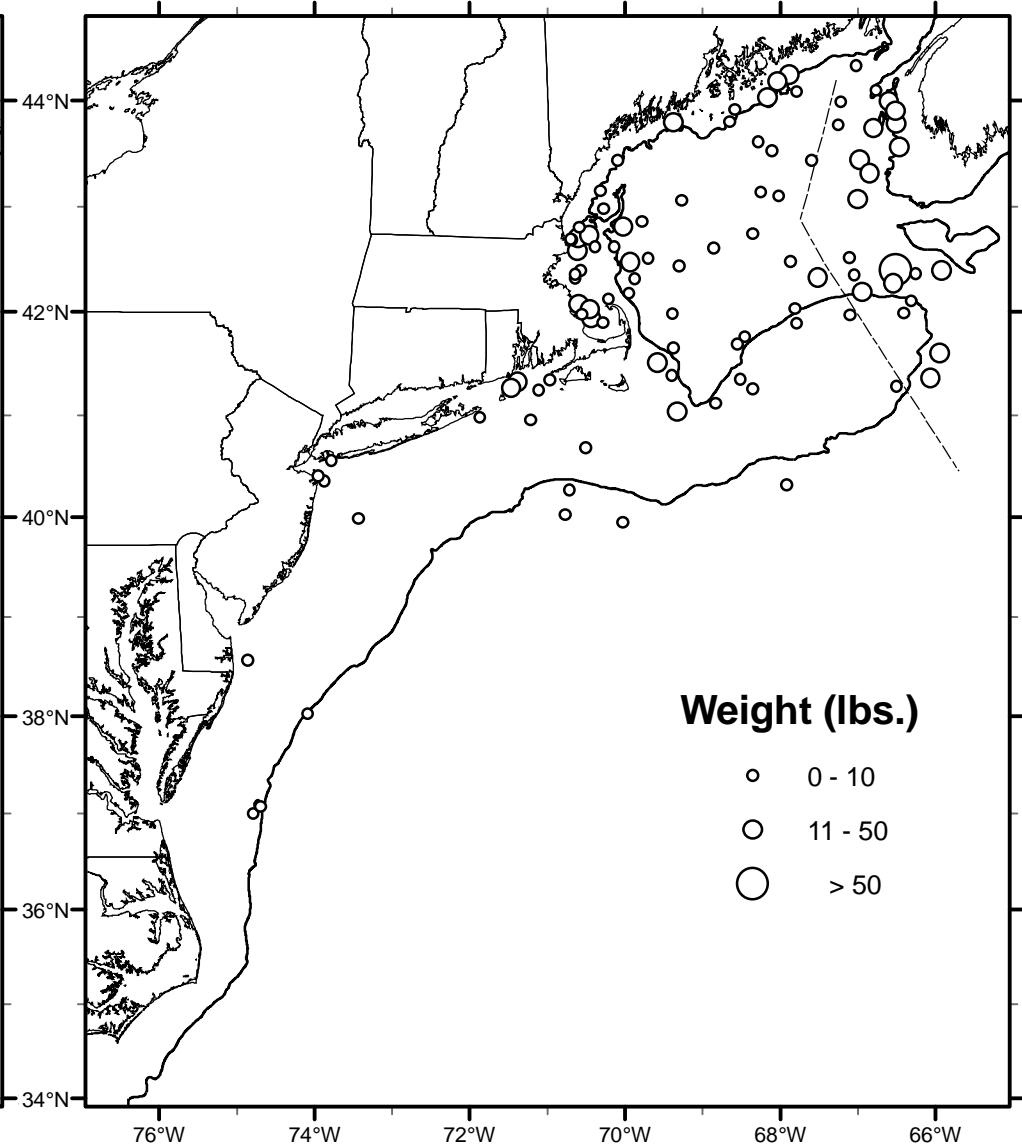
**LITTLE SKATE**  
NOAA Fisheries Service  
Bottom Trawl Survey  
7 March to 21 April 2006



