

RESOURCE SURVEY REPORT
Catch Summary
NOAA Fisheries
Northeast Fisheries Science Center
Spring Multispecies Bottom Trawl Survey
Cape Hatteras -Gulf of Maine
10 March – 14 May 2019

Submitted to: NOAA, NEFSC

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Date: 2019

Resource Survey Report

Bottom Trawl Survey

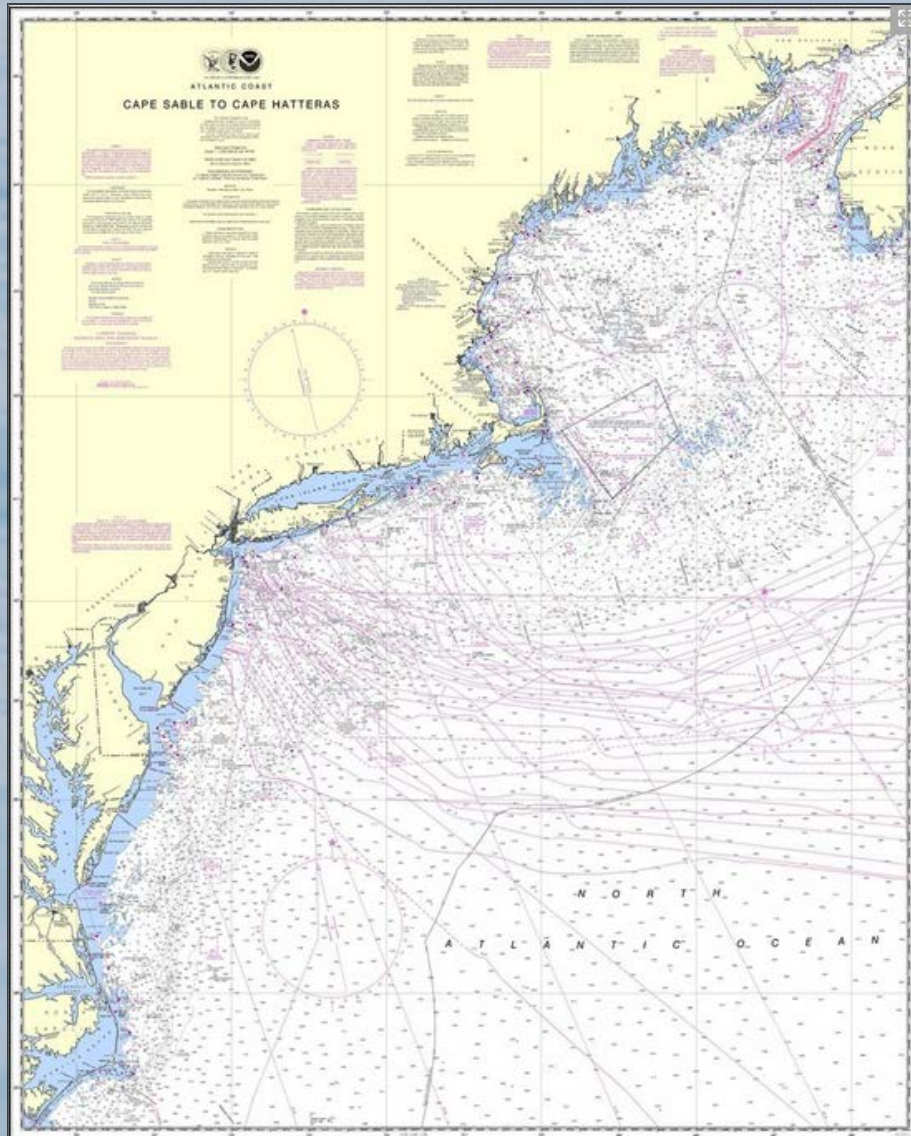


Cape Hatteras – Gulf of Maine

10 March – 14 May 2019

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

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



NOAA FISHERIES SERVICE
Northeast Fisheries Science Center
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NEFSC

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](#).

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Catch Summary

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Northeast Fisheries Science Center

Spring Multispecies Bottom Trawl Survey

Cape Hatteras - Gulf of Maine
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The Northeast Fisheries Science Center sampled 356 representative stations during the 2019 spring bottom trawl survey, conducted March 10 – May 14, 2019.

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) 2019 spring 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 (508-495-2171; Philip.Politis@noaa.gov), NOAA Fisheries Service, Northeast Fisheries Science Center, 166 Water Street, Woods Hole, MA 02543. To view this report, go to the [Ecosystems Surveys Branch website](#).
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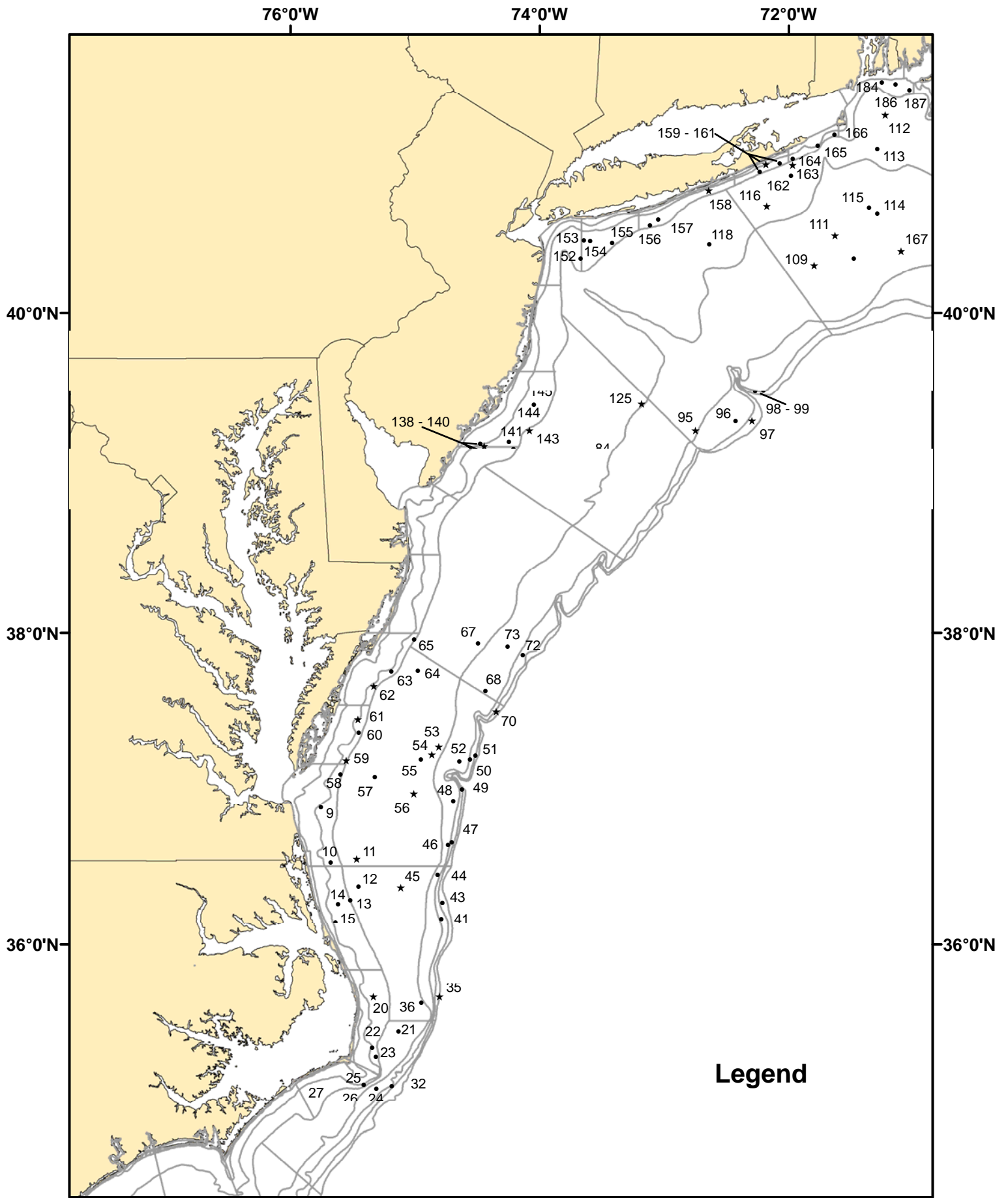


