Resource Survey Report

Bottom Trawl Survey

Cape Hatteras – Gulf of Maine

6 September – 19 November 2013

NOAA FSV *Henry B Bigelow* (FSV 225)

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

NOAA FSV *Henry B Bigelow* (FSV 225) transiting through Boston harbor

Assorted catch from a tow in the Gulf of Maine

Scientists sorting a large catch of longfin squid *(Loligo pealeii)*

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 Poly-Ice 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 towing 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

Autumn Bottom Trawl Survey
Cape Hatteras - Gulf of Maine
6 September – 19 November 2013

Attached are 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 2013 autumn bottom trawl survey aboard 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 to 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 the NOAA FSV *Henry B. Bigelow*.

Leg I: A First Look

This fall on Leg I we were treated to the company of a NOAA Ernest F. Hollings scholar on her first full-length NOAA cruise. Her research interest was a diminutive but colorful family of fishes called dragonets, two species of which occur in our survey region. These fishes resemble something more likely found on a tropical coral reef than in deep water near the continental shelf edge. They have vivid coloration with bright pink, yellow and red that seems out of place compared with many of their co- occurring species. Our scholar was able to witness fresh coloration firsthand as we eventually encountered both species at several different locations. It was a very exciting moment for all of us when she was able to examine her first fresh specimens of this fascinating family of fishes.

Leg II: Cut Short

The weather for Leg II was great, allowing us to complete a good number of inshore stations during the first week. The catches south of New York City were surprisingly light inshore, but we began to see some of the larger, more characteristic inshore tows of longfin inshore squid, butterfish, and scup off the coast of Long Island. Unfortunately, the government shutdown forced the Bigelow back to Newport at the beginning of the second week, temporarily putting the survey on hold.

Leg III: Back to Work

The fate of this trip was uncertain from the start as it was significantly delayed due to the government shutdown. Despite this initial hiccup, and thanks to all the crew who contended with a considerable rescheduling effort, Leg III set out to sea about two weeks late. As a result, this trip was under tight time-constraints, and was further constrained when the main crane suffered a major malfunction which caused us to spend one night in Boston. Despite these setbacks, we ended up catching over 150,000 haddock (*Melanogrammus aeglefinus)* on this trip alone, which is a remarkable number. Perhaps even more surprising was that fact that most of the haddock caught were juveniles.

Leg IV: A Visit to Eastport

Impacts of the government shutdown to the fall survey meant Leg IV departed out of Boston on November 1 and headed to Georges Bank. Usually, at this point we are nearing completion of the Gulf of Maine, so we were significantly behind schedule. Despite, a constant string of storms, we made good progress completing Georges Bank and working around the Gulf of Maine. The end of the leg was punctuated by a cold front that brought ice cold winds and freezing air temps for a number of days. In addition, for the second time this season, a port call was necessary for emergency mechanical repairs. This time it was in Eastport, ME, a first for the *Bigelow* and the first time a NOAA ship has tied up in Eastport for at least 21 years. As Eastport is at the northernmost limit of

the NEFSC's area of responsibility, the in-port was an opportunity for NOAA to connect with some of its northernmost stakeholders. The ship was quite the attraction for the town and many families took a tour. Luckily, various shark species caught on our southern leg were still onboard in the scientific freezer, proving to be a big hit with the local kids.

This fall we observed high numbers of juvenile witch flounder (*Glyptocephalus cynoglossus)*, in addition to the species commonly caught in the Gulf of Maine. In the fall of 2012, we caught 5 individuals measuring less than 4" in length, this year we caught 107 individuals less than 4". It will be interesting to see how these numbers play out in the coming years.

Leg V: Clean-up Leg

Leg V departed Portland, ME after a quick turnaround, sailing into calmer (and warmer) weather than the previous leg. The vessel quickly completed the remaining Gulf of Maine stations and returned to Newport, RI through the Cape Cod Canal.

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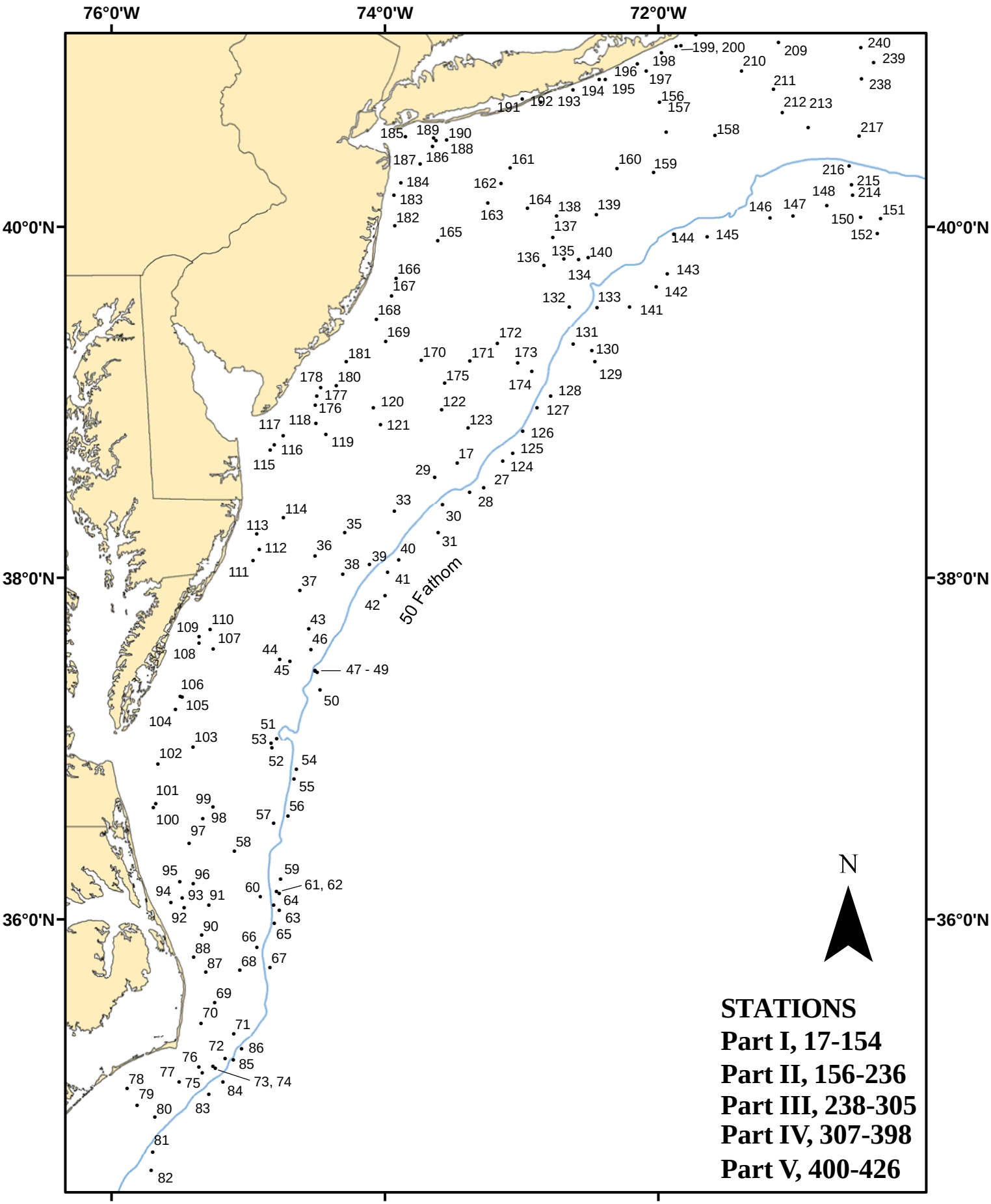

Figure 1. Trawl hauls made from NOAA FSV *Henry B. Bigelow (13-04)*, during NOAA Fisheries Service, Northeast Fisheries Science Center Autumn Bottom Trawl Survey, 06 September - 19 November 2013

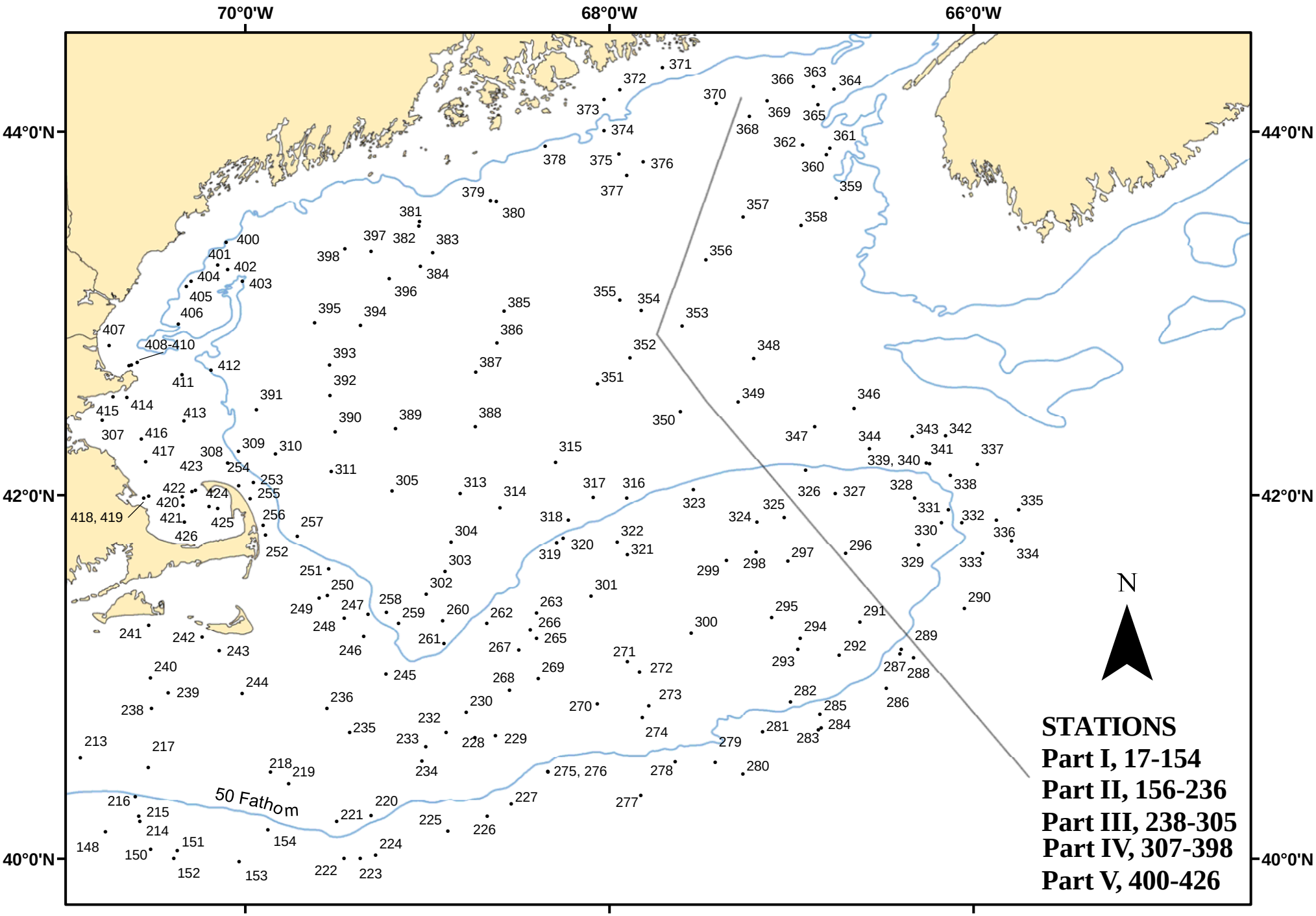

Figure 2. Trawl hauls made from NOAA FSV *Henry B. Bigelow* (13-04), during NOAA Fisheries Service, Northeast Fisheries Science Center Autumn Bottom Trawl Survey, 06 September - 19 November 2013

NOAA Fisheries Service AUTUMN BOTTOM TRAWL SURVEY
2013 STATION INFORMATION

Station*	Date	Time	Lat	Lon	Loran TD's		Course	Bottom Depth (FM)	Temp (F)
0017	Sep-06	2132	3839.4	7328.3	X26578.3	Y42604.8	212	41.0	49.9
0027	Sep-07	0020	3830.6	7316.6	X26503.0	Y42524.2	040	143.8	51.5
0028	Sep-07	0220	3828.7	7322.9	X26537.9	Y42500.4	186	65.1	57.7
0029	Sep-07	0439	3834.1	7338.1	X26630.8	Y42544.5	229	37.7	49.7
0030	Sep-07	0808	3824.6	7334.7	X26601.9	Y42450.7	222	189.7	54.4
0031	Sep-07	1122	3815.5	7336.6	X26604.6	Y42357.2	001	188.6	50.5
0033	Sep-07	1350	3823.0	7355.8	X26719.7	Y42417.2	225	35.0	49.3
0035	Sep-07	1647	3815.4	7417.5	X26829.0	Y42316.7	095	28.4	47.9
0036	Sep-07	1901	3807.7	7430.6	X26887.0	Y42220.0	240	23.5	48.1
0037	Sep-07	2120	3755.1	7437.2	X26901.5	Y42075.1	070	25.2	48.7
0038	Sep-08	0003	3801.2	7418.5	X26814.0	Y42164.5	234	31.7	48.9
0039	Sep-08	0209	3804.3	7406.7	X26755.9	Y42210.4	050	43.2	50.0
0040	Sep-08	0417	3806.1	7353.9	X26689.7	Y42243.6	202	68.4	55.6
0041	Sep-08	0549	3801.9	7358.8	X26711.7	Y42194.7	207	68.9	55.5
0042	Sep-08	0750	3753.3	7359.9	X26707.7	Y42104.3	193	147.6	50.3
0043	Sep-08	1133	3742.3	7433.4	X26863.8	Y41942.3	197	31.2	48.6
0044	Sep-08	1405	3731.5	7446.2	X26910.6	Y41805.7	212	31.2	47.6
0045	Sep-08	1545	3730.6	7441.6	X26887.7	Y41804.3	022	29.0	48.1
0046	Sep-08	1747	3735.1	7432.5	X26849.9	Y41867.0	055	35.5	49.2
0047	Sep-08	2005	3727.6	7430.6	X26831.1	Y41789.4	001	59.6	
0048	Sep-08	2123	3727.9	7430.6	X26831.4	Y41792.9	351	77.6	54.7
0049	Sep-08	2333	3726.9	7429.6	X26825.5	Y41783.5	355	175.0	54.1
0050	Sep-09	0141	3721.0	7428.4	X26812.8	Y41724.3	193	117.0	53.9
0051	Sep-09	0444	3703.6	7447.5	X26878.9	Y41505.0	350	37.2	47.8
0052	Sep-09	0646	3700.6	7449.6	X26884.6	Y41468.4	332	32.3	
0053	Sep-09	0743	3701.3	7449.8	X26886.6	Y41475.8	162	32.8	47.8
0054	Sep-09	1043	3652.9	7438.8	X26827.8	Y41410.1	191	75.5	52.8
0055	Sep-09	1231	3648.8	7439.8	X26827.9	Y41365.7		77.6	54.4
0056	Sep-09	1541	3636.6	7442.6	X26826.6	Y41233.8	190	115.4	54.8
0057	Sep-09	1725	3633.1	7448.8	X26849.1	Y41182.9	191	27.9	48.2
0058	Sep-09	1959	3624.0	7506.1	X26909.7	Y41046.1	164	19.1	51.3
0059	Sep-09	2329	3614.3	7445.8	X26817.2	Y41000.8	141	157.5	52.5
0060	Sep-10	0129	3607.8	7454.7	X26846.5	Y40912.4	183	40.5	49.0
0061	Sep-10	0339	3609.8	7447.5	X26819.9	Y40952.2	179	79.8	56.2
0062	Sep-10	0555	3609.0	7446.6	X26815.2	Y40946.7	179	141.1	52.8
0063	Sep-10	0841	3603.2	7446.4	X26809.0	Y40891.2	340	188.1	47.6
0064	Sep-10	1022	3604.9	7448.8	X26820.3	Y40899.8	178	65.1	56.3
0065	Sep-10	1151	3558.7	7448.6	X26813.6	Y40840.8	181	82.0	55.4
0066	Sep-10	1354	3549.9	7456.3	X26835.1	Y40732.3	179	36.1	49.3
0067	Sep-10	1554	3542.7	7450.4	X26806.2	Y40682.6	345	67.3	50.8
0068	Sep-10	1805	3541.5	7503.7	X26855.0	Y40628.8	189	23.5	53.4
0069	Sep-10	2013	3530.0	7514.7	X26884.5	Y40483.0	190	17.0	64.8
0070	Sep-10	2157	3522.9	7520.7	X26899.1	Y40395.1	145	13.7	76.9
0071	Sep-11	0000	3518.8	7506.3	X26843.8	Y40409.9	096	17.5	80.8
0072	Sep-11	0212	3510.3	7510.2	X26850.0	Y40320.3	060	38.8	66.4
0073	Sep-11	0354	3506.0	7514.8	X26862.5	Y40265.4	217	39.4	
0074	Sep-11	0504	3506.9	7515.4	X26865.4	Y40271.1	053	37.7	65.8
0075	Sep-11	0657	3504.5	7520.2	X26879.9	Y40231.2	053	33.4	68.5

NOAA Fisheries Service AUTUMN BOTTOM TRAWL SURVEY
2013 STATION INFORMATION

Station*	Date	Time	Lat	Lon	Loran TD's		Course	Bottom Depth (FM)	Temp (F)
0076	Sep-11	0815	3506.5	7521.7	X26886.7	Y40243.2	224	13.1	77.9
0077	Sep-11	0948	3501.8	7530.5	X26912.6	Y40167.5	244	20.8	76.7
0078	Sep-11	1221	3459.3	7553.1	X26987.1	Y40054.9	161	13.7	80.6
0079	Sep-11	1346	3453.1	7548.7	X26965.8	Y40018.2	155	14.8	81.7
0080	Sep-11	1518	3448.5	7540.9	X26935.1	Y40011.1	221	24.1	76.5
0081	Sep-11	1724	3436.3	7542.0	X26926.9	Y39908.0	216	73.8	57.2
0082	Sep-11	1932	3429.9	7542.5	X26922.9	Y39856.2	215	166.8	48.0
0083	Sep-12	0036	3456.8	7517.3	X26862.8	Y40177.8	218	165.7	47.7
0084	Sep-12	0331	3501.7	7511.1	X26845.7	Y40243.0	225	190.8	45.2
0085	Sep-12	0550	3509.3	7506.6	X26836.3	Y40325.2	215	95.1	55.9
0086	Sep-12	0752	3513.0	7502.9	X26826.4	Y40371.4	231	83.7	56.2
0087	Sep-12	1200	3541.2	7518.6	X26910.5	Y40577.1	357	13.7	60.5
0088	Sep-12	1324	3546.4	7523.9	X26935.8	Y40610.9	002	15.3	64.9
0090	Sep-12	1638	3554.1	7520.5	X26931.5	Y40699.1	214	14.8	57.8
0091	Sep-12	1844	3605.2	7517.3	X26932.3	Y40821.7	330	19.1	56.5
0092	Sep-12	2041	3604.3	7528.1	X26972.9	Y40780.9	349	15.3	60.7
0093	Sep-12	2154	3607.6	7529.0	X26980.3	Y40812.8	264	13.7	56.6
0094	Sep-12	2310	3605.9	7533.9	X26996.9	Y40782.3	179	14.2	65.7
0095	Sep-13	0111	3613.3	7530.0	X26991.7	Y40870.9	194	16.4	55.3
0096	Sep-13	0249	3612.8	7524.2	X26968.2	Y40880.9	257	17.0	55.8
0097	Sep-13	0545	3627.1	7525.9	X26993.9	Y41028.5	352	15.9	54.6
0098	Sep-13	0736	3635.7	7519.9	X26981.0	Y41136.0	028	19.7	53.1
0099	Sep-13	0918	3639.5	7515.4	X26967.7	Y41186.3	262	19.7	74.2
0100	Sep-13	1920	3639.3	7541.6	X27074.6	Y41125.6	025	10.4	61.9
0101	Sep-13	2019	3641.1	7540.5	X27073.1	Y41147.5	027	11.5	63.8
0102	Sep-13	2234	3655.1	7539.7	X27092.2	Y41305.6	059	12.0	67.6
0103	Sep-14	0052	3701.0	7524.2	X27036.3	Y41402.9	358	16.4	52.7
0104	Sep-14	0310	3713.9	7531.9	X27091.0	Y41532.7	040	13.1	60.7
0105	Sep-14	0414	3717.3	7529.0	X27084.1	Y41576.6	026	13.1	57.7
0106	Sep-14	0519	3718.5	7529.8	X27089.7	Y41588.6	037	12.0	58.2
0107	Sep-14	0804	3735.3	7515.3	X27054.0	Y41802.5	016	13.7	57.9
0108	Sep-14	0927	3736.8	7521.7	X27086.1	Y41809.2	018	10.4	75.0
0109	Sep-14	1034	3739.0	7521.6	X27089.7	Y41834.4	044	9.3	67.3
0110	Sep-14	1158	3742.1	7516.7	X27072.8	Y41876.8	056	13.1	59.2
0111	Sep-14	1519	3805.9	7457.8	X27024.8	Y42169.4	353	13.1	57.3
0112	Sep-14	1703	3809.4	7455.0	X27017.2	Y42211.6	015	14.2	56.8
0113	Sep-14	1817	3814.5	7456.2	X27032.8	Y42267.2	076	12.6	64.2
0114	Sep-14	2010	3820.5	7444.5	X26982.6	Y42345.6	039	15.9	53.0
0115	Sep-14	2316	3844.2	7450.4	X27063.2	Y42605.1	049	9.8	63.1
0116	Sep-15	0025	3845.7	7448.5	X27055.8	Y42622.6	040	10.4	61.6
0117	Sep-15	0136	3849.0	7444.7	X27041.3	Y42662.0	033	12.0	59.2
0118	Sep-15	0348	3853.2	7430.2	X26966.2	Y42716.1	104	12.6	54.5
0119	Sep-15	0511	3849.5	7425.9	X26933.6	Y42679.0	065	15.3	55.7
0120	Sep-15	0757	3857.8	7405.1	X26824.6	Y42777.7	064	21.9	50.7
0121	Sep-15	0936	3852.8	7401.9	X26796.7	Y42725.8	077	22.4	50.9
0122	Sep-15	1228	3857.3	7335.2	X26639.1	Y42783.1	050	27.3	49.9
0123	Sep-15	1434	3851.3	7323.6	X26560.8	Y42726.5	040	37.2	49.5

