Resource Survey Report
Bottom Trawl Survey

Cape Hatteras - SE Georges Bank
February 3 - February 28, 2004

FRV ALBATROSS IV

National Marine Fisheries Service
Northeast Fisheries Science Center
Woods Hole, MA 02543

Fluke caught during the Winter Bottom Trawl Survey

RESOURCE SURVEY REPORT

Preliminary Catch Summary

National Marine Fisheries Service
Northeast Fisheries Science Center

Winter Bottom Trawl Survey
Cape Hatteras - SE Georges Bank
February 3 - February 28, 2004

This report consists of 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 2004 winter bottom trawl survey aboard the *FRV ALBATROSS IV*. Tows were made with a standardized #36 Yankee flat trawl equipped with a rubber disc covered chain sweep, 30 fathom ground cables, 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 to 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 useful information about distribution and relative abundance of species inhabiting the survey area (Cape Hatteras to Georges Bank).

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), National Marine Fisheries Service, 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**

Field Notes

In an effort to share some of the natural history observations made during the winter 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 *FRV ALBATROSS IV*.

Dogfish Everywhere!

The first leg of the winter survey was very interesting with regard to spiny dogfish distribution. They were captured in deeper than normal water this year. It also seemed as though some of the normal deep-water fishes such as grenadiers were less prevalent where the dogfish were. Dogfish were captured all the way down to 200 fathoms (366 meters). Although the deep water catches of dogfish were not the typical "giant dogfish tows" that we sometimes catch, they were large enough tows to fill our sorting box constantly.

Monkfish Distribution Stable While Catches Continue to Improve

The winter bottom trawl survey provides important information about population trends of goosefish (monkfish) because of the high catch rates associated with the flat net used during the survey. The spatial distribution of goosefish during the survey was consistent with patterns observed during the previous 3-5 years. Biomass (weight) indices have gradually increased while abundance (number) indices have fluctuated without trend. This may reflect lower fishing mortality in recent years due to conservation efforts directed at rebuilding the monkfish stocks.

Juvenile Cod and Haddock More Widely Distributed, Mackerel Concentration Identified

During the 2004 survey, significant numbers of juvenile Atlantic cod and haddock were encountered off Long Island and throughout Southern New England over to the Great South Channel. Although the survey usually encounters some cod south of Block Island in the vicinity of Coxes Ledge, the distribution of juvenile cod and haddock was usually widespread through this area. The survey also encountered significant concentrations of Atlantic mackerel south of Long Island and offshore of New Jersey.

Tilefish on the Move?

Tilefish were found in the deep strata of southern New England and the southwest area of Georges Bank in several tows. This year they were further north and west than where we usually catch them. We also caught the most number of tilefish per tow during the time series of the winter survey. 79 fish weighing a total of 240 lbs were caught at station 106 with the fish ranging in size from 11-20 inches (27-52 cm).

Abundant Barndoor Skates

Barndoor skate used to appear in this survey as a few individuals per occasional tow. We now routinely see this species by the basketful…this year we saw multiple baskets of them on several stations.

Vessel Comparison Study Continued

The *FRV ALBATROSS IV* conducted the 2004 winter bottom trawl survey, but the *FRV DELAWARE II* has conducted the survey on several occasions, most recently during 2003 when the *ALBATROSS IV* was scheduled for an extended shipyard period. Differences between the two vessels including slight trawl rigging differences, a difference in warp diameter, differential winch speed and likely different vessel noise signatures affect catch rates between the vessels even when use the same fishing gear and survey using the same shipboard procedures.

During the 2nd leg of the winter bottom trawl survey, we continued a long term study to compare the catch rates of the *FRV ALBATROSS IV* and *FRV DELAWARE II* through side-by-side towing. Comparison studies have been ongoing since the early 1980s and have demonstrated significantly different catch rates between the vessels for some species. As these differences in catch rates are identified, adjustment factors are developed and applied to data collected using the *FRV DELAWARE II* to adjust catches to be comparable to those occurring when the *FRV ALBATROSS IV* is used.

John Galbraith	Wendy Gabriel	Larry Brady
Chief Scientist	Chief Scientist	Chief Scientist
Winter Survey Part I	Winter Survey Part II	Vessel Comparison Study
508-495-2392	508-495-2213	508-495-2145
John.Galbraith@noaa.gov	Wendy.Gabriel@noaa.gov	Larry.Brady@noaa.gov

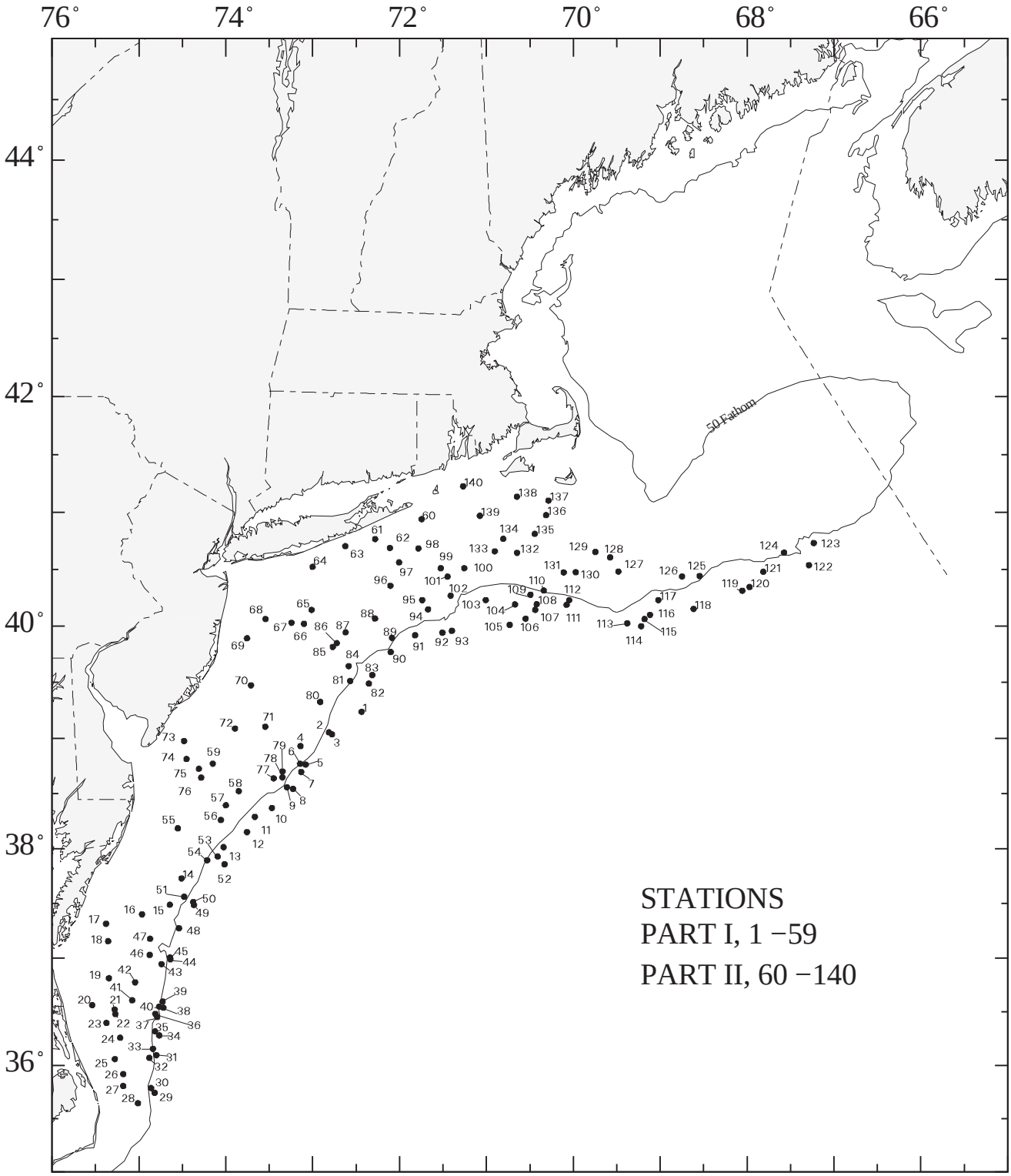


Figure 1. Trawl hauls made from FRV ALBATROSS IV, during National Marine Fisheries Service, Northeast Fisheries Science Center winter bottom trawl survey (04 −01), February 3 − 28, 2004.

NMFS-NEFSC WINTER BOTTOM TRAWL SURVEY
2004 STATION INFORMATION

Station	Date	Time	Lat	Lon	Loran TD's		Course	Bottom Depth (FM)	Temp (F)
0001	FEB-04	2016	3914.2	7226.3	X26209.7	Y42956.6	241	118.7	51.4
0002	FEB-04	2356	3903.2	7248.9	X26352.2	Y42851.8	206	66.4	48.6
0003	FEB-05	0215	3902.1	7246.6	X26337.7	Y42842.0	034	146.3	47.1
0004	FEB-05	0547	3855.8	7308.4	X26470.8	Y42775.9	172	43.7	46.6
0005	FEB-05	0749	3845.8	7304.9	X26443.0	Y42680.1	216	75.2	48.7
0006	FEB-05	1036	3846.2	7308.7	X26466.4	Y42682.2	210	55.5	
0007	FEB-05	1237	3841.8	7307.9	X26459.2	Y42639.4	040	77.6	49.8
0008	FEB-05	1535	3832.7	7313.6	X26487.1	Y42546.3	223	204.5	43.7
0009	FEB-05	1803	3833.5	7317.8	X26511.9	Y42551.8	220	67.3	50.2
0010	FEB-05	2031	3822.3	7328.1	X26563.0	Y42432.6	297	276.4	48.6
0011	FEB-05	2254	3817.5	7340.0	X26624.9	Y42373.9	221	71.6	51.3
0012	FEB-06	0042	3809.1	7345.4	X26646.9	Y42283.8	237	79.6	49.6
0013	FEB-06	0257	3800.9	7401.6	X26724.9	Y42180.7	235	60.7	51.8
0014	FEB-06	0626	3743.8	7430.6	X26852.1	Y41962.5	210	31.7	45.9
0015	FEB-06	0925	3729.3	7438.7	X26871.9	Y41794.8	188	31.7	48.4
0016	FEB-06	1203	3724.0	7457.9	X26954.4	Y41705.5	226	19.7	44.8
0017	FEB-06	1450	3718.9	7522.7	X27058.8	Y41605.2	174	13.9	39.6
0018	FEB-06	1643	3709.3	7521.3	X27036.8	Y41500.5	147	16.7	40.8
0019	FEB-08	1750	3648.7	7520.7	X27002.7	Y41274.9	207	13.9	41.7
0020	FEB-08	2032	3633.8	7532.3	X27028.7	Y41085.6	102	13.7	41.9
0021	FEB-08	2229	3631.3	7516.8	X26962.7	Y41095.8	092	19.1	44.8
0022	FEB-08	2357	3628.8	7516.3	X26957.3	Y41070.4	217	17.0	45.0
0023	FEB-09	0120	3623.8	7522.4	X26975.3	Y41002.3	129	16.7	43.2
0024	FEB-09	0307	3615.5	7513.0	X26927.4	Y40939.8	181	16.7	43.3
0025	FEB-09	0503	3603.6	7516.7	X26927.8	Y40807.0	152	18.0	43.9
0026	FEB-09	0657	3555.2	7510.8	X26896.0	Y40739.2	000	18.9	45.0
0027	FEB-09	0843	3548.5	7510.8	X26888.9	Y40673.1	135	19.7	45.9
0028	FEB-09	1052	3538.8	7500.7	X26841.2	Y40612.5	070	26.5	45.5
0029	FEB-09	1329	3544.7	7449.2	X26803.3	Y40705.4	345	215.2	45.5
0030	FEB-09	1537	3547.3	7451.6	X26814.9	Y40722.5	321	115.4	48.2
0031	FEB-09	1836	3605.8	7447.9	X26817.7	Y40911.8	003	83.9	51.3
0032	FEB-09	2046	3604.3	7452.8	X26835.4	Y40882.9	023	48.7	51.1
0033	FEB-09	2231	3609.4	7450.3	X26830.6	Y40939.7	353	51.9	50.5
0034	FEB-10	0046	3616.9	7446.0	X26820.5	Y41026.4	021	191.9	43.2
0035	FEB-10	0247	3619.1	7448.9	X26834.7	Y41041.2	348	49.5	50.7
0036	FEB-10	0429	3628.9	7448.7	X26844.0	Y41140.7	013	42.7	50.5
0037	FEB-10	0625	3627.1	7447.4	X26836.6	Y41125.3	021	50.3	50.5
0038	FEB-10	0933	3632.3	7443.1	X26824.2	Y41189.1	019	182.4	44.2
0039	FEB-10	1233	3635.8	7443.6	X26830.0	Y41223.4	199	58.8	50.9
0040	FEB-10	1422	3632.9	7446.0	X26837.2	Y41188.1	333	45.7	51.4
0041	FEB-10	1650	3636.5	7504.7	X26919.1	Y41179.9	007	14.2	46.6
0042	FEB-10	1842	3646.4	7502.6	X26923.1	Y41290.2	070	18.3	45.3
0043	FEB-10	2109	3656.6	7444.4	X26856.8	Y41436.5	038	45.7	50.7
0044	FEB-10	2245	3659.3	7438.3	X26832.7	Y41477.5	347	70.0	52.0
0045	FEB-10	2356	3700.2	7438.5	X26835.0	Y41487.0	169	66.7	
0046	FEB-11	0210	3701.7	7452.6	X26899.4	Y41473.7	351	28.2	49.6
0047	FEB-11	0421	3710.6	7452.3	X26909.9	Y41569.4	118	27.9	49.6
0048	FEB-11	0656	3716.4	7432.3	X26825.6	Y41668.5	010	67.0	50.9