Figure 1. Representative trawl hauls made from NOAA Ship *Henry B. Bigelow*, during the Northeast Fisheries Science Center's Spring Bottom Trawl Survey, 10 March - 14 May 2019.

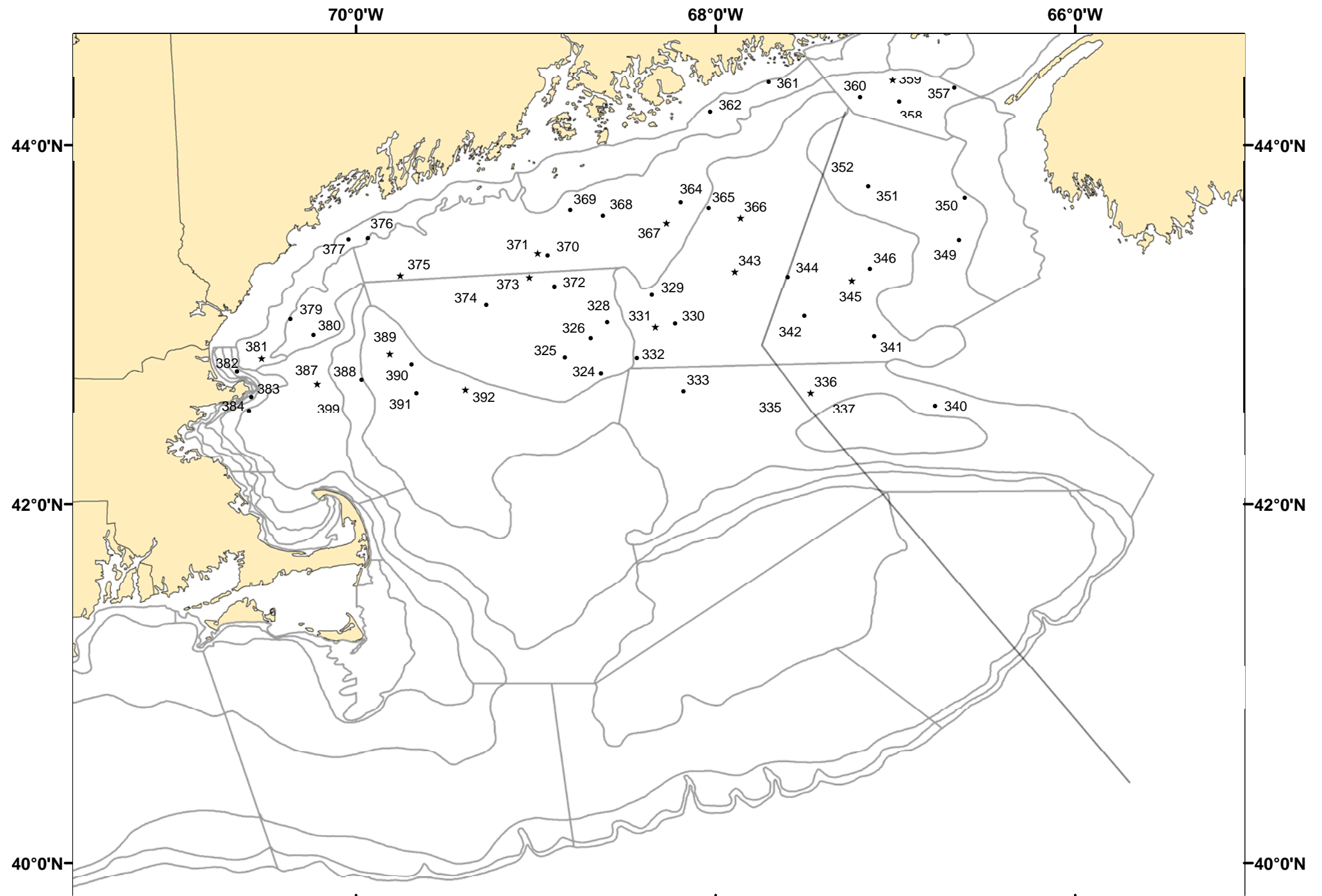


Figure 2. Representative trawl hauls made from NOAA Ship *Henry B. Bigelow*, during the Northeast Fisheries Science Center's Spring Bottom Trawl Survey, 10 March - 14 May 2019.

Table 1: Station report from NOAA Fisheries, Northeast Fisheries Science Center's spring bottom trawl survey, 10 March - 14 May 2019