NOAA Fisheries Service AUTUMN BOTTOM TRAWL SURVEY
2013 STATION INFORMATION

Station*	Date	Time	Lat	Lon	Loran TD's		Course	Bottom Depth (FM)	Temp (F)
0124	Sep-15	1709	3840.2	7308.2	X26460.0	Y42623.7	048	86.9	55.9
0125	Sep-15	1856	3842.6	7303.9	X26435.4	Y42648.9	036	120.8	54.1
0126	Sep-15	2056	3850.4	7259.5	X26413.0	Y42726.2	038	65.1	55.7
0127	Sep-15	2253	3857.9	7253.2	X26377.5	Y42800.1	030	62.9	55.7
0128	Sep-16	0043	3901.4	7247.3	X26341.7	Y42835.1	173	125.2	54.4
0129	Sep-16	0356	3913.9	7227.8	X26219.6	Y42953.1	240	117.0	52.3
0130	Sep-16	0539	3918.2	7229.2	X26228.7	Y42992.8	260	79.3	55.3
0131	Sep-16	0730	3920.0	7237.3	X26283.1	Y43010.3	217	68.9	56.2
0132	Sep-16	0955	3932.5	7239.0	X26299.1	Y43126.3	088	42.1	54.7
0133	Sep-16	1157	3932.3	7226.9	X26215.1	Y43121.6	356	67.8	55.9
0134	Sep-16	1427	3947.9	7235.0	X26277.9	Y43266.4	036	33.4	50.9
0135	Sep-16	1635	3948.3	7241.5	X26325.6	Y43273.1	066	31.7	51.9
0136	Sep-16	1814	3946.7	7250.1	X26386.6	Y43262.5	305	39.4	52.4
0137	Sep-16	2016	3956.5	7246.4	X26368.1	Y43351.6	012	31.2	49.2
0138	Sep-16	2148	4003.6	7244.7	X26362.2	Y43415.3	003	31.7	49.4
0139	Sep-17	0020	4004.1	7227.2	X26229.8	Y43407.8	009	34.4	50.9
0140	Sep-17	0301	3948.3	7230.8	X26247.6	Y43268.4	015	35.5	50.6
0141	Sep-17	0729	3932.4	7212.6	X26117.4	Y43118.7	038	83.7	54.1
0142	Sep-17	0942	3939.4	7200.9	X26035.8	Y43176.1	042	106.6	54.6
0143	Sep-17	1134	3944.2	7156.1	X26001.1	Y43215.6	042	105.5	
0144	Sep-17	1356	3957.4	7153.2	X25975.3	Y43327.1	062	56.3	55.6
0145	Sep-17	1555	3956.5	7138.6	X25871.0	Y43311.0	091	65.1	55.7
0146	Sep-17	1905	4002.9	7111.0	X25671.9	Y43345.8	072	117.0	53.5
0147	Sep-17	2105	4003.7	7100.9	X25603.5	Y43345.4	094	121.4	54.4
0148	Sep-17	2322	4007.3	7046.1	X25501.0	Y43363.3	089	75.5	56.4
0150	Sep-18	0303	4003.1	7031.1	X25422.5	Y43323.1	052	109.4	51.6
0151	Sep-18	0549	4002.5	7022.4	X25377.4	Y43313.3	281	104.4	53.6
0152	Sep-18	0811	3957.8	7023.9	X25398.2	Y43279.5	074	200.1	45.4
0153	Sep-18	1133	3957.0	7002.0	X25297.2	Y43262.8	265	142.2	48.8
0154	Sep-18	1454	4008.2	6952.5	W14165.2	Y43337.2	094	58.0	55.5
0156	Sep-23	1956	4040.8	7159.4	X26033.6	Y43692.3	259	28.4	54.5
0157	Sep-23	2154	4031.9	7156.5	X26002.9	Y43616.9	098	35.5	51.9
0158	Sep-24	0048	4029.7	7135.1	X25828.3	Y43577.4	357	42.1	52.4
0159	Sep-24	0406	4018.0	7202.6	X26045.6	Y43507.7	016	34.4	51.3
0160	Sep-24	0645	4019.4	7218.1	X26169.5	Y43533.3	031	31.7	50.6
0161	Sep-24	1052	4019.5	7305.0	X26542.0	Y43578.5	266	21.9	53.6
0162	Sep-24	1225	4014.6	7309.1	X26565.4	Y43536.5	274	23.0	53.4
0163	Sep-24	1404	4008.0	7314.9	X26599.1	Y43479.3	213	23.5	53.9
0164	Sep-24	1655	4006.0	7257.4	X26462.5	Y43447.0	281	26.8	51.7
0165	Sep-24	2029	3955.0	7336.8	X26739.2	Y43367.0	268	17.0	60.9
0166	Sep-24	2308	3942.7	7355.1	X26844.1	Y43248.8	180	14.8	58.5
0167	Sep-25	0026	3936.7	7357.1	X26845.8	Y43187.3	186	14.2	57.0
0168	Sep-25	0214	3928.3	7403.7	X26872.8	Y43100.1	182	12.6	64.8
0169	Sep-25	0341	3921.3	7359.6	X26832.0	Y43026.4	187	15.9	57.1
0170	Sep-25	0548	3914.4	7344.0	X26718.1	Y42955.8	080	23.0	51.9
0171	Sep-25	0807	3914.0	7322.7	X26578.8	Y42953.3	038	26.8	51.4
0172	Sep-25	1003	3920.6	7310.6	X26505.7	Y43018.6	141	34.4	49.8
0173	Sep-25	1148	3913.1	7301.7	X26440.3	Y42945.9	165	41.0	51.8

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0174	Sep-25	1321	3911.3	7255.5	X26398.8	Y42928.8	227	45.9	53.1
0175	Sep-25	1658	3906.9	7333.7	X26641.5	Y42880.9	216	26.8	50.8
0176	Sep-25	2148	3859.4	7430.6	X26981.3	Y42783.9	041	8.7	65.9
0177	Sep-25	2300	3901.5	7430.0	X26982.2	Y42808.0	031	9.8	65.2
0178	Sep-26	0013	3905.5	7428.2	X26979.9	Y42851.6	037	10.4	65.2
0180	Sep-26	0230	3906.0	7421.3	X26938.8	Y42859.8	078	14.2	66.0
0181	Sep-26	0408	3913.9	7416.9	X26928.0	Y42946.6	070	11.5	65.1
0182	Sep-26	0929	3959.9	7355.6	X26886.5	Y43426.7	063	13.1	63.2
0183	Sep-26	1121	4009.5	7356.0	X26913.1	Y43525.0	070	12.6	65.4
0184	Sep-26	1247	4014.6	7352.9	X26902.4	Y43574.1	347	13.7	59.0
0185	Sep-26	1451	4029.1	7350.8	X26925.0	Y43717.2	065	11.5	61.2
0186	Sep-26	1650	4026.8	7339.2	X26827.5	Y43682.4	087	13.7	
0187	Sep-26	1837	4021.1	7344.3	X26853.5	Y43631.4	161	14.2	55.7
0188	Sep-26	2041	4028.1	7337.6	X26818.5	Y43693.8	038	12.0	60.3
0189	Sep-26	2154	4029.9	7338.6	X26830.7	Y43711.9	114	12.0	62.8
0190	Sep-26	2304	4029.1	7332.9	X26783.9	Y43697.9	104	12.6	60.7
0191	Sep-27	0219	4037.8	7259.5	X26532.1	Y43739.3	065	12.6	62.2
0192	Sep-27	0335	4040.9	7251.7	X26472.7	Y43757.7	065	14.8	63.3
0193	Sep-27	0517	4045.4	7238.0	X26366.3	Y43779.0	079	14.2	63.6
0194	Sep-27	0715	4049.3	7225.9	X26270.0	Y43795.4	074	12.0	65.0
0195	Sep-27	0822	4049.3	7223.3	X26247.8	Y43791.8	076	14.2	64.4
0196	Sep-27	1014	4054.1	7209.2	X26134.5	Y43811.8	088	14.8	64.0
0197	Sep-27	1137	4052.0	7205.4	X26098.3	Y43789.8	060	19.7	62.2
0198	Sep-27	1313	4058.2	7158.7	X26049.0	Y43829.5	084	14.8	63.8
0199	Sep-27	1428	4060.0	7152.4	X25996.9	Y43834.8	068	13.1	
0200	Sep-27	1524	4100.6	7150.3	X25979.6	Y43837.1	245	14.2	63.4
0201	Sep-27	1719	4104.3	7143.5	X25925.8	Y43855.2	177	18.6	58.4
0202	Sep-27	1936	4111.6	7130.7	X25824.7	Y43891.3	009	21.9	59.8
0203	Sep-27	2103	4117.2	7126.8	X25802.0	Y43925.5	274	14.2	
0204	Sep-27	2159	4117.4	7128.2	X25815.5	Y43929.3	104	13.7	62.6
0205	Sep-27	2359	4124.1	7123.8	X25793.2	Y43970.0	117	18.0	57.9
0206	Sep-28	0246	4108.8	7114.5	X25674.3	Y43847.8	068	21.9	58.2
0208	Sep-28	0639	4107.2	7103.2	X25570.8	Y43821.2	131	19.1	58.7
0209	Sep-28	0845	4101.6	7107.3	X25601.3	Y43786.4	104	23.5	58.0
0210	Sep-28	1209	4052.0	7123.5	X25736.1	Y43736.4	190	32.3	53.3
0211	Sep-28	1413	4045.8	7110.0	X25620.7	Y43673.9	172	32.3	52.4
0212	Sep-28	1657	4037.9	7105.7	X25589.6	Y43610.6	077	36.6	52.1
0213	Sep-28	1905	4033.2	7054.3	X25506.9	Y43564.4	269	39.9	52.0
0214	Sep-28	2250	4010.8	7034.7	X25423.4	Y43381.8	079	67.8	55.3
0215	Sep-29	0010	4013.8	7035.2	X25418.3	Y43404.4	013	65.1	55.4
0216	Sep-29	0151	4020.5	7036.3	X25408.1	Y43455.0	069	53.0	51.7
0217	Sep-29	0353	4030.1	7031.9	X25355.7	Y43521.4	072	38.8	52.3
0218	Sep-29	0747	4027.6	6951.7	W14097.8	Y43470.7	186	40.5	52.6
0219	Sep-29	0925	4023.6	6945.6	W14080.2	Y43438.7	093	40.5	52.3
0220	Sep-29	1244	4014.1	6918.4	W13974.7	Y43357.6	056	49.2	53.0
0221	Sep-29	1459	4010.8	6929.9	W14042.6	Y43342.1	074	48.1	55.5
0222	Sep-29	1744	3957.6	6927.8	W14074.6	Y43251.4	108	72.2	56.5

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0223	Sep-29	1908	3957.9	6922.4	W14047.7	Y43250.8	052	70.0	56.4
0224	Sep-29	2034	4001.2	6917.0	W14010.8	Y43271.0	043	68.9	55.0
0225	Sep-29	2327	4009.1	6853.3	W13870.8	Y43310.8	063	82.6	55.9
0226	Sep-30	0138	4013.9	6840.3	W13792.4	Y43335.2	079	67.3	53.3
0227	Sep-30	0313	4016.6	6832.3	W13745.7	Y43348.0	061	72.2	
0228	Sep-30	0656	4038.7	6844.3	W13719.2	Y43492.1	089	34.4	57.6
0229	Sep-30	0834	4039.1	6837.5	W13685.1	Y43490.0	066	35.0	56.8
0230	Sep-30	1048	4048.2	6847.2	W13695.6	Y43552.9	252	36.1	60.1
0232	Sep-30	1430	4041.6	6853.8	W13753.7	Y43517.4		37.7	59.0
0233	Sep-30	1723	4035.9	6900.5	W13808.3	Y43486.6	035	38.8	56.0
0234	Sep-30	1909	4032.2	6901.8	W13828.9	Y43464.1	065	42.1	54.8
0235	Sep-30	2218	4039.6	6925.6	W13920.9	Y43529.6	290	30.1	58.0
0236	Oct-01	0106	4049.7	6933.1	W13921.6	Y43601.8	299	23.0	58.0
0238	Oct-21	1636	4049.7	7030.9	X25302.4	Y43658.9	293	30.6	57.3
0239	Oct-21	1835	4054.7	7025.5	X25251.5	Y43687.8	304	25.7	60.7
0240	Oct-21	2005	4059.7	7031.3	X25290.1	Y43728.8	304	26.2	58.9
0241	Oct-21	2257	4117.1	7031.8	X25305.5	Y43847.4	289	12.0	60.7
0242	Oct-22	0116	4113.1	7014.1	X25137.3	Y43798.1	188	11.5	59.6
0243	Oct-22	0244	4108.6	7008.6	X25092.4	Y43762.5	282	14.8	59.9
0244	Oct-22	0536	4054.6	7001.1	X25094.9	Y43661.0	264	17.5	59.5
0245	Oct-22	1245	4100.7	6913.7	W13777.4	Y43653.0	330	35.5	58.6
0246	Oct-22	1528	4113.4	6921.0	W13762.8	Y43738.5	327	30.6	50.9
0247	Oct-22	1741	4120.8	6919.5	W13723.4	Y43781.9	001	44.3	47.9
0248	Oct-22	1921	4119.3	6927.4	W13771.5	Y43781.9	350	18.0	54.3
0249	Oct-22	2111	4125.9	6935.7	W13787.5	Y43831.7	122	15.9	
0250	Oct-22	2302	4126.9	6932.9	W13768.1	Y43834.6	208	18.0	
0251	Oct-23	0148	4135.1	6932.3	W13728.2	Y43883.5	318	36.1	51.1
0252	Oct-23	0520	4146.8	6953.3	W13791.7	Y43981.3	347	14.2	
0253	Oct-24	2042	4204.4	6957.4	W13731.4	Y44089.9	288	43.2	48.3
0254	Oct-24	2231	4203.0	7002.2	X25383.9	Y44089.2	303	13.7	55.0
0255	Oct-25	0052	4158.7	6958.4	W13765.1	Y44058.5	343	14.2	55.6
0256	Oct-25	0333	4148.9	6954.1	W13786.9	Y43994.7	357	14.8	55.6
0257	Oct-25	0551	4146.4	6942.9	W13734.7	Y43964.3	336	72.7	45.9
0258	Oct-25	1034	4121.4	6913.5	W13689.1	Y43778.9	324	67.8	45.5
0259	Oct-25	1230	4117.6	6909.5	W13684.6	Y43751.7	330	57.4	46.5
0260	Oct-25	1454	4118.4	6854.9	W13606.5	Y43741.2	224	72.2	45.7
0261	Oct-25	1657	4110.4	6854.3	W13638.5	Y43693.2	020	54.1	51.3
0262	Oct-25	1930	4117.5	6840.5	W13538.5	Y43721.2		41.0	55.8
0263	Oct-25	2157	4121.0	6824.1	W13443.5	Y43724.8	001	34.4	58.9
0265	Oct-26	0115	4112.9	6824.0	W13479.7	Y43678.7	071	30.6	
0266	Oct-26	0449	4115.6	6826.1	W13477.2	Y43696.2	257	30.6	60.4
0267	Oct-26	0828	4108.8	6829.7	W13524.6	Y43660.5	303	32.3	60.0
0268	Oct-26	1125	4055.2	6833.0	W13598.1	Y43583.5	008	30.6	60.0
0269	Oct-26	1313	4059.4	6823.5	W13535.6	Y43600.2	258	26.2	59.4
0270	Oct-26	1644	4051.0	6804.1	W13481.5	Y43536.2	244	34.4	56.1
0271	Oct-26	2011	4104.9	6754.1	W13377.2	Y43607.3	222	25.2	58.5
0272	Oct-26	2224	4101.7	6750.1	W13373.1	Y43586.6	222	28.4	57.6

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0273	Oct-27	0048	4050.3	6747.0	W13408.7	Y43520.3	194	37.2	54.3
0274	Oct-27	0212	4045.6	6749.2	W13437.8	Y43494.6	228	38.8	53.6
0275	Oct-27	0703	4027.9	6820.2	W13648.1	Y43410.1	250	55.8	
0276	Oct-27	0813	4027.5	6820.2	W13649.1	Y43407.9	252	56.9	52.6
0277	Oct-27	1159	4020.9	6749.7	W13538.8	Y43352.0	307	114.3	52.8
0278	Oct-27	1450	4032.1	6738.3	W13446.0	Y43410.8	226	72.2	54.4
0279	Oct-27	1737	4031.8	6725.2	W13392.0	Y43402.0	275	77.6	52.2
0280	Oct-27	2120	4026.8	6716.0	W13374.1	Y43369.5	216	209.4	52.7
0281	Oct-28	0008	4039.9	6709.6	W13294.7	Y43438.4	235	60.1	55.1
0282	Oct-28	0255	4051.8	6700.4	W13207.3	Y43497.8	209	49.8	51.9
0283	Oct-28	0601	4042.3	6651.2	W13211.6	Y43441.6	220	111.5	
0284	Oct-28	0727	4042.8	6650.5	W13206.8	Y43443.8	049	113.2	53.2
0285	Oct-28	0939	4047.8	6650.6	W13186.4	Y43470.4	068	60.1	56.3
0286	Oct-28	1312	4056.2	6628.7	W13066.5	Y43502.0	223	196.3	44.6
0287	Oct-28	1545	4107.5	6624.3	W13000.6	Y43556.7	226	69.4	55.9
0288	Oct-28	1936	4106.4	6619.8	W12988.9	Y43548.2	196	206.7	
0289	Oct-28	2145	4108.7	6623.9	W12993.5	Y43562.4	230	63.4	
0290	Oct-29	0138	4122.6	6603.0	W12856.0	Y43617.4	033	122.5	52.5
0291	Oct-29	0537	4118.0	6637.5	W13001.6	Y43619.0	007	45.4	52.2
0292	Oct-29	0805	4107.1	6644.3	W13077.4	Y43567.9	019	41.0	51.2
0293	Oct-29	1018	4109.2	6657.9	W13121.0	Y43587.9	044	38.3	54.2
0294	Oct-29	1138	4112.9	6657.1	W13101.1	Y43606.8	021	37.7	54.6
0295	Oct-29	1332	4119.6	6706.5	W13107.9	Y43648.8	032	32.8	56.7
0296	Oct-29	1722	4140.8	6642.2	W12911.4	Y43736.1	257	41.0	56.9
0297	Oct-29	2017	4138.2	6701.2	W12997.9	Y43739.9	069	32.3	57.4
0298	Oct-29	2239	4142.0	6711.7	W13021.6	Y43768.4	029	30.1	58.3
0299	Oct-30	0059	4138.5	6721.4	W13079.2	Y43759.4	338	26.2	59.0
0300	Oct-30	0501	4114.4	6733.1	W13242.3	Y43642.8	256	24.6	58.5
0301	Oct-30	0858	4126.6	6806.1	W13332.8	Y43738.5	299	27.3	59.5
0302	Oct-30	1345	4127.3	6900.4	W13594.5	Y43798.9	056	83.1	44.0
0303	Oct-30	1555	4134.8	6854.2	W13528.2	Y43835.2	184	61.8	44.3
0304	Oct-30	1822	4144.6	6852.1	W13471.2	Y43888.1	146	89.7	44.8
0305	Oct-30	2216	4201.3	6911.6	W13490.6	Y44005.8	299	112.1	45.2
0307	Nov-01	1818	4223.8	7047.2	X25789.6	Y44283.9	104	18.0	50.3
0308	Nov-01	2231	4210.5	7005.8	X25454.9	Y44137.6	159	30.1	47.3
0309	Nov-02	0017	4213.3	7002.3	X25457.4	Y44147.8	186	73.8	45.4
0310	Nov-02	0257	4212.4	6950.0	W13648.5	Y44123.3	159	120.3	46.3
0311	Nov-02	0555	4204.8	6931.6	W13582.6	Y44053.1	204	116.5	46.5
0313	Nov-02	1239	4200.6	6849.2	W13376.0	Y43972.5	177	73.8	
0314	Nov-02	1519	4155.8	6836.1	W13334.6	Y43929.9	298	92.4	45.2
0315	Nov-02	1855	4210.9	6817.7	W13165.8	Y43986.8	191	107.2	47.8
0316	Nov-02	2217	4159.1	6754.3	W13118.5	Y43898.7	295	99.0	47.2
0317	Nov-03	0037	4159.4	6805.3	W13167.9	Y43912.6	019	116.5	48.3
0318	Nov-03	0319	4151.4	6813.6	W13247.4	Y43880.1	063	102.3	47.7
0319	Nov-03	0550	4144.3	6817.5	W13301.4	Y43846.5	046	38.8	56.0
0320	Nov-03	0751	4145.7	6815.2	W13283.9	Y43851.6	229	42.1	54.6
0321	Nov-03	1033	4140.4	6754.1	W13212.1	Y43800.9	357	18.0	58.9