NMFS-NEFSC WINTER BOTTOM TRAWL SURVEY
2004 STATION INFORMATION

Station	Date	Time	Lat	Lon	Loran TD's		Course	Bottom Depth (FM)	Temp (F)
0049	FEB-11	0929	3729.2	7422.1	X26792.1	Y41821.2	037	115.4	47.7
0050	FEB-11	1133	3730.8	7422.5	X26796.1	Y41836.9	040	59.3	51.1
0051	FEB-11	1313	3733.8	7428.7	X26829.7	Y41858.1	015	36.9	49.8
0052	FEB-11	1655	3751.6	7400.9	X26711.3	Y42084.9	051	166.8	
0053	FEB-11	1854	3755.8	7405.6	X26740.3	Y42122.9	222	66.4	48.0
0054	FEB-11	2027	3753.7	7412.9	X26775.7	Y42091.9	320	47.3	47.3
0055	FEB-11	2328	3811.2	7433.2	X26906.2	Y42254.9	078	21.9	41.9
0056	FEB-12	0222	3815.7	7403.4	X26752.7	Y42334.0	043	37.7	48.4
0057	FEB-12	0359	3823.7	7360.0	X26743.8	Y42421.1	012	32.0	48.4
0058	FEB-12	0554	3831.4	7351.0	X26702.7	Y42508.3	003	31.4	45.7
0059	FEB-12	0838	3846.3	7409.0	X26828.7	Y42653.4	052	25.7	42.1
0060	FEB-18	1717	4056.4	7144.8	X25925.0	Y43797.0	352	26.2	41.5
0061	FEB-18	2102	4046.0	7216.9	X26187.8	Y43756.3	123	21.3	37.9
0062	FEB-18	2248	4041.3	7206.7	X26095.3	Y43705.0	071	26.0	40.3
0063	FEB-19	0331	4042.2	7237.4	X26355.9	Y43750.8	249	17.8	36.9
0064	FEB-19	0618	4031.3	7300.1	X26524.3	Y43682.2	287	18.0	36.3
0065	FEB-19	0925	4008.6	7300.8	X26491.7	Y43474.1	196	25.7	40.1
0066	FEB-19	1103	4001.3	7300.1	X26476.2	Y43404.6	267	25.7	41.2
0067	FEB-19	1230	4001.8	7314.6	X26586.8	Y43419.6	325	24.6	40.5
0068	FEB-19	1441	4003.7	7332.5	X26724.7	Y43450.6	198	24.6	41.9
0069	FEB-19	1656	3953.5	7345.4	X26798.0	Y43356.2	190	17.2	38.3
0070	FEB-19	2010	3928.5	7342.7	X26731.9	Y43099.8	159	19.7	37.0
0071	FEB-19	2248	3906.2	7332.8	X26634.4	Y42873.7	175	28.7	42.1
0072	FEB-20	0142	3905.2	7353.7	X26765.7	Y42859.1	236	21.1	37.8
0073	FEB-20	0528	3858.5	7428.9	X26969.4	Y42775.2	169	14.8	37.0
0074	FEB-20	0706	3848.8	7427.2	X26939.9	Y42670.2	127	17.2	37.8
0075	FEB-20	0839	3843.5	7418.6	X26880.4	Y42617.9	159	22.7	39.6
0076	FEB-20	1000	3838.7	7417.0	X26862.9	Y42567.4	092	23.8	39.0
0077	FEB-20	1426	3838.4	7326.9	X26569.4	Y42594.9	095	42.9	45.9
0078	FEB-20	1621	3838.9	7320.9	X26534.4	Y42603.9	002	45.9	46.0
0079	FEB-20	1813	3842.1	7320.8	X26536.1	Y42635.4	024	42.4	46.9
0080	FEB-20	2257	3919.5	7254.8	X26398.9	Y43007.2	033	38.5	44.6
0081	FEB-21	0155	3930.8	7234.1	X26264.3	Y43109.2	111	53.9	43.7
0082	FEB-21	0425	3929.4	7221.2	X26176.2	Y43093.3	109	106.9	45.3
0083	FEB-21	0629	3933.9	7218.9	X26160.5	Y43134.0	296	62.6	46.2
0084	FEB-21	0834	3938.7	7235.1	X26274.4	Y43182.5	328	41.3	45.3
0085	FEB-21	1056	3948.9	7246.2	X26359.8	Y43281.4	056	32.0	43.0
0086	FEB-21	1307	3950.9	7243.4	X26341.2	Y43298.4	047	32.0	
0087	FEB-21	1435	3956.7	7237.3	X26300.5	Y43347.5	037	32.8	43.5
0088	FEB-21	1707	4004.0	7217.0	X26151.9	Y43399.6	154	42.9	43.0
0089	FEB-21	1927	3953.7	7205.2	X26063.4	Y43302.5	181	50.9	43.7
0090	FEB-21	2140	3946.2	7206.1	X26070.4	Y43237.6	109	67.0	43.0
0091	FEB-22	2131	3955.2	7149.3	X25947.9	Y43305.8	326	65.9	47.5
0092	FEB-23	0039	3956.5	7130.4	X25813.5	Y43305.9	304	75.7	51.6
0093	FEB-23	0405	3957.5	7123.9	X25767.4	Y43310.3	286	99.8	50.9
0094	FEB-23	0657	4008.9	7140.3	X25875.6	Y43413.7	323	47.3	42.4
0095	FEB-23	0829	4013.8	7144.3	X25904.1	Y43457.3	292	45.1	41.2
0096	FEB-23	1100	4021.4	7206.4	X26076.9	Y43539.6	022	35.0	42.8

NMFS-NEFSC WINTER BOTTOM TRAWL SURVEY
2004 STATION INFORMATION

Station	Date	Time	Lat	Lon	Loran TD's		Course	Bottom Depth (FM)	Temp (F)
0097	FEB-23	1302	4033.7	7200.3	X26035.1	Y43635.7	054	32.0	41.9
0098	FEB-23	1459	4041.0	7146.9	X25928.5	Y43679.8	136	32.8	42.1
0099	FEB-23	1717	4030.6	7131.6	X25799.8	Y43580.9	094	40.7	41.5
0100	FEB-23	1921	4030.6	7115.3	X25671.1	Y43565.2	239	40.2	38.5
0101	FEB-23	2126	4026.2	7126.9	X25764.1	Y43541.6	079	40.7	39.6
0102	FEB-24	0003	4016.1	7124.7	X25754.1	Y43460.2	084	47.8	40.5
0103	FEB-24	0236	4013.8	7100.4	X25582.4	Y43423.1	077	68.6	46.2
0104	FEB-24	0503	4011.5	7040.2	X25454.9	Y43391.2	138	68.9	46.8
0105	FEB-24	0731	4000.7	7043.9	X25502.6	Y43311.9	100	135.3	53.4
0106	FEB-24	0919	4003.9	7033.0	X25431.1	Y43329.9	048	72.5	53.4
0107	FEB-24	1104	4008.6	7026.3	X25380.7	Y43360.7	345	66.7	43.0
0108	FEB-24	1154	4011.6	7025.3	X25367.0	Y43381.8	072	64.0	
0109	FEB-24	1351	4016.7	7029.5	X25377.1	Y43421.6	078	56.9	38.7
0110	FEB-24	1529	4018.9	7020.4	X25318.5	Y43430.9	167	51.4	38.1
0111	FEB-24	2025	4011.3	7004.6	X25263.8	Y43366.3	048	56.6	38.8
0112	FEB-24	2155	4013.7	7002.9	X25248.2	Y43382.3	114	54.4	37.9
0113	FEB-25	0146	4001.5	6922.8	W14037.9	Y43275.2	089	57.7	47.8
0114	FEB-25	0341	3959.9	6913.1	W13996.0	Y43260.5	045	127.4	54.0
0115	FEB-25	0512	4003.8	6910.8	W13972.5	Y43285.0	054	79.8	52.2
0116	FEB-25	0705	4006.0	6907.0	W13946.9	Y43297.6	027	76.0	51.4
0117	FEB-25	0857	4013.8	6901.2	W13892.4	Y43345.5	086	66.4	39.6
0118	FEB-25	1156	4009.1	6836.9	W13793.8	Y43303.5	052	94.9	52.2
0119	FEB-25	1629	4018.8	6803.2	W13606.2	Y43346.1	085	118.4	53.6
0120	FEB-25	1823	4020.7	6758.2	W13576.7	Y43355.1	005	78.7	54.0
0121	FEB-25	2100	4028.8	6748.8	W13504.4	Y43397.4	018	68.4	48.6
0122	FEB-26	0206	4032.2	6717.2	W13357.4	Y43400.3	356	77.1	51.6
0123	FEB-26	0446	4043.9	6713.9	W13295.7	Y43462.9	004	54.1	43.9
0124	FEB-26	0833	4038.8	6734.4	W13402.1	Y43447.0	343	48.1	39.0
0125	FEB-26	1431	4026.5	6832.8	W13711.1	Y43409.6	335	50.6	38.7
0126	FEB-26	1707	4026.3	6844.9	W13769.1	Y43415.4	338	44.6	38.1
0127	FEB-26	2157	4028.9	6928.8	W13975.9	Y43461.9	345	33.9	38.1
0128	FEB-26	2339	4036.4	6934.6	W13978.6	Y43515.9	258	33.9	38.7
0129	FEB-27	0120	4039.2	6944.7	W14021.1	Y43543.3	275	30.9	37.8
0130	FEB-27	0339	4028.5	6958.3	W14129.8	Y43481.8	281	39.4	37.8
0131	FEB-27	0514	4028.4	7006.6	X25216.7	Y43487.9	287	38.0	37.6
0132	FEB-27	0839	4038.8	7038.8	X25383.2	Y43589.8	341	34.7	35.1
0133	FEB-27	1040	4039.5	7054.2	X25497.5	Y43610.9	021	37.7	37.4
0134	FEB-27	1213	4046.1	7048.4	X25444.0	Y43652.6	076	34.7	35.2
0135	FEB-27	1426	4048.7	7026.6	X25273.2	Y43647.8	029	29.3	36.0
0136	FEB-27	1610	4058.5	7018.8	X25193.0	Y43706.7	002	22.4	34.5
0137	FEB-27	1748	4106.1	7017.1	X25165.7	Y43755.9	272	19.4	34.5
0138	FEB-27	1957	4108.2	7038.9	X25355.4	Y43796.3	242	23.8	36.1
0139	FEB-27	2303	4058.2	7104.5	X25575.0	Y43758.4	331	27.6	37.9
0140	FEB-28	0128	4113.5	7116.1	X25697.6	Y43883.9	033	20.5	39.4

NMFS-NEFSC WINTER BOTTOM TRAWL SURVEY
ALBATROSS IV FEB 03 - FEB 28, 2004
CATCH WEIGHTS (POUNDS) OF IMPORTANT SPECIES BY HAUL

STATION	SPINY DOGFISH	WINTER SKATE	LITTLE SKATE	ATLANTIC HERRING	SILVER HAKE	ATLANTIC COD	HADDOCK	POLLOCK	WHITE HAKE	RED HAKE	AMERICAN PLAICE	SUMMER FLDR	YELLOWTAIL FLDR	WINTER FLDR	WITCH FLDR	WINDOWPANE FLDR	ATLANTIC MACKEREL	BUTTERFISH	ACADIAN REDFISH	LONGHORN SCULPIN	OCEAN POUT	GOOSEFISH	AMERICAN LOBSTER	LONGFIN SQUID	TOTAL* OTHER	TOTAL ALL
1	338	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	41	393
2	0	0	5	0	3	0	0	0	0	0	0	3	0	0	7	0	0	2	0	0	0	38	0	2	30	90
3	219	0	1	0	16	0	0	0	0	26	0	0	0	0	15	0	0	1	0	0	0	147	1	9	35	470
4	175	0	51	0	1	0	0	0	0	0	0	100	0	0	2	0	0	59	0	0	0	7	1	38	87	521
5	9	0	3	0	1	0	0	0	0	0	0	23	0	0	6	0	0	6	0	0	0	12	0	159	116	335
6	0	0	16	0	0	0	0	0	0	0	0	22	0	0	1	0	0	0	0	0	0	6	0	31	170	246
7	4	0	3	1	1	0	0	0	0	0	0	16	0	0	1	0	0	7	0	0	0	24	0	66	319	442
8	507	0	0	0	15	0	0	0	1	12	0	0	0	0	32	0	0	0	0	0	0	142	2	1	80	792
9	4	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	9	0	45	200	263
10	52	0	0	0	0	0	0	0	5	0	0	0	0	0	14	0	0	0	0	0	0	379	10	0	85	545
11	197	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	14	0	107	75	398
12	1147	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	7	0	0	0	24	0	93	142	1417
13	20	0	0	0	4	0	0	0	0	0	0	35	0	0	0	0	0	0	0	0	0	22	0	75	270	426
14	521	0	86	0	0	0	0	0	0	0	0	108	0	0	0	0	0	1	0	0	0	13	1	57	272	1059
15	3491	0	23	0	0	0	0	0	0	0	0	123	0	0	2	0	0	624	0	0	0	0	0	12	406	4681
16	571	10	126	0	0	0	0	0	0	0	0	92	0	0	2	6	1	2	0	0	0	5	0	3	64	882
17	8	6	53	0	0	0	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	0	0	0	16	93
18	40	10	81	2	0	0	0	0	0	0	0	20	0	0	0	19	1	0	0	0	0	0	0	0	1	174
19	96	22	5	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	32	157
20	36	2	13	0	0	0	0	0	0	0	0	7	0	0	0	5	1	0	0	0	0	7	0	0	121	192
21	368	4	15	0	0	0	0	0	0	0	0	2	0	0	0	1	2	0	0	0	0	0	0	0	126	518
22	270	0	17	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	0	147	437
23	51	0	5	0	0	0	0	0	0	0	0	8	0	0	0	1	0	0	0	0	0	7	0	0	150	222
24	1316	0	0	0	0	0	0	0	0	0	0	17	0	0	0	2	0	0	0	0	0	0	0	1	112	1448
25	1313	0	2	0	0	0	0	0	0	0	0	10	0	0	0	4	0	0	0	0	0	13	0	1	110	1453
26	1098	0	2	0	0	0	0	0	0	0	0	40	0	0	0	0	0	11	0	0	0	0	0	11	206	1368
27	3298	0	3	0	0	0	0	0	0	0	0	93	0	0	0	0	0	0	0	0	0	10	0	3	290	3697
28	3721	0	0	0	0	0	0	0	0	0	0	26	0	0	0	0	0	0	0	0	0	43	0	6	437	4233
29	3018	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	76	3	0	26	3124
30	6147	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	14	2239	8416
31	1995	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51	0	67	663	2779
32	822	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	0	0	0	0	0	32	0	46	346	1263
33	991	0	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0	9	0	0	0	11	0	37	236	1296
34	189	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	168	16	0	71	446

NMFS-NEFSC WINTER BOTTOM TRAWL SURVEY
ALBATROSS IV FEB 03 - FEB 28, 2004
CATCH WEIGHTS (POUNDS) OF IMPORTANT SPECIES BY HAUL

