Submitted to: NOAA, NEFSC

Philip Politis
NOAA Fisheries Service
Northeast Fisheries Science Center
166 Water Street
Woods Hole, MA 02543

Phone: (508) 495-2171

Email: Philip.politis@noaa.gov

Date: 2020

Resource Survey Report
Bottom Trawl Survey

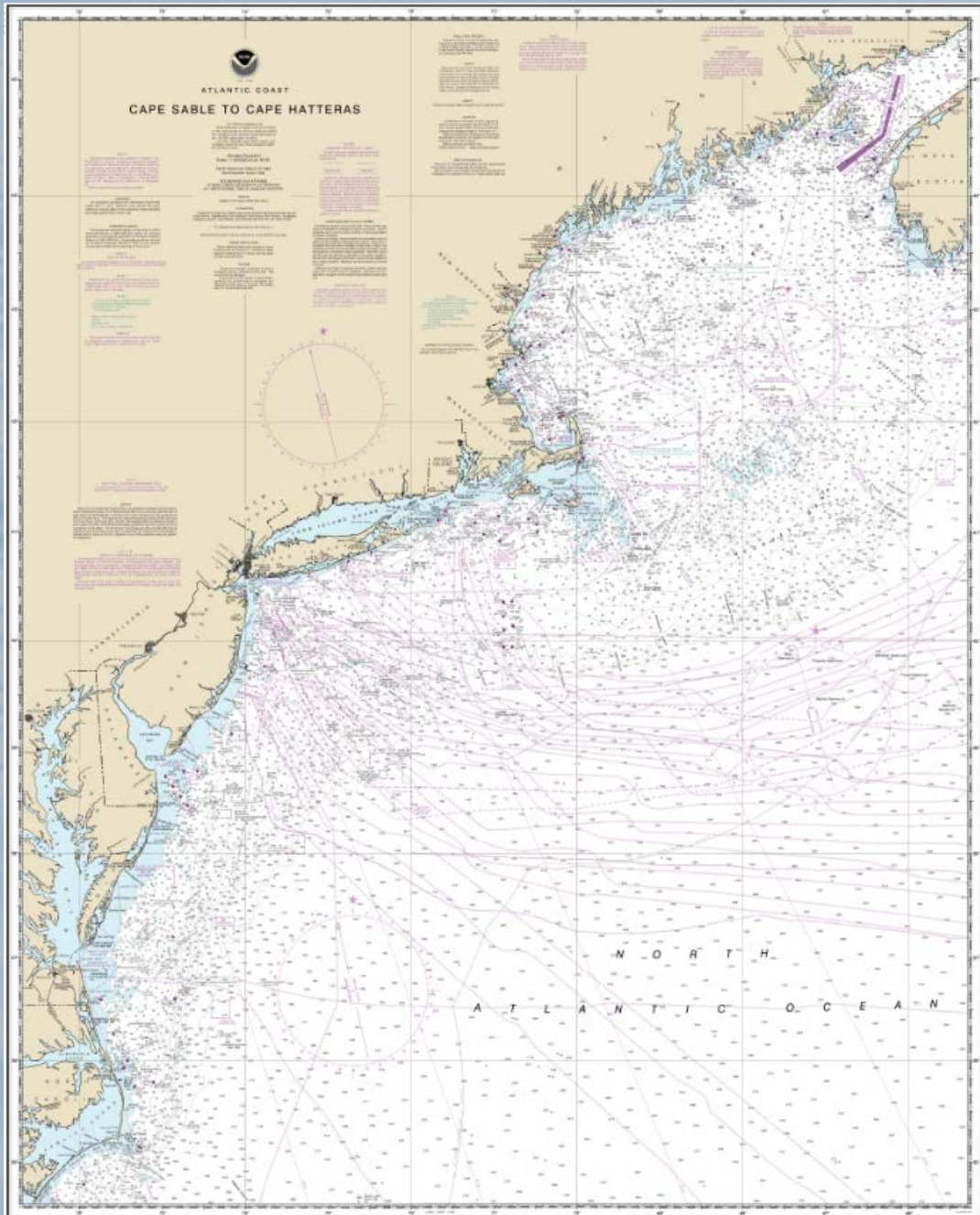**Cape Hatteras – Gulf of Maine**

3 September – 14 November 2019

NOAA Ship *Henry B. Bigelow* (FSV 225)

NOAA Fisheries
Northeast Fisheries Science Center
Woods Hole, MA 02543

NOAA Nautical Chart 13003 Cape Sable to Cape Hatteras

Significant Changes to the NEFSC Multispecies Bottom Trawl Survey

Significant changes in survey methodology were implemented, beginning with the 2009 Spring Multispecies Bottom Trawl Survey, which have significant implications for the use of these data. Prior to 2009, multispecies bottom trawl surveys were conducted primarily on the NOAA Ship *Albatross IV*. In 2009, the survey was conducted on the NOAA Ship *Henry B. Bigelow*, which is equipped with an autotrawl winch system that equalizes port and starboard warp tensions throughout the duration of survey tows.

The survey bottom trawl sampling gear was also changed. Prior to 2009, the survey was conducted with a standardized Yankee 36 bottom trawl and 450kg Euronet, polyvalent trawl doors. Beginning in 2009, the is conducted using a standardized 400 x 12cm, 4-seam bottom trawl and 2.2m², 550kg, Poly-Ice oval trawl doors. The survey bottom trawl gear was designed and tested in collaboration between the NEFSC and regional fishing industry, fishery managers and academic stakeholders through the mid-Atlantic and New England Trawl Advisory Panel.

The standard survey towing speed was decreased from 3.8kn to 3.0kn, speed measured over ground, beginning in 2009. This towing speed was selected after extensive towing speed and warp to depth ratio trials conducted on the NOAA Ship Henry B. Bigelow. The standard tow duration was also changed from 30 minutes (timed from winch lock to winch reengage) to 20 minutes of actual time on-bottom (measured in real-time by acoustic trawl mensuration equipment). The decrease of both the towing speed and duration resulted in a decrease of average tow distance from 1.9nm to 1.0nm.

Station allocation also changed significantly due to an increase of available vessel time from 48 to 60 sea days and a reduction of inshore sampling by the NOAA Ship Henry B. Bigelow. As a result, station density was increased in offshore strata. Inshore areas of the mid-Atlantic will continue to be sampled by the Northeast Area Monitoring and Assessment Program (NEAMAP) Southern New England/Mid-Atlantic Near Shore Trawl Survey.

In 2008, the NEFSC conducted an extensive study to estimate the relative catchability of the NOAA Ship Albatross IV, sampling with the standard Yankee 36 survey bottom trawl following historical protocols, and the NOAA Ship Henry B. Bigelow, sampling with the standard 400 x 12cm, 4-seam survey bottom trawl following revised protocols. Results of this study were peer reviewed in August 2009 and can be found in the NEFSC reference document 10-05: *Estimation of Albatross IV to Henry B. Bigelow Calibration Factors*.

RESOURCE SURVEY REPORT
Catch Summary

NOAA Fisheries
Northeast Fisheries Science Center

Autumn Multispecies Bottom Trawl Survey
Cape Hatteras - Gulf of Maine
3 September – 14 November 2019

The Northeast Fisheries Science Center has completed the 2019 autumn multispecies bottom trawl survey aboard NOAA Ship *Henry B. Bigelow*. Despite impacts from Hurricane Dorian at the start of the season and several strong storms that passed through the region throughout the survey, 347 representative stations were sampled during September 3 – November 14, 2019.

This long-running, fishery-independent, bottom trawl survey monitors fishery abundance and distribution of the Northwest Atlantic continental shelf from Cape Lookout, NC to the Scotian Shelf. Data collected include fish age, length, weight, sex, maturity and food habits information which are critical inputs to regional fish stock assessments helping to inform fishery management decisions by the New England and Mid-Atlantic Fisheries Management Councils as well as Atlantic States Marine Fisheries Commission. Additionally, vertical profiles of temperature and salinity were collected at trawl stations. Plankton were also sampled at a subset of stations, with 93 Bongo samples taken of 116 planned.

Attached are station and catch summaries and a series of geographical plots of commercially and recreationally important species caught during the Northeast Fisheries Science Center's (NEFSC) 2018 autumn bottom trawl survey aboard the NOAA Ship *Henry B. Bigelow*. Details regarding NEFSC bottom trawl survey standard operating procedures can be found in the NEFSC reference document 14-06: *NEFSC Bottom Trawl Survey Protocols for the NOAA Ship Henry B. Bigelow*.

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 useful information about the distribution and relative abundance of species inhabiting the survey area (Cape Hatteras to the Gulf of Maine).

For further information, contact:

Philip Politis
NOAA Fisheries Service
Northeast Fisheries Science Center
166 Water Street
Woods Hole, MA
02543
Phone: (508) 495-2171
Email: Philip.politis@noaa.gov

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- Resource Surveys Reports
- Fall Bottom Trawl Survey (FBTS) RSRs
- Year of interest

Figure 1: Representative trawl hauls made from NOAA Ship *Henry B. Bigelow*, during the Northeast Fisheries Science Center's Autumn Bottom Trawl Survey, 3 September - 14 November 2019.
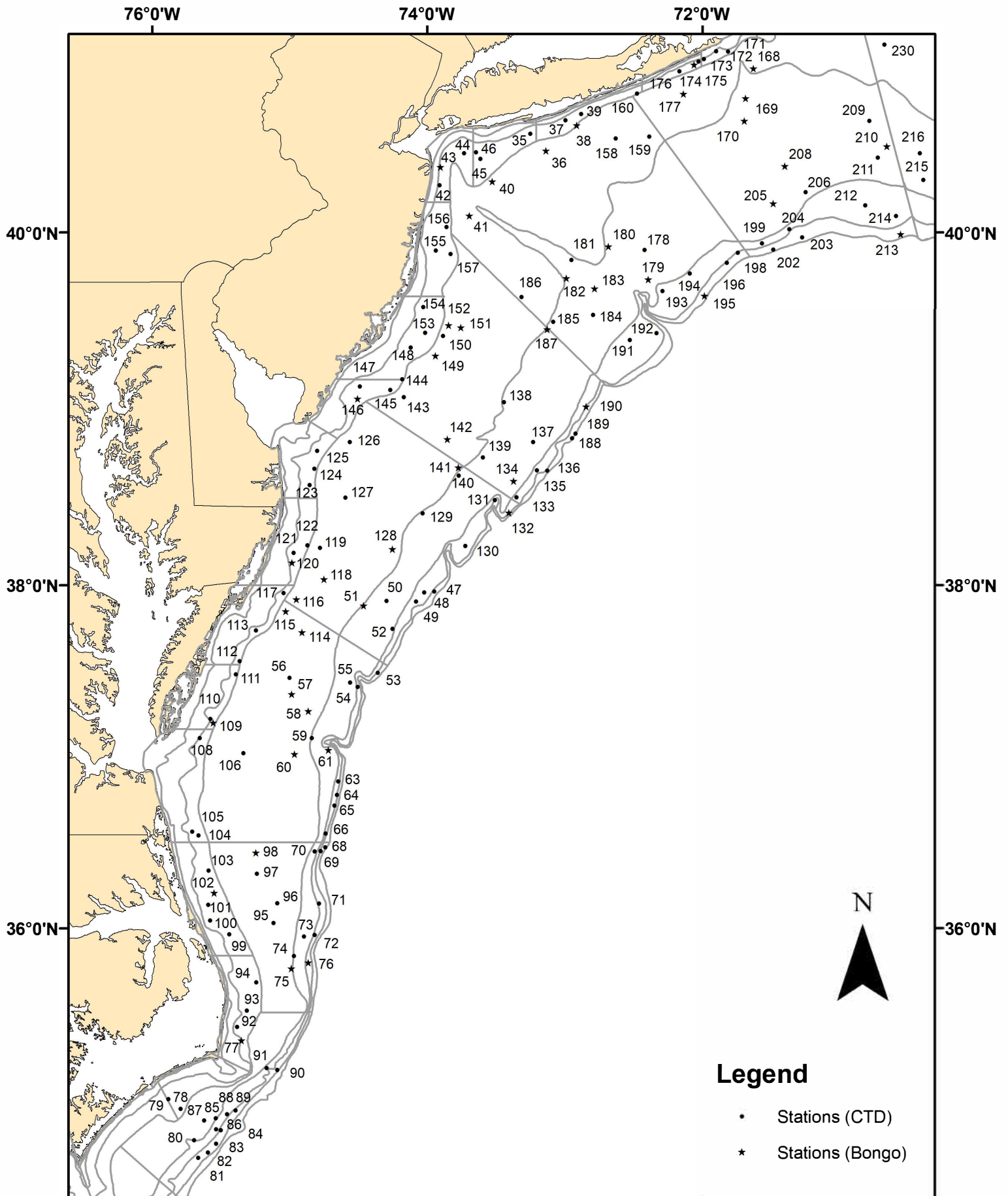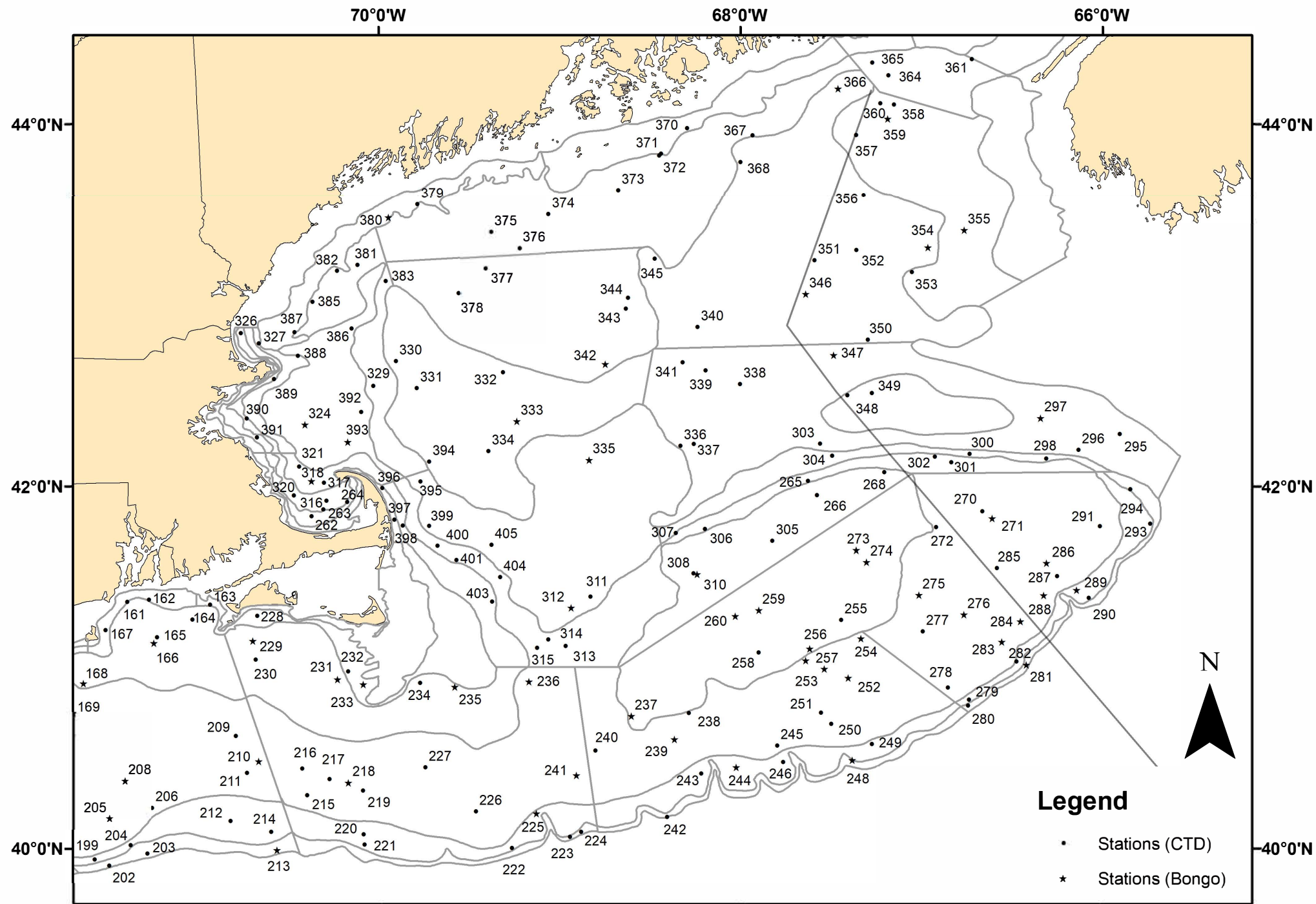
Figure 2: Representative trawl hauls made from NOAA Ship *Henry B. Bigelow*, during the Northeast Fisheries Science Center's Autumn Bottom Trawl Survey, 3 September - 14 November 2019.

Table 1: Station report of valid hauls from NOAA Fisheries, Northeast Fisheries Science Center's autumn bottom trawl survey, 3 September - 14 November 2019

STATION	START TRAWL (GMT)	SET LAT	SET LON	END LAT	END LON	TOW DUR (min)	TOW DIST (nm)	DEPTH MEAN (m)
35	9/4/2019 4:24	40.54978717	-73.25124483	40.54221133	-73.2706165	19.99355823	0.9926	23.04
36	9/4/2019 6:34	40.45654917	-73.13597617	40.45521167	-73.157484	19.99970543	0.9861	32.39
37	9/4/2019 9:04	40.62408483	-72.99519383	40.61908	-73.01591583	20.01168498	0.9892	22.15
38	9/4/2019 10:39	40.5963905	-72.91321483	40.60407317	-72.89347533	19.9986013	1.0101	30.03
39	9/4/2019 12:16	40.65977583	-72.88163867	40.65683167	-72.90313733	20.0009155	0.9952	26.04
40	9/4/2019 18:20	40.2841095	-73.527454	40.28388767	-73.54895167	19.98650317	0.988	28.99
41	9/4/2019 21:10	40.0946115	-73.692915	40.109613	-73.70207933	19.98183853	0.9906	36.23
42	9/5/2019 0:33	40.2639905	-73.9097625	40.28036083	-73.90959483	19.98390857	0.9802	22.16
43	9/5/2019 2:42	40.364904	-73.90388867	40.38083	-73.89795217	19.96231625	0.9924	23.72
44	9/5/2019 4:39	40.44287567	-73.731726	40.446383	-73.71087033	20.03262185	0.9732	28.65
45	9/5/2019 5:54	40.44672267	-73.6442795	40.4462295	-73.6220905	20.00991787	1.014	21.41
46	9/5/2019 7:02	40.410765	-73.61246717	40.398042	-73.62687783	20.02157818	1.0057	22.45
47	9/8/2019 20:47	37.9641165	-73.949431	37.95032783	-73.96162017	19.98087163	1.0079	194.63
48	9/8/2019 22:34	37.958984	-74.0212885	37.946176	-74.03427967	19.99895845	0.9806	132.4
49	9/9/2019 0:07	37.90510383	-74.08017033	37.89359783	-74.09464567	19.99649442	0.9778	136.58
50	9/9/2019 2:05	37.90865717	-74.29516767	37.9070415	-74.31587217	19.98156967	0.9865	69.84
51	9/9/2019 3:43	37.88217133	-74.46215	37.87388567	-74.48034	20.02136475	0.9937	56.18
52	9/9/2019 6:01	37.74876083	-74.25339767	37.7321125	-74.2534495	20.02942812	0.9938	109.44
53	9/9/2019 8:27	37.494791	-74.359569	37.4823575	-74.373557	20.0129409	1.0013	197.15
54	9/9/2019 10:41	37.41258983	-74.50591717	37.42901317	-74.5070475	20.00504962	0.9964	128.77
55	9/9/2019 12:24	37.43761033	-74.55985983	37.42196017	-74.56671667	20.0002589	0.9912	83.05
56	9/9/2019 15:24	37.465789	-75.00001217	37.451056	-75.00997417	19.96780925	1.0018	31.12
57	9/9/2019 17:08	37.36992	-74.98506583	37.35482267	-74.976325	19.99217573	0.9951	39.03
58	9/9/2019 19:07	37.2715175	-74.8648455	37.26750217	-74.88466033	19.97956758	0.9761	43.16
59	9/9/2019 21:44	37.11505917	-74.83802	37.0985835	-74.8412955	20.00059147	0.9965	60.34
60	9/9/2019 23:36	37.02207733	-74.96462	37.00787183	-74.95342183	20.0753048	0.9998	46.38
61	9/10/2019 1:43	37.045097	-74.7183835	37.04941217	-74.6985075	19.98462403	0.9869	85.01
63	9/10/2019 4:12	36.86296117	-74.6466885	36.8464445	-74.64457017	19.9596742	1.0009	186.69
64	9/10/2019 5:46	36.78410167	-74.65714533	36.7704915	-74.65849483	16.38165833	0.8362	187.03
65	9/10/2019 7:27	36.72162533	-74.6740325	36.73817033	-74.6692285	19.9857565	1.0178	139.53
66	9/10/2019 10:00	36.55701617	-74.73772	36.57288883	-74.732983	19.97925042	0.9944	120.38
68	9/10/2019 12:59	36.47648067	-74.74078367	36.4924605	-74.73573783	19.9802603	0.9934	190.08
69	9/10/2019 14:25	36.454473	-74.77466733	36.43856867	-74.781649	19.96464852	1.0125	120.02
70	9/10/2019 16:02	36.45135667	-74.81878	36.43531867	-74.82352083	19.97727455	0.9852	74.55
71	9/10/2019 19:31	36.1448165	-74.786995	36.12856117	-74.78958333	19.99682453	0.9811	176.43