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0322	Nov-03	1243	4144.4	6757.5	W13207.6	Y43825.6	005	18.0	58.4
0323	Nov-03	1740	4201.8	6732.4	W13007.7	Y43888.3	040	27.9	54.1
0324	Nov-03	2117	4149.8	6711.4	W12981.2	Y43807.4	342	30.6	57.9
0325	Nov-03	2328	4152.5	6702.5	W12931.6	Y43812.2	354	32.8	57.1
0326	Nov-04	0233	4205.3	6655.3	W12837.3	Y43867.7	029	37.2	55.0
0327	Nov-04	0433	4200.6	6645.6	W12824.5	Y43835.6	000	37.2	55.4
0328	Nov-04	0815	4159.1	6619.4	W12736.4	Y43804.6	036	44.8	51.5
0329	Nov-04	1144	4143.7	6618.1	W12808.6	Y43730.5	043	47.6	53.3
0330	Nov-04	1327	4149.6	6610.6	W12753.1	Y43752.3	045	46.5	52.1
0331	Nov-04	1459	4154.2	6608.2	W12721.8	Y43772.2	043	50.3	53.0
0332	Nov-04	1645	4149.8	6603.9	W12729.1	Y43748.0	013	53.6	50.5
0333	Nov-04	1905	4141.6	6557.0	W12745.6	Y43704.2	326	57.4	48.5
0334	Nov-04	2139	4144.6	6547.5	W12699.9	Y43710.7	013	74.9	48.0
0335	Nov-05	0009	4154.0	6545.1	W12646.6	Y43752.2	024	114.8	
0336	Nov-05	0335	4151.6	6552.5	W12681.8	Y43747.3	014	66.7	48.3
0337	Nov-05	0706	4210.1	6558.8	W12609.9	Y43837.0	338	123.0	
0338	Nov-05	0904	4206.5	6607.7	W12658.0	Y43828.6	126	56.3	48.8
0339	Nov-05	1119	4210.0	6614.3	W12662.6	Y43850.4	113	109.9	48.4
0340	Nov-05	1304	4210.2	6615.2	W12664.6	Y43852.4	302	108.8	
0341	Nov-05	1435	4210.2	6615.3	W12665.0	Y43852.3	284	108.8	48.4
0342	Nov-05	1758	4218.3	6609.2	W12602.1	Y43883.5	351	135.1	48.0
0343	Nov-05	2023	4218.0	6620.2	W12641.2	Y43892.6	015	132.9	48.3
0344	Nov-05	2312	4215.4	6634.3	W12705.4	Y43894.1	081	141.1	48.5
0346	Nov-06	0309	4228.5	6639.4	W12652.9	Y43959.3	103	166.2	47.8
0347	Nov-06	0616	4222.6	6652.4	W12733.9	Y43945.9		186.5	48.2
0348	Nov-06	1022	4245.0	6712.5	W12685.9	Y44070.8	186	126.3	49.3
0349	Nov-06	1334	4229.8	6717.5	W12793.3	Y44007.2	060	181.0	48.4
0350	Nov-06	1704	4227.5	6736.7	W12887.3	Y44018.3	019	140.0	48.7
0351	Nov-06	2136	4235.3	6803.9	W12965.1	Y44089.5	064	101.2	
0352	Nov-07	0051	4245.3	6753.2	W12857.8	Y44122.8	088	111.0	47.9
0353	Nov-07	0350	4255.8	6736.1	W12720.0	Y44148.0	256	118.7	48.5
0354	Nov-07	0756	4300.2	6749.5	W12751.3	Y44185.6	245	107.2	47.1
0355	Nov-07	1020	4303.0	6756.6	W12766.4	Y44207.4	178	109.4	46.5
0356	Nov-07	1352	4317.1	6728.2	W12554.9	Y44230.3	224	111.0	47.9
0357	Nov-07	1718	4331.8	6716.0	W12412.0	Y44274.6	215	119.2	49.0
0358	Nov-07	2007	4328.1	6656.9	W12364.1	Y44235.0	247	113.2	49.5
0359	Nov-07	2309	4338.0	6645.3	W12261.1	Y44259.6	139	62.9	50.6
0360	Nov-08	0139	4352.0	6648.5	W12180.8	Y44317.4	055	70.0	49.4
0361	Nov-08	0311	4354.4	6647.4	W12161.2	Y44325.1	013	61.2	49.7
0362	Nov-08	0517	4355.5	6656.2	W12183.7	Y44340.4	353	85.8	
0363	Nov-10	1911	4415.0	6652.8	W12040.3	Y44407.2	015	99.0	48.5
0364	Nov-10	2122	4413.9	6646.0	W12026.6	Y44394.4	013	100.6	48.4
0365	Nov-10	2325	4408.9	6651.3	W12077.0	Y44383.5	034	94.1	48.5
0366	Nov-11	0154	4410.1	6708.1	W12125.4	Y44410.0	357	70.5	49.6
0368	Nov-11	0439	4404.9	6714.0	W12182.9	Y44399.1	015	112.1	
0369	Nov-11	0601	4404.9	6713.9	W12182.2	Y44399.2	005	111.5	48.6

NOAA Fisheries Service AUTUMN BOTTOM TRAWL SURVEY
2013 STATION INFORMATION

Station*	Date	Time	Lat	Lon	Loran TD's		Course	Bottom Depth (FM)	Temp (F)
0370	Nov-11	0834	4409.1	6724.8	W12193.4	Y44429.5	042	126.9	48.7
0371	Nov-11	1134	4421.0	6742.5	W12177.8	Y44497.5	063	36.1	51.0
0372	Nov-11	1401	4413.7	6756.6	W12291.0	Y44492.0	058	40.5	51.3
0373	Nov-11	1744	4410.6	6801.8	W12336.5	Y44488.5	181	48.7	51.2
0374	Nov-11	2026	4400.3	6801.8	W12410.5	Y44450.2	190	89.1	50.1
0375	Nov-11	2245	4352.3	6756.8	W12444.1	Y44412.3	206	95.1	48.9
0376	Nov-12	0103	4350.0	6748.8	W12425.2	Y44391.7	218	114.3	48.7
0377	Nov-12	0311	4344.9	6754.3	W12483.8	Y44379.9	211	111.0	
0378	Nov-12	0940	4355.2	6821.2	W12537.5	Y44460.1	301	66.2	
0379	Nov-12	1250	4336.7	6837.3	W12745.7	Y44411.3	013	79.8	49.2
0380	Nov-12	1557	4336.8	6839.2	W12755.0	Y44414.7	226	83.7	49.0
0381	Nov-12	2040	4330.0	6902.5	W12924.5	Y44423.9	274	76.6	48.6
0382	Nov-12	2326	4327.9	6902.8	W12939.4	Y44415.5	014	77.6	47.7
0383	Nov-13	0241	4320.0	6858.3	W12966.0	Y44374.1	025	78.2	47.3
0384	Nov-13	0545	4315.5	6902.3	W13017.0	Y44360.6	031	90.2	46.8
0385	Nov-13	0945	4259.8	6834.7	W12969.5	Y44247.0	005	104.4	
0386	Nov-13	1242	4249.8	6837.1	W13041.8	Y44204.2	013	101.2	46.4
0387	Nov-13	1556	4240.6	6844.1	W13132.0	Y44170.2	061	95.1	46.3
0388	Nov-13	1920	4222.5	6844.2	W13234.4	Y44080.8	006	111.5	45.6
0389	Nov-13	2316	4222.1	6910.5	W13375.7	Y44115.5	258	130.1	46.7
0390	Nov-14	0145	4220.8	6930.4	W13492.3	Y44138.7	000	125.8	46.5
0391	Nov-14	0525	4228.2	6956.3	W13603.6	Y44219.1	351	93.5	45.3
0392	Nov-14	0849	4232.9	6932.1	W13436.6	Y44204.3	266	156.4	46.8
0393	Nov-14	1124	4243.2	6932.2	W13379.6	Y44257.0	268	135.6	46.2
0394	Nov-14	1507	4256.0	6922.1	W13246.6	Y44303.1	201	92.4	45.6
0395	Nov-14	1756	4257.0	6937.1	W13327.9	Y44332.6	258	88.0	45.1
0396	Nov-14	2136	4310.8	6912.5	W13102.5	Y44356.4	274	107.2	45.6
0397	Nov-15	0004	4320.4	6918.5	W13075.8	Y44408.9	272	90.8	46.0
0398	Nov-15	0240	4321.4	6927.2	W13119.7	Y44427.9	223	100.1	45.6
0400	Nov-16	1351	4322.9	7006.3	X25915.2	Y44504.0	347	69.4	48.0
0401	Nov-16	1608	4316.0	7009.1	X25889.7	Y44478.3	338	69.4	47.4
0402	Nov-16	1810	4314.4	7005.8	X25864.7	Y44464.9	025	86.4	46.0
0403	Nov-16	2005	4310.1	7001.0	X25817.6	Y44436.5	325	42.7	50.5
0404	Nov-16	2252	4310.2	7017.9	X25899.8	Y44468.1	204	64.0	48.8
0405	Nov-17	0102	4308.8	7019.4	X25899.6	Y44464.3	200	61.2	48.3
0406	Nov-17	0330	4256.4	7022.1	X25840.3	Y44409.7	191	70.5	46.6
0407	Nov-17	0807	4248.8	7044.8	X25925.3	Y44414.6	332	17.0	48.0
0408	Nov-17	1002	4243.0	7038.4	X25850.8	Y44371.8	317	22.4	47.1
0409	Nov-17	1122	4243.3	7037.8	X25849.9	Y44372.7	332	23.5	46.7
0410	Nov-17	1250	4244.1	7035.6	X25840.8	Y44372.3	322	39.4	45.8
0411	Nov-17	1507	4239.7	7020.9	X25730.3	Y44322.7	008	41.6	48.9
0412	Nov-17	1758	4241.2	7011.3	X25689.2	Y44313.1	305	50.3	47.0
0413	Nov-17	2130	4223.5	7020.2	X25620.4	Y44233.9	099	20.8	49.8
0414	Nov-18	0010	4230.9	7038.9	X25780.3	Y44308.5	059	35.0	49.1
0415	Nov-18	0400	4231.1	7043.6	X25810.9	Y44318.1	047	24.1	48.7
0416	Nov-18	0753	4216.8	7034.2	X25660.3	Y44220.8	127	33.4	49.2
0417	Nov-18	0938	4211.2	7032.8	X25614.9	Y44186.1	262	25.7	50.5
0418	Nov-18	1159	4159.0	7033.4	X25540.2	Y44115.7	343	17.5	51.0

NOAA Fisheries Service AUTUMN BOTTOM TRAWL SURVEY
2013 STATION INFORMATION

Station*	Date	Time	Lat	Lon	Loran TD's		Course	Bottom Depth (FM)	Temp (F)
0419	Nov-18	1332	4159.6	7031.8	X25532.4	Y44116.2	005	20.2	51.1
0420	Nov-18	1545	4156.7	7020.4	X25438.2	Y44080.4	220	21.3	
0421	Nov-18	1653	4157.6	7020.8	X25447.2	Y44086.7	247	23.0	49.8
0422	Nov-18	1834	4200.2	7017.4	X25445.0	Y44096.6	239	25.2	50.3
0423	Nov-18	2000	4200.7	7016.2	X25441.7	Y44097.8	236	26.2	50.2
0424	Nov-18	2146	4156.2	7011.9	X25384.6	Y44064.2	174	18.0	49.5
0425	Nov-18	2303	4154.4	7009.1	X25356.2	Y44049.3	202	12.6	50.6
0426	Nov-19	0105	4150.0	7020.0	X25389.4	Y44039.4	240	15.9	51.0

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

NOAA FISHERIES SERVICE-NEFSC AUTUMN BOTTOM TRAWL SURVEY 2013
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	BLUEFISH	WEAKFISH	SCUP	BLACK SEA BASS	SPOT	CROAKER	BUTTERFISH	AMERICAN LOBSTER	LOLIGO	ILLEX	[1] TOTAL OTHER	TOTAL ALL
17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	3	0	109	114
27	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	1	48	58
28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	185	1	41	245
29	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	18	0	578	603
30	0	0	0	0	1	0	58	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	28	33	363	484
31	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	17	9	49	93
33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	31	0	486	517
35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	51	65
36	0	0	0	0	1	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	4	0	99	109
37	0	0	0	0	1	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	4	0	89	99
38	0	0	0	0	8	0	20	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	97	128
39	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	23	0	5	0	55	85
40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	214	7	31	254
41	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73	3	9	87
42	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	38	3	128	177
43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	321	330
44	0	0	0	0	0	0	5	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	5	0	314	325
45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	24	0	424	449
46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33	0	102	135
47	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	8	3	80	107
48	0	0	0	0	17	0	1	0	0	0	0	0	0	4	0	0	0	0	0	0	1	2	11	4	83	123
49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	2	95	109
50	0	0	0	0	12	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	10	34	61
51	0	0	0	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43	0	40	88
52 [2]	0	0	0	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	51	0	16	71
53	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	81	0	10	93
54	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	82	4	163	268
55	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	68	0	431	24	111	636
56	0	0	0	0	35	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	162	46	70	316
57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	55	1	12	68
58	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	11	14
59	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	17	51	89
60	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	2	1	14	38

NOAA FISHERIES SERVICE-NEFSC AUTUMN BOTTOM TRAWL SURVEY 2013
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	BLUEFISH	WEAKFISH	SCUP	BLACK SEA BASS	SPOT	CROAKER	BUTTERFISH	AMERICAN LOBSTER	LOLIGO	ILLEX	[1] TOTAL OTHER	TOTAL ALL
61	0	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	4	1	64	87
62	0	0	0	0	54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	195	189	439
63	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	129	53	195
64	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	56	0	174	2	15	248
65	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	397	12	193	610
66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	62	87
67	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	685	0	165	9	122	1001
68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	40	0	77	123
69	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	59	0	135	259	2	0	1	0	200	656
70	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	48	0	85	207	10	0	0	0	208	559
71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3	0	14	0	49	67
72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	31	0	13	49
73 [2]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	3	0	18	23
74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	61	211	0	0	19	0	31	325
75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	1	3	0	0	15	0	451	475
76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	13	20
77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	110	353	5	0	2	0	747	1225
78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	9	0	0	12	0	24	47
79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	12	17
80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	12	16
81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	53	0	55	108
82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	28	86	115
83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6
84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	32	51
85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	75	1	30	106
86	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	7	23
87	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	1	1	0	1	0	40	46
88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	239	396	10	0	1	0	334	981
89 [2]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	5	6
90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	18	22
91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	17	28
92	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	41	0	34	60	3	0	1	0	13	153
93	0	0	0	0	2	0	0	0	0	0	0	0	0	3	0	0 1	3	0	36	106	5	0	2	0	52	309
94	0	0	0	0	2	0	0	0	0	0	0	0	0	2	0	0	23	0	121	115	9	0	1	0	39	312

NOAA FISHERIES SERVICE-NEFSC AUTUMN BOTTOM TRAWL SURVEY 2013
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	BLUEFISH	WEAKFISH	SCUP	BLACK SEA BASS	SPOT	CROAKER	BUTTERFISH	AMERICAN LOBSTER	LOLIGO	ILLEX	[1] TOTAL OTHER	TOTAL ALL
95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	1	0	0	0	4	0	21	37
96	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	4	0	27	32
97	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	16	40
98	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	63	0	267	334
99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	83	0	3	86
100	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	2	82	1	70	27	9	0	2	0	57	253
101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	35	1	56	46	3	0	2	0	19	164
102	0	0	0	0	0	0	0	0	0	0	0	0	1	5	1	0	66	0	111	258	23	0	3	0	445	913
103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	7	0	328	337
104	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	18	1	0	6	0	36	63
105	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	13	0	43	58
106	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	7	4	0	2	0	0	18	0	32	74
107	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	12	0	22	36
108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	58	70
109	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	16	0	346	366
110	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	29	0	37	68
111	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	9	0	413	426
112	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	105	0	0	8	0	106	221
113	0	0	0	0	0	0	0	0	0	0	0	0	2	8	2	4	0	1	25	666	1	0	13	0	153	875
114	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	7	0	0	6	0	167	182
115	0	0	0	0	0	0	0	0	0	0	0	0	4	6	0	3	0	0	107	1219	3	0	2	0	286	1630
116	0	0	0	0	0	0	0	0	0	0	0	0	8	5	0	0	0	0	2	37	1	0	3	0	131	187
117	0	0	0	0	0	0	0	0	0	0	0	0	1	10	0	0	0	3	4	2	0	1	2	0	153	176
118	0	0	0	0	0	0	0	0	0	0	0	0	4	8	0	0	0	0	0	0	0	0	37	0	374	423
119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	39	64
120	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	22	0	70	93
121	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	5	0	53	61
122	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57	1	207	267
123	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	11	1	1221	1237
124	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49	1	25	75
125	0	0	0	0	2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	14	3	2	28	51
126	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2	25	33
127	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	4	2	25	36
128	0	0	0	0	6	0	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	5	88	115

NOAA FISHERIES SERVICE-NEFSC AUTUMN BOTTOM TRAWL SURVEY 2013
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	BLUEFISH	WEAKFISH	SCUP	BLACK SEA BASS	SPOT	CROAKER	BUTTERFISH	AMERICAN LOBSTER	LOLIGO	ILLEX	[1] TOTAL OTHER	TOTAL ALL
129	0	0	0	0	0	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	4	15	50
130	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	83	2	15	103
131	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	55	3	22	82
132	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	88	3	45	142
133	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	30	1	54	90
134	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	104	1	76	183
135	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	38	1	133	173
136	0	0	0	0	74	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	14	1	75	1	79	248
137	0	0	0	0	14	0	4	0	2	0	0	0	0	0	0	0	0	0	0	0	2	0	7	0	205	234
138	0	335	0	0	30	0	5	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1	422	800
139	0	0	0	0	7	0	6	0	4	0	0	0	0	0	0	0	0	0	0	0	2	0	35	0	169	223
140	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	74	0	167	255
141	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	0	39	64
142	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	16	2	21	57
143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	19	2	13	42
144	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	0	67	4	17	115
145	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	32	4	30	73
146	0	0	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	24	6	13	67
147	0	0	0	0	0	0	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	1	1	22	66
148	0	0	0	0	0	0	25	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	4	1	22	56
150	0	0	0	0	0	0	76	1	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0	1	20	148
151	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	8	6	24	47
152	0	0	0	1	0	0	34	1	0	0	0	1	0	0	0	0	0	0	0	0	0	12	0	13	42	104
153	0	0	0	0	0	0	4	5	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0	26	50
154	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	55	25	17	99
156	0	0	0	0	30	0	0	173	0	8	0	0	0	27	0	0	0	0	0	0	70	0	5	0	377	690
157	0	0	0	0	61	0	5	8	20	0	0	0	0	0	0	0	0	0	0	0	43	0	9	0	402	548
158	0	0	0	0	24	0	36	16	0	0	0	1	0	0	0	0	0	0	0	0	60	2	1	0	54	194
159	0	0	0	0	12	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	68	0	193	290
160	0	12	0	0	6	0	1	0	7	0	0	0	0	0	0	0	0	0	0	0	4	0	287	1	74	392
161	0	0	0	0	4	0	5	295	0	0	0	0	1	16	0	0	0	0	0	0	0	0	6	0	507	834
162	0	0	0	0	4	0	0	8	0	0	0	0	0	14	0	0	0	0	0	0	0	0	5	0	522	553
163	0	0	0	0	6	0	0	12	0	1	0	0	2	11	0	0	0	0	0	0	0	0	6	0	147	185
164	0	1	0	0	8	0	9	5	0	2	0	0	1	0	0	0	0	0	0	0	2	0	19	0	236	283

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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	BLUEFISH	WEAKFISH	SCUP	BLACK SEA BASS	SPOT	CROAKER	BUTTERFISH	AMERICAN LOBSTER	LOLIGO	ILLEX	[1] TOTAL OTHER	TOTAL ALL
165	0	0	0	0	0	0	0	142	0	0	0	0	6	8	0	0	0	0	0	0	1	0	6	0	153	316
166	0	0	0	0	0	0	0	3	0	0	0	0	2	31	2	0	0	0	0	0	0	0	0	0	1004	1042
167	0	0	0	0	0	0	0	0	0	0	0	0	10	16	0	0	0	1	0	4	0	0	0	0	567	598
168	0	0	0	0	0	0	0	0	0	0	0	0	5	24	1	0	0	2	0	38	0	0	1	0	156	227
169	0	0	0	0	0	0	0	0	0	0	0	0	7	16	0	0	0	0	0	51	0	0	6	0	110	190
170	0	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1	0	16	0	87	107
171	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	0	45	80
172	0	0	0	0	1	0	18	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	55	0	66	141
173	0	0	0	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	218	3	58	284
174	0	0	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	152	1	30	187
175	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	32	0	59	94
176	0	0	0	0	0	0	0	0	0	0	0	0	2	6	0	0	0	1	1	36	0	0	3	0	242	291
177	0	0	0	0	0	0	0	0	0	0	0	0	3	3	1	0	0	1	4	51	0	0	2	0	195	260
178	0	0	0	0	0	0	0	0	0	0	0	0	3	2	1	0	0	6	4	28	0	0	7	0	220	271
180	0	0	0	0	0	0	0	0	0	0	0	0	7	14	0	0	0	1	66	163	0	0	1	0	164	416
181	0	0	0	0	0	0	0	0	0	0	0	0	3	7	4	0	1	7	2	29	0	0	1	0	195	249
182	0	0	0	0	0	0	0	0	0	0	0	0	1	8	0	0	0	10	0	1	0	3	2	0	62	87
183	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	4	0	123	135
184	0	0	0	0	0	0	0	0	0	3	0	0	0	5	0	0	0	2	0	0	3	4	5	0	92	114
185	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	3	2	0	0	2	1	4	0	162	186
186	0	0	0	0	0	0	0	0	0	0	0	0	2	31	10	0	1	1	0	0	0	0	12	0	89	146
187	0	0	0	0	1	0	0	0	0	0	0	0	3	13	0	0	0	0	0	0	0	0	1	0	55	73
188	0	0	0	0	0	0	0	0	0	0	0	0	5	14	0	0	3	4	0	0	2	0	4	0	139	171
189	0	0	0	0	0	0	0	0	0	0	0	0	1	31	1	3	7	14	13	1	2	0	4	0	293	370
190	0	0	0	0	3	0	0	0	0	0	0	0	1	39	0	0	1	0	4	0	1	0	2	0	95	146
191	0	0	0	0	0	0	0	0	0	0	0	0	2	14	0	0	6	1	0	0	2	0	25	0	72	122
192	0	0	0	0	0	0	0	0	0	0	0	0	2	59	0	0	14	0	0	1	1	0	48	0	53	178
193	0	0	0	0	1	0	0	0	0	0	0	0	4	54	1	0	4	0	0	0	26	0	40	0	47	177
194	0	0	0	0	0	0	0	0	0	0	0	0	1	79	1	0	8	0	0	0	5	0	24	0	250	368
195	0	0	0	0	0	0	0	0	0	0	0	0	0	35	0	0	12	0	0	0	4	0	62	0	22	135
196	0	0	0	0	0	0	0	0	0	0	0	0	0	72	62	2	76	3	0	0	87	0	128	0	141	571
197	0	0	0	0	0	0	0	0	0	1	0	0	7	53	45	0	2	12	0	0	55	0	48	0	108	331
198	0	0	0	0	0	0	0	0	0	0	0	0	1	51	0	0	54	8	0	0	11	0	88	0	163	376
199 [2]	0	0	0	0	0	0	0	0	0	1	0	0	1	15	20	0	19	1	0	0	12	0	49	0	108	226