STATION	SPINY DOGFISH	WINTER SKATE	LITTLE SKATE	ATLANTIC HERRING	SILVER HAKE	ATLANTIC COD	HADDOCK	POLLOCK	WHITE HAKE	RED HAKE	AMERICAN PLAICE	SUMMER FLDR	YELLOWTAIL FLDR	WINTER FLDR	WITCH FLDR	WINDOWPANE FLDR	ATLANTIC MACKEREL	BUTTERFISH	ACADIAN REDFISH	LONGHORN SCULPIN	OCEAN POUT	GOOSEFISH	AMERICAN LOBSTER	LONGFIN SQUID	TOTAL* OTHER	TOTAL ALL
35	1989	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	13	0	0	0	61	0	45	224	2343
36	4268	0	0	0	0	0	0	0	0	0	0	60	0	0	1	0	0	1	0	0	0	0	0	34	372	4736
37	8902	0	0	0	1	0	0	0	0	0	0	43	0	0	0	0	0	26	0	0	0	30	0	154	314	9470
38	2133	0	0	0	0	0	0	0	0	1	0	0	0	0	4	0	0	0	0	0	0	145	8	0	45	2336
39	2826	0	0	0	1	0	0	0	0	0	0	121	0	0	0	0	0	33	0	0	0	40	0	11	575	3607
40	1262	0	0	0	0	0	0	0	0	0	0	73	0	0	1	0	0	10	0	0	0	24	0	21	290	1681
41	615	4	7	0	0	0	0	0	0	0	0	17	0	0	0	0	0	10	0	0	0	0	0	5	195	853
42	338	0	38	0	0	0	0	0	0	0	0	19	0	0	0	0	0	6	0	0	0	0	0	1	262	664
43	503	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	1	0	0	0	18	0	19	276	831
44	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
45	773	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6	0	0	0	9	0	67	114	975
46	5377	0	115	0	0	0	0	0	0	0	0	34	0	0	0	0	0	1	0	0	0	24	0	9	615	6175
47	5850	0	23	0	0	0	0	0	0	0	0	68	0	0	0	0	0	212	0	0	0	70	0	3	816	7042
48	550	0	0	0	0	0	0	0	0	0	0	15	0	0	0	0	0	10	0	0	0	20	0	93	251	939
49	4865	0	0	0	1	0	0	0	0	0	0	36	0	0	11	0	0	7	0	0	0	31	0	5	315	5271
50	28	0	0	0	0	0	0	0	0	0	0	57	0	0	2	0	0	3	0	0	0	2	0	15	96	203
51	1388	0	1	0	2	0	0	0	0	0	0	24	0	0	0	0	5	0	0	0	0	1	0	10	795	2226
52	789	0	0	0	8	0	0	0	0	1	0	0	0	0	34	0	0	0	0	0	0	95	8	1	86	1022
53	112	0	0	0	1	0	0	0	0	0	0	14	0	0	2	0	0	0	0	0	0	18	0	7	15	169
54	3	0	52	0	1	0	0	0	0	0	0	20	0	0	3	0	0	0	0	0	0	24	0	7	35	145
55	168	46	313	19	0	0	0	0	0	0	0	11	0	0	0	9	0	0	0	0	0	5	0	0	21	592
56	13	0	202	0	0	0	0	0	0	0	0	54	0	0	0	0	0	0	0	0	0	44	0	3	27	343
57	5035	0	222	0	0	0	0	0	0	0	0	59	0	0	3	0	2	6	0	0	0	13	0	26	146	5512
58	1621	0	130	2	0	0	0	0	0	0	0	27	0	0	0	0	3	6	0	0	0	2	0	11	88	1890
59	413	0	158	0	0	0	0	0	0	0	0	50	0	0	2	14	11	0	0	0	12	0	0	1	6	667
60	0	70	1092	16	7	1	0	0	0	1	0	0	3	41	0	7	4	0	0	105	47	12	0	0	37	1443
61	0	74	509	0	1	0	0	0	0	0	0	0	2	4	0	9	0	0	0	4	21	1	0	0	8	633
62	0	229	353	2	3	0	0	0	0	0	0	0	4	5	0	3	0	0	0	3	174	3	0	0	13	792
63	0	44	674	0	0	0	0	0	0	0	0	0	0	6	0	2	0	0	0	0	0	0	0	0	5	731
64	0	170	506	0	0	0	0	0	0	0	0	0	0	6	0	4	0	0	0	1	5	0	10	0	2	704
65	6	34	291	1	1	0	0	0	0	0	0	6	19	0	0	1	0	0	0	0	22	0	0	0	12	393
66	66	76	366	5	0	0	0	0	0	0	0	2	10	0	0	0	15	0	0	0	13	0	0	0	8	561
67	22	93	395	65	1	0	0	0	0	0	0	7	14	0	0	0	22	0	0	0	216	10	0	0	14	859
68	91	0	70	3	1	0	0	0	0	0	0	11	4	8	0	0	2	0	0	0	87	1	0	0	15	293
69	8	22	187	1	0	0	0	0	0	0	0	0	0	7	0	3	0	0	0	0	144	0	0	0	1	373

NMFS-NEFSC WINTER BOTTOM TRAWL SURVEY
ALBATROSS IV FEB 03 - FEB 28, 2004
CATCH WEIGHTS (POUNDS) OF IMPORTANT SPECIES BY HAUL

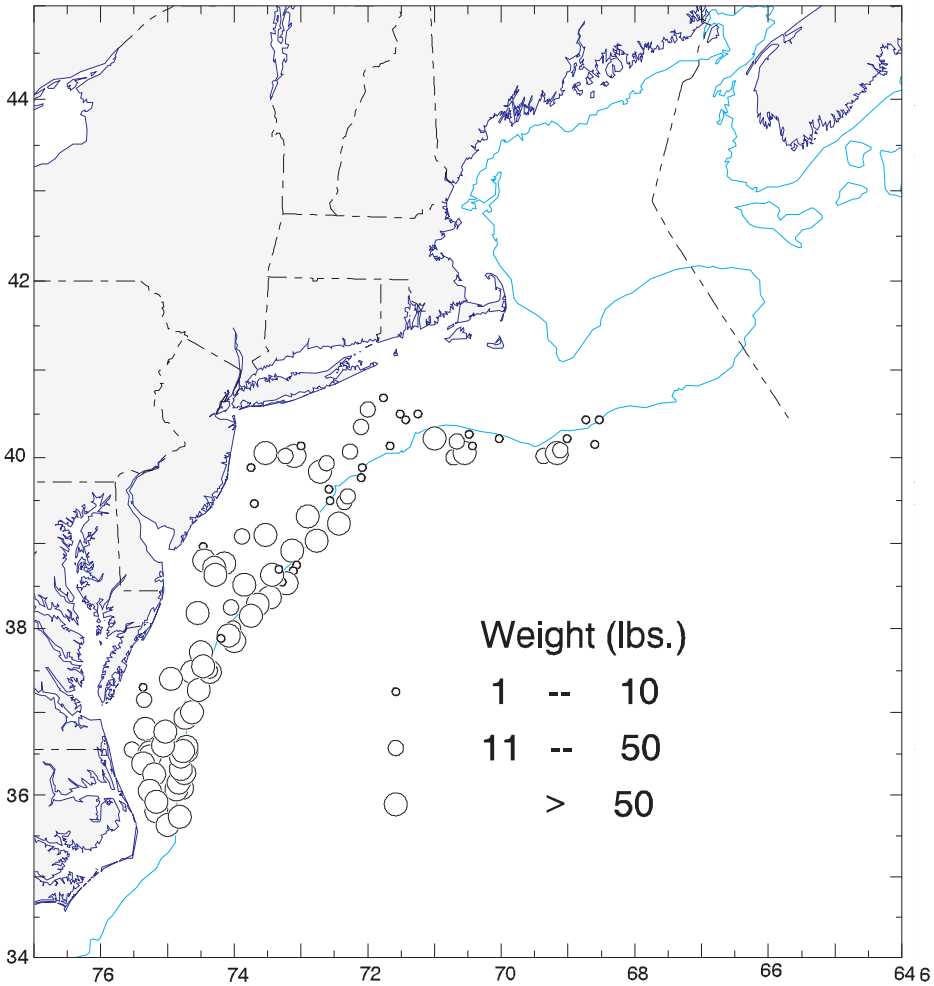
STATION	SPINY DOGFISH	WINTER SKATE	LITTLE SKATE	ATLANTIC HERRING	SILVER HAKE	ATLANTIC COD	HADDOCK	POLLOCK	WHITE HAKE	RED HAKE	AMERICAN PLAICE	SUMMER FLDR	YELLOWTAIL FLDR	WINTER FLDR	WITCH FLDR	WINDOWPANE FLDR	ATLANTIC MACKEREL	BUTTERFISH	ACADIAN REDFISH	LONGHORN SCULPIN	OCEAN POUT	GOOSEFISH	AMERICAN LOBSTER	LONGFIN SQUID	TOTAL* OTHER	TOTAL ALL
70	8	9	286	20	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	10	339
71	218	5	325	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	51	617
72	12	8	271	0	0	0	0	0	0	0	0	1	0	0	0	3	0	0	0	0	0	4	0	0	7	306
73	7	8	227	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	11	264
74	160	46	192	6	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	6	424
75	241	4	217	2	1	0	0	0	0	0	0	16	0	0	0	22	0	0	0	0	0	0	0	0	25	528
76	158	0	25	8	1	0	0	0	0	0	0	12	0	0	0	10	0	0	0	0	14	0	0	0	42	270
77	1623	0	8	1	1	0	0	0	0	0	0	95	0	0	8	0	1	21	0	0	0	0	0	17	85	1860
78	0	0	5	0	0	0	0	0	0	0	0	72	0	0	10	0	0	59	0	0	0	14	0	19	228	407
79	6	0	26	0	1	0	0	0	0	0	0	157	0	0	0	0	0	42	0	0	0	14	0	8	138	392
80	2118	0	171	0	9	0	0	0	0	4	0	36	0	0	3	0	1	0	0	0	0	38	0	3	199	2582
81	8	0	21	0	6	0	0	0	0	0	0	30	0	0	0	0	0	1	0	0	0	25	0	6	47	144
82	21	0	0	0	46	0	0	0	0	5	0	0	0	0	19	0	0	25	0	0	0	64	2	2	27	211
83	35	0	0	0	0	0	0	0	0	0	0	125	0	0	2	0	0	5	0	0	0	37	0	123	44	371
84	9	0	62	1	29	0	0	0	0	31	0	399	0	0	4	0	66	3	0	0	0	8	0	12	102	726
85	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
86	75	0	13	24	3	0	0	0	0	0	0	12	1	0	0	0	19	0	0	0	27	0	0	5	100	279
87	45	4	108	27	0	0	0	0	0	0	0	5	1	0	0	0	88	0	0	0	6	2	0	1	79	366
88	19	0	45	50	24	0	1	0	0	12	0	144	0	0	2	0	17	1	0	0	0	32	1	11	207	566
89	1	0	43	0	12	0	0	0	0	2	0	14	0	0	0	0	1	1	0	0	0	28	0	9	34	145
90	0	0	3	0	8	0	0	0	0	1	0	68	0	0	0	0	1	2	0	0	0	4	0	30	46	163
91	0	0	11	0	9	0	0	0	0	2	0	17	0	0	0	0	32	1	0	0	0	5	0	23	41	141
92	0	0	0	0	19	0	0	0	0	2	0	5	0	0	0	0	2	1	0	0	0	5	0	88	47	169
93	0	0	0	0	41	0	0	0	1	4	0	2	0	0	0	0	1	13	0	0	0	89	0	197	28	376
94	3	0	20	19	20	0	4	0	3	34	0	123	0	0	4	0	126	0	0	0	0	20	0	4	43	423
95	0	0	11	0	6	0	1	0	0	2	0	59	0	0	1	0	2	0	0	0	0	3	2	0	46	133
96	40	15	144	17	1	0	0	0	0	0	0	18	7	0	2	0	327	0	0	0	34	29	0	0	32	666
97	50	5	154	4	0	0	1	0	0	0	0	6	4	0	0	0	146	0	0	1	107	7	0	0	11	496
98	8	42	161	14	0	1	1	0	0	0	0	10	12	0	1	1	379	0	0	2	63	0	0	0	14	709
99	5	22	19	9	3	0	0	0	0	2	0	71	0	0	1	0	59	0	0	0	2	1	2	0	74	270
100	8	118	19	5	103	0	1	0	0	1	0	17	0	0	0	1	2	0	0	0	0	17	0	0	79	371
101	7	32	34	29	10	0	0	0	0	1	0	21	0	0	0	0	46	0	0	0	0	20	0	0	72	272
102	0	0	12	1	10	0	1	0	0	8	0	2	0	0	0	0	1	0	0	0	0	28	4	0	57	124
103	113	0	0	1	173	0	0	0	11	111	0	124	0	0	0	0	2	3	0	0	0	54	0	2	73	667
104	45	0	0	2	1	0	0	0	1	0	0	186	0	0	0	0	26	0	0	0	0	126	0	1	135	523

NMFS-NEFSC WINTER BOTTOM TRAWL SURVEY
ALBATROSS IV FEB 03 - FEB 28, 2004
CATCH WEIGHTS (POUNDS) OF IMPORTANT SPECIES BY HAUL

