

RESOURCE SURVEY REPORT
Catch Summary
NOAA Fisheries Service Northeast
Fisheries Science Center
Spring Bottom Trawl Survey
Cape Hatteras -Gulf of Maine
28 February – 4 May 2012

Submitted to: NOAA, NEFSC

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Date: 2012

Resource Survey Report

Bottom Trawl Survey



Cape Hatteras – Gulf of Maine

28 February – 4 May 2012

NOAA FSV *Henry B Bigelow*

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



Scientist removing the otoliths from a six foot three inch, 212 pound Atlantic halibut (*Hippoglossus hippoglossus*)



A catch of juvenile haddock (*Melanogrammus aeglefinus*)



Scientists sorting a catch of Acadian redfish (*Sebastes fasciatus*)

Significant Changes to the NEFSC Bottom Trawl Survey

Many significant changes in survey methodology were implemented, beginning with the 2009 Spring Multispecies Bottom Trawl Survey, that have significant implications for the use of these data. Prior to 2009, multispecies bottom trawl surveys were conducted primarily on the NOAA FSV *Albatross IV* and occasionally on the NOAA FSV *Delaware II*. The 2009 survey was conducted using the NOAA FSV *Henry B. Bigelow*, which is equipped with an autotrawl system that balances warp tensions throughout the duration of survey tows.

The bottom trawl system used for sampling has also been changed. Prior to 2009, the survey was conducted with a Yankee 36 bottom trawl and 450-kg euronet polyvalent trawl doors. Beginning in 2009, the survey is being conducted using a 400 x 12, 4-seam bottom trawl designed and extensively tested with the fishing industry, fishery management, and academic stakeholders in conjunction with the Northeast Fisheries Science Center scientists through the mid-Atlantic and New England Trawl Survey Advisory Panel. The net was extensively tested on the FSV *Delaware II* and the FSV *Henry B. Bigelow* prior to being adopted as the standard survey gear. The bottom trawl is fished with 550-kg, 2.2-m Polyice oval trawl doors.

The survey towing speed was decreased from 3.8 knots prior to 2009 to 3.0 knots beginning in 2009. The new towing speed was selected after extensive scope and tow speed trials conducted on both the FSV *Delaware II* and the FSV *Henry B. Bigelow* and consideration of the range of species to be sampled. The tow duration was also changed from 30 minutes (timed from when the winches were locked until they were reengaged) to 20 minutes of actual bottom time (as determined by net monitoring systems). The adjustments to both tow speed and tow duration have resulted in a decrease of average tow distance from 1.9 nautical miles prior to 2009 to an average tow distance of 1.0 nautical miles beginning in 2009. The shorter tow distance allows us to conduct additional tows in areas that are constrained by fixed fishing gear, untrawlable bottom and steep contours along the edge of the continental shelf. While some commercial fishery stakeholders are likely to express concern about the reduction in tow duration, a preliminary analysis of the length frequency data from paired FSV *Albatross IV* and the FSV *Henry B. Bigelow* tows shows few differences in the largest sized fish of each species caught by the vessels.

Station allocation also changed significantly due to an increase in total available vessel time from 48 to 60 sea days and a reduction in inshore sampling by the FSV *Henry B. Bigelow*. At the time that inshore strata in the mid-Atlantic were historically sampled (September to early October), survey results indicate low densities of commercially and recreational species. These areas will continue to be sampled by the Northeast Area Monitoring and Assessment Program (NEAMAP) bottom trawl survey, although later in the year (late September through early October). As a result of station reallocation, station density was increased significantly in offshore strata that have historically

demonstrated higher densities of fish particularly in the mid-Atlantic and southern New England regions.

The Northeast Fisheries Science Center conducted an extensive comparison of the catchability of the FSV *Albatross IV* sampling with the Yankee 36 bottom trawl using historical protocols and the FSV *Henry B. Bigelow* sampling with the 400 x 12, 4-seam bottom trawl with revised protocols. The resulting dataset is one of the most comprehensive ever produced to study the catchability characteristics of a fisheries bottom trawl survey. A preliminary overall result is that the survey conducted by the FSV *Henry B. Bigelow* has significantly higher catch rates for nearly all species except those with very small total body size (e.g. anchovy species). The results of this study were peer reviewed in August 2009 and analytic approaches will be subsequently used to appropriately interpret pre-2009 survey results with 2009 and later results.

Given the changes in vessel, trawling gear, tow speed, tow duration, sample allocation and tows procedures, straight-forward comparisons of catches in this report with fall bottom trawl survey catches in previous Resource Survey Reports are not appropriate without employing statistical approaches that are reviewed and endorsed for stock assessment applications through peer review processes.

Russell Brown, Former Chief
Ecosystems Survey Branch

RESOURCE SURVEY REPORT

Catch Summary

NOAA Fisheries Service
Northeast Fisheries Science Center

Spring Bottom Trawl Survey
Cape Hatteras - Gulf of Maine
28 February – 4 May 2012

This report consists of field notes, station and catch summaries, and a series of geographical plots of commercially and recreationally important species caught during the Northeast Fisheries Science Center's 2012 Spring Bottom Trawl Survey conducted by the NOAA FSV *Henry B Bigelow*. Tows were made with a NEFSC standardized 4 seam, 3 bridle otter trawl rigged with a rockhopper sweep, 550kg (1200lbs) Poly Ice Oval doors, and 36.6m (20 fathoms) bridles. The cod end and upper belly were lined with 1/2-inch mesh to retain young-of-the-year fish.

Because of the 20-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 Robert Johnston (508-495-2061), NOAA Fisheries Service, Northeast Fisheries Science Center, 166 Water Street, Woods Hole, MA 02543. To view this report in PDF go the Ecosystems Surveys Branch website at: <http://www.nefsc.noaa.gov/esb> and choose:

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

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 FSV *Henry B. Bigelow*.

Delayed, but Not Defeated

Despite mechanical issues, Leg I was able to complete the southern portion of the survey area, as well as capture, tag and release four Atlantic sturgeon.

New Experiences

On Leg II, we intercepted a huge volume of green mud just south of Martha's Vineyard and cleanly blew out the fourth belly, as well as the codend of the trawl; the mud was also very difficult to clean out of both the net and the vessel. This leg was my first experience with FSCS 2.0 (an automatic data entry system which has been recently enhanced), our new station location planning interface, as well as with the ME-70 bathymetric package which ultimately saves vessel time in terms of scouting for towable areas to set the trawl.

Biologically, this leg was not too diverse as we mostly encountered the cooler water Mid-Atlantic Bight species like spotted hake, skates, butterfish, and *Loligo* squid.



One Hefty Halibut

The highlight of Leg III was the capture of a 212 lb halibut (pictured below). The fish was captured in 33 fathoms of water off the Winter Fishing Ground on Georges Bank, and measured in at 6' 3 inches. Analysis of the gonads revealed this fish to be a female. Otoliths were taken and preliminary aging attempts put the fish at 18 years old. The skeleton of the fish (minus the otoliths and the slight degree of damage to the skull extracting them) were sent to Cornell's Shoals Marine Laboratory for academic use in their marine science programs centered around the Gulf of Maine.



The largest halibut caught during our 49 years of surveys occurred back in 1978. During the Autumn Bottom Trawl Survey, a female Atlantic halibut measuring 7'3 inches and weighing 310 lbs (pictured below) was caught at the northern end of the Great South Channel at a depth of 93 fathoms. This fish was 24 years old.



As one of the true vertebrate giants of the Gulf of Maine, the halibut is eclipsed in the bony fish world in this region only by the swordfish, bluefin tuna, and ocean sunfish. However, considering the halibut is essentially a gargantuan flounder, in some ways it is the most unusual and impressive of the giant bony fishes of the Gulf of Maine. As impressive as this fish was, the idea that this species can reach over three times the size of what we saw this spring is almost impossible to imagine. We hope to see more captures like this large halibut in the future, and a recovery of this species to former abundance levels.

Surrounded by Gear

Leg 4 went very well even with all the extra stations around Stellwagen Bank and the north shore. The first week of the trip put the scientists to the test with stations right on top of one another and an abundance of different specimens to be sampled. However, this early workload made the second week, with stations

more spread out, a welcomed and deserved reward for the scientists and crew.

Lobster gear continues to make sampling difficult in inshore waters from Mass Bay to downeast Maine but we were able to carefully work around some of these high density gear areas.

Species on this cruise were the usual suspects seen in the Gulf of Maine including nice redfish tows, more and more halibut, many juvenile lobsters off the coast of downeast ME, and some of the biggest mackerel I've ever seen at the entrance of the Bay of Fundy. One small Atlantic salmon was captured during just a 5 minute tow and was returned back to the sea promptly after identification and measurements.

Drifters

A memorable diversion towards the end of the cruise was the deployment of two unmanned salmon drifter boats that acoustically track salmon and other tagged species in the Gulf of Maine and beyond. The small boats were deployed (picture below) on May 2, at 43^o12.4N and 068^o24.1W and were on a course southeast to exit the Gulf. However, a few days later a southwesterly wind blew the vessels back into the GOM where one was recovered on Scraggs Island (May 11) by the Swan's Island Harbormaster and the other recovered on the Isle au Haut (May 16) by a lobsterman. For more information about this project, go to: <http://www.nefsc.noaa.gov/rcb/news/features/wf1219/>



The rest of the leg went off without a hitch and we completed the survey ahead of schedule.

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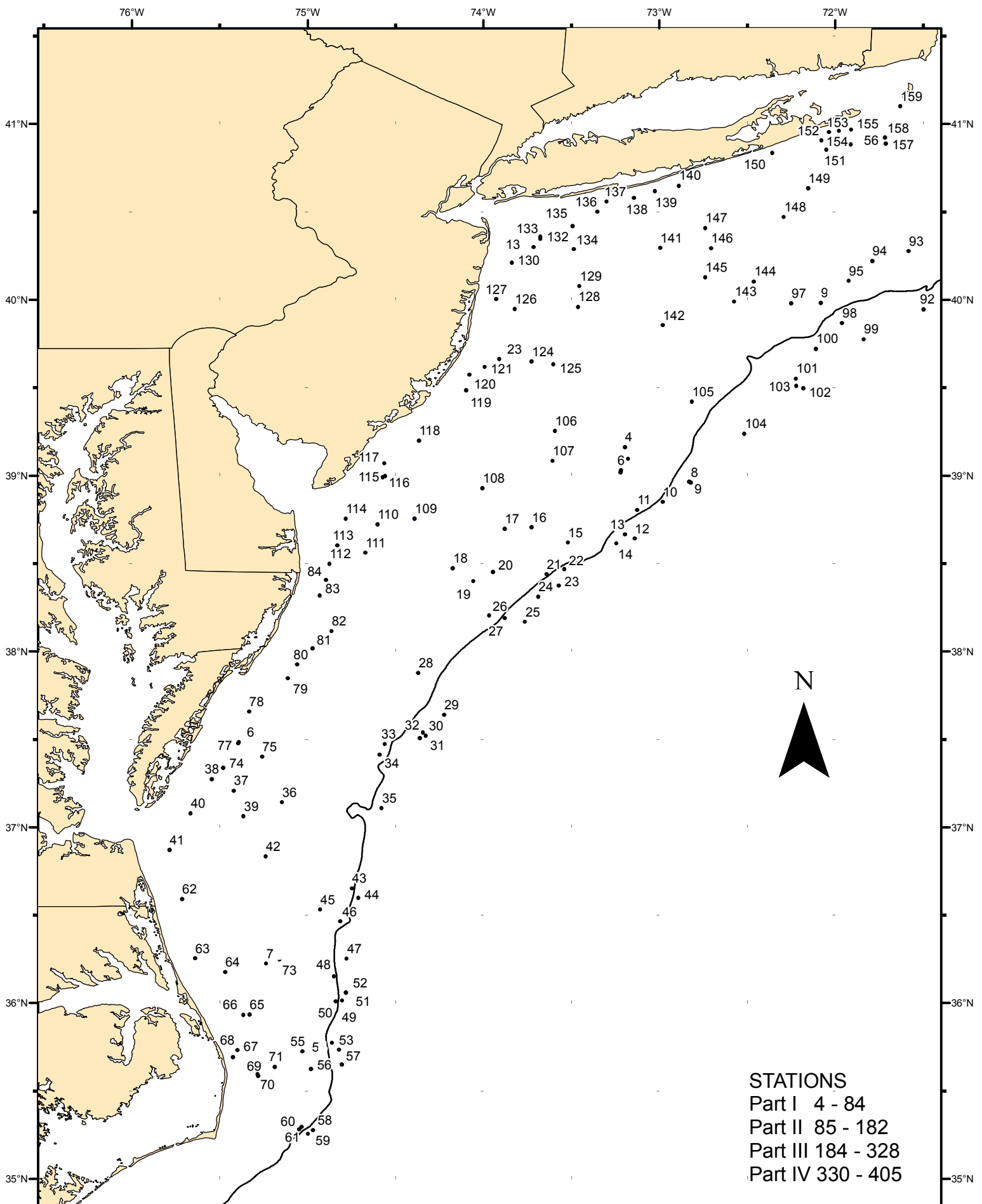


Figure 1 - Trawl hauls made from NOAA FSV *Henry B. Bigelow* (12-02), during NOAA Fisheries Service, Northeast Fisheries Center Spring Bottom Trawl Survey, 28 February - 4 May 2012

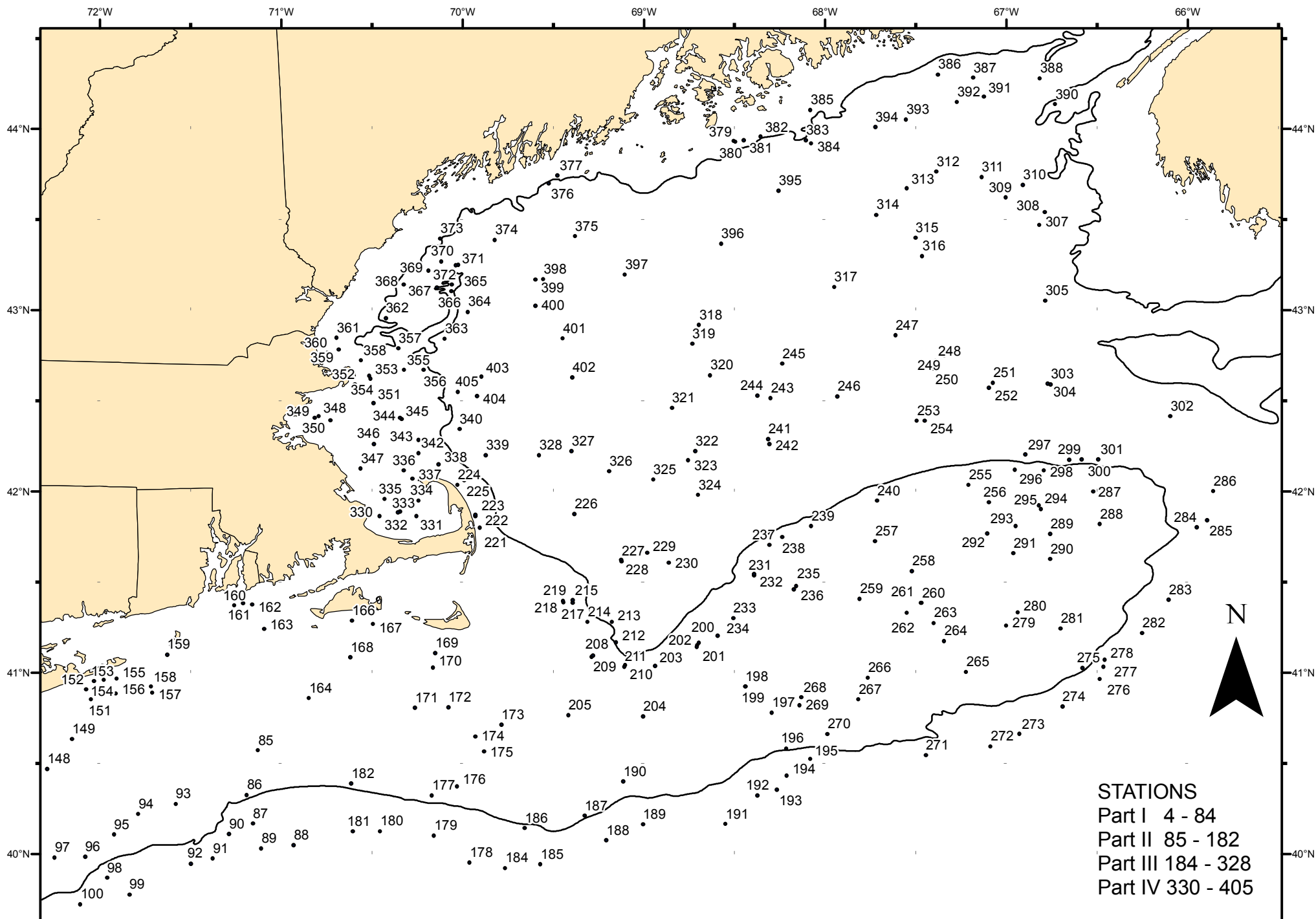


Figure 2 - Trawl hauls made from NOAA FSV *Henry B. Bigelow* (12-02), during NOAA Fisheries Service, Northeast Fisheries Center Spring Bottom Trawl Survey, 28 February - 4 May 2012

NOAA Fisheries Service SPRING BOTTOM TRAWL SURVEY
2012 STATION INFORMATION

Station	Date	Time	Lat	Lon	Loran TD's		Course	Bottom Depth (FM)	Temp (F)
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0004	Feb-29	0439	3909.7	7311.7	X26502.7	Y42911.4	172	36.1	50.5
0005	Feb-29	0616	3905.6	7310.5	X26491.7	Y42871.6	218	37.7	51.9
0006	Feb-29	0840	3901.8	7313.0	X26504.2	Y42833.2	221	39.9	
0007	Feb-29	1004	3901.0	7313.2	X26504.7	Y42825.7	233	39.4	53.4
0008	Feb-29	1520	3857.6	7249.2	X26352.2	Y42798.5	233	155.8	49.6
0009	Feb-29	1821	3857.9	7249.8	X26356.3	Y42801.2	222	105.5	54.8
0010	Feb-29	2144	3850.9	7258.8	X26408.6	Y42731.9	040	64.5	55.3
0011	Feb-29	2346	3848.2	7307.5	X26460.1	Y42701.9	217	47.6	54.1
0012	Mar-01	0250	3838.4	7308.4	X26459.7	Y42606.1	288	129.6	
0013	Mar-01	0511	3839.8	7311.7	X26480.3	Y42617.4	213	71.6	54.3
0014	Mar-01	0635	3836.7	7314.6	X26495.2	Y42585.9	228	74.9	55.1
0015	Mar-01	1152	3837.1	7331.1	X26592.6	Y42579.3	175	39.9	53.1
0016	Mar-01	1415	3842.3	7343.5	X26671.8	Y42625.4	210	31.2	48.4
0017	Mar-01	1602	3841.8	7352.7	X26725.7	Y42614.6	199	26.2	47.7
0018	Mar-01	1853	3828.3	7410.4	X26808.6	Y42460.8	177	27.9	50.3
0019	Mar-01	2058	3823.8	7403.3	X26762.7	Y42418.8	070	33.4	50.4
0020	Mar-01	2252	3827.1	7356.8	X26730.0	Y42459.0	059	32.8	48.9
0021	Mar-02	0129	3826.2	7338.5	X26624.9	Y42464.4	046	50.9	54.2
0022	Mar-02	0427	3828.0	7332.3	X26591.4	Y42486.7	039	71.6	55.4
0023	Mar-02	0821	3822.3	7334.3	X26597.7	Y42428.2	028	173.3	49.9
0024	Mar-02	1048	3818.6	7341.2	X26633.2	Y42384.1	041	66.7	55.1
0025	Mar-02	1340	3809.9	7345.8	X26649.7	Y42291.6	044	68.9	56.5
0026	Mar-02	1638	3811.2	7352.7	X26688.6	Y42297.5	354	137.2	55.5
0027	Mar-02	1838	3812.2	7357.9	X26718.3	Y42302.1	032	39.4	52.9
0028	Mar-02	2231	3752.5	7422.2	X26821.6	Y42067.3	134	36.6	51.0
0029	Mar-03	0220	3738.3	7413.4	X26760.1	Y41929.6	245	166.2	46.7
0030	Mar-03	0414	3732.3	7420.5	X26788.2	Y41856.0	191	79.3	56.2
0031	Mar-03	0623	3731.2	7419.6	X26782.3	Y41845.3	216	136.2	48.9
0032	Mar-03	0835	3730.3	7421.7	X26791.4	Y41833.1	208	87.5	56.8
0033	Mar-03	1058	3728.3	7433.6	X26846.2	Y41792.3	230	34.4	54.3
0034	Mar-03	1216	3724.6	7435.4	X26850.1	Y41750.4	225	43.2	54.4
0035	Mar-03	1517	3706.5	7434.7	X26824.7	Y41560.4	006	67.3	58.8
0036	Mar-03	1846	3708.4	7508.7	X26980.0	Y41514.5	198	18.0	48.9
0037	Mar-03	2100	3712.4	7525.2	X27059.2	Y41528.1	174	15.3	47.9
0038	Mar-03	2251	3716.4	7532.6	X27098.5	Y41559.9	102	10.9	47.5
0039	Mar-04	0123	3703.7	7521.8	X27030.2	Y41437.2	215	16.4	49.2
0040	Mar-04	0357	3704.8	7540.0	X27109.6	Y41414.8	189	9.8	48.1
0041	Mar-04	0636	3652.2	7547.1	X27117.9	Y41258.7	227	10.9	47.8
0042	Mar-04	1525	3650.0	7514.2	X26977.3	Y41302.7	044	15.9	50.3
0043	Mar-04	1843	3639.1	7444.8	X26838.7	Y41254.4	036	47.6	53.6
0044	Mar-04	2214	3635.8	7442.6	X26825.7	Y41226.0	357	134.5	48.6
0045	Mar-05	0025	3631.8	7455.7	X26876.2	Y41153.1	213	23.0	52.8
0046	Mar-05	0218	3627.9	7448.9	X26843.8	Y41129.2	213	41.6	54.1
0047	Mar-05	0456	3615.0	7446.6	X26821.2	Y41006.4	018	134.0	
0048	Mar-05	0650	3609.1	7451.0	X26832.9	Y40935.3	187	49.8	56.7
0049	Mar-05	0915	3600.7	7448.1	X26813.5	Y40861.7	196	95.7	57.1
0050	Mar-05	1101	3600.6	7450.4	X26822.4	Y40853.4	186	54.1	56.6
0051	Mar-05	1439	3603.6	7446.8	X26811.1	Y40893.4	358	146.5	