Station	START TRAWL (GMT)	SET LAT	SET LON	END LAT	END LON	TOW DUR (min)	TOW DIST (nm)	DEPTH MEAN (m)
9	3/10/2019 21:57	36.88812033	-75.75672533	36.88403017	-75.73634883	20.00121298	1.0092	18.86
10	3/11/2019 0:56	36.52978967	-75.67787533	36.514678	-75.6858925	20.00059683	0.9836	25.88
11	3/11/2019 3:33	36.5546045	-75.46982333	36.56917933	-75.48001333	19.99404698	1.0012	26.05
12	3/11/2019 5:39	36.37453517	-75.454675	36.36182433	-75.46796017	19.98043887	0.9956	28.7
13	3/11/2019 7:04	36.28336433	-75.52121067	36.296659	-75.5329115	19.99243217	0.9763	24.97
14	3/11/2019 9:44	36.25882767	-75.61787833	36.2482995	-75.60152583	19.98395955	1.016	26.57
15	3/11/2019 11:27	36.14009617	-75.63846067	36.12340533	-75.639622	20.00641995	1.0019	23.36
16	3/11/2019 13:18	36.06167183	-75.44409017	36.04589133	-75.439843	20.00897397	0.9658	28.15
17	3/11/2019 15:00	35.88198517	-75.43920533	35.88601933	-75.41933317	20.0031909	0.9972	25.99
18	3/11/2019 16:40	35.81296567	-75.29796483	35.814201	-75.27801417	20.0312768	0.9726	35.05
19	3/11/2019 18:24	35.76459483	-75.15466983	35.754095	-75.13778367	20.02784387	1.0323	33.33
20	3/11/2019 21:39	35.657847	-75.33473433	35.66183667	-75.35417917	19.9981311	0.9799	29.32
21	3/12/2019 0:18	35.43173983	-75.13404067	35.418425	-75.14670167	20.01530508	1.0073	31.19
22	3/12/2019 2:21	35.3249065	-75.34529683	35.3096665	-75.33736117	20.0185032	0.9902	25.69
23	3/12/2019 3:43	35.26326333	-75.31515567	35.24718283	-75.31968817	20.00403945	0.9896	22.54
24	3/12/2019 6:07	35.05337	-75.312116	35.04468567	-75.33035367	19.99892918	1.0378	69.69
25	3/12/2019 7:54	35.0788875	-75.41262917	35.06922883	-75.4294485	19.98635303	1.0083	26.3
26	3/12/2019 9:53	34.93039283	-75.447872	34.91696283	-75.460205	20.00739337	1.0071	74.76
27	3/12/2019 13:05	34.92923533	-75.79113483	34.943272	-75.780539	20.0005789	0.9892	28.55
28	3/12/2019 15:42	34.75944167	-75.83461433	34.77033167	-75.82019767	20.00918178	0.9742	34.99
29	3/12/2019 19:23	34.565009	-75.73671117	34.57840083	-75.72483367	20.00849935	0.9989	131.88
30	3/12/2019 21:59	34.60741767	-75.6283305	34.621572	-75.61633267	20.00782177	1.0367	281.47
31	3/13/2019 1:22	34.85664583	-75.381744	34.8695885	-75.36632567	20.0227056	1.0857	298.4
32	3/13/2019 4:43	35.07115667	-75.18848733	35.0853735	-75.17551167	20.03280457	1.0624	183.98
33	3/13/2019 7:01	35.26561117	-75.055849	35.279903	-75.03930667	19.983365	1.1835	79.15
34	3/13/2019 10:35	35.58154567	-74.7973325	35.596776	-74.80394	20.01366413	1.0005	119.72
35	3/13/2019 12:45	35.65908233	-74.805096	35.64481	-74.7984935	20.01638717	0.9931	189.11
36	3/13/2019 14:31	35.62012033	-74.95076717	35.60753517	-74.9634955	20.05212912	0.9725	50.93
37	3/13/2019 18:04	35.8613985	-74.90418217	35.875709	-74.89440717	20.01818495	0.9789	86.71
38	3/13/2019 19:47	35.9059385	-74.99516867	35.919791	-74.983709	19.9847625	0.9975	51.17
39	3/13/2019 22:14	35.96140783	-74.81678067	35.978233	-74.815075	20.00348033	1.0095	126.09
40	3/14/2019 0:34	35.93813283	-74.80143933	35.95412767	-74.79634617	20.01109178	0.987	323.13
41	3/14/2019 3:09	36.16176433	-74.7905015	36.17817	-74.79114383	20.0127842	0.9805	152.42
42	3/14/2019 6:21	36.19200767	-74.8379905	36.206575	-74.827118	20.02971123	1.0176	95.16
43	3/14/2019 8:12	36.267509	-74.780891	36.2836975	-74.77656267	20.05727943	1.0136	207.29

Table 1: Station report from NOAA Fisheries, Northeast Fisheries Science Center's spring bottom trawl survey, 10 March - 14 May 2019

Station	START TRAWL (GMT)	SET LAT	SET LON	END LAT	END LON	TOW DUR (min)	TOW DIST (nm)	DEPTH MEAN (m)
44	3/14/2019 11:53	36.449	-74.81916667	36.4335	-74.826	20.01088937	1.0618	75.83
45	3/14/2019 14:29	36.36662367	-75.11442233	36.38176033	-75.122702	19.9840326	0.9904	34.34
46	3/14/2019 18:00	36.645717	-74.73537067	36.66242	-74.7392185	19.9967452	1.0136	92.01
47	3/14/2019 23:38	36.66013483	-74.70662567	36.67403067	-74.69665133	20.00235593	0.9606	132.89
48	3/15/2019 2:04	36.9264675	-74.69366283	36.94143183	-74.68488617	20.01463623	0.9886	86.21
49	3/15/2019 4:22	37.00190317	-74.62502933	37.01339933	-74.63730217	19.99066752	0.9897	144.68
50	3/15/2019 6:44	37.19394083	-74.55934867	37.21000167	-74.5536875	20.0711299	0.9943	128.13
51	3/15/2019 8:56	37.21811433	-74.51726167	37.202038	-74.52292467	20.00351528	1.0001	247.04
52	3/15/2019 10:46	37.17957483	-74.64504317	37.1674825	-74.65859833	20.0103955	0.9705	87.54
53	3/15/2019 13:15	37.2725535	-74.811224	37.2574605	-74.81993633	20.00435315	0.994	53.98
54	3/15/2019 14:31	37.22435117	-74.8662205	37.218245	-74.88492683	20.03725682	0.9743	51.46
55	3/15/2019 16:10	37.19291267	-74.95286017	37.1837805	-74.97027833	20.0013649	0.9991	42.97
56	3/15/2019 18:52	36.97074967	-75.0104195	36.95888467	-75.02415067	20.0005635	0.9722	42.96
57	3/15/2019 21:52	37.08230933	-75.32424817	37.074372	-75.34181233	20.07363875	0.9639	30
58	3/16/2019 0:16	37.09946833	-75.5986035	37.08505367	-75.605769	19.99781772	0.929	21.95
59	3/16/2019 2:24	37.186901	-75.55254	37.17301033	-75.56284383	20.00543547	0.9689	25.39
60	3/16/2019 4:33	37.36655433	-75.45235717	37.35075433	-75.45874783	19.99584937	0.9942	28.82
61	3/16/2019 6:12	37.44895717	-75.45984017	37.43429733	-75.46941417	20.0149475	0.9905	22.54
62	3/16/2019 8:34	37.6638755	-75.33267483	37.67576283	-75.3179835	20.00239812	1.0133	20.64
63	3/16/2019 10:13	37.75716267	-75.1912155	37.764043	-75.17200933	19.99696347	1.0012	27.6
64	3/16/2019 12:18	37.76033533	-74.97798017	37.77355317	-74.96578467	19.99907288	0.9812	37.01
65	3/16/2019 14:22	37.95819667	-75.00848883	37.96126633	-75.029002	20.0979716	0.994	25.17
66	3/16/2019 16:21	38.10719617	-74.97201967	38.12373183	-74.97398267	20.00909105	0.994	21.98
67	3/16/2019 19:46	37.93253317	-74.49600417	37.94517117	-74.48207517	19.99695815	1.0039	54.28
68	3/16/2019 22:46	37.63334833	-74.4360445	37.64494833	-74.4515355	19.99068695	1.0124	70.35
69	3/17/2019 1:15	37.448	-74.49533333	37.43166667	-74.49416667	20.01883803	0.9935	296.78
70	3/17/2019 5:01	37.49882883	-74.350164	37.51223683	-74.33776867	20.00874587	0.9952	221.92
71	3/17/2019 7:09	37.53059433	-74.32036167	37.5175325	-74.331671	20.00054292	0.9525	240.04
72	3/17/2019 10:48	37.86022767	-74.134344	37.87497483	-74.1242025	20.01309358	1.0071	140.99
73	3/17/2019 12:46	37.91481833	-74.25844067	37.92522983	-74.24296717	20.0087015	0.9635	74.97
74	3/17/2019 14:31	37.99336233	-74.123221	38.00365083	-74.10725917	19.9925524	0.9819	105.38
75	3/17/2019 16:51	38.12762983	-73.91581433	38.14325233	-73.90990533	20.00876912	0.9755	117.41
76	3/17/2019 18:45	38.20022	-73.74090117	38.21497633	-73.73047417	20.00085363	1.0114	119.99
77	3/17/2019 21:56	38.3693845	-73.57659467	38.38603183	-73.5765145	19.99356488	1.0053	230.97
78	3/18/2019 0:37	38.3804125	-73.43730133	38.390739	-73.42197167	20.01493725	0.9511	257.96