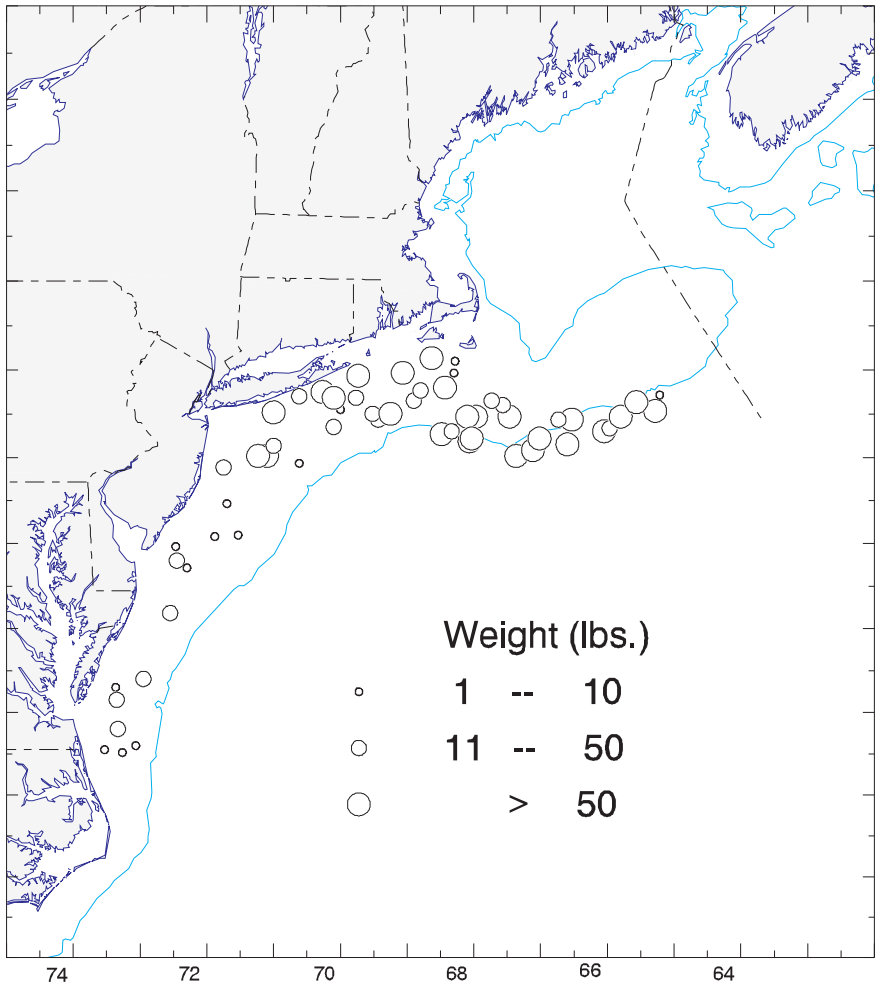
STATION	SPINY DOGFISH	WINTER SKATE	LITTLE SKATE	ATLANTIC HERRING	SILVER HAKE	ATLANTIC COD	HADDOCK	POLLOCK	WHITE HAKE	RED HAKE	AMERICAN PLAICE	SUMMER FLDR	YELLOWTAIL FLDR	WINTER FLDR	WITCH FLDR	WINDOWPANE FLDR	ATLANTIC MACKEREL	BUTTERFISH	ACADIAN REDFISH	LONGHORN SCULPIN	OCEAN POUT	GOOSEFISH	AMERICAN LOBSTER	LONGFIN SQUID	TOTAL* OTHER	TOTAL ALL
105	17	0	0	0	20	0	0	0	0	0	0	0	0	0	1	0	5	5	0	0	0	39	2	56	110	255
106	2661	0	0	0	1	0	0	0	0	0	0	103	0	0	0	0	2	95	0	0	0	17	0	52	264	3195
107	8	0	0	0	3	0	81	0	2	64	0	110	0	0	0	0	64	0	0	0	0	15	0	0	83	430
108	0	0	0	0	14	2	9	0	1	2	0	201	0	0	1	1	2	0	0	0	0	5	1	0	99	338
109	9	259	1	0	14	0	0	0	0	0	0	15	0	0	1	30	0	0	0	2	0	5	0	0	46	382
110	0	25	6	4	8	1	0	0	0	0	0	3	1	0	0	9	0	0	0	2	0	4	0	0	17	80
111	0	1481	3	1	8	0	0	0	0	9	0	52	0	0	0	1	0	0	0	0	0	32	0	0	96	1683
112	7	543	8	1	7	0	0	0	0	5	0	4	0	0	2	0	0	0	0	0	0	7	0	0	83	667
113	23	239	13	1	7	0	8	0	7	44	0	179	0	0	5	0	0	0	0	0	2	141	0	3	153	825
114	0	0	0	0	53	0	0	0	1	2	0	37	0	0	2	0	0	1	0	0	0	116	0	11	253	476
115	62	18	0	0	11	0	0	0	4	94	0	72	0	0	3	0	0	3	0	0	0	298	0	4	750	1319
116	34	98	3	0	2	0	1	0	9	491	0	254	0	0	45	0	0	4	0	0	0	182	0	12	816	1951
117	7	728	57	4	3	7	155	0	2	4	0	299	133	0	8	130	0	0	0	0	23	28	0	0	164	1752
118	3	106	0	0	1	0	0	0	0	7	0	281	0	0	4	6	0	15	0	0	1	7	0	12	559	1002
119	0	52	2	0	4	0	0	0	0	0	0	64	0	0	39	0	0	0	0	0	0	7	0	2	191	361
120	0	33	16	0	1	0	0	0	0	0	0	62	0	0	4	0	0	0	0	0	0	59	0	3	238	416
121	0	292	26	0	13	0	2	0	5	7	0	11	0	0	13	5	0	0	0	0	1	81	0	4	90	550
122	0	80	18	0	4	0	0	0	6	0	0	55	0	0	2	0	0	0	0	0	0	201	0	4	109	479
123	0	8	14	0	3	0	42	0	0	1	0	0	0	0	2	0	0	0	0	3	1	40	6	0	5	125
124	0	148	83	13	2	4	2	0	0	0	1	0	8	0	0	37	0	0	0	1	9	1	0	0	5	314
125	4	98	88	1	4	27	31	0	2	1	4	4	47	0	1	100	0	0	0	12	53	5	0	0	15	497
126	8	14	10	1	0	3	6	0	0	0	0	4	57	3	0	94	0	0	0	22	3	0	0	0	3	228
127	0	64	730	0	0	12	0	0	0	0	0	0	2	0	0	7	0	0	0	29	2	5	3	0	39	893
128	0	11	539	0	0	3	0	0	0	0	0	0	1	1	0	0	0	0	0	18	0	0	0	0	6	579
129	0	12	153	0	0	2	0	0	0	0	0	0	0	1	0	1	0	0	0	4	0	0	0	0	1	174
130	0	88	967	5	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	7	0	0	0	0	1	1069
131	0	87	828	8	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	12	0	0	0	0	1	939
132	0	0	59	2	0	3	0	0	0	0	0	1	0	1	0	3	0	0	0	2	0	0	1	0	4	76
133	0	24	33	1	31	0	1	0	0	0	0	47	4	0	2	16	0	0	0	2	5	6	0	0	14	186
134	0	16	22	0	2	1	0	0	0	0	0	0	3	0	0	7	0	0	0	5	1	3	0	0	18	78
135	0	98	189	0	0	0	0	0	0	0	0	0	1	0	0	4	0	0	0	8	0	0	0	0	10	310
136	0	3	7	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	5	19
137	0	2	48	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	1	53
138	0	65	528	0	0	0	0	0	0	0	0	0	0	3	0	2	0	0	0	0	0	0	0	0	8	606
139	0	332	382	0	2	0	0	0	0	0	0	0	5	2	0	31	0	0	0	4	84	6	0	0	12	860
140	0	0	11	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	0	0	5	0	1	20
TOTAL	89932	6258	13691	415	831	69	348	0	61	994	5	5350	345	89	344	651	1489	1381	0	253	1182	3963	89	2172	20325	150237

* "Total other" in southern areas are comprised primarily of Smooth Dogfish, Northern Sea Robin, Barndoor Skate, Fourspot Flounder & Scup.

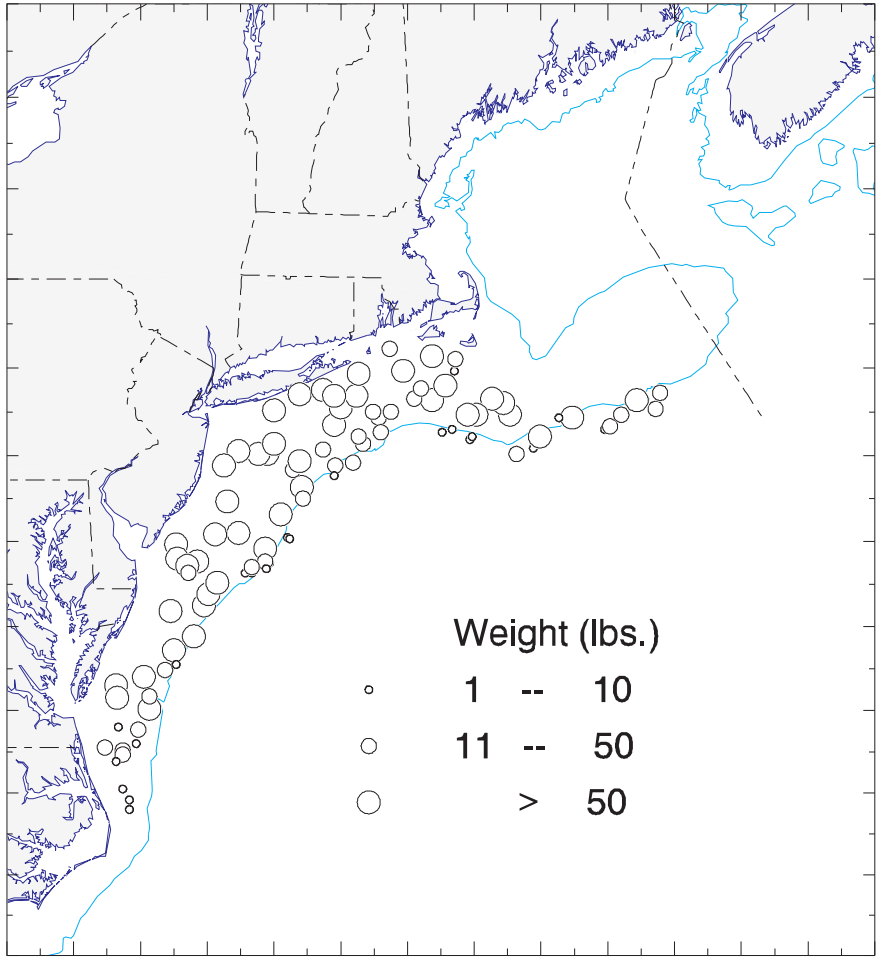
SPINY DOGFISH
NMFS-NEFSC Winter Bottom Trawl Survey
FEB 3 - FEB 28, 2004