NOAA Fisheries Service SPRING BOTTOM TRAWL SURVEY
2012 STATION INFORMATION

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0052	Mar-05	1605	3603.5	7447.0	X26811.6	Y40892.3	147	139.4	47.9
0053	Mar-06	0238	3544.0	7449.3	X26803.2	Y40699.0	323	155.3	47.3
0054	Mar-06	0531	3546.3	7451.6	X26814.0	Y40713.1	328	63.4	57.5
0055	Mar-06	0920	3543.4	7501.8	X26849.7	Y40653.1	021	25.2	51.3
0056	Mar-06	1126	3537.5	7458.8	X26833.0	Y40606.4	348	26.8	51.4
0057	Mar-06	1417	3539.0	7448.3	X26795.2	Y40655.0	341	74.9	
0059	Mar-06	2043	3516.6	7458.1	X26812.4	Y40419.9	256	124.1	
0060	Mar-06	2257	3516.8	7502.9	X26829.6	Y40404.3	265	39.4	
0062	Mar-12	1450	3635.5	7542.8	X27073.7	Y41080.0	197	12.6	49.4
0063	Mar-12	1718	3615.2	7538.4	X27026.8	Y40869.2	165	13.1	50.0
0064	Mar-12	1905	3610.4	7528.1	X26980.6	Y40845.4	219	15.3	50.6
0065	Mar-12	2118	3556.1	7519.8	X26931.2	Y40721.6	190	17.5	54.3
0066	Mar-12	2233	3556.0	7521.8	X26938.7	Y40714.1	190	13.7	55.0
0067	Mar-13	0028	3543.9	7523.9	X26932.8	Y40586.1	184	14.8	56.6
0068	Mar-13	0151	3541.5	7525.4	X26935.9	Y40557.6	149	11.5	55.2
0069	Mar-13	0347	3535.1	7516.9	X26897.8	Y40523.4	344	13.7	
0070	Mar-13	0441	3535.8	7517.0	X26898.8	Y40529.6	180	13.1	62.2
0071	Mar-13	0652	3538.2	7511.2	X26879.9	Y40571.7	004	19.1	61.6
0072	Mar-13	1046	3613.4	7514.1	X26929.5	Y40914.3	008	14.8	51.6
0073	Mar-13	1213	3614.8	7509.5	X26912.6	Y40941.3	007	21.3	52.6
0074	Mar-13	1806	3720.3	7528.7	X27088.1	Y41610.8	013	11.5	
0075	Mar-13	1955	3724.0	7515.5	X27035.3	Y41674.5	025	18.6	49.9
0076	Mar-13	2130	3729.0	7523.3	X27079.5	Y41718.2	043	12.6	
0077	Mar-13	2339	3728.5	7523.7	X27080.3	Y41712.0	038	13.1	49.1
0078	Mar-14	0201	3739.4	7520.0	X27082.8	Y41840.9	208	9.8	48.7
0079	Mar-14	0435	3750.8	7506.8	X27041.4	Y41988.4	048	13.7	48.3
0080	Mar-14	0647	3755.5	7503.6	X27034.4	Y42045.1	206	13.7	48.2
0081	Mar-14	0833	3800.9	7458.3	X27018.1	Y42113.1	031	12.0	48.1
0082	Mar-14	1113	3806.9	7451.8	X26996.0	Y42186.9	056	17.0	48.1
0083	Mar-14	1304	3819.1	7455.8	X27039.9	Y42318.7	013	11.5	47.4
0084	Mar-14	1409	3824.3	7453.7	X27039.2	Y42379.8	028	10.9	47.1
0085	Mar-19	2117	4034.1	7107.6	X25608.0	Y43584.1	250	38.8	45.9
0086	Mar-19	2355	4019.4	7111.3	X25651.9	Y43474.9	090	48.7	54.5
0087	Mar-20	0230	4009.9	7109.4	X25650.6	Y43399.1	082	72.2	56.8
0088	Mar-20	0500	4002.8	7055.9	X25572.1	Y43335.6	277	115.9	52.5
0089	Mar-20	0751	4001.6	7106.5	X25644.0	Y43332.8	091	136.7	50.3
0090	Mar-20	1018	4006.4	7117.2	X25710.2	Y43377.7	225	61.8	56.8
0091	Mar-20	1246	3958.3	7122.6	X25757.5	Y43316.3	243	103.9	51.5
0092	Mar-20	1437	3956.7	7129.8	X25809.2	Y43307.1	069	80.4	55.5
0093	Mar-20	1721	4016.4	7134.8	X25830.6	Y43470.9	270	46.5	55.8
0094	Mar-20	1909	4013.1	7147.2	X25926.2	Y43453.6	237	43.7	56.2
0095	Mar-20	2051	4006.3	7155.3	X25988.3	Y43403.4	254	42.1	52.1
0096	Mar-20	2247	3958.9	7204.9	X26060.3	Y43347.0	275	43.7	54.4
0097	Mar-21	0033	3958.7	7214.9	X26134.9	Y43351.6	210	43.7	53.1
0098	Mar-21	0313	3951.9	7157.6	X26008.7	Y43282.6	213	65.1	57.7
0099	Mar-21	0522	3946.4	7150.2	X25958.7	Y43232.1	232	136.2	49.9

NOAA Fisheries Service SPRING BOTTOM TRAWL SURVEY
2012 STATION INFORMATION

Station	Date	Time	Lat	Lon	Loran		Course	Bottom Depth (FM)	Temp (F)
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0100	Mar-21	0732	3943.2	7206.5	X26073.7	Y43211.8	212	68.4	56.9
0101	Mar-21	0929	3933.0	7213.3	X26122.2	Y43123.7	217	77.1	56.2
0102	Mar-21	1156	3929.8	7210.9	X26106.4	Y43094.6	292	135.6	46.4
0103	Mar-21	1416	3930.5	7213.2	X26121.9	Y43102.0	121	129.6	55.0
0104	Mar-21	1735	3914.2	7230.9	X26239.7	Y42956.3	197	77.6	55.0
0105	Mar-21	2012	3925.2	7248.8	X26362.3	Y43060.0	239	37.7	49.8
0106	Mar-22	0013	3915.1	7335.5	X26664.2	Y42963.9	221	26.2	48.1
0107	Mar-22	0200	3904.9	7336.4	X26655.8	Y42859.8	217	25.2	47.0
0108	Mar-22	0433	3855.7	7400.3	X26791.3	Y42756.8	205	20.2	47.2
0109	Mar-22	0716	3845.2	7423.5	X26911.4	Y42633.5	201	19.7	48.0
0110	Mar-22	0904	3843.3	7436.1	X26980.6	Y42604.9	212	18.0	48.0
0111	Mar-22	1047	3833.6	7440.3	X26984.8	Y42494.0	189	12.0	48.6
0112	Mar-22	1247	3829.9	7452.5	X27043.9	Y42442.7	345	9.8	47.9
0113	Mar-22	1412	3836.0	7449.8	X27042.0	Y42513.8	327	13.7	48.3
0114	Mar-22	1542	3845.3	7446.9	X27046.1	Y42619.1	039	8.7	49.6
0115	Mar-22	1830	3859.7	7433.5	X26999.8	Y42786.7	209	9.8	48.3
0116	Mar-22	1930	3859.3	7434.3	X27003.6	Y42782.1	345	10.4	48.5
0117	Mar-22	2048	3904.0	7433.8	X27010.6	Y42833.9	022	9.8	47.7
0118	Mar-22	2234	3911.9	7422.0	X26955.5	Y42923.2	042	10.9	46.5
0119	Mar-23	0114	3929.0	7405.9	X26888.9	Y43108.0	020	10.9	46.4
0120	Mar-23	0231	3934.3	7404.7	X26892.0	Y43163.1	024	10.9	46.1
0121	Mar-23	0344	3937.0	7359.5	X26862.7	Y43190.8	052	13.1	45.4
0123	Mar-23	0457	3939.7	7354.5	X26833.6	Y43218.2	004	14.8	45.7
0124	Mar-23	0713	3938.8	7343.5	X26756.2	Y43206.1	211	14.2	47.0
0125	Mar-23	0852	3937.8	7336.0	X26702.4	Y43193.8	346	19.1	47.0
0126	Mar-23	1130	3956.8	7349.3	X26833.5	Y43391.4	288	14.2	46.1
0127	Mar-23	1251	4000.0	7355.6	X26886.4	Y43428.0	071	12.0	46.1
0128	Mar-23	1543	3957.5	7327.6	X26676.3	Y43386.0	340	23.5	47.5
0129	Mar-23	1719	4004.5	7327.1	X26685.6	Y43454.3	309	27.3	48.0
0130	Mar-23	1951	4012.5	7350.3	X26877.5	Y43551.2	357	14.2	46.6
0131	Mar-23	2132	4017.8	7342.9	X26834.1	Y43597.9	325	15.3	46.3
0132	Mar-23	2303	4021.4	7340.5	X26824.6	Y43630.9	110	14.8	
0133	Mar-23	2350	4020.8	7340.5	X26823.0	Y43624.9		14.8	46.4
0134	Mar-24	0209	4017.2	7329.1	X26726.2	Y43579.0	075	17.0	46.5
0135	Mar-24	0337	4025.0	7329.6	X26747.5	Y43655.5	324	13.7	46.0
0136	Mar-24	0512	4029.9	7321.1	X26691.2	Y43692.3	072	13.1	45.4
0137	Mar-24	0651	4033.4	7317.9	X26672.8	Y43721.5	121	12.6	45.4
0138	Mar-24	0820	4034.6	7308.7	X26600.5	Y43721.7	137	14.2	45.1
0139	Mar-24	0947	4036.9	7301.4	X26546.0	Y43734.0	046	12.6	45.1
0140	Mar-24	1114	4038.8	7253.3	X26482.3	Y43741.1	084	15.3	45.1
0141	Mar-24	1410	4017.6	7259.6	X26496.6	Y43556.1	173	23.5	46.1
0142	Mar-24	1719	3951.2	7258.8	X26454.7	Y43309.7	129	39.9	48.8
0143	Mar-24	2005	3959.3	7234.4	X26280.6	Y43369.3	074	34.4	48.5
0144	Mar-24	2149	4006.1	7227.7	X26234.8	Y43425.7	098	33.4	47.9
0145	Mar-25	0023	4007.6	7244.3	X26363.4	Y43451.6	044	30.1	48.3
0146	Mar-25	0221	4017.5	7242.3	X26359.5	Y43539.2	099	28.4	47.7
0147	Mar-25	0413	4024.4	7244.2	X26384.0	Y43603.0	113	25.7	46.6
0148	Mar-25	0713	4028.0	7217.4	X26170.7	Y43606.9	083	31.7	47.4

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0149	Mar-25	0928	4037.9	7209.2	X26112.5	Y43680.2	092	27.3	47.5
0150	Mar-25	1206	4049.9	7221.4	X26232.2	Y43794.6	064	14.8	47.8
0151	Mar-25	1420	4051.1	7202.9	X26074.8	Y43779.2	080	21.3	46.7
0152	Mar-25	1543	4054.3	7204.6	X26094.6	Y43807.3	054	17.0	47.0
0153	Mar-25	1710	4057.0	7202.0	X26076.5	Y43825.6	042	14.2	47.0
0154	Mar-25	1804	4057.5	7158.7	X26047.9	Y43824.8	046	15.3	47.1
0155	Mar-25	1911	4057.8	7154.5	X26011.9	Y43821.4	076	16.4	47.4
0156	Mar-25	2054	4052.9	7154.7	X26006.4	Y43783.1	106	19.7	46.8
0157	Mar-25	2255	4053.2	7142.7	X25902.6	Y43769.5	020	32.3	47.7
0158	Mar-26	0025	4055.2	7143.0	X25908.0	Y43785.8	001	31.7	47.5
0159	Mar-26	0324	4105.9	7137.7	X25877.2	Y43859.4	067	18.0	47.3
0160	Mar-26	0656	4122.1	7115.4	X25712.5	Y43943.3	129	16.4	44.2
0161	Mar-26	0834	4122.8	7112.6	X25689.4	Y43943.9	197	14.8	44.7
0162	Mar-26	1028	4122.5	7109.6	X25660.8	Y43936.9	250	14.8	45.1
0163	Mar-26	1241	4114.3	7105.6	X25604.5	Y43874.5	198	23.5	44.7
0164	Mar-26	1655	4051.5	7050.8	X25458.2	Y43693.7	344	29.5	45.2
0166	Mar-27	0023	4117.0	7036.6	X25348.3	Y43853.3	316	14.2	45.0
0167	Mar-27	0215	4116.0	7029.5	X25282.1	Y43837.0	305	13.7	
0168	Mar-27	0810	4105.1	7037.1	X25338.1	Y43772.8	330	24.1	44.8
0169	Mar-27	1116	4106.4	7009.0	X25100.6	Y43748.2	260	14.2	45.5
0170	Mar-27	1251	4101.6	7009.7	X25119.2	Y43716.9	002	13.7	44.8
0171	Mar-27	1528	4048.2	7015.7	X25200.0	Y43633.4	333	24.6	44.5
0172	Mar-27	1724	4048.4	7004.7	X25136.0	Y43623.4	334	15.9	44.8
0173	Mar-27	2025	4042.6	6947.1	W14021.4	Y43568.2	339	26.8	44.9
0174	Mar-27	2210	4038.7	6955.7	W14081.1	Y43549.4	304	30.1	44.9
0175	Mar-28	0006	4033.7	6952.8	W14083.0	Y43513.3	289	35.0	45.0
0176	Mar-28	0248	4022.3	7001.8	X25215.0	Y43441.6	285	44.3	45.4
0177	Mar-28	0416	4019.2	7010.1	X25264.1	Y43426.0	302	47.6	45.1
0178	Mar-28	0823	3957.0	6957.6	W14224.7	Y43260.7	255	107.7	
0179	Mar-28	1106	4006.0	7009.4	X25302.5	Y43331.3	261	83.7	55.1
0180	Mar-28	1344	4007.4	7027.2	X25389.0	Y43351.9	251	65.1	54.9
0181	Mar-28	1551	4007.3	7036.2	X25441.1	Y43356.8	220	67.8	57.7
0182	Mar-28	1850	4023.2	7036.8	X25404.6	Y43474.9	227	47.6	45.6
0184	Apr-03	0006	3955.2	6945.8	W14171.0	Y43242.3	287	132.9	49.4
0185	Apr-03	0301	3956.5	6934.1	W14109.3	Y43246.6	301	112.6	51.1
0186	Apr-03	0511	4008.4	6939.4	W14098.2	Y43330.8	334	52.5	51.0
0187	Apr-03	0929	4012.5	6919.6	W13986.1	Y43347.2	006	49.8	46.0
0188	Apr-03	1156	4004.4	6912.4	W13977.8	Y43289.9	223	69.4	
0189	Apr-03	1441	4009.6	6900.2	W13901.8	Y43318.1	298	78.2	54.9
0190	Apr-03	1705	4023.9	6906.8	W13883.6	Y43414.3	332	47.0	44.1
0191	Apr-03	2136	4009.8	6832.9	W13773.1	Y43305.7	008	105.0	
0192	Apr-04	0024	4019.3	6822.4	W13690.2	Y43359.1	233	73.3	56.9
0193	Apr-04	0225	4021.2	6815.9	W13653.6	Y43367.5	269	77.1	54.9
0194	Apr-04	0422	4025.8	6812.5	W13620.9	Y43393.3	032	73.3	51.5
0195	Apr-04	0559	4031.2	6804.8	W13565.1	Y43421.2	090	60.1	49.0
0196	Apr-04	0746	4034.8	6812.7	W13586.8	Y43447.1	306	52.5	45.0
0197	Apr-04	1008	4046.7	6817.5	W13560.8	Y43520.8	122	31.7	44.2
0198	Apr-04	1247	4055.3	6826.4	W13566.5	Y43578.5	188	28.4	

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0199	Apr-04	1321	4055.3	6826.3	W13566.4	Y43578.3	325	28.4	45.0
0200	Apr-04	1559	4109.0	6842.2	W13584.3	Y43673.3	013	36.6	
0201	Apr-04	1702	4109.8	6841.7	W13578.4	Y43677.1	205	36.6	
0202	Apr-04	1826	4108.5	6842.4	W13587.4	Y43670.4	029	36.6	
0203	Apr-04	2129	4102.1	6856.1	W13682.8	Y43645.0	243	43.2	
0204	Apr-05	0038	4045.4	6900.2	W13770.5	Y43545.7	356	39.9	45.0
0205	Apr-05	0344	4045.8	6924.9	W13893.7	Y43569.2	049	19.1	44.4
0208	Apr-05	1020	4105.2	6917.1	W13776.7	Y43684.3	039	32.3	
0209	Apr-05	1116	4105.6	6916.7	W13773.0	Y43686.0	169	31.2	
0210	Apr-05	1323	4102.5	6906.1	W13731.1	Y43656.6	004	44.3	
0211	Apr-05	1453	4101.9	6906.3	W13734.8	Y43653.5	034	44.8	44.4
0212	Apr-05	1722	4110.0	6909.0	W13714.7	Y43705.5	134	54.7	43.7
0213	Apr-05	1929	4116.6	6910.4	W13693.7	Y43746.9	147	53.6	43.5
0214	Apr-05	2120	4116.7	6918.5	W13735.3	Y43756.2	156	41.6	43.7
0215	Apr-05	2331	4123.9	6923.5	W13730.7	Y43805.4	176	24.1	
0217	Apr-06	0308	4123.0	6923.5	W13734.4	Y43800.1	357	21.9	43.7
0218	Apr-06	0435	4123.2	6926.5	W13750.1	Y43804.5	001	19.7	
0219	Apr-06	0505	4123.7	6926.6	W13748.1	Y43807.9	178	20.2	43.6
0221	Apr-06	1115	4148.0	6954.2	W13791.4	Y43989.1	341	13.1	43.6
0222	Apr-06	1334	4151.7	6955.7	W13782.5	Y44013.7	346	11.5	
0223	Apr-06	1501	4152.2	6955.7	W13780.3	Y44016.6	333	12.0	
0224	Apr-06	2020	4202.0	7001.6	X25373.8	Y44082.6	319	11.5	43.8
0225	Apr-06	2223	4203.6	6959.4	W13747.3	Y44088.1	314	29.5	43.3
0226	Apr-07	0317	4152.5	6923.0	W13595.6	Y43971.9	007	108.3	46.5
0227	Apr-07	0728	4136.7	6907.3	W13586.8	Y43861.9	163	89.7	
0228	Apr-07	0857	4137.3	6907.4	W13584.8	Y43865.4	165	90.8	45.2
0229	Apr-07	1204	4139.5	6858.8	W13529.4	Y43867.8	307	84.8	44.1
0230	Apr-07	1453	4136.3	6851.6	W13507.9	Y43840.9	033	76.6	44.1
0231	Apr-07	1819	4132.2	6823.4	W13388.0	Y43786.6	004	27.9	
0232	Apr-07	1908	4132.6	6823.4	W13386.5	Y43789.0	161	27.3	45.3
0233	Apr-07	2217	4117.9	6830.3	W13487.4	Y43713.3	226	33.4	45.3
0234	Apr-08	0043	4112.2	6835.5	W13537.8	Y43685.4	270	34.4	45.4
0235	Apr-08	0434	4127.5	6810.3	W13348.2	Y43747.8	018	25.2	
0236	Apr-08	0654	4128.6	6809.5	W13339.2	Y43753.0	209	26.8	
0237	Apr-08	1231	4142.2	6818.3	W13315.5	Y43836.5	184	31.2	45.0
0238	Apr-08	1419	4144.8	6814.1	W13283.0	Y43845.7	250	34.4	45.0
0239	Apr-08	1654	4148.5	6804.5	W13219.5	Y43854.8	239	33.4	44.6
0240	Apr-08	2108	4156.8	6742.7	W13078.1	Y43874.5	246	24.1	44.8
0241	Apr-09	0406	4217.2	6818.7	W13136.6	Y44020.0	161	112.1	
0242	Apr-09	0555	4215.7	6818.4	W13143.1	Y44011.9	344	111.5	46.5
0243	Apr-09	0911	4230.9	6817.9	W13056.7	Y44086.6	280	107.2	46.9
0244	Apr-09	1211	4231.6	6822.3	W13073.7	Y44096.3	257	112.1	47.0
0245	Apr-09	1601	4242.2	6814.0	W12973.1	Y44135.8	013	100.1	46.9
0246	Apr-09	1909	4231.4	6755.9	W12950.1	Y44060.9	274	120.3	47.2
0247	Apr-09	2349	4251.6	6736.6	W12747.0	Y44130.2	224	126.3	47.2
0248	Apr-10	0308	4243.2	6723.2	W12740.4	Y44075.4	193	115.9	

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0249	Apr-10	0525	4245.0	6720.4	W12718.0	Y44080.2	239	120.8	47.1
0250	Apr-10	0851	4240.6	6724.3	W12759.8	Y44064.7	292	131.2	47.0
0251	Apr-10	1204	4235.9	6704.3	W12705.8	Y44020.0	239	163.5	46.8
0252	Apr-10	1441	4234.3	6705.7	W12720.3	Y44014.5	267	166.8	46.8
0253	Apr-10	1816	4223.4	6729.5	W12879.5	Y43990.4	076	169.0	
0254	Apr-10	1909	4223.3	6726.9	W12868.5	Y43987.2	274	174.4	46.6
0255	Apr-10	2329	4202.0	6712.4	W12922.4	Y43868.8	158	30.1	45.0
0256	Apr-11	0235	4156.3	6705.7	W12925.1	Y43834.1	256	33.4	44.9
0257	Apr-11	0708	4143.5	6743.4	W13149.2	Y43806.4	345	18.0	45.2
0258	Apr-11	1131	4133.6	6731.1	W13143.9	Y43743.0	197	27.3	45.4
0259	Apr-11	1652	4124.4	6748.5	W13263.4	Y43710.1	247	21.9	45.6
0260	Apr-11	2016	4123.0	6727.9	W13180.7	Y43684.1	253	23.5	
0261	Apr-11	2054	4123.0	6728.2	W13181.7	Y43684.6	089	24.1	45.5
0262	Apr-11	2327	4119.7	6732.8	W13216.8	Y43671.1	066	24.1	45.5
0263	Apr-12	0158	4116.3	6723.9	W13194.5	Y43645.6	239	25.7	45.1
0264	Apr-12	0346	4110.4	6720.4	W13207.0	Y43611.4	263	30.6	44.6
0265	Apr-12	0551	4100.2	6713.2	W13223.0	Y43550.9	282	41.0	44.2
0266	Apr-12	0840	4058.2	6745.8	W13369.2	Y43563.8	184	32.3	45.0
0267	Apr-12	1011	4051.0	6748.8	W13413.7	Y43525.2	227	36.6	44.7
0268	Apr-12	1234	4051.8	6807.8	W13495.4	Y43543.5	168	34.4	45.0
0269	Apr-12	1353	4049.2	6808.3	W13508.4	Y43528.7	143	33.4	44.7
0270	Apr-12	1604	4039.6	6759.1	W13506.4	Y43466.6	223	47.0	44.3
0271	Apr-12	2058	4032.5	6726.6	W13394.9	Y43406.9	093	67.3	52.0
0272	Apr-12	2359	4035.5	6705.1	W13294.8	Y43412.0	203	107.2	55.8
0273	Apr-13	0224	4039.6	6655.6	W13240.1	Y43429.4	241	111.5	53.2
0274	Apr-13	0529	4048.7	6641.3	W13146.7	Y43469.9	247	120.3	51.6
0275	Apr-13	0821	4101.5	6634.7	W13065.8	Y43532.6	152	48.7	44.4
0276	Apr-13	1110	4057.8	6628.9	W13060.3	Y43510.3	049	138.9	53.4
0277	Apr-13	1316	4101.8	6627.7	W13038.1	Y43530.0	033	78.2	
0278	Apr-13	1517	4104.2	6627.3	W13025.9	Y43542.1	006	67.3	49.1
0279	Apr-13	1833	4115.4	6659.9	W13100.6	Y43621.9	008	37.2	43.8
0280	Apr-13	2035	4119.8	6656.2	W13065.7	Y43641.8	118	37.7	43.8
0281	Apr-13	2232	4114.6	6642.0	W13034.7	Y43604.5	102	42.1	43.7
0282	Apr-14	0222	4113.0	6615.0	W12941.8	Y43578.4	357	137.8	
0283	Apr-14	0431	4124.1	6606.1	W12859.7	Y43626.9	043	75.5	49.2
0284	Apr-14	0731	4148.1	6556.8	W12713.7	Y43734.3	015	56.9	44.3
0285	Apr-14	0859	4150.4	6553.5	W12691.0	Y43742.6	023	66.7	44.5
0286	Apr-14	1128	4200.0	6551.4	W12636.7	Y43785.0	130	106.1	49.1
0287	Apr-14	1500	4159.8	6631.1	W12774.8	Y43818.5	159	47.6	44.7
0288	Apr-14	1700	4149.1	6628.9	W12820.7	Y43765.5	156	42.7	44.3
0289	Apr-14	1951	4145.9	6645.3	W12898.0	Y43764.1	249	36.6	44.8
0290	Apr-14	2216	4137.5	6645.4	W12939.5	Y43722.7	232	39.9	44.7
0291	Apr-15	0111	4139.5	6657.6	W12977.5	Y43742.9	079	34.4	45.0
0292	Apr-15	0346	4146.0	6706.2	W12979.4	Y43783.4	213	34.4	45.3
0293	Apr-15	0541	4148.5	6656.8	W12929.4	Y43787.3	184	36.1	44.9
0294	Apr-15	0813	4155.3	6649.1	W12865.1	Y43813.3	182	34.4	
0295	Apr-15	0855	4154.2	6648.4	W12868.4	Y43807.2	345	35.0	44.9
0296	Apr-15	1116	4207.2	6657.0	W12834.2	Y43878.3	338	36.1	45.0