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79	3/18/2019 2:57	38.49809033	-73.43377033	38.5038775	-73.45321767	20.01814485	0.9765	104.47
80	3/18/2019 4:34	38.4887585	-73.63064283	38.492996	-73.65174183	19.99744957	1.023	71.86
81	3/18/2019 6:25	38.64405917	-73.56400317	38.65103483	-73.58315983	19.99982768	0.9911	62.7
82	3/18/2019 7:52	38.74210767	-73.5752585	38.7545665	-73.589619	19.99799152	1.0048	64.43
83	3/18/2019 9:55	38.91824367	-73.5656295	38.90265367	-73.57359383	20.00986463	1.003	52.42
84	3/18/2019 11:56	39.08656183	-73.58617933	39.07818067	-73.56748633	20.01338012	1.0071	48.59
86	3/18/2019 15:04	38.75373733	-73.38445917	38.7397935	-73.39667667	20.03175998	1.008	77.17
87	3/18/2019 16:50	38.7380225	-73.24100983	38.7426005	-73.2205265	19.99755628	0.9979	88.26
88	3/18/2019 19:31	38.51585567	-73.27595017	38.52761283	-73.26105533	20.00771865	0.9932	228.28
89	3/18/2019 22:25	38.63434267	-73.16563467	38.6428855	-73.14895933	20.0026078	0.9988	205.7
90	3/19/2019 1:04	38.683888	-73.1322345	38.69534783	-73.11742217	20.0203332	0.9754	147.94
91	3/19/2019 3:12	38.7269035	-73.04113367	38.71445283	-73.053425	20.00761283	0.9416	250.04
92	3/19/2019 5:07	38.81551833	-73.10780283	38.82771583	-73.12275833	20.1183245	1.0136	86.62
93	3/19/2019 8:36	39.072687	-72.81807983	39.0890755	-72.813277	20.01118942	1.0054	117.2
94	3/19/2019 10:23	39.21102417	-72.749584	39.22760833	-72.75116267	20.0186243	0.9928	114.46
95	3/19/2019 12:09	39.271778	-72.74987533	39.286065	-72.73904033	20.0164003	0.9908	102.66
96	3/19/2019 14:29	39.33312633	-72.42778083	39.34651883	-72.4147655	19.95992925	1.0048	142.58
97	3/19/2019 17:14	39.33036017	-72.294292	39.3431845	-72.28151733	20.07243738	0.9666	221.52
98	3/19/2019 20:04	39.51772833	-72.26964067	39.51955833	-72.24828967	19.99206602	1.0286	201.02
99	3/19/2019 22:44	39.52070067	-72.20337833	39.53649683	-72.19648017	19.9940752	0.9975	152.27
100	3/20/2019 0:46	39.6389295	-72.19152267	39.65484983	-72.18559067	20.00708763	0.99	123.79
101	3/20/2019 3:10	39.90956717	-72.0744245	39.92431183	-72.065505	20.01167263	0.9723	88.08
102	3/20/2019 4:50	39.87642167	-71.92193367	39.86200117	-71.9335875	20.0178338	1.0168	128.18
103	3/20/2019 7:09	39.83091433	-71.82076083	39.8426655	-71.80496583	20.04519968	1.0105	190.75
104	3/20/2019 9:11	39.94117817	-71.628439	39.94515967	-71.60724383	20.02021412	1.0038	117.3
105	3/20/2019 10:59	39.96693367	-71.78014933	39.97729583	-71.7970305	20.0495556	0.9915	104.55
106	3/20/2019 12:32	40.02256133	-71.93283433	40.0224895	-71.9545505	20.05650847	0.9966	84.03
107	3/20/2019 13:55	40.02310633	-72.08199367	40.02784317	-72.103219	19.9844731	1.018	79.58
108	3/20/2019 15:10	40.10101667	-72.17031317	40.11728383	-72.17268	19.99889147	0.9798	70.4
109	3/20/2019 17:51	40.29020533	-71.79735017	40.30572567	-71.78929183	20.0058763	0.9991	72.94
110	3/20/2019 20:16	40.3337985	-71.47824567	40.3474885	-71.49098383	19.98724503	1.0061	81.98
111	3/20/2019 22:17	40.47698917	-71.62940067	40.47990317	-71.60777767	19.98160132	1.0038	77.61
112	3/26/2019 18:26	41.20882917	-71.2259035	41.21878183	-71.208288	20.01866602	0.9935	47.82
113	3/26/2019 21:45	41.00075917	-71.289693	41.00009267	-71.31165967	19.98691482	0.9964	47.56
114	3/27/2019 1:16	40.6084175	-71.29005617	40.59184283	-71.28840033	19.96725743	0.9983	65.38