STATION	START TRAWL (GMT)	SET LAT	SET LON	END LAT	END LON	TOW DUR (min)	TOW DIST (nm)	DEPTH MEAN (m)
72	9/10/2019 22:02	35.9601935	-74.818904	35.9443345	-74.8240605	19.9804704	0.9819	121.06
73	9/10/2019 23:34	35.951087	-74.89654083	35.93513867	-74.89087767	19.98825542	0.9939	87.23
74	9/11/2019 1:31	35.83511283	-74.9689715	35.82001783	-74.959348	20.06144063	1.0139	53.55
75	9/11/2019 3:10	35.76128933	-74.98649717	35.77772967	-74.98697967	20.01108203	0.9823	48.74
76	9/11/2019 5:42	35.796761	-74.86516233	35.78315267	-74.855035	20.02465623	1.0091	196.72
77	9/11/2019 10:23	35.33392133	-75.34986933	35.31870917	-75.34146567	19.99241115	1.001	24.5
78	9/11/2019 15:35	34.925673	-75.7926635	34.94034	-75.78282217	19.97867788	1.0019	27
79	9/11/2019 17:21	34.98418767	-75.883047	34.96850783	-75.87555833	19.97482418	1.0081	24.72
80	9/11/2019 20:03	34.73818733	-75.69537167	34.74587667	-75.678153	19.9895461	0.9827	46.23
81	9/11/2019 22:04	34.63112217	-75.665142	34.61895017	-75.67869733	20.00106977	0.9887	147.09
82	9/12/2019 0:17	34.6644735	-75.59533783	34.65127167	-75.60743183	19.97146303	0.9922	233.22
83	9/12/2019 2:22	34.71738183	-75.53419767	34.73054933	-75.521543	20.06370007	0.9996	287.29
84	9/12/2019 4:09	34.79695667	-75.50123533	34.78405867	-75.51398083	19.9784074	0.9958	157.89
85	9/12/2019 5:25	34.8026955	-75.535116	34.81916733	-75.5315485	19.98637492	1.0011	96.82
86	9/12/2019 6:36	34.87004433	-75.53845783	34.88548533	-75.534246	19.9862872	1.0092	61.95
87	9/12/2019 8:15	34.856545	-75.621263	34.87085417	-75.6107305	19.98425665	0.9998	45.23
88	9/12/2019 10:08	34.89422967	-75.45480717	34.90600333	-75.44065567	20.0023407	0.9909	98.71
89	9/12/2019 11:28	34.91652817	-75.3933855	34.90418817	-75.40689283	20.01279583	0.9915	132.76
90	9/12/2019 15:19	35.15927417	-75.090031	35.14747367	-75.10491883	19.97986373	1.019	210.64
91	9/12/2019 17:49	35.1704865	-75.16733167	35.1829515	-75.153688	19.96946003	1.0025	75.02
92	9/12/2019 20:16	35.41420583	-75.38324067	35.42795133	-75.371272	20.00295955	1.008	23
93	9/12/2019 21:50	35.5126085	-75.31210017	35.52867383	-75.31817317	19.988981	1.0068	25.81
94	9/12/2019 23:25	35.67981533	-75.24310317	35.6965625	-75.24384333	19.97843417	1.0018	33.77
95	9/13/2019 2:08	36.03131267	-75.1168655	36.04548933	-75.127433	19.98842088	0.9898	36.09
96	9/13/2019 3:51	36.14746317	-75.09028167	36.13097033	-75.0913915	19.95350302	0.9892	35.54
97	9/13/2019 5:56	36.32056967	-75.23904867	36.3276995	-75.25781	19.99426448	1.003	33.64
98	9/13/2019 7:46	36.444014	-75.244348	36.43026017	-75.246932	16.56476893	0.8335	34.94
99	9/13/2019 11:04	35.963366	-75.43843817	35.97217467	-75.45572717	20.02819272	0.9901	25.41
100	9/13/2019 12:52	36.04587867	-75.577796	36.062334	-75.576575	19.97459932	0.9868	22.04
101	9/13/2019 14:35	36.1388715	-75.59217383	36.15363533	-75.6010605	19.99281662	0.9828	24.22
102	9/13/2019 16:15	36.20783333	-75.54933333	36.21983333	-75.5355	19.98388817	1.1113	28.35
103	9/13/2019 18:01	36.34057717	-75.58903767	36.35745533	-75.59085033	20.00561463	1.0138	26.44
104	9/13/2019 20:12	36.546428	-75.6625775	36.55539567	-75.64584367	20.0019455	0.9687	25.45
105	9/13/2019 22:03	36.569164	-75.70893733	36.58559717	-75.71148283	19.98304167	0.993	23.07
106	9/14/2019 3:03	37.02796267	-75.33722167	37.04231217	-75.32779083	19.9939126	0.9694	27.77

STATION	START TRAWL (GMT)	SET LAT	SET LON	END LAT	END LON	TOW DUR (min)	TOW DIST (nm)	DEPTH MEAN (m)
108	9/14/2019 17:11	37.11482067	-75.65258767	37.1295905	-75.64264833	19.97624513	1.0038	18.21
109	9/14/2019 18:41	37.20469333	-75.556095	37.21723817	-75.54248533	19.9844743	0.9944	22.26
110	9/14/2019 20:03	37.2265355	-75.5772205	37.24250917	-75.57114633	19.98024052	1.0001	21.38
111	9/14/2019 22:37	37.4852965	-75.3920785	37.49721083	-75.37842633	19.98763893	0.9647	22.47
112	9/15/2019 0:28	37.56082683	-75.3638325	37.573704	-75.35083417	20.07081608	0.9877	26.01
113	9/15/2019 3:15	37.73983167	-75.2440935	37.7514425	-75.2290895	20.01257212	0.997	25.49
114	9/15/2019 5:56	37.7285975	-74.90926917	37.7425525	-74.89872567	20.00503722	0.975	30.57
115	9/15/2019 8:13	37.8491405	-75.02767917	37.85564467	-75.00858733	20.01132472	0.987	25.05
116	9/15/2019 9:34	37.91772217	-74.951531	37.92611567	-74.9700015	19.9986684	1.01	26.24
117	9/15/2019 10:56	37.95381967	-75.043497	37.95302633	-75.02252033	20.07415317	0.9929	25.55
118	9/15/2019 13:08	38.03498833	-74.75093517	38.02720217	-74.732407	20.0437752	0.99	27.12
119	9/15/2019 15:36	38.21384583	-74.77864483	38.21802783	-74.75776833	19.98117187	1.0162	28
120	9/15/2019 18:15	38.12987867	-74.9821965	38.14592	-74.98879167	19.98186477	1.0115	19.12
121	9/15/2019 19:34	38.18564983	-74.971956	38.20013517	-74.962448	19.99911322	0.9764	23.15
122	9/15/2019 20:50	38.228043	-74.87001133	38.2415185	-74.85809767	19.98967368	0.9815	24.99
123	9/15/2019 23:35	38.57374717	-74.85443	38.5904265	-74.8534805	19.96956262	0.9993	25.93
124	9/16/2019 0:56	38.66690783	-74.82107033	38.6834935	-74.82532533	19.9608586	1.0134	18.9
125	9/16/2019 2:41	38.768287	-74.800794	38.78052017	-74.78642517	19.95851348	0.9952	19.29
126	9/16/2019 4:42	38.81838167	-74.5618835	38.82127033	-74.54148783	19.3180833	0.9717	24.57
127	9/16/2019 8:29	38.50192567	-74.59518017	38.48517117	-74.592045	19.9917335	1.0137	29.96
128	9/16/2019 12:03	38.20731833	-74.25266517	38.22390067	-74.252494	20.0312572	0.9899	45.37
129	9/16/2019 14:52	38.41134717	-74.03298167	38.40924817	-74.011594	20.04923723	1.0111	60.68
130	9/16/2019 17:30	38.22522883	-73.72214133	38.23820617	-73.70919133	19.97940283	0.9886	122.74
131	9/16/2019 20:55	38.48712367	-73.50936767	38.47269017	-73.518985	19.9950663	0.9832	279.29
132	9/16/2019 23:41	38.41586183	-73.40640967	38.42918483	-73.39245883	20.01804833	1.0332	204.82
133	9/17/2019 1:32	38.50443133	-73.351519	38.49219317	-73.36594117	19.96319618	0.9995	121.29
134	9/17/2019 3:13	38.59707067	-73.37105733	38.61337833	-73.3698275	20.00827523	0.9776	88.3
135	9/17/2019 5:06	38.65752133	-73.201482	38.67125617	-73.18947433	19.99844822	0.9946	131.36
136	9/17/2019 7:12	38.65657017	-73.12632033	38.64586883	-73.14251367	20.00457013	0.9999	201.06
137	9/17/2019 9:21	38.81883433	-73.22914183	38.82857267	-73.21180667	19.98420615	0.9983	80.84
138	9/17/2019 12:11	39.04477933	-73.44290033	39.0542755	-73.4258095	20.03791813	0.977	59.44
139	9/17/2019 15:20	38.73073167	-73.5940605	38.7465585	-73.5865385	19.98077363	1.0112	65.5
140	9/17/2019 17:35	38.62790533	-73.77197583	38.63704667	-73.7541885	19.97144855	0.9993	60.9
141	9/17/2019 18:53	38.67338933	-73.77295967	38.68992967	-73.76894883	19.99181235	1.0087	55.28
142	9/17/2019 20:47	38.83467533	-73.852351	38.847852	-73.83901383	19.99039977	1.0065	44.58

STATION	START TRAWL (GMT)	SET LAT	SET LON	END LAT	END LON	TOW DUR (min)	TOW DIST (nm)	DEPTH MEAN (m)
143	9/17/2019 23:31	39.0730485	-74.170613	39.0889295	-74.16355783	20.01698352	1.0058	31.5
144	9/18/2019 1:03	39.17486933	-74.18096183	39.18559583	-74.16540917	19.9800363	0.9677	24.05
145	9/18/2019 2:53	39.11464383	-74.26734683	39.125054	-74.25147967	19.9665942	0.9675	26.74
146	9/18/2019 5:25	39.06464283	-74.50476183	39.0750945	-74.48803733	20.01150545	1.0028	22.32
147	9/18/2019 6:43	39.13398517	-74.49040683	39.14784817	-74.47840033	20.08092847	0.998	19.28
148	9/18/2019 9:31	39.3539515	-74.12070967	39.3576995	-74.10009867	19.98070887	0.9832	27.48
149	9/18/2019 12:04	39.30780067	-73.94026933	39.3012195	-73.92117717	20.03508333	0.97	33.77
150	9/18/2019 14:02	39.420049	-73.8859885	39.41826683	-73.86498567	19.99954202	0.9816	32.01
151	9/18/2019 15:43	39.46795617	-73.7541435	39.478793	-73.73765183	19.97373797	1.0045	34.38
152	9/18/2019 17:26	39.47884517	-73.84383767	39.49259133	-73.83215433	19.98204117	1.0026	34.24
153	9/18/2019 20:01	39.43695983	-74.01434783	39.44659183	-73.99716717	20.02544922	0.9828	25.19
154	9/18/2019 21:59	39.58144983	-74.02793367	39.59729917	-74.02092917	20.00662042	1.0037	24.11
155	9/19/2019 2:34	39.89962467	-73.93659417	39.90798833	-73.918035	19.98108975	0.9921	24.93
156	9/19/2019 5:06	40.03023783	-73.85988167	40.03133483	-73.8388225	20.00580758	0.9718	26.38
157	9/19/2019 7:05	39.87986083	-73.82998283	39.88083733	-73.80852933	19.99817937	0.9899	28.19
158	9/19/2019 16:00	40.524308	-72.63007217	40.52902567	-72.60903633	19.97785187	1.004	42.1
159	9/19/2019 19:14	40.53509733	-72.38640683	40.5449085	-72.369092	20.00646327	0.9846	49.21
160	9/19/2019 22:03	40.77292517	-72.4736685	40.77915233	-72.45378617	20.0005785	0.9774	31.68
161	9/25/2019 16:48	41.36222583	-71.384652	41.37420217	-71.368979	19.98000258	1.0083	34.61
162	9/25/2019 18:32	41.37430583	-71.26491783	41.37510333	-71.24277733	20.01070505	0.9974	29.72
163	9/25/2019 21:51	41.346989	-70.92762033	41.353574	-70.947712	20.04893088	0.984	32.04
164	9/26/2019 0:31	41.264628	-71.02557433	41.25029183	-71.01428633	20.02475368	0.9992	42.05
165	9/26/2019 3:05	41.16690983	-71.2210095	41.18257767	-71.214865	20.01161353	0.9786	37.16
166	9/26/2019 6:11	41.13355467	-71.2372885	41.14865483	-71.229353	19.98672123	0.9834	38.12
167	9/26/2019 9:17	41.20545767	-71.50483733	41.1904385	-71.51417483	19.98710007	0.9927	40.17
168	9/26/2019 12:45	40.9110945	-71.6274675	40.89852833	-71.64147883	19.97532263	0.9861	53.61
169	9/26/2019 14:55	40.74585783	-71.68561217	40.76106533	-71.67632083	20.00721373	1.0015	68.07
170	9/26/2019 17:58	40.62077367	-71.6944735	40.60595467	-71.70375533	20.02163588	0.9794	68.66
171	9/26/2019 22:02	41.0043775	-71.81229	40.99352033	-71.82918667	20.06576047	1.0017	28.79
172	9/27/2019 0:04	41.0055365	-71.89898933	41.0099605	-71.87811133	20.04741412	0.9796	21.49
173	9/27/2019 2:00	40.9625765	-71.98855633	40.96958117	-71.96889133	20.05366263	0.9811	25.61
174	9/27/2019 3:54	40.932009	-72.05862433	40.93867433	-72.03885917	19.99549487	0.981	26.89
175	9/27/2019 5:17	40.94897933	-72.02772717	40.942671	-72.04812617	19.97920755	1.0005	25.37
176	9/27/2019 6:39	40.896079	-72.16704467	40.88924283	-72.18689517	19.97648257	0.9901	27.78
177	9/27/2019 8:52	40.770022	-72.136988	40.76054333	-72.1550515	19.98067582	0.9996	45.47

Table 1 (cont.): Station report of valid hauls from NOAA Fisheries, Northeast Fisheries Science Center's
autumn bottom trawl survey, 3 September - 14 November 2019

STATION	START TRAWL (GMT)	SET LAT	SET LON	END LAT	END LON	TOW DUR (min)	TOW DIST (nm)	DEPTH MEAN (m)
178	9/27/2019 15:03	39.903102	-72.42037867	39.88846267	-72.42972017	19.98281412	0.9739	77.44
179	9/27/2019 17:43	39.73747067	-72.39338433	39.752324	-72.383624	20.05281113	0.9924	90.04
180	9/27/2019 20:10	39.92202467	-72.68159267	39.91013617	-72.696384	20.0151142	0.9822	57.59
181	9/27/2019 22:43	39.84591833	-72.95148233	39.85244483	-72.97149433	20.03090057	0.999	73.21
182	9/28/2019 0:32	39.74518133	-72.9870465	39.75728633	-73.00123067	20.04944307	0.9741	64.67
183	9/28/2019 3:06	39.68703533	-72.78326817	39.70061433	-72.77048267	20.01142698	1.0027	73
184	9/28/2019 5:01	39.53853233	-72.79313517	39.52491	-72.804337	19.99538837	0.9653	67.63
185	9/28/2019 7:02	39.4985895	-73.0830075	39.488022	-73.09914183	19.99779845	0.98	64.65
186	9/28/2019 9:26	39.63827933	-73.31429033	39.62880367	-73.29656067	19.97816427	0.9972	39.27
187	9/28/2019 12:15	39.45723767	-73.12704283	39.441021	-73.13128883	19.9710148	0.9917	59.81
188	9/28/2019 17:31	38.8398075	-72.946323	38.8269425	-72.95994817	20.0622966	0.9986	196.06
189	9/28/2019 19:20	38.86633783	-72.92096133	38.87870933	-72.90689333	20.04479265	1.0027	186.77
190	9/28/2019 21:47	39.02026867	-72.844321	39.03566183	-72.83611117	20.02221713	0.9946	120.07
191	9/29/2019 1:26	39.396837	-72.527313	39.38184133	-72.53625117	20.04473655	0.9847	128.45
192	9/29/2019 4:06	39.4363	-72.33238433	39.45084617	-72.32227267	19.99086187	0.9873	143.02
193	9/29/2019 6:32	39.67229033	-72.289955	39.6673885	-72.31043067	20.0075015	0.9894	117.8
194	9/29/2019 8:52	39.77109783	-72.090066	39.7606385	-72.10696383	20.00343815	1.0014	119.6
195	9/29/2019 12:17	39.64515917	-71.98402967	39.658897	-71.971878	19.96050818	0.9969	266.83
196	9/29/2019 14:55	39.83057033	-71.82136833	39.81931367	-71.83740783	19.9875532	1.0026	196.09
198	9/29/2019 18:47	39.886816	-71.74265033	39.87541283	-71.75846367	20.06209407	0.9959	191.33
199	9/29/2019 21:57	39.93906083	-71.565697	39.94784933	-71.5477025	20.01673985	0.9805	128.48
202	9/30/2019 5:29	39.90491083	-71.484374	39.89868217	-71.50366567	19.98549828	0.972	322.07
203	9/30/2019 8:45	39.97241267	-71.273726	39.96593883	-71.29364417	20.00150308	0.9943	315.65
204	9/30/2019 11:36	40.01858467	-71.36676817	40.00910717	-71.38345517	19.97155472	0.9594	133.17
205	9/30/2019 14:15	40.16336683	-71.484271	40.17030533	-71.46425333	20.01303447	1.0079	89.92
206	9/30/2019 16:18	40.2248725	-71.247972	40.23654417	-71.232529	20.04733213	0.9911	97.48
208	9/30/2019 19:56	40.37125533	-71.39877933	40.382099	-71.385754	18.30285042	0.8855	78.98
209	10/1/2019 0:25	40.62102983	-70.78483733	40.6087705	-70.77051033	20.05775687	0.9787	67.5
210	10/1/2019 2:54	40.48113067	-70.6580955	40.47469567	-70.63843033	20.0534468	0.9747	77.14
211	10/1/2019 4:50	40.41693217	-70.72475783	40.4167745	-70.70315883	19.9909814	0.9877	85.67
212	10/1/2019 7:42	40.15278783	-70.81495183	40.14264483	-70.79756283	19.99831127	1.0032	135.37
213	10/1/2019 12:09	39.990401	-70.557963	39.98356267	-70.57755717	19.97281563	0.9926	288.59
214	10/1/2019 14:20	40.09174367	-70.591188	40.09651633	-70.61149533	19.98370133	0.9771	126.71
215	10/1/2019 16:59	40.29453517	-70.39240433	40.311323	-70.39370567	20.04091233	1.0035	95.42
216	10/1/2019 18:49	40.44204167	-70.4182445	40.45790417	-70.42469033	20.06262512	0.9894	73.7

Table 1 (cont.): Station report of valid hauls from NOAA Fisheries, Northeast Fisheries Science Center's autumn bottom trawl survey, 3 September - 14 November 2019

STATION	START TRAWL (GMT)	SET LAT	SET LON	END LAT	END LON	TOW DUR (min)	TOW DIST (nm)	DEPTH MEAN (m)
217	10/1/2019 21:00	40.38358117	-70.26905233	40.38404117	-70.24742133	20.01189978	0.988	80.35
218	10/1/2019 22:46	40.362278	-70.16324267	40.35885733	-70.18441233	20.0328287	0.9883	83.07
219	10/2/2019 0:48	40.31966217	-70.083228	40.31825133	-70.10468217	20.03934417	0.9828	88.44
220	10/2/2019 4:01	40.07812217	-70.07919467	40.07833417	-70.05753467	20.06254212	0.992	153.9
221	10/2/2019 6:15	40.02209117	-70.07390717	40.03123217	-70.09128517	19.99997395	0.9684	169.77
222	10/2/2019 13:03	40.00283583	-69.26142567	39.99286117	-69.27848483	19.98677188	0.9868	165.39
223	10/2/2019 18:38	40.06555983	-68.940084	40.06087167	-68.96064367	20.0380425	0.9836	190.63
224	10/2/2019 20:38	40.0929705	-68.879734	40.08557617	-68.898707	20.01431092	0.9797	194.84
225	10/3/2019 0:47	40.1937935	-69.12488967	40.1814895	-69.1393145	20.02594515	0.9883	119.59
226	10/3/2019 3:51	40.20582817	-69.45983533	40.21634983	-69.4423545	19.99788658	1.0207	85.74
227	10/3/2019 6:56	40.44790117	-69.738974	40.45070667	-69.71785633	20.00035102	0.986	73.08
228	10/13/2019 1:58	41.28427767	-70.66688567	41.27190217	-70.68154883	19.98502712	0.9942	26.28
229	10/13/2019 3:58	41.146402	-70.691918	41.145337	-70.67011	20.00057637	0.9901	38.26
230	10/13/2019 6:04	41.043279	-70.67622767	41.03543183	-70.65677617	20.01037405	0.9993	46.53
231	10/13/2019 9:14	40.93381083	-70.2231835	40.94826917	-70.21253283	20.01452733	0.9922	32.22
232	10/13/2019 10:41	40.97842667	-70.16544833	40.99364783	-70.17536183	19.99450795	1.0182	26.09
233	10/13/2019 12:28	40.90628983	-70.0816945	40.89176683	-70.07172533	19.98543757	0.9818	28.65
234	10/13/2019 15:43	40.91528617	-69.76781867	40.901252	-69.7562585	19.97429048	0.9977	38.56
235	10/13/2019 18:45	40.89163783	-69.57680483	40.88310283	-69.55782717	19.99050558	1.0208	41
236	10/13/2019 22:03	40.92218817	-69.16715267	40.91795017	-69.18785183	19.96728172	0.9743	68.27
237	10/14/2019 2:28	40.73089367	-68.60215167	40.73038317	-68.58044767	19.99572373	0.9904	61.05
238	10/14/2019 4:45	40.74791817	-68.28418983	40.731454	-68.284103	20.0129699	0.9876	61.76
239	10/14/2019 6:28	40.60276433	-68.3632955	40.58893	-68.37523967	20.00365893	0.9932	82.65
240	10/14/2019 9:13	40.54139683	-68.80037933	40.528389	-68.78718633	19.9915239	0.9868	69.28
241	10/14/2019 11:42	40.40318067	-68.9049235	40.3983035	-68.88441983	19.99202798	0.9829	84.16
242	10/14/2019 15:45	40.174034	-68.40481417	40.17089133	-68.42593733	19.99270693	1.0053	221.33
243	10/14/2019 18:49	40.4145645	-68.2160965	40.40199933	-68.22988433	19.97544932	0.9929	134.31
244	10/14/2019 21:39	40.44775683	-68.02312617	40.4333415	-68.0122605	20.00680188	1.0052	141.72
245	10/15/2019 0:28	40.56847283	-67.79677617	40.551954	-67.7949605	19.9889542	0.9944	96.39
246	10/15/2019 2:36	40.47722583	-67.76402517	40.46127117	-67.75646833	20.04879542	1.014	135.29
248	10/15/2019 8:12	40.48715517	-67.38155667	40.500869	-67.393619	20.00685527	0.9907	188.94
249	10/15/2019 10:26	40.57725133	-67.273878	40.59383067	-67.27735417	19.98778325	1.0055	122.61
250	10/15/2019 12:48	40.688864	-67.49761	40.6756025	-67.48427633	20.01072493	0.998	90.63
251	10/15/2019 14:19	40.75082783	-67.55451417	40.76599433	-67.545714	19.99998595	0.9923	84.91
252	10/15/2019 16:21	40.94140717	-67.403137	40.9525215	-67.419171	19.97452977	0.9864	76.71