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0297	Apr-15	1259	4212.2	6653.6	W12794.2	Y43898.8	088	113.7	47.0
0298	Apr-15	1442	4206.9	6647.5	W12798.9	Y43867.4	167	38.8	44.5
0299	Apr-15	1655	4210.5	6639.1	W12748.6	Y43876.1	081	104.4	44.4
0300	Apr-15	1814	4210.6	6635.0	W12733.1	Y43872.5	083	107.7	47.6
0301	Apr-15	1931	4210.5	6629.5	W12713.6	Y43866.9	074	108.3	
0302	Apr-16	0037	4224.8	6605.6	W12555.5	Y43909.1	298	136.7	48.5
0303	Apr-16	0425	4235.4	6645.2	W12635.8	Y43996.8	129	118.7	
0304	Apr-16	0548	4235.6	6646.3	W12638.8	Y43998.6	109	119.8	47.7
0305	Apr-16	1004	4303.1	6647.0	W12482.3	Y44119.7	252	79.3	47.2
0307	Apr-16	1504	4328.1	6648.9	W12335.8	Y44225.2	294	103.9	46.7
0308	Apr-16	1746	4332.5	6647.1	W12302.2	Y44240.2	152	85.8	45.8
0309	Apr-16	2023	4337.4	6700.0	W12316.4	Y44275.8	154	97.9	46.8
0310	Apr-16	2314	4341.5	6654.5	W12270.2	Y44284.7	048	86.4	45.3
0311	Apr-17	0200	4344.1	6708.1	W12301.8	Y44312.5	019	93.0	46.7
0312	Apr-17	0445	4345.9	6723.1	W12346.8	Y44339.6	176	108.3	47.1
0313	Apr-17	0805	4340.4	6732.9	W12422.6	Y44331.8	186	126.9	47.0
0314	Apr-17	1119	4331.5	6742.9	W12523.8	Y44309.9	059	129.0	47.4
0315	Apr-17	1412	4323.9	6730.0	W12519.5	Y44260.7	083	111.5	46.6
0316	Apr-17	1710	4317.9	6727.7	W12548.3	Y44232.8	201	109.9	46.9
0317	Apr-17	2059	4307.6	6756.9	W12739.1	Y44228.2	077	103.9	46.1
0318	Apr-18	0230	4255.1	6841.7	W13033.6	Y44235.8	339	107.2	46.7
0319	Apr-18	0505	4248.8	6843.9	W13082.7	Y44209.5	297	111.0	46.8
0320	Apr-18	0835	4238.4	6838.0	W13113.1	Y44151.1	156	108.8	46.9
0321	Apr-18	1502	4227.6	6850.6	W13239.5	Y44115.2	086	118.1	46.9
0322	Apr-18	1756	4213.3	6842.9	W13277.6	Y44031.3	003	112.6	46.1
0323	Apr-18	2035	4210.3	6845.2	W13305.2	Y44018.9	272	111.0	46.2
0324	Apr-19	0013	4158.8	6841.9	W13348.2	Y43953.4	307	87.5	45.0
0325	Apr-19	0301	4203.8	6856.8	W13398.8	Y43999.8	296	72.2	44.5
0326	Apr-19	0658	4206.6	6911.4	W13461.9	Y44034.5	272	104.4	46.6
0327	Apr-19	0928	4213.3	6923.8	W13495.2	Y44088.6	135	109.9	46.8
0328	Apr-19	1153	4211.9	6934.5	W13562.3	Y44097.0	084	130.1	
0330	Apr-24	1942	4151.8	7027.3	X25450.7	Y44062.1	188	14.8	44.4
0331	Apr-24	2121	4153.2	7020.6	X25415.6	Y44060.1	273	18.0	
0332	Apr-24	2220	4153.1	7021.3	X25419.6	Y44060.4	081	18.0	44.3
0333	Apr-24	2340	4151.8	7015.1	X25371.4	Y44042.8	069	16.4	44.3
0334	Apr-25	0116	4156.9	7014.5	X25404.4	Y44072.5	237	20.8	43.7
0335	Apr-25	0311	4157.4	7025.8	X25477.9	Y44093.5	150	23.0	43.2
0336	Apr-25	0530	4206.8	7019.5	X25503.2	Y44138.6	164	34.4	42.7
0337	Apr-25	0710	4204.2	7016.6	X25467.9	Y44118.4	191	32.8	42.8
0338	Apr-25	1022	4208.9	7007.9	X25454.2	Y44131.8	111	26.2	44.3
0339	Apr-25	1258	4211.9	6952.3	W13664.4	Y44123.9	195	99.5	44.9
0340	Apr-25	1547	4220.5	7001.0	X25501.1	Y44185.4	218	70.5	44.5
0342	Apr-25	1902	4212.7	7014.5	X25515.7	Y44164.1	306	14.8	45.4
0343	Apr-25	2051	4217.0	7014.4	X25545.0	Y44188.2	331	19.7	45.0
0344	Apr-25	2317	4223.8	7020.1	X25622.4	Y44235.8	129	21.9	
0345	Apr-26	0114	4224.2	7020.6	X25628.0	Y44239.0	101	23.5	43.1

NOAA Fisheries Service SPRING BOTTOM TRAWL SURVEY
2012 STATION INFORMATION

Station	Date	Time	Lat	Lon	Loran		Course	Bottom Depth (FM)	Temp (F)
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0346	Apr-26	0355	4215.7	7029.3	X25622.4	Y44206.1	124	41.6	42.8
0347	Apr-26	0721	4207.5	7033.6	X25596.7	Y44166.4	211	16.4	44.0
0348	Apr-26	1119	4224.8	7047.5	X25797.5	Y44290.0	263	19.1	42.9
0349	Apr-26	1331	4224.3	7048.8	X25803.7	Y44289.8	260	18.6	43.3
0350	Apr-26	1527	4223.5	7043.7	X25765.0	Y44276.1	167	30.1	42.3
0351	Apr-26	1832	4229.3	7029.4	X25711.9	Y44282.2	155	47.6	42.3
0352	Apr-26	2041	4235.3	7035.6	X25787.1	Y44326.2	219	25.2	42.1
0353	Apr-26	2250	4238.2	7030.8	X25776.4	Y44332.6	180	45.4	
0354	Apr-27	0021	4237.3	7030.4	X25768.8	Y44327.3	313	49.2	42.2
0355	Apr-27	0256	4240.1	7019.2	X25723.7	Y44321.7	225	45.4	42.1
0356	Apr-27	0528	4240.2	7012.9	X25690.6	Y44310.5	145	50.3	42.1
0357	Apr-27	0808	4247.4	7021.2	X25780.0	Y44362.7	293	53.0	42.3
0358	Apr-27	1050	4243.4	7033.5	X25824.9	Y44365.1	313	44.3	41.8
0359	Apr-27	1256	4246.9	7040.9	X25890.1	Y44397.2	356	24.6	42.2
0360	Apr-27	1439	4245.8	7044.8	X25907.3	Y44399.0	337	14.8	43.8
0361	Apr-27	1658	4250.9	7041.6	X25917.6	Y44418.8	001	27.3	41.8
0362	Apr-27	2002	4257.4	7025.4	X25863.5	Y44420.5	005	60.1	41.6
0363	Apr-27	2336	4250.5	7005.8	X25720.9	Y44350.4	357	64.0	42.0
0364	Apr-28	0242	4259.4	6958.2	W13439.0	Y44380.8	349	109.4	46.8
0365	Apr-28	0506	4308.5	7003.5	X25819.7	Y44433.5	028	29.5	42.2
0366	Apr-28	0713	4306.2	7003.7	X25806.9	Y44423.1	005	27.3	
0367	Apr-28	1150	4307.4	7008.5	X25837.0	Y44437.6	258	83.7	42.7
0368	Apr-28	1504	4308.4	7019.4	X25896.9	Y44462.3	028	62.9	41.7
0369	Apr-28	1748	4313.1	7011.1	X25883.0	Y44468.9	244	64.0	43.0
0370	Apr-28	2000	4316.2	7007.0	X25880.7	Y44475.3	221	80.9	43.8
0371	Apr-28	2201	4314.9	7002.1	X25850.1	Y44460.3	311	76.6	43.2
0372	Apr-28	2355	4315.1	7001.4	X25848.2	Y44460.0	306	73.3	43.2
0373	Apr-29	0230	4323.7	7007.3	X25924.6	Y44509.6	145	60.1	42.3
0374	Apr-29	0721	4323.2	6949.2	W13239.0	Y44474.6	046	77.6	42.7
0375	Apr-29	1537	4324.5	6922.7	W13073.9	Y44433.8	355	95.1	43.4
0376	Apr-29	1900	4342.1	6931.4	W13009.3	Y44523.1	017	61.8	42.0
0377	Apr-29	2219	4344.6	6928.6	W12975.5	Y44528.4	355	48.7	
0379	Apr-30	1100	4356.0	6830.2	W12576.7	Y44476.9	224	52.5	41.9
0380	Apr-30	1305	4355.7	6829.6	W12575.3	Y44475.1	030	52.5	42.4
0381	Apr-30	1453	4356.3	6826.9	W12557.6	Y44473.1	068	55.8	42.2
0382	Apr-30	1710	4357.6	6821.2	W12520.9	Y44469.1	053	53.6	42.8
0383	Apr-30	1926	4356.3	6806.2	W12459.0	Y44441.5	244	85.3	46.3
0384	Apr-30	2204	4355.2	6804.4	W12458.7	Y44434.5	030	100.6	46.9
0385	May-01	0017	4406.3	6804.8	W12381.2	Y44477.0	205	54.7	42.6
0386	May-01	0733	4418.0	6722.5	W12121.8	Y44458.1	077	99.5	
0387	May-01	1040	4417.0	6710.9	W12087.2	Y44438.4	049	95.1	46.8
0388	May-01	1353	4416.7	6648.8	W12016.0	Y44408.1	227	97.9	
0390	May-01	1710	4408.2	6643.7	W12057.9	Y44370.9	193	43.7	43.8
0391	May-01	2053	4410.7	6707.3	W12118.6	Y44411.2	299	67.8	45.8
0392	May-01	2311	4408.8	6716.3	W12163.7	Y44416.6	040	76.0	45.8
0393	May-02	0240	4403.1	6733.1	W12268.4	Y44419.1	019	119.2	47.0

NOAA Fisheries Service SPRING BOTTOM TRAWL SURVEY
2012 STATION INFORMATION

Station	Date	Time	Lat	Lon	Loran		Course	Bottom Depth (FM)	Temp (F)
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0394	May-02	0551	4400.6	6743.3	W12327.4	Y44424.3	049	108.3	47.2
0395	May-02	1131	4339.6	6815.3	W12616.8	Y44389.6	043	103.3	47.3
0396	May-02	1718	4322.0	6834.3	W12827.4	Y44345.1	218	94.6	46.1
0397	May-02	2148	4311.8	6906.1	W13061.2	Y44350.2	173	99.0	44.4
0398	May-03	0122	4310.2	6933.2	W13224.6	Y44388.2	261	33.4	
0399	May-03	0355	4310.0	6935.8	W13241.1	Y44391.8	263	51.4	43.0
0400	May-03	0712	4301.5	6935.8	W13292.9	Y44351.9	055	89.1	43.8
0401	May-03	0946	4250.6	6926.8	W13305.7	Y44284.5	013	90.2	44.9
0402	May-03	1330	4237.7	6923.6	W13361.7	Y44215.6	179	129.6	46.8
0403	May-03	1727	4238.0	6953.6	W13533.6	Y44265.9	155	113.2	46.7
0404	May-03	1945	4231.5	6955.1	W13578.3	Y44234.8	004	96.2	45.3
0405	May-03	2129	4232.9	7001.5	X25587.2	Y44252.8	170	79.8	43.8

* Missing sequential numbers or missing "Lat" "Lon" data indicate either a test-tow, aborted-tow or no-trawl-was-attempted.

NOAA FISHERIES SERVICE-NEFSC SPRING BOTTOM TRAWL SURVEY 28 FEBRUARY - 4 MAY 2012
 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
4	0	0	0	0	4	0	0	1654	0	0	0	1	0	5	8	21	0	1	0	192	1	0	86	0	158	2131
5	0	0	0	0	2	0	6	1493	0	0	0	0	0	24	19	16	0	0	0	35	10	0	81	0	221	1907
6	0	0	0	0	1	0	1	553	0	0	0	0	0	4	8	44	0	0	0	20	0	0	90	0	78	799
7	0	0	0	0	0	0	0	468	0	0	0	0	0	27	19	15	0	0	0	41	5	0	263	1	94	933
8	0	0	0	0	48	0	103	3443	0	0	0	81	0	0	0	1	0	0	0	0	0	1	0	0	92	3769
9	0	0	0	0	17	0	40	13108	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	0	244	13412
10	0	0	0	0	6	0	3	154	0	0	0	0	0	3	0	0	0	0	0	0	0	0	68	1	9	244
11	0	0	0	0	10	0	9	575	0	0	0	1	0	1	12	5	0	0	0	7	1	0	39	0	29	689
12	0	0	0	3	157	0	98	1480	0	0	0	20	0	0	0	0	0	0	0	0	0	1	1	0	67	1827
13	0	0	0	0	12	0	2	68	0	0	0	1	0	10	0	0	0	0	0	0	0	0	200	0	39	332
14	0	0	0	0	7	0	7	85	0	0	0	1	0	13	0	0	0	0	0	0	0	0	626	25	114	878
15	0	0	0	0	1	0	0	24	0	0	0	2	0	6	0	1	0	0	0	4	0	0	18	1	9	66
16	0	0	0	0	0	0	0	1485	0	0	0	0	0	11	4	0	0	0	0	41	0	0	13	0	16	1570
17	0	0	0	0	0	0	0	1838	0	0	0	0	0	4	0	0	0	0	0	24	0	0	14	0	12	1892
18	0	0	0	0	0	0	0	3837	0	0	0	0	0	15	1	1	0	0	0	78	0	0	70	0	63	4065
19	0	0	0	0	1	0	0	5395	0	0	0	0	0	2	0	1	0	0	0	45	0	0	58	0	42	5544
20	0	0	0	0	0	0	1	2290	0	0	0	1	0	3	0	2	0	0	0	71	0	0	7	0	266	2641
21	0	0	0	0	4	0	4	64	0	0	0	0	0	3	0	0	0	0	0	1	2	0	69	1	15	163
22	0	0	0	0	64	0	2	194	0	0	0	0	0	0	0	51	0	0	0	0	1	0	59	0	42	413
23	0	0	0	10	35	0	150	1707	0	0	0	35	0	0	0	0	0	0	0	0	0	4	8	0	398	2347
24	0	0	0	0	4	0	6	80	0	0	0	0	0	0	0	0	0	0	0	0	3	0	110	3	40	246
25	0	0	0	0	7	0	24	17	0	0	0	1	0	10	0	0	0	0	0	0	225	0	374	47	28	733
26	0	0	0	0	82	0	257	1140	0	0	0	3	0	20	0	0	0	0	0	0	2	2	116	6	361	1989
27	0	0	0	0	2	0	0	33	0	0	0	1	0	17	2	1	0	0	0	8	0	0	29	1	36	130
28	0	0	0	0	0	0	3	941	0	0	0	0	0	3	0	0	0	0	0	38	0	0	99	0	34	1118
29	0	0	0	0	45	0	137	1374	0	0	0	20	0	0	0	0	0	0	0	0	0	1	0	0	96	1673
30	0	0	0	0	0	0	4	4	0	0	0	1	0	0	0	0	0	0	0	0	16	0	109	1	14	149
31	0	0	0	0	87	0	24	3539	0	0	0	0	0	4	0	0	0	0	0	0	0	0	165	1	169	3989
32	0	0	0	0	5	0	14	65	0	0	0	0	0	49	0	0	0	0	0	0	57	0	921	107	14	1232
33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	1	0	74	5	38	122

NOAA FISHERIES SERVICE-NEFSC SPRING BOTTOM TRAWL SURVEY 28 FEBRUARY - 4 MAY 2012
 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	
34	0	0	0	0	0	0	0	1	0	0	0	0	0	7	1	0	0	0	0	0	0	0	128	2	30	169	
35	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	523	83	83	693	
36	0	0	0	0	0	0	7	139	0	0	0	0	4	13	0	0	0	0	2	17	1	0	9	2	19	213	
37	0	0	0	0	1	0	0	110	0	0	0	0	1	3	0	0	11	0	0	9	0	0	1	0	26	162	
38	0	0	0	0	3	0	0	42	0	0	0	0	5	1	0	0	3	0	3	10	0	0	1	0	12	80	
39	0	0	0	0	0	0	0	22	0	0	0	0	1	0	0	0	0	0	0	32	0	0	1	0	11	67	
40	0	0	0	0	1	0	0	26	0	0	0	0	3	5	0	0	71	1	18	4	0	0	2	0	45	176	
41	0	0	0	0	1	0	0	210	0	0	0	0	0	7	0	0	13	0	3	3	1	0	0	0	53	291	
42	0	0	0	0	0	0	0	143	0	0	0	0	0	1	0	1	0	2	0	1	1	0	8	0	7	164	
43	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	2	0	0	0	0	0	0	87	7	28	130	
44	0	0	0	1	13	0	79	27	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	300	424	
45	0	0	0	0	0	0	23	94	0	0	0	0	0	5	0	0	0	0	0	4	0	0	25	0	55	206	
46	0	0	0	0	0	0	16	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	99	2	114	235	
47	0	0	0	0	23	0	136	140	0	0	0	5	0	8	0	0	0	0	0	0	0	0	8	1	676	997	
48	0	0	0	0	0	0	6	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	82	3	255	353	
49	0	0	0	0	0	0	20	4	0	0	0	0	0	17	0	0	0	0	0	0	0	0	168	29	3125	3363	
50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	1	1140	1162	
51**	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
52	0	0	0	2	14	0	24	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51	3	1505	1632	
53	0	0	0	2	14	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43	0	0	3597	3664	
54	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	65	2	12974	13058	
55	0	0	0	0	0	0	0	125	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	0	87	246	
56	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	83	0	123	220	
57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	3	0	18484	18500	
58**	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
59	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	136	0	2	1	490	629	
60**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	3	0	0	0	0	1	0	75	0	546	642	
61**	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
62	0	0	0	0	1	0	12	178	0	0	0	0	1	6	0	0	3	0	67	1	0	0	1	0	65	335	
63	0	0	0	0	0	0	0	357	0	0	0	0	0	0	0	0	339	0	8	0	5	0	12	0	189	910	
64	0	0	0	0	0	0	0	106	0	0	0	0	0	2	0	0	2	0	24	0	3	0	4	0	56	197	

NOAA FISHERIES SERVICE-NEFSC SPRING BOTTOM TRAWL SURVEY 28 FEBRUARY - 4 MAY 2012
 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	
65	0	0	0	0	0	0	71	13	0	0	0	0	0	5	0	0	0	0	0	0	0	0	7	0	403	499	
66	0	0	0	0	0	0	7	59	0	0	0	0	0	4	0	0	0	0	0	0	0	0	5	0	89	164	
67	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	42	0	3	0	281	328	
68	0	0	0	0	0	0	37	411	0	0	0	0	0	0	0	0	0	0	0	0	62	0	0	0	485	995	
69**	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
70	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	4	0	311	317	
71	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	22	0	36	63	
72	0	0	0	0	0	0	0	187	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	0	40	253	
73	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	13	0	73	88	
74	0	0	0	0	0	0	0	207	0	0	0	0	0	2	0	0	0	0	60	3	2	0	3	0	117	394	
75	0	0	0	0	3	0	0	53	0	0	0	0	4	12	0	0	1	0	0	120	6	0	3	0	48	250	
76	0	0	0	0	2	0	0	74	0	0	0	0	8	3	0	0	25	0	4	6	4	0	1	0	39	166	
77	0	0	0	0	6	0	0	61	0	0	0	0	5	0	0	0	6	0	0	7	7	0	1	0	11	104	
78	0	0	0	0	1	0	0	75	0	0	0	0	2	4	0	0	7	0	23	8	2	0	3	0	5	130	
79	0	0	0	0	5	0	8	90	0	0	0	0	5	5	0	0	1	0	0	1	2	0	2	0	23	142	
80	0	0	0	0	0	0	0	95	0	0	0	0	1	2	0	0	7	0	8	4	0	0	1	0	10	128	
81	0	0	0	0	0	0	14	176	0	0	0	0	0	3	0	0	6	0	15	5	33	0	3	0	7	262	
82	0	0	0	0	1	0	0	129	0	0	0	0	0	8	0	0	0	0	0	0	3	0	1	0	33	175	
83	0	0	0	0	0	0	0	72	0	0	0	0	2	3	0	0	0	0	39	2	6	0	0	0	72	196	
84	0	0	0	0	1	0	15	154	0	0	0	0	2	5	0	0	107	0	17	1	33	0	0	0	86	421	
85	0	0	0	1	93	0	14	656	13	0	0	0	0	9	0	1	3	3	28	30	2	4	4	0	47	908	
86	0	0	0	0	269	0	6	665	0	0	0	0	0	113	3	3	0	0	24	3	84	1	15	0	344	1530	
87	0	0	0	0	47	0	15	36	0	0	0	0	0	5	0	0	0	0	11	0	38	0	15	0	97	264	
88	0	0	0	0	21	0	58	181	0	0	0	1	0	0	0	0	0	0	0	0	1	0	4	0	27	293	
89	0	0	0	0	41	0	59	22	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	193	316	
90	0	0	0	0	3	0	7	4	0	0	0	0	0	5	0	0	0	0	0	0	15	0	160	3	12	209	
91	0	0	0	0	69	0	27	2809	0	0	0	0	0	0	0	0	0	0	0	0	74	0	17	1	160	3157	
92	0	0	0	0	5	0	9	390	0	0	0	0	0	0	0	0	0	0	0	0	129	0	8	0	47	588	
93	0	0	0	2	64	0	4	5	0	0	0	0	0	15	23	2	0	0	13	0	230	0	13	0	96	467	
94	0	0	0	0	148	0	10	100	0	0	0	0	0	16	2	4	2	1	0	26	66	0	11	0	179	565	
95	0	0	0	0	62	0	15	46	0	0	0	1	0	54	73	3	2	0	26	29	65	0	3	0	259	638	