WINTER SKATE
NMFS-NEFSC Winter Bottom Trawl Survey
FEB 3 - FEB 28, 2004

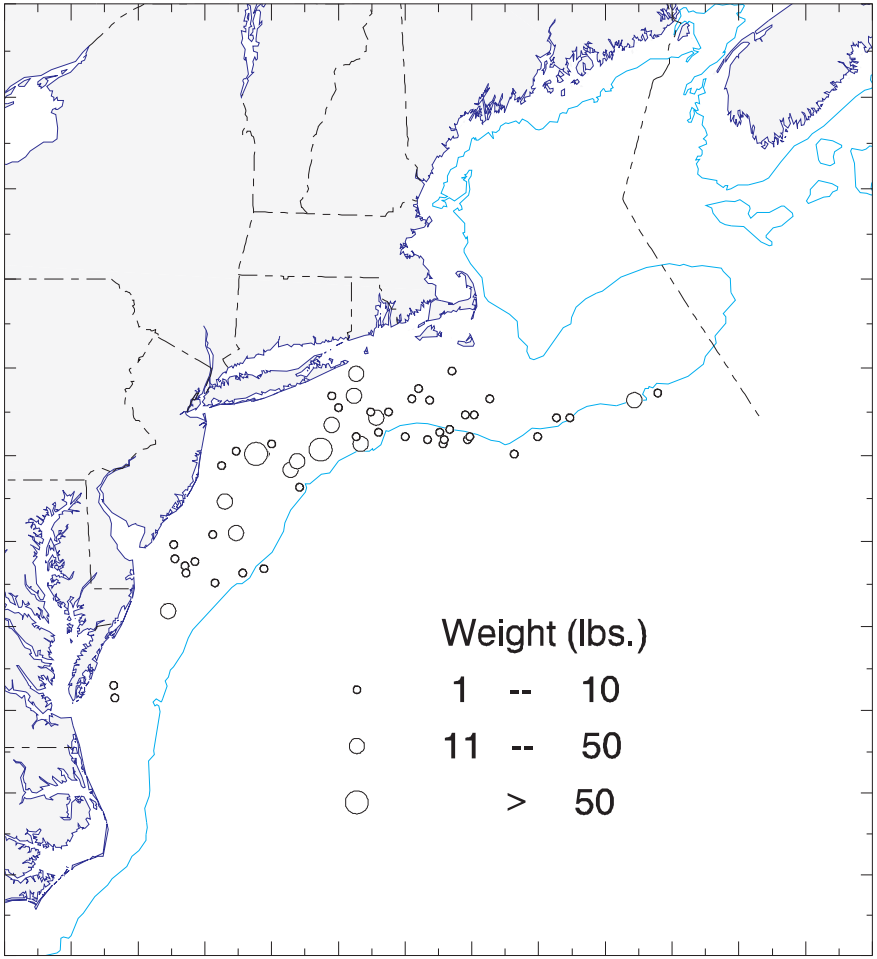


LITTLE SKATE
NMFS-NEFSC Winter Bottom Trawl Survey
FEB 3 - FEB 28, 2004



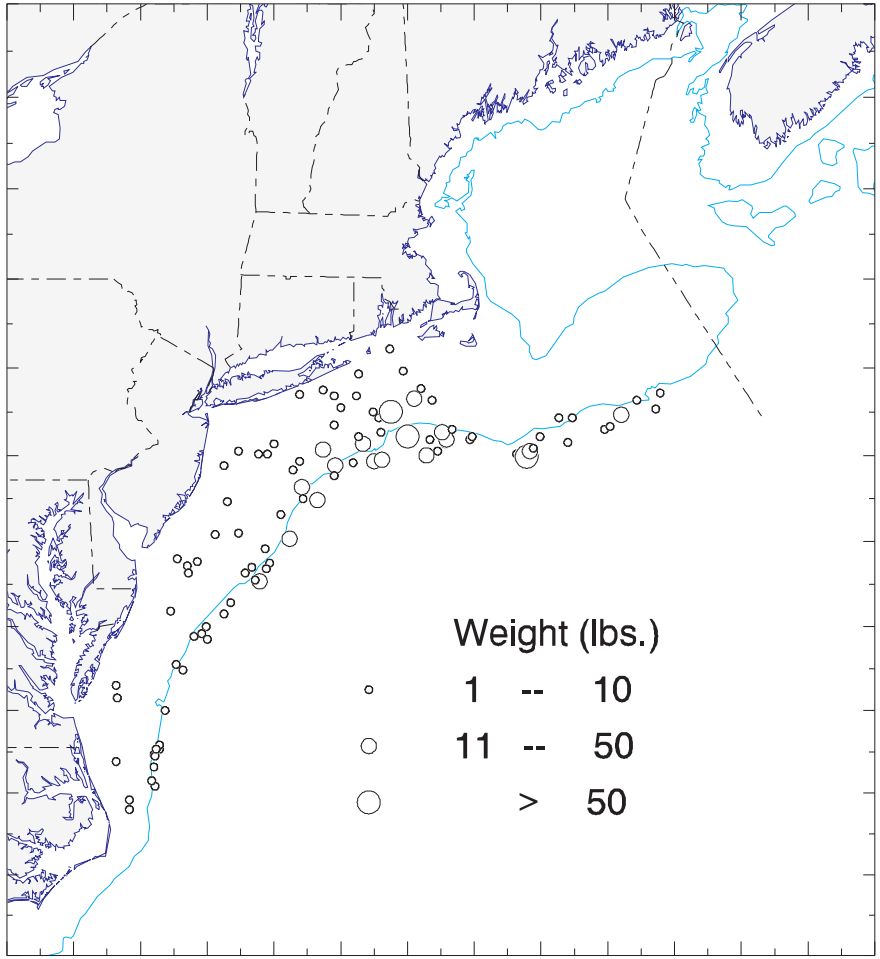
74 72 70 68 66 64

ATLANTIC HERRING
NMFS-NEFSC Winter Bottom Trawl Survey
FEB 3 - FEB 28, 2004

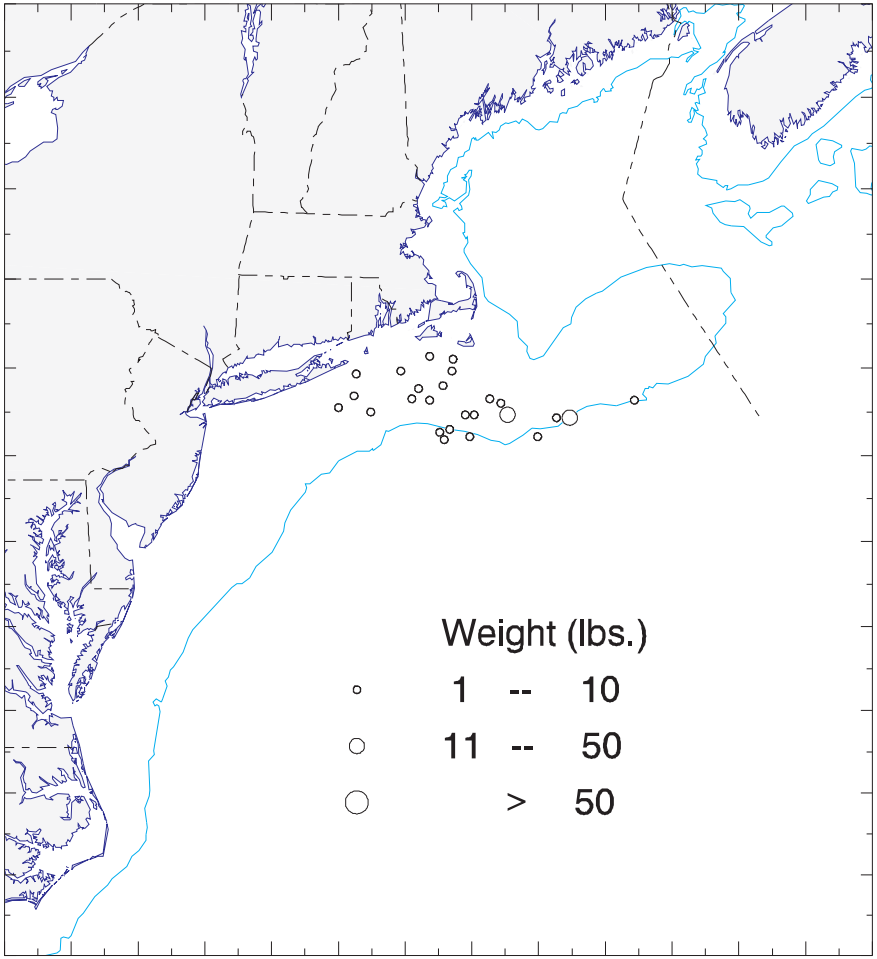


74 72 70 68 66 64

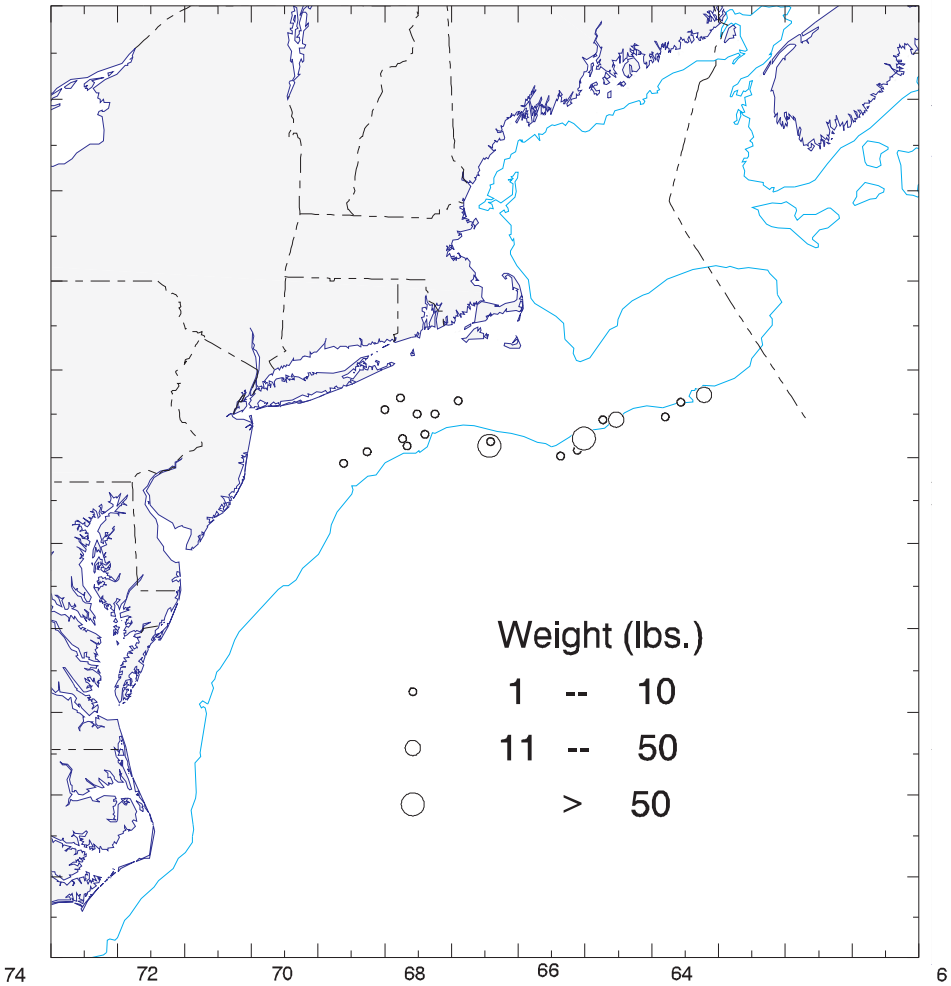
SILVER HAKE
NMFS-NEFSC Winter Bottom Trawl Survey
FEB 3 - FEB 28, 2004



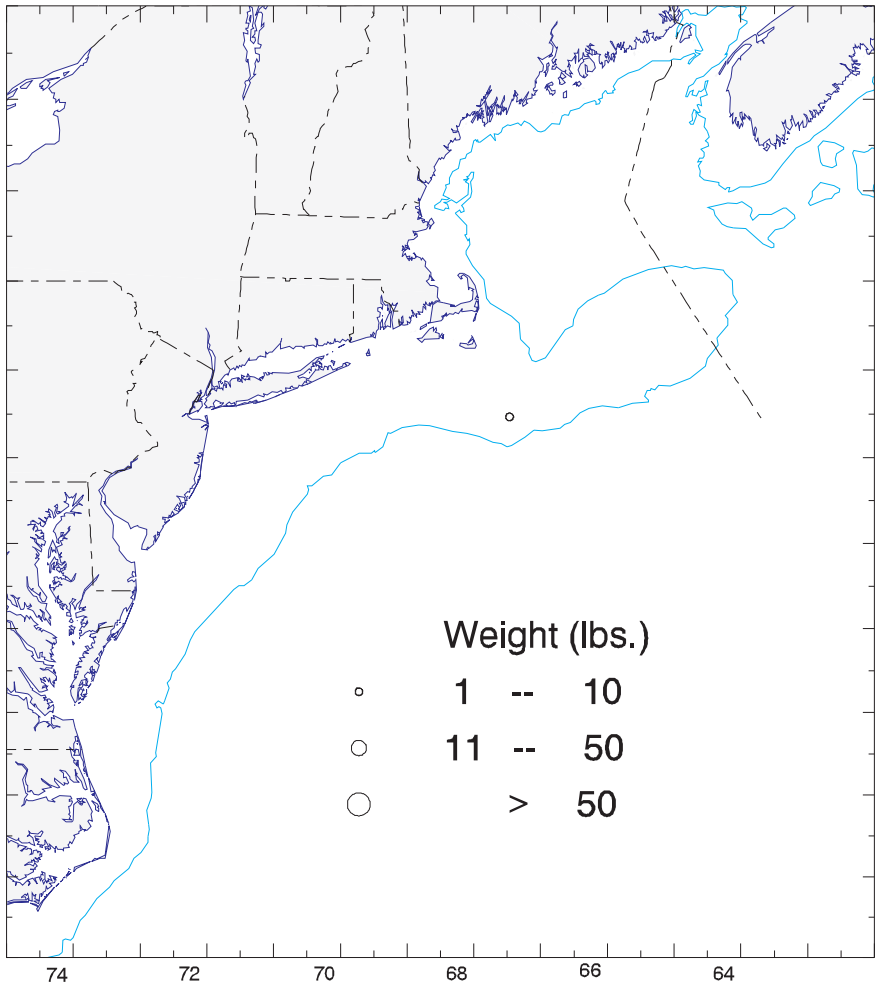
ATLANTIC COD
NMFS-NEFSC Winter Bottom Trawl Survey
FEB 3 - FEB 28, 2004



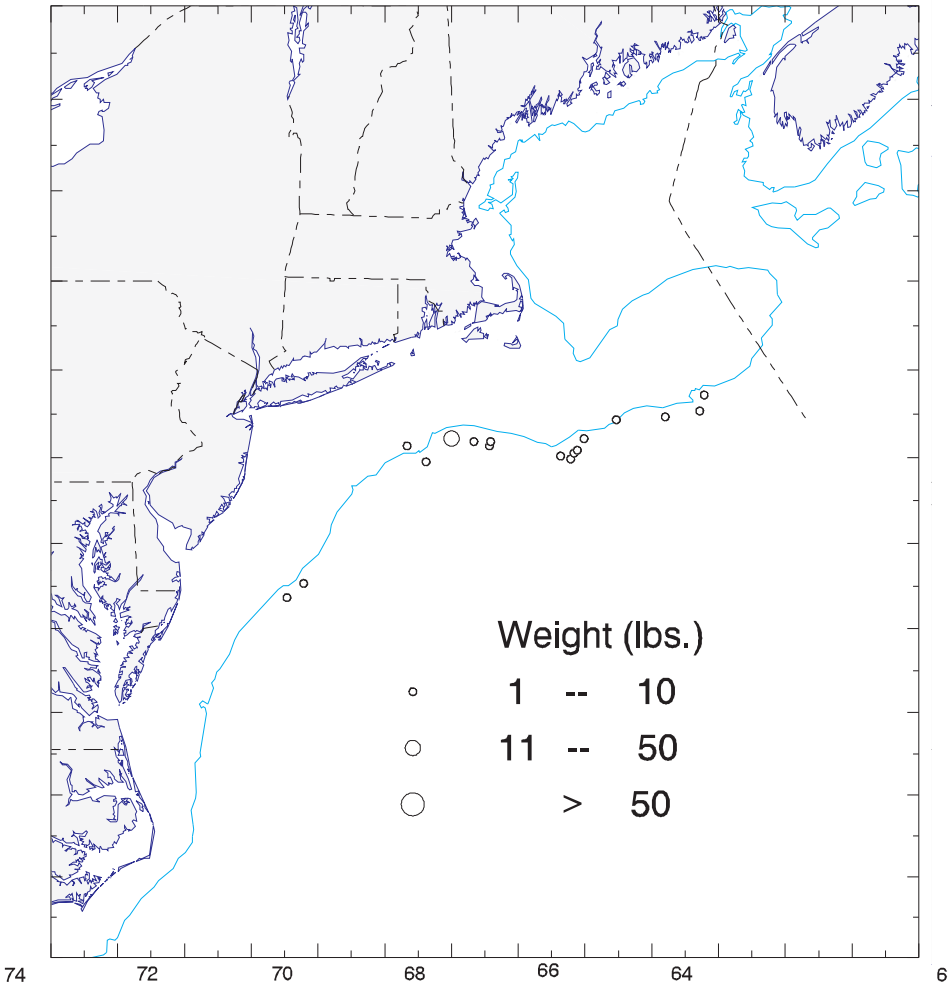
HADDOCK
NMFS-NEFSC Winter Bottom Trawl Survey
FEB 3 - FEB 28, 2004



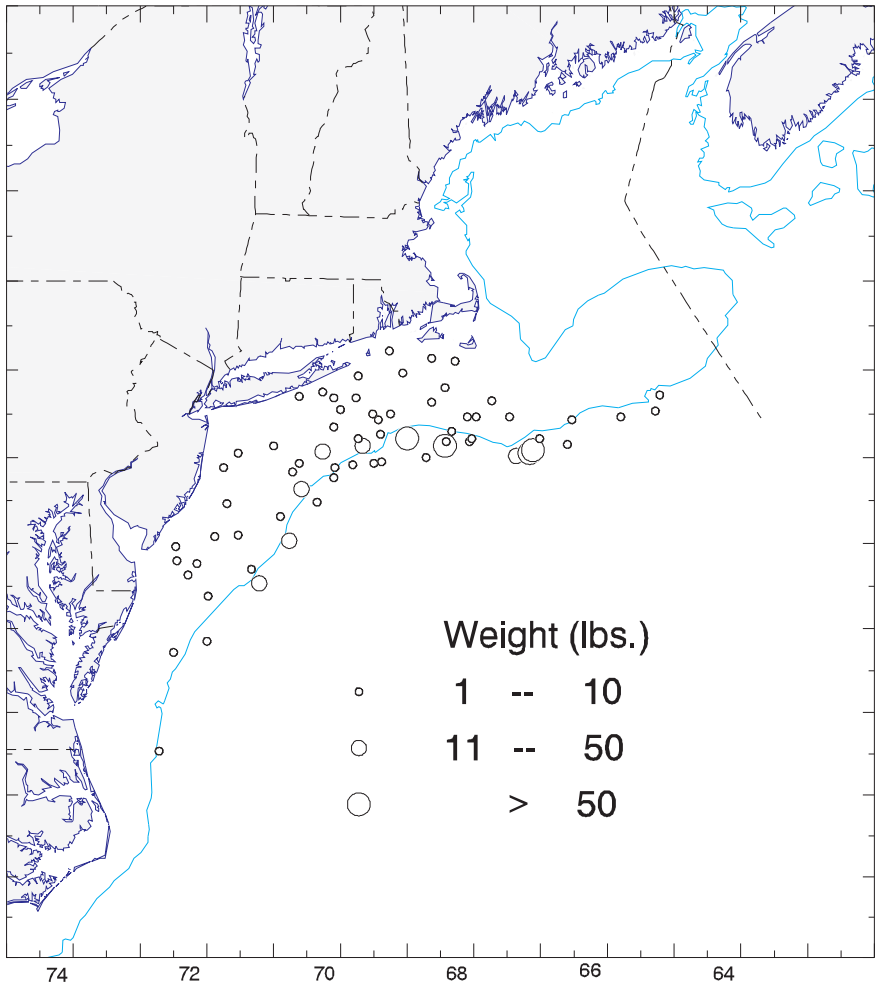
POLLOCK
NMFS-NEFSC Winter Bottom Trawl Survey
FEB 3 - FEB 28, 2004