STATION	START TRAWL (GMT)	SET LAT	SET LON	END LAT	END LON	TOW DUR (min)	TOW DIST (nm)	DEPTH MEAN (m)
253	10/15/2019 18:01	40.99132183	-67.5350955	41.007009	-67.53867167	19.9884959	0.9527	67.07
254	10/15/2019 20:22	41.1595205	-67.334242	41.17263067	-67.34711683	20.01502188	0.9793	56.3
255	10/15/2019 22:39	41.26279333	-67.4437685	41.25451167	-67.46404217	19.98272432	1.043	46.68
256	10/16/2019 0:47	41.10361017	-67.61699333	41.11643733	-67.60376133	20.31281775	0.9763	57.43
257	10/16/2019 2:36	41.03872583	-67.63878233	41.02220317	-67.6431675	20.02920418	1.0069	62.61
258	10/16/2019 4:48	41.08283233	-67.89962333	41.07211567	-67.91648967	20.01816922	0.9952	48.63
259	10/16/2019 7:30	41.31486117	-67.897202	41.31384667	-67.919544	20.01656663	1.0116	35.02
260	10/16/2019 10:45	41.2820575	-68.02721683	41.29178367	-68.04541967	19.99985248	1.0087	42.67
262	10/18/2019 1:55	41.83308017	-70.36810683	41.82782517	-70.38882017	19.98628603	0.9792	24.91
263	10/18/2019 3:34	41.87050433	-70.30272483	41.86628167	-70.32422817	20.0069237	0.9957	30.55
264	10/18/2019 6:23	41.912231	-70.1698675	41.927521	-70.16343033	20.00101225	0.9724	28.77
265	10/18/2019 20:24	42.0275975	-67.62651717	42.02306767	-67.64734683	20.05735742	0.9663	69.3
266	10/18/2019 22:50	41.94915683	-67.5776565	41.95806267	-67.5938145	19.99865653	0.9156	46.7
268	10/19/2019 3:40	42.07589517	-67.20466517	42.09341833	-67.20654067	20.04180183	1.0549	52.59
270	10/19/2019 14:05	41.860197	-66.66361	41.874909	-66.67453583	20.01016962	1.0061	70.69
271	10/19/2019 16:13	41.820984	-66.608737	41.83592933	-66.59905517	19.97765858	0.9974	74.64
272	10/19/2019 19:14	41.77224517	-66.91863983	41.78858783	-66.91548617	19.9860503	0.9924	67.23
273	10/19/2019 22:37	41.64655767	-67.3585745	41.6603175	-67.37028017	19.98698943	0.9885	50.43
274	10/20/2019 1:04	41.58162617	-67.30201733	41.59806167	-67.30339917	19.98046867	0.9871	54.92
275	10/20/2019 4:15	41.39874533	-67.01281717	41.41556217	-67.01557667	20.03018387	1.0119	65.04
276	10/20/2019 6:53	41.291141	-66.76450317	41.3033925	-66.7790945	20.01937582	0.9851	74.81
277	10/20/2019 9:11	41.19959767	-66.99308467	41.21556167	-66.98872217	19.98672968	0.9787	69.48
278	10/20/2019 12:03	40.88969517	-66.853752	40.879632	-66.870902	20.00458588	0.9836	94.49
279	10/20/2019 14:08	40.82140017	-66.7375315	40.81072433	-66.75456133	20.00728218	1.0041	150.23
280	10/20/2019 16:07	40.78934967	-66.7430175	40.77855317	-66.75968583	19.9942289	1.0006	237.18
281	10/20/2019 20:40	41.01398117	-66.42033083	40.99843267	-66.42819067	19.99971388	0.9984	347.14
282	10/20/2019 22:47	41.03209717	-66.4757185	41.01716967	-66.48512083	20.01197638	0.9892	124.79
283	10/21/2019 0:57	41.14097983	-66.55563667	41.13337817	-66.53619583	20.01862722	0.99	94.47
284	10/21/2019 3:19	41.25354733	-66.4532465	41.26570883	-66.46892067	20.01646062	1.0151	95.36
285	10/21/2019 5:45	41.54902467	-66.583555	41.5578525	-66.56452333	20.00995118	1.006	85.58
286	10/21/2019 7:48	41.57666283	-66.30945967	41.57917683	-66.2874535	20.01037378	1	92.18
287	10/21/2019 9:22	41.50319817	-66.25133233	41.49014717	-66.2647095	19.97453782	0.9875	95.34
288	10/21/2019 11:03	41.396977	-66.3250925	41.39813583	-66.30281083	19.9801623	1.008	95.44
289	10/21/2019 12:48	41.42617117	-66.14366867	41.40962583	-66.14119833	20.00337757	0.997	131.52
290	10/21/2019 14:41	41.384612	-66.07547067	41.37234233	-66.09018517	19.9934349	0.9921	165.77

STATION	START TRAWL (GMT)	SET LAT	SET LON	END LAT	END LON	TOW DUR (min)	TOW DIST (nm)	DEPTH MEAN (m)
291	10/21/2019 18:09	41.7779045	-66.01480517	41.792626	-66.0252805	19.98502457	1.0029	97.55
293	10/21/2019 22:53	41.792135	-65.73750333	41.80783367	-65.73778517	20.00641937	1.0031	204.11
294	10/22/2019 1:46	41.9820235	-65.84654317	41.989109	-65.82629167	20.0316048	0.9978	198.44
295	10/22/2019 4:48	42.28761517	-65.90484017	42.30357417	-65.8998505	20.02384723	0.9801	231.81
296	10/22/2019 7:25	42.19919567	-66.1325665	42.21527417	-66.12893967	20.0046914	0.9756	251.5
297	10/22/2019 10:45	42.375051	-66.34089667	42.38089817	-66.31998983	19.97698873	0.9944	257.04
298	10/22/2019 13:34	42.152135	-66.31146383	42.16606517	-66.31913733	19.4217637	0.8948	189.38
300	10/22/2019 18:18	42.177057	-66.7334995	42.1771445	-66.711731	19.9758705	0.9713	195.11
301	10/22/2019 20:27	42.1316215	-66.83443417	42.12971783	-66.812978	19.99836798	0.968	75.51
302	10/22/2019 22:31	42.16178567	-66.92522983	42.158215	-66.9031355	19.99677993	1.0129	109.6
303	10/23/2019 13:58	42.2332775	-67.560128	42.22868383	-67.53865767	19.99578485	1.0059	254.9
304	10/23/2019 16:22	42.16762733	-67.49263567	42.16799317	-67.47037567	19.97913557	0.9945	211.74
305	10/23/2019 21:56	41.69782617	-67.8229015	41.71254483	-67.83152683	20.00001167	0.9839	30.72
306	10/24/2019 1:26	41.76185717	-68.196058	41.754923	-68.216213	19.9842235	0.9964	64.99
307	10/24/2019 3:26	41.74089	-68.35645433	41.72817633	-68.37034633	20.02638568	0.9825	93.45
308	10/24/2019 5:49	41.51956683	-68.25821683	41.53118833	-68.2749705	19.99086257	1.0265	39.85
310	10/24/2019 8:30	41.5137365	-68.23733617	41.505296	-68.2182505	19.9841209	0.9981	41.23
311	10/24/2019 12:25	41.391525	-68.82820833	41.39738	-68.8074525	19.97681623	1.0008	136.86
312	10/24/2019 14:47	41.32940883	-68.933719	41.33866933	-68.9162395	19.98469557	0.9652	140.83
313	10/24/2019 17:11	41.1175985	-68.9644835	41.131119	-68.95125483	19.98319137	1.007	99.53
314	10/24/2019 20:16	41.1541215	-69.05987383	41.16309367	-69.0413735	20.01081547	0.9944	106.32
315	10/24/2019 23:16	41.10795583	-69.12177917	41.09605317	-69.13083117	17.04906437	0.8168	94.32
316	10/30/2019 23:31	41.91908533	-70.28527033	41.930596	-70.30092083	20.04637395	0.9799	33.47
317	10/31/2019 1:25	42.01821867	-70.299565	42.02514267	-70.31978367	20.02870935	0.9932	50.6
318	10/31/2019 3:25	42.026879	-70.367256	42.02655733	-70.38908733	20.00699	0.9733	53.18
320	10/31/2019 6:42	41.94784433	-70.46475233	41.96256017	-70.475156	20.00066737	0.9948	38.48
321	10/31/2019 8:38	42.10722	-70.43564583	42.091991	-70.44410033	19.98540087	0.9868	57.95
324	10/31/2019 15:32	42.338811	-70.4033145	42.34271667	-70.425309	19.98963273	1.0058	92.23
326	11/1/2019 22:50	42.84387767	-70.75809567	42.85799417	-70.76897883	20.0041775	0.9769	30.38
327	11/2/2019 0:45	42.78790533	-70.65826833	42.8043985	-70.65619717	20.0050736	0.9896	69.18
329	11/2/2019 8:12	42.55255183	-70.02681217	42.54576717	-70.04695333	19.98269013	0.9879	143.08
330	11/2/2019 13:31	42.68949533	-69.90128033	42.705636	-69.9017355	19.9893579	0.9699	222.36
331	11/2/2019 16:12	42.54004667	-69.787339	42.55505967	-69.77796617	19.98874427	0.9905	270.16
332	11/2/2019 19:47	42.628415	-69.3113835	42.61205783	-69.31708433	20.01481598	1.0092	223.92
333	11/2/2019 23:16	42.35727183	-69.23291817	42.3545115	-69.2547525	20.0022546	0.9839	247.85

STATION	START TRAWL (GMT)	SET LAT	SET LON	END LAT	END LON	TOW DUR (min)	TOW DIST (nm)	DEPTH MEAN (m)
334	11/3/2019 1:50	42.19244283	-69.3911465	42.1907415	-69.3695155	20.00052435	0.9698	199.72
335	11/3/2019 5:05	42.14377033	-68.83394533	42.14612067	-68.81152	19.98507088	1.0103	177
336	11/3/2019 8:42	42.22143883	-68.33128767	42.2192145	-68.353079	19.9871676	0.9863	197.15
337	11/3/2019 12:16	42.2315095	-68.25677217	42.24038033	-68.2377185	20.00784527	1	199.45
338	11/3/2019 16:09	42.5619415	-68.00198517	42.546488	-68.00946933	19.97286117	0.983	205.65
339	11/3/2019 18:41	42.638078	-68.19146267	42.639144	-68.21366467	19.99884712	0.9861	193.71
340	11/3/2019 21:45	42.877238	-68.235985	42.86077983	-68.2356675	20.01505278	0.9847	206.34
341	11/4/2019 0:22	42.68334467	-68.31888383	42.69967317	-68.316549	19.98720885	0.9849	202.75
342	11/4/2019 4:13	42.6717225	-68.74591333	42.6815535	-68.7279245	19.99002925	1.0012	176.97
343	11/4/2019 7:26	42.9795315	-68.6326705	42.9636445	-68.62724717	19.97566837	0.983	187.08
344	11/4/2019 9:31	43.03878583	-68.61978683	43.03265733	-68.64095433	19.97010955	1.0044	196.25
345	11/4/2019 12:30	43.25414567	-68.4720535	43.2377405	-68.4703955	20.00498568	0.998	189.29
346	11/4/2019 17:32	43.058729	-67.63900883	43.0427735	-67.6343145	19.98223578	0.9827	194.75
347	11/4/2019 21:05	42.72178233	-67.48471283	42.71504433	-67.50508467	20.03021588	0.9844	207.62
348	11/5/2019 0:23	42.501051	-67.40909333	42.50251533	-67.38642283	20.06133005	1.0052	313.02
349	11/5/2019 2:10	42.51297533	-67.27440333	42.5154165	-67.2520605	20.01375395	0.9989	328.9
350	11/5/2019 6:05	42.80806217	-67.29525767	42.80713533	-67.31775533	19.99844582	0.9939	219.58
351	11/5/2019 10:08	43.24651383	-67.59103317	43.23214517	-67.60168683	20.00333735	0.9804	226.04
352	11/5/2019 12:42	43.30286317	-67.35978117	43.29066117	-67.34414717	20.00773923	1.0014	213.25
353	11/5/2019 15:44	43.1817755	-67.05183483	43.16570033	-67.04932417	19.96683253	0.9788	193.96
354	11/5/2019 18:24	43.31648483	-66.96411117	43.31195533	-66.985123	20.00716532	0.995	212.74
355	11/5/2019 20:57	43.41192933	-66.76269767	43.40185683	-66.74389533	20.0192565	1.0174	164.4
356	11/6/2019 0:55	43.607398	-67.31993333	43.590884	-67.31996383	20.0150933	0.9884	225.82
357	11/6/2019 4:56	43.94047033	-67.36051333	43.938228	-67.38248383	20.00488048	0.9615	218.25
358	11/6/2019 7:46	44.02884833	-67.18589133	44.01177633	-67.1834065	20.11591065	1.0221	153.6
359	11/6/2019 10:05	44.11425533	-67.22662667	44.10206167	-67.2429985	20.01111933	1.0147	191.5
360	11/6/2019 12:18	44.10806	-67.15124833	44.1235265	-67.15850867	19.99327107	0.9912	86.04
361	11/6/2019 17:10	44.3575205	-66.72258833	44.34899617	-66.7411745	20.06832547	0.947	199.33
364	11/6/2019 23:21	44.26890867	-67.18271217	44.26183467	-67.20338733	20.06881412	0.9804	193.56
365	11/7/2019 1:59	44.3387345	-67.2721115	44.3275775	-67.28910817	19.99885335	0.9986	149.1
366	11/7/2019 5:04	44.19450567	-67.45952967	44.2094985	-67.4492665	19.99108923	0.9996	215.84
367	11/7/2019 8:51	43.93919967	-67.93317483	43.94950417	-67.9154045	19.98080887	0.9867	157.82
368	11/7/2019 11:51	43.79127067	-67.99947	43.77838217	-68.01260083	20.00121962	0.9939	163.31
370	11/7/2019 17:14	43.9775265	-68.29420833	43.9665075	-68.3107755	20.07432765	0.9773	105.62
371	11/7/2019 23:25	43.83729367	-68.4386395	43.83565583	-68.4608895	20.0356761	0.9776	131.07

STATION	START TRAWL (GMT)	SET LAT	SET LON	END LAT	END LON	TOW DUR (min)	TOW DIST (nm)	DEPTH MEAN (m)
372	11/8/2019 1:11	43.82759717	-68.44939917	43.8136255	-68.46014067	20.0120608	0.998	131.64
373	11/8/2019 3:49	43.63428783	-68.674744	43.645508	-68.65772583	20.00585348	0.9984	153.85
374	11/8/2019 8:23	43.501965	-69.0598305	43.50166517	-69.0369995	19.99401807	0.9964	137.74
375	11/8/2019 11:47	43.405579	-69.37768733	43.42188033	-69.379778	19.98405672	0.9866	175.24
376	11/8/2019 14:17	43.31434617	-69.2204	43.33033933	-69.21908	19.99457245	0.9618	161.36
377	11/8/2019 17:44	43.20330933	-69.40782833	43.213633	-69.3902225	19.9967006	0.9927	167.17
378	11/8/2019 20:26	43.06415583	-69.55570067	43.06029983	-69.57734117	19.99641478	0.9858	143.88
379	11/9/2019 6:35	43.55677933	-69.78354767	43.57233733	-69.776096	19.99374317	0.9874	111.1
380	11/9/2019 8:35	43.4825675	-69.94195633	43.466215	-69.9416965	19.99946195	0.9789	123.34
381	11/9/2019 11:42	43.22037167	-70.11415733	43.23591767	-70.10589767	20.03916233	0.9956	154.12
382	11/9/2019 13:30	43.18729733	-70.22762867	43.20179917	-70.2163975	20.02264608	0.9951	117.64
383	11/9/2019 15:59	43.1319475	-69.9573545	43.14836433	-69.96160117	20.16771895	1.0003	156.02
385	11/9/2019 20:19	43.0158725	-70.36219183	43.020463	-70.3405005	20.00125847	0.9904	125.4
386	11/9/2019 22:55	42.86866883	-70.14730233	42.87637383	-70.16699667	19.77705135	0.9776	61.62
387	11/10/2019 1:29	42.84940433	-70.46192	42.86453617	-70.4704605	20.00828517	0.991	123.08
388	11/10/2019 4:58	42.718152	-70.44378683	42.72082983	-70.46611117	20.1395014	1.0109	81.19
389	11/10/2019 11:13	42.58998033	-70.5746385	42.60051433	-70.55761167	19.97089468	0.9835	56.42
390	11/10/2019 15:04	42.37225483	-70.72622983	42.385251	-70.73796483	18.89949562	0.9353	50.6
391	11/10/2019 17:35	42.26768233	-70.6685675	42.25440533	-70.66322883	17.20295097	0.8309	30.01
392	11/10/2019 21:02	42.4080345	-70.0942985	42.391521	-70.0973245	20.02345303	0.995	85.99
393	11/10/2019 23:41	42.24297833	-70.167395	42.25910017	-70.17065567	20.04782972	0.9734	48.83
394	11/11/2019 3:11	42.13382983	-69.71857367	42.1426055	-69.73753833	20.04167985	0.9927	223.56
395	11/11/2019 5:28	42.02542417	-69.766848	42.03838833	-69.78046433	19.99010768	0.9863	169.3
396	11/11/2019 8:06	41.9890785	-69.97647767	42.00327583	-69.98879183	19.97873395	1.0132	27.43
397	11/11/2019 10:47	41.81413367	-69.9108855	41.83117767	-69.91199333	19.98257173	1.0217	22.96
398	11/11/2019 12:39	41.78217333	-69.86424717	41.79388483	-69.87576917	17.40503842	0.8648	37.92
399	11/11/2019 14:41	41.77978033	-69.71838283	41.79311967	-69.730463	19.9782413	0.9716	133.31
400	11/11/2019 16:56	41.66963967	-69.67133617	41.68122417	-69.68716367	19.98674905	0.993	81
401	11/11/2019 19:10	41.59362533	-69.56789483	41.6083955	-69.578199	20.00384437	0.9974	65.37
403	11/12/2019 3:05	41.36295367	-69.370906	41.351818	-69.35933483	17.1412501	0.8563	53.05
404	11/12/2019 5:34	41.49935017	-69.3257945	41.4865625	-69.31236117	20.0004822	0.9753	89.52
405	11/12/2019 8:23	41.67493017	-69.37417233	41.658529	-69.3706075	19.98014033	0.9959	174.87

Table 2: Catch summary (lbs) of important species by haul from NOAA Fisheries, Northeast Fisheries Science Center's autumn bottom trawl survey, 3 September - 14 November 2019

STATION	ATLANTIC COD	HADDOCK	POLLOCK	WHITE HAKE	SILVER HAKE	RED HAKE	REDFISH	GOOSEFISH	SPINY DOGFISH	YELLOWTAIL FLOUNDER	WINTER FLOUNDER	AMERICAN PLAICE	WITCH FLOUNDER	WINDOWPANE FLDR	SUMMER FLOUNDER	BLUEFISH	BUTTERFISH	ATL HERRING	ATL MACKEREL	AMERICAN LOBSTER	LOLIGO	ILLEX	TOTAL OTHER	TOTAL ALL
35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	7	0	126	142
36	0	0	0	0	0	0	0	0	0	0	1	0	0	4	20	0	0	0	0	0	9	0	412	446
37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	1	0	0	0	0	13	0	161	186
38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	3	0	0	0	0	13	0	87	108
39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	15	0	111	146
40	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	6	0	123	130
41	0	0	0	0	1	0	0	0	0	0	4	0	0	1	0	0	0	0	0	0	13	0	59	78
42	0	0	0	0	0	0	0	0	0	0	0	0	0	1	18	0	0	0	0	3	2	0	337	361
43	0	0	0	0	0	0	0	0	0	0	0	0	0	10	48	0	0	0	0	3	0	0	397	458
44	0	0	0	0	0	0	0	0	0	0	0	0	0	4	17	0	0	0	0	0	1	0	286	308
45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	0	0	3	0	211	220
46	0	0	0	0	0	0	0	0	0	0	0	0	0	1	13	2	0	0	0	0	3	0	129	148
47	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	49	1	5	56
48	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	5	43	78
49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	6	55	69
50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	48	51
51	0	0	0	0	2	0	0	7	0	0	0	0	0	0	0	0	2	0	0	0	1	0	46	58
52	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	22	0	0	0	5	4	45	77
53	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	40	25	69
54	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	183	51	259
55	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	55	17	9	82
56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	0	42	74
57	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	52	0	42	94
58	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	37	0	14	54
59	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	4	0	0	0	57	1	9	74
60	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	14	0	57	73
61	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	4	14	52	71
63	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	82	88
64	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	42
65	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	72	77
66	0	0	0	0	4	0	0	2	0	0	0	0	0	0	0	0	1	0	0	0	43	20	374	444
68	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	64	101	169
69	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	170	0	0	0	29	3	297	500
70	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	16	0	0	0	162	0	16	195
71	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	24	30	59
72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6	201	213
73	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	0	0	102	0	15	141

Table 2 (cont.): Catch summary (lbs) of important species by haul from NOAA Fisheries, Northeast Fisheries Science Center's autumn bottom trawl survey, 3 September - 14 November 2019

STATION	ATLANTIC COD	HADDOCK	POLLOCK	WHITE HAKE	SILVER HAKE	RED HAKE	REDFISH	GOOSEFISH	SPINY DOGFISH	YELLOWTAIL FLOUNDER	WINTER FLOUNDER	AMERICAN PLAICE	WITCH FLOUNDER	WINDOWPANE FLDR	SUMMER FLOUNDER	BLUEFISH	BUTTERFISH	ATL HERRING	ATL MACKEREL	AMERICAN LOBSTER	LOLIGO	ILLEX	TOTAL OTHER	TOTAL ALL
74	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	350	0	0	0	75	0	35	460
75	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0	0	0	55	0	64	135
76	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1	0	0	0	2	8	123	136
77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	408	409
78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	312	314
79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	3	5
80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	18
81	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	4
82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	23	27
83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	40	124	164
84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	3	2	18	25
85	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	0	24	51
86	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	38	40
87	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	41	43
88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	8	21
89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	381	382
90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
91	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	92	92
92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	99	100
93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	86	89
94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	49	52
95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	12	0	23	36
96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	1330	1334
97	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	41	0	104	146
98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	36	0	25	62
99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	66	67
100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	35	37
101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	82	0	50	134
102	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	4	0	21	26
103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	6	0	0	0	3	0	27	37
104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	59	60
105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	55	57
106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	5	0	32	38
108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	4	0	0	0	1	0	100	106
109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	2	0	62	67
110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	4	0	0	0	5	0	103	113
111	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	0	0	0	4	0	103	113