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Station	START TRAWL (GMT)	SET LAT	SET LON	END LAT	END LON	TOW DUR (min)	TOW DIST (nm)	DEPTH MEAN (m)
115	3/27/2019 2:56	40.64469433	-71.3560985	40.66158783	-71.35705083	20.0104519	1.0134	62.56
116	3/27/2019 7:15	40.65479533	-72.176262	40.6439215	-72.19338533	20.0059223	1.015	48.74
117	3/27/2019 10:42	40.216403	-72.45396717	40.22107567	-72.47462483	19.98284335	0.9899	61.16
118	3/27/2019 13:09	40.4213365	-72.63937367	40.42074767	-72.6173135	19.985673	1.0102	46.63
119	3/27/2019 16:26	40.16306967	-73.12525167	40.151577	-73.1405395	20.00466785	0.985	45.53
120	3/27/2019 18:02	40.13636367	-73.05493817	40.14589733	-73.03825733	20.00314542	0.9576	46.07
121	3/27/2019 20:51	39.906877	-72.78486617	39.9202965	-72.77200483	20.00691607	0.9987	56.31
122	3/28/2019 0:07	39.7781295	-73.2221685	39.7895625	-73.2056295	20.10106187	1.0232	45.08
123	3/28/2019 3:07	39.60899433	-72.93096367	39.59399517	-72.93898833	20.00554917	1.0084	62.45
124	3/28/2019 4:44	39.54378183	-73.09576483	39.53475683	-73.11372767	20.00938487	0.9919	46.32
125	3/28/2019 6:16	39.43738883	-73.18275633	39.433636	-73.203714	19.9889901	0.9986	58.34
126	3/28/2019 10:39	39.09883783	-73.956445	39.08436083	-73.944903	19.96584595	1.0226	35.63
127	3/28/2019 13:00	38.88667817	-74.1564945	38.8705005	-74.16053767	20.00985733	0.9853	36.23
128	3/28/2019 14:46	38.780583	-74.33817167	38.76837	-74.35241817	19.9961286	0.9905	39.84
129	3/28/2019 17:20	38.62856733	-74.164885	38.61302333	-74.15838	19.99598392	0.9782	51.54
130	3/28/2019 20:19	38.50627233	-74.59638533	38.49007183	-74.59288317	19.99311628	0.9827	31
131	3/28/2019 22:26	38.46922417	-74.80827867	38.4552825	-74.8193795	19.9832143	0.9881	24.33
132	3/28/2019 23:39	38.45811733	-74.89247367	38.473086	-74.882313	20.0570946	1.0106	18.05
133	3/29/2019 0:52	38.51374083	-74.84987267	38.53083533	-74.8485245	19.99841295	1.0266	22.31
134	3/29/2019 2:41	38.66897233	-74.82075517	38.68520817	-74.81477183	20.0077639	1.0122	17.34
135	3/29/2019 4:24	38.67701067	-74.69790567	38.6936365	-74.69985433	20.00571723	0.9988	21.91
136	3/29/2019 5:43	38.74339583	-74.77920283	38.746179	-74.799717	20.01078865	0.9738	16.52
137	3/29/2019 7:38	38.80470617	-74.62070983	38.818371	-74.60835417	20.00377053	0.9998	18.82
138	3/29/2019 10:29	39.18948233	-74.47784367	39.19005317	-74.45671467	20.00164985	0.9854	19.3
139	3/29/2019 11:33	39.17350783	-74.444835	39.16586817	-74.46276867	20.00972978	0.953	20.58
140	3/29/2019 12:40	39.11943583	-74.4137295	39.13340483	-74.40151117	20.0035858	1.011	25.97
141	3/29/2019 14:05	39.15526733	-74.21026467	39.16664917	-74.19444017	20.01200645	1.0041	26.69
142	3/29/2019 15:04	39.20180367	-74.24774017	39.216185	-74.25821167	19.99632617	0.9885	24.79
143	3/29/2019 16:48	39.27136433	-74.08236167	39.264055	-74.0638265	20.00119757	0.9686	29.84
144	3/29/2019 18:43	39.43309517	-74.04624383	39.4170025	-74.04907033	20.00585833	0.9718	26.17
145	3/29/2019 20:28	39.58485467	-74.026459	39.60043983	-74.0199755	20.00136625	0.9785	23.87
146	3/29/2019 22:09	39.67194883	-73.81880283	39.68417617	-73.803744	20.01322165	1.0086	20.46
147	3/30/2019 0:04	39.839992	-73.96385383	39.85605167	-73.96060883	19.99386037	0.9738	22.86
148	3/30/2019 1:45	40.01129767	-73.968159	40.02792217	-73.9673185	20.01758168	0.9944	23.14
149	3/30/2019 3:06	40.03359167	-73.8617095	40.0337695	-73.8408065	20.01242082	0.9624	25.57

Table 1: Station report from NOAA Fisheries, Northeast Fisheries Science Center's spring bottom trawl survey, 10 March - 14 May 2019

Station	START TRAWL (GMT)	SET LAT	SET LON	END LAT	END LON	TOW DUR (min)	TOW DIST (nm)	DEPTH MEAN (m)
150	3/30/2019 5:05	40.24348017	-73.9114215	40.25934783	-73.90530833	20.02123233	0.988	22.95
151	3/30/2019 7:01	40.2296365	-73.68252117	40.242066	-73.697593	20.0141421	1.0156	34.12
152	3/30/2019 8:48	40.33448683	-73.67169533	40.34693633	-73.68608017	19.99641893	0.993	26.99
153	3/30/2019 10:16	40.44659033	-73.6453975	40.44621717	-73.62382267	20.00510833	0.9872	22.19
154	3/30/2019 11:17	40.4421085	-73.59351067	40.44545717	-73.57242433	20.003915	0.9868	23.91
155	3/30/2019 12:41	40.42810933	-73.4183645	40.42758633	-73.39658533	20.00540602	0.9964	26.38
156	3/30/2019 14:35	40.5375915	-73.1155685	40.54345533	-73.09418567	20.0460051	1.0347	27.67
157	3/30/2019 15:35	40.571922	-73.04775883	40.5826765	-73.03099867	19.99496403	0.9999	25.48
158	3/30/2019 18:05	40.74825017	-72.6427845	40.7526645	-72.62196783	19.99843252	0.9836	27.47
159	3/30/2019 20:32	40.86496233	-72.2336525	40.87332133	-72.215623	20.00103183	0.9596	29.99
160	3/30/2019 22:04	40.90813567	-72.18387067	40.91513483	-72.1636775	20.01845392	1.0081	22.84
161	3/30/2019 23:11	40.9145855	-72.073584	40.91847067	-72.05183383	20.00122825	1.0164	29.73
162	3/31/2019 1:04	40.8409945	-71.98111	40.825284	-71.973448	19.9904574	1.002	40.62
163	3/31/2019 2:39	40.902743	-71.96850117	40.91356783	-71.98488683	19.99462723	0.986	32.59
164	3/31/2019 3:51	40.94105033	-71.96876267	40.95315283	-71.9540735	19.99743822	0.9862	28.57
165	3/31/2019 5:27	41.0202985	-71.7674005	41.0327055	-71.75265767	20.01364905	0.9987	27.46
166	3/31/2019 6:48	41.08968533	-71.633247	41.09012683	-71.61155	20.01235458	0.9825	37.05
167	3/31/2019 12:26	40.38014483	-71.09822383	40.37714917	-71.0767545	20.00940782	0.9986	87.8
168	3/31/2019 15:34	40.14476533	-71.364586	40.15023633	-71.3441145	19.99718598	0.9949	91.81
169	3/31/2019 17:13	40.1273645	-71.26182867	40.11414517	-71.27372133	20.00603645	0.9629	117.13
170	3/31/2019 19:02	40.06251217	-71.14858283	40.06334633	-71.12708983	19.99363425	0.9884	201.41
171	3/31/2019 22:27	40.05183067	-70.94392183	40.04783783	-70.9225275	20.00633043	1.0115	206.59
172	3/31/2019 23:52	40.05108667	-70.94092117	40.0470185	-70.91961067	19.9976666	1.0085	206.51
173	4/1/2019 2:46	40.15283617	-70.73568883	40.16042633	-70.71664083	20.01716602	0.9986	129.13
174	4/1/2019 4:34	40.2045	-70.55216667	40.21666667	-70.53783333	20.10036603	1.1202	118.18
175	4/1/2019 11:48	40.486349	-70.673364	40.492341	-70.69270083	20.01369527	0.9566	76.01
176	4/1/2019 23:07	40.03102283	-70.55582583	40.033579	-70.5764585	20.00015652	0.9632	188.43
177	4/2/2019 1:43	40.08230833	-70.445579	40.0800725	-70.46586517	19.98925413	0.9496	163.38
178	4/2/2019 5:33	40.0650465	-69.85966467	40.07311217	-69.87657433	18.41997617	0.9124	125.09
179	4/2/2019 7:54	39.97869733	-69.76623833	39.974117	-69.7465735	19.99476478	0.9478	139.7
180	4/2/2019 10:25	39.945906	-69.575266	39.96071533	-69.58514583	19.99532765	1.0002	202.41
181	4/2/2019 12:44	39.9313285	-69.47630017	39.92907517	-69.49779633	20.0235622	0.9994	245.98
182	4/2/2019 15:43	40.004488	-69.21891217	40.017616	-69.2071645	19.99557165	0.9548	208.55
183	4/2/2019 17:36	40.02822783	-69.23785183	40.036069	-69.219309	20.01112572	0.9742	150.35
184	4/4/2019 3:00	41.40320417	-71.2531825	41.41816383	-71.26048567	19.9885363	0.9609	26.29