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	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
96	0	0	0	0	26	0	24	946	0	0	0	0	0	96	218	5	0	0	15	31	24	0	7	0	207	1599
97	0	0	0	0	76	0	4	165	0	0	0	1	0	25	2	4	1	0	10	59	17	0	6	0	229	599
98	0	0	0	0	30	0	3	7	0	0	0	0	0	5	0	0	0	0	0	4	41	0	22	0	65	177
99	0	0	0	1	128	0	45	92	0	0	0	1	0	0	0	0	0	0	0	0	1	0	2	0	409	679
100	0	0	0	0	16	0	3	212	0	0	0	0	0	12	0	0	0	0	0	0	158	0	237	5	65	708
101	0	0	0	0	1	0	11	1143	0	0	0	0	0	0	0	0	0	0	0	0	294	1	614	15	95	2174
102	0	0	0	0	34	0	28	961	0	0	0	25	0	0	0	0	0	0	0	0	2	8	58	2	201	1319
103	0	0	0	0	73	0	23	399	0	0	0	7	0	0	0	0	0	0	0	0	0	7	97	0	129	735
104	0	0	0	0	26	0	13	362	0	0	0	0	0	0	0	0	0	0	0	0	12	0	150	9	149	721
105	0	0	0	0	28	0	5	1964	1	0	0	0	0	34	9	77	4	6	20	57	2	0	6	0	297	2510
106	0	0	0	0	7	0	7	705	3	0	0	1	11	12	0	0	38	5	0	194	0	0	8	0	113	1104
107	0	0	0	0	8	0	3	586	7	0	0	2	18	30	0	1	204	3	23	114	0	0	2	0	102	1103
108	0	0	0	0	1	0	0	528	1	0	0	0	10	14	0	0	83	97	12	34	1	0	8	0	22	811
109	0	0	0	0	0	0	0	1335	0	0	0	0	0	8	0	0	1	7	9	12	1	0	9	0	19	1401
110	0	0	0	0	0	0	0	376	0	0	0	0	2	7	0	1	115	0	0	23	2	2	22	0	32	582
111	0	0	0	0	0	0	0	248	0	0	0	0	0	1	0	0	1	0	15	4	0	0	9	0	14	292
112	0	0	0	0	1	0	0	129	0	0	0	0	2	4	0	0	8	0	27	10	1	0	3	0	74	259
113	0	0	0	0	0	0	0	335	0	0	0	0	1	5	0	0	59	0	0	40	0	1	3	0	141	585
114	0	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0	0	2	46	0	0	0	2	0	63	171
115	0	0	0	0	0	0	0	83	0	1	0	0	7	0	0	0	1	2	4	9	0	0	9	0	48	164
116	0	0	0	0	0	0	17	42	0	0	0	0	28	2	0	0	1	0	13	19	0	0	4	0	150	276
117	0	0	0	0	2	0	0	19	0	0	0	0	11	0	0	0	1	1	2	49	0	0	2	0	65	152
118	0	0	0	0	3	0	0	62	0	0	0	0	18	3	0	0	37	0	4	30	0	0	5	0	22	184
119	0	0	0	0	7	0	0	58	0	12	0	0	18	1	0	0	20	3	51	43	0	0	1	0	18	232
120	0	0	0	0	5	0	0	11	0	0	0	0	17	0	0	0	6	3	81	36	1	0	1	0	63	224
121	0	0	0	0	91	0	0	66	0	7	0	0	18	5	0	0	7	5	50	54	0	0	1	0	23	327
123	0	0	0	0	154	0	0	82	0	6	0	0	31	8	0	0	33	4	134	62	0	0	3	0	21	538
124	0	0	0	0	2	0	0	581	0	0	0	0	2	2	0	0	25	9	8	12	4	0	2	0	35	682
125	0	0	0	0	1	0	0	1186	3	0	0	0	1	0	0	0	62	1	7	31	19	0	16	0	277	1604
126	0	0	0	0	1	0	0	518	0	0	0	0	0	0	0	0	41	5	48	22	3	0	4	0	29	671
127	0	0	0	0	0	0	0	273	0	7	0	0	0	0	0	0	0	1	23	31	0	0	2	0	370	707

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	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
128	0	0	0	0	2	0	0	3587	6	0	0	0	0	13	0	0	2	0	0	26	1	0	8	0	46	3691
129	0	0	0	0	12	0	4	1056	4	0	0	0	0	39	0	0	16	0	7	41	5	0	7	0	139	1330
130	4	0	0	0	77	0	11	210	0	6	0	0	34	19	0	0	8	8	65	106	0	0	2	0	57	607
131	0	0	0	0	50	0	0	127	0	3	0	0	28	17	0	0	3	7	0	310	0	0	3	0	70	618
132**	0	0	0	0	48	0	0	56	0	24	0	0	5	3	0	0	13	21	4	135	1	0	2	0	40	352
133	0	0	0	0	48	0	0	57	2	14	0	0	22	0	0	0	28	68	9	68	1	0	3	0	57	377
134	0	0	0	0	3	0	2	155	7	2	0	0	13	6	0	0	0	4	21	54	0	0	10	0	33	310
135	8	0	0	0	21	0	0	104	5	46	0	0	15	2	0	0	5	5	17	204	1	2	5	0	23	463
136	0	0	0	0	20	0	1	72	0	16	0	0	3	4	0	0	4	2	2	24	5	0	3	0	11	167
137	0	0	0	0	0	0	0	42	0	28	0	0	2	0	0	0	40	28	5	34	2	0	3	0	8	192
138	0	0	0	0	0	0	0	5	0	5	0	0	1	2	0	0	295	54	42	18	4	0	0	0	2	428
139	0	0	0	0	0	0	0	65	0	7	0	0	0	0	0	0	71	12	39	13	1	0	0	0	2	210
140	0	0	0	0	0	0	1	33	0	27	0	0	0	1	0	0	0	1	0	37	0	0	1	0	4	105
141	0	0	0	0	1	0	5	1025	2	1	0	0	0	2	1	0	25	0	0	0	1	0	17	0	18	1098
142	0	0	0	0	26	0	14	664	1	0	0	0	0	20	3	1	21	0	0	232	15	5	10	0	144	1156
143	0	0	0	0	16	0	15	1145	2	0	0	0	0	17	0	1	35	47	9	450	1	0	2	0	139	1879
144	0	0	0	0	22	0	20	1066	4	0	0	0	0	20	0	0	16	37	12	411	5	0	3	0	155	1771
145	0	0	0	0	16	0	0	578	2	0	0	0	0	15	45	0	12	33	9	247	6	0	2	0	164	1129
146	0	0	0	0	9	0	16	1030	21	0	0	0	1	6	0	0	20	62	2	302	3	0	2	0	115	1589
147	0	0	0	0	8	0	9	207	15	0	0	1	15	13	0	0	57	1	95	162	1	0	3	0	72	659
148	0	1	0	0	12	0	15	1632	21	0	0	0	0	3	137	0	6	0	5	129	4	2	9	0	52	2028
149	0	0	0	0	5	0	22	1869	9	0	0	0	0	3	0	0	92	1	11	51	32	0	12	0	28	2135
150	0	0	0	0	0	0	0	43	0	7	0	0	1	0	0	0	59	2	4	7	4	0	3	0	6	136
151	0	0	0	0	16	0	0	152	15	6	0	0	0	0	0	0	25	0	12	9	34	0	7	0	19	295
152	0	0	0	0	5	0	1	48	3	8	0	0	2	3	0	0	20	0	12	23	169	0	9	0	2	305
153	0	0	0	0	0	0	1	33	0	16	0	0	0	1	0	0	104	0	7	9	9	0	5	0	7	192
154	0	0	0	0	4	0	2	19	0	11	0	0	3	5	0	0	0	0	7	9	0	0	10	0	9	79
155	0	0	0	0	85	0	4	55	2	50	0	0	8	5	0	0	0	0	24	224	5	0	9	0	12	483
156	0	0	0	0	57	0	22	287	5	15	0	0	14	8	0	0	7	0	134	64	7	0	13	0	28	661
157	0	0	0	2	76	0	51	1189	29	13	0	0	1	5	0	0	10	1	8	280	2	0	1	0	206	1874
158	0	0	0	0	120	0	21	880	18	43	0	0	2	15	0	0	14	1	7	509	1	0	5	0	181	1817

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159	11	0	0	0	4	0	6	43	1	61	0	0	5	5	0	0	1	1	68	227	6	0	56	0	44	539	
160	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	54	1	5	17	1	0	1	0	15	100	
161	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	53	7	3	9	0	0	0	0	2	82	
162	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	1	0	0	8	0	0	0	0	1	13	
163	0	0	0	0	5	0	2	0	0	3	0	0	0	0	0	0	0	5	53	56	17	5	2	0	23	171	
164	0	0	0	0	2	0	0	9	6	0	0	0	2	3	0	0	13	0	54	81	11	0	5	0	13	199	
166	0	0	0	0	3	0	0	3	0	12	0	0	1	0	0	0	1	0	15	3	0	2	0	0	149	189	
167**	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
168	0	0	0	0	0	0	2	0	1	1	0	0	0	0	0	0	60	0	10	16	1	0	0	0	75	166	
169	0	0	0	0	0	0	0	0	0	12	0	0	1	0	0	0	35	0	0	1	2	0	0	0	14	65	
170	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	156	0	2	1	2	0	0	0	13	181	
171	0	0	0	0	6	0	4	0	1	1	0	0	2	0	0	0	246	0	54	148	6	0	0	0	30	498	
172	0	0	0	0	0	0	0	0	0	19	0	0	0	0	0	0	14	0	3	10	4	0	1	0	9	60	
173	2	0	0	0	0	0	0	0	1	10	0	0	3	0	0	0	1	0	84	488	5	0	0	0	48	642	
174	0	0	0	0	56	0	2	0	3	2	0	0	3	0	0	0	31	0	834	679	13	0	1	0	25	1649	
175	0	0	0	0	19	0	0	0	0	0	0	0	1	1	0	0	18	6	332	386	2	0	2	0	19	786	
176	0	0	0	0	14	0	5	0	2	0	0	0	1	3	0	0	4	0	257	171	0	0	1	0	43	501	
177	0	0	0	1	13	0	31	30	1	0	0	0	0	13	0	0	1	0	129	42	0	0	2	0	123	386	
178	0	0	0	0	0	0	0	205	0	0	0	14	0	0	0	0	0	2	27	2	6	0	126	1	178	561	
179	0	0	0	0	19	0	7	8	0	0	0	0	0	9	0	0	0	0	0	0	750	0	58	0	84	935	
180	0	0	0	0	40	0	23	666	0	0	0	0	0	10	0	0	0	0	0	0	311	0	418	6	68	1542	
181	0	0	0	0	2	0	5	136	0	0	0	0	0	6	0	0	0	0	0	0	2	1	178	6	34	370	
182	0	0	0	0	57	0	46	46	0	0	0	0	0	38	0	0	3	0	151	1	1	0	5	0	341	689	
184	0	0	0	0	24	0	12	78	0	0	0	49	0	16	0	0	0	0	50	0	1	0	0	0	219	449	
185	0	0	0	0	44	0	8	67	0	0	0	46	0	8	0	0	0	0	5	0	48	0	0	0	172	398	
186	0	0	0	2	24	0	17	19317	0	0	0	0	0	25	0	1	5	0	44	5	98	0	6	0	67	19611	
187	0	0	0	1	3	0	0	3371	3	0	0	0	1	4	0	0	0	0	80	3	17	1	2	0	86	3572	
188	0	0	0	0	22	0	0	373	0	0	0	2	0	55	0	0	0	0	88	4	137	0	324	23	91	1119	
189	0	1	0	0	2	0	0	21	0	0	0	2	0	24	0	0	0	0	42	3	58	0	85	10	84	332	
190	0	0	0	0	4	0	3	6	0	0	0	1	0	1	0	0	93	3	86	62	7	0	1	1	15	283	
191	0	0	0	0	11	0	3	41	0	0	0	0	0	0	0	0	1	0	12	3	1	11	5	1	71	160	

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192	0	0	0	0	29	0	5	1	0	0	0	1	0	11	0	0	0	0	10	6	37	0	11	0	100	211	
193	0	0	0	0	29	0	0	5	0	0	0	1	0	0	0	0	0	0	12	6	35	0	12	0	87	187	
194	0	0	0	0	45	0	4	9	0	0	0	2	0	20	0	0	0	0	18	0	73	0	24	0	168	363	
195	0	0	0	2	54	0	17	12	10	0	0	2	0	8	0	0	0	4	39	7	50	0	7	0	136	348	
196	0	1	0	0	6	0	0	2	0	0	0	1	1	0	0	0	0	0	61	9	1	0	3	0	67	152	
197	0	0	0	0	2	0	0	0	0	2	0	0	1	0	0	0	0	0	78	103	0	0	0	0	20	206	
198**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	5	0	0	0	0	2	10	
199	5	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0	1	91	0	27	0	0	1	0	40	168	
200**	1	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	6	1	0	11	0	0	0	0	7	28	
201**	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	21	514	0	9	0	0	0	0	12	558	
202**	3	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	6	38	5	103	0	1	0	0	21	180	
203**	0	4	0	0	1	0	0	0	2	2	0	0	0	0	0	0	1	107	6	39	1	0	0	0	9	172	
204	0	2	2	0	23	0	6	0	2	3	0	0	1	1	0	0	40	10	18	134	1	12	0	0	18	273	
205	0	0	0	0	0	0	0	5	0	30	0	0	3	0	0	0	1	0	8	6	2	0	0	0	5	60	
206**	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
208**	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	61	0	4	0	2	0	0	0	11	81	
209**	1	6	0	0	0	0	0	0	0	14	0	0	0	0	0	0	53	1	11	0	2	0	0	0	21	109	
210	0	6	0	0	4	0	0	6	1	2	0	0	1	0	0	0	12	0	0	3	1	0	0	0	11	47	
211	8	12	1	0	9	0	0	11	2	0	0	0	1	0	0	0	5	2	11	11	2	0	0	0	38	113	
212	1	2	0	0	7	0	0	4	2	5	0	0	0	0	0	0	1	0	46	30	0	6	0	0	22	126	
213	0	1	0	0	8	0	0	0	2	0	0	0	0	0	0	0	1	1	21	2	0	0	0	0	17	53	
214	12	4	2	0	7	0	0	0	4	8	0	0	0	0	0	0	3	3	32	144	0	28	0	0	104	351	
215**	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
217	0	0	0	0	3	0	0	0	2	20	0	0	2	0	0	0	4	2	6	2	0	0	0	0	14	55	
218**	0	0	0	0	0	0	0	0	0	4	0	0	1	0	0	0	0	0	2	1	0	0	0	0	25	33	
219	1	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	17	5	1	1	0	0	0	0	73	107	
220**	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	3	0	0	7	12	
221	0	0	0	0	0	0	0	0	1	4	0	0	0	0	0	0	0	0	3	1	0	0	0	0	32	41	
222**	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	10	12	
223**	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
224	0	0	0	0	0	0	0	0	0	47	0	0	1	0	0	0	2	5	5	16	0	0	0	0	38	114	

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 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	
225	3	0	0	0	70	0	0	0	31	15	3	0	1	0	0	0	21	21	61	45	0	0	0	0	160	431	
226	1	0	22	3	26	865	7	13	0	1	5	3	0	0	0	0	6	0	73	2	0	6	0	0	61	1094	
227	3	2	0	0	20	8	6	5	0	0	2	0	0	0	0	0	1	0	8	0	0	3	0	0	68	126	
228	0	4	16	1	28	161	7	0	0	0	0	1	0	0	0	0	4	1	0	0	0	8	1	0	141	373	
229	0	1	0	2	25	14	0	3	0	0	3	3	0	0	0	0	4	0	0	0	0	3	0	0	99	157	
230	0	45	0	0	40	3	5	0	0	0	5	2	0	0	0	0	6	0	0	0	0	8	0	0	68	182	
231**	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	1	0	6	0	0	0	0	8	22	
232	3	0	0	0	3	0	0	0	0	9	2	0	9	0	0	0	3	213	28	139	0	0	0	0	164	573	
233	0	0	0	1	9	0	0	0	3	5	1	0	2	0	0	0	0	51	21	203	1	1	0	0	12	310	
234	0	0	0	0	2	0	0	0	1	0	1	0	4	0	0	0	1	313	30	116	0	0	0	0	17	485	
235**	0	0	0	0	7	0	0	0	0	4	0	0	1	0	0	0	0	2	43	49	0	0	0	0	21	127	
236**	0	2	0	0	1	0	0	0	0	3	0	0	1	0	0	0	2	0	41	10	1	2	1	0	10	74	
237	7	2	0	0	0	0	0	0	1	3	0	0	2	0	0	0	327	355	8	17	0	0	2	0	30	754	
238	0	554	0	0	2	0	0	0	1	3	2	0	0	0	0	0	322	10	22	15	1	0	0	0	15	947	
239	2	310	0	0	4	0	1	0	2	2	5	0	3	0	0	0	46	116	671	131	0	0	0	0	69	1362	
240	1	13	0	0	0	0	0	0	0	26	0	0	1	0	0	0	0	1	146	74	0	1	0	0	24	287	
241**	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
242	2	0	0	1	30	12	0	39	0	0	9	3	0	0	0	0	1	0	8	0	0	0	0	0	29	134	
243	0	0	0	46	60	45	19	42	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	36	252	
244	0	0	0	38	106	0	26	39	0	0	1	1	0	0	0	0	0	0	1	0	0	2	0	0	20	234	
245	0	0	0	50	24	56	0	1001	0	0	0	3	0	0	0	0	0	0	0	0	0	4	0	0	20	1158	
246	0	0	0	15	175	36	57	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	27	312	
247	0	0	0	40	15	1	13	48	0	0	2	3	0	0	0	0	0	0	0	0	0	39	0	0	43	204	
248	0	0	0	0	5	28	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	6	40	
249	1	5	0	6	68	4	0	0	0	0	2	5	0	0	0	0	1	0	0	0	0	2	0	0	33	127	
250	0	4	0	126	78	13	9	6	0	0	2	5	0	0	0	0	0	0	0	0	0	17	0	0	201	461	
251	0	0	0	102	46	0	176	0	0	0	0	5	0	0	0	0	0	0	0	0	0	44	0	0	83	456	
252	0	0	0	91	53	0	131	1	0	0	1	1	0	0	0	0	0	0	0	0	0	24	0	0	126	428	
253**	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
254	0	0	0	42	53	0	9	0	0	0	1	1	0	0	0	0	1	0	22	0	0	29	0	0	42	200	
255	93	163	0	0	1	0	0	0	38	13	2	0	2	0	0	0	4	0	862	154	0	0	0	0	101	1433	

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	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
256	57	328	0	0	0	0	0	0	41	79	0	0	1	0	0	0	3	0	207	190	0	3	0	0	356	1265
257	9	13	0	0	0	0	0	0	0	7	0	0	1	0	0	0	0	0	8	10	0	0	0	0	52	100
258	0	0	0	0	9	0	0	3	2	3	0	0	2	0	0	0	19	1	22	32	0	0	2	0	4	99
259	0	0	0	0	1	0	0	0	0	3	0	0	1	0	0	0	0	0	24	1	0	0	0	0	4	34
260**	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	14	22	0	0	0	0	20	57
261	4	0	0	0	9	0	0	4	23	25	0	0	2	0	0	0	0	0	690	301	0	0	0	0	27	1085
262	0	0	0	0	1	0	0	0	4	6	0	0	4	0	0	0	0	0	75	180	0	0	0	0	24	294
263	4	0	0	0	28	0	0	0	2	2	1	0	12	0	0	0	0	0	24	130	1	0	0	0	59	263
264	23	695	0	0	113	0	0	0	35	1	6	0	18	0	0	0	1	0	210	206	0	0	0	0	61	1369
265	11	379	0	1	13	0	2	0	80	2	3	0	2	0	0	0	15	0	43	26	0	0	0	0	37	614
266	0	1	0	0	168	0	1	0	1	0	2	0	3	1	0	0	20	0	116	72	1	0	1	0	59	446
267	3	12	0	0	31	0	0	0	7	0	2	0	2	0	0	0	75	0	107	110	0	0	1	0	25	375
268	0	0	0	0	223	0	0	3	0	0	0	0	2	0	0	0	29	0	22	49	0	0	0	0	12	340
269	0	0	0	0	105	0	0	0	0	0	2	0	0	0	0	0	248	0	22	79	0	0	0	0	18	474
270	0	20	0	1	4	0	7	6	3	0	0	2	0	0	0	0	4	0	23	68	0	0	1	0	78	217
271	0	2	0	0	93	0	8	0	0	0	0	0	0	0	0	0	0	0	26	18	30	0	7	0	64	248
272	0	0	0	0	20	0	0	2	0	0	0	6	0	0	0	0	0	0	0	0	0	5	1	0	134	168
273	0	0	0	0	101	0	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	4	1	1	62	173
274	0	1	0	2	169	0	6	8	0	0	0	0	0	0	0	0	0	0	0	0	18	19	9	1	184	417
275	0	9	0	0	2	0	0	0	3	0	0	1	1	0	0	0	42	0	12	10	0	0	7	1	20	108
276	0	0	0	0	795	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38	13	1	0	158	1005
277	1	0	0	14	241	0	5	49	0	0	0	0	0	0	0	0	6	1	79	0	4	6	3	0	467	876
278	2	9	5	3	56	0	5	13	0	0	0	0	0	0	0	0	1	3	19	0	3	0	11	0	115	245
279	11	1218	0	0	53	0	0	0	49	1	7	0	18	1	0	0	53	0	192	117	0	0	0	0	26	1746
280	6	1265	0	0	31	0	0	0	20	3	3	0	7	0	0	0	1	0	230	168	0	0	0	0	21	1755
281	4	58	0	0	1	0	0	0	13	0	4	0	8	0	0	0	1	0	62	72	0	0	0	0	40	263
282	0	26	0	97	91	2	0	0	0	0	0	8	0	0	0	0	0	0	0	4	0	384	0	0	154	766
283	11	230	0	25	1082	0	0	0	0	0	0	1	0	0	0	0	0	5	0	0	0	64	19	0	105	1542
284	0	83	0	0	28	0	0	0	7	3	0	0	0	0	0	0	8	0	8	18	0	3	1	0	54	213
285	17	86	0	4	25	0	0	0	1	0	0	0	0	0	0	0	17	0	0	2	0	126	0	0	37	315
286	0	83	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	13	0	17	0	1	26	160

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 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	
287	13	124	0	0	2	0	0	6	14	2	1	0	0	0	0	0	13	0	76	13	0	0	0	0	22	286	
288	81	198	0	0	2	0	0	0	15	7	7	0	1	0	0	0	3	0	111	27	0	0	0	0	56	508	
289	43	128	0	0	2	0	0	0	11	8	2	0	0	0	0	0	23	0	76	27	0	0	0	0	8	328	
290	4	201	0	0	1	0	0	4	7	0	3	0	5	2	0	0	6	0	94	138	0	0	0	0	34	499	
291	37	223	0	0	4	0	0	9	9	4	6	0	5	0	0	0	2	0	135	22	0	0	0	0	23	479	
292	15	83	0	0	2	0	0	9	18	20	1	0	1	0	0	0	0	0	114	234	1	8	1	0	22	529	
293	54	76	0	0	5	0	0	4	415	51	0	0	1	0	0	0	19	0	254	158	1	0	1	0	63	1102	
294**	8	19	0	0	0	0	0	0	1	3	1	0	0	0	0	0	11	0	24	20	0	0	0	0	6	93	
295	112	543	0	0	0	0	0	4	10	78	1	0	0	0	0	0	165	1	42	8	0	0	1	0	19	984	
296	132	453	0	0	0	0	0	3	22	11	2	0	0	0	0	0	2	0	314	15	0	3	0	0	16	973	
297	0	23	29	74	37	0	22	0	0	0	4	8	0	0	0	0	1	0	54	0	0	137	0	0	53	442	
298	14	310	5	0	0	0	33	3	1	5	0	0	0	0	0	0	0	1	10	0	0	22	0	0	34	438	
299	37	5	21	0	15	0	5	0	0	0	0	1	0	0	0	0	1	0	2	0	0	24	0	0	21	132	
300	40	25	10	0	14	0	5	0	0	0	1	9	0	0	0	0	1	0	2	1	0	15	0	0	58	181	
301**	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
302	1	16	0	0	34	0	0	7	0	0	0	0	0	0	0	0	0	0	1	9	0	38	0	0	30	136	
303	0	13	3	13	2	1	0	6	0	0	0	1	0	0	0	0	2	0	0	2	0	0	0	0	15	58	
304	7	35	21	4	3	1	0	7	0	0	0	1	0	0	0	0	1	0	0	2	0	1	0	0	51	134	
305	77	57	25	0	0	0	0	0	0	6	0	0	0	0	0	0	1	0	0	0	0	7	0	0	16	189	
306**	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
307	23	21	5	3	17	52	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	32	0	0	47	202	
308	4	89	1	2	18	34	0	0	0	0	1	3	0	0	0	0	23	1	0	0	0	12	0	0	41	229	
309	54	11	11	15	114	402	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	8	0	0	65	688	
310	1	9	0	0	40	24	0	0	0	0	1	4	0	0	0	0	0	1	0	0	0	41	0	0	45	166	
311	0	0	0	3	178	7	0	0	0	0	0	5	0	0	0	0	1	0	0	0	0	9	0	0	40	243	
312	0	0	0	9	61	67	3	15	0	0	0	1	0	0	0	0	10	2	0	0	0	17	0	0	16	201	
313	0	0	0	48	181	4	5	15	0	0	4	0	0	0	0	0	0	1	0	0	0	5	0	0	22	285	
314	5	0	0	58	74	1	7	95	0	0	3	2	0	0	0	0	1	0	0	0	0	3	0	0	20	269	
315	0	6	0	7	38	0	5	1	0	0	0	2	0	0	0	0	0	0	0	0	0	10	0	0	52	121	
316	0	0	0	44	46	0	4	7	0	0	3	1	0	0	0	0	1	0	0	0	0	2	0	0	32	140	
317	0	0	10	29	59	37	3	8	0	0	1	2	0	0	0	0	1	0	0	0	0	40	0	0	38	228	