Table 2 (cont.): Catch summary (lbs) of important species by haul from NOAA Fisheries, Northeast Fisheries Science Center's autumn bottom trawl survey, 3 September - 14 November 2019

STATION	ATLANTIC COD	HADDOCK	POLLOCK	WHITE HAKE	SILVER HAKE	RED HAKE	REDFISH	GOOSEFISH	SPINY DOGFISH	YELLOWTAIL FLOUNDER	WINTER FLOUNDER	AMERICAN PLAICE	WITCH FLOUNDER	WINDOWPANE FLDR	SUMMER FLOUNDER	BLUEFISH	BUTTERFISH	ATL HERRING	ATL MACKEREL	AMERICAN LOBSTER	LOLIGO	ILLEX	TOTAL OTHER	TOTAL ALL
112	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	2	0	0	0	0	0	508	516
113	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	2	0	0	0	0	0	772	777
114	0	0	0	0	0	0	0	0	0	0	0	0	0	4	3	0	0	0	0	0	8	0	1748	1763
115	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	5	0	178	186
116	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	9	0	163	177
117	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	23	0	0	0	8	0	719	751
118	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	295	298
119	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	7	0	160	169
120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	10	0	0	0	1	0	398	412
121	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	4	0	0	0	11	0	125	146
122	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	2	0	0	0	10	0	443	460
123	0	0	0	0	0	0	0	0	0	0	0	0	0	1	6	1	4	0	0	1	9	0	703	725
124	0	0	0	0	0	0	0	0	0	0	0	0	0	3	14	1	5	0	0	0	1	0	121	145
125	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	1	0	0	0	1	0	244	251
126	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	1	0	0	0	0	4	0	396	406
127	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	8	0	411	421
128	0	0	0	0	0	0	0	1	0	0	0	0	0	3	0	0	0	0	0	0	14	0	583	601
129	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	0	37	61
130	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33	6	14	53
131	0	0	0	0	11	3	0	4	0	0	0	0	0	0	0	0	0	0	0	1	3	26	282	330
132	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	93	42	136
133	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	48	36	89
134	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	21	5	28	59
135	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	8	47	40	97
136	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	140	40	182
137	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	21	3	95	122
138	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	74	78
139	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	48	54
140	0	0	0	0	0	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	22	0	36	63
141	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	23	0	21	47
142	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	36	0	124	162
143	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	6	0	415	422
144	0	0	0	0	0	0	0	0	0	0	0	0	0	7	8	0	0	0	0	0	5	0	141	161
145	0	0	0	0	0	0	0	0	0	0	0	0	0	1	10	0	0	0	0	0	5	0	1099	1115
146	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0	0	0	5	0	314	324
147	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4	0	84	92
148	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	0	0	0	3	0	332	340

Table 2 (cont.): Catch summary (lbs) of important species by haul from NOAA Fisheries, Northeast Fisheries Science Center's autumn bottom trawl survey, 3 September - 14 November 2019

STATION	ATLANTIC COD	HADDOCK	POLLOCK	WHITE HAKE	SILVER HAKE	RED HAKE	REDFISH	GOOSEFISH	SPINY DOGFISH	YELLOWTAIL FLOUNDER	WINTER FLOUNDER	AMERICAN PLAICE	WITCH FLOUNDER	WINDOWPANE FLDR	SUMMER FLOUNDER	BLUEFISH	BUTTERFISH	ATL HERRING	ATL MACKEREL	AMERICAN LOBSTER	LOLIGO	ILLEX	TOTAL OTHER	TOTAL ALL
149	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	1	0	0	0	0	4	0	578	593
150	0	0	0	0	0	0	0	0	0	0	0	0	0	1	5	3	0	0	0	0	10	0	378	397
151	0	0	0	0	0	0	0	0	0	0	0	0	0	2	4	1	0	0	0	0	2	0	400	409
152	0	0	0	0	0	0	0	0	0	0	1	0	0	1	12	16	0	0	0	0	7	0	4731	4768
153	0	0	0	0	0	0	0	0	0	0	1	0	0	1	7	0	0	0	0	0	1	0	150	160
154	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	11	0	68	82
155	0	0	0	0	0	0	0	0	0	0	0	0	0	4	2	2	0	0	0	0	5	0	115	128
156	0	0	0	0	0	0	0	0	0	0	0	0	0	2	22	0	0	0	0	0	2	0	220	246
157	0	0	0	0	0	0	0	0	0	0	0	0	0	3	10	0	0	0	0	0	5	0	189	207
158	0	0	0	0	3	0	0	1	7	0	2	0	0	1	4	0	0	0	0	0	27	0	61	106
159	0	0	0	0	17	1	0	6	1	0	0	0	0	1	2	0	0	0	0	0	38	0	72	138
160	0	0	0	0	0	0	0	0	0	0	0	0	0	1	14	2	1	0	0	0	30	0	76	124
161	0	0	0	0	58	3	0	0	0	0	12	0	0	0	23	0	29	1	0	8	38	0	77	249
162	0	0	0	0	7	0	0	0	0	0	3	0	0	0	4	0	29	0	0	0	30	0	147	220
163	0	0	0	0	201	22	0	0	0	0	22	0	0	0	6	2	297	0	0	22	24	0	84	680
164	0	0	0	0	185	38	0	2	3	0	13	0	0	2	14	0	22	0	0	6	1	0	168	454
165	0	0	0	0	275	9	0	0	32	0	0	0	0	5	29	0	3	0	0	2	0	0	649	1004
166	0	0	0	0	166	1	0	1	22	1	0	0	0	7	10	0	6	0	0	0	1	0	479	694
167	0	0	0	0	32	0	0	0	0	0	1	0	0	1	20	0	25	0	0	2	1	0	424	506
168	0	0	0	0	20	2.2	0	6	79	0	2	0	0	1	18	0	3	0	0	2	27	0	220	380
169	0	0	0	0	357	37	0	36	81	0	0	0	0	0	6	0	9	0	0	1	101	0	332	960
170	0	12	0	0	122	11	0	33	55	0	0	0	0	0	4	0	4	0	0	1	124	0	321	687
171	0	0	0	0	2	0	0	0	0	0	29	0	0	1	7	14	0	0	0	1	8	0	274	336
172	0	0	0	0	0	0	0	0	0	0	0	0	0	1	17	0	1	0	0	0	2	0	214	235
173	0	0	0	0	0	0	0	0	0	0	1	0	0	2	22	0	1	0	0	0	1	0	635	662
174	0	0	0	0	1	0	0	0	65	0	3	0	0	1	25	0	1	0	0	0	1	0	560	657
175	0	0	0	0	0	0	0	0	37	0	0	0	0	2	27	0	0	0	0	0	1	0	502	569
176	0	0	0	0	1	0	0	0	74	0	1	0	0	1	23	0	2	0	0	0	1	0	651	754
177	0	0	0	0	89	0	0	0	89	0	7	0	0	5	46	0	0	0	0	0	0	0	891	1127
178	0	0	0	0	5	0	0	6	0	0	0	0	0	0	0	0	9	0	0	0	146	2	253	421
179	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	131	43	18	197
180	0	0	0	0	1	0	0	18	0	0	0	0	0	0	0	0	0	0	0	1	108	2	54	184
181	0	0	0	0	41	39	0	67	8	0	0	0	0	0	0	0	1	0	0	3	52	0	255	466
182	0	0	0	0	34	8	0	1	0	0	0	0	0	0	0	0	0	0	0	0	27	0	548	618
183	0	0	0	0	13	25	0	71	0	0	0	0	0	0	0	0	0	0	0	3	6	1	196	315
184	0	0	0	0	3	0	0	4	0	0	0	0	0	0	0	0	2	0	0	0	6	1	139	155
185	0	0	0	0	29	35	0	8	0	0	0	0	0	1	0	0	0	0	0	0	2	0	135	210

Table 2 (cont.): Catch summary (lbs) of important species by haul from NOAA Fisheries,
Northeast Fisheries Science Center's autumn bottom trawl survey, 3 September - 14 November 2019

STATION	ATLANTIC COD	HADDOCK	POLLOCK	WHITE HAKE	SILVER HAKE	RED HAKE	REDFISH	GOOSEFISH	SPINY DOGFISH	YELLOWTAIL FLOUNDER	WINTER FLOUNDER	AMERICAN PLAICE	WITCH FLOUNDER	WINDOWPANE FLDR	SUMMER FLOUNDER	BLUEFISH	BUTTERFISH	ATL HERRING	ATL MACKEREL	AMERICAN LOBSTER	LOLIGO	ILLEX	TOTAL OTHER	TOTAL ALL
186	0	0	0	0	10	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	63	0	766	843
187	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	37	1	37	79
188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	4	13	20
189	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	2	5	13
190	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	242	0	0	0	15	2	20	280
191	0	0	0	0	4	0	0	7	0	0	0	0	0	0	0	0	11	0	0	0	2	2	31	57
192	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	4	0	0	3	7	18	83	117
193	0	0	0	0	0	1	0	16	0	0	0	0	0	0	0	0	0	0	0	0	12	3	53	85
194	0	0	0	0	1	1	0	5	0	0	0	0	0	0	0	0	12	0	0	0	36	2	29	86
195	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	2	0	0	5	18	1	16	48
196	0	0	0	0	0	1	0	10	0	0	0	0	0	0	0	0	0	0	0	1	88	6	40	146
197	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37	9	3	49
198	0	0	0	0	0	2	0	3	0	0	0	0	0	0	0	0	0	0	0	1	210	15	87	318
199	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	1	71	2	54	131
200	0	0	0	0	0	1	0	17	0	0	0	0	0	0	0	0	0	0	0	5	0	4	10	37
201	0	0	0	14	0	1	0	10	0	0	0	0	0	0	0	0	0	0	0	15	0	3	21	64
202	0	0	0	0	0	8	0	84	8	0	0	0	0	0	0	0	0	0	0	19	0	18	39	176
203	0	0	0	0	1	5	0	145	0	0	0	0	0	0	0	0	0	0	0	7	0	124	24	306
204	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	101	24	4	133
205	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	64	0	0	2	55	1	126	251
206	0	0	0	0	1	0	0	19	0	0	0	0	0	0	3	0	40	0	0	1	114	1	59	238
207	0	0	0	0	23	22	0	10	1	0	0	0	0	0	7	0	142	0	0	1	26	0	61	293
208	0	0	0	0	21	10	0	34	2	0	0	0	0	0	0	0	192	0	7	1	38	0	62	367
209	0	0	0	0	193	10	0	19	9	0	1	0	0	0	7	0	15	0	0	0	3	0	211	468
210	0	0	0	0	250	152	0	79	0	0	0	0	1	0	4	0	3	0	0	0	1	0	294	784
211	0	0	0	0	95	103	0	19	1	0	0	0	0	0	0	0	10	0	0	1	2	0	201	432
212	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	5	0	0	1	8	1	52	69
213	0	0	0	0	0	0	0	135	0	0	0	0	0	0	0	0	2	0	0	15	5	22	33	212
214	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	57	9	48	118
215	0	1	0	0	13	17	0	3	0	0	0	0	0	0	0	0	12	0	0	5	90	1	34	176
216	0	0	0	0	10	5	0	7	0	0	2	0	0	0	2	0	39	0	0	1	82	0	66	214
217	0	0	0	0	46	9	0	7	0	0	0	0	0	0	0	0	9	0	0	0	36	0	47	154
218	0	0	0	0	123	45	0	4	0	0	1	0	0	0	0	0	23	0	0	1	40	0	110	347
219	0	0	0	0	75	137	0	6	0	0	0	0	0	0	0	0	21	0	0	4	4	0	186	433
220	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	3	0	0	1	25	1	36	75
221	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	1	11	4	17	46
222	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	35	10	15	61

STATION	ATLANTIC COD	HADDOCK	POLLOCK	WHITE HAKE	SILVER HAKE	RED HAKE	REDFISH	GOOSEFISH	SPINY DOGFISH	YELLOWTAIL FLOUNDER	WINTER FLOUNDER	AMERICAN PLAICE	WITCH FLOUNDER	WINDOWPANE FLDR	SUMMER FLOUNDER	BLUEFISH	BUTTERFISH	ATL HERRING	ATL MACKEREL	AMERICAN LOBSTER	LOLIGO	ILLEX	TOTAL OTHER	TOTAL ALL
223	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	0	8	19
224	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	8	3	0	18	31
225	0	0	0	0	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	40	47
226	0	0	0	0	11	4	0	3	0	0	0	0	0	0	0	0	3	0	1	0	4	0	112	138
227	0	0	0	0	75	3	0	6	0	0	0	0	0	0	0	0	24	0	0	0	167	0	679	954
228	0	0	0	0	4	1	0	0	13	0	0	0	0	8	0	0	30	0	0	0	0	0	282	338
229	0	0	0	0	12	1	0	0	118	0	1	0	0	1	4	0	21	0	0	1	4	0	378	541
230	0	0	0	0	75	5	0	0	551	2	7	0	0	6	19	0	85	0	0	2	3	0	1009	1764
231	0	0	0	0	1	9	0	0	89	1	0	0	0	46	8	3	0	4	0	0	4	0	512	677
232	0	0	0	0	0	0	0	0	41	0	0	0	0	5	2	3	0	2	0	0	10	0	129	192
233	0	0	0	0	0	1	0	0	2131	0	0	0	0	3	2	12	0	11	0	0	7	0	127	2294
234	0	0	0	0	2	1	0	0	2206	1	0	0	0	3	0	11	1	2	0	0	2	0	1279	3508
235	0	0	0	0	0	1	0	0	7	0	0	0	0	1	1	0	0	0	0	0	49	0	75	134
236	0	0	0	0	8	1	0	0	1774	0	0	0	0	0	0	0	0	0	0	9	38	0	449	2279
237	0	0	0	0	1	0	0	0	17	0	0	0	0	2	0	0	0	0	0	0	62	0	176	258
238	0	0	0	0	0	0	0	0	6	1	0	0	0	1	18	0	0	0	0	0	58	1	113	198
239	0	0	0	0	1	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0	38	0	60	103
240	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	112	0	36	150
241	0	0	0	0	0	0	0	0	9	0	0	0	0	0	5	0	0	0	0	0	106	0	22	142
242	0	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	5	8
243	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	26	1	10	38
244	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	1	18	52
245	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	7	0	0	0	15	2	51	78
246	0	0	0	0	11	1	0	0	0	0	0	0	0	0	0	0	25	0	0	0	11	0	32	80
247	0	0	0	4	12	92	0	73	0	0	0	0	0	0	0	0	1	0	0	7	0	0	252	441
248	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	16	20
249	0	0	0	0	13	26	0	2	2333	0	0	0	0	0	0	0	0	0	0	0	0	4	82	2460
250	0	0	0	0	1	1	0	1	6	0	0	0	0	0	0	0	0	0	0	0	31	1	533	574
251	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	33	1	250	286
252	0	1	0	1	72	37	0	33	260	1	0	0	0	0	8	9	10	0	0	12	6	0	1428	1878
253	0	2	0	1	6	2	0	6	320	2	1	0	0	4	74	33	1	0	0	15	4	1	493	965
254	0	0	0	1	1	0	0	0	285	0	0	0	0	3	0	0	0	0	0	8	22	2	90	412
255	0	0	0	10	12	5	0	0	68	0	0	0	0	7	0	0	0	0	0	0	2	0	343	447
256	0	0	0	1	2	0	0	12	167	0	0	0	0	1	0	0	0	0	0	0	4	0	176	363
257	0	0	0	4	21	7	0	44	1010	2	0	0	0	11	0	0	0	0	0	0	17	1	412	1529
258	0	0	0	2	28	2	0	11	319	0	0	0	0	16	5	0	2	0	0	0	9	1	281	676
259	0	0	0	0	2	1	0	0	160	0	0	0	0	12	0	0	2	0	0	0	2	0	198	377

Table 2 (cont.): Catch summary (lbs) of important species by haul from NOAA Fisheries, Northeast Fisheries Science Center's autumn bottom trawl survey, 3 September - 14 November 2019

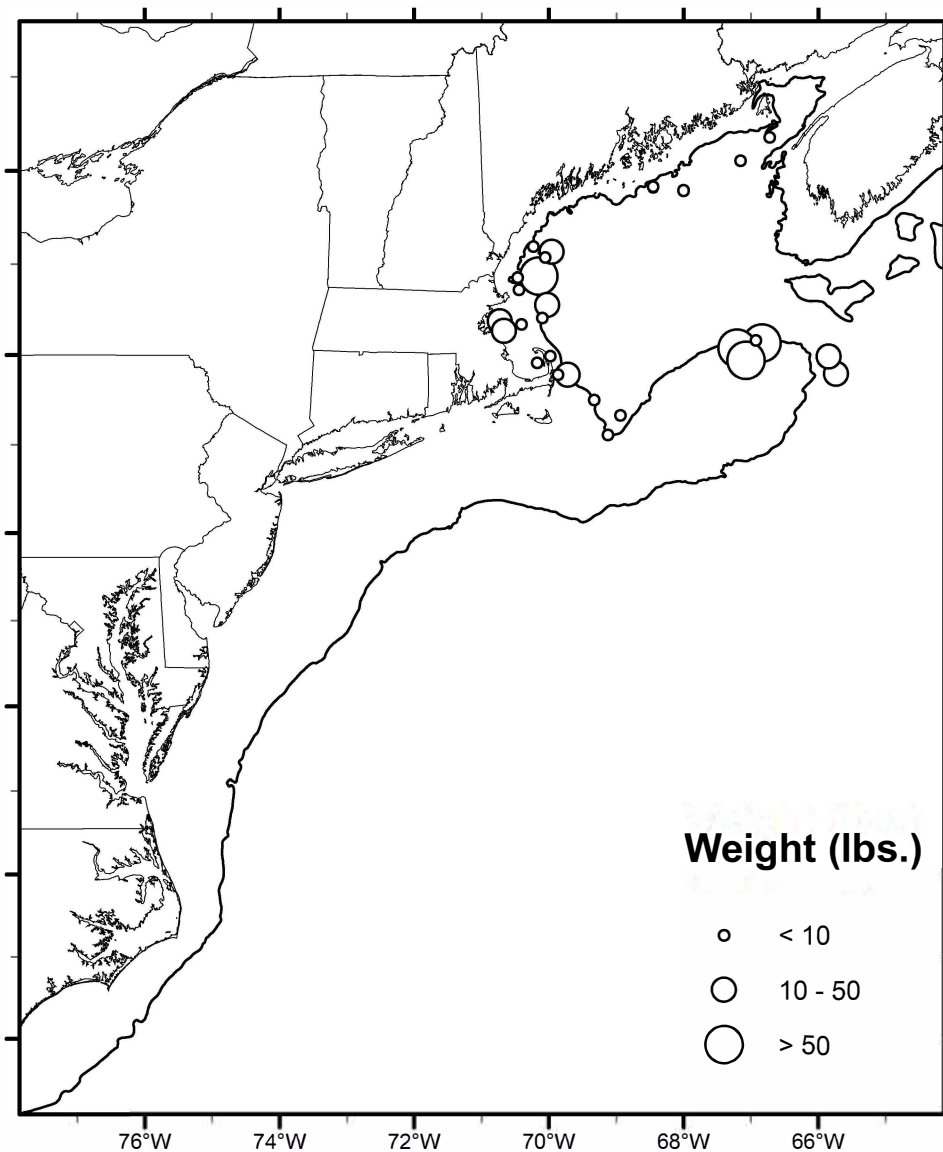| STATION	ATLANTIC COD	HADDOCK	POLLOCK	WHITE HAKE	SILVER HAKE	RED HAKE	REDFISH	GOOSEFISH	SPINY DOGFISH	YELLOWTAIL FLOUNDER	WINTER FLOUNDER	AMERICAN PLAICE	WITCH FLOUNDER	WINDOWPANE FLDR	SUMMER FLOUNDER	BLUEFISH	BUTTERFISH	ATL HERRING	ATL MACKEREL	AMERICAN LOBSTER	LOLIGO	ILLEX	TOTAL OTHER	TOTAL ALL
260	0	0	0	3	5	1	0	0	587	0	0	0	0	10	4	5	1	0	0	0	2	0	468	1086
261	0	0	0	0	1	0	0	0	488	0	0	0	0	2	9	0	2	11	0	0	8	1	130	652
262	0	0	0	0	157	12	0	0	4	1	127	0	0	36	0	0	3	0	2	7	4	0	279	632
263	0	0	0	0	355	27	0	3	0	9	196	0	0	33	8	0	14	0	0	76	1	0	233	955
264	0	0	0	0	174	8	0	0	0	3	71	0	0	4	0	0	3	1	0	49	2	0	222	537
265	0	6	0	1	3	8	0	42	5	0	9	0	0	0	0	0	0	185	0	24	0	1	645	929
266	0	26	0	2	12	13	0	15	754	0	217	0	0	8	0	0	4	8	0	30	5	0	3513	4607
267	0	24	0	0	3	2	0	44	326	0	0	0	0	1	0	0	0	1	0	0	1	0	144	546
268	167	201	0	0	14	2	0	38	222	0	19	0	0	0	0	0	1	0	2	12	3	0	323	1004
269	68	24	0	14	3	6	0	0	275	0	82	0	0	11	0	0	2	0	0	167	21	0	688	1361
270	0	106	0	2	13	7	0	7	67	5	12	0	0	1	0	0	0	0	4	79	1	1	212	517
271	0	49	0	1	3	9	0	10	72	2	12	0	0	2	0	0	0	0	1	79	0	0	153	393
272	0	0	0	9	3	1	0	0	760	0	19	0	0	0	0	0	45	0	0	36	4	1	217	1095
273	0	0	0	4	95	1	0	13	717	0	0	0	0	1	0	0	7	1	1	2	0	0	551	1393
274	0	0	0	1	2	1	0	0	896	0	4	0	0	13	0	0	11	0	1	0	2	0	440	1371
275	0	0	0	6	2	5	0	2	81	0	0	0	0	3	0	0	1	0	1	0	8	1	119	229
276	0	0	0	0	59	1	0	0	158	18	0	0	0	5	18	0	12	0	0	19	24	4	373	691
277	0	3	0	0	9	14	0	13	133	3	0	0	0	12	0	0	4	0	0	13	13	2	648	867
278	0	1	0	2	15	280	0	67	270	0	0	0	0	0	0	0	9	0	0	12	1	2	573	1232
279	0	0	0	0	21	15	0	0	379	0	0	0	0	0	0	0	0	0	0	9	0	1	219	644
280	0	0	0	0	24	46	0	12	8086	0	0	0	0	0	0	0	0	0	0	8	0	3	233	8412
281	0	0	0	9	0	0	24	136	0	0	0	0	1	0	0	0	0	0	0	38	0	18	169	395
282	0	0	0	1	177	41	0	13	409	0	0	0	0	0	0	0	4	0	0	2	0	0	93	740
283	0	2	0	2	27	68	0	113	235	2	0	0	0	0	0	0	3	0	0	29	1	5	700	1187
284	0	5	0	13	57	120	0	109	77	0	0	0	0	0	0	0	1	0	0	30	1	0	1009	1422
285	0	0	0	0	9	6	0	0	230	2	0	1	0	6	0	0	2	0	0	160	1	3	295	715
286	0	7	0	1	5	27	0	0	8	13	0	0	0	0	0	0	0	0	0	11	0	3	397	472
287	0	11	0	14	24	52	0	64	15	5	0	0	0	0	0	0	0	0	0	5	0	0	437	627
288	0	24	0	0	3	23	0	2	19	17	0	0	0	0	0	0	0	0	0	19	0	0	229	336
289	0	0	0	3	62	13	0	6	2	0	0	0	0	0	0	0	0	0	0	9	0	1	170	266
290	0	10	0	1	33	6	0	0	135	0	0	0	0	0	0	0	0	0	0	8	0	34	45	272
291	0	1	0	0	90	9	0	6	0	6	0	0	0	0	0	0	1	0	0	17	0	0	133	263
292	0	4	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	11	22
293	21	174	0	25	19	3	0	0	20	0	0	0	0	0	0	0	0	0	0	18	0	8	59	347
294	21	243	5	14	29	2	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	1	96	419
295	0	13	0	1	0	4	0	0	10	0	0	0	0	0	0	0	0	0	0	4	0	0	28	60
296	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	156	163