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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	BLUEFISH	WEAKFISH	SCUP	BLACK SEA BASS	SPOT	CROAKER	BUTTERFISH	AMERICAN LOBSTER	LOLIGO	ILLEX	[1] TOTAL OTHER	TOTAL ALL
200	0	0	0	0	0	0	0	0	0	0	0	0	1	11	2	0	42	2	0	0	37	0	53	0	111	259
201	0	0	0	0	0	0	0	12	0	2	0	0	5	95	22	0	29	9	0	0	572	0	143	0	272	1161
202	0	0	0	0	0	0	0	0	0	1	0	0	7	18	8	0	0	6	0	0	23	0	59	0	346	468
203 [2]	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	3	0	0	6	0	5	0	25	56
204	0	0	0	0	0	0	0	0	0	8	0	0	1	22	0	0 2	19	33	0	0	6	4	34	0	144	471
205	0	0	0	0	2	0	0	0	0	0	0	0	0	2	0	0	7	7	0	0	2	1	1	0	65	87
206	0	0	0	0	1	0	8	13	3	0	0	0	2	24	0	0	39	26	0	0	4	1	5	0	255	381
207 [2]	0	0	0	0	0	0	0	6	0	35	0	0	0	2	0	0	27	4	0	0	0	3	1	0	45	123
208	0	0	0	0	0	0	8	31	0	0	0	0	0	20	0	0	11	9	0	0	0	4	43	0	35	161
209	0	0	0	0	0	0	0	36	4	16	0	0	0	27	0	0	0	28	0	0	0	0	37	0	38	186
210	0	0	0	0	4	0	0	77	10	1	0	0	1	15	5	0	0	0	0	0	49	0	180	0	91	433
211	0	2321	0	0	48	0	47	133	2	0	0	0	0	0	7	0	0	0	0	0	45	0	58	0	54	2715
212	0	0	0	0	119	0	17	214	0	0	0	1	0	4	0	0	0	0	0	0	201	2	163	0	87	808
213	0	0	0	0	42	0	41	9	1	0	0	0	0	0	0	0	0	0	0	0	73	1	726	0	73	966
214	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2	14	1	22	53
215	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	16	0	32	54
216	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	2	4	0	23	33
217	0	0	0	0	40	0	20	0	0	0	0	0	0	2	0	0	0	0	0	0	3	3	39	0	160	267
218	0	580	0	0	26	0	0	50	0	0	0	0	0	0	0	0	0	0	0	0	2	0	34	1	49	742
219	0	279	0	0	4	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	4	0	6	0	28	324
220	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	3	1	19	28
221	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	20	0	18	42
222	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	59	9	62	135
223	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	4	53	73
224	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7	2	1	71	86
225	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	7	8
226	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	2	0	18	27
227 [2]	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	4	0	43	50
228	0	0	0	0	0	0	0	116	1	0	0	0	0	0	0	0	0	0	0	0	0	0	18	7	43	185
229	0	0	0	0	0	0	0	3	1	0	0	0	0	8	0	0	0	0	0	0	0	0	11	1	119	143
230	0	0	0	0	2	0	0	96	3	0	0	0	0	4	0	0	0	0	0	0	102	3	284	3	44	541
231 [2]	0	0	0	0	0	0	0	5	1	0	0	0	0	5	0	0	0	0	0	0	0	9	4	0	7	31
232	1	0	0	0	4	0	0	69	0	0	0	0	0	21	0	0	0	0	0	0	65	29	25	1	62	277

NOAA FISHERIES SERVICE-NEFSC AUTUMN BOTTOM TRAWL SURVEY 2013
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	BLUEFISH	WEAKFISH	SCUP	BLACK SEA BASS	SPOT	CROAKER	BUTTERFISH	AMERICAN LOBSTER	LOLIGO	ILLEX	[1] TOTAL OTHER	TOTAL ALL
233	0	0	0	0	61	0	18	13	16	0	0	0	0	2	0	0	0	0	0	0	0	0	13	0	351	474
234	0	9	0	0	31	0	8	7	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7	0	173	242
235	0	39	0	0	5	0	0	0	14	2	0	0	24	6	0	0	0	0	0	0	15	0	40	0	356	501
236	0	0	0	0	0	0	0	10	1	1	0	0	26	6	0	0	0	0	0	0	2	0	11	0	254	311
238	0	0	0	0	29	0	40	67	4	0	0	0	0	101	0	0	2	0	0	0	8	1	23	0	170	445
239	0	0	0	0	23	0	6	127	0	2	0	0	10	68	18	0 2	51	7	0	0	11	0	16	0	433	972
240	0	0	0	0	147	0	66	205	1	80	0	0	9	81	0	0	77	23	0	0	1	6	4	0	660	1360
241	0	0	0	0	0	0	0	0	0	1	0	0	0	4	0	0	85	15	0	0	33	0	88	0	86	312
242	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	18	0	0	0	11	0	50	0	100	182
243	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	7	2	0	0	2	1	69	0	116	203
244	0	0	0	0	0	0	0	53	0	0	0	0	15	0	0	0	2	4	0	0	0	3	8	0	160	245
245	5	1	0	17	59	0	0	2641	1	120	0	0	0	0	0	0	0	0	0	0	0	17	15	0	249	3125
246	0	104	0	0	20	0	0	7302	6	37	0	0	0	0	0	0	0	0	0	0	0	2	1	0	150	7622
247	0	23	0	1	57	0	2	547	3	2	0	0	0	0	0	0	0	0	0	0	0	2	0	1	437	1075
248	0	0	0	0	0	0	0	6041	0	33	0	0	10	0	0	0	0	0	0	0	0	12	14	0	135	6245
249 [2]	12	0	0	0	0	0	0	2973	1	23	0	0	1	0	16	0	0	1	0	0	0	7	3	0	149	3186
250	11	0	0	0	0	0	0	5465	0	25	0	0	1	0	0	0	0	0	0	0	0	19	4	0	213	5738
251	0	53	0	0	87	0	0	34	14	2	0	0	0	0	0	0	0	0	0	0	0	11	0	0	249	450
252 [2]	0	0	0	0	0	0	0	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	
253	7	19	1	0	95	0	0	6	10	6	0	0	0	1	0	0	0	0	0	0	0	37	0	1	161	344
254	0	0	0	3	53	0	0	0	7	23	0	0	4	1	0	0	0	0	0	0	0	13	7	0	55	166
255	0	0	0	0	38	0	0	0	6	22	0	0	0	0	0	0	0	1	0	0	0	36	9	2	51	165
256	0	25	0	6	108	0	0	10515	2	5	0	0	1	0	0	0	0	1	0	0	0	8	15	0	80	10766
257	0	0	0	12	71	8	25	208	0	0	7	1	0	0	0	0	0	0	0	0	0	0	0	1	281	614
258	0	94	0	0	13	0	0	142	0	7	1	0	0	0	0	0	0	0	0	0	0	0	1	1	187	446
259	2	122	0	0	5	0	6	330	1	66	0	0	0	0	0	0	0	0	0	0	0	0	0	1	82	615
260	0	100	0	6	18	1	42	80	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	5	73	335
261	0	7	0	0	3	0	0	205	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	2	36	264
262	0	16	0	1	168	0	31	11	1	28	0	0	0	0	0	0	0	0	0	0	0	78	0	0	565	899
263	0	0	0	0	17	0	0	2	0	12	0	0	8	0	0	0	0	0	0	0	14	16	15	0	220	304
265 [2]	0	0	0	0	0	0	0	655	0	3	0	0	7	0	0	0	0	0	0	0	2	2	36	0	208	913
266	0	0	0	0	1	0	0	352	0	0	0	0	39	13	0	0	0	0	0	0	1	0	32	0	302	740
267	0	0	0	0	0	0	0	941	0	5	0	0	1	0	27	0	0	0	0	0	0	2	94	0	88	1158

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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	BLUEFISH	WEAKFISH	SCUP	BLACK SEA BASS	SPOT	CROAKER	BUTTERFISH	AMERICAN LOBSTER	LOLIGO	ILLEX	[1] TOTAL OTHER	TOTAL ALL
268	0	0	0	0	0	0	0	540	0	1	0	0	2	4	9	0	0	0	0	0	0	0	154	0	386	1096
269	0	0	0	0	0	0	0	1739	0	1	0	0	0	0	0	0	0	0	0	0	0	10	78	0	682	2510
270	0	132	0	0	19	0	0	215	0	1	0	0	2	6	0	0	0	0	0	0	0	0	117	1	168	661
271	0	0	0	0	4	0	6	2522	0	0	0	0	101	5	0	0	0	0	0	0	0	8	68	0	205	2919
272	0	0	0	0	1	0	12	113	0	1	0	0	38	3	0	0	0	0	0	0	1	0	43	0	289	501
273	0	471	0	0	17	0	6	190	5	0	0	0	0	12	0	0	0	0	0	0	0	0	12	1	189	903
274	0	30	0	0	8	0	0	148	1	0	0	0	0	0	0	0	0	0	0	0	0	4	2	0	175	368
275 [2]	0	594	0	0	17	0	5	12	0	0	0	0	0	0	0	0	0	0	0	0	1	0	7	0	30	666
276	0	1264	0	0	34	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	11	16	1	26	1359
277	0	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	24	2	23	93
278	0	257	0	0	6	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	2	19	3	6	301
279	0	97	0	0	133	0	0	2080	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	0	328	2662
280	0	0	0	14	0	6	8	6	0	0	0	1	0	0	0	0	0	0	0	0	0	5	0	6	72	118
281	0	125	0	0	45	0	6	80	0	0	0	0	0	0	0	0	0	0	0	0	1	7	0	0	106	370
282	0	229	0	0	34	0	10	38	5	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	488	807
283	0	32	0	0	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	0	35	82
284	0	339	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	50	0	1	70	492
285	0	24	0	0	1	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	2	14	6	0	47	111
286	0	7	0	8	0	111	8	0	0	0	1	2	0	0	0	0	0	0	0	0	0	125	0	1	60	323
287	0	224	0	2	51	1	6	5173	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	2	48	5512
288	0	80	0	24	0	300	5	0	0	0	2	9	0	0	0	0	0	0	0	0	0	26	0	1	40	487
289	0	169	0	0	14	0	0	3089	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	1	145	3425
290	4	155	0	10	22	0	0	52	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	0	222	489
291	0	190	0	0	1	0	0	1070	85	0	0	0	0	0	0	0	0	0	0	0	0	10	1	1	199	1557
292	0	68	0	0	1	0	0	97	10	0	0	0	0	0	0	0	0	0	0	0	1	9	0	1	196	383
293	0	458	0	0	8	0	0	55	8	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	16	548
294	0	385	0	0	15	0	0	85	12	0	0	0	0	0	0	0	0	0	0	0	20	0	13	0	36	566
295	0	3409	0	0	8	0	0	510	0	8	0	0	5	0	0	0	0	0	0	0	2	0	92	1	78	4113
296	0	420	0	2	372	0	0	91	4	5	0	0	3	0	0	0	0	0	0	0	0	84	2	0	660	1643
297	0	1220	0	0	204	0	0	220	2	4	0	0	9	10	0	0	0	0	0	0	3	0	26	0	154	1852
298	0	156	0	0	24	0	0	115	7	53	0	0	17	0	0	0	0	0	0	0	16	18	147	1	312	866
299	0	0	0	0	3	0	12	220	7	12	0	0	61	0	0	0	0	0	0	0	7	0	78	0	1350	1750
300	0	0	0	0	2	0	0	67	0	0	0	0	15	0	0	0	0	0	0	0	3	0	97	0	215	399
301	0	0	0	0	0	0	10	412	0	0	0	0	0	0	6	0	0	0	0	0	0	1	26	0	49	504

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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	BLUEFISH	WEAKFISH	SCUP	BLACK SEA BASS	SPOT	CROAKER	BUTTERFISH	AMERICAN LOBSTER	LOLIGO	ILLEX	[1] TOTAL OTHER	TOTAL ALL
302	25	2696	9	3	18	367	20	134	0	2	9	0	0	0	0	0	0	0	0	0	0	6	2	0	56	3347
303	0	76	1	0	6	1	9	13	0	0	23	5	0	0	0	0	0	0	0	0	0	0	0	1	50	185
304	34	19	0	12	300	42	13	25	0	0	4	14	0	0	0	0	0	0	0	0	0	0	0	0	171	634
305	0	35	0	0	181	58	3	2	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	31	317
307	31	6	0	0	58	0	0	0	43	60	0	0	8	0	0	0	0	4	0	0	0	168	0	0	207	585
308	3	50	0	0	125	0	0	7	61	8	0	0	0	0	0	0	0	0	0	0	0	46	0	2	85	387
309	0	0	1	0	101	0	9	10	1	0	25	2	0	0	0	0	0	0	0	0	0	0	0	0	195	344
310	0	6	0	11	192	36	39	4	0	0	36	1	0	0	0	0	0	0	0	0	0	0	0	0	763	1088
311	0	1	0	24	285	81	10	2	0	0	15	0	0	0	0	0	0	0	0	0	0	1	0	0	351	770
312 [2]	0	0	0	0	2	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	13
313 [2]	0	80	0	4	19	29	0	0	0	0	10	6	0	0	0	0	0	0	0	0	0	0	0	0	15	163
314	0	3	0	24	135	128	9	11	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	1	144	470
315	0	0	0	18	174	53	1	12	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	1	42	304
316	0	183	0	14	343	1	6	5	0	0	9	7	0	0	0	0	0	0	0	0	0	21	0	1	154	744
317	0	16	0	16	219	39	16	1	0	0	1	0	0	0	0	0	0	0	0	0	0	5	0	0	119	432
318	0	33	2	2	533	0	10	2	0	0	23	1	0	0	0	0	0	0	0	0	0	7	0	0	342	955
319	0	0	0	5	133	0	0	18	0	0	1	0	0	0	0	0	0	0	0	0	18	6	21	2	715	919
320	0	0	0	0	78	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	83	13	15	5	230	433
321	0	0	0	0	1	0	0	555	0	5	0	0	1	0	0	0	0	0	0	0	1	0	16	0	123	702
322	0	0	0	0	0	0	0	310	0	0	0	0	0	0	0	0	0	0	0	0	0	7	13	0	28	358
323	6	416	0	0	0	0	0	77	12	7	0	0	7	0	0	0	0	0	0	0	8	0	7	0	131	671
324	3	929	0	2	104	0	9	143	5	9	0	0	65	0	0	0	0	0	0	0	0	0	2	0	543	1814
325	0	1303	0	1	69	0	0	330	2	171	0	0	7	0	0	0	0	0	0	0	3	12	0	0	570	2468
326	116	303	3	1	13	0	9	248	6	5	0	0	1	0	0	0	0	0	0	0	10	47	11	0	296	1069
327	69	281	0	0	2	0	0	17	40	3	0	0	12	0	0	0	0	0	0	0	8	37	30	0	503	1002
328	231	1761	4	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	148	2149
329	0	115	0	0	14	0	0	745	1	3	0	0	0	0	0	0	0	0	0	0	2	46	3	0	112	1041
330	0	164	0	0	0	0	0	515	1	0	0	0	0	0	0	0	0	0	0	0	0	30	1	0	35	746
331	12	186	0	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	19	248
332	0	220	0	0	0	0	0	680	1	0	0	0	0	0	0	0	0	0	0	0	0	5	1	1	293	1201
333	0	7	0	0	1	0	0	34	14	0	0	0	0	0	0	0	0	0	0	0	0	19	0	0	199	274
334	0	32	0	4	3	0	0	191	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	37	276
335	0	0	0	0	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	12	33
336	17	133	1	0	1	0	0	15	0	8	0	0	0	0	0	0	0	0	0	0	0	3	0	0	27	205

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337 [2]	25	126	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0	0	35	206
338	0	489	48	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	29	577
339	0	1905	0	0	6	0	0	107	0	0	1	0	0	0	0	0	0	0	0	0	0	4	0	0	10	2033
340 [2]	7	439	3	0	10	1	0	33	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	3	505
341	0	662	5	0	20	0	0	37	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	21	748
342	19	908	35	0	1	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	4	0	0	53	1023
343	27	763	0	0	383	0	0	136	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	153	1465
344	0	1065	3	0	72	17	8	11	0	0	0	0	0	0	0	0	0	0	0	0	0	29	0	0	215	1420
345 [2]	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	
346	14	135	5	0	10	2	0	7	0	0	1	8	0	0	0	0	0	0	0	0	0	3	0	0	177	362
347	2	30	0	11	194	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	198	456
348	6	205	16	24	149	63	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	1	53	520
349	0	13	0	36	531	6	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3	0	1	22	615
350	0	0	1	31	248	60	40	0	0	0	17	3	0	0	0	0	0	0	0	0	0	7	0	1	33	441
351	0	4	0	32	39	78	4	3	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	38	200
352	7	0	0	9	82	33	18	7	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2	151	311
353	0	0	0	32	115	142	15	2	0	0	0	3	0	0	0	0	0	0	0	0	0	9	0	2	140	460
354	0	25	2	27	117	567	1	6	0	0	1	5	0	0	0	0	0	0	0	0	0	0	0	2	26	779
355	0	1	8	12	82	143	3	7	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	25	284
356	0	6	0	14	160	210	13	9	0	0	4	3	0	0	0	0	0	0	0	0	0	0	0	1	29	449
357	0	467	0	24	499	12	27	2	0	0	24	19	0	0	0	0	0	0	0	0	0	17	0	0	48	1139
358	0	8	0	6	70	39	16	0	0	0	1	0	0	0	0	0	0	0	0	0	0	12	0	1	34	187
359	0	9	0	2	14	1	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	9	0	1	46	87
360	5	98	0	27	48	2	0	956	0	20	0	0	0	0	0	0	0	0	0	0	1	116	0	8	113	1394
361	3	32	1	17	132	0	0	75	0	15	0	0	0	0	0	0	0	0	0	0	0	50	0	3	104	432
362	3	29	0	1	26	9	0	224	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	1	62	368
363	0	4	0	1	615	395	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	64	1081
364	14	2	0	14	160	137	0	0	0	1	0	5	0	0	0	0	0	0	0	0	0	1	0	1	40	375
365	13	12	0	0	66	41	0	6	0	0	0	3	0	0	0	0	0	0	0	0	0	9	0	2	31	183
366	1	1	0	14	194	5	10	0	0	0	0	47	0	0	0	0	0	0	0	0	0	11	0	4	337	624
367 [2]	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	
368 [2]	10	31	0	44	48	60	0	4	0	0	0	7	0	0	0	0	0	0	0	0	0	4	0	2	51	261
369	12	37	1	39	57	789	3	0	0	0	1	2	0	0	0	0	0	0	0	0	0	5	0	1	31	978

NOAA FISHERIES SERVICE-NEFSC AUTUMN BOTTOM TRAWL SURVEY 2013
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	BLUEFISH	WEAKFISH	SCUP	BLACK SEA BASS	SPOT	CROAKER	BUTTERFISH	AMERICAN LOBSTER	LOLIGO	ILLEX	[1] TOTAL OTHER	TOTAL ALL
370	0	0	0	85	214	18	0	4	0	0	3	9	0	0	0	0	0	0	0	0	0	0	0	0	36	369
371	1	190	0	0	39	0	0	0	0	12	0	0	1	0	0	0	0	0	0	0	0	354	0	0	68	665
372	0	77	0	6	132	0	0	0	0	8	0	0	1	0	0	0	0	1	0	0	0	234	2	1	64	526
373	0	51	0	6	150	1	0	0	0	4	0	0	2	0	0	0	0	0	0	0	2	282	2	0	56	556
374	2	0	0	47	747	0	5	0	0	0	2	0	0	0	0	0	0	0	0	0	0	380	0	1	71	1255
375	0	1	0	2	300	0	9	11	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	1	80	412
376	0	3	0	11	287	44	5	22	0	0	13	0	0	0	0	0	0	0	0	0	0	5	0	2	41	433
377 [2]	0	1	0	5	201	22	10	19	0	0	22	2	0	0	0	0	0	0	0	0	0	2	0	2	76	362
378 [2]	0	8	0	9	186	0	1	0	0	7	1	0	0	0	0	0	0	0	0	0	1	386	2	2	27	630
379	1	1	0	6	380	0	7	4	0	0	2	0	0	0	0	0	0	0	0	0	4	25	0	5	42	477
380	0	0	0	2	242	0	22	33	0	0	0	2	0	0	0	0	0	0	0	0	2	9	1	9	58	380
381	1	0	0	7	331	0	6	20	0	0	6	1	0	0	0	0	0	0	0	0	0	26	0	0	177	575
382	0	18	0	13	280	5	6	24	0	0	10	9	0	0	0	0	0	0	0	0	1	23	0	1	338	728
383	0	51	0	2	108	20	8	4	0	0	8	9	0	0	0	0	0	0	0	0	0	2	0	2	77	291
384	0	157	0	0	271	12	30	5	0	0	105	10	0	0	0	0	0	0	0	0	0	2	0	3	147	742
385	0	2	0	36	127	313	10	0	0	0	6	1	0	0	0	0	0	0	0	0	0	1	0	2	55	553
386	0	1	1	6	117	377	40	7	0	0	6	1	0	0	0	0	0	0	0	0	0	0	0	1	44	601
387	0	7	0	8	35	342	7	8	0	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	53	465
388	0	0	0	0	974	44	3	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	95	1123
389	0	0	0	25	289	4	47	848	0	0	14	0	0	0	0	0	0	0	0	0	0	2	0	0	80	1309
390	0	0	0	44	194	25	5	79	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	2	27	389
391	0	2	0	25	81	147	61	21	0	0	20	5	0	0	0	0	0	0	0	0	0	0	0	0	170	532
392	0	0	0	3	226	6	1	1027	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	2	30	1298
393	0	0	0	16	209	6	8	380	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	44	668
394	0	0	0	16	50	981	43	7	0	0	15	1	0	0	0	0	0	0	0	0	0	0	0	2	37	1152
395	0	2	0	16	122	62	17	20	0	0	11	2	0	0	0	0	0	0	0	0	0	0	0	0	54	306
396	0	0	0	1	338	25	10	0	0	0	13	4	0	0	0	0	0	0	0	0	0	0	0	0	66	457
397	0	1	0	56	420	42	39	20	0	0	39	9	0	0	0	0	0	0	0	0	0	2	0	0	212	840
398	0	1	0	6	247	22	39	23	0	0	14	8	0	0	0	0	0	0	0	0	0	3	0	0	144	507
400	0	0	0	1	77	0	5	119	0	0	3	2	0	0	0	0	0	0	0	0	0	91	0	1	68	367
401	0	0	0	0	97	0	33	177	0	0	42	3	0	0	0	0	0	0	0	0	1	34	0	3	66	456
402	0	0	0	0	186	27	14	914	0	0	68	16	0	0	0	0	0	0	0	0	0	6	0	1	92	1324
403	83	155	70	1	186	15	0	4884	0	0	1	0	0	0	0	0	0	0	0	0	3	0	0	6	46	5450
404	0	0	0	1	275	0	12	43	1	0	30	0	0	0	0	0	0	0	0	0	0	88	0	0	43	493