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	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
318	0	0	0	20	37	302	50	103	0	0	3	3	0	0	0	0	0	0	0	0	0	14	0	0	54	586
319	0	0	0	35	104	190	52	131	0	0	0	1	0	0	0	0	0	0	0	0	0	10	1	0	37	561
320	0	0	0	53	36	27	34	243	0	0	1	2	0	0	0	0	1	0	0	0	0	0	0	0	42	439
321	0	0	0	39	28	9	28	74	0	0	5	2	0	0	0	0	1	0	0	0	0	3	0	0	28	217
322	0	0	0	12	53	93	16	4676	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	21	4874
323	0	0	0	4	35	3	33	92	0	0	4	0	0	0	0	0	2	0	0	0	0	10	0	0	38	221
324	0	0	0	8	88	40	5	90	0	0	5	5	0	0	0	0	4	0	0	0	0	4	0	0	70	319
325	1	1	0	2	68	11	2	8	0	0	9	3	0	0	0	0	3	0	0	0	0	0	0	0	61	169
326	0	0	0	11	21	6	5	85	0	0	1	2	0	0	0	0	2	0	0	0	0	0	0	0	42	175
327	0	0	0	17	79	8	13	5	0	0	10	1	0	0	0	0	2	3	0	0	0	0	0	0	63	201
328	0	0	0	25	55	8	17	14	0	0	9	3	0	0	0	0	1	0	0	0	0	0	0	0	52	184
330	0	0	0	0	86	0	0	0	1	33	0	0	4	0	0	0	1	2	2	98	0	9	0	0	268	504
331	0	0	0	0	69	0	0	60	1	17	0	0	4	0	0	0	1	1	0	39	0	36	0	0	106	334
332	0	0	0	11	56	0	0	37	1	14	0	0	3	0	0	0	2	83	3	39	0	45	0	0	79	373
333	0	0	0	0	36	0	0	0	1	45	0	0	6	0	0	0	3	75	0	90	0	3	0	0	2315	2574
334	0	0	0	0	87	0	0	0	0	12	0	0	6	0	0	0	5	3	0	9	0	19	0	0	72	213
335	0	0	0	0	67	0	0	0	2	6	3	0	2	0	0	0	2	2	0	22	0	65	0	0	348	519
336	0	4	0	0	32	0	0	0	6	26	9	0	1	0	0	0	66	30	4	15	0	2	1	0	106	302
337	0	0	0	0	19	0	0	0	2	50	0	0	0	0	0	1	1098	78	8	13	0	21	0	0	489	1779
338	8	0	0	0	1	0	0	0	37	12	2	0	0	0	0	0	16	8	0	1	0	2	0	0	56	143
339	9	1	5	0	29	55	0	0	0	0	6	4	0	0	0	0	1	0	0	0	0	18	0	0	97	225
340	10	227	0	1	19	80	2	0	0	0	8	0	0	0	0	0	3	0	9	0	0	174	0	0	33	566
341**	88	1	0	0	0	0	0	0	2	64	0	0	0	0	0	0	0	0	10	0	0	24	0	0	24	213
342	53	0	0	0	1	0	0	0	16	119	1	0	1	0	0	0	4	3	82	7	0	0	0	0	115	402
343	29	0	0	0	4	0	0	0	25	23	0	0	0	0	0	0	8	0	48	8	0	0	0	0	45	190
344	92	15	3	0	2	0	0	0	304	23	2	0	0	0	0	0	4	0	26	55	0	1	0	0	52	579
345	238	70	21	0	3	0	0	7	435	71	3	0	0	0	0	0	47	0	39	33	0	4	0	0	95	1066
346	169	1	0	2	102	0	0	19	135	27	61	1	0	0	0	0	2375	3	9	0	0	23	0	0	49	2976
347	42	0	0	0	0	0	0	0	5	71	0	0	0	0	0	0	4	0	3	6	0	11	0	0	231	373
348	95	0	1	0	0	0	0	0	120	96	0	1	0	0	0	0	0	195	2	8	0	42	0	0	153	713
349	55	0	0	0	0	0	0	0	124	66	0	0	0	0	0	0	30	9	4	5	0	26	1	0	46	366

NOAA FISHERIES SERVICE-NEFSC SPRING BOTTOM TRAWL SURVEY 28 FEBRUARY - 4 MAY 2012
 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
350	104	4	1	0	1	4	0	0	6	89	9	0	0	0	0	0	11	3	3	0	0	99	0	0	98	432
351	55	15	0	2	129	16	4	0	66	2	69	6	0	0	0	0	40	0	10	0	0	26	0	0	56	496
352	16	5	0	0	110	0	0	0	592	64	61	0	4	0	0	0	1	0	21	69	0	17	0	0	28	988
353	68	35	0	0	24	1	1	0	32	8	95	1	0	0	0	0	1	0	8	20	0	151	0	0	20	465
354	42	39	0	4	36	17	1	0	13	5	108	0	0	0	0	0	0	0	6	45	0	144	0	0	23	483
355	193	89	10	0	5	47	0	0	1	1	5	0	0	0	0	0	5	0	0	0	0	23	0	0	66	445
356	30	17	0	0	18	56	0	0	0	0	7	1	0	0	0	0	4	0	0	0	0	4	0	0	31	168
357	112	8	0	0	33	14	7	0	3	0	45	1	0	0	0	0	176	0	0	0	0	56	1	0	406	862
358	18	10	0	0	63	0	7	0	37	5	29	0	0	0	0	0	29	0	0	6	0	57	0	0	202	463
359	0	0	0	0	24	0	0	0	38	26	12	0	0	0	0	0	962	0	0	2	0	37	0	0	297	1398
360	0	0	0	0	1	0	0	0	7	16	0	0	1	0	0	0	698	0	0	2	0	9	0	0	56	790
361	3	1	0	0	8	0	0	0	49	33	31	1	0	0	0	0	137	0	0	6	0	186	0	0	101	556
362	29	5	0	3	213	7	1	0	6	0	44	3	0	0	0	0	6	0	0	0	0	33	0	0	104	454
363	33	5	0	0	197	95	20	0	0	1	13	3	0	0	0	0	2	0	0	0	0	13	0	0	39	421
364	0	0	18	58	92	6	14	14	0	0	17	24	0	0	0	0	1	0	0	0	0	4	0	0	64	312
365	9	1	3	0	0	6	0	7	0	3	1	0	0	0	0	0	2	0	0	0	0	30	0	0	56	118
366**	13	11	0	0	0	0	0	0	20	27	3	0	0	0	0	0	0	0	0	0	0	17	0	0	906	997
367	14	0	10	0	163	2	19	4	0	0	8	2	0	0	0	0	6	0	0	0	0	16	0	0	49	293
368	5	0	0	0	100	0	1	0	4	1	22	0	0	0	0	0	2	0	0	2	0	35	0	0	169	341
369	20	1	1	0	451	27	2	6	0	0	21	3	0	0	0	0	10	0	0	0	0	30	0	0	216	788
370	18	0	0	7	272	2	0	0	0	0	16	6	0	0	0	0	1	0	4	0	0	14	0	0	72	412
371	0	0	0	1	240	3	5	0	0	0	18	2	0	0	0	0	2	0	0	0	0	9	0	0	44	324
372	0	0	0	0	154	4	7	5	0	0	18	3	0	0	0	0	20	0	0	0	0	12	0	0	65	288
373	0	2	0	0	348	2	1	0	2	0	18	1	0	0	0	0	0	0	0	0	0	84	0	0	94	552
374	11	0	0	4	558	3	13	0	1	0	30	4	0	0	0	0	14	0	0	0	0	32	0	0	365	1035
375	0	0	0	3	56	1219	7	6	0	0	8	5	0	0	0	0	1	0	0	0	0	3	0	0	31	1339
376	0	0	0	0	33	2	0	0	0	1	10	1	1	0	0	0	0	0	0	0	0	112	0	0	71	231
377	0	0	0	1	17	0	0	0	0	2	17	0	0	0	0	0	1	0	0	0	0	198	0	0	48	284
378**	0	0	0	0	1	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	6	0	0	3	12
379	1	1	0	0	32	1	0	0	0	3	5	0	1	0	0	0	39	0	0	0	0	154	0	0	22	259
380	0	0	0	0	47	0	0	0	0	3	2	0	1	0	0	0	3	0	0	0	0	120	0	0	26	202

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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
381	0	0	0	0	62	0	1	0	0	5	3	0	1	0	0	0	1	0	0	0	0	157	0	0	43	273
382	1	0	7	1	133	2	0	0	0	2	2	0	2	0	0	0	4	0	0	0	0	161	0	0	52	367
383	0	3	0	1	607	3	2	0	0	0	23	1	0	0	0	0	2	0	0	0	0	93	0	0	20	755
384	0	0	0	7	219	1	1	0	0	0	7	3	0	0	0	0	1	0	0	0	0	31	0	0	24	294
385	0	0	0	2	89	0	0	0	0	0	2	1	3	0	0	0	1	0	4	0	0	122	0	0	17	241
386	0	0	0	9	9	0	7	3	0	0	1	1	0	0	0	0	1	0	0	0	0	27	0	0	28	86
387	0	0	0	3	12	2	2	7	0	0	0	9	0	0	0	0	2	0	0	0	0	22	0	0	23	82
388**	0	1	2	2	43	15	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	9	74
389**	9	1	1	1	21	1364	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	19	1426
390	4	22	0	0	0	4	0	0	0	9	0	0	0	0	0	0	42	592	0	0	0	32	0	0	83	788
391	12	19	1	0	34	5	2	2	0	4	3	6	0	0	0	0	1	0	0	0	0	9	1	0	127	226
392	0	2	0	16	160	1	17	1	0	0	5	5	0	0	0	0	1	0	0	0	0	17	0	0	21	246
393	0	0	0	59	202	0	2	6	0	0	6	15	0	0	0	0	1	0	0	0	0	6	0	0	24	321
394	7	14	0	10	300	1	1	4	0	0	18	5	0	0	0	0	1	1	0	0	0	8	0	0	42	412
395	2	0	0	12	261	1	0	13	0	0	10	3	0	0	0	0	110	0	0	0	0	18	2	0	23	455
396	0	0	0	15	650	176	4	11	0	0	18	11	0	0	0	0	17	0	0	0	0	13	0	0	57	972
397	10	1	11	2	236	391	10	16	0	0	3	17	0	0	0	0	108	2	0	0	0	9	0	0	89	905
398**	7	489	36	0	0	4	0	6	2	0	1	0	0	0	0	0	16	11	0	0	0	13	0	0	15	600
399	3	87	0	3	14	13	25	19	0	0	20	4	0	0	0	0	16	1	0	0	0	37	0	0	96	338
400	0	0	48	5	256	88	26	70	0	0	12	3	0	0	0	0	2	0	0	0	0	21	0	0	59	590
401	3	4	176	8	101	1136	41	2	0	0	17	2	0	0	0	0	35	0	0	0	0	10	0	0	53	1588
402	0	0	5	42	111	42	7	5	0	0	13	0	0	0	0	0	1	0	0	0	0	0	0	0	52	278
403	0	0	0	14	45	94	7	6	0	0	7	0	0	0	0	0	13	1	0	0	0	4	0	0	100	291
404	0	0	18	11	49	265	133	5	0	0	34	3	0	0	0	0	7	0	2	0	0	2	0	0	73	602
405	0	0	0	6	527	25	9	0	0	0	22	22	0	0	0	0	20	0	0	0	0	25	0	0	48	704
TOTAL	2839	9547	567	1605	17778	7877	3494	118510	3237	2180	1239	648	605	1393	612	270	11244	3574	10365	13336	4120	4573	8509	426	74744	303292

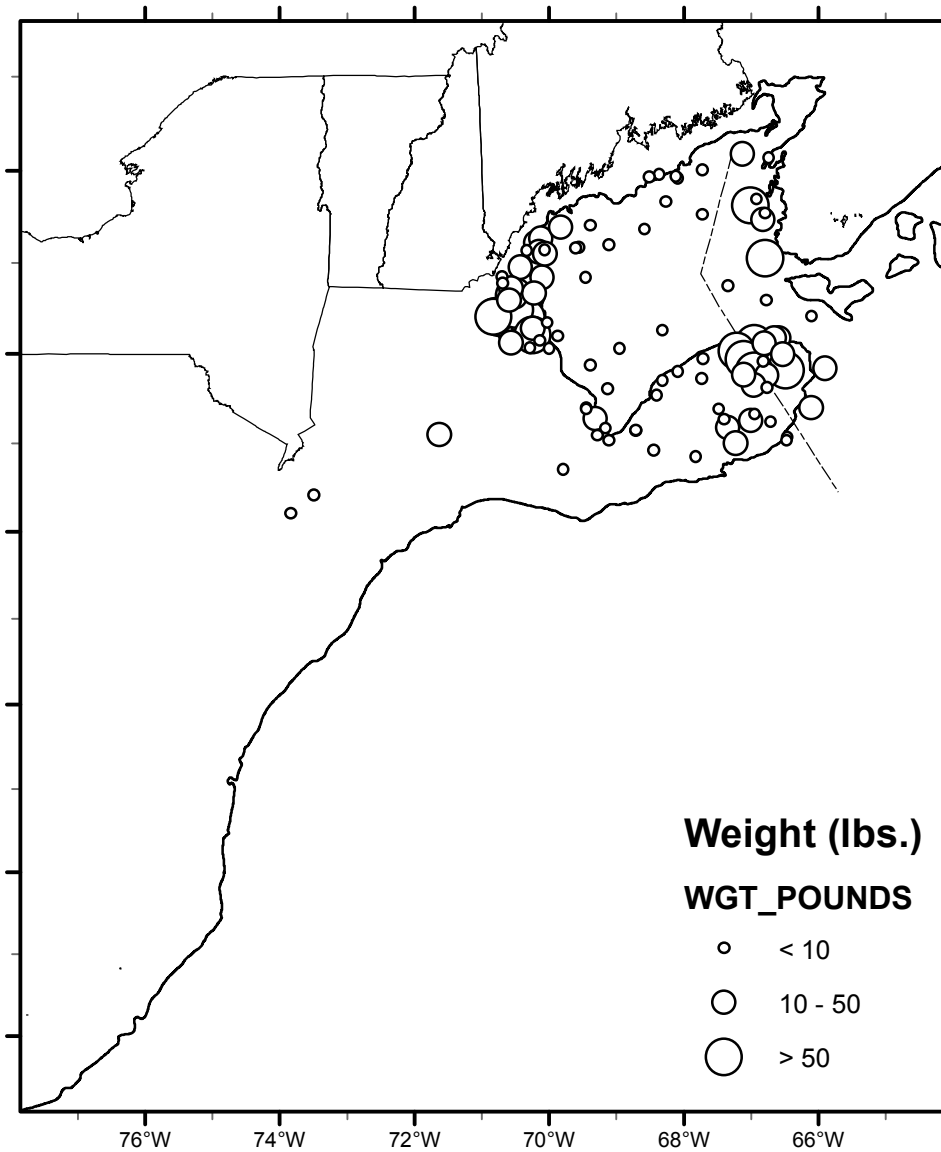
* "Total others" in southern areas are comprised primarily of smooth dogfish and spotted hake

** Excluded from stock assessment due to unacceptable tow evaluation code.

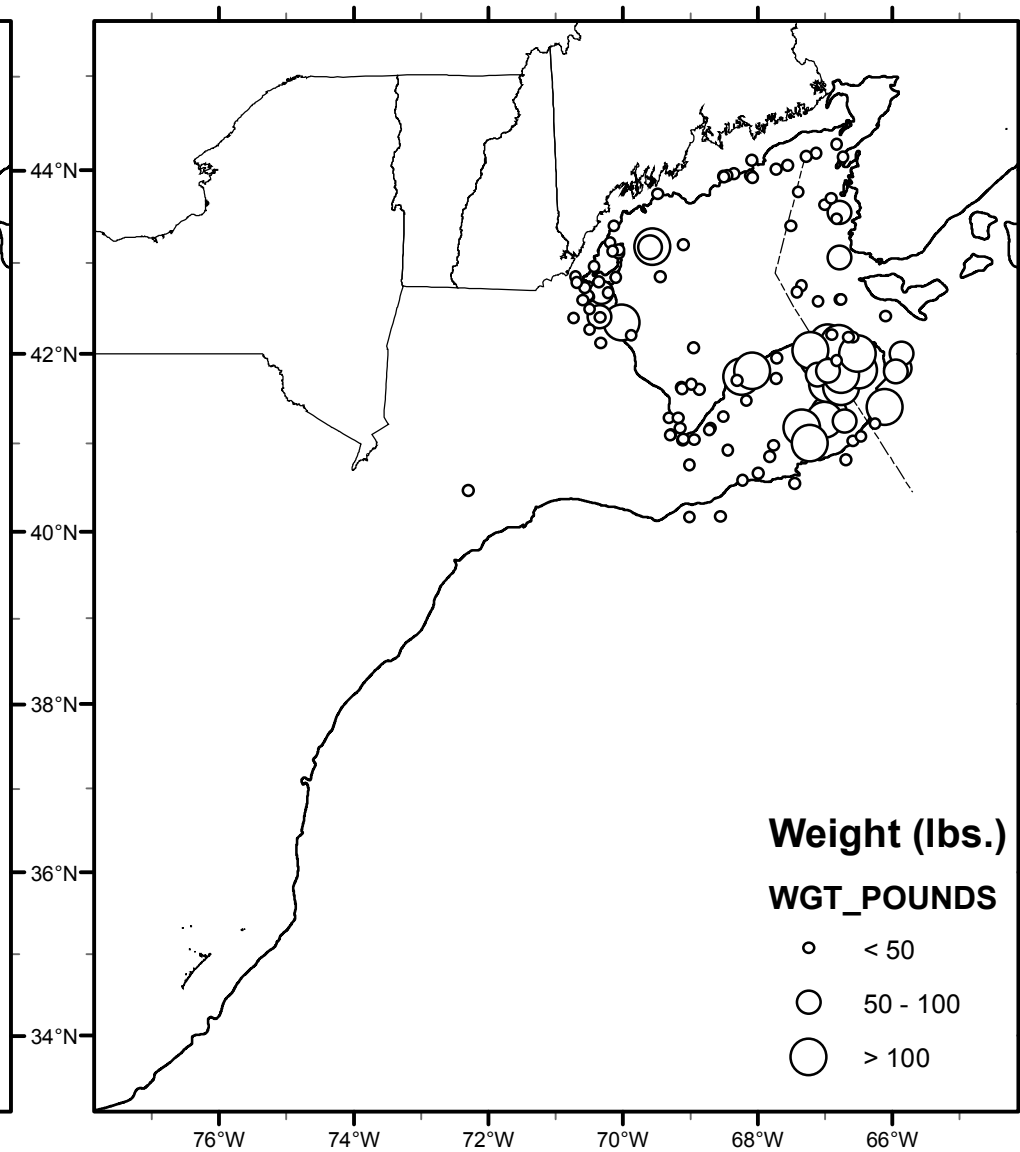
*** Missing sequential numbers indicate either a test-tow or no-trawl-was-attempted