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Station	START TRAWL (GMT)	SET LAT	SET LON	END LAT	END LON	TOW DUR (min)	TOW DIST (nm)	DEPTH MEAN (m)
185	4/4/2019 4:33	41.41907017	-71.09760883	41.41957083	-71.0904315	6.595170483	0.3182	20.81
186	4/4/2019 6:03	41.3915205	-71.142634	41.39183733	-71.11993183	20.0079724	1.025	23.54
187	4/4/2019 7:12	41.359213	-71.03129683	41.3429705	-71.026991	20.03065407	0.995	25.57
188	4/4/2019 10:01	41.18844967	-70.8526155	41.1887915	-70.85200583	0.719952817	0.0336	24.79
189	4/4/2019 10:48	41.20230583	-70.84106483	41.19879433	-70.84254033	4.7232979	0.2155	24.04
191	4/4/2019 14:53	41.2365095	-70.67541867	41.237274	-70.696385	20.00603218	0.9529	28.86
192	4/4/2019 16:24	41.26592833	-70.63312633	41.2582215	-70.65238233	20.01181572	0.9846	27.56
193	4/4/2019 18:54	41.14125083	-70.41265817	41.133397	-70.43169067	20.0061755	0.9822	36.06
194	4/4/2019 21:16	41.18864883	-70.2470015	41.182802	-70.22686083	19.98007858	0.9891	26.88
195	4/4/2019 23:00	41.058757	-70.12383967	41.0431725	-70.1274645	19.99426957	0.9492	24.61
196	4/5/2019 1:25	40.9526245	-70.3120215	40.95899683	-70.33238567	19.987789	1.0008	42.21
197	4/11/2019 21:22	40.7515595	-70.67638783	40.7644055	-70.6900875	20.0211858	0.9884	61.34
198	4/11/2019 23:35	40.64541233	-70.5574165	40.65478583	-70.57577633	20.06429233	1.0026	61.57
199	4/12/2019 2:37	40.5299595	-70.24338083	40.54330167	-70.24833817	16.35153672	0.8257	62.98
200	4/12/2019 5:27	40.72433417	-70.04301067	40.715788	-70.02396117	20.01549457	1.008	43.78
201	4/12/2019 9:13	40.35016717	-69.828202	40.34639267	-69.84903967	19.99472448	0.9817	79.92
202	4/12/2019 11:55	40.5712575	-69.684642	40.5807325	-69.7028165	20.0140443	1.0036	64.75
203	4/12/2019 13:31	40.64686817	-69.62772267	40.64273	-69.607775	20.05307663	0.9404	53.53
204	4/12/2019 16:24	40.524166	-69.57989017	40.51865133	-69.55900667	20.03270027	1.0073	67.37
205	4/12/2019 19:01	40.49002117	-69.27566133	40.49092633	-69.29761933	20.01696833	1.0034	71.78
206	4/12/2019 20:03	40.490798	-69.288401	40.48806283	-69.266942	20.00973557	0.9931	72.34
207	4/12/2019 22:10	40.7255	-69.30483333	40.73816667	-69.29083333	20.02755905	1.1261	59.17
208	4/13/2019 0:14	40.81341183	-69.06539	40.8198245	-69.04544383	20.08028103	0.9802	86.42
209	4/13/2019 2:35	40.67879017	-69.0948625	40.69437767	-69.087422	20.05305268	0.9898	86.87
210	4/13/2019 5:35	40.54177933	-68.6486365	40.52604417	-68.64168783	20.00291187	0.9966	72.36
211	4/13/2019 8:12	40.2466875	-68.67609983	40.23767717	-68.694507	20.03794803	0.9989	117.11
212	4/13/2019 11:37	40.2569595	-68.30265067	40.27039183	-68.29061483	20.0320779	0.977	219.47
213	4/13/2019 13:11	40.315593	-68.32108883	40.32064133	-68.34249183	20.02842193	1.024	141.59
214	4/13/2019 15:41	40.4966745	-68.25990933	40.48399967	-68.27394533	20.00956967	0.9922	104.37
215	4/13/2019 17:29	40.56476983	-68.332559	40.57759883	-68.31754283	20.0406395	1.0264	92.67
216	4/13/2019 20:01	40.63209917	-68.47873317	40.62726633	-68.49881033	20.02734858	0.9586	67.7
217	4/13/2019 22:36	40.89633267	-68.53995233	40.89458617	-68.56044617	20.03195022	0.9554	56.89
218	4/14/2019 2:29	41.20727017	-68.872971	41.19826017	-68.89188483	20.05936818	1.0071	97.6
219	4/14/2019 4:11	41.12941633	-68.9532475	41.11596067	-68.96658367	20.00921245	1.0054	98.68
220	4/14/2019 6:36	41.26037317	-69.07931383	41.25473367	-69.05883233	20.01753587	0.9841	153.35