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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	BLUEFISH	WEAKFISH	SCUP	BLACK SEA BASS	SPOT	CROAKER	BUTTERFISH	AMERICAN LOBSTER	LOLIGO	ILLEX	[1] TOTAL OTHER	TOTAL ALL
405	0	0	0	0	218	0	7	23	2	1	9	1	0	0	0	0	0	0	0	0	0	73	1	0	114	449
406	0	0	0	1	207	14	12	14	0	0	22	3	0	0	0	0	0	0	0	0	0	42	0	0	93	408
407	0	0	0	0	2	0	0	0	3	7	1	0	0	0	0	0	0	0	0	0	0	15	2	0	255	285
408	0	3	0	0	1	0	0	0	1	5	0	0	0	0	0	0	0	0	0	0	0	86	2	0	23	121
409	0	4	0	0	1	0	0	0	2	4	0	0	0	0	0	0	0	0	0	0	3	103	1	0	30	148
410	0	1	0	0	45	0	3	0	4	17	2	0	0	0	0	0	0	0	0	0	6	88	1	0	89	256
411	43	506	1	0	11	16	0	382	2	7	0	0	0	0	0	0	0	0	0	0	1	49	1	0	42	1061
412	34	325	1	21	31	12	0	1334	0	0	1	4	1	0	0	0	0	0	0	0	0	0	0	1	66	1831
413	73	86	1	0	16	0	0	108	440	100	0	0	2	0	0	0	1	0	0	0	4	20	0	0	124	975
414	1	0	0	6	20	0	1	0	21	22	8	0	9	0	0	0	0	0	0	0	0	53	0	0	149	290
415	0	0	0	12	50	0	4	0	12	18	1	0	15	0	0	0	1	0	0	0	1	247	0	0	433	794
416	65	0	0	4	154	0	3	245	16	19	2	0	1	0	0	0	1	0	0	0	1	51	1	0	107	670
417	142	0	0	1	39	0	4	528	85	160	0	0	2	0	0	0	1	0	0	0	7	32	3	1	193	1198
418	28	0	0	0	10	0	0	25	0	13	0	0	0	0	0	0	0	1	0	0	8	28	4	0	242	359
419	23	0	0	1	22	0	0	296	2	16	0	0	1	0	0	0	1	0	0	0	5	69	13	0	177	626
420 [2]	0	0	0	0	75	0	0	92	3	14	0	0	2	0	0	0	0	0	0	0	3	71	11	0	79	350
421	9	0	0	3	275	0	0	23	6	11	0	0	2	0	0	0	0	3	0	0	1	103	7	0	202	645
422	0	0	0	1	90	0	0	15	1	14	0	0	7	1	0	0	0	2	0	0	1	24	1	0	202	359
423	0	0	0	1	48	0	0	29	1	12	0	0	8	1	0	0	1	2	0	0	0	16	2	0	203	324
424	0	0	0	6	284	0	0	0	1	8	0	0	3	0	0	0	1	4	0	0	0	2	5	0	478	792
425	0	0	0	1	208	0	0	0	1	4	0	0	0	0	0	0	1	2	0	0	4	0	8	0	211	440
426	0	0	0	1	136	0	0	0	2	23	0	0	1	0	0	0	1	0	0	0	1	2	3	0	358	528
TOTA	1263	32921	234	1186	20307	6719	1799	77100	1093	1518	782	271	717	1474	276	16	1552	289	1298	4512	3070	5033	9498	837	54670	228435

[1] "Total other" in southern areas are comprised primarily of rays, large sharks and spotted hake.
[2] Excluded from stock assessment due to an unacceptable tow evaluation code

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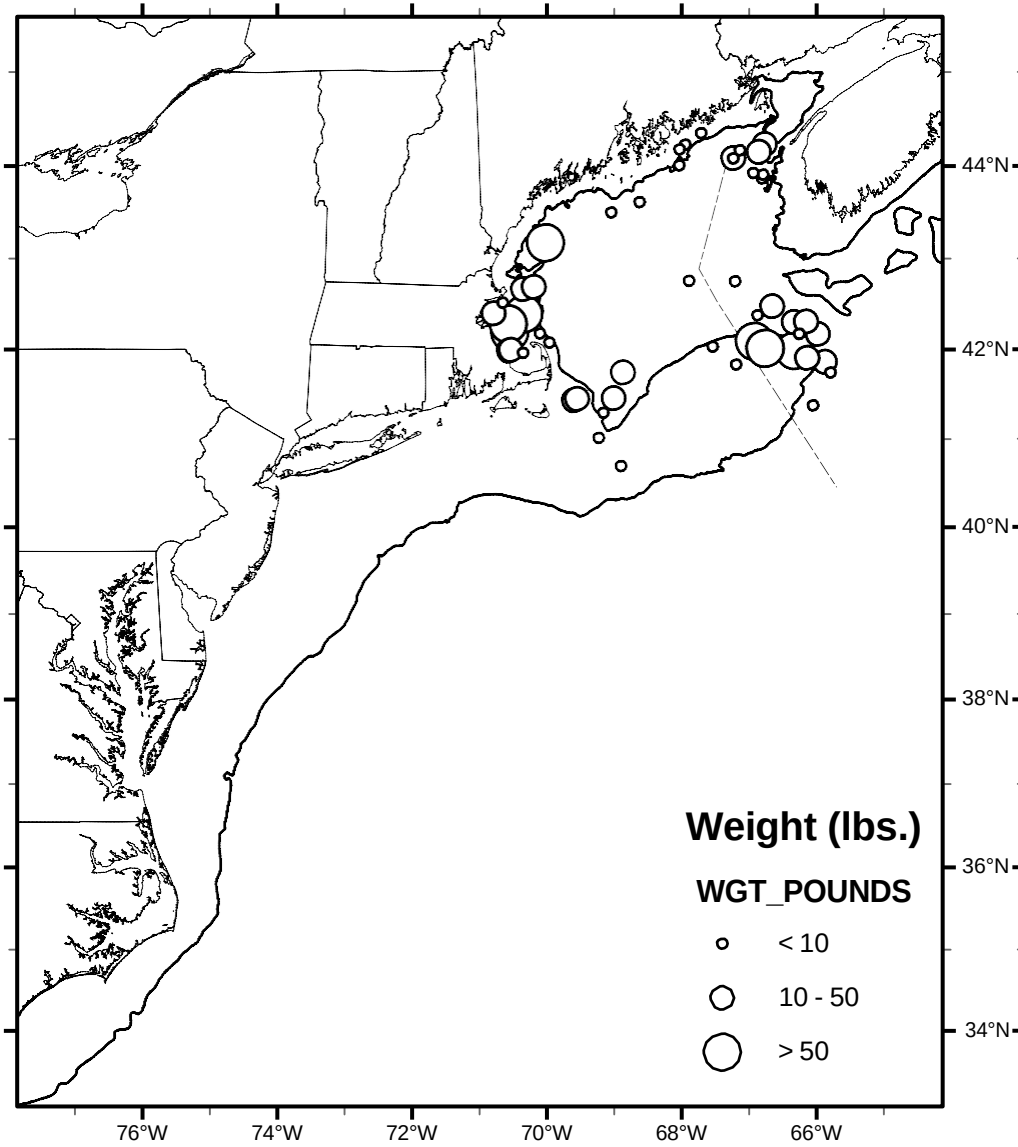
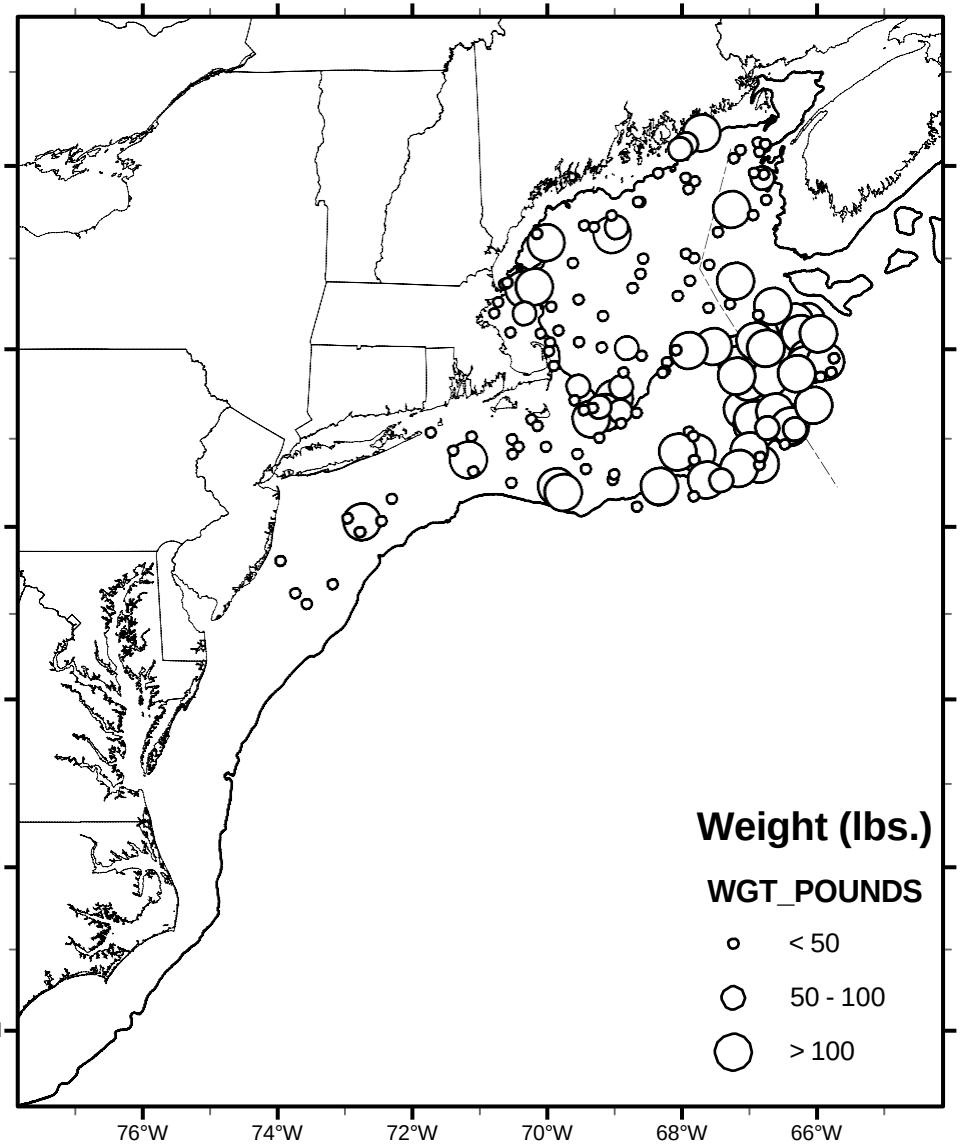
COD



HADDOCK



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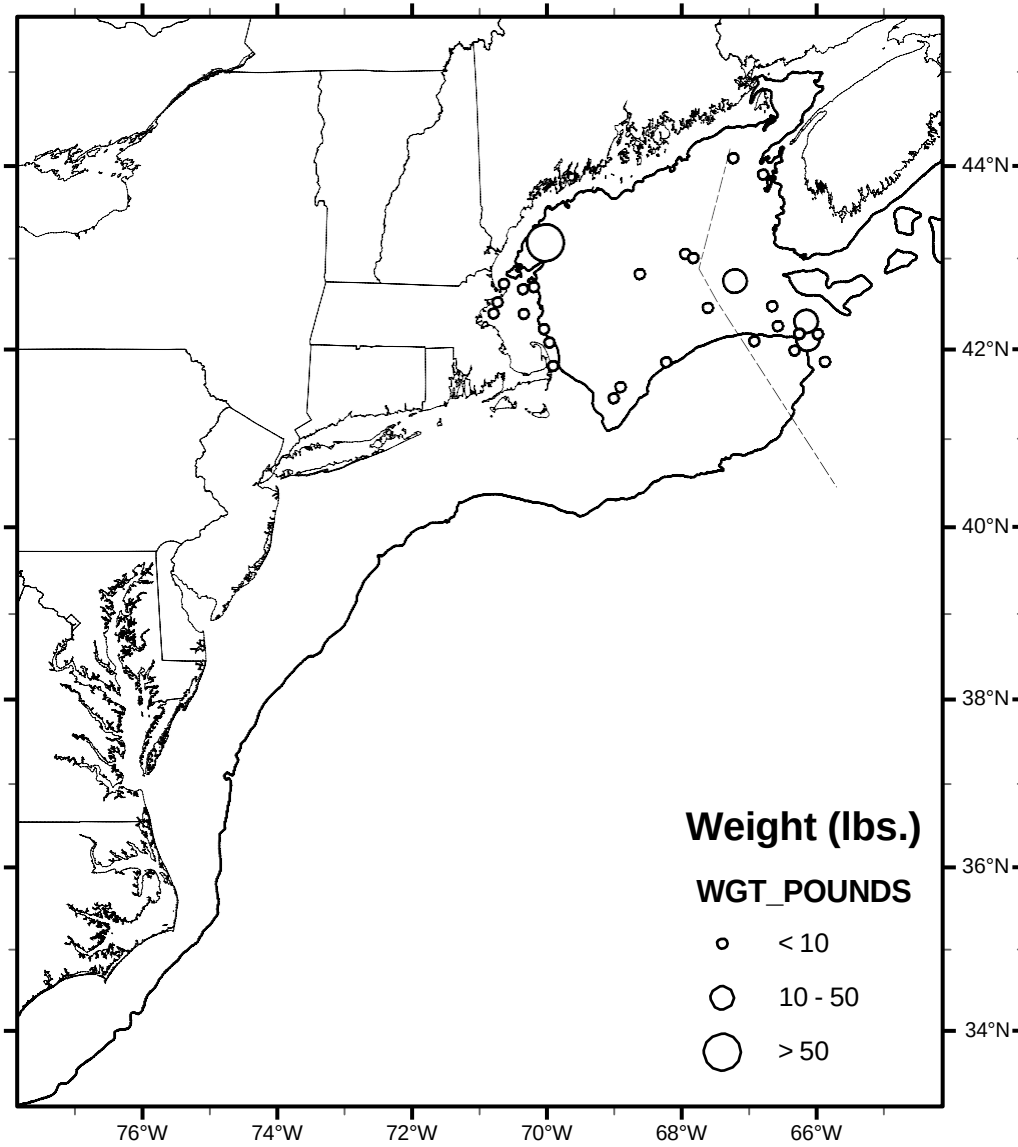
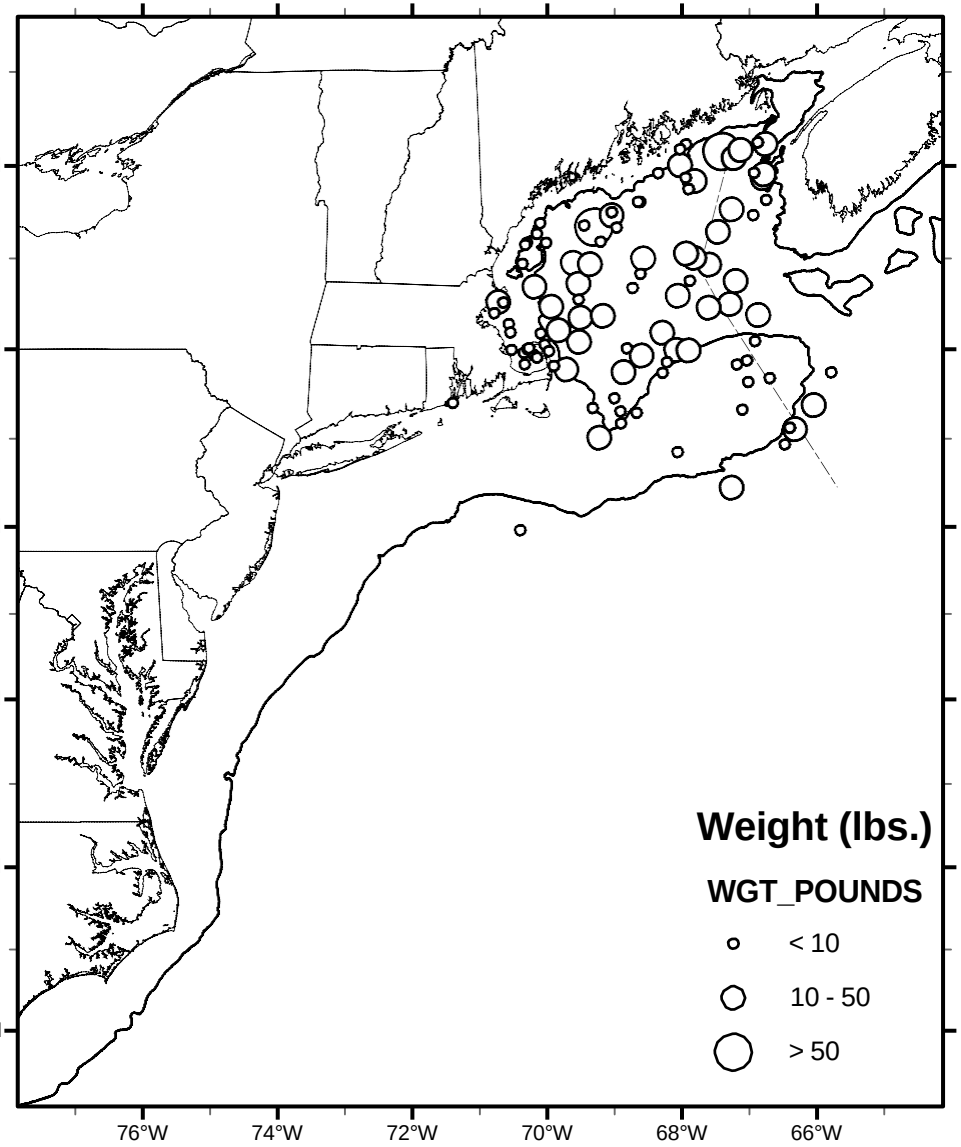
POLLOCK



WHITE HAKE



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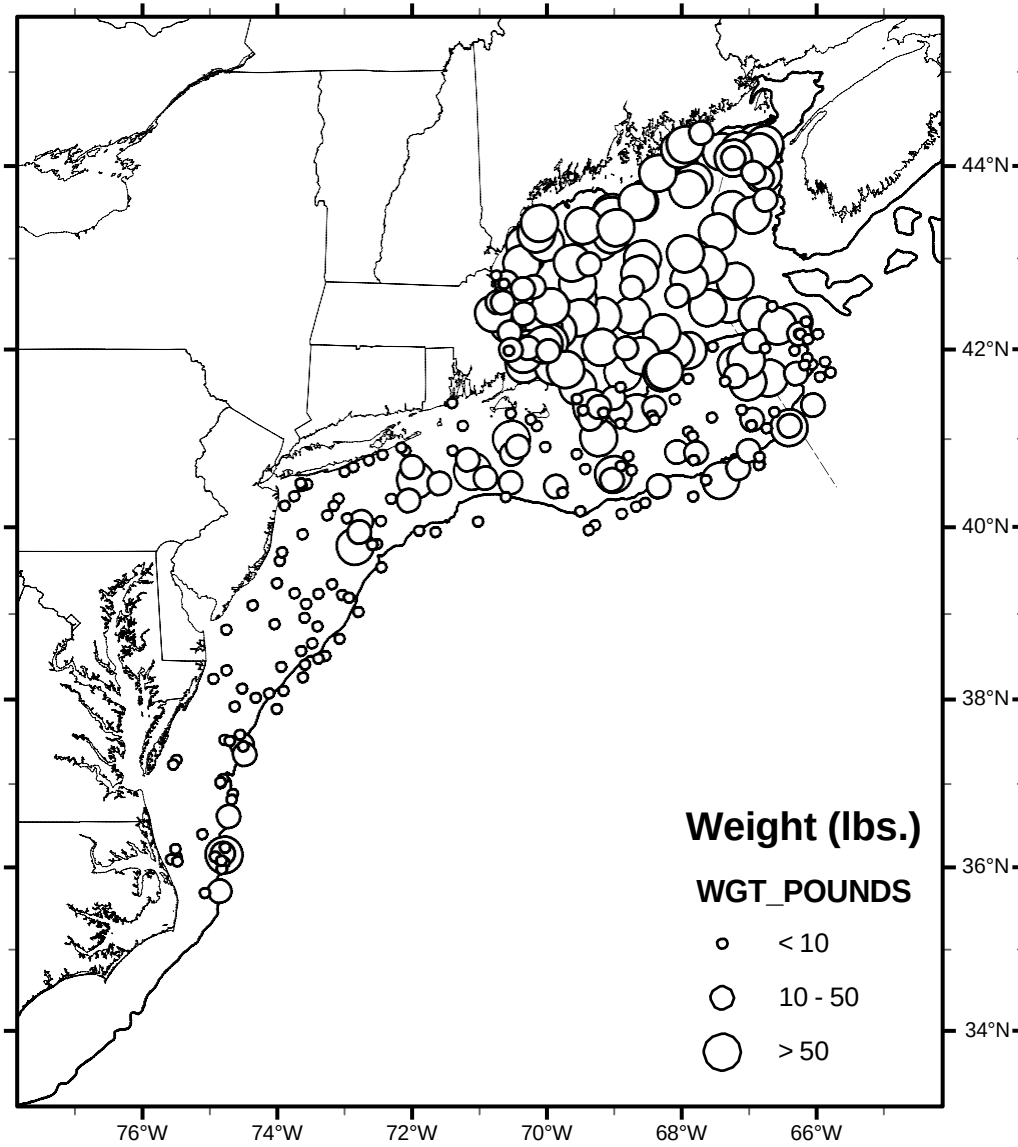
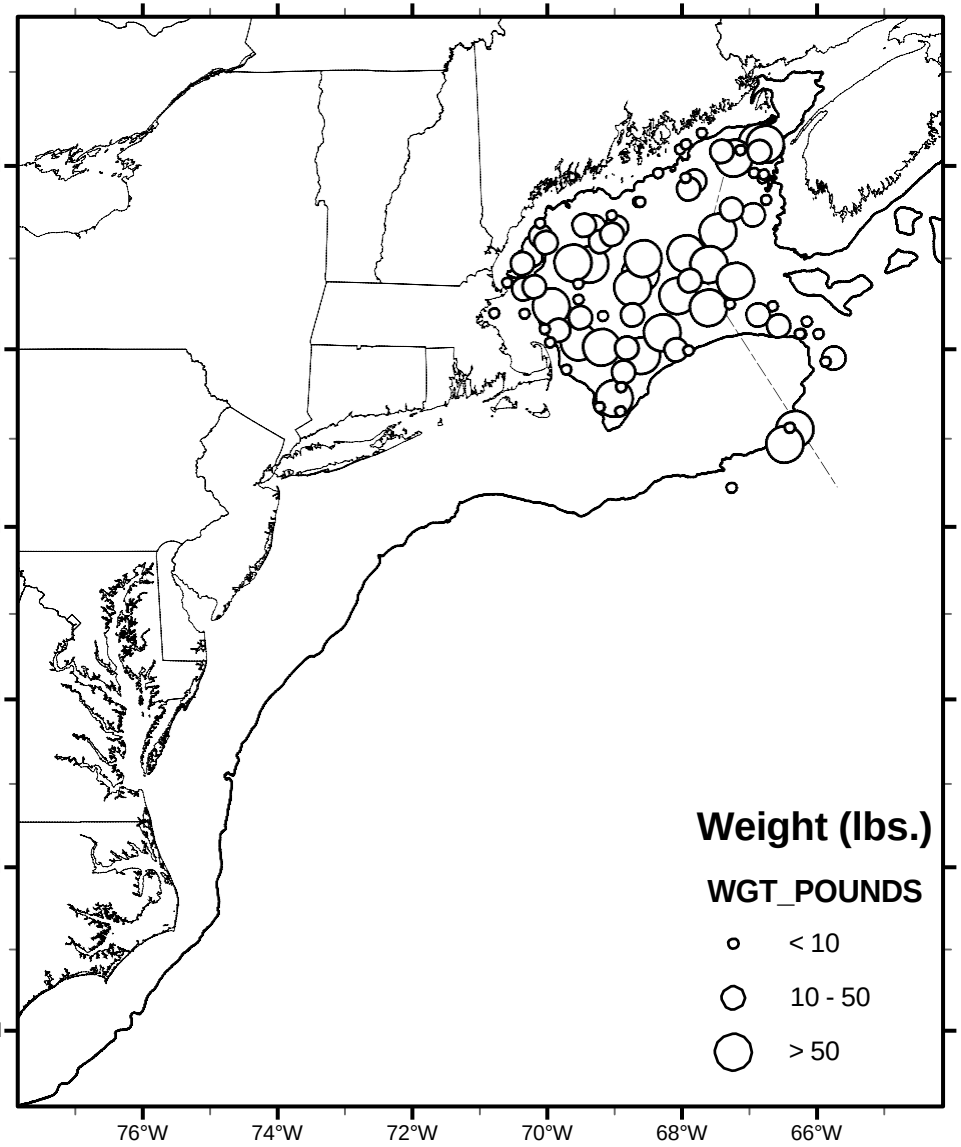
SILVER HAKE