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ATLANTIC COD

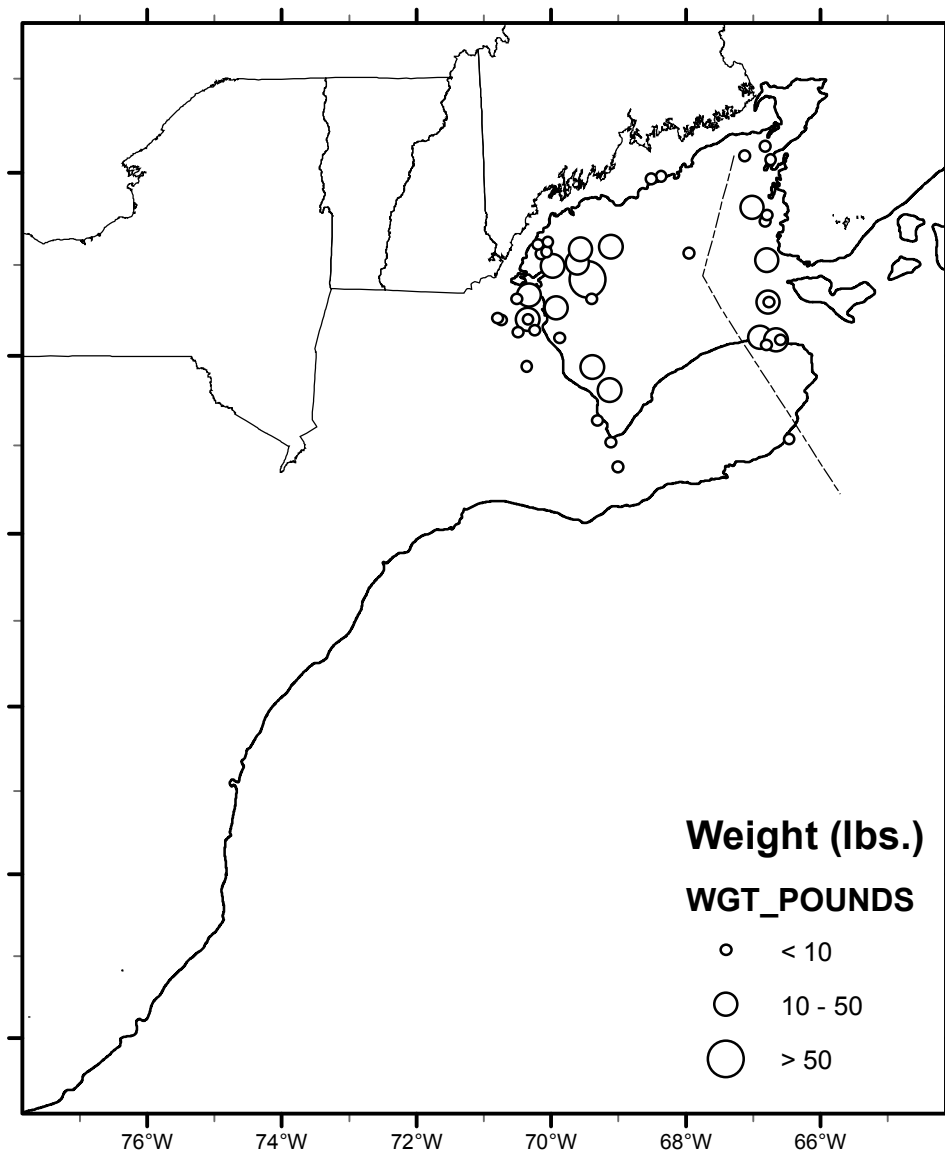


HADDOCK

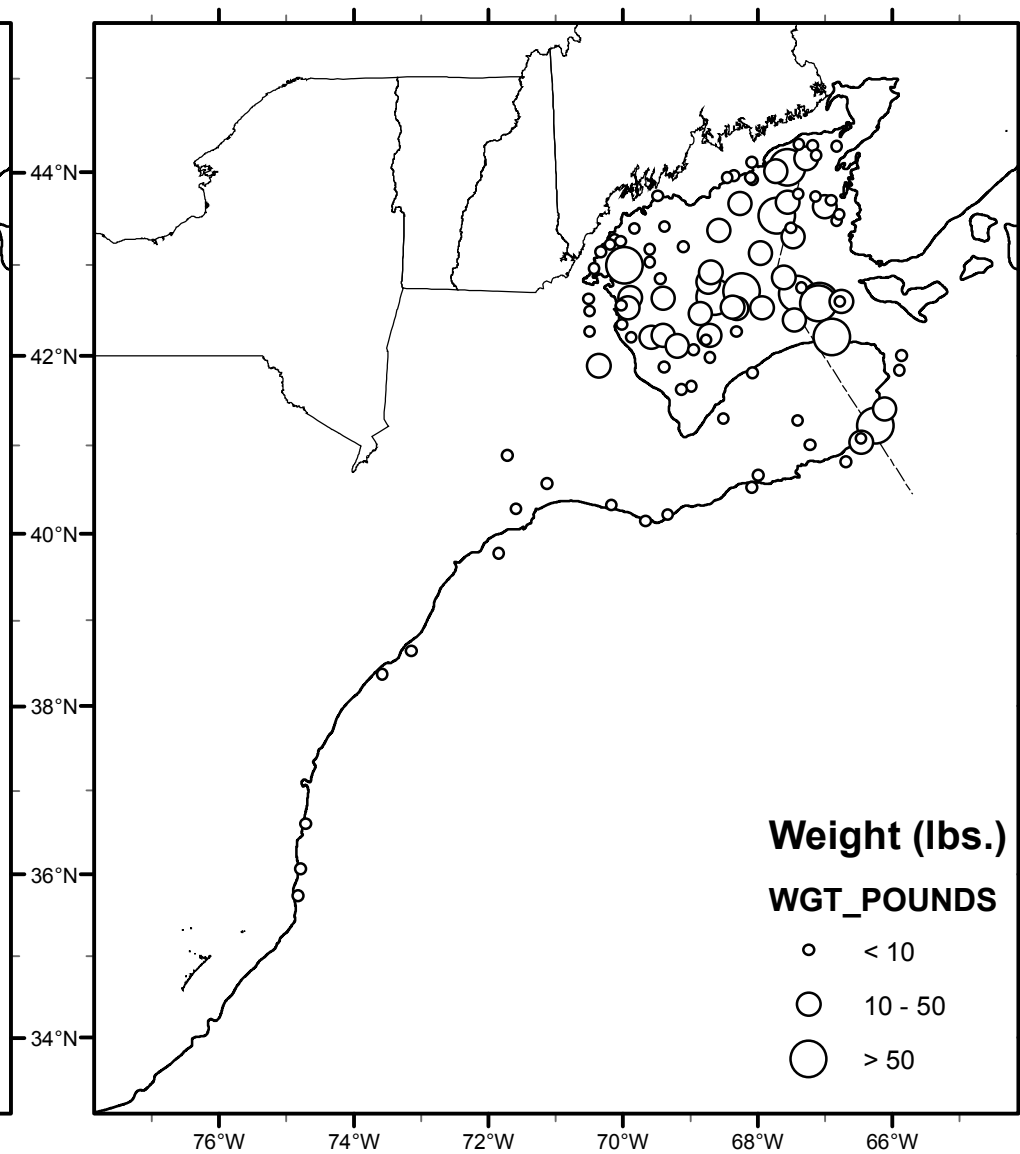


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POLLOCK

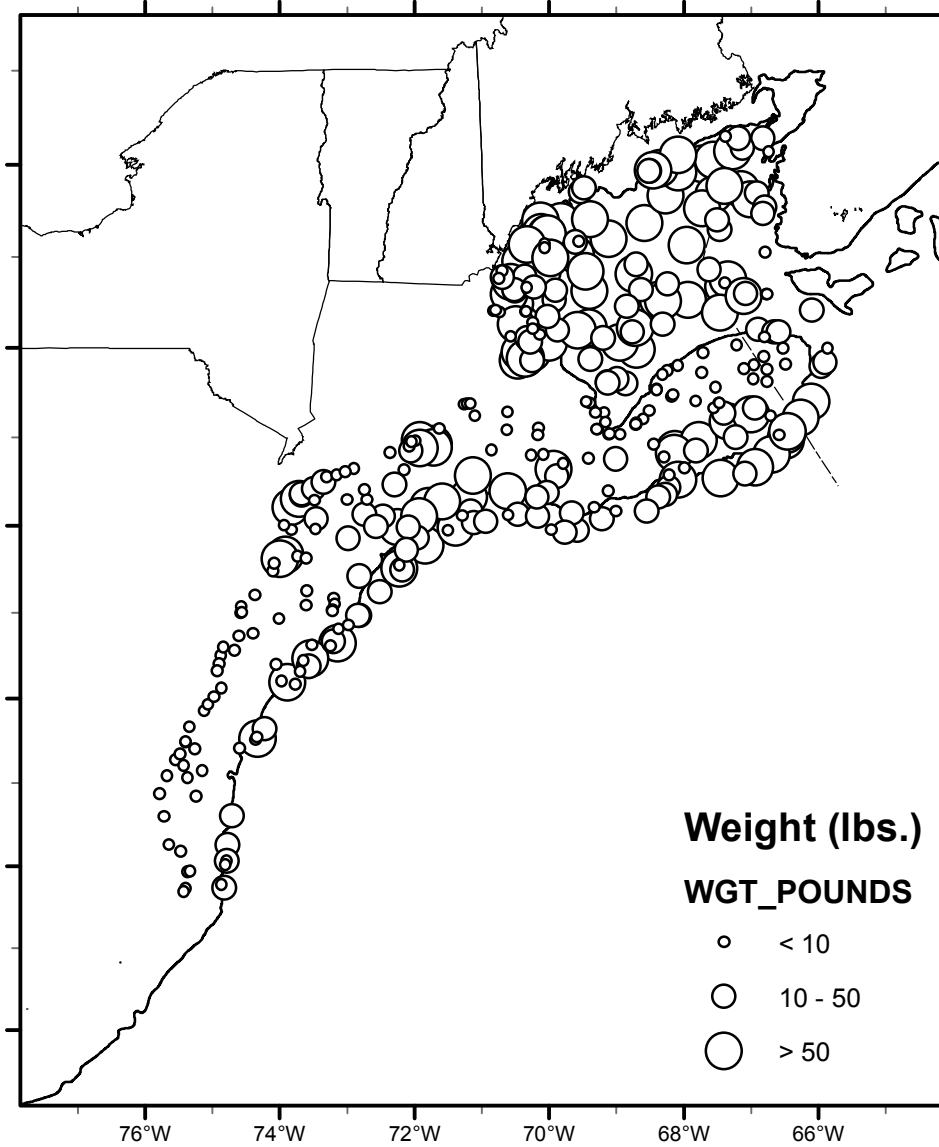


WHITE HAKE

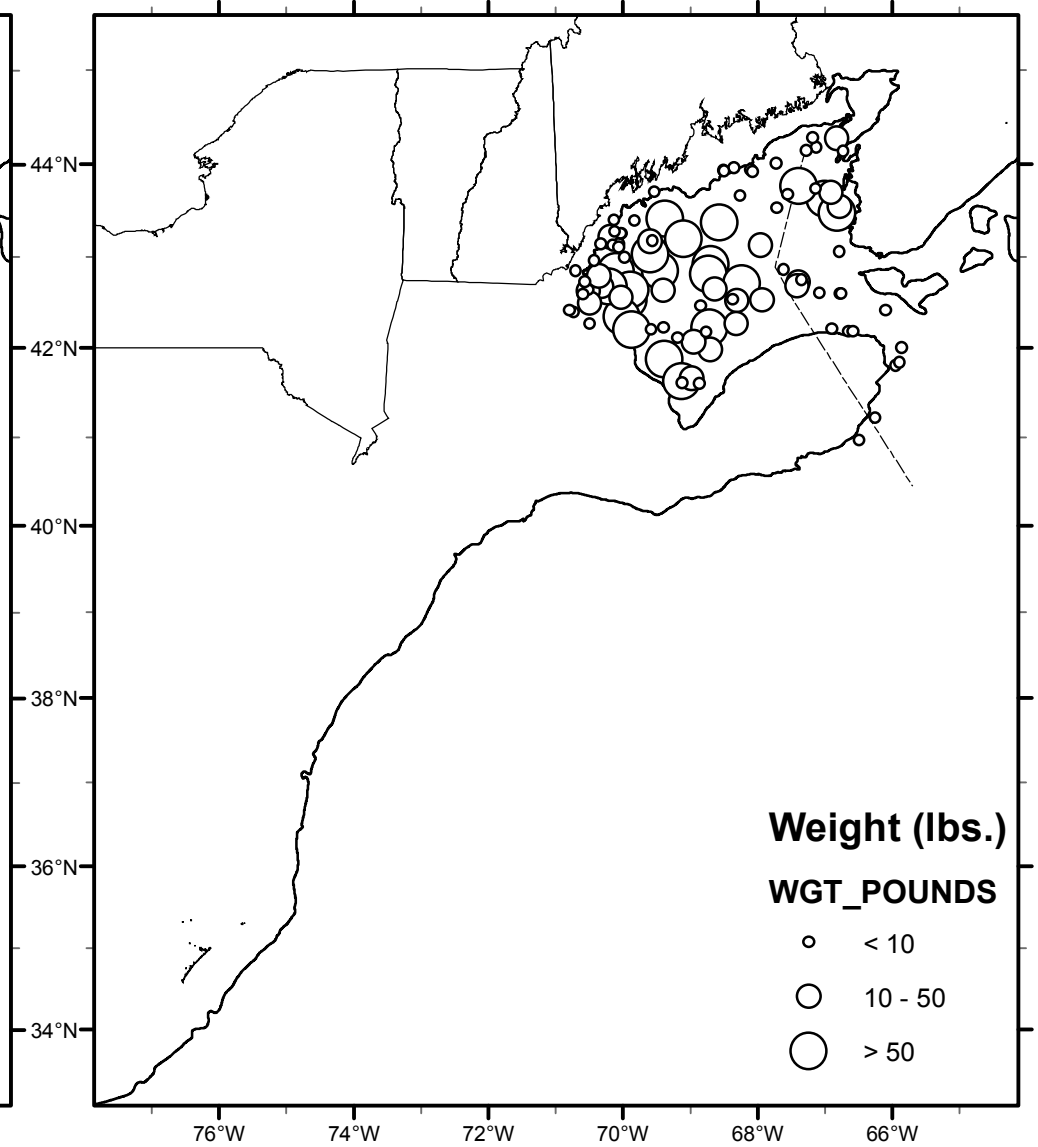


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SILVER HAKE

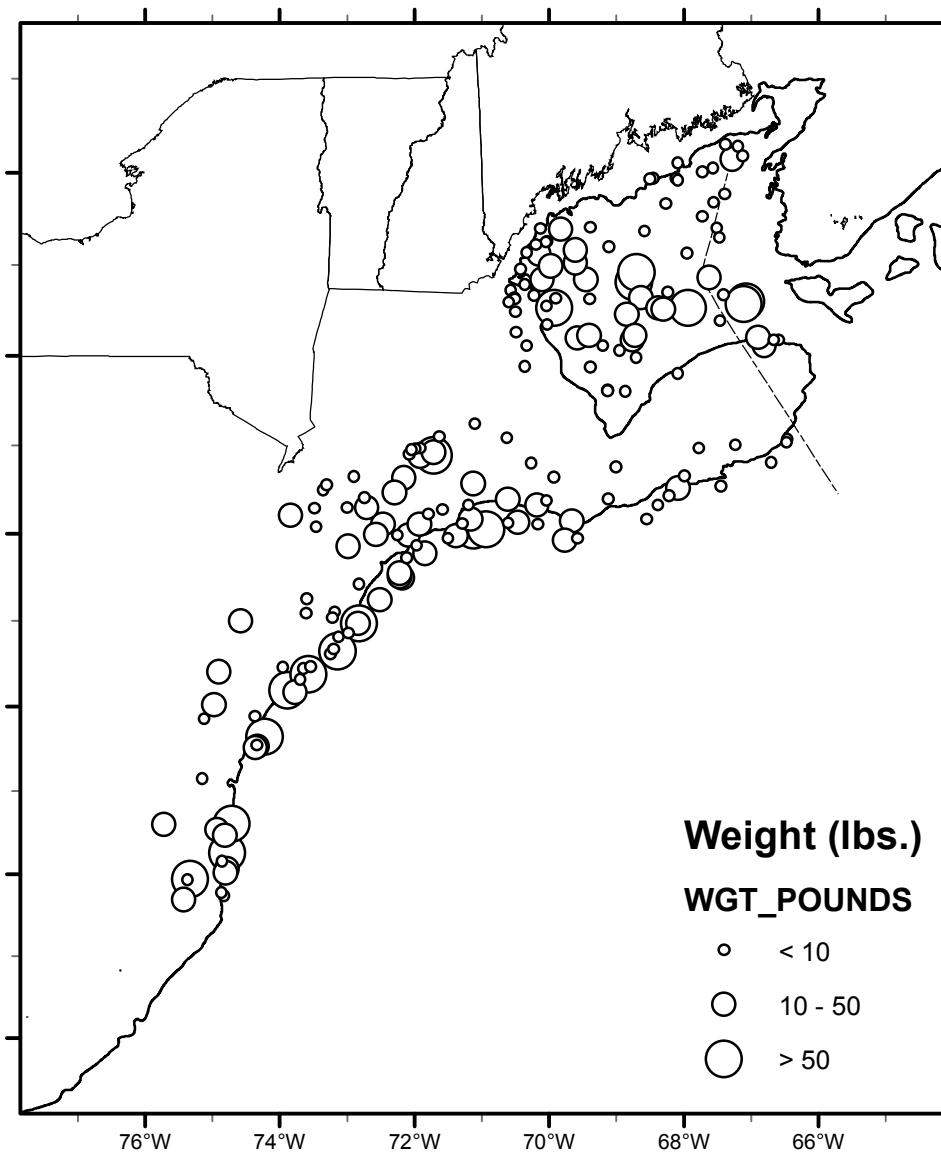


ACADIAN REDFISH

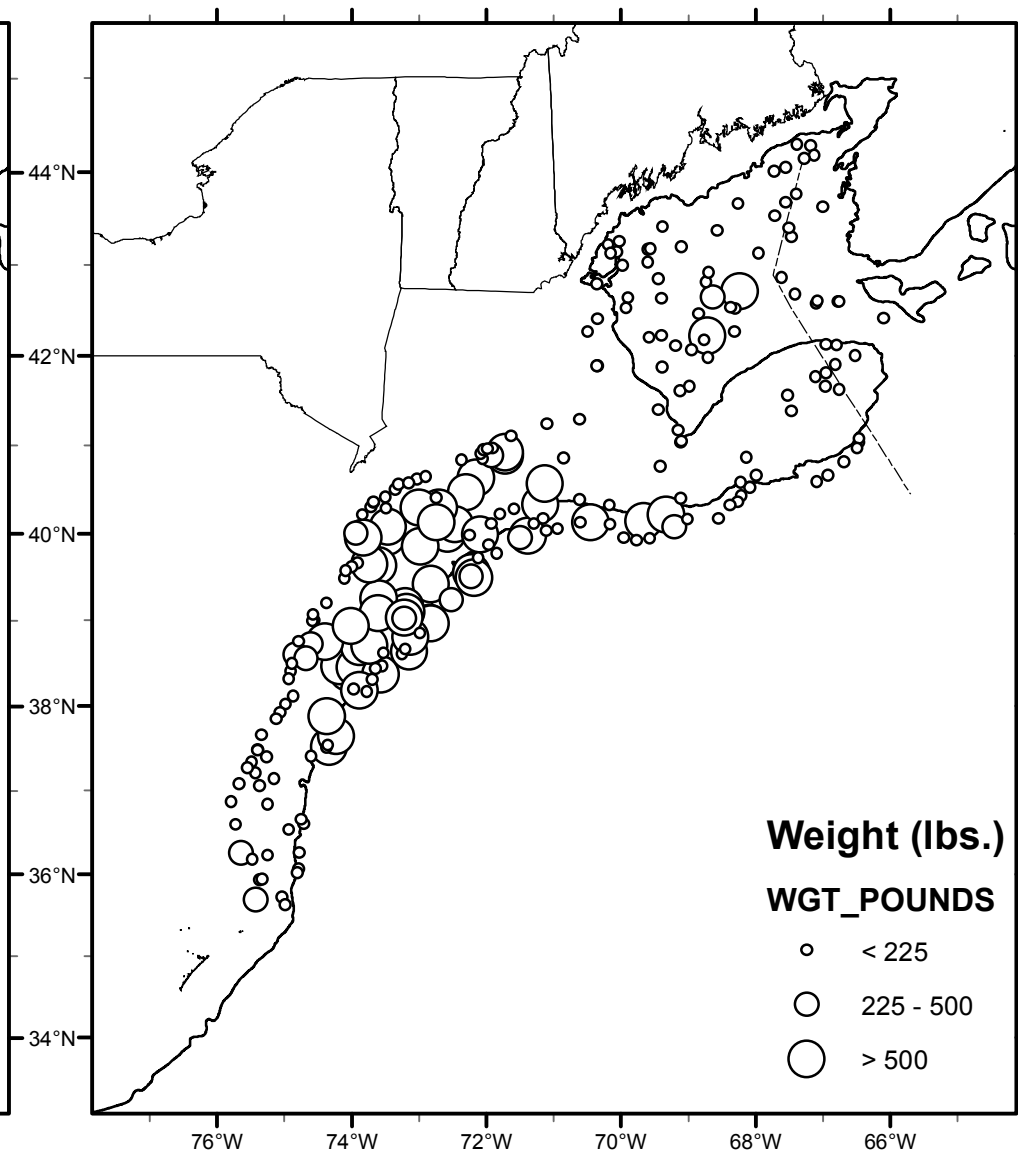


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GOOSEFISH

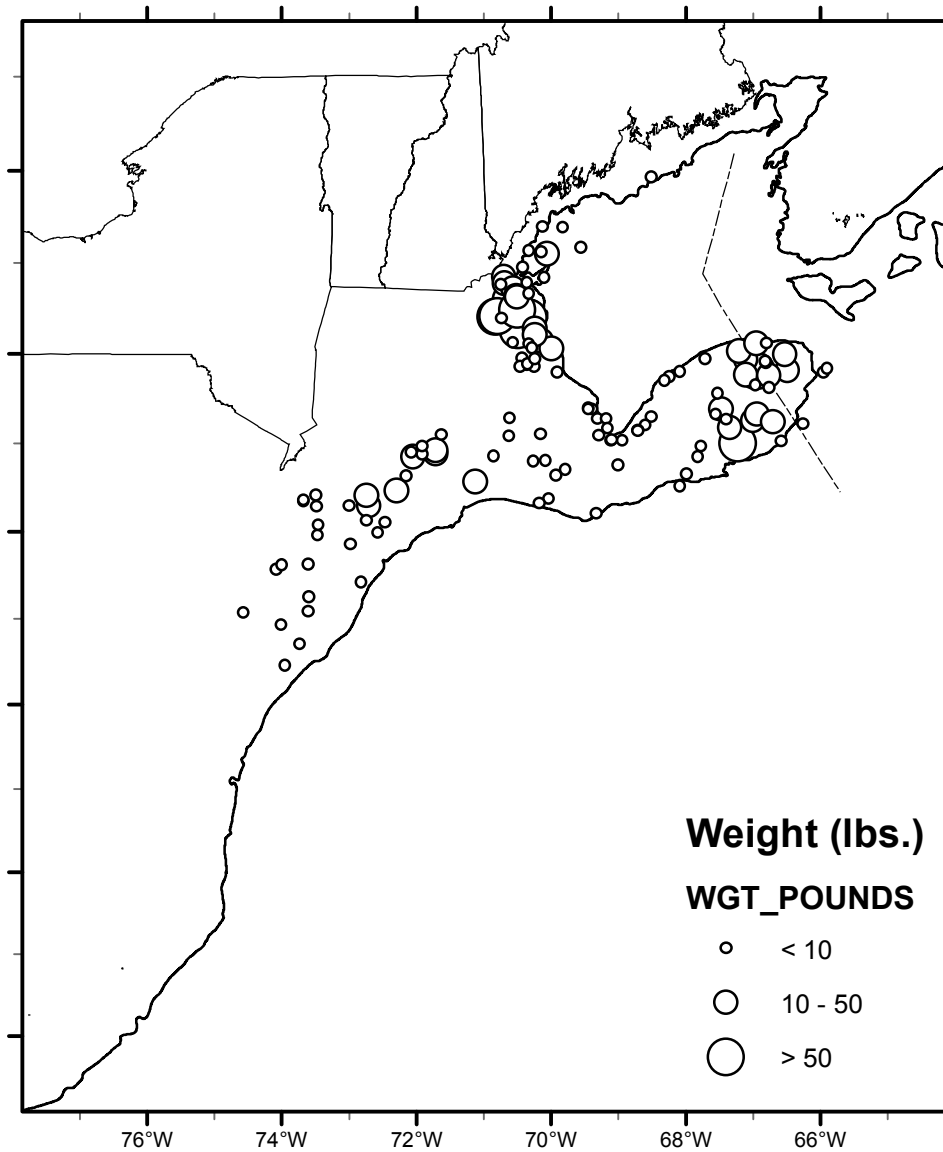


SPINY DOGFISH