Table 2 (cont.): Catch summary (lbs) of important species by haul from NOAA Fisheries, Northeast Fisheries Science Center's autumn bottom trawl survey, 3 September - 14 November 2019

STATION	ATLANTIC COD	HADDOCK	POLLOCK	WHITE HAKE	SILVER HAKE	RED HAKE	REDFISH	GOOSEFISH	SPINY DOGFISH	YELLOWTAIL FLOUNDER	WINTER FLOUNDER	AMERICAN PLAICE	WITCH FLOUNDER	WINDOWPANE FLDR	SUMMER FLOUNDER	BLUEFISH	BUTTERFISH	ATL HERRING	ATL MACKEREL	AMERICAN LOBSTER	LOLIGO	ILLEX	TOTAL OTHER	TOTAL ALL
297	0	146	0	3	8	0	1	0	88	0	0	0	0	0	0	0	0	0	0	0	0	0	127	373
298	0	384	0	4	87	9	0	0	1	0	0	0	1	0	0	0	0	0	0	114	0	0	52	652
299	0	3	0	1	120	24	0	2	0	0	0	0	8	0	0	0	0	1	0	51	0	5	57	272
300	0	10	0	2	103	81	0	15	1	0	0	1	9	0	0	0	0	2	0	63	0	6	102	395
301	264	231	3	0	0	0	0	0	0	0	25	0	0	0	0	0	0	0	0	39	0	0	284	846
302	0	70	0	7	7	18	0	9	3	2	15	2	0	0	0	0	0	0	0	4	0	1	523	661
303	0	1524	11	23	51	24	12	11	16	0	0	0	0	0	0	0	0	4	0	4	0	1	115	1796
304	0	529	0	5	113	65	61	18	1	0	0	0	0	0	0	0	0	4	0	20	0	1	79	896
305	0	2	0	3	25	3	0	0	995	0	5	0	0	38	0	13	3	1	0	3	2	0	1641	2734
306	0	0	0	0	60	23	0	21	6	0	6	0	0	0	0	0	1	2	0	18	0	0	359	496
307	0	7	0	6	34	23	0	79	0	0	8	0	0	0	0	0	0	0	0	0	0	2	482	641
308	0	0	0	4	30	1	0	0	410	0	0	0	0	3	3	0	11	1	0	0	2	0	490	955
309	0	0	0	2	1	0	0	10	220	0	0	0	0	7	2	0	7	0	0	0	3	0	213	465
310	0	0	0	3	7	1	0	9	742	0	0	0	0	22	0	0	9	0	1	0	1	1	185	981
311	0	10	0	4	6	20	0	14	14	0	32	5	0	0	0	0	0	1	0	3	1	4	129	243
312	3	67	0	0	6	18	47	21	83	0	4	2	0	0	0	0	0	1	0	29	1	2	126	410
313	0	4	0	2	8	4	0	9	372	2	10	0	0	0	0	0	1	65	0	0	1	1	131	610
314	0	0	0	0	1	12	0	9	377	0	4	0	0	0	0	0	0	1	0	0	1	0	111	516
315	0	15	0	0	48	69	0	4	2091	2	8	0	0	0	0	0	0	0	1	28	0	0	241	2507
316	0	0	0	0	258	27	0	0	0	12	64	0	0	16	2	0	3	0	4	17	9	0	82	494
317	0	0	0	0	422	14	0	0	0	2	15	0	0	2	0	0	1	7	1	75	0	0	92	631
318	0	0	0	1	374	19	0	2	0	4	15	0	0	1	1	0	0	4	0	72	0	0	55	548
320	0	0	0	0	294	48	0	2	3	13	36	0	0	34	3	0	1	1	1	85	1	0	379	901
321	0	2	0	0	213	47	0	25	0	20	7	1	0	1	0	0	0	6	0	121	0	0	130	573
322	0	0	0	0	5	0	0	0	0	1	22	0	0	1	0	0	9	1	12	150	15	0	70	286
323	0	0	0	0	1	1	0	0	0	6	37	0	0	0	0	0	24	1	5	175	22	0	84	356
324	4	33	0	0	272	57	114	10	4	4	6	69	2	0	0	0	0	1	1	5	3	0	108	693
325	0	7	0	0	0	0	16	0	0	0	3	2	0	0	0	0	0	1	21	2	0	0	27	79
326	0	0	0	1	92	3	1	0	0	14	16	0	0	2	0	0	1	2	2	49	0	0	56	239
327	0	7	0	3	146	44	0	15	0	65	15	4	2	1	0	0	0	1	0	148	0	0	185	636
328	0	5	0	28	167	77	201	172	159	0	1	7	30	0	0	0	0	1	1	0	0	0	124	973
329	14	11	0	0	77	98	120	51	145	0	0	15	52	0	0	0	0	1	1	0	0	0	193	778
330	0	37	0	22	344	9	62	19	147	0	0	10	0	0	0	0	0	0	0	0	0	7	24	681
331	0	56	0	7	163	6	5	33	55	0	0	7	0	0	0	0	0	0	1	0	0	1	27	361
332	0	335	0	20	114	8	341	36	25	0	0	5	0	0	0	0	0	0	1	0	0	5	22	912
333	0	192	0	22	340	9	6	35	16	0	0	20	1	0	0	0	0	0	2	0	0	0	40	683
334	0	67	0	4	96	20	62	24	18	0	0	16	2	0	0	0	0	0	1	0	0	0	65	375

Table 2 (cont.): Catch summary (lbs) of important species by haul from NOAA Fisheries, Northeast Fisheries Science Center's autumn bottom trawl survey, 3 September - 14 November 2019

STATION	ATLANTIC COD	HADDOCK	POLLOCK	WHITE HAKE	SILVER HAKE	RED HAKE	REDFISH	GOOSEFISH	SPINY DOGFISH	YELLOWTAIL FLOUNDER	WINTER FLOUNDER	AMERICAN PLAICE	WITCH FLOUNDER	WINDOWPANE FLDR	SUMMER FLOUNDER	BLUEFISH	BUTTERFISH	ATL HERRING	ATL MACKEREL	AMERICAN LOBSTER	LOLIGO	ILLEX	TOTAL OTHER	TOTAL ALL
335	0	57	0	8	92	52	72	18	4	0	0	10	20	0	0	0	0	2	0	0	0	0	64	399
336	0	108	0	4	384	99	2	18	30	0	0	4	9	0	0	0	0	23	0	5	0	0	200	886
337	0	365	0	1	99	57	14	10	22	0	0	1	5	0	0	0	0	1	0	2	0	0	70	647
338	0	184	0	12	47	10	152	12	64	0	0	0	1	0	0	0	0	1	0	0	0	1	24	508
339	0	197	0	5	116	16	23	16	100	0	0	0	7	0	0	0	0	1	0	3	0	0	63	547
340	0	124	0	7	67	14	18	10	20	0	0	10	8	0	0	0	0	3	0	0	0	1	37	319
341	0	95	0	0	123	26	29	77	65	0	0	15	3	0	0	0	0	2	0	0	0	1	42	478
342	0	52	0	22	119	14	59	29	172	0	0	5	11	0	0	0	0	1	0	0	0	1	64	549
343	0	34	5	2	73	8	35	36	22	0	0	25	2	0	0	0	0	2	0	0	0	0	25	269
344	0	0	0	20	52	24	64	26	13	0	0	10	1	0	0	0	0	2	0	0	0	0	64	276
345	0	67	0	29	127	30	183	12	11	0	0	20	4	0	0	0	0	0	0	0	0	0	76	559
346	0	68	0	45	88	8	82	33	101	0	0	3	13	0	0	0	0	0	0	3	0	0	21	465
347	0	4	0	18	26	10	23	6	65	0	0	0	2	0	0	0	0	0	0	2	0	0	31	187
348	0	3	0	36	130	1	0	11	1	0	0	1	0	0	0	0	0	0	0	3	0	0	45	231
349	0	74	0	11	129	1	0	51	2	0	0	1	2	0	0	0	0	0	0	3	0	1	116	391
350	0	14	0	15	13	10	45	0	440	0	0	0	2	0	0	0	0	0	0	4	0	0	94	637
351	0	0	0	33	51	8	1	51	68	0	0	3	4	0	0	0	0	1	0	0	0	0	21	241
352	0	68	185	33	46	10	71	39	561	0	0	2	2	0	0	0	0	0	0	0	0	0	96	1113
353	0	8	4	13	7	9	20	0	1664	0	0	0	0	0	0	0	0	0	0	11	0	0	18	1754
354	0	16	33	21	14	6	56	2	457	0	0	2	2	0	0	0	0	0	0	9	0	0	52	670
355	0	15	0	0	20	38	1	93	123	0	0	0	2	0	0	0	0	1	1	5	0	8	162	469
356	0	47	0	12	98	9	10	71	45	0	0	1	2	0	0	0	0	5	0	8	0	1	42	351
357	0	1	46	53	83	2	12	59	98	0	0	0	7	0	0	0	0	1	0	8	0	0	28	398
358	0	0	0	11	31	9	11	22	16	0	0	1	3	0	0	0	0	16	1	10	0	1	51	183
359	0	0	0	74	51	8	66	28	47	0	0	0	2	0	0	0	0	3	0	12	0	0	32	323
360	2	19	1	0	5	1	0	17	3	0	3	0	0	0	0	0	0	1	0	51	0	0	59	162
361	8	0	0	4	90	12	3	0	10	0	0	0	1	0	0	0	0	3	3	55	0	3	93	285
362	0	0	0	7	132	7	12	0	0	0	0	0	0	0	0	0	0	5	2	32	0	0	52	249
363	0	0	0	8	146	7	101	0	17	0	0	0	0	0	0	0	0	21	4	41	0	0	108	453
364	0	3	0	41	32	1	1	19	468	0	0	0	1	0	0	0	0	2	1	9	0	0	20	598
365	0	0	0	14	13	7	0	11	127	0	0	0	4	0	0	0	0	1	0	31	0	0	103	311
366	0	0	0	27	214	4	16	35	126	0	0	0	5	0	0	0	0	1	2	21	0	0	21	472
367	0	2	0	34	374	85	0	19	3	0	0	20	8	0	0	0	0	2	0	87	0	2	96	732
368	3	12	0	12	360	26	0	15	4	0	0	4	1	0	0	0	0	4	0	3	0	2	47	493
369	0	0	0	10	73	15	0	2	0	0	1	0	4	0	0	0	0	1	1	179	0	1	33	321
370	0	0	0	10	148	24	2	2	0	0	2	0	4	0	0	0	0	0	0	183	0	1	46	422
371	0	15	0	42	231	71	0	28	0	0	2	16	2	0	0	0	0	1	12	68	0	3	108	600

Table 2 (cont.): Catch summary (lbs) of important species by haul from NOAA Fisheries, Northeast Fisheries Science Center's autumn bottom trawl survey, 3 September - 14 November 2019

STATION	ATLANTIC COD	HADDOCK	POLLOCK	WHITE HAKE	SILVER HAKE	RED HAKE	REDFISH	GOOSEFISH	SPINY DOGFISH	YELLOWTAIL FLOUNDER	WINTER FLOUNDER	AMERICAN PLAICE	WITCH FLOUNDER	WINDOWPANE FLDR	SUMMER FLOUNDER	BLUEFISH	BUTTERFISH	ATL HERRING	ATL MACKEREL	AMERICAN LOBSTER	LOLIGO	ILLEX	TOTAL OTHER	TOTAL ALL
372	2	15	0	38	385	56	1	29	4	0	0	13	5	0	0	0	1	26	2	76	0	4	102	759
373	0	2	0	67	888	130	0	76	13	0	0	0	6	0	0	0	1	21	1	22	0	6	172	1405
374	0	21	0	33	335	108	0	53	6	0	0	6	27	0	0	0	0	3	0	24	0	0	121	737
375	0	11	0	22	65	60	25	71	33	0	0	42	50	0	0	0	0	11	0	3	0	1	130	524
376	0	92	0	20	62	49	324	11	138	0	0	17	15	0	0	0	0	18	1	0	0	3	98	848
377	0	40	0	27	72	26	103	96	89	0	0	12	7	0	0	0	0	3	0	0	0	5	54	534
378	0	99	0	7	44	50	431	77	110	0	0	8	14	0	0	0	0	1	0	0	0	2	94	937
379	0	1	0	14	75	12	1	1	4	1	0	39	2	0	0	0	0	1	3	229	0	0	41	424
380	0	26	0	15	174	50	0	39	0	1	0	11	8	0	0	0	0	1	1	35	0	1	66	428
381	0	44	0	23	133	72	2	43	60	0	0	15	30	0	0	0	0	1	1	8	0	3	129	564
382	0	9	0	8	168	53	1	20	3	1	0	21	7	0	0	0	0	1	7	21	0	2	234	556
383	38	39	0	12	115	49	347	31	75	0	0	6	17	0	0	0	0	1	1	0	0	6	93	830
384	4	181	7	0	1	1	0	9	85	1	22	0	0	0	0	0	0	1	0	2	0	0	15	329
385	0	84	0	2	166	61	0	55	0	0	0	24	6	0	0	0	0	1	1	65	0	1	105	571
386	50	842	7	2	155	19	0	18	25	14	13	0	0	0	0	0	0	1	5	1	0	4	210	1366
387	0	1	0	3	119	50	2	17	7	2	0	27	8	0	0	0	0	5	0	9	0	1	101	352
388	3	23	0	1	93	34	5	19	0	7	14	2	1	0	0	0	0	1	1	50	0	1	85	340
389	0	0	0	1	83	8	0	30	0	63	47	0	3	7	0	0	0	3	1	106	1	0	132	485
390	16	0	0	0	8	10	122	0	0	2	57	0	0	0	0	0	1	2	4	106	4	0	232	564
391	16	0	0	0	0	0	1	0	0	1	17	0	0	0	0	0	1	1	97	90	1	0	111	336
392	1	647	0	0	112	33	0	54	4	55	23	0	0	0	0	0	6	1	33	0	11	2	223	1205
393	0	4	0	0	83	2	0	0	0	112	15	0	0	2	0	0	1	141	36	77	5	8	307	793
394	0	11	0	21	136	15	7	9	267	1	0	3	2	0	0	0	0	1	0	0	0	0	32	505
395	0	11	0	6	102	91	8	28	32	1	0	20	20	0	0	0	0	2	0	0	0	0	98	419
396	0	0	0	0	5	0	0	0	0	16	8	0	0	2	0	0	3	1	257	3	19	0	323	637
397	0	0	0	0	0	0	0	0	0	5	13	0	0	2	0	0	0	16	537	0	13	0	615	1201
398	7	0	0	0	38	1	0	1	14	10	16	0	0	1	3	0	6	28	1806	65	17	1	1977	3991
399	24	2	0	13	1147	136	1	6	2258	0	0	4	4	0	0	0	0	510	1	11	0	0	682	4799
400	0	3	0	1	59	12	0	0	14559	3	0	0	0	0	0	0	0	52	7	27	1	0	83	14807
401	0	15	0	0	10	4	0	0	1392	12	0	0	0	0	0	0	0	0	11	20	1	1	126	1592
403	0	4	0	0	19	5	0	7	0	41	31	0	0	1	0	0	1	1	4	9	5	0	185	313
404	0	2	0	1	27	39	0	11	93	1	8	0	0	0	0	0	0	1	0	90	0	0	390	663
405	0	0	0	9	147	111	78	60	22	0	0	1	18	0	0	0	0	19	0	4	0	0	160	629
406	0	63	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	8	73
TOTAL	736	8649	307	1386	17473	4792	3716	4283	58165	594	1530	592	503	518	887	155	2441	1338	2904	4483	4973	1378	79534	201337