ACADIAN REDFISH



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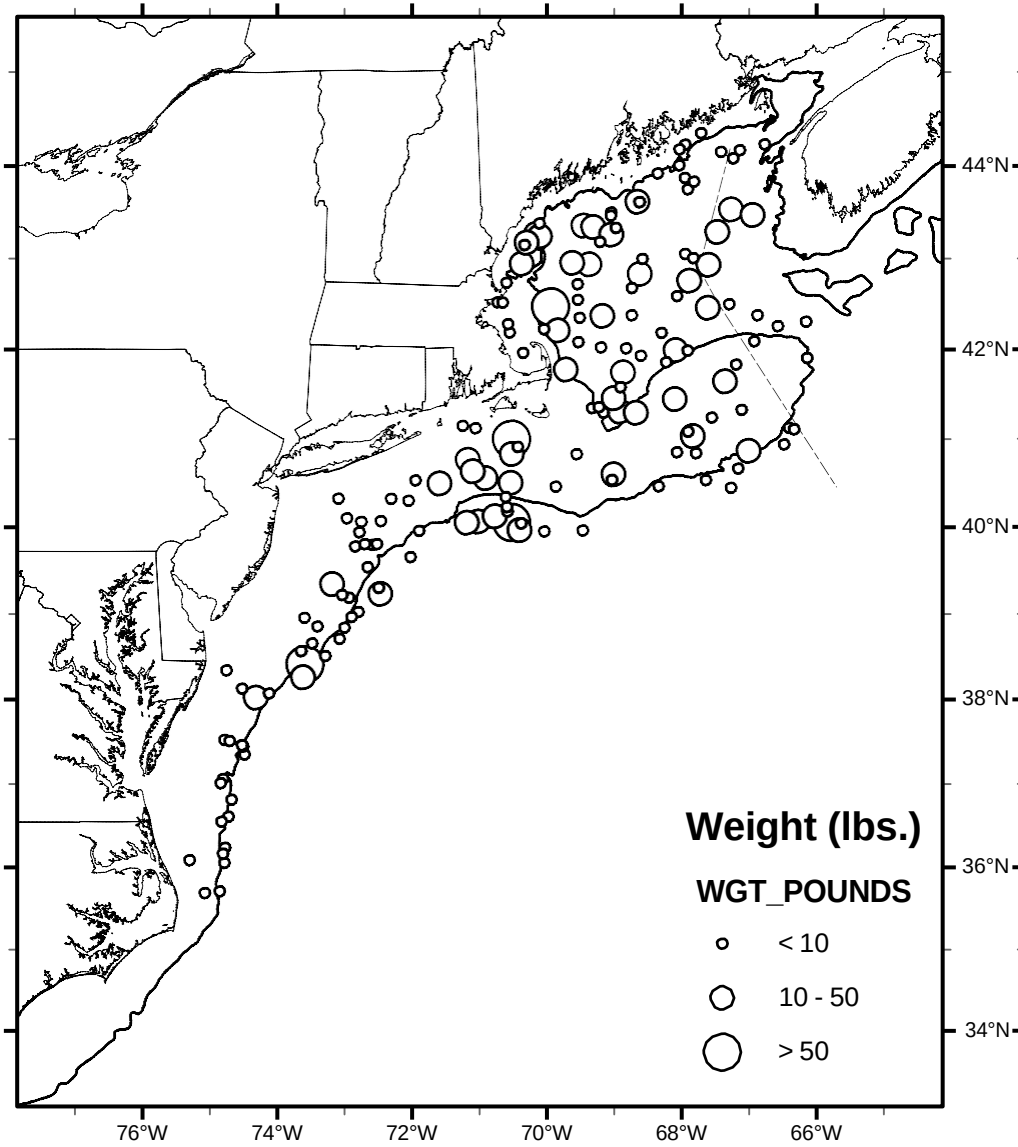
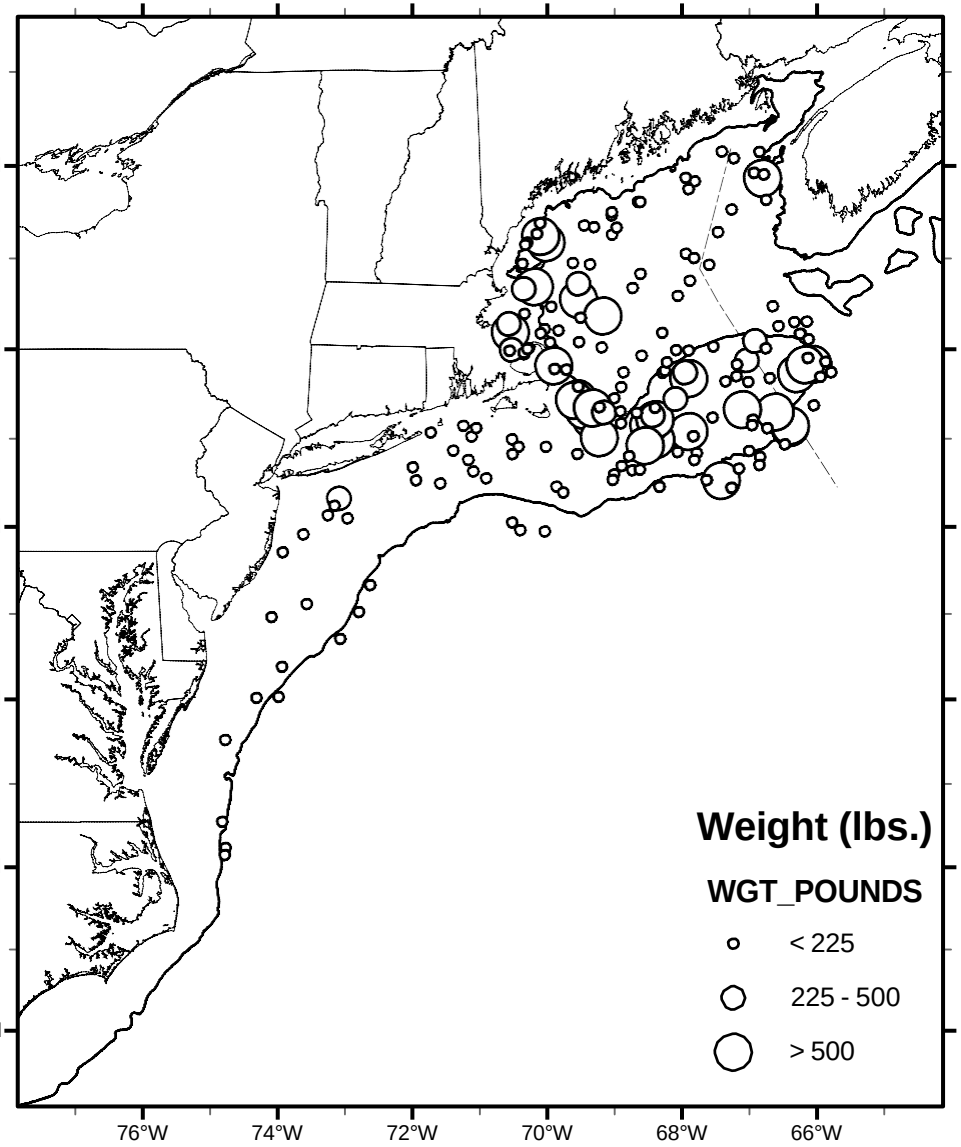
GOOSEFISH



SPINY DOGFISH



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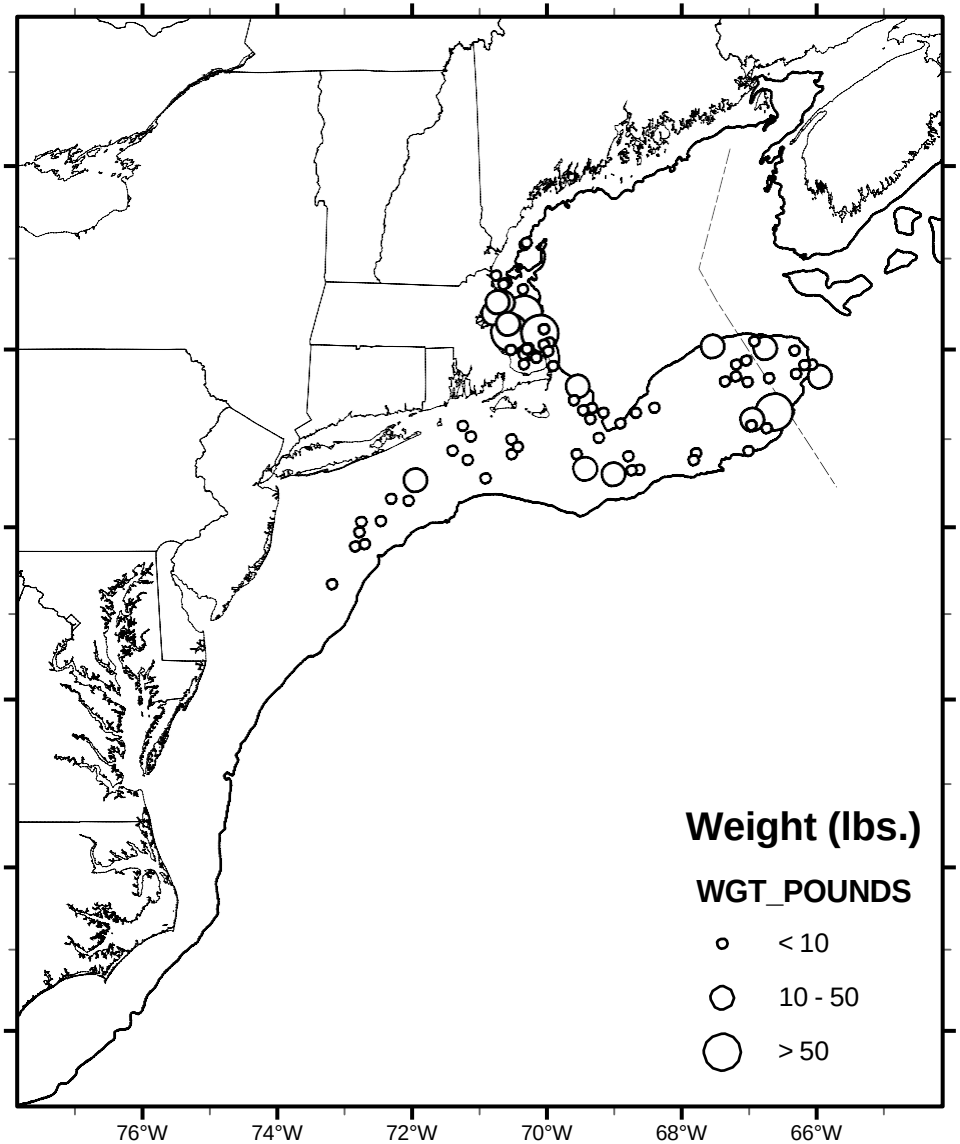
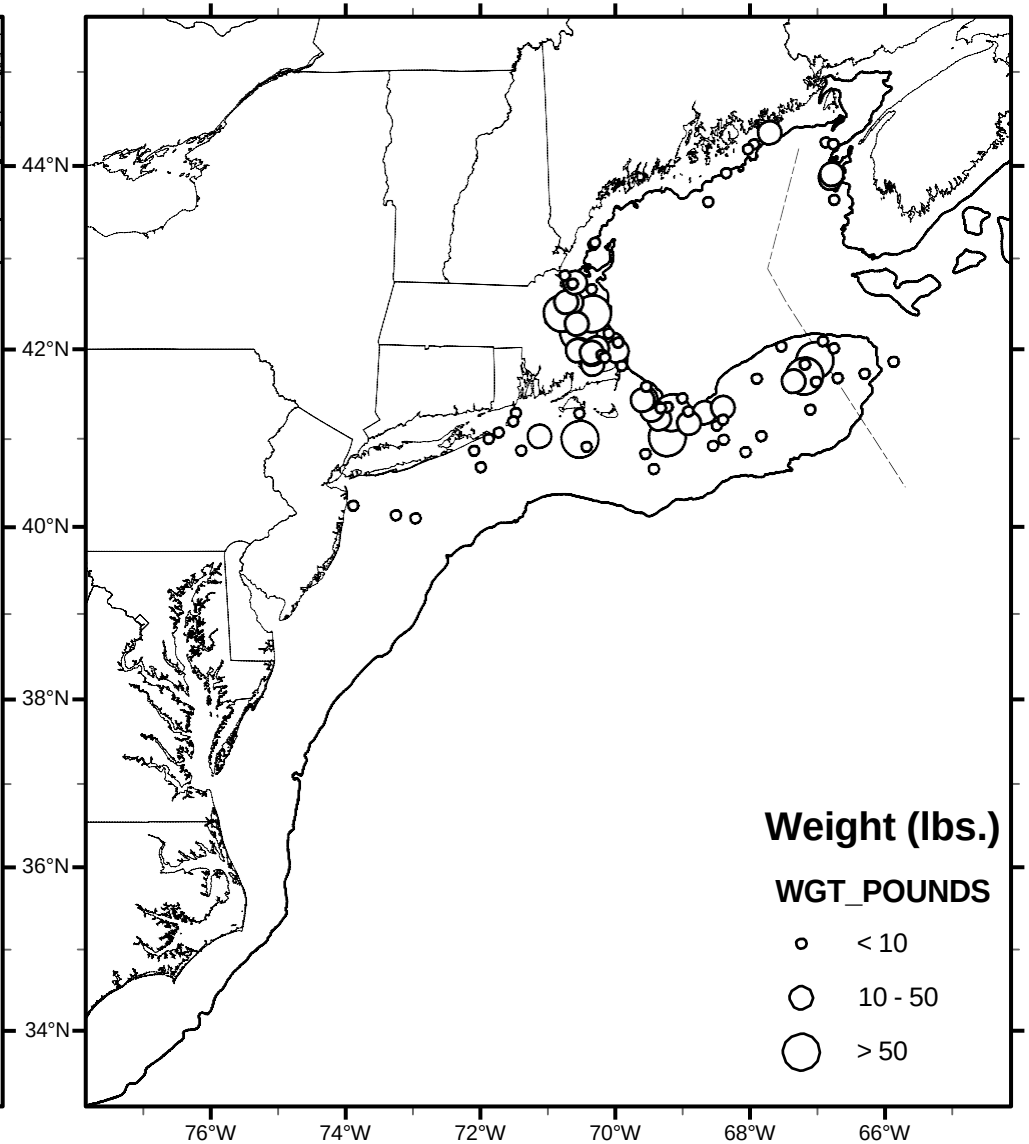
YELLOWTAIL FLOUNDER



WINTER FLOUNDER



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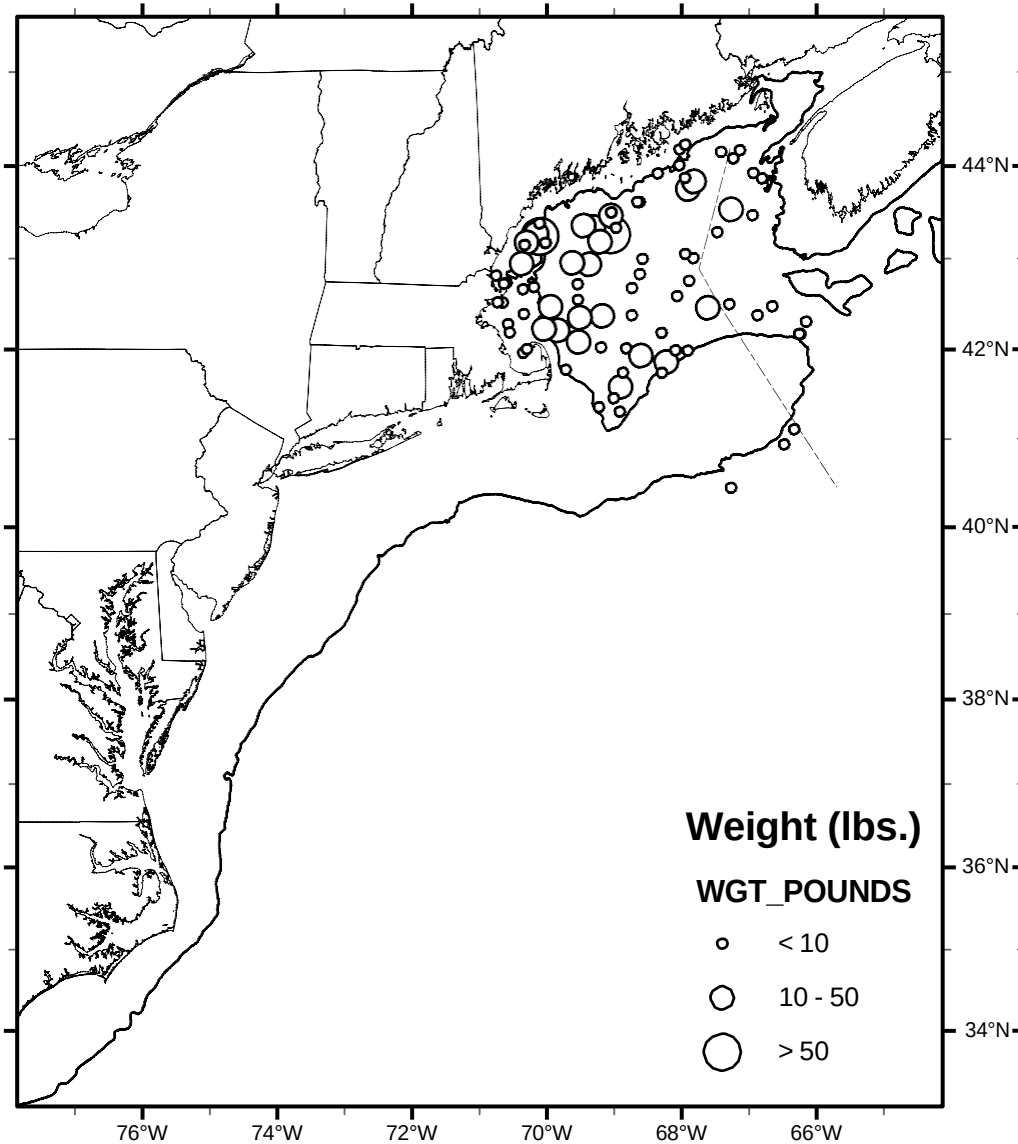
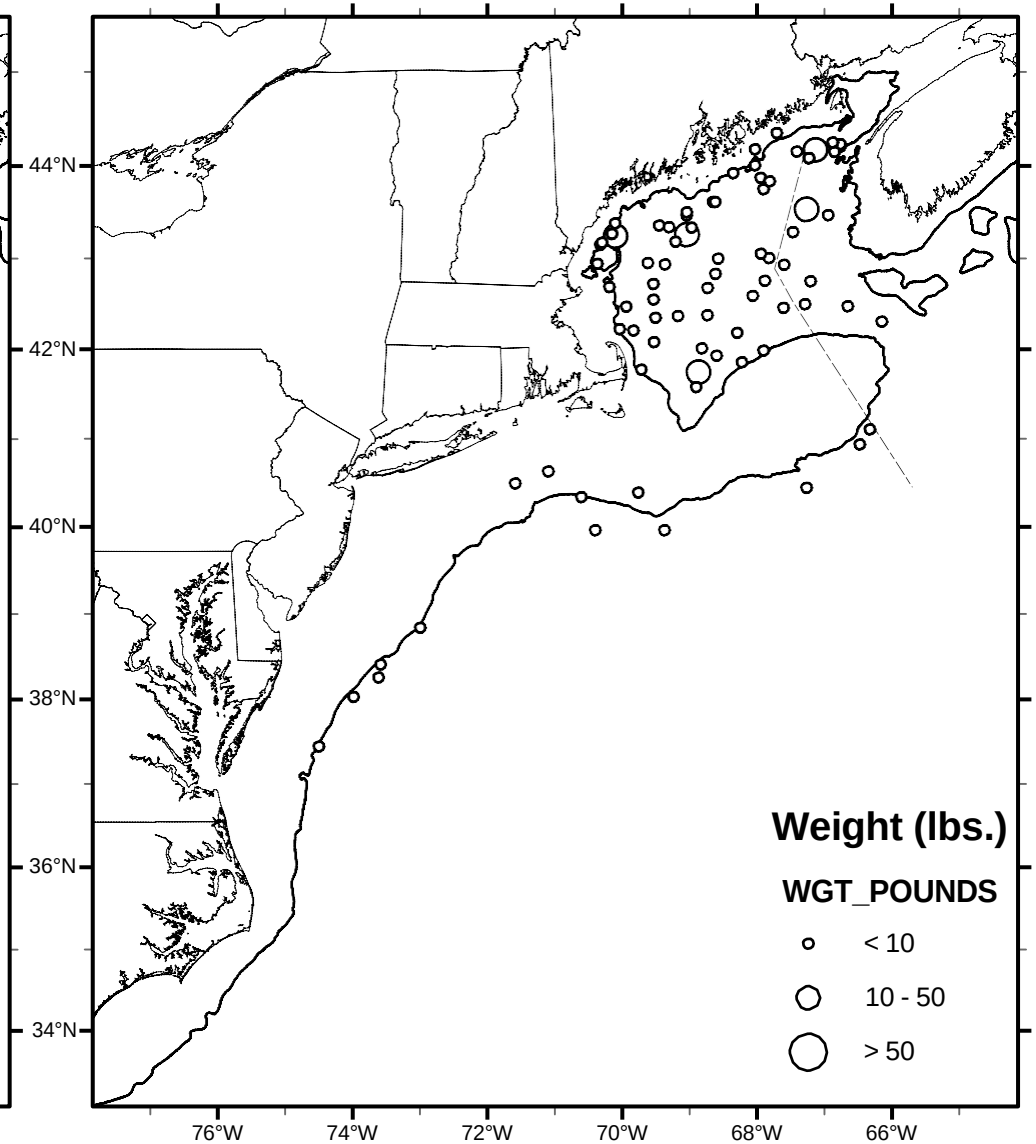
AMERICAN PLAICE