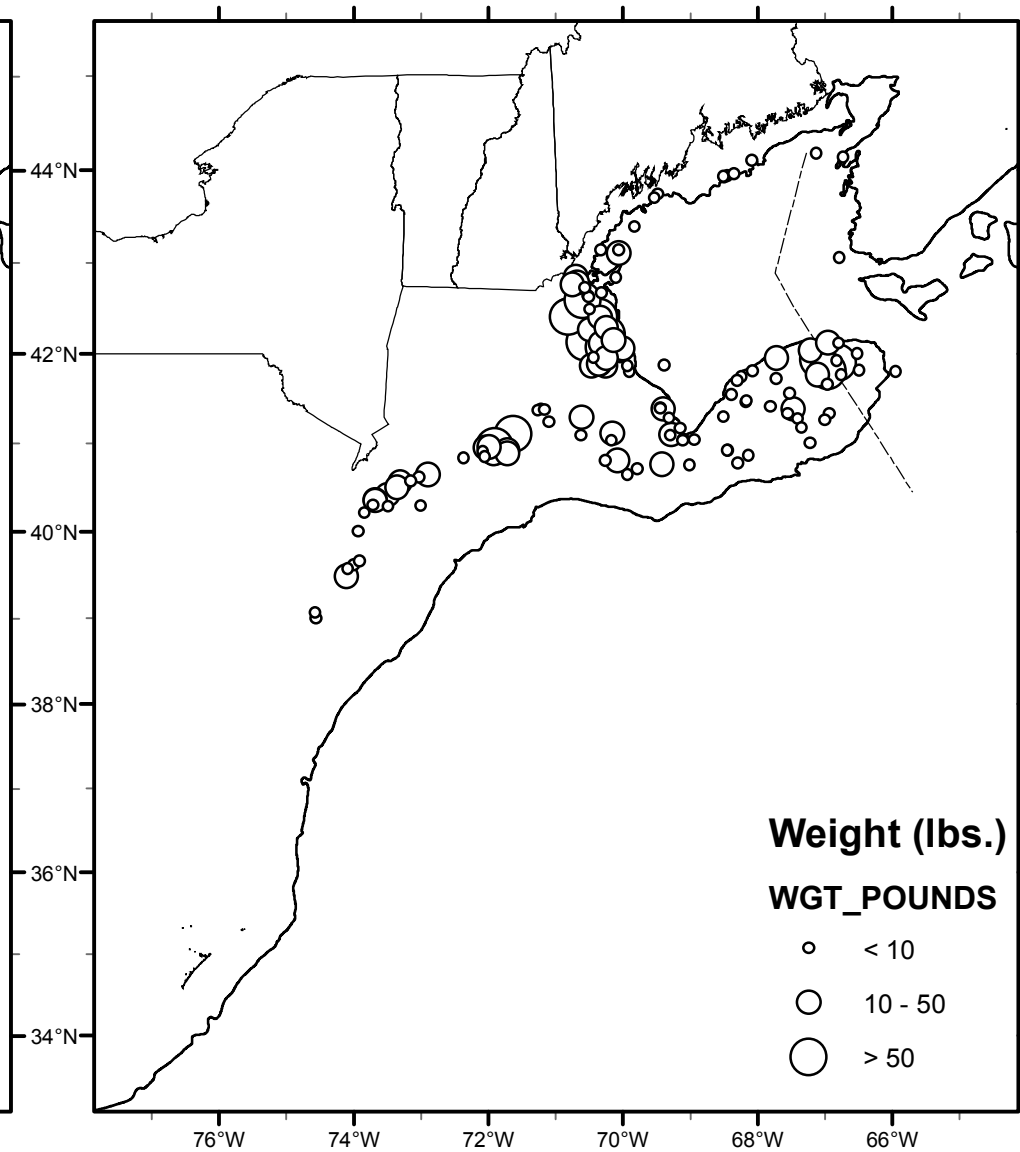


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YELLOWTAIL FLOUNDER

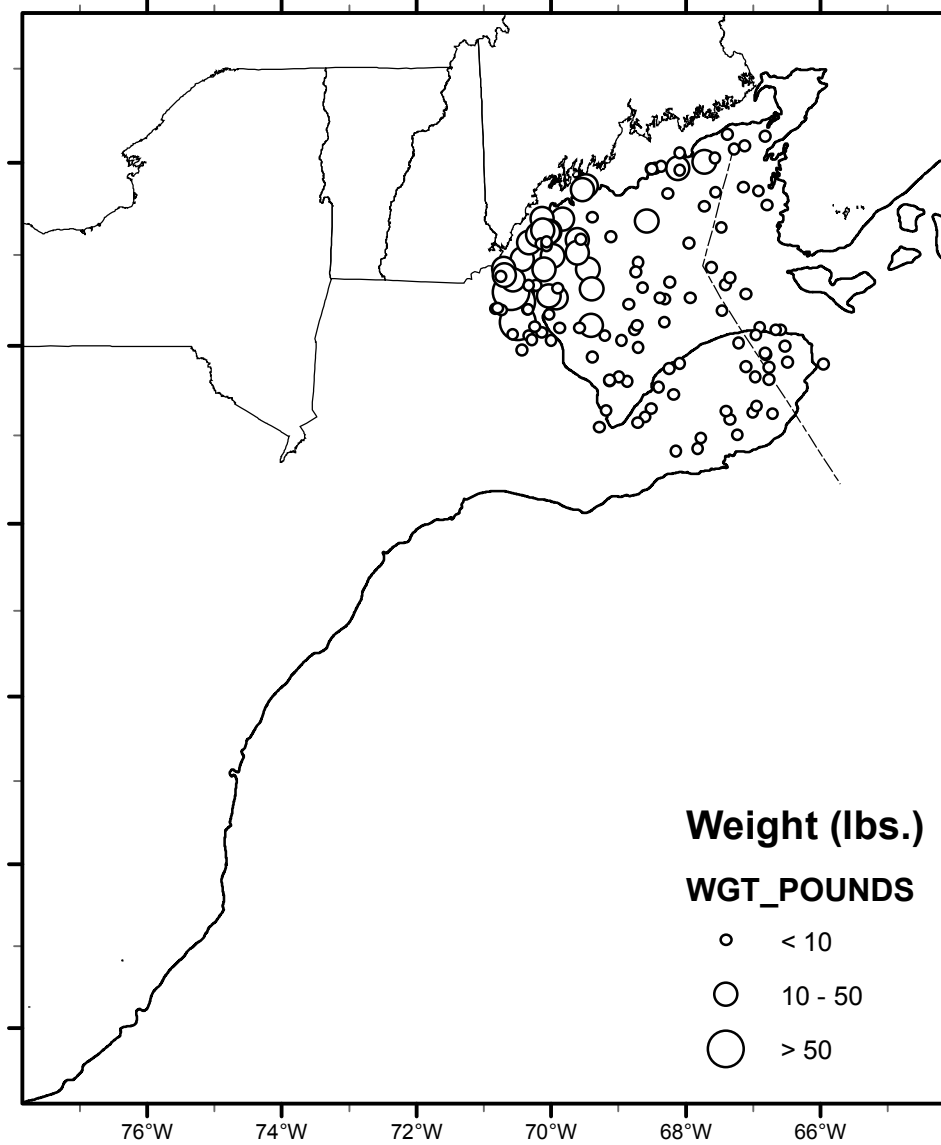


WINTER FLOUNDER

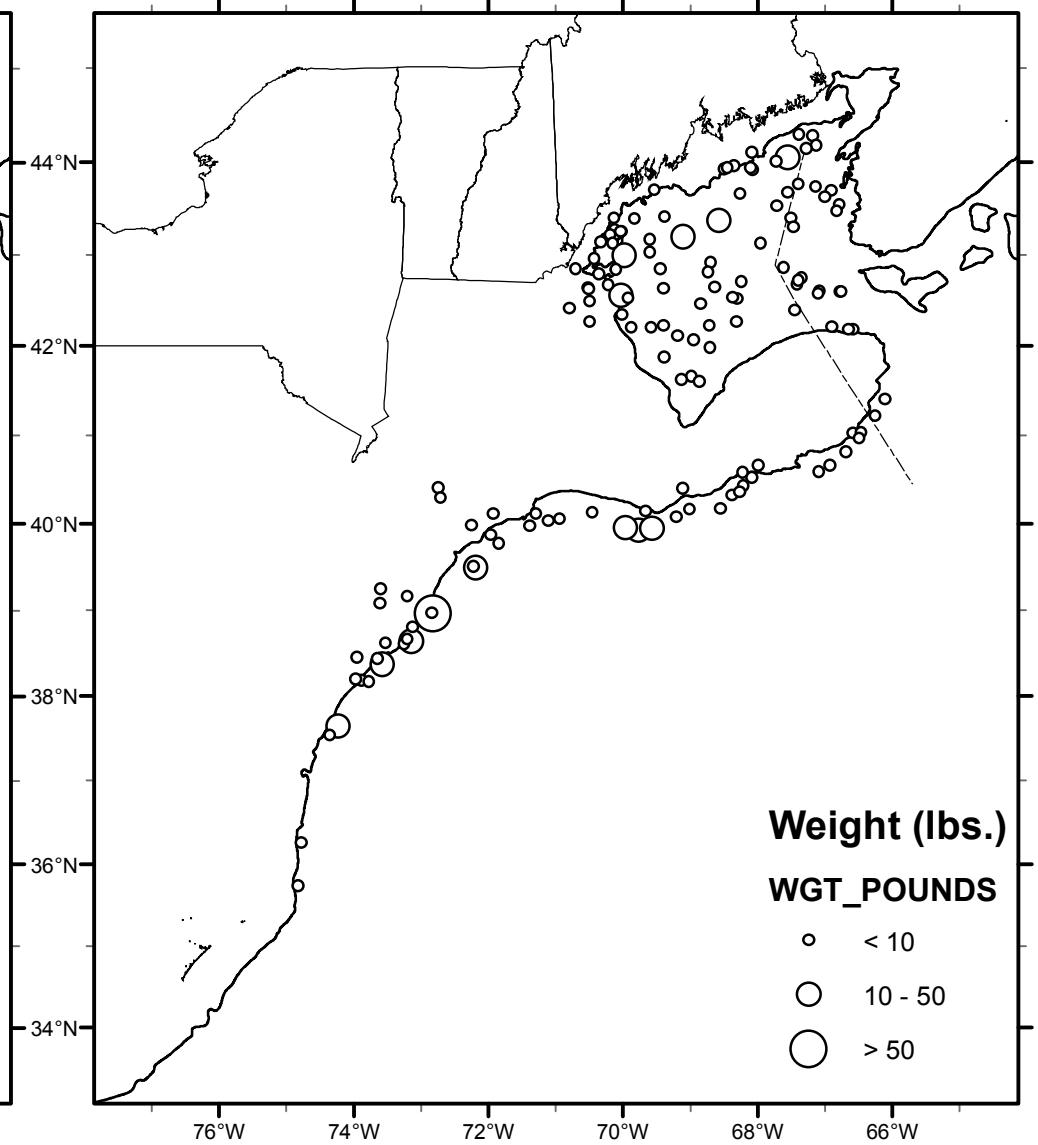


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AMERICAN PLAICE

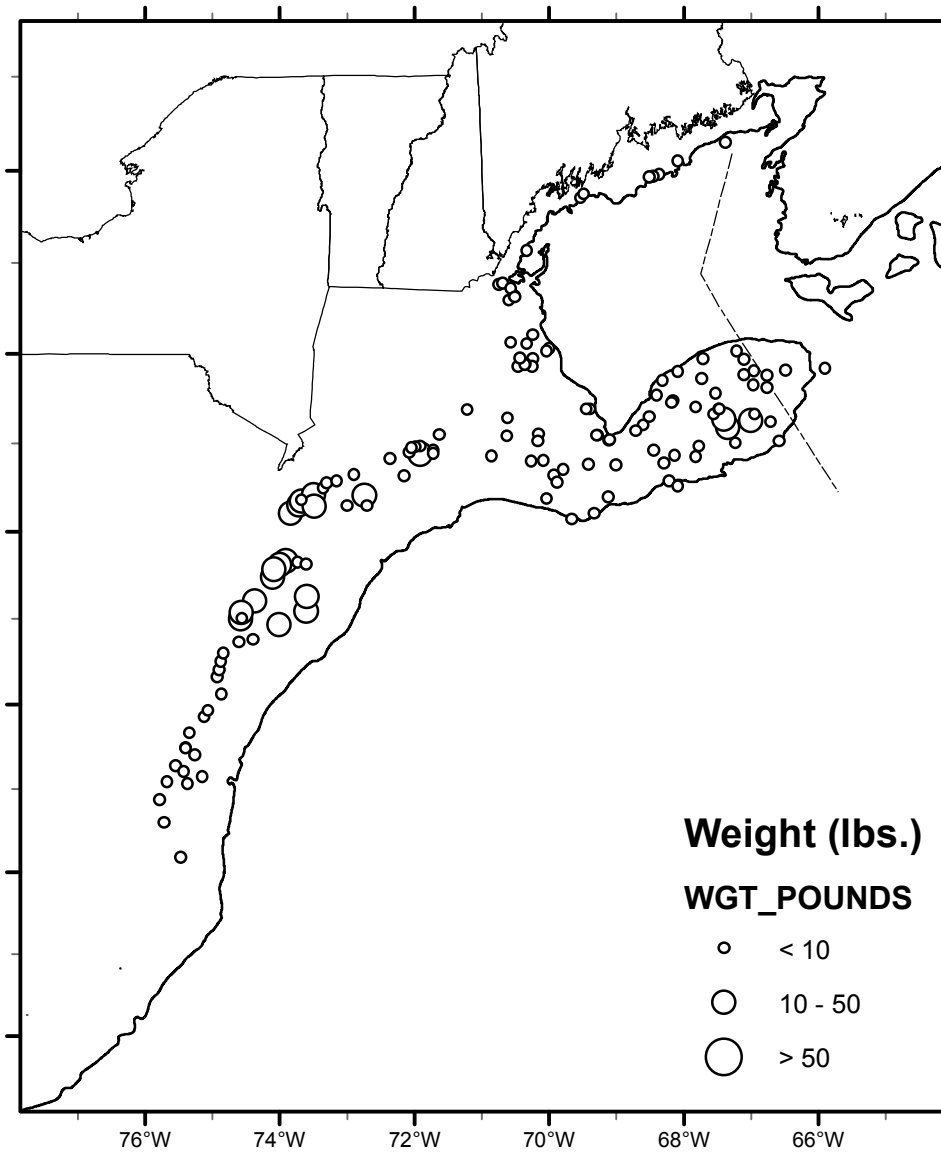


WITCH FLOUNDER

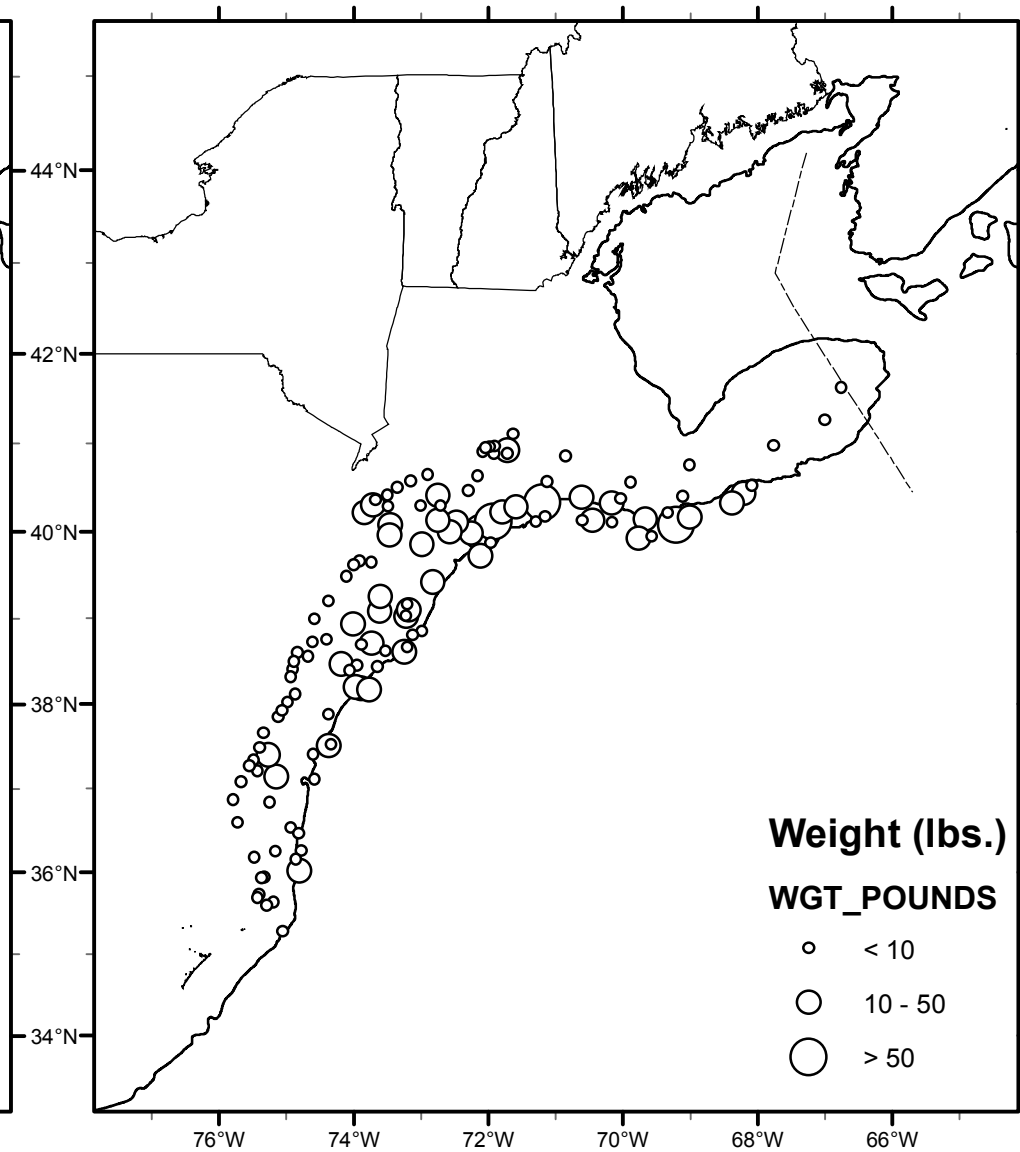


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WINDOWPANE

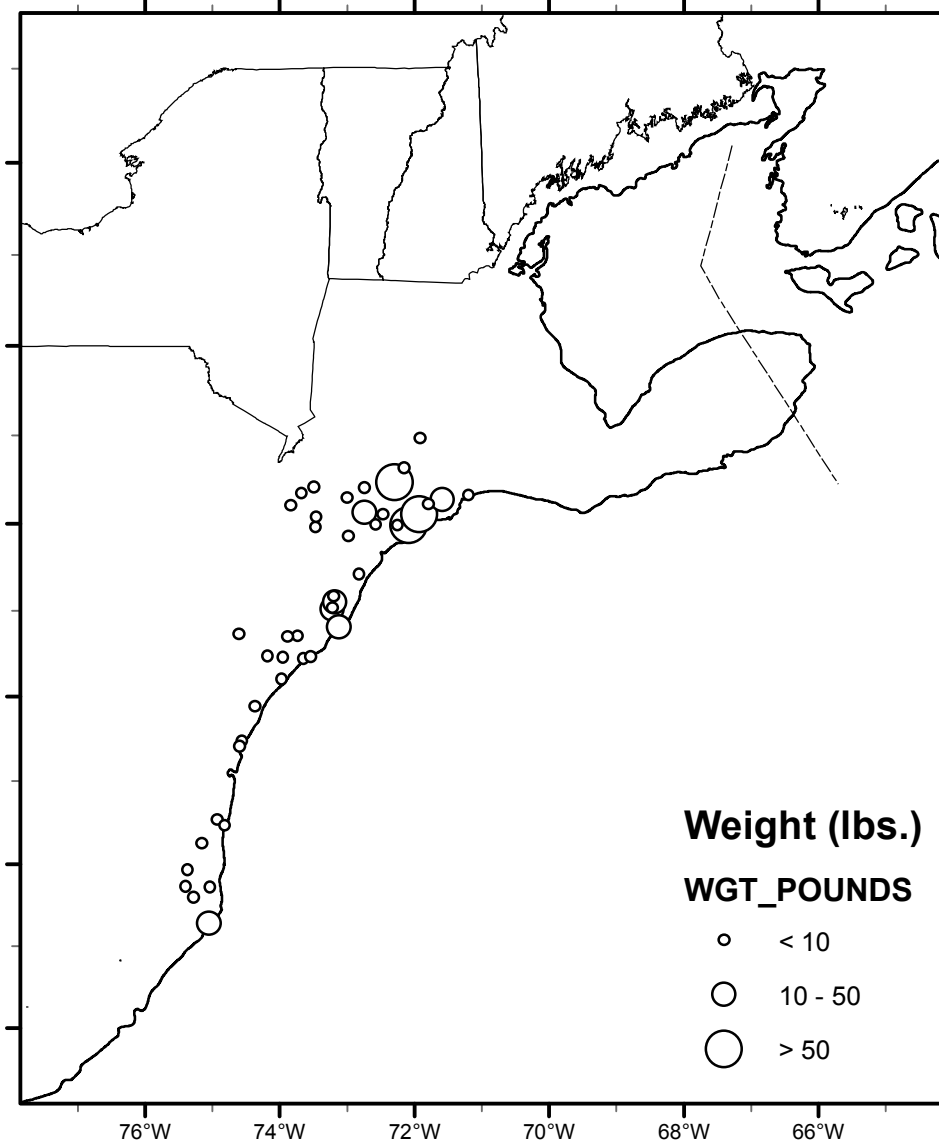


SUMMER FLOUNDER

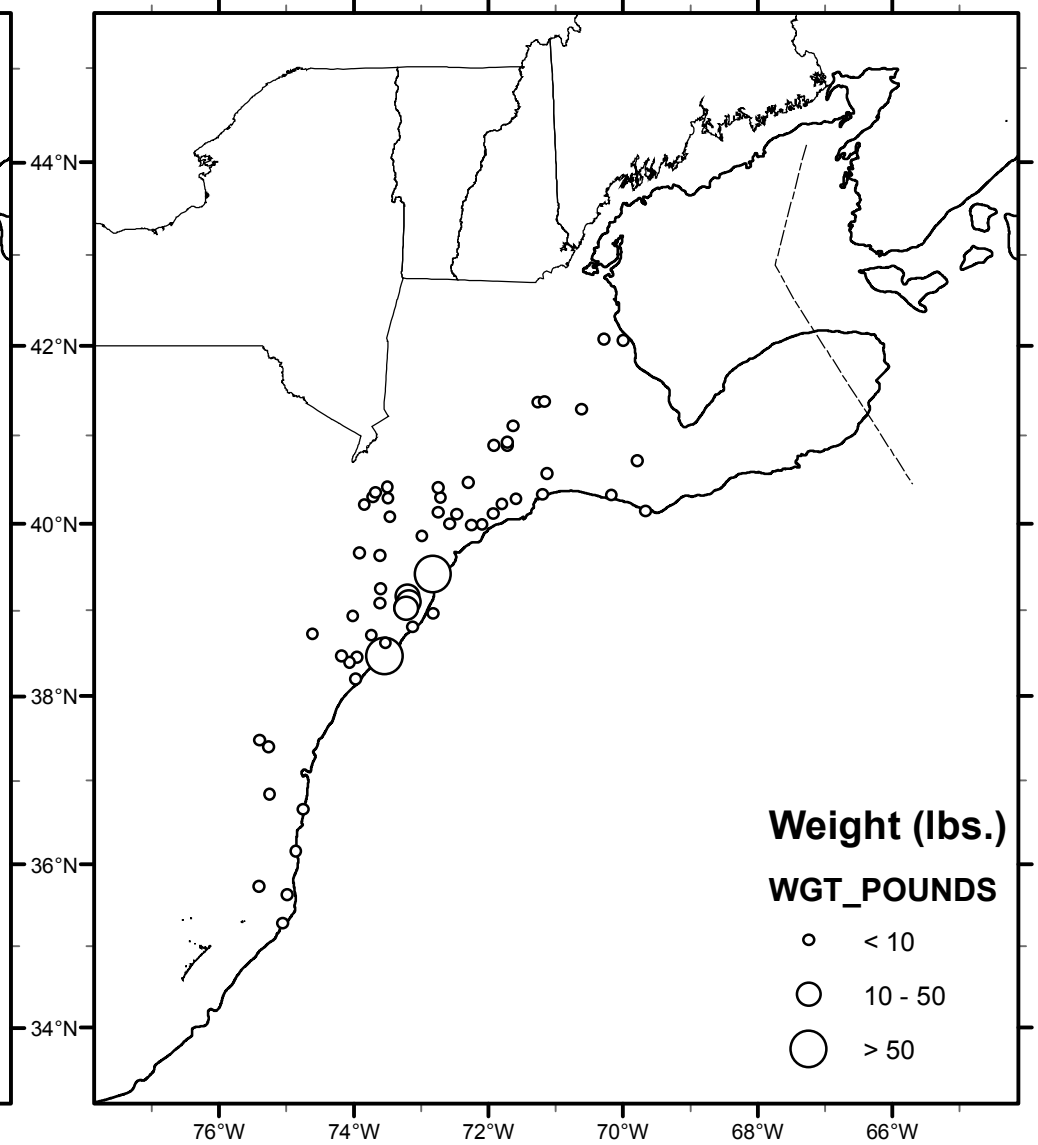


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SCUP

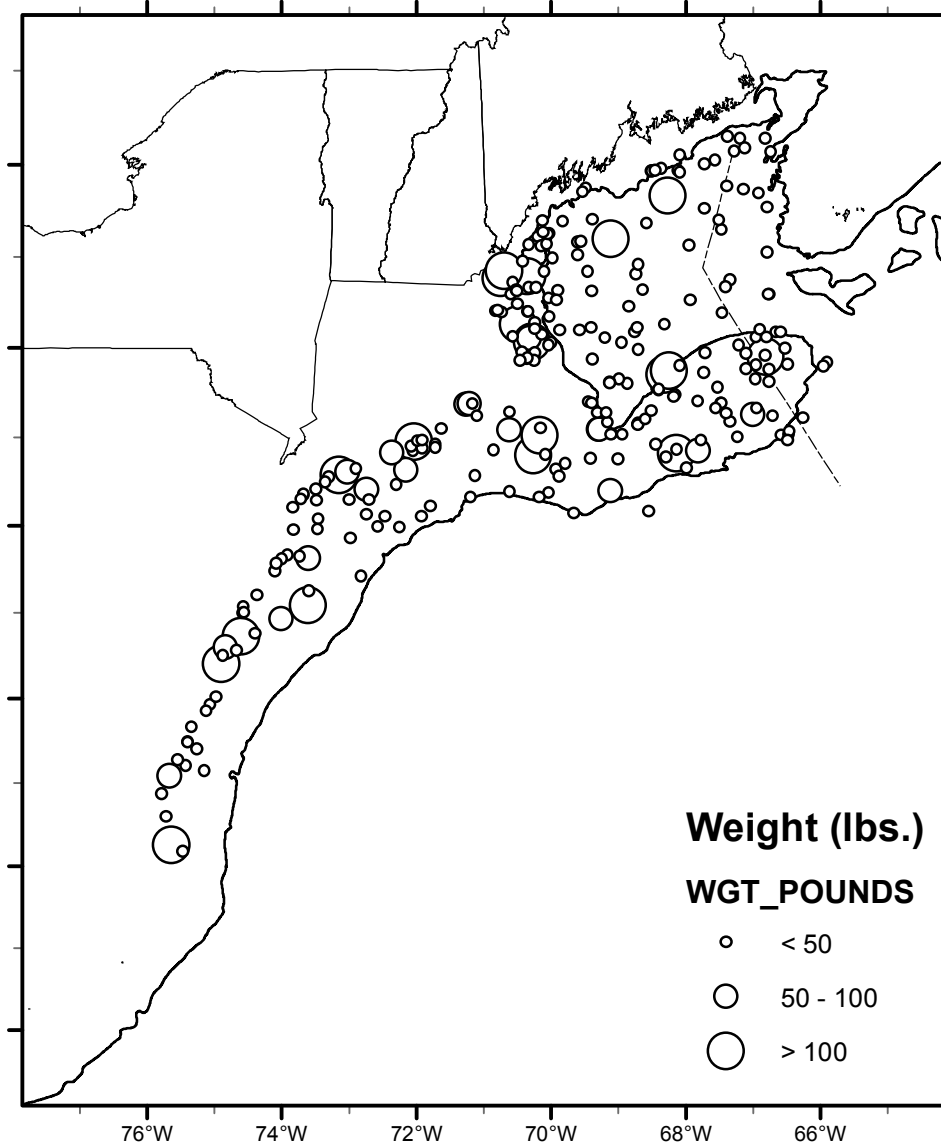