Figure 3: Total number of Atlantic cod (left panel) and haddock (right panel) per tow from NOAA Fisheries, Northeast Fisheries Science Center's autumn bottom trawl survey, 3 September - 14 November 2019
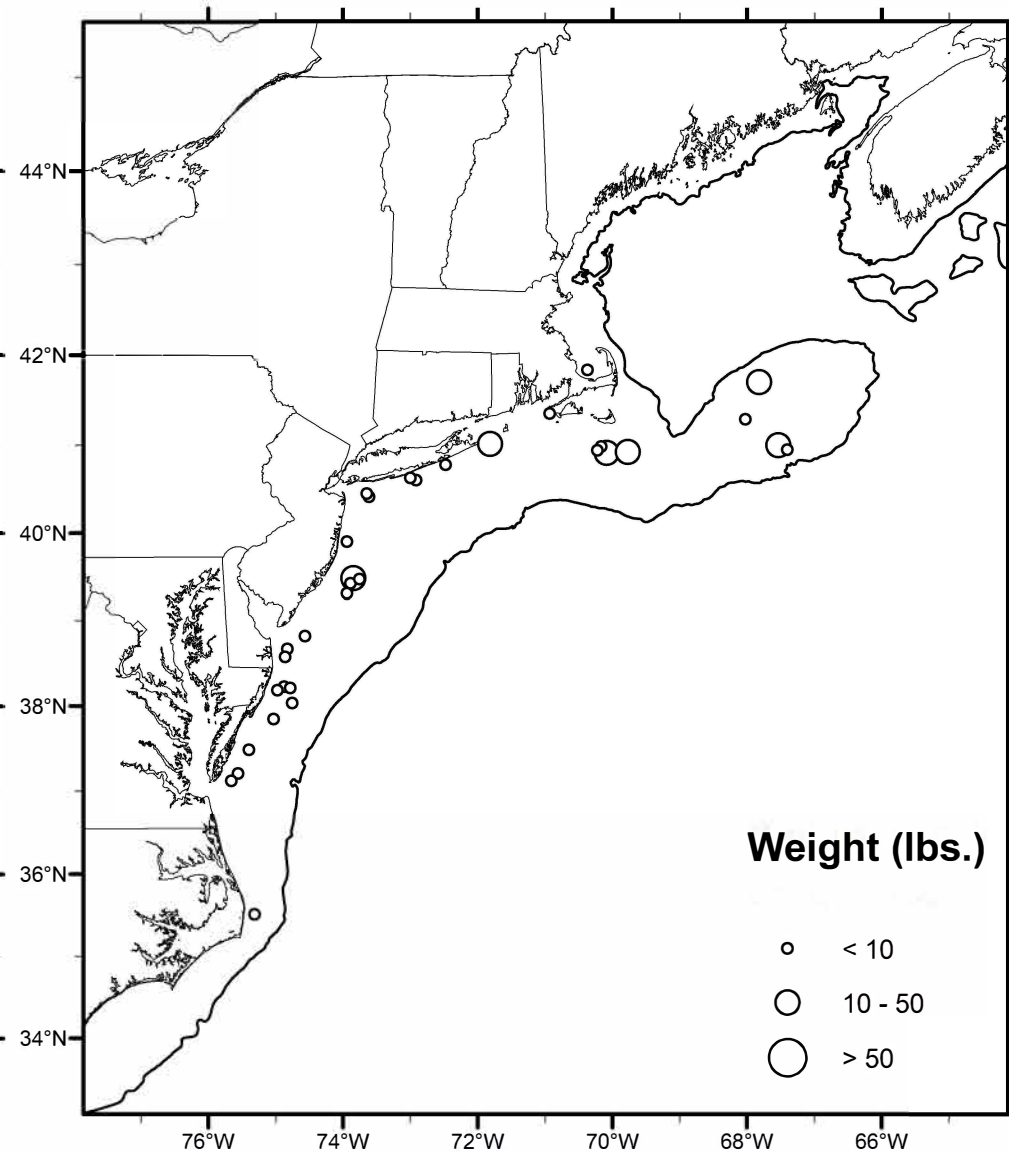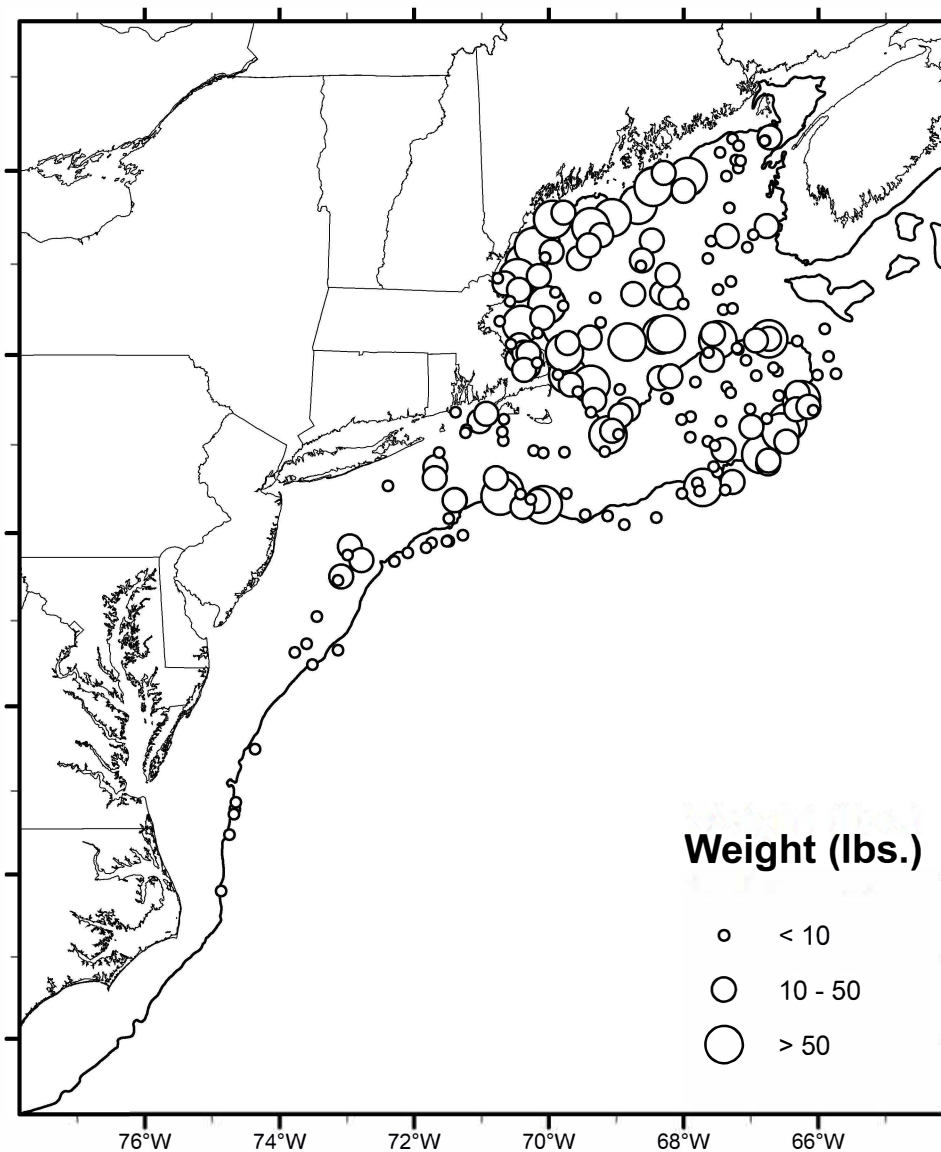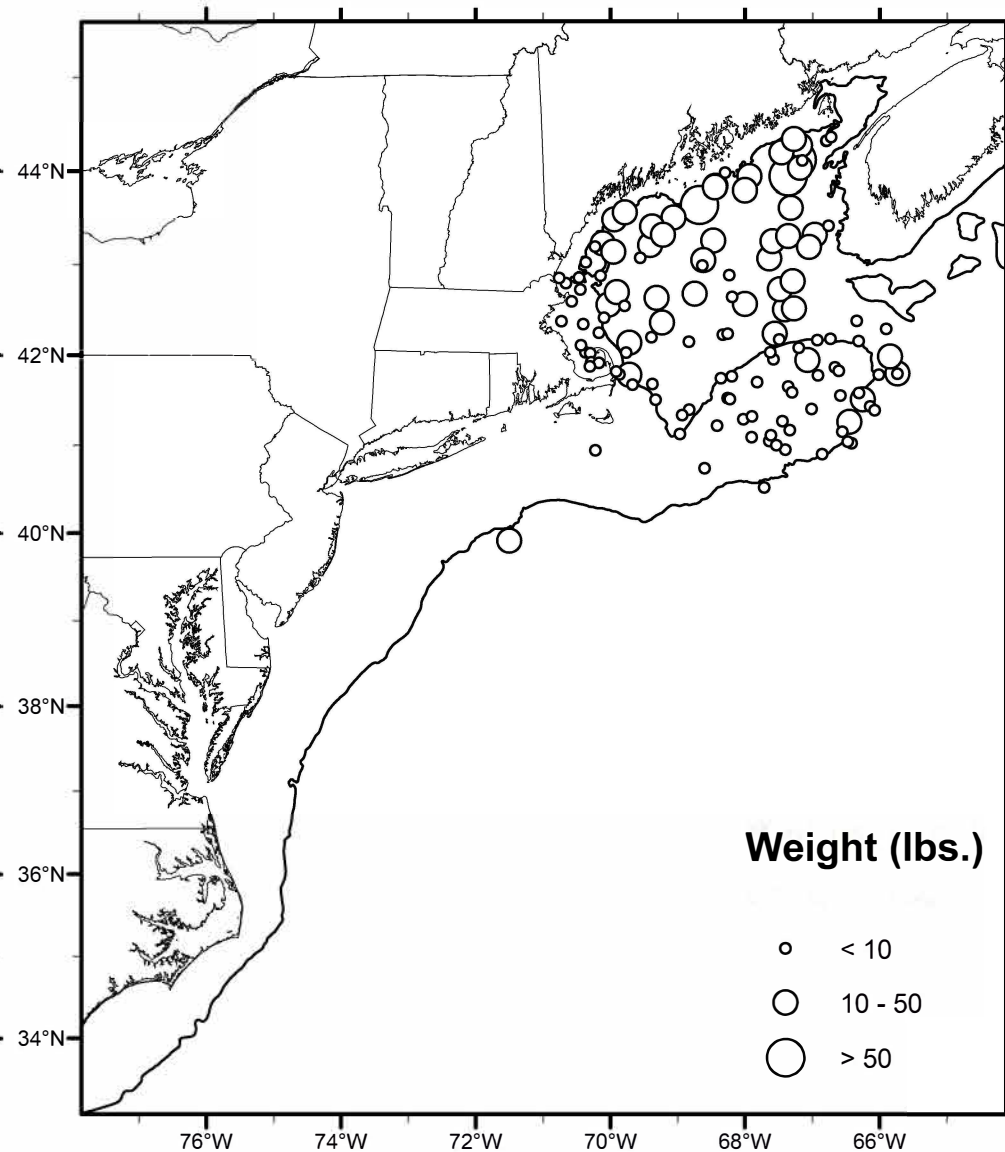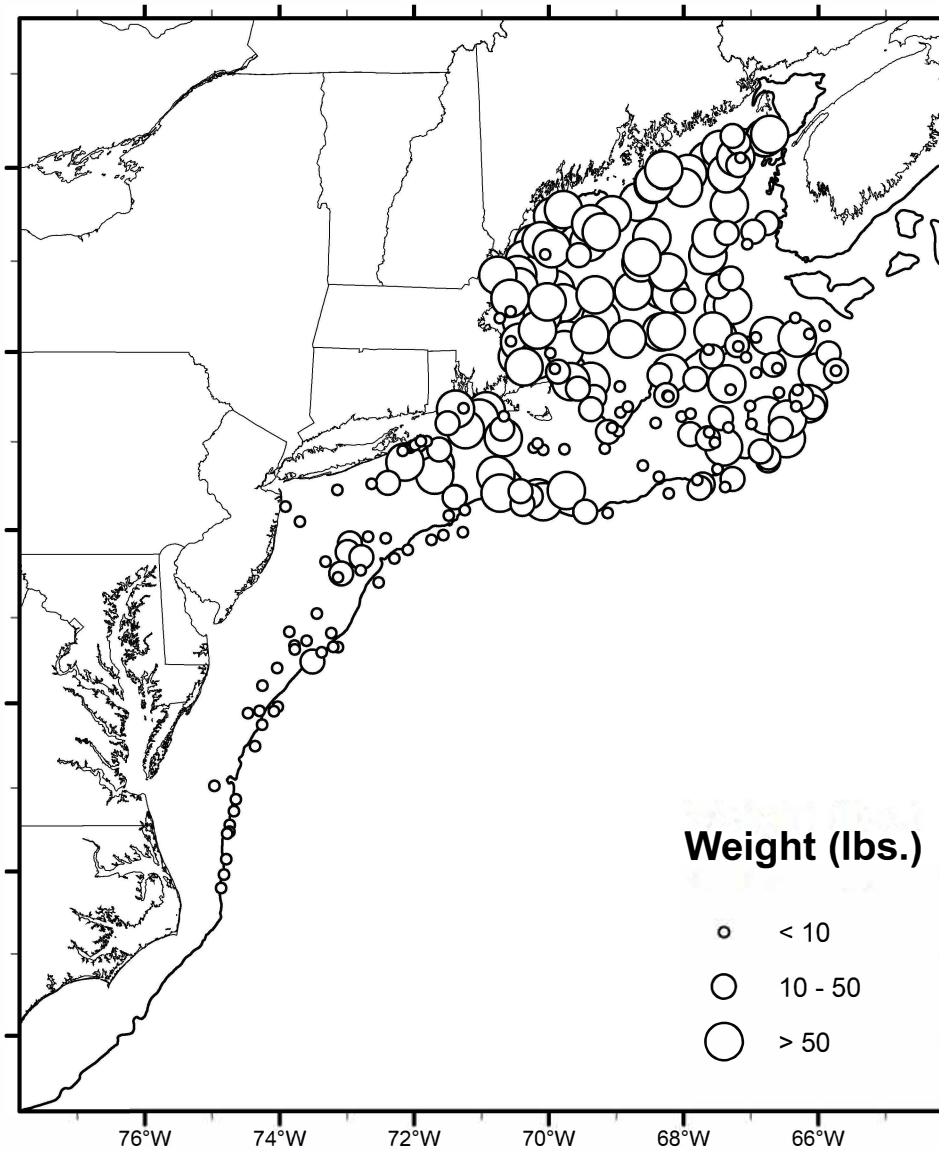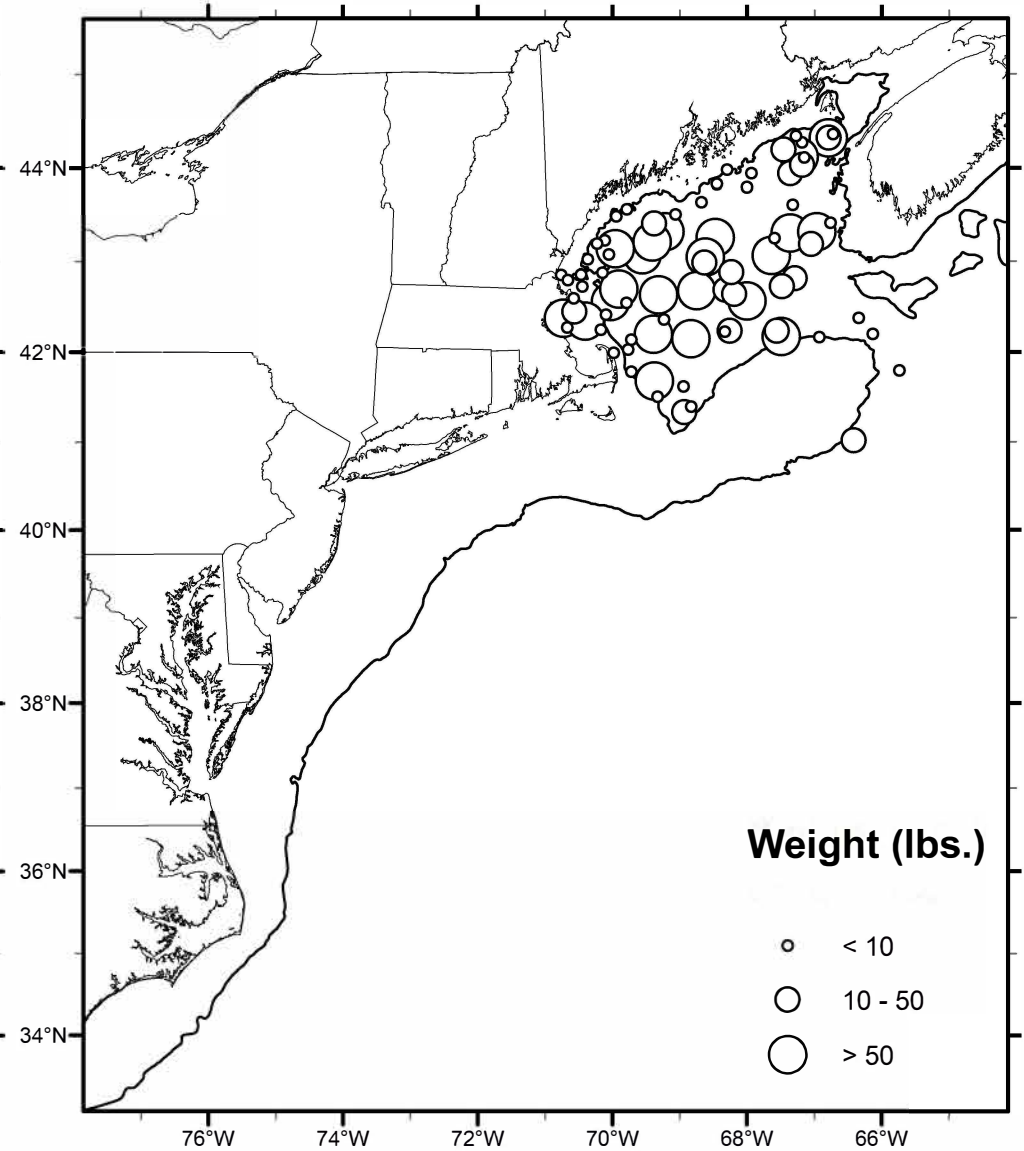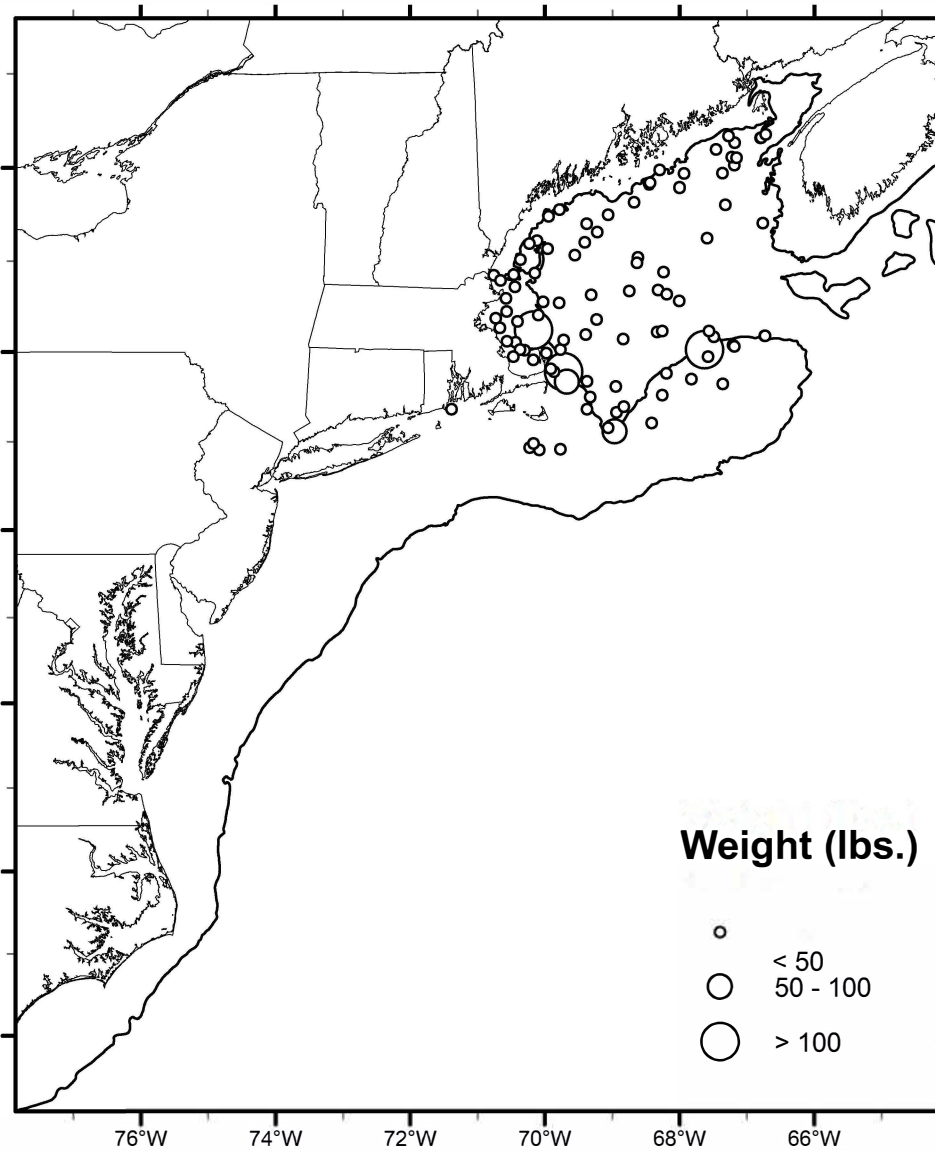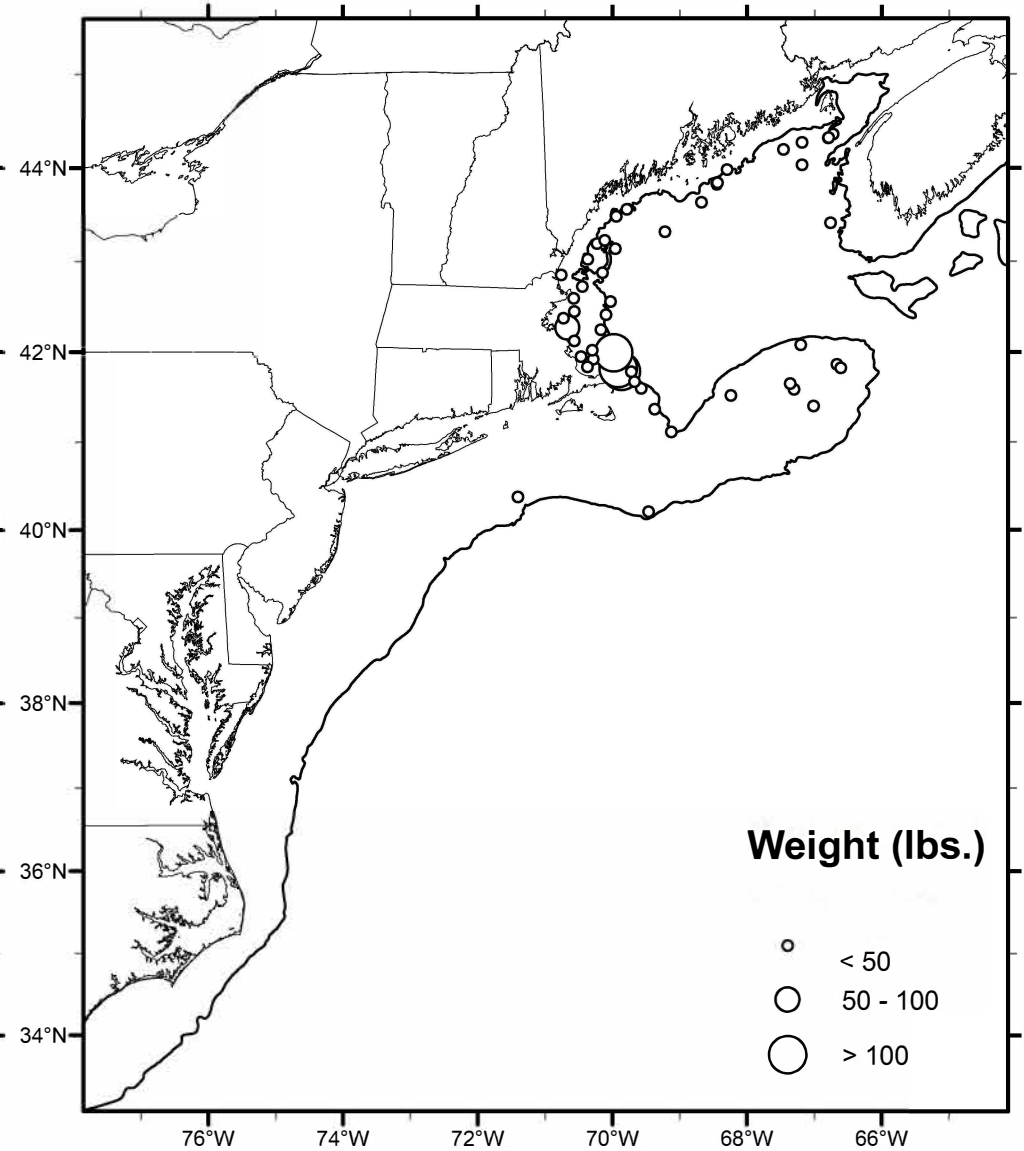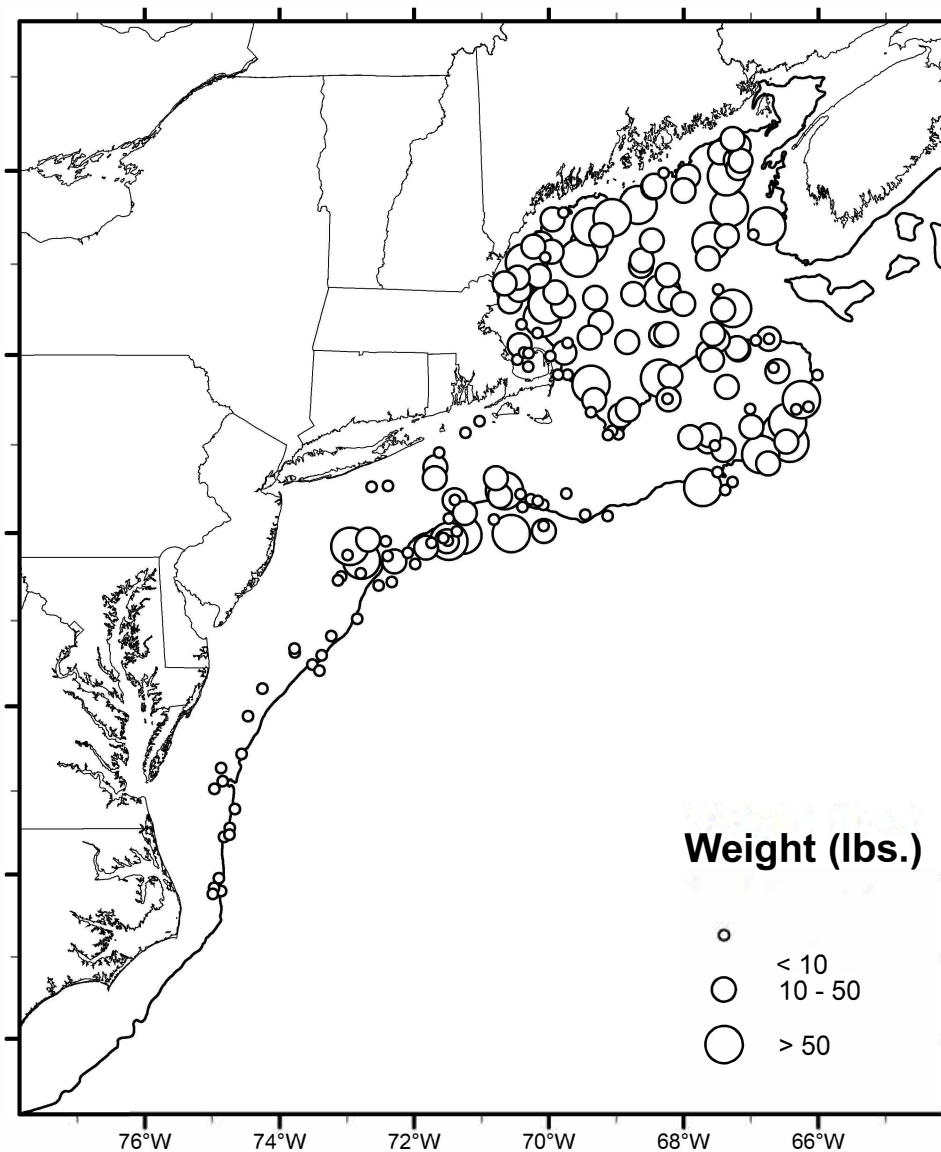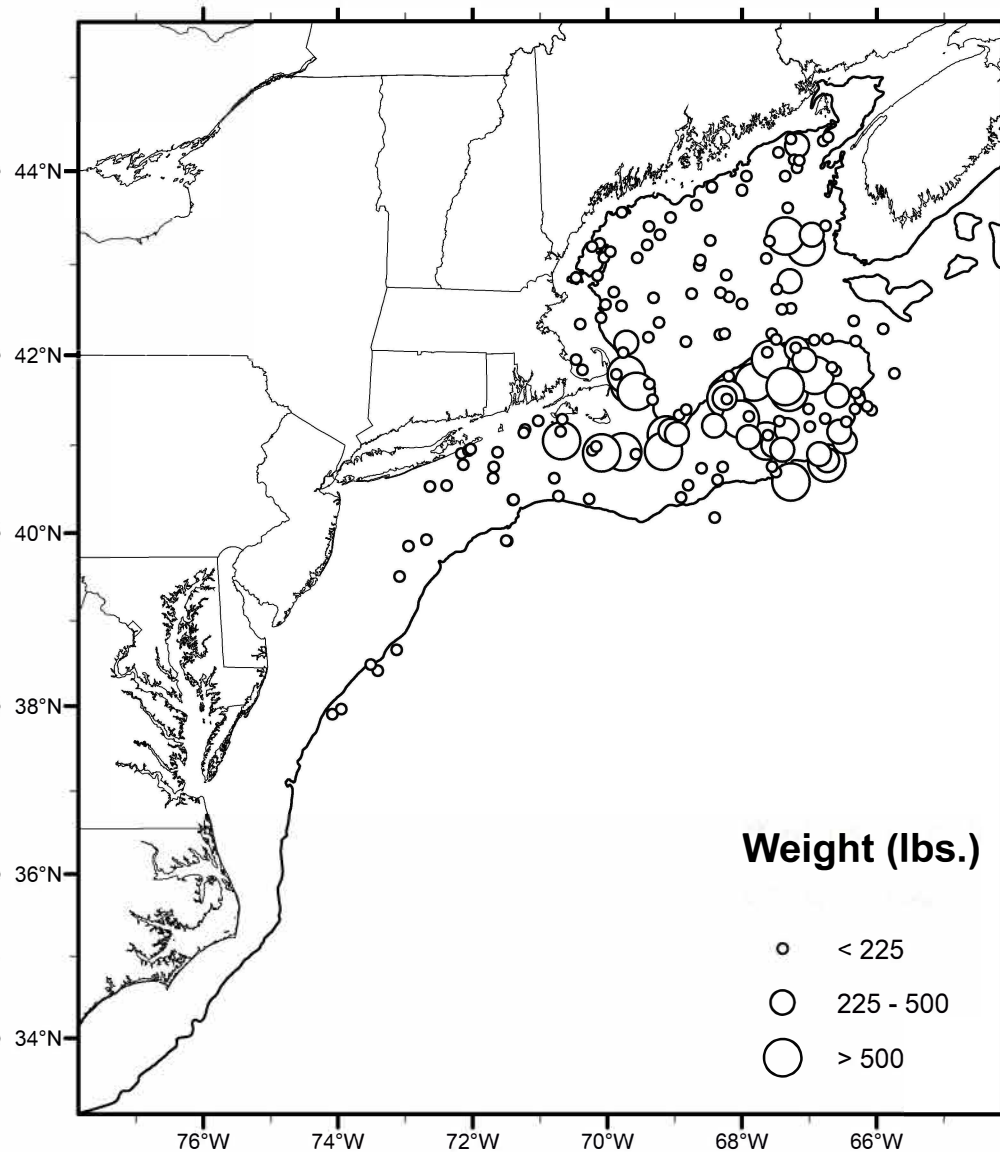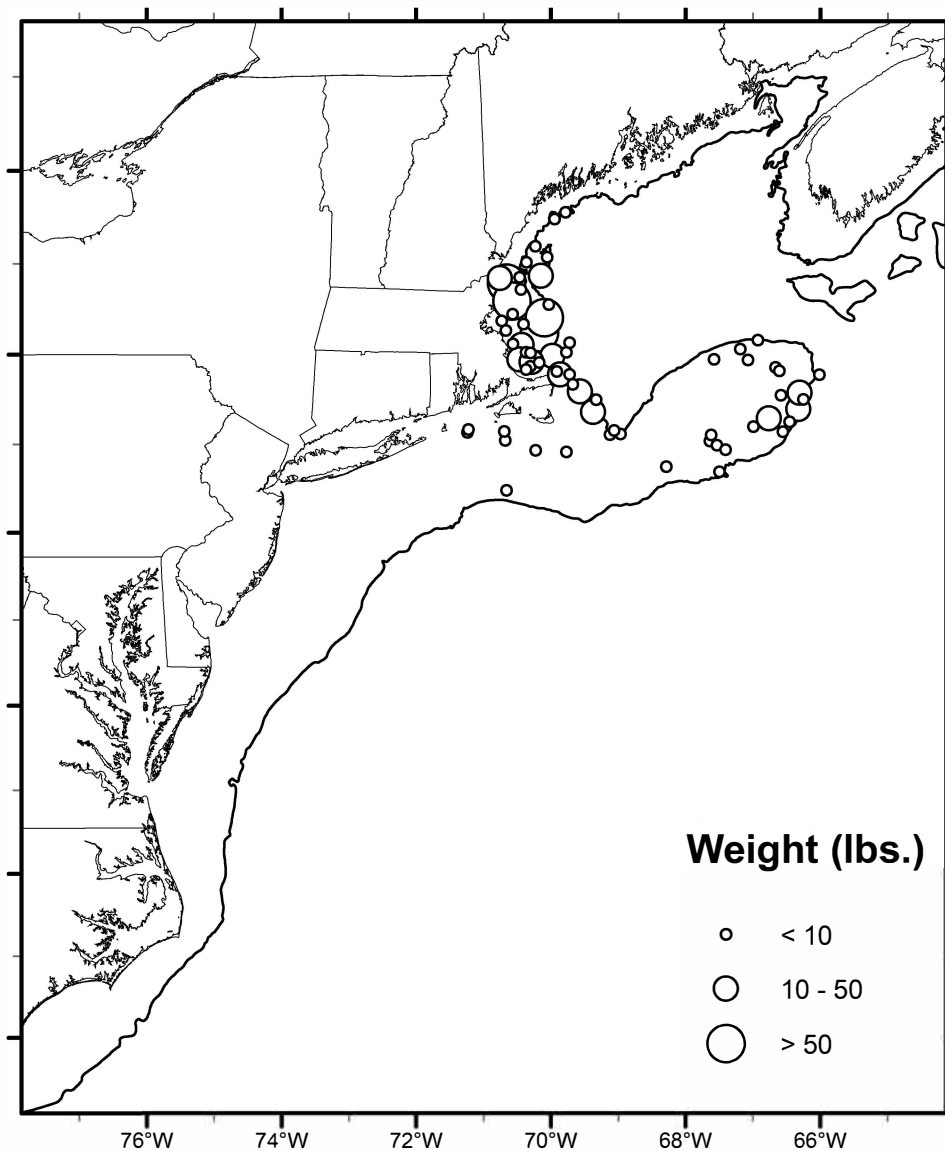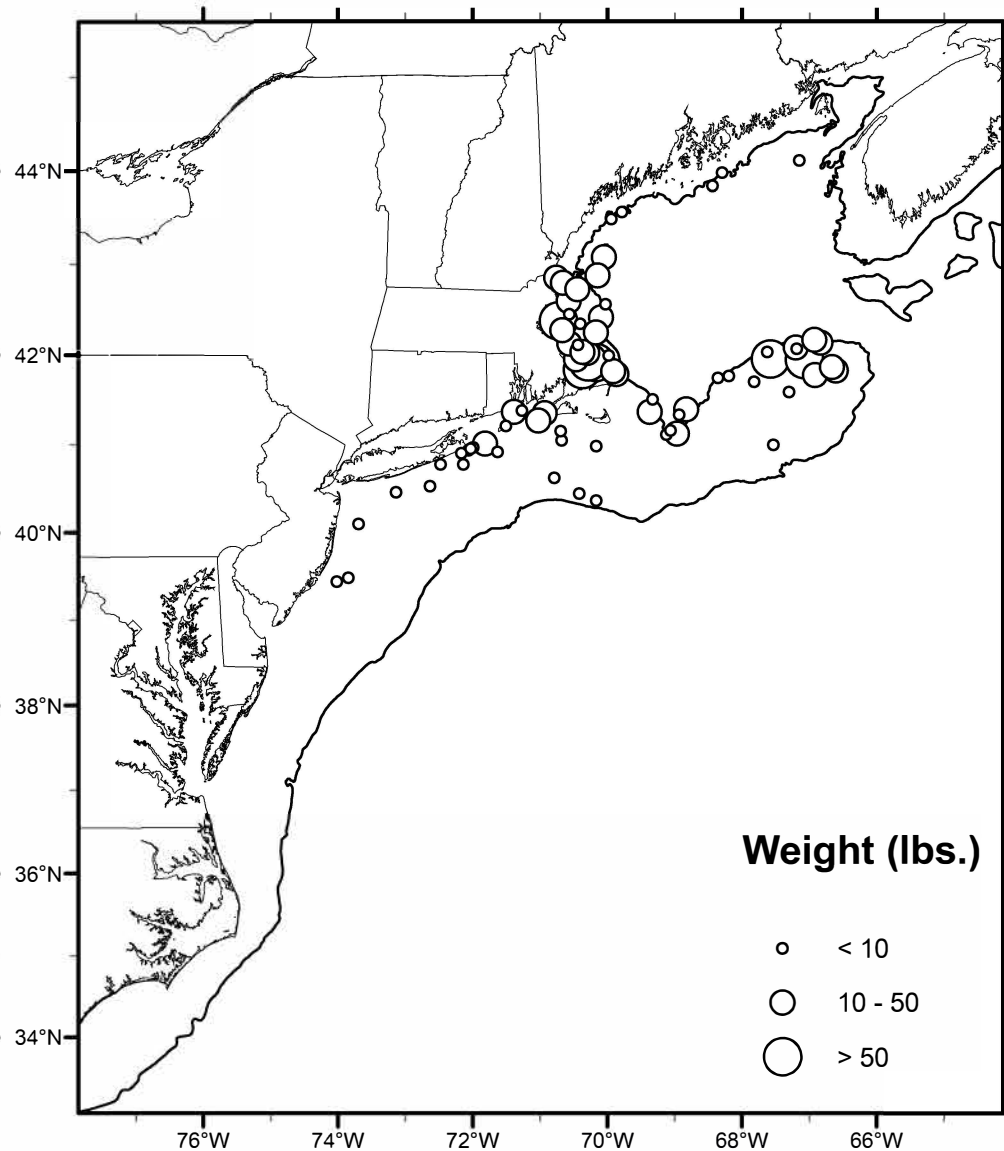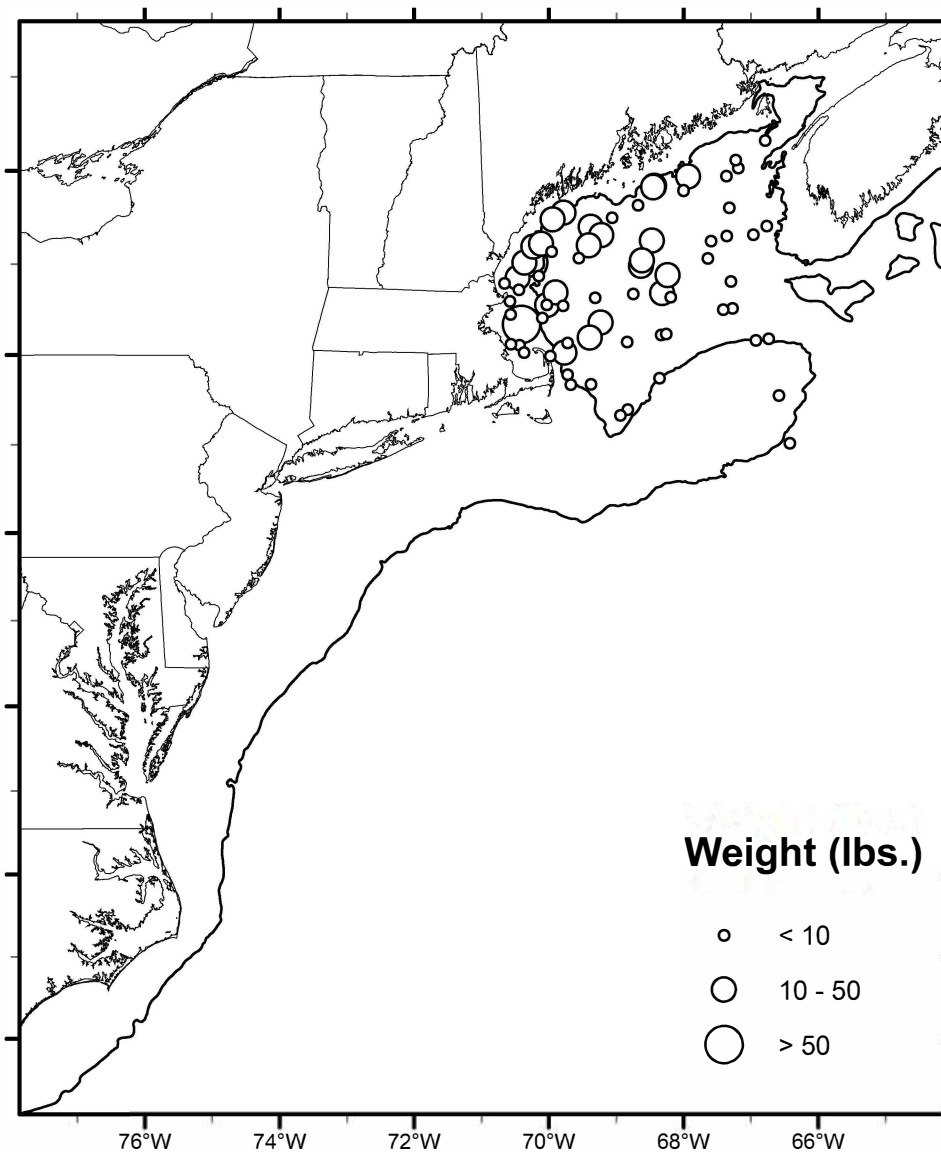
Figure 4: Total number of pollock (left panel) and bluefish (right panel) per tow from NOAA Fisheries, Northeast Fisheries Science Center's autumn bottom trawl survey, 3 September - 14 November 2019