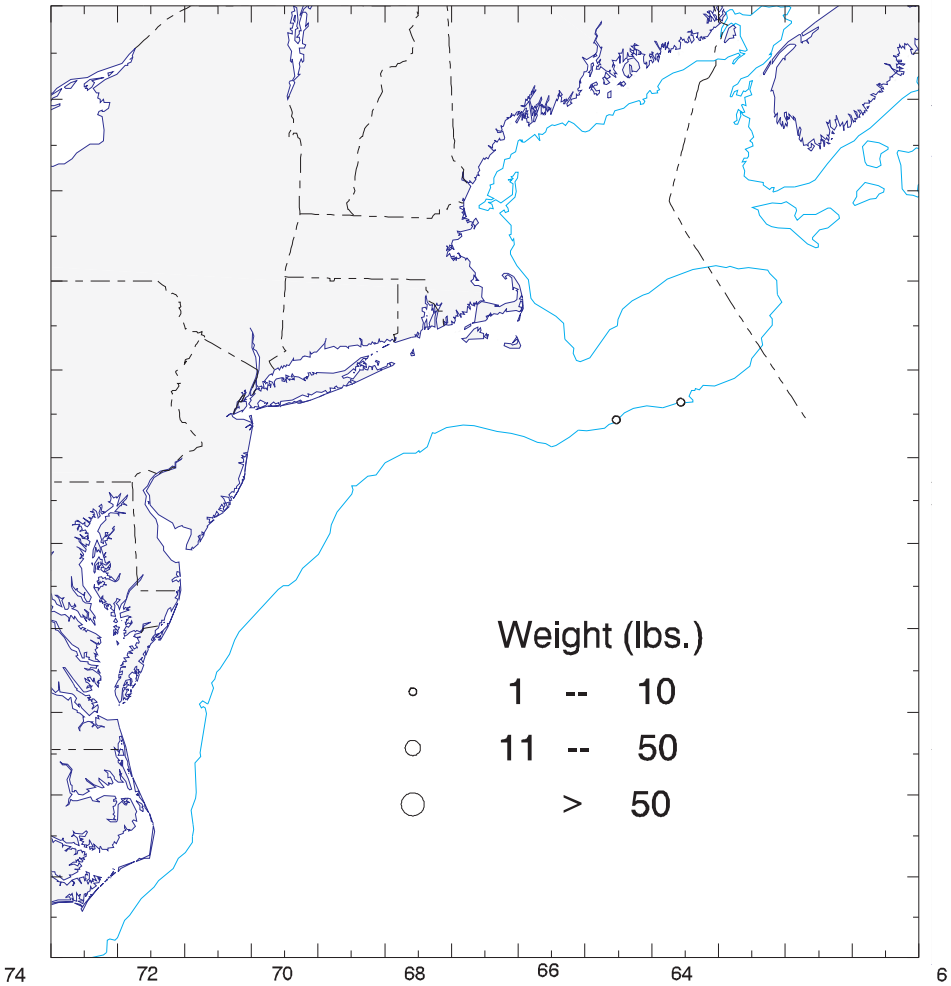
WHITE HAKE
NMFS-NEFSC Winter Bottom Trawl Survey
FEB 3 - FEB 28, 2004



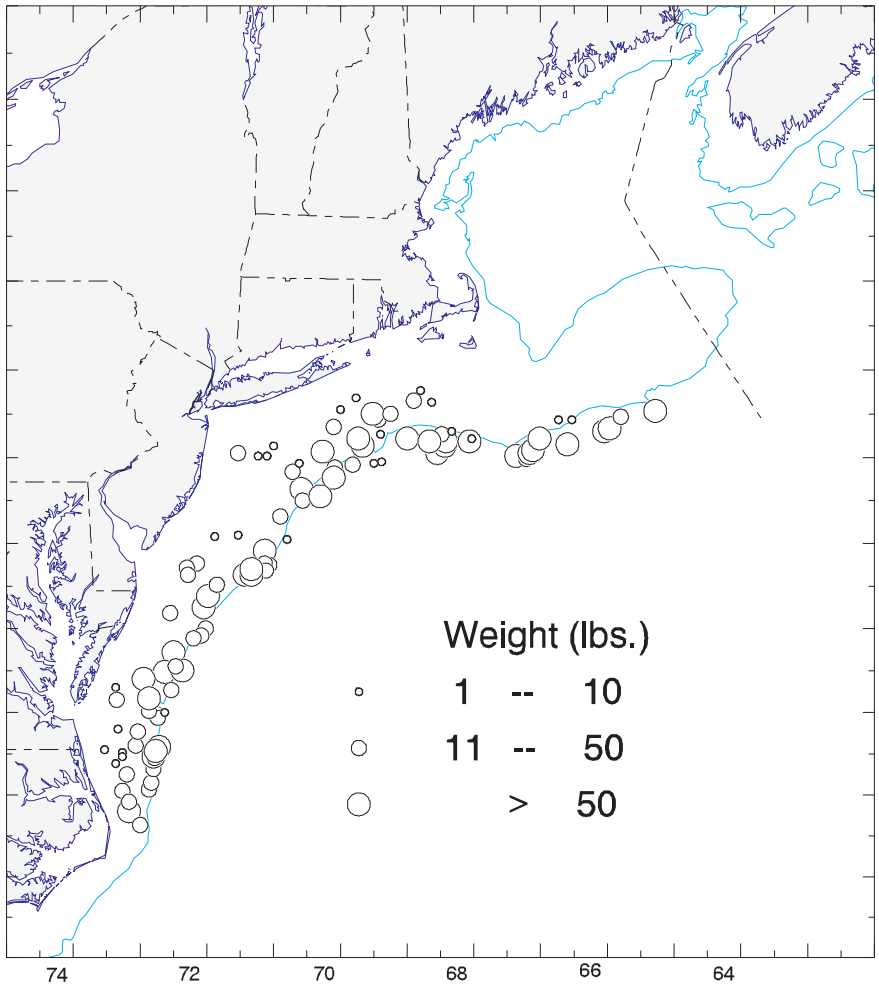
RED HAKE
NMFS-NEFSC Winter Bottom Trawl Survey
FEB 3 - FEB 28, 2004



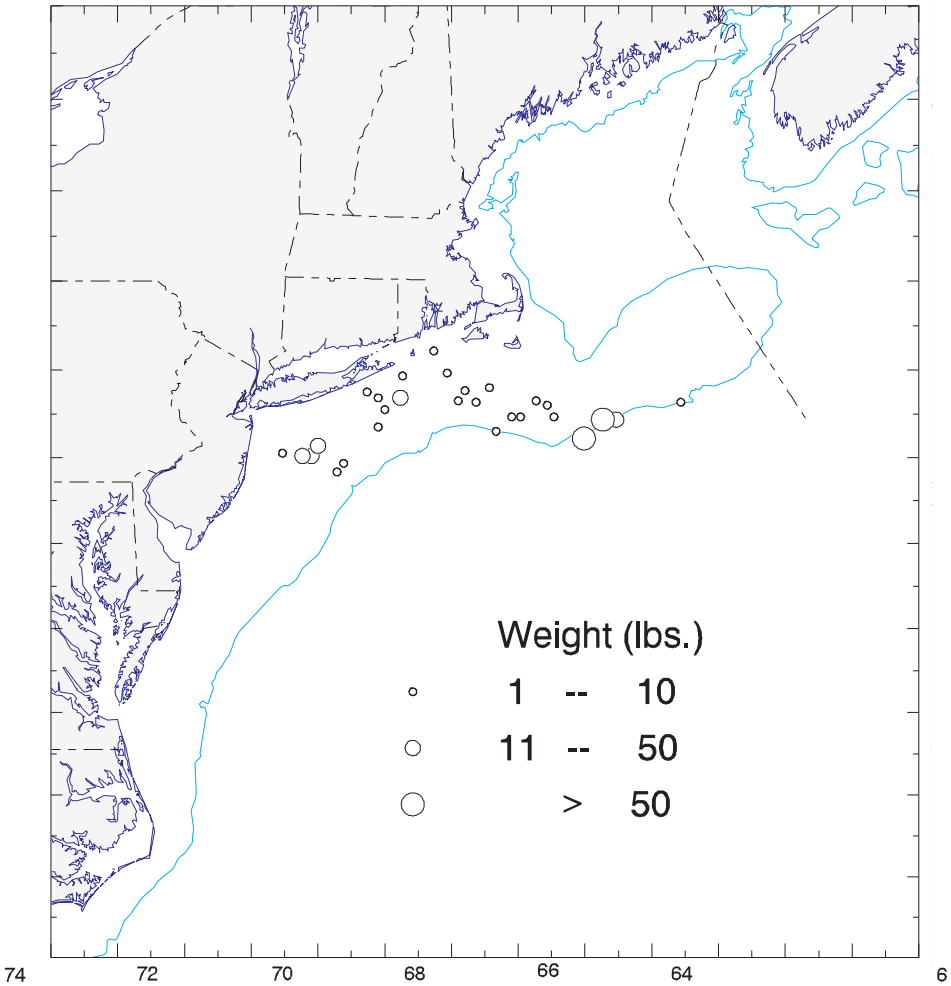
AMERICAN PLAICE
NMFS-NEFSC Winter Bottom Trawl Survey
FEB 3 - FEB 28, 2004



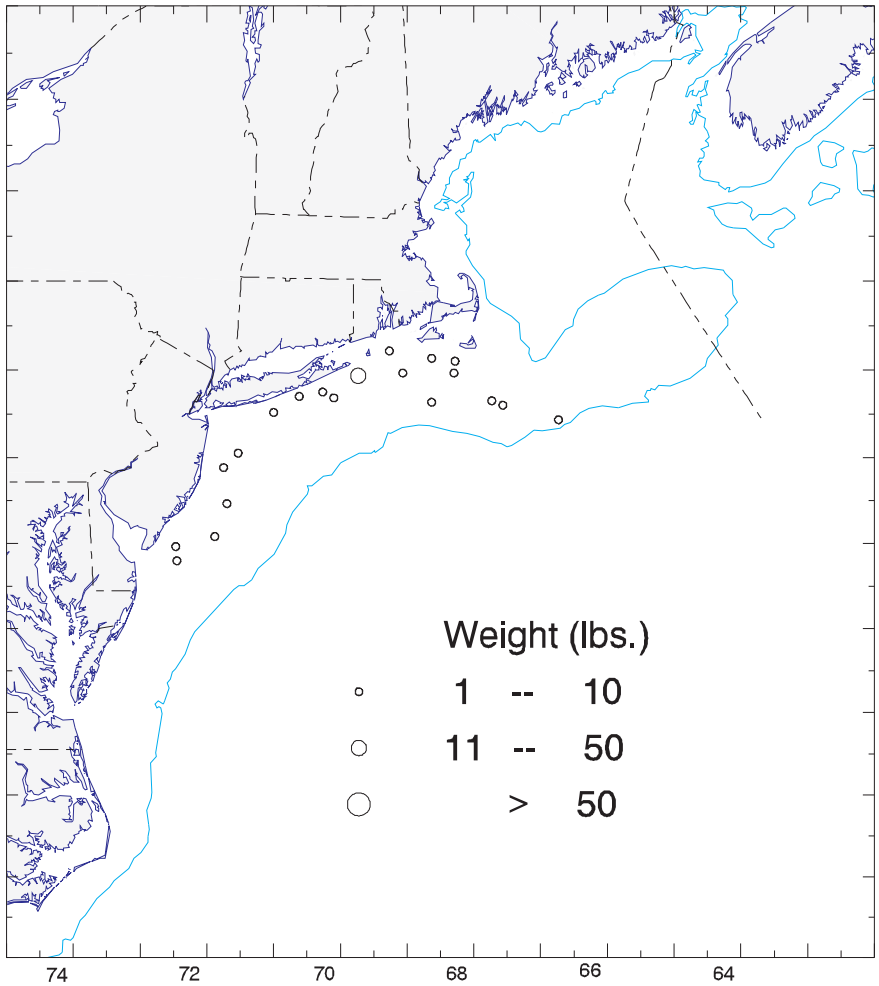
SUMMER FLOUNDER
NMFS-NEFSC Winter Bottom Trawl Survey
FEB 3 - FEB 28, 2004