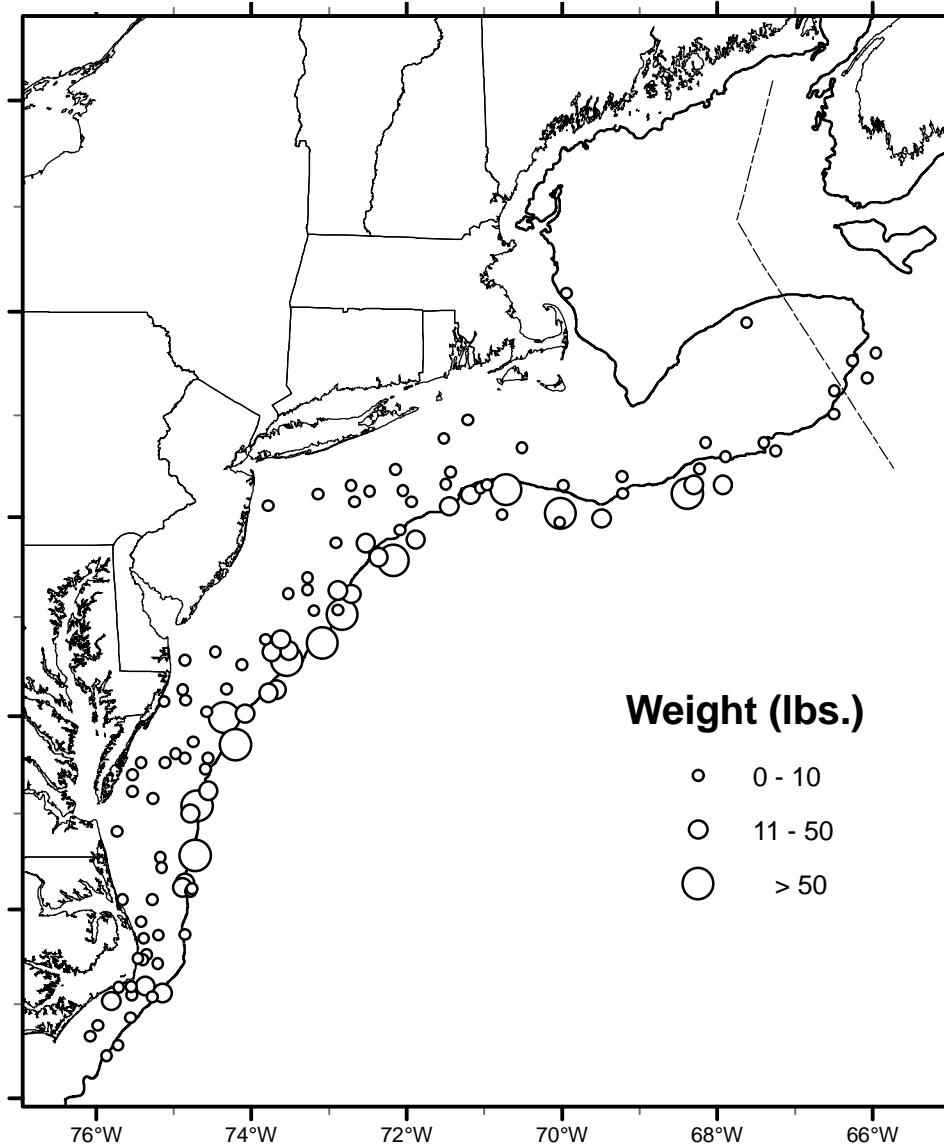
**BUTTERFISH**  
NOAA Fisheries Service  
Bottom Trawl Survey  
7 March to 21 April 2006



**AMERICAN LOBSTER**  
NOAA Fisheries Service  
Bottom Trawl Survey  
7 March to 21 April 2006



**LOLIGO**  
**NOAA Fisheries Service**  
**Bottom Trawl Survey**  
**7 March to 21 April 2006**



**ILLEX**  
**NOAA Fisheries Service**  
**Bottom Trawl Survey**  
**7 March to 21 April 2006**