WITCH FLOUNDER



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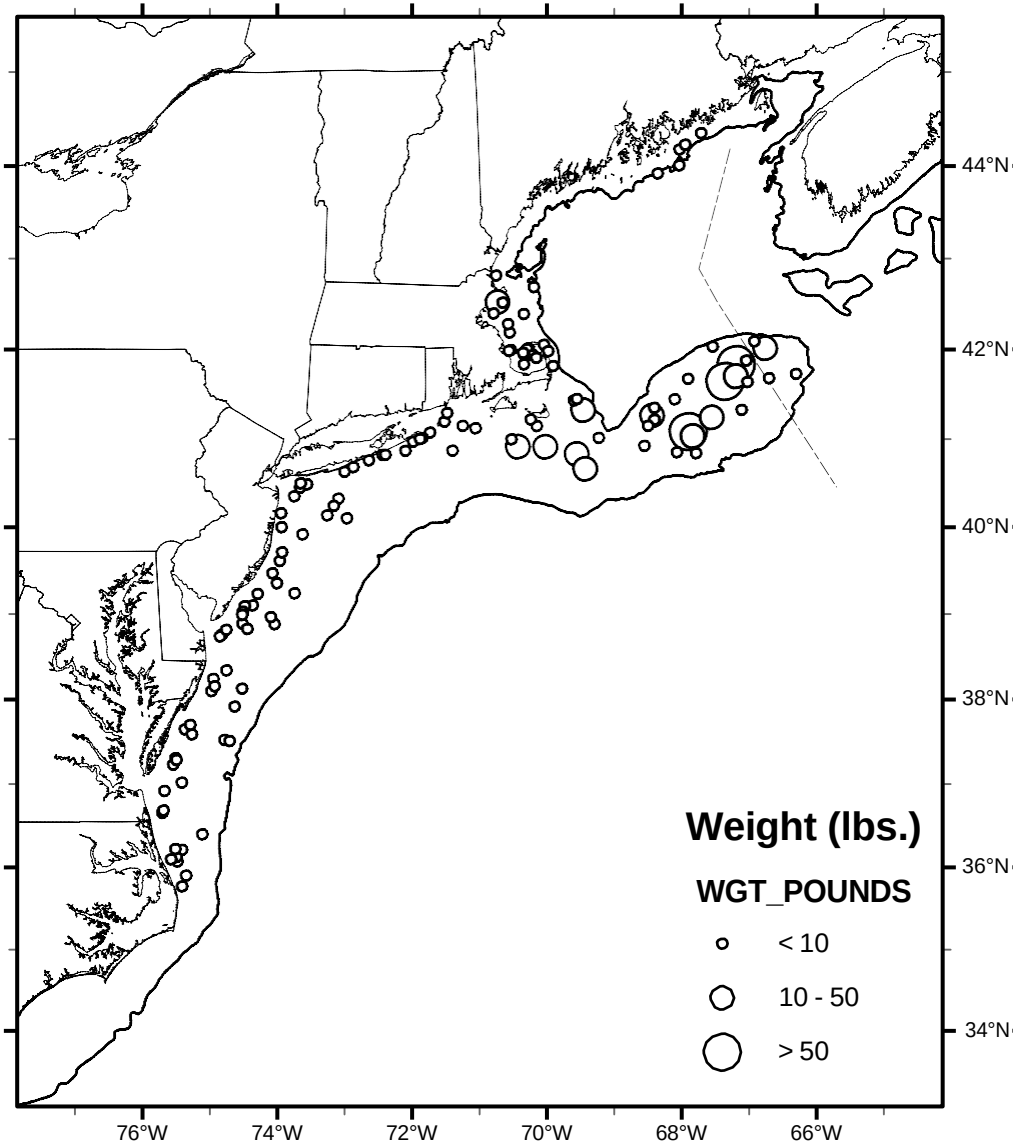
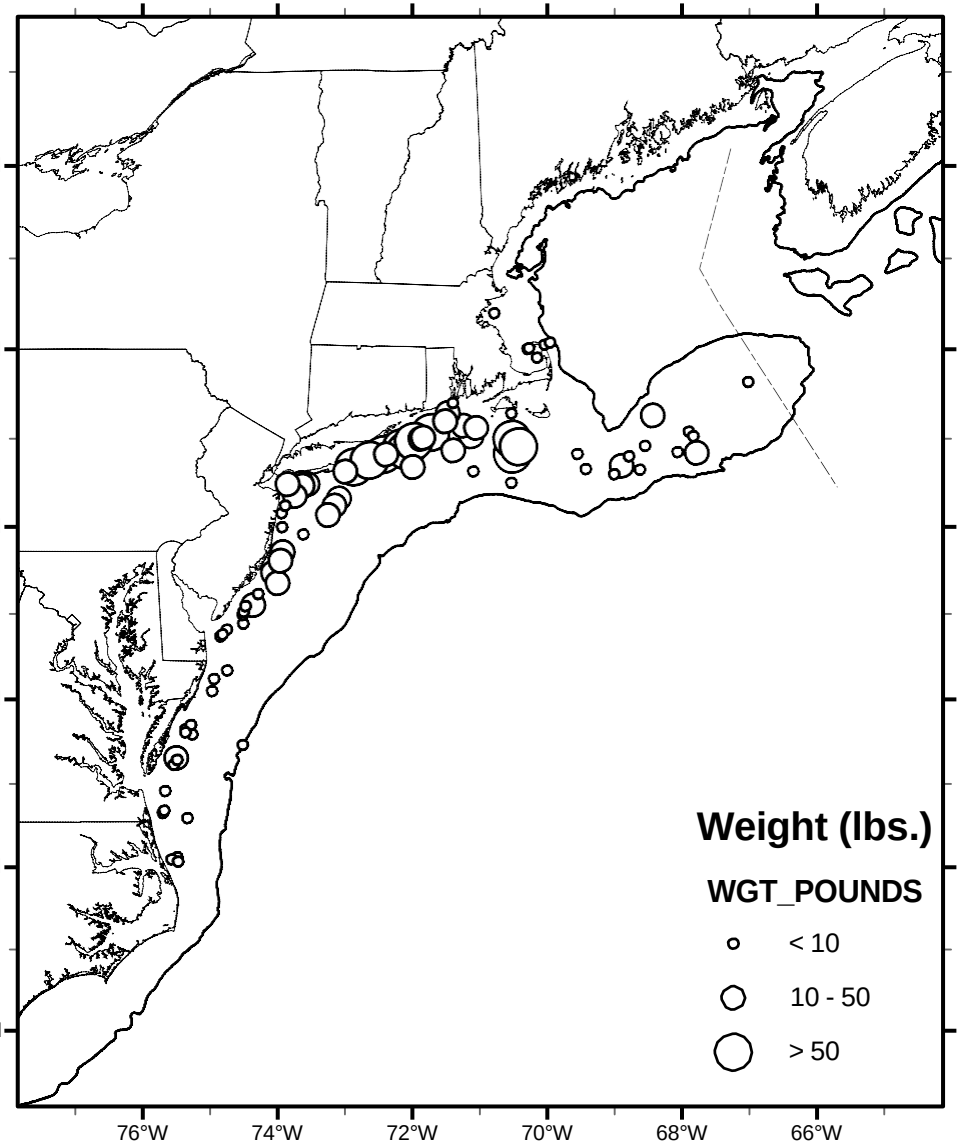
WINDOWPANE FLOUNDER



SUMMER FLOUNDER



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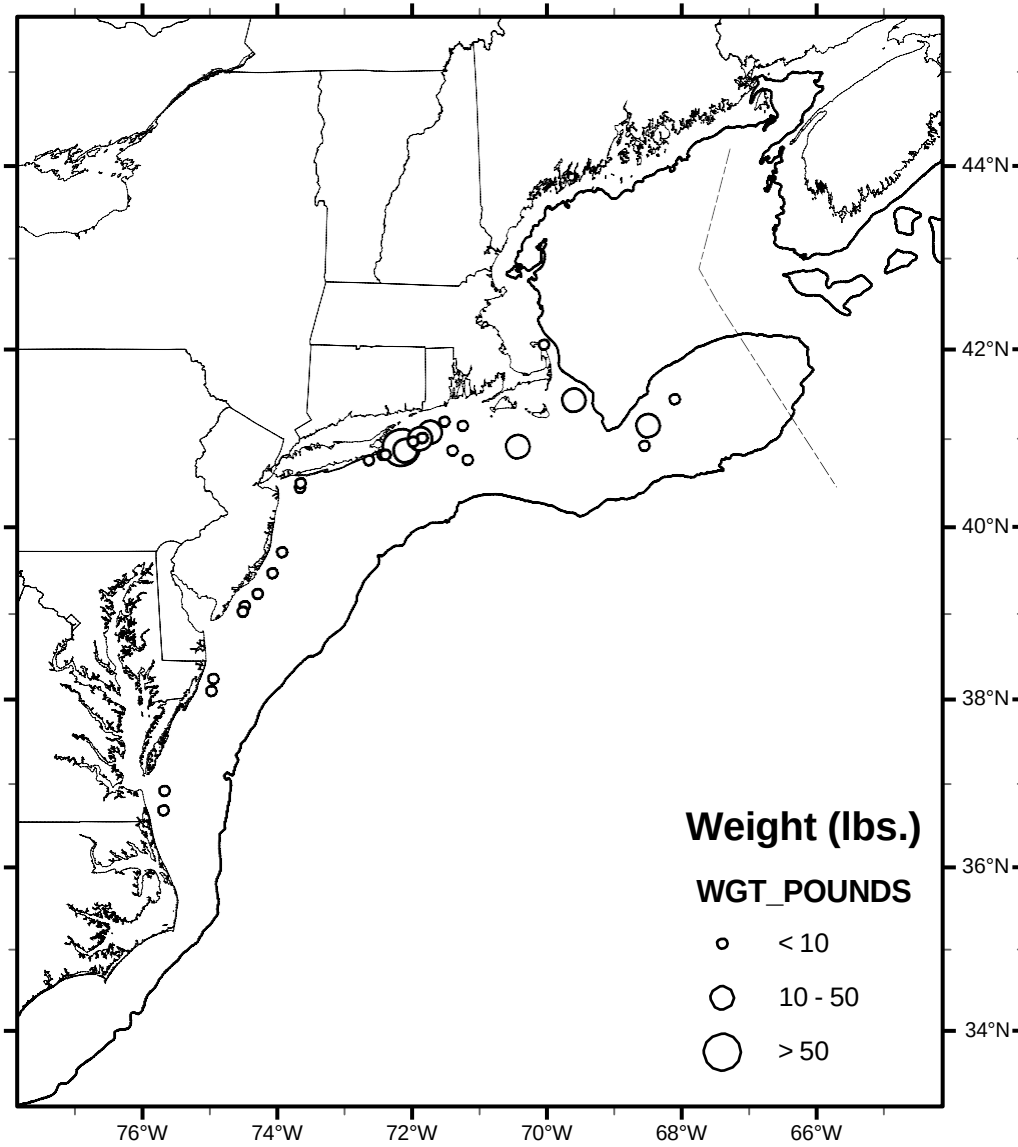
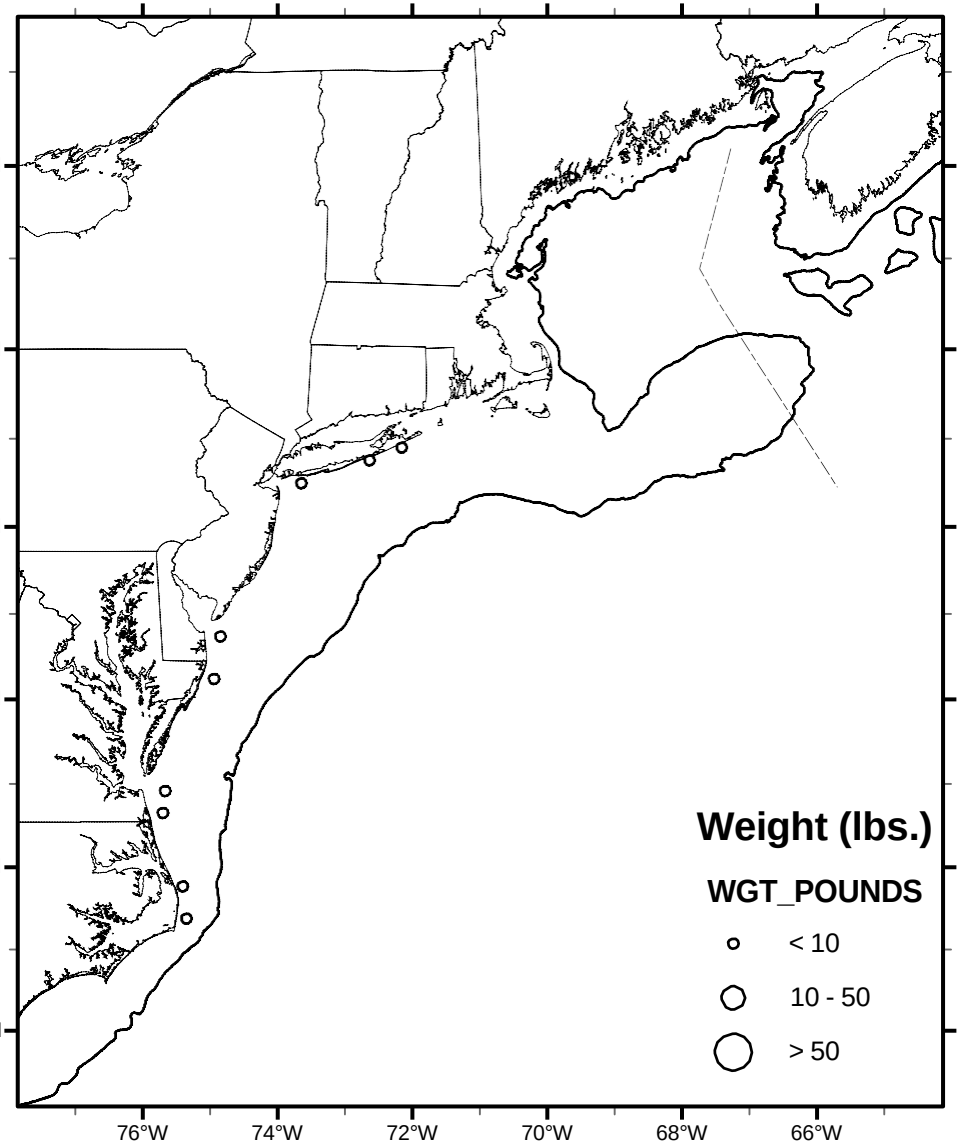
BLUEFISH



WEAKFISH



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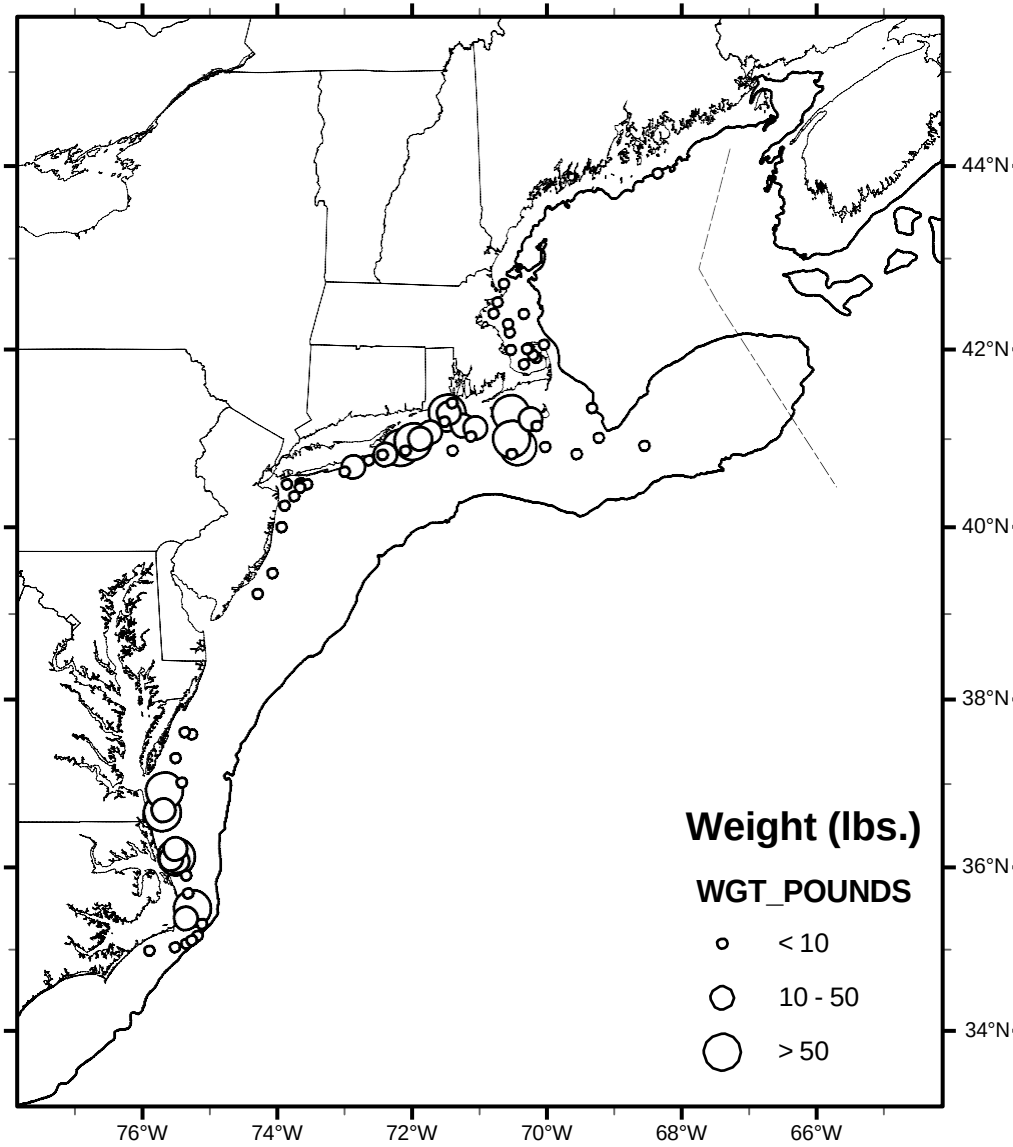
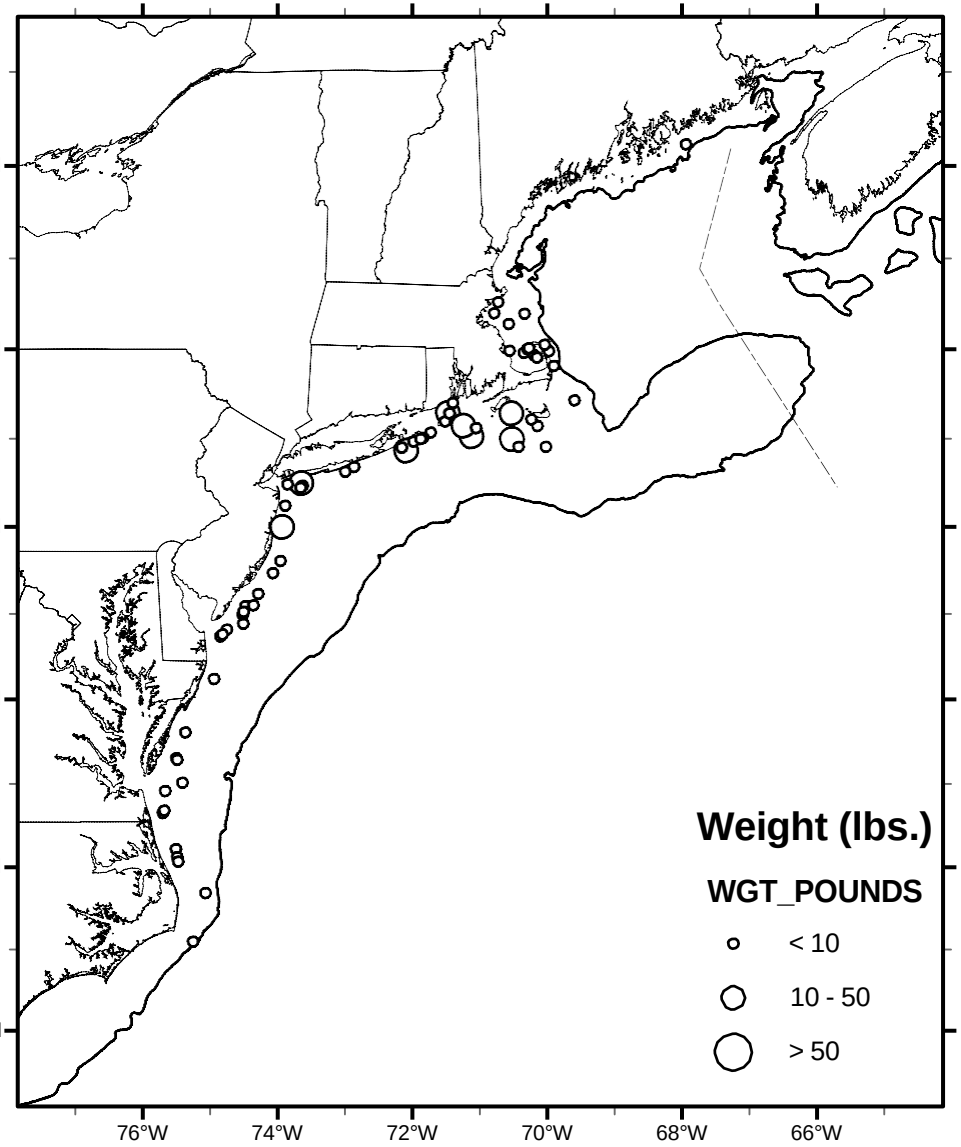
SCUP