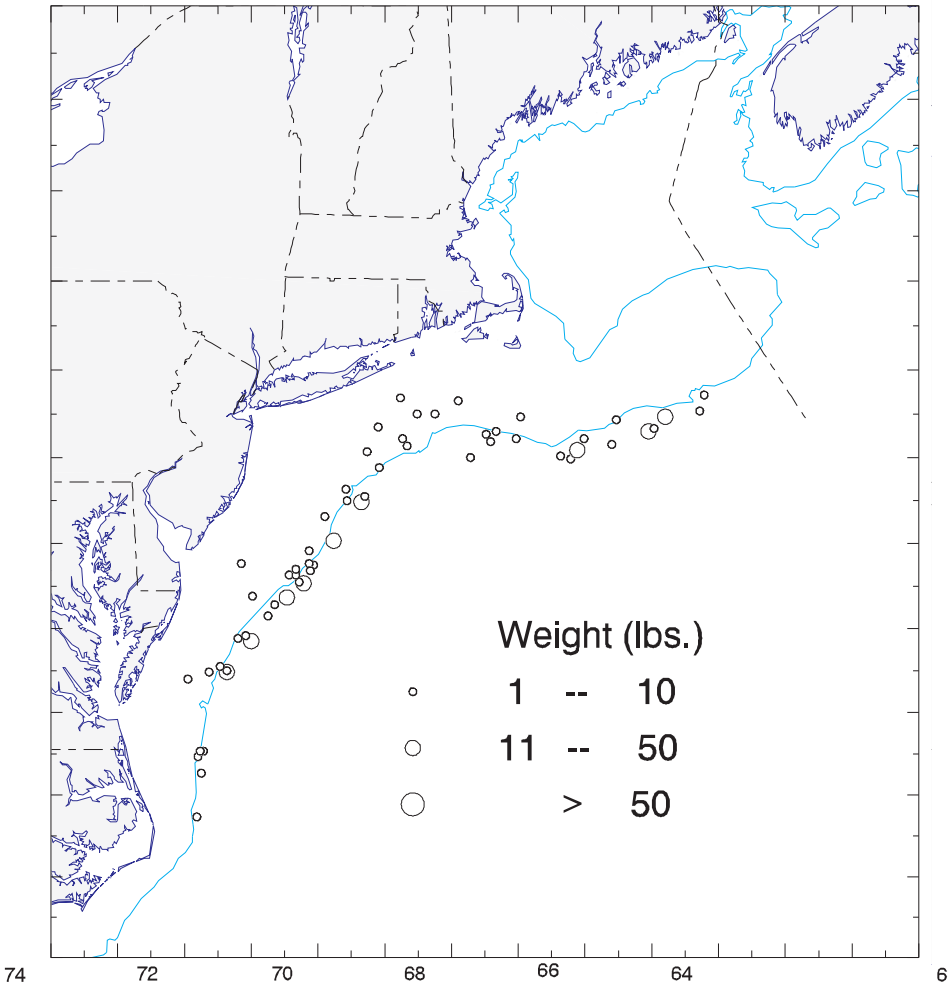
YELLOWTAIL FLOUNDER
NMFS-NEFSC Winter Bottom Trawl Survey
FEB 3 - FEB 28, 2004



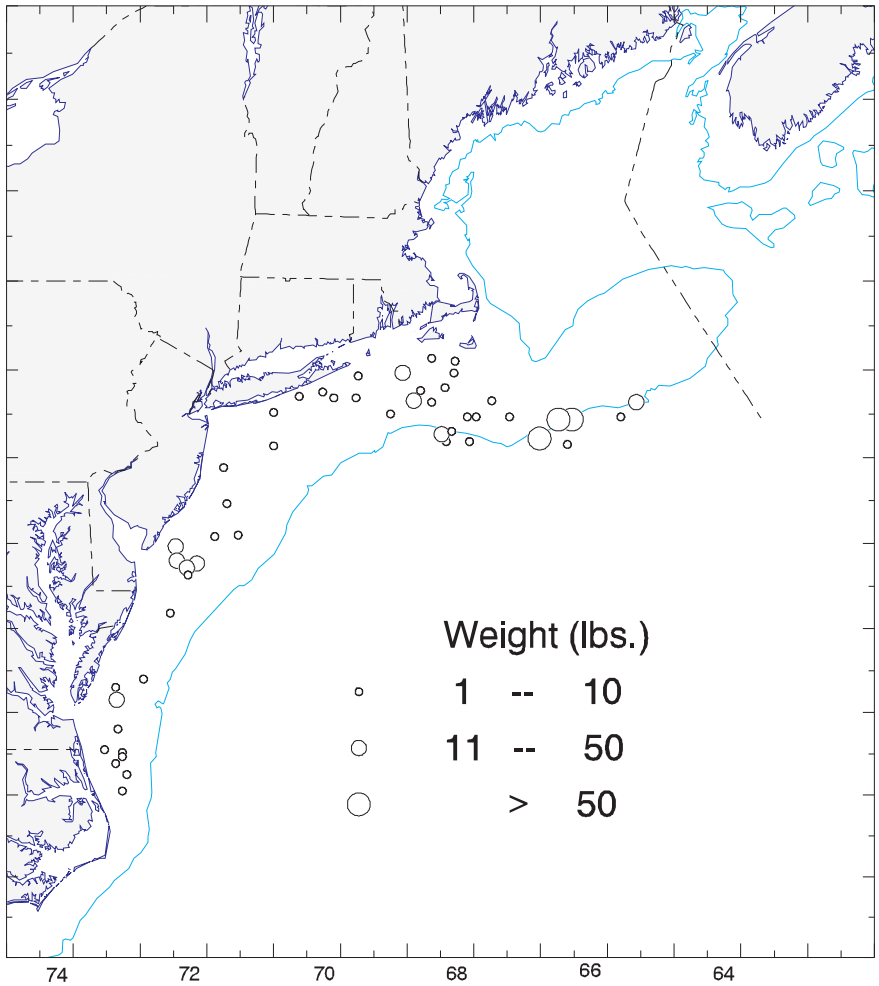
WINTER FLOUNDER
NMFS-NEFSC Winter Bottom Trawl Survey
FEB 3 - FEB 28, 2004



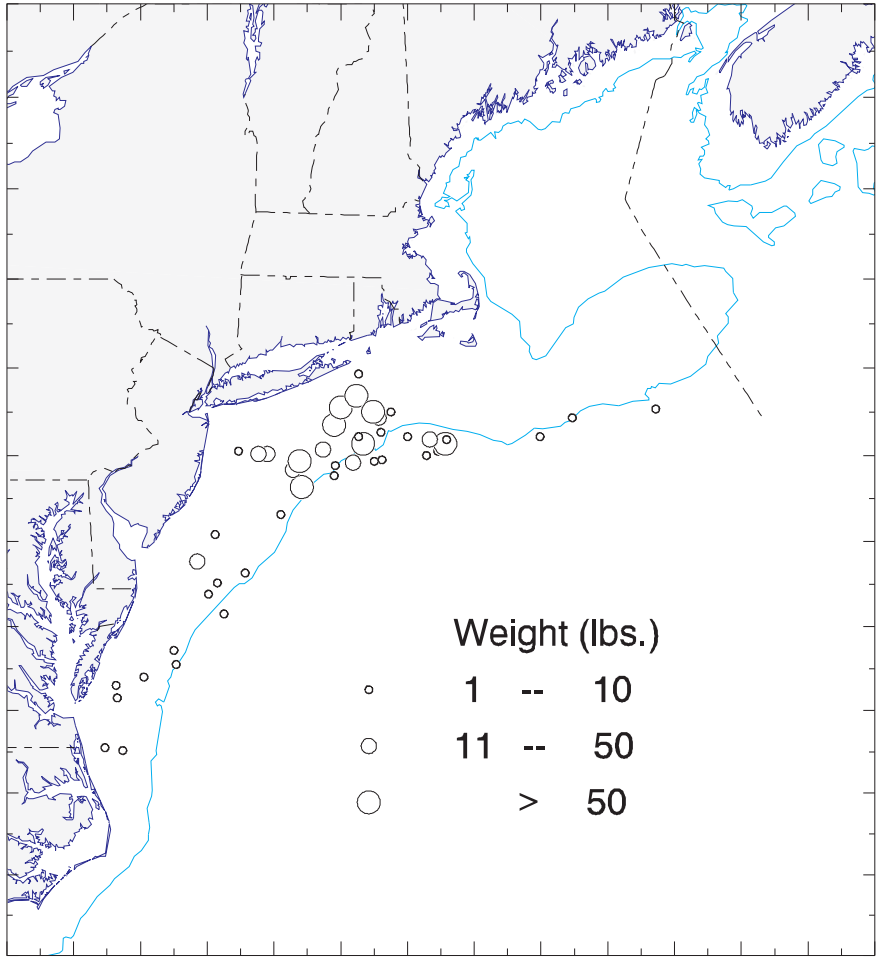
WITCH FLOUNDER
NMFS-NEFSC Winter Bottom Trawl Survey
FEB 3 - FEB 28, 2004



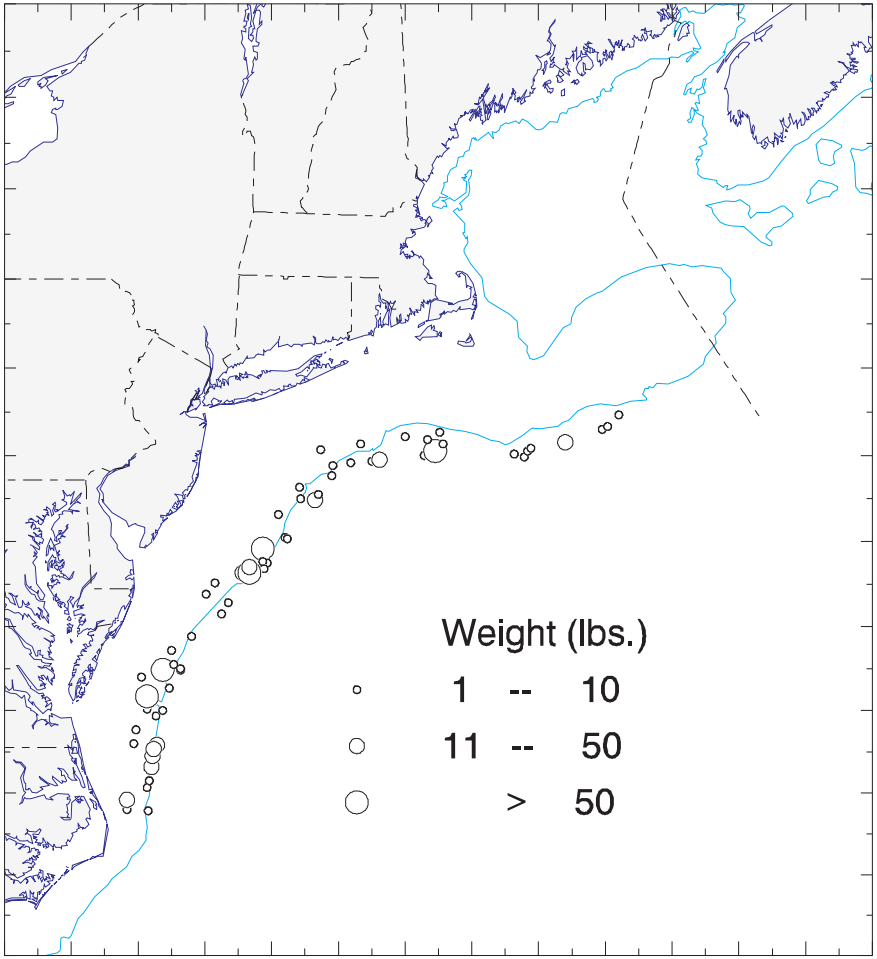
WINDOWPANE FLOUNDER
NMFS-NEFSC Winter Bottom Trawl Survey
FEB 3 - FEB 28, 2004



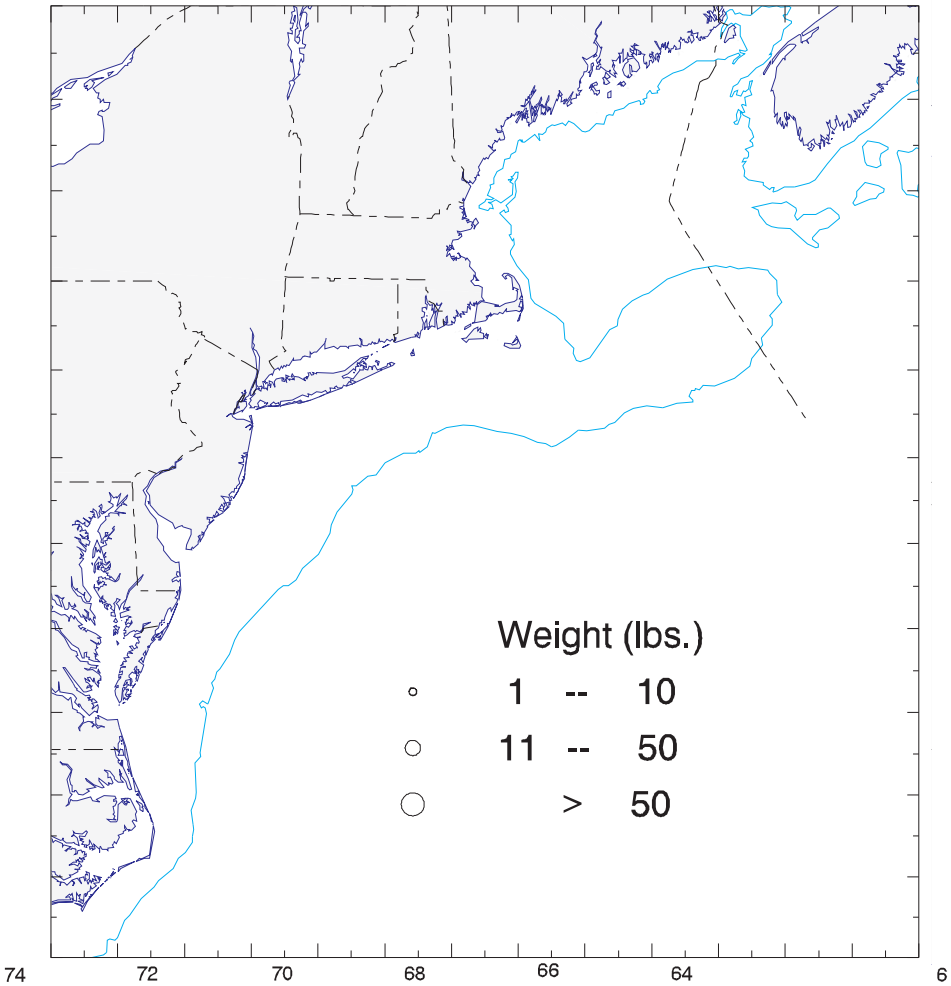
ATLANTIC MACKEREL
NMFS-NEFSC Winter Bottom Trawl Survey
FEB 3 - FEB 28, 2004