RED HAKE

WHITE HAKE
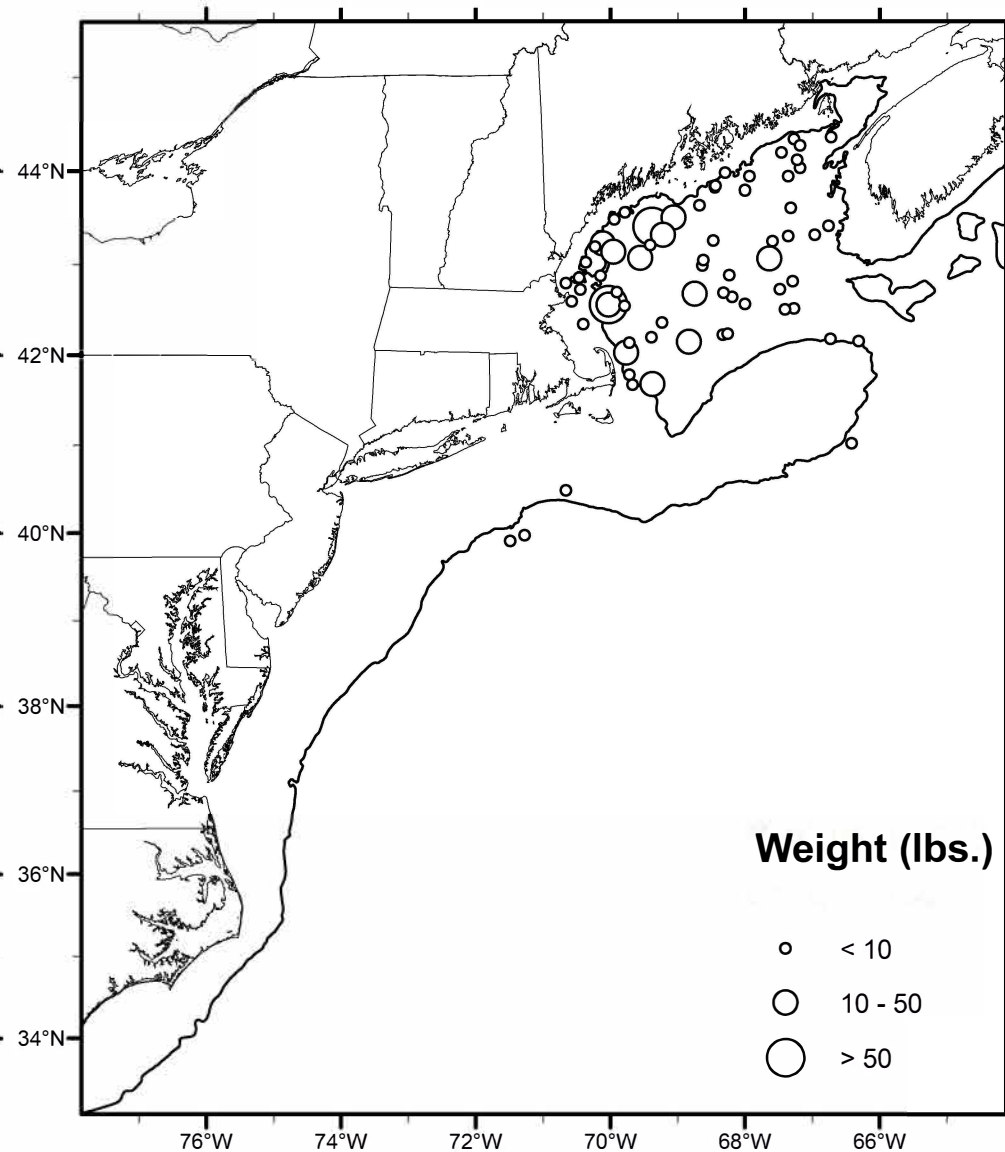
44°N

42°N

40°N

38°N

Weight (lbs.)

36°N

○ < 10

○ 10 - 50

◯ > 50

34°N

Weight (lbs.)

○ < 10

○ 10 - 50

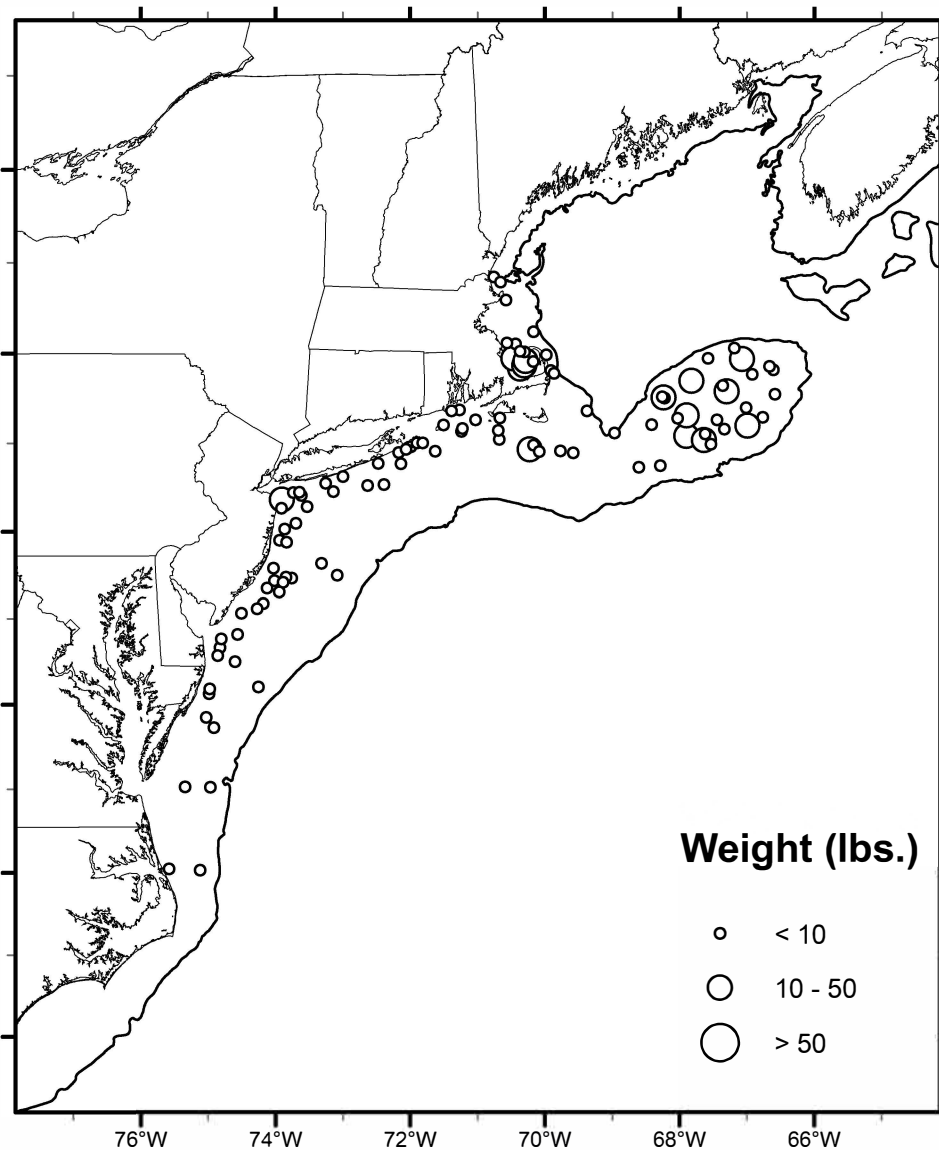◯ > 50

76°W 74°W 72°W 70°W 68°W 66°W

76°W 74°W 72°W 70°W 68°W 66°W

Figure 5: Total number of red hake (left panel) and white hake (right panel) per tow from NOAA Fisheries, Northeast Fisheries Science Center's autumn bottom trawl survey, 3 September - 14 November 2019

SILVER HAKE

ACADIAN REDFISH

Weight (lbs.)