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Station	START TRAWL (GMT)	SET LAT	SET LON	END LAT	END LON	TOW DUR (min)	TOW DIST (nm)	DEPTH MEAN (m)
221	4/14/2019 10:27	41.10234733	-69.27320933	41.08678883	-69.266061	20.02814743	1.0131	59.13
222	4/14/2019 13:49	41.16637317	-69.3733995	41.16595983	-69.37318833	0.5465162	0.0266	50.36
224	4/14/2019 22:01	41.20177133	-69.40686067	41.19159317	-69.40454067	13.00371057	0.6169	46.21
225	4/15/2019 0:50	41.42233333	-69.2965	41.40633333	-69.3015	20.05800198	1.05	111.43
226	4/15/2019 5:04	41.44183333	-69.58666667	41.43433333	-69.57216667	16.32453755	0.9063	29.76
228	4/15/2019 13:39	41.75339367	-69.88845433	41.769143	-69.895709	20.00462183	0.9965	23.2
229	4/15/2019 18:41	41.8941295	-69.92402333	41.88204267	-69.92114183	15.20159598	0.738	25.89
230	4/16/2019 3:01	41.98863867	-69.96103083	41.99987467	-69.9707235	16.01905843	0.8005	34.68
231	4/16/2019 12:36	41.91800317	-70.28298817	41.928934	-70.29911067	20.01069965	0.9739	37.5
233	4/16/2019 14:21	41.85735533	-70.270211	41.86807033	-70.28661367	19.9939648	0.98	30.99
234	4/16/2019 15:39	41.8321365	-70.252235	41.84193167	-70.26930567	20.02399443	0.9816	25.89
235	4/16/2019 17:07	41.844987	-70.379743	41.852068	-70.39977817	20.01764842	0.9904	27.33
236	4/16/2019 18:19	41.91045317	-70.41410067	41.9268995	-70.41220017	20.03118488	0.9872	36.65
237	4/16/2019 20:29	41.99123	-70.20114433	41.99894617	-70.22016867	20.03849268	0.9653	37.37
238	4/16/2019 23:18	42.0754355	-70.08868333	42.084997	-70.10685717	20.02177738	0.9909	23.81
239	4/17/2019 1:05	42.17273983	-70.12891933	42.16372583	-70.1098495	19.99816673	1.0051	51.45
240	4/17/2019 2:56	42.060076	-69.985936	42.05639283	-69.98164517	5.545185433	0.2863	56.87
241	4/17/2019 3:43	42.05746267	-69.98247683	42.0701265	-69.996536	20.00787957	0.9828	56.79
242	4/17/2019 6:19	41.924491	-69.80897683	41.94038883	-69.81452833	19.99324148	0.9837	95.63
243	4/17/2019 9:28	41.8906115	-69.67045433	41.90726567	-69.66502433	20.0509067	1.0244	158.86
244	4/17/2019 12:03	41.80815033	-69.6773395	41.8218565	-69.68931183	20.0050664	0.9786	152.02
245	4/17/2019 15:08	41.79188217	-69.44675533	41.77763683	-69.455791	20.00873572	0.9431	179.1
247	4/17/2019 23:04	41.08295333	-68.3537665	41.0771455	-68.3540405	6.9795854	0.3478	43.77
248	4/18/2019 4:20	40.93074983	-68.01607417	40.916556	-68.0276295	19.99141002	1.0006	48.47
249	4/18/2019 6:06	40.82251633	-67.925653	40.83565967	-67.911988	20.01155233	1.0028	67.53
250	4/18/2019 9:56	41.25383333	-67.84616667	41.25983333	-67.82533333	20.00498188	1.1181	41.78
251	4/18/2019 12:02	41.294	-67.73366667	41.30083333	-67.71283333	20.0132316	1.1425	41.76
252	4/18/2019 16:11	40.91177067	-67.41689383	40.896051	-67.42461467	20.01335773	1.0026	78.78
253	4/18/2019 18:27	40.69626667	-67.4036645	40.69021883	-67.38360083	20.00795772	0.9827	95.26
254	4/18/2019 20:46	40.53286833	-67.434338	40.53067817	-67.41549133	20.00396863	0.981	142.83
255	4/18/2019 23:07	40.53614967	-67.39524033	40.54408567	-67.3765065	20.01826497	0.981	144.2
256	4/19/2019 1:25	40.4609925	-67.29461717	40.466783	-67.27526033	20.0272904	0.951	254.77
257	4/19/2019 4:10	40.72720383	-67.2814215	40.73779883	-67.26657567	19.99782873	0.9289	97.71
258	4/19/2019 6:28	40.8052255	-67.14496817	40.7931115	-67.13082683	20.01025623	0.969	95.34
259	4/19/2019 9:17	41.0115475	-67.14568783	40.99783183	-67.1565405	20.06535613	0.9618	74.05

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Station	START TRAWL (GMT)	SET LAT	SET LON	END LAT	END LON	TOW DUR (min)	TOW DIST (nm)	DEPTH MEAN (m)
260	4/19/2019 12:57	40.7714195	-66.85399417	40.760923	-66.8714525	20.05587958	1.012	117.51
261	4/19/2019 16:02	40.68721733	-66.84679033	40.677237	-66.86387867	20.01371897	0.9902	242.09
262	4/19/2019 19:21	40.98690567	-66.8076855	40.97637067	-66.8247135	20.00922913	0.999	75.11
263	4/19/2019 22:56	40.858728	-66.6202685	40.845493	-66.63259883	20.01763862	0.9711	247.31
265	4/20/2019 2:27	40.9625795	-66.60532183	40.9564255	-66.625552	20.19040343	0.9894	98.12
266	4/20/2019 4:04	40.9266905	-66.5751635	40.916115	-66.59164667	19.98456133	0.9826	144.14
267	4/20/2019 6:17	41.05116817	-66.5115245	41.03789	-66.52565417	20.01189288	1.02	95
268	4/20/2019 9:04	41.1656475	-66.32471917	41.15196783	-66.3377725	20.1582903	1.0117	152.14
269	4/20/2019 11:04	41.16073283	-66.31290033	41.15044467	-66.328981	19.9877719	0.9923	204.8
270	4/20/2019 14:06	41.3056815	-66.24299133	41.292446	-66.25122017	20.00064548	0.8793	135.28
271	4/20/2019 16:26	41.43216667	-66.167	41.416	-66.17183333	19.99435148	1.0574	124.94
272	4/20/2019 20:13	41.401659	-66.62487483	41.38537217	-66.62444067	19.99455768	0.977	86.45
273	4/20/2019 22:52	41.55362867	-66.57430217	41.5444025	-66.59162283	20.0088823	0.9613	83.98
274	4/21/2019 1:27	41.75882017	-66.72296167	41.753028	-66.74350133	20.06125425	0.9924	66.04
275	4/21/2019 4:17	41.75894033	-66.42667233	41.74633983	-66.43995183	20.00980023	0.9755	78.21
276	4/21/2019 6:26	41.6905	-66.35983333	41.67933333	-66.3765	20.01171598	1.1442	83.35
277	4/21/2019 9:30	41.89376383	-66.39218233	41.87842383	-66.3999815	19.99811413	0.994	85.57
278	4/21/2019 15:20	41.98894733	-65.83510033	41.97994817	-65.85198883	19.95879937	0.948	187.77
279	4/21/2019 18:26	42.050201	-65.91825833	42.04410133	-65.91707067	6.998218267	0.3664	197.58
280	4/21/2019 22:32	42.05324433	-65.9141035	42.04071783	-65.89915833	20.00350458	1.0034	203.24
281	4/22/2019 1:52	42.29074133	-65.75592983	42.285733	-65.749579	9.4012165	0.4096	210.79
282	4/22/2019 2:55	42.29442167	-65.7609025	42.282587	-65.74758517	20.02887067	0.9237	210.73
283	4/22/2019 6:13	42.46948183	-66.03873233	42.45884783	-66.02184667	20.00697565	0.987	219.28
284	4/22/2019 9:52	42.37781983	-66.1092205	42.37093117	-66.12864717	19.48831442	0.9576	252.35
285	4/22/2019 12:21	42.31534183	-66.08153383	42.300517	-66.0905795	20.0004969	0.9881	263.33
286	4/22/2019 16:22	42.02082833	-66.18054467	42.00639717	-66.1697515	20.53522025	0.9889	90.34
287	4/22/2019 19:15	42.165746	-66.31818717	42.16243167	-66.31602433	4.700621333	0.2168	187.21
288	4/22/2019 20:24	42.15225483	-66.31085633	42.16754433	-66.3195525	20.01379973	0.9921	184.62
289	4/23/2019 0:13	42.1113985	-66.71895733	42.09781883	-66.729956	20.04507715	0.9568	71.27
292	4/23/2019 9:26	42.05368967	-66.80559983	42.062592	-66.822581	20.00433548	0.9276	71.03
293	4/23/2019 12:15	42.27736883	-66.7614175	42.28290917	-66.78236817	20.0108425	0.9884	278.87
294	4/23/2019 14:51	42.19900083	-67.03899717	42.198246	-67.06064867	20.00314118	0.9663	188.24
295	4/23/2019 16:27	42.156134	-67.02262283	42.14653083	-67.0043965	20.03057853	0.9933	84.58
296	4/23/2019 18:16	42.10078233	-67.119518	42.08553233	-67.11043167	19.9973471	1.0006	54.45
297	4/23/2019 20:06	42.02973383	-67.20557467	42.01311267	-67.20521083	19.99871405	0.9969	54.64