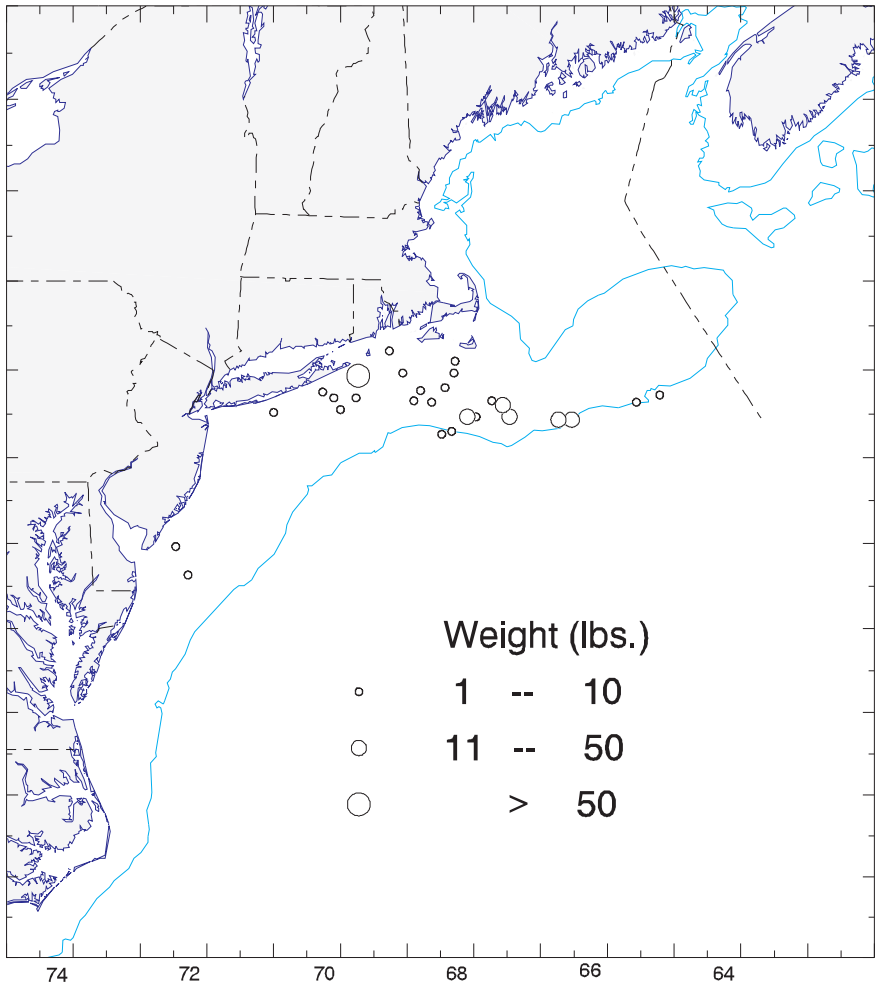
BUTTERFISH
NMFS-NEFSC Winter Bottom Trawl Survey
FEB 3 - FEB 28, 2004



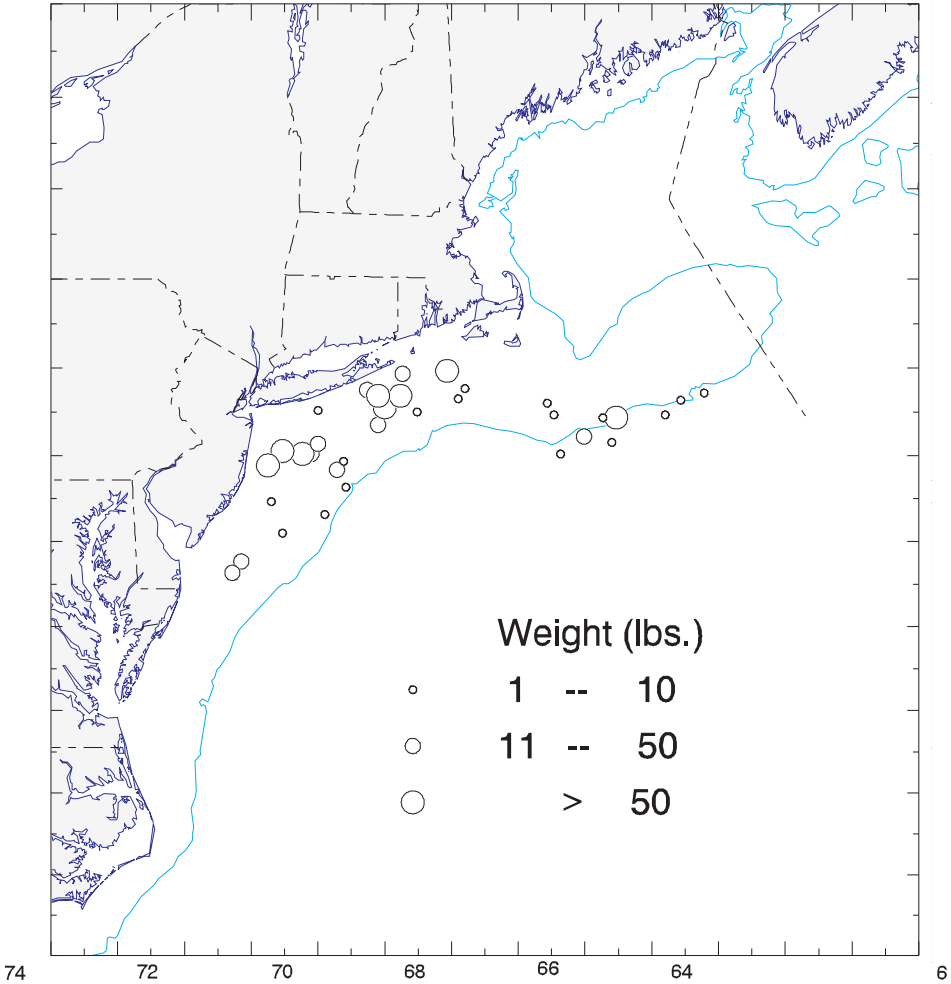
ACADIAN REDFISH
NMFS-NEFSC Winter Bottom Trawl Survey
FEB 3 - FEB 28, 2004



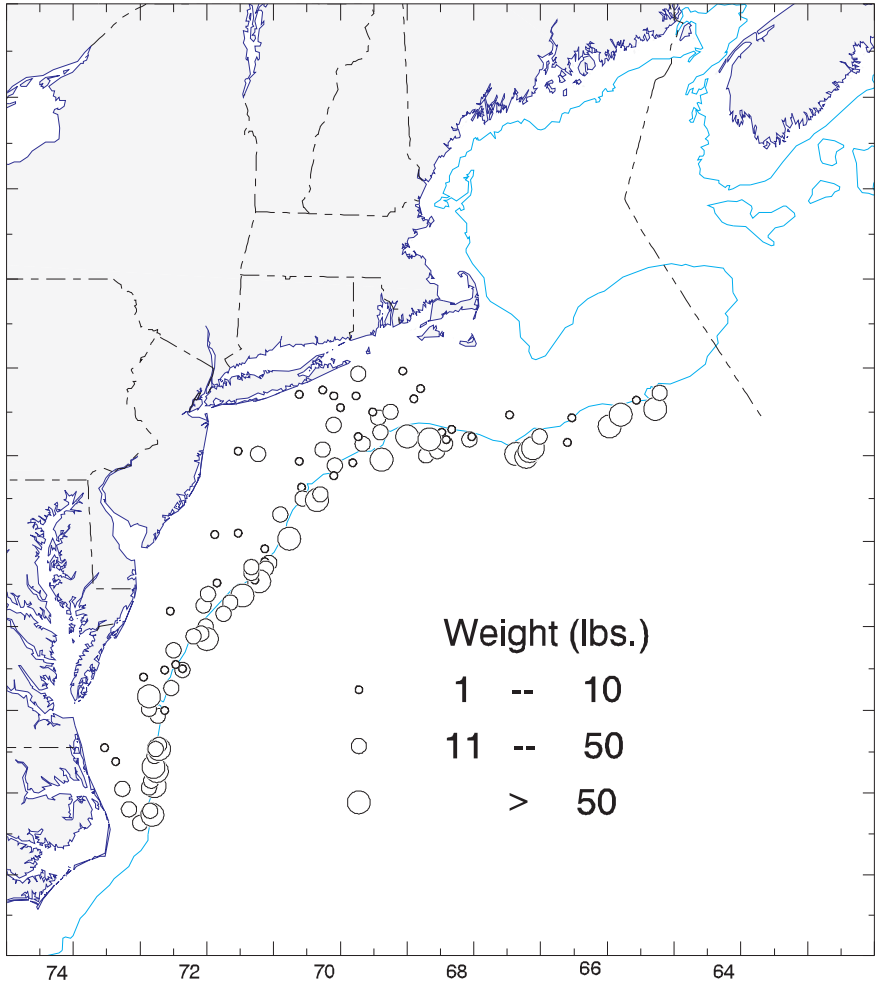
LONGHORN SCULPIN
NMFS-NEFSC Winter Bottom Trawl Survey
FEB 3 - FEB 28, 2004



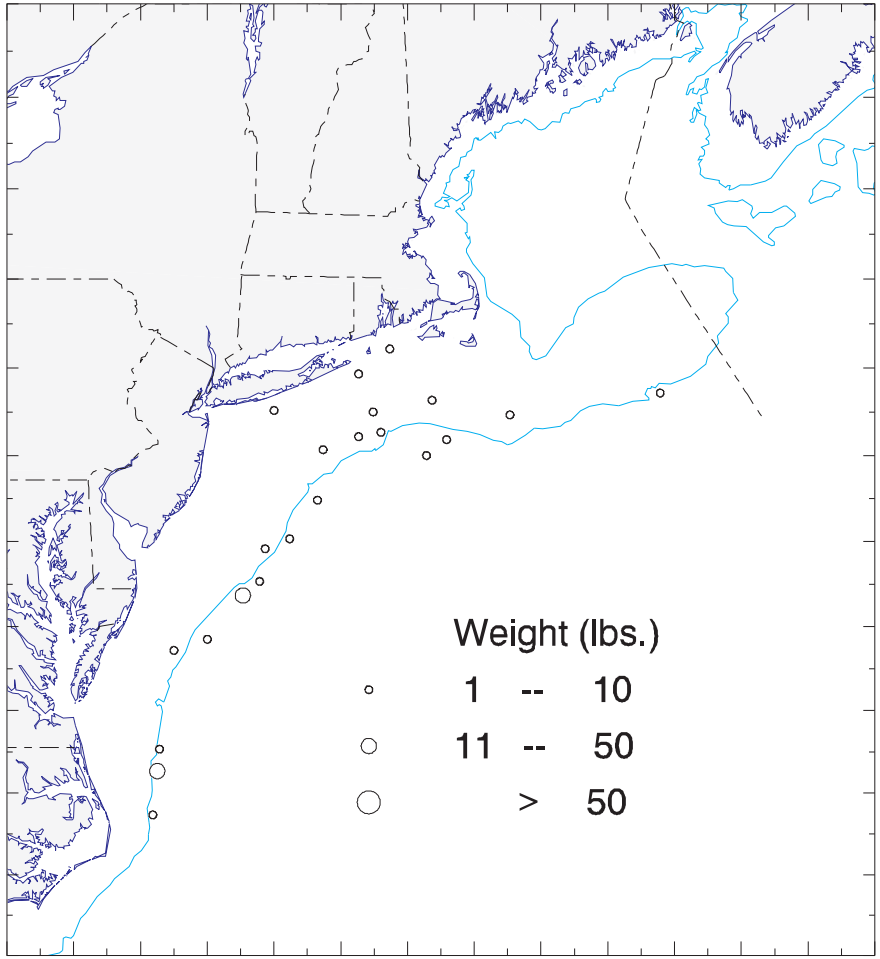
OCEAN POUT
NMFS-NEFSC Winter Bottom Trawl Survey
FEB 3 - FEB 28, 2004



GOOSEFISH
NMFS-NEFSC Winter Bottom Trawl Survey
FEB 3 - FEB 28, 2004

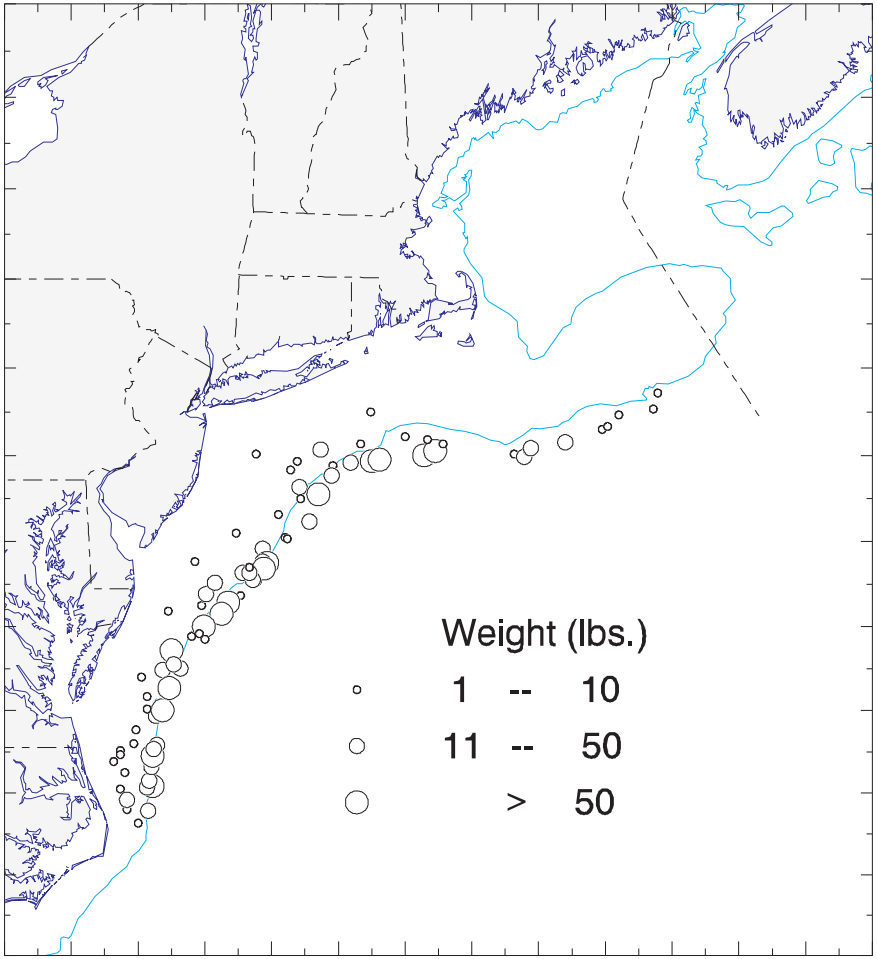


AMERICAN LOBSTER
NMFS-NEFSC Winter Bottom Trawl Survey
FEB 3 - FEB 28, 2004



74 72 70 68 66 64

LONGFIN SQUID
NMFS-NEFSC Winter Bottom Trawl Survey
FEB 3 - FEB 28, 2004



74 72 70 68 66 64