○ < 10
○ 10 - 50
○ > 50

Weight (lbs.)

○ < 10
○ 10 - 50
○ > 50

Figure 6: Total number of silver hake (left panel) and Acadian redfish (right panel) per tow from NOAA Fisheries, Northeast Fisheries Science Center's autumn bottom trawl survey, 3 September - 14 November 2019
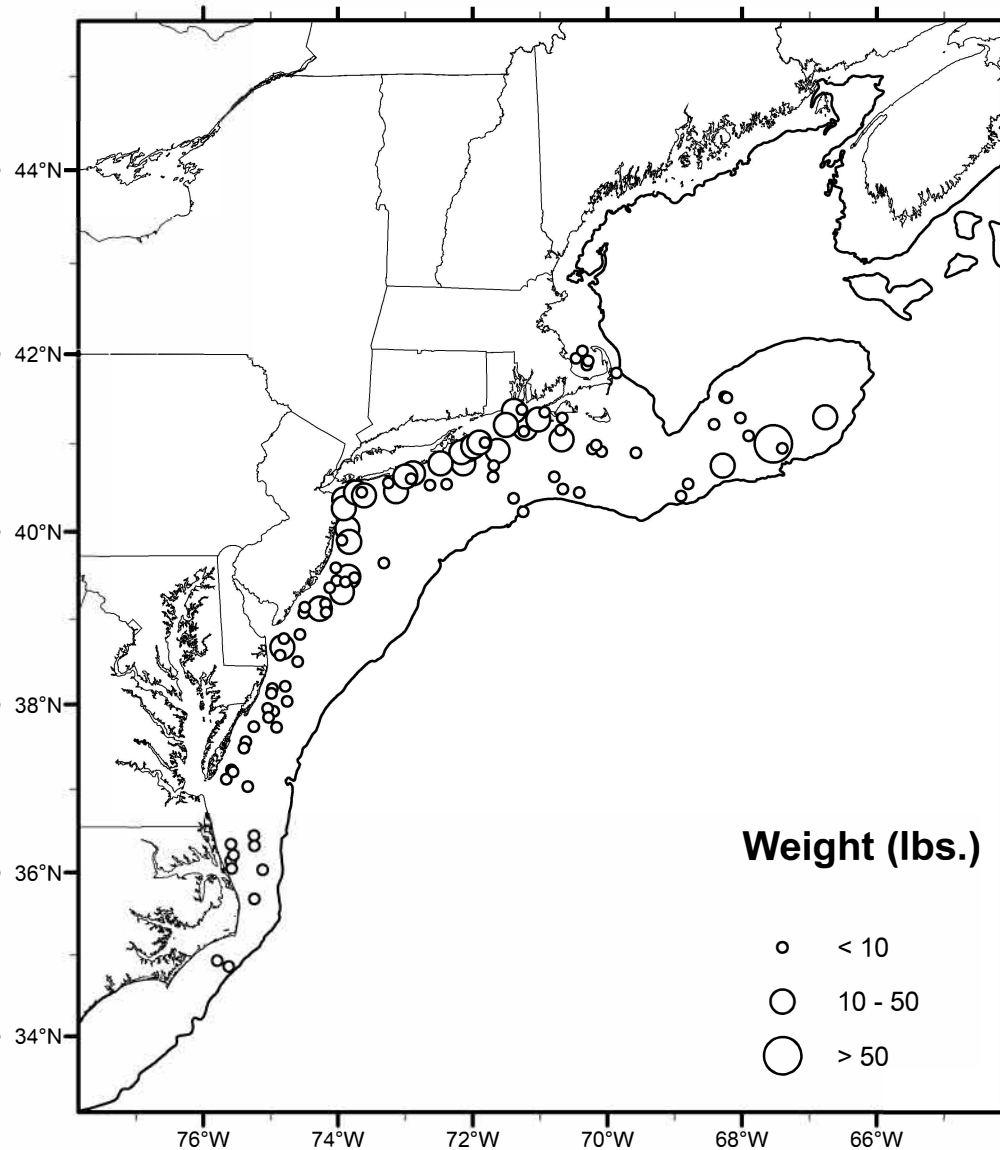
ATLANTIC HERRING

ATLANTIC MACKEREL

Weight (lbs.)

○ < 50
○ 50 - 100
○ > 100

Figure 7: Total number of Atlantic herring (left panel) and Atlantic mackerel (right panel) per tow from NOAA Fisheries, Northeast Fisheries Science Center's autumn bottom trawl survey, 3 September - 14 November 2019
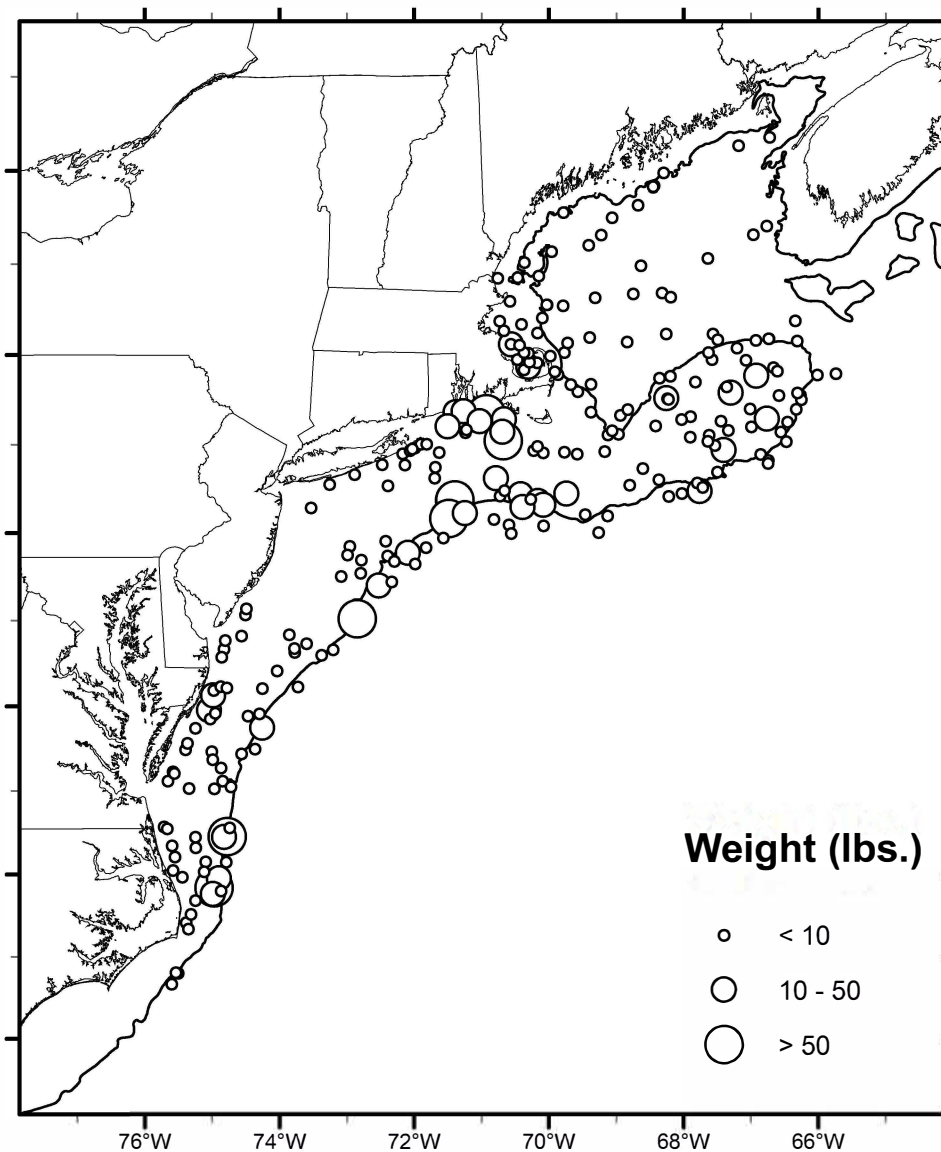
GOOSEFISH

SPINY DOGFISH

Weight (lbs.)

○   < 10
○   10 - 50
◯   > 50

Weight (lbs.)

○   < 225
○   225 - 500
◯   > 500

Figure 8: Total number of goosefish (left panel) and spiny dogfish (right panel) per tow from NOAA Fisheries, Northeast Fisheries Science Center's autumn bottom trawl survey, 3 September - 14 November 2019

Figure 9: Total number of yellowtail flounder (left panel) and winter flounder (right panel) per tow from NOAA Fisheries, Northeast Fisheries Science Center's autumn bottom trawl survey, 3 September - 14 November 2019
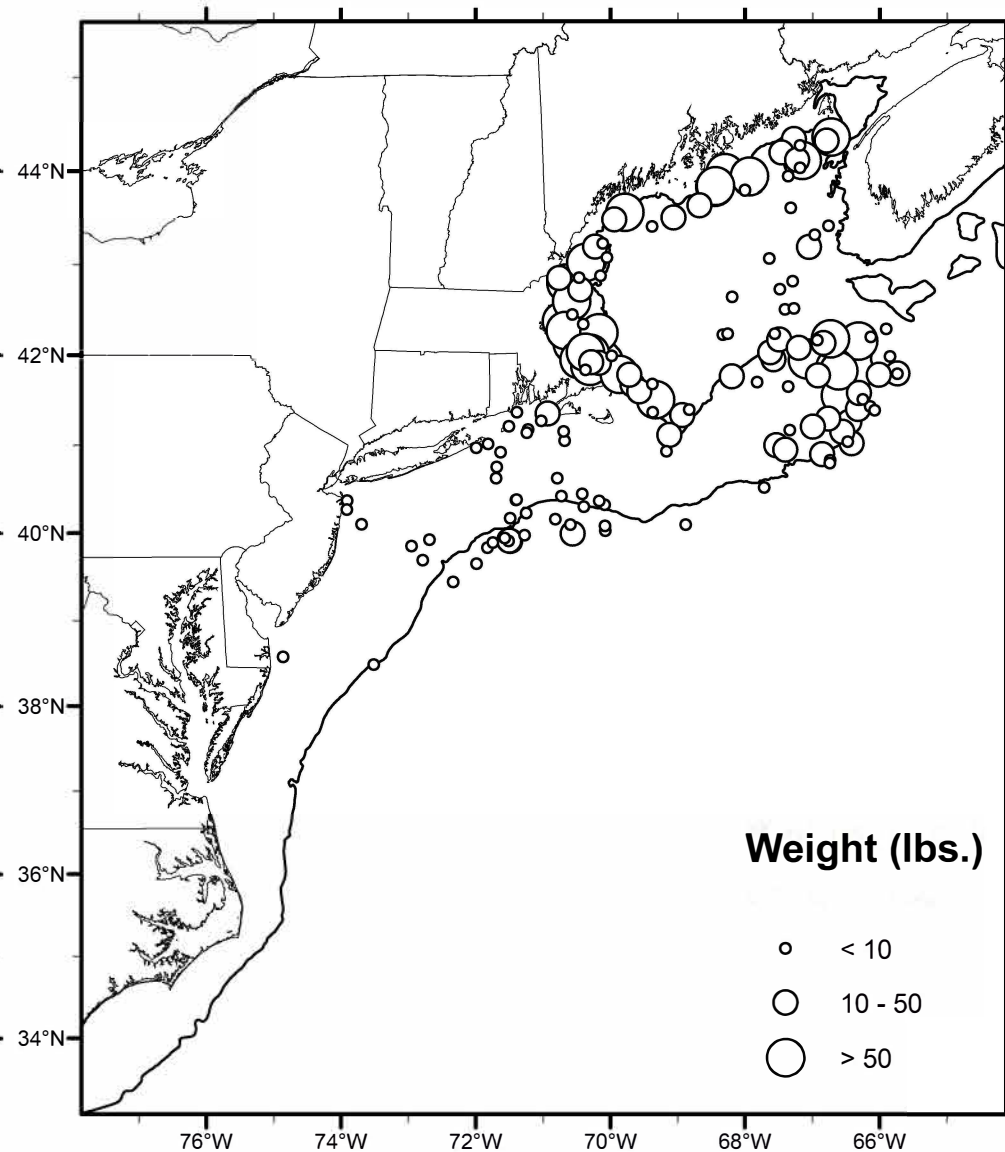
Figure 10: Total number of American plaice (left panel) and witch flounder (right panel) per tow from NOAA Fisheries, Northeast Fisheries Science Center's autumn bottom trawl survey, 3 September - 14 November 2019

Figure 11: Total number of windowpane flounder (left panel) and summer flounder (right panel) per tow from NOAA Fisheries, Northeast Fisheries Science Center's autumn bottom trawl survey, 3 September - 14 November 2019
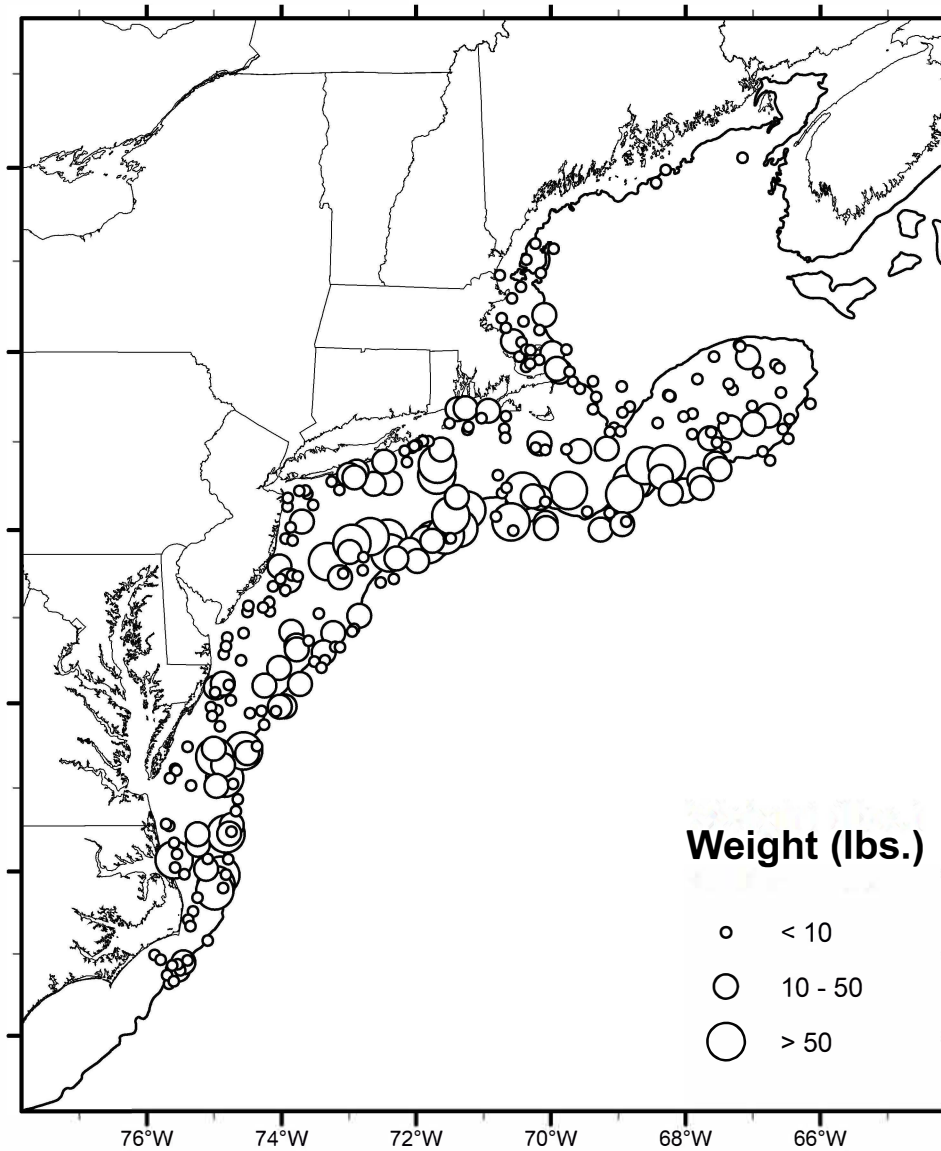
BUTTERFISH

AMERICAN LOBSTER

Weight (lbs.)

o < 10

O 10 - 50

◯ > 50

Weight (lbs.)

o < 10

O 10 - 50

◯ > 50

Figure 12: Total number of butterfish (left panel) and American lobster (right panel) per tow from NOAA Fisheries, Northeast Fisheries Science Center's autumn bottom trawl survey, 3 September - 14 November 2019

LOLIGO SQUID

ILLEX SQUID

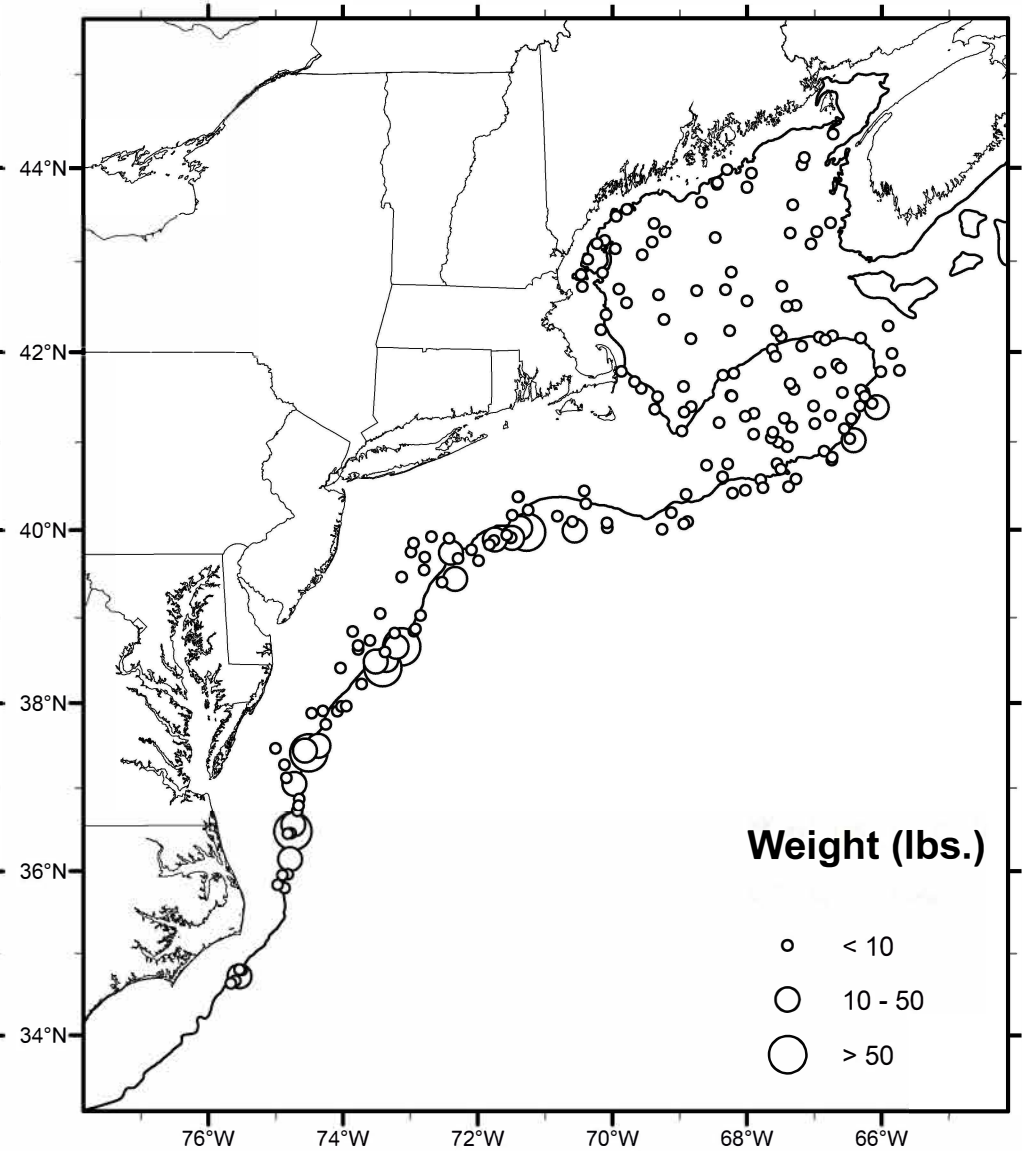Weight (lbs.)

○ < 10

○ 10 - 50

○ > 50

Figure 13: Total number of loligo squid (left panel) and illex squid (right panel) per tow from NOAA Fisheries, Northeast Fisheries Science Center's autumn bottom trawl survey, 3 September - 14 November 2019