BLACK SEA BASS



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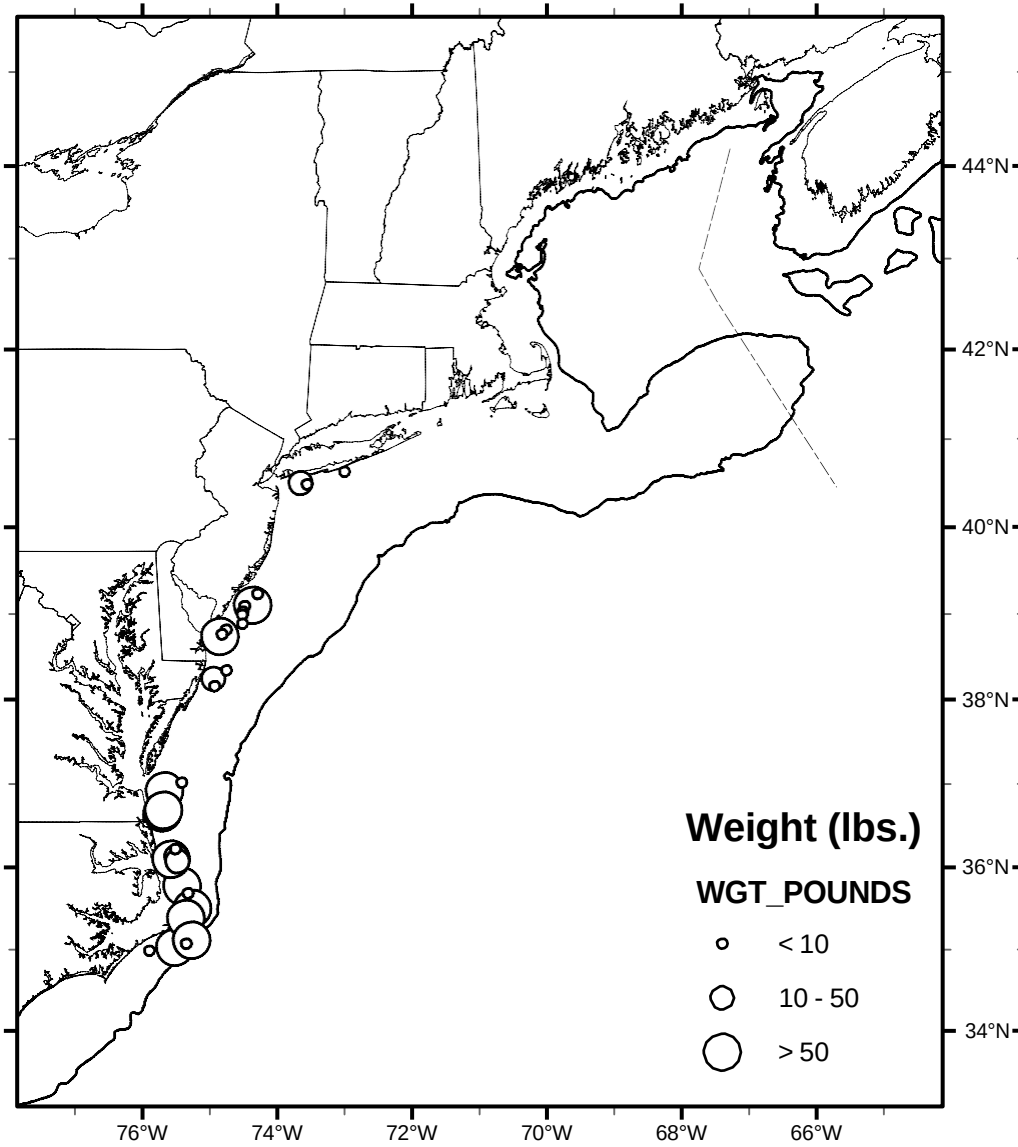
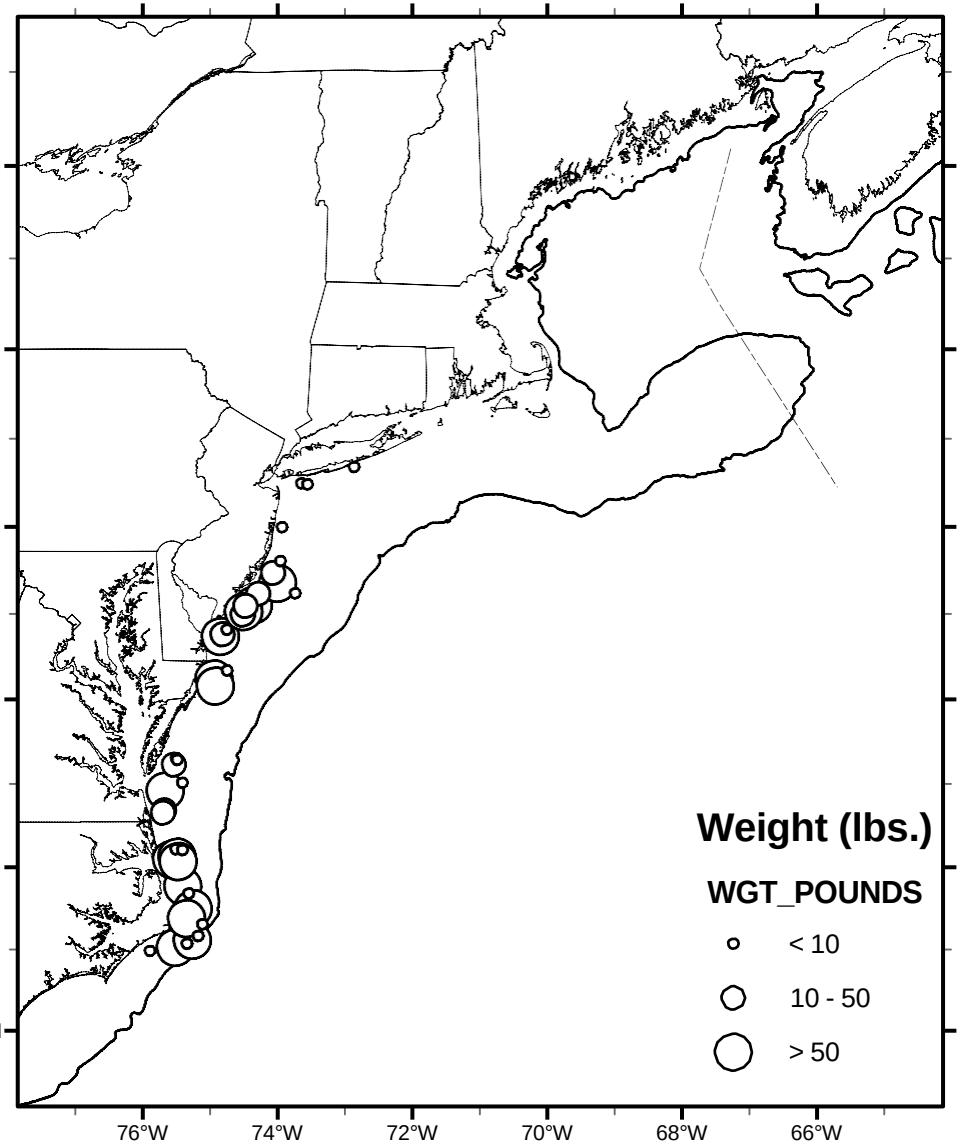
SPOT



ATLANTIC CROAKER



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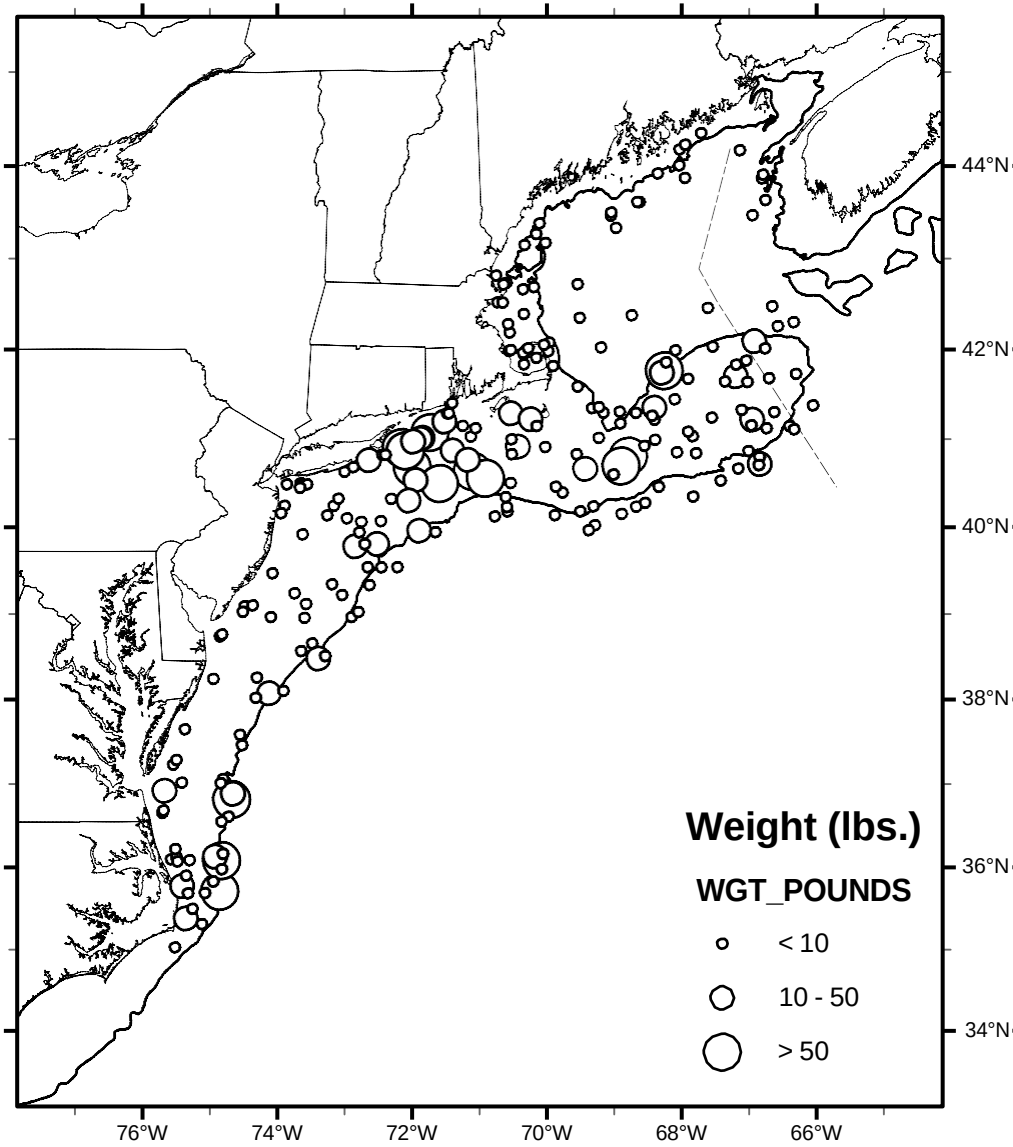
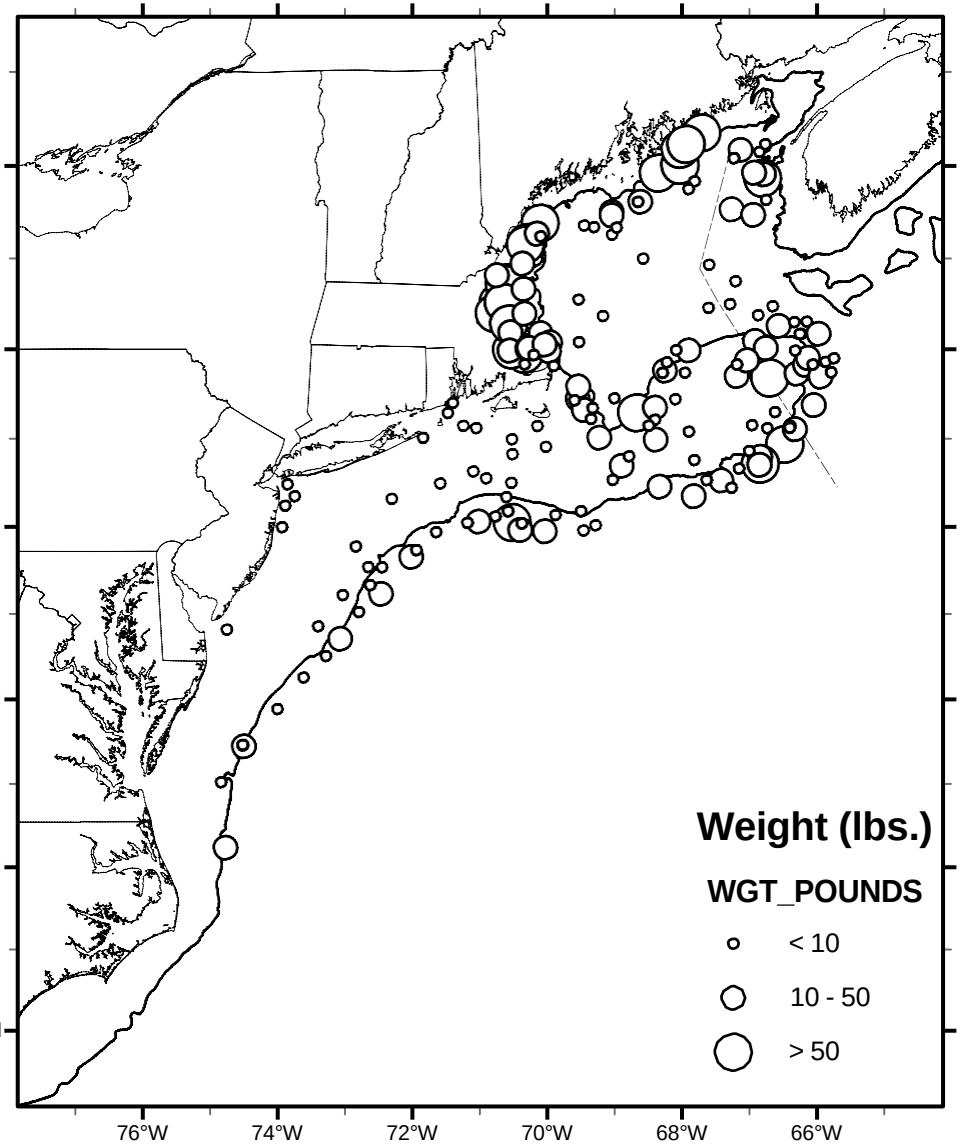
BUTTERFISH



AMERICAN LOBSTER



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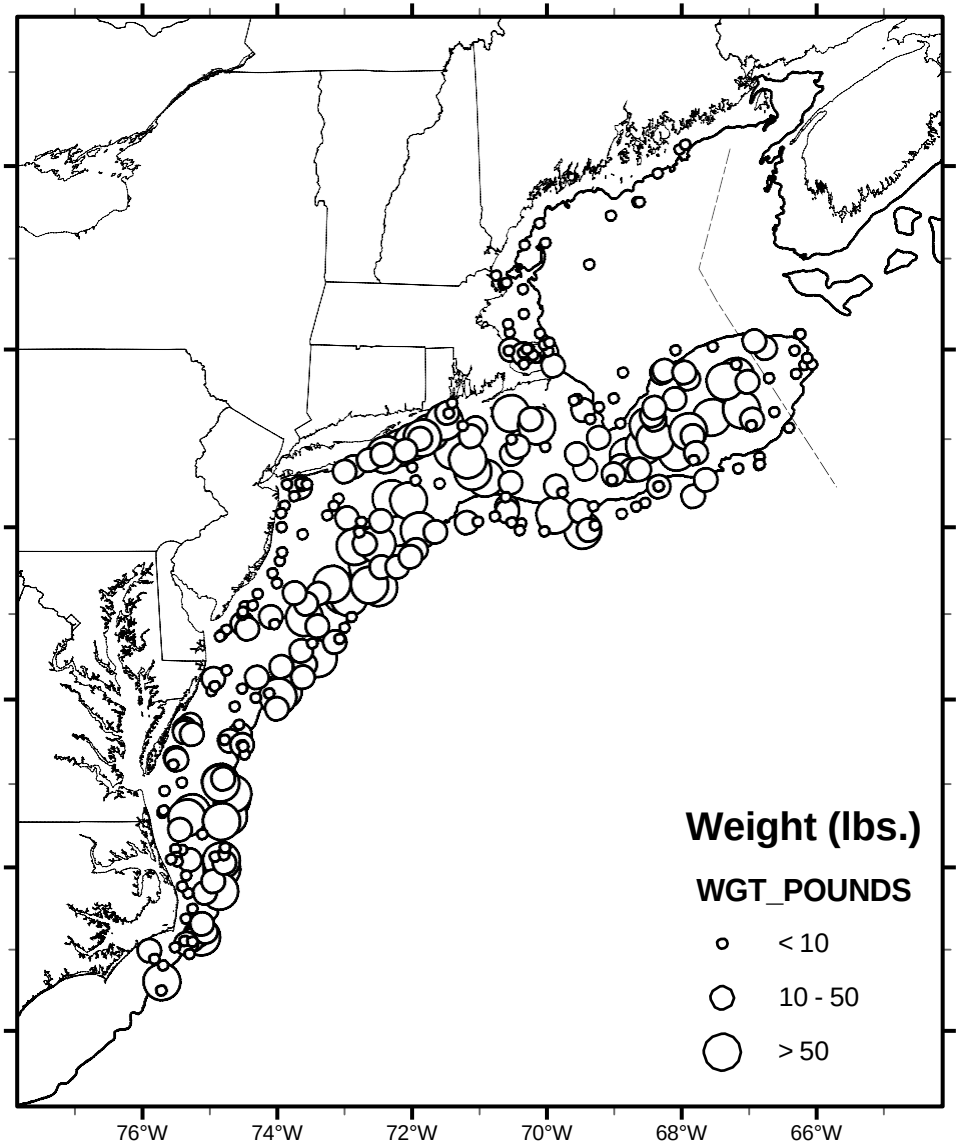
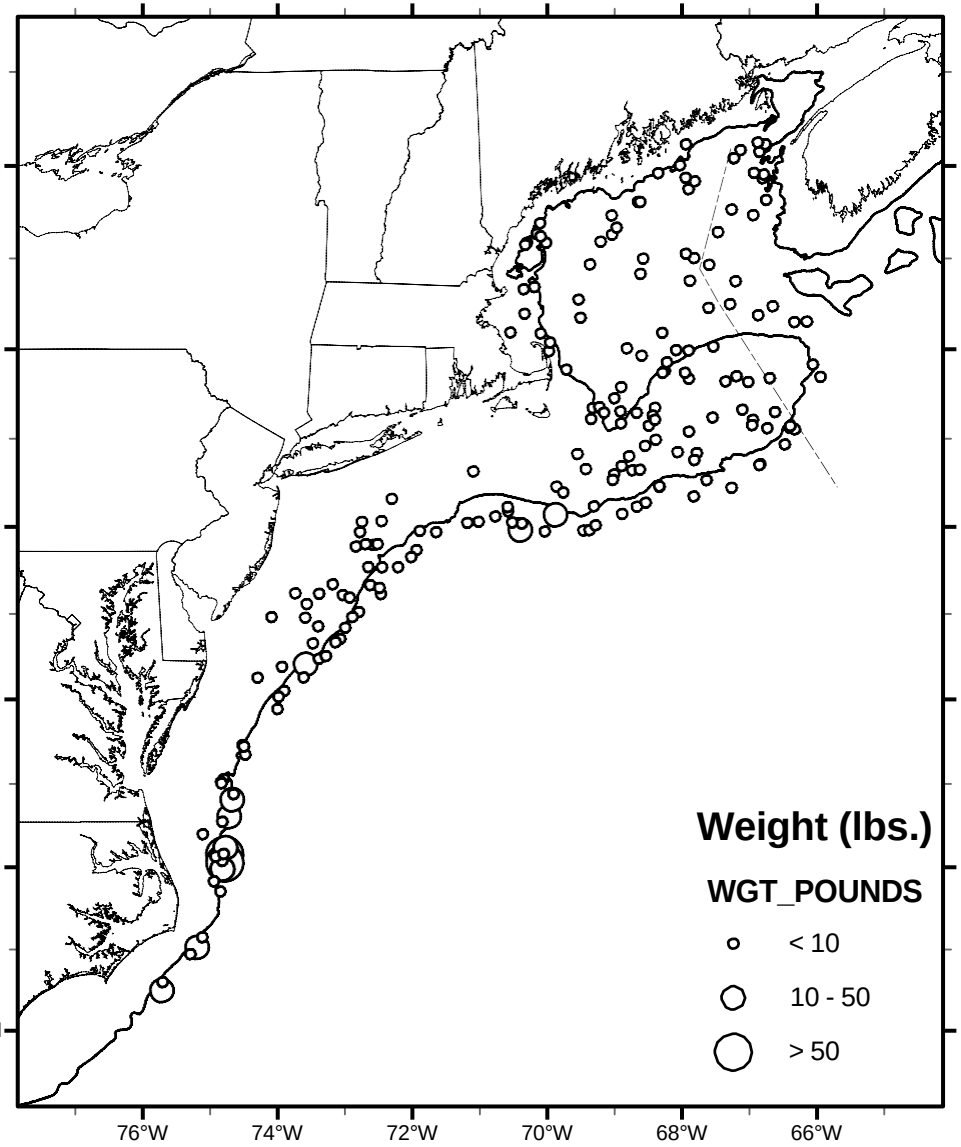
LOLIGO



ILLEX