BLACK SEA BASS

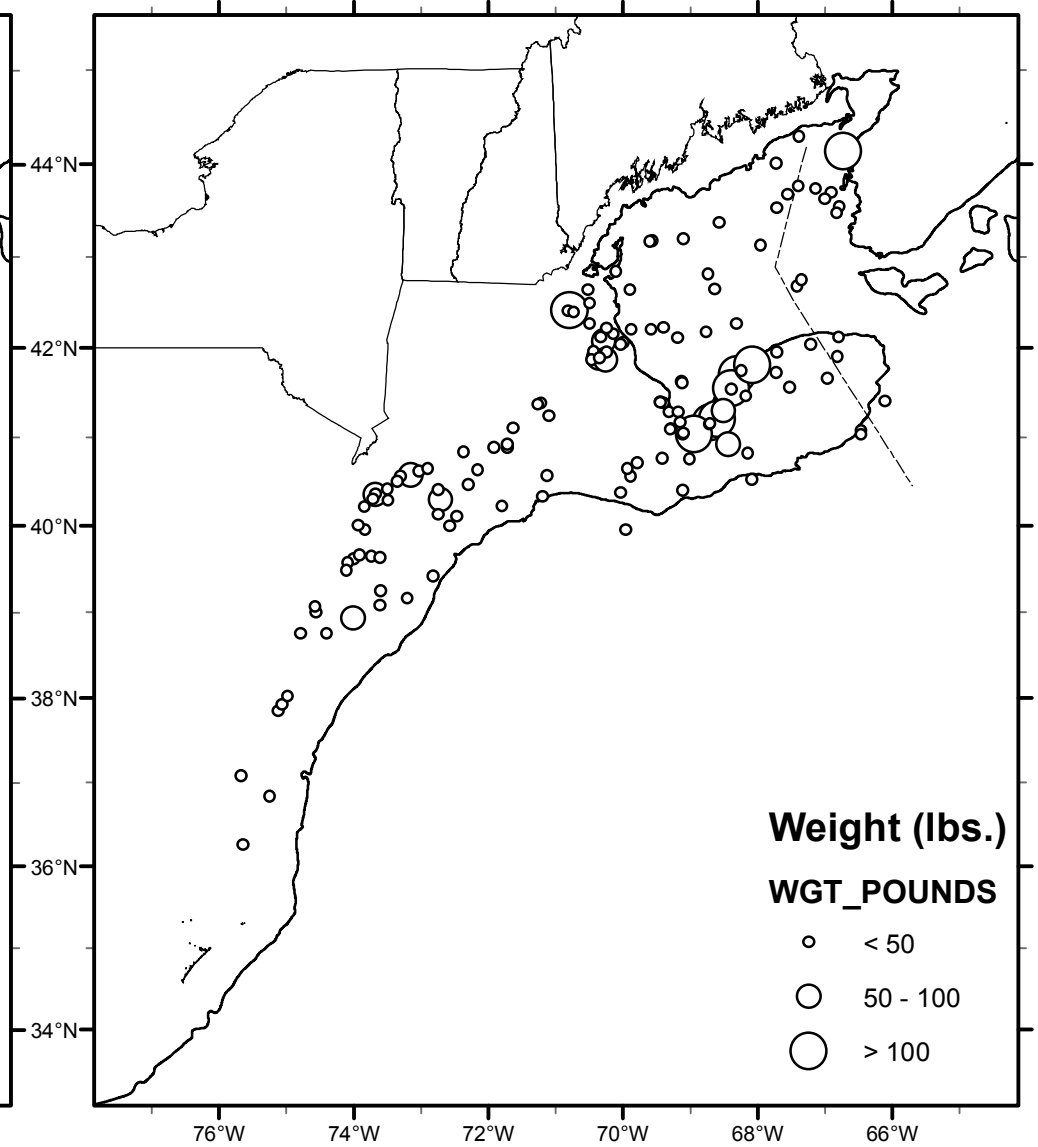


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ATLANTIC HERRING

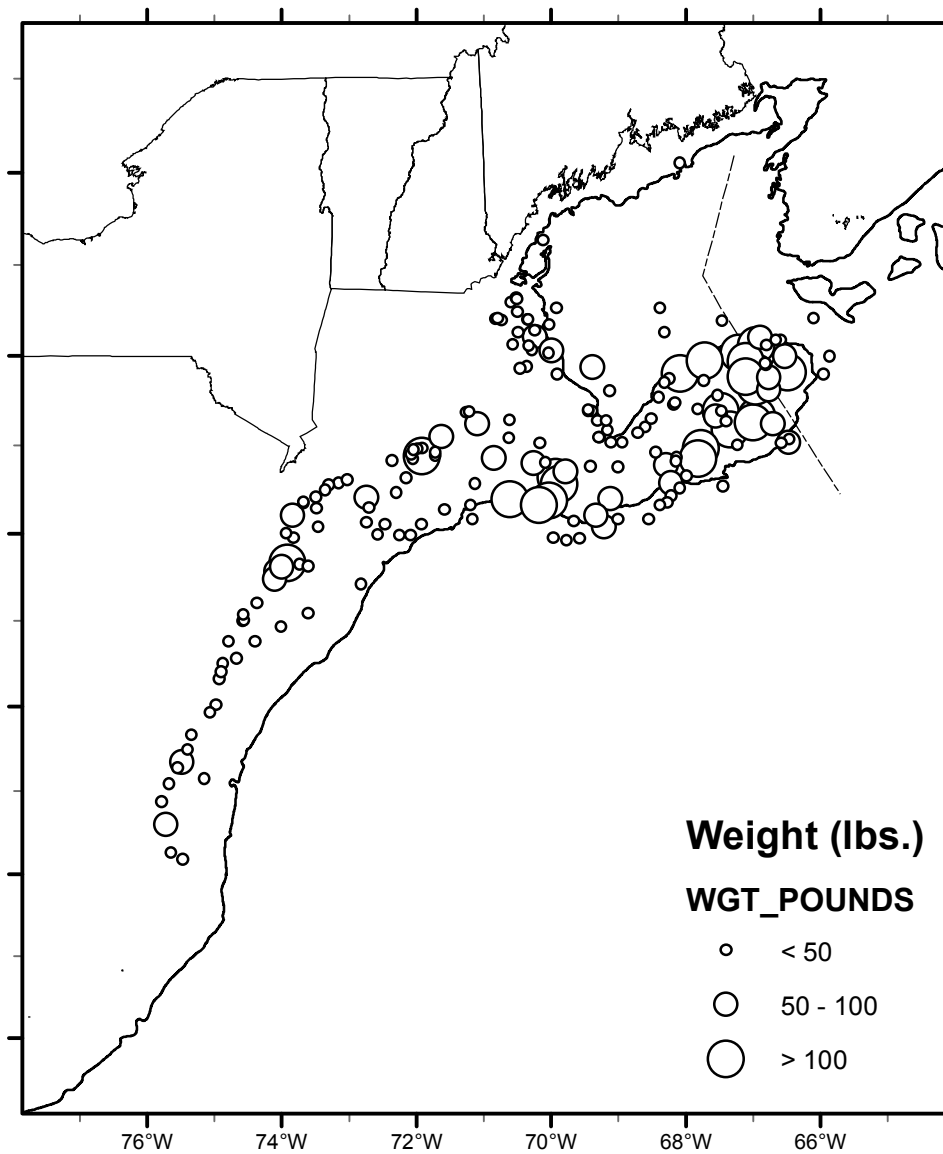


ATLANTIC MACKEREL

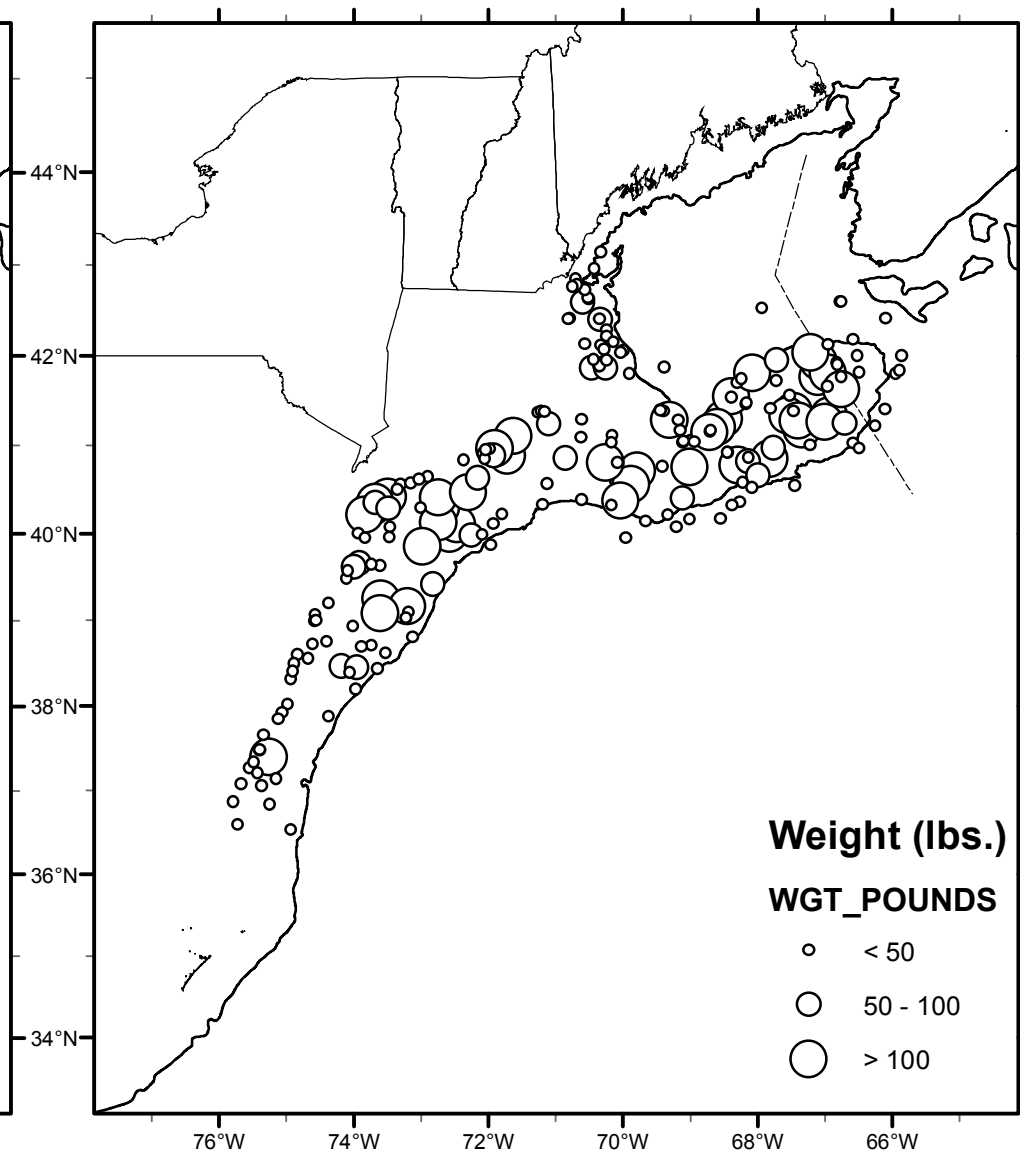


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WINTER SKATE

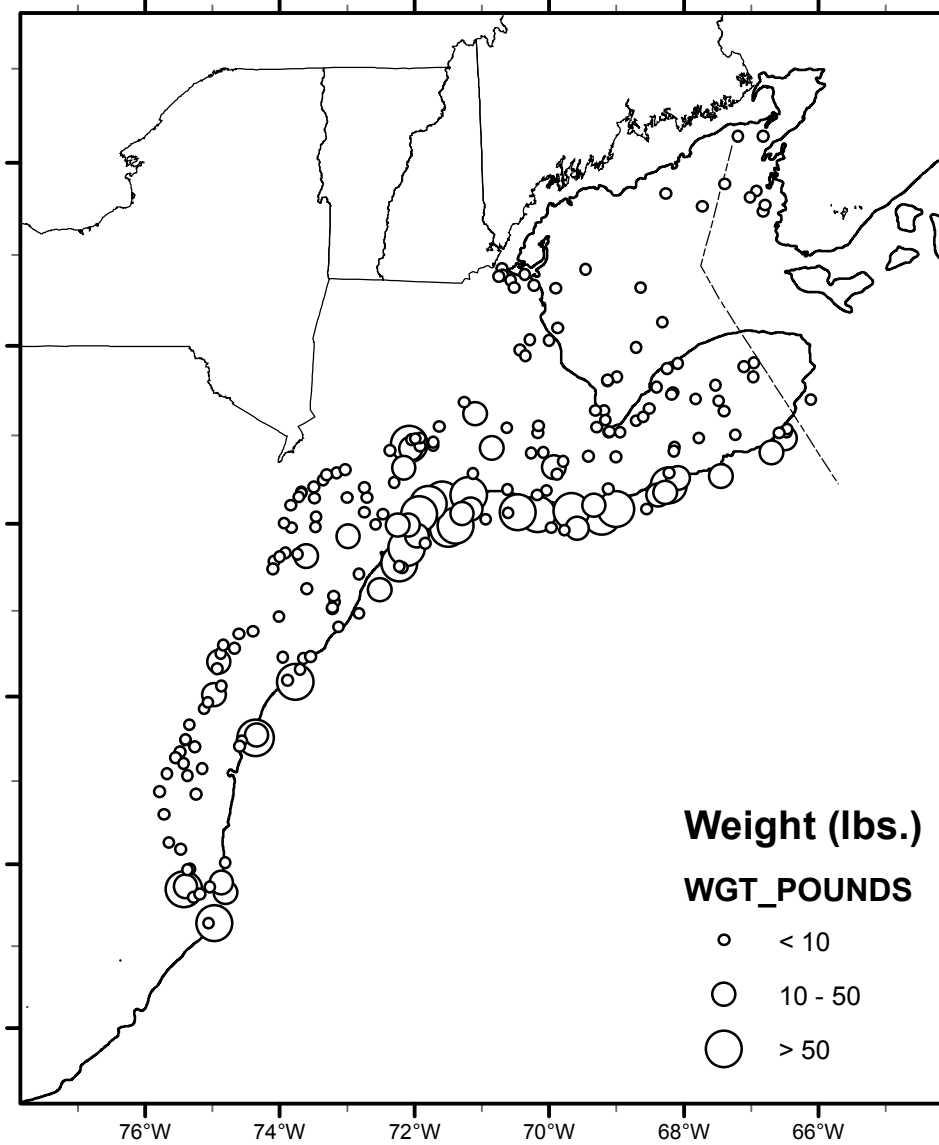


LITTLE SKATE

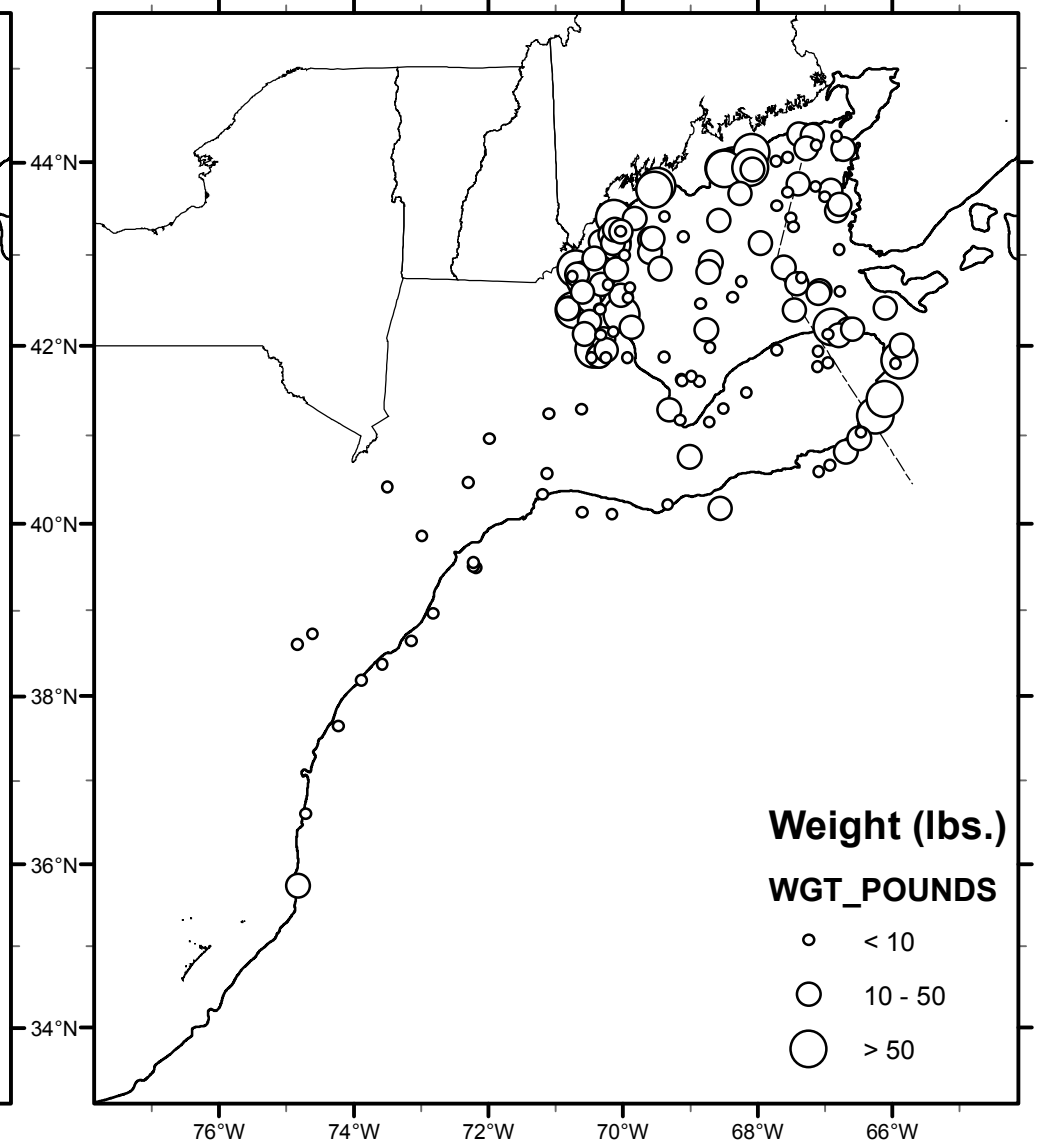


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BUTTERFISH

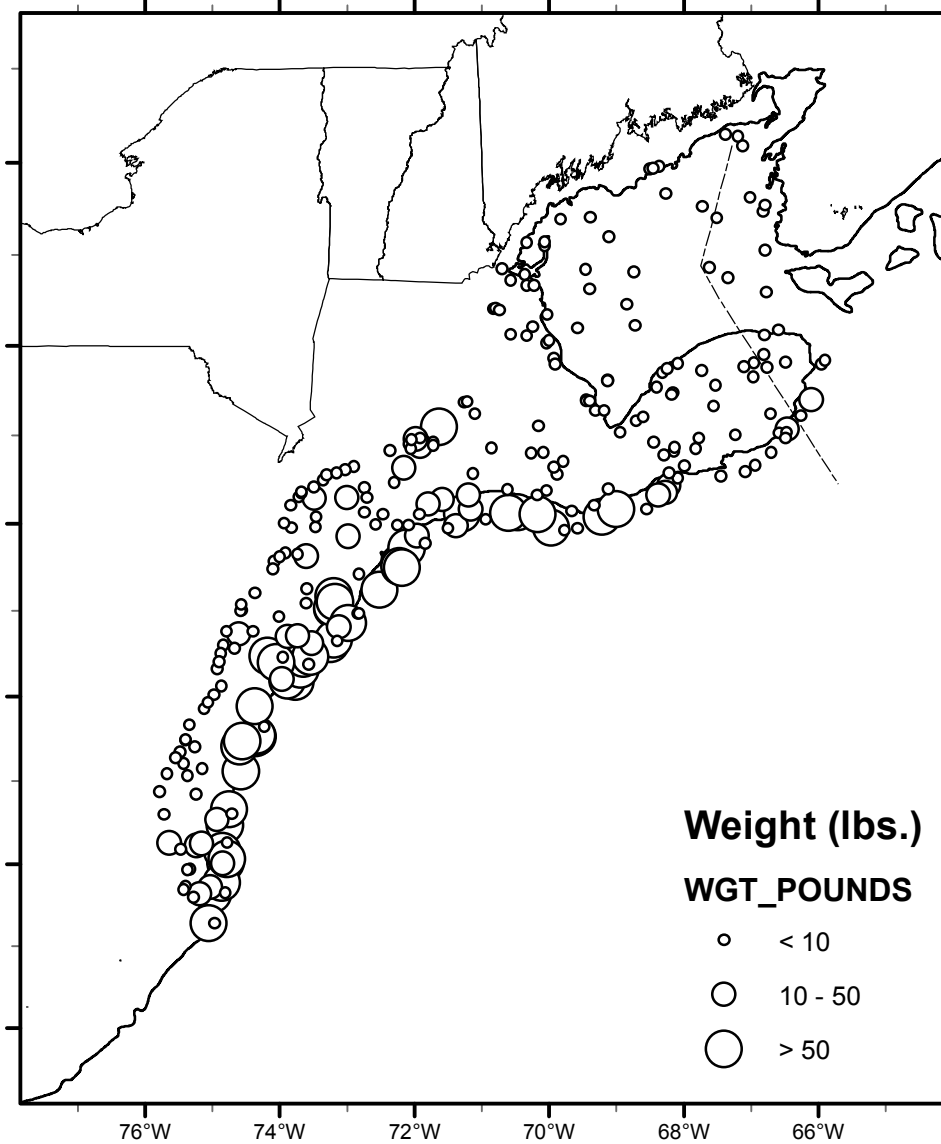


AMERICAN LOBSTER



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LOLIGO SQUID



ILLEX SQUID