Table 1: Station report from NOAA Fisheries, Northeast Fisheries Science Center's spring bottom trawl survey, 10 March - 14 May 2019

Station	START TRAWL (GMT)	SET LAT	SET LON	END LAT	END LON	TOW DUR (min)	TOW DIST (nm)	DEPTH MEAN (m)
298	4/23/2019 22:19	41.88161317	-67.39778933	41.87006617	-67.381284	20.00143285	1.0214	58.06
299	4/24/2019 1:33	41.658656	-66.9567915	41.66671667	-66.93757533	20.00284383	0.9891	63.6
300	4/24/2019 3:48	41.55369633	-66.95224967	41.565225	-66.93567533	20.01920442	1.0166	66.73
302	4/24/2019 6:18	41.47839883	-67.03037267	41.4689485	-67.04835233	20.02116393	0.987	64.15
303	4/24/2019 8:06	41.36708183	-67.163576	41.36586017	-67.1848395	19.98337325	0.963	50.46
304	4/24/2019 10:15	41.51054783	-67.16237683	41.50359883	-67.18209817	19.99859467	0.9872	53.95
305	4/24/2019 12:29	41.64275383	-67.3562965	41.65740817	-67.367158	19.98645985	1.0066	50.04
306	4/24/2019 14:40	41.5626245	-67.521798	41.5473505	-67.51952333	20.073828	0.9223	47.07
307	4/24/2019 19:12	42.10009333	-67.63100783	42.09977517	-67.65353933	20.05663323	1.0026	172.65
308	4/24/2019 21:35	41.93743467	-67.80953833	41.92867333	-67.82797567	20.01285967	0.9764	59.25
309	4/24/2019 23:55	41.7314415	-67.83515933	41.74734133	-67.83260417	20.03001932	0.9593	33.17
310	4/25/2019 3:00	41.94771067	-68.124233	41.95699633	-68.1056985	20.01783832	0.996	201.25
311	4/25/2019 5:35	41.74648433	-68.10415067	41.74252517	-68.12598267	20.02885195	1.0056	47.43
312	4/25/2019 7:06	41.76725683	-68.241899	41.75733883	-68.25905133	20.01396148	0.9698	76.22
313	4/25/2019 10:27	41.62900883	-68.1407265	41.62449167	-68.16157717	19.97912483	0.979	34.84
314	4/25/2019 20:52	41.05991283	-69.37504933	41.05793533	-69.37639567	2.754847683	0.1319	43.59
316	5/2/2019 8:06	41.46133333	-69.46233333	41.45966667	-69.4615	2.091304483	0.1125	41.18
317	5/2/2019 12:45	41.41516667	-68.73866667	41.39916667	-68.7435	19.99549565	1.0575	122.51
318	5/2/2019 15:19	41.433	-68.49616667	41.43816667	-68.51716667	20.00731008	1.1003	86.42
319	5/2/2019 17:07	41.48083333	-68.61616667	41.49416667	-68.60483333	19.99368832	1.0879	102.13
320	5/2/2019 20:59	41.9105	-68.63733333	41.89633333	-68.64833333	20.00610727	1.1056	166.19
321	5/3/2019 1:02	42.14716667	-68.57216667	42.16333333	-68.57766667	19.98082237	1.0857	184.99
322	5/3/2019 5:05	42.43833333	-68.5795	42.42566667	-68.59316667	19.99553148	1.0842	190.43
323	5/3/2019 7:46	42.37766667	-68.901	42.365	-68.9155	20.01732603	1.1316	211.47
324	5/3/2019 12:10	42.72716667	-68.6375	42.722	-68.659	20.01208743	1.0995	184.86
325	5/3/2019 15:42	42.81783333	-68.838	42.80333333	-68.8275	19.99111892	1.1136	180.04
326	5/3/2019 18:01	42.92516667	-68.69433333	42.94183333	-68.695	20.00032695	1.0094	195.08
328	5/3/2019 20:51	43.01516667	-68.6025	42.99866667	-68.59833333	20.00249918	1.0596	188.71
329	5/3/2019 23:48	43.16733333	-68.35433333	43.18283333	-68.36183333	19.97114538	1.0719	192.51
330	5/4/2019 5:10	43.00716667	-68.22483333	42.99083333	-68.23116667	19.99531527	1.0958	195.46
331	5/4/2019 7:32	42.9865	-68.335	42.971	-68.32783333	20.00056072	1.0727	189.84
332	5/4/2019 10:06	42.8145	-68.438	42.83083333	-68.43966667	19.9981108	1.0383	194.55
333	5/4/2019 13:20	42.6295	-68.1795	42.6165	-68.16866667	19.98691115	1.074	189.37
334	5/4/2019 16:46	42.248	-67.959	42.23166667	-67.96166667	19.97894065	1.0239	221.93
335	5/4/2019 20:05	42.47583333	-67.77833333	42.485	-67.797	20.00271575	1.1133	233.25

Table 1: Station report from NOAA Fisheries, Northeast Fisheries Science Center's spring bottom trawl survey, 10 March - 14 May 2019

Station	START TRAWL (GMT)	SET LAT	SET LON	END LAT	END LON	TOW DUR (min)	TOW DIST (nm)	DEPTH MEAN (m)
336	5/5/2019 0:10	42.61766667	-67.47033333	42.61266667	-67.49183333	19.99053473	1.0979	221.29
337	5/5/2019 3:14	42.4845	-67.18866667	42.48416667	-67.16616667	20.01151455	1.009	340.87
338	5/5/2019 5:35	42.38716667	-67.16616667	42.40283333	-67.15983333	20.02134207	1.0723	358.36
339	5/5/2019 8:00	42.41466667	-67.04683333	42.42016667	-67.02533333	20.00960845	1.1207	360.58
340	5/5/2019 10:49	42.54533333	-66.77866667	42.54316667	-66.801	20.00037258	1.0541	245.74
341	5/5/2019 14:46	42.935	-67.11766667	42.92433333	-67.10166667	19.98817202	1.0883	242.32
342	5/5/2019 18:45	43.05116667	-67.50533333	43.03566667	-67.49733333	19.991892	1.0845	210.54
343	5/5/2019 22:54	43.295	-67.8925	43.29533333	-67.91533333	19.99086092	1.0084	228.79
344	5/6/2019 2:10	43.26566667	-67.59883333	43.26516667	-67.57633333	19.975684	1.0025	232.2
345	5/6/2019 4:48	43.24433333	-67.24166667	43.23116667	-67.2275	20.0280896	1.1157	224.65
346	5/6/2019 7:16	43.30983333	-67.14133333	43.324	-67.13166667	20.00538303	1.0716	247.93
347	5/6/2019 12:30	43.07283333	-66.56966667	43.0835	-66.58116667	15.70967433	0.8966	122.58
349	5/6/2019 18:09	43.47066667	-66.64616667	43.48766667	-66.6445	19.99155287	1.0483	121.31
350	5/6/2019 21:01	43.70733333	-66.61483333	43.72316667	-66.6075	19.98776218	1.0924	95.01
351	5/7/2019 0:36	43.77116667	-67.151	43.7555	-67.14516667	20.0340859	1.0515	182.74
352	5/7/2019 3:44	43.95633333	-67.25933333	43.93983333	-67.25983333	20.02184235	1.0301	192.8
353	5/7/2019 5:33	44.03766667	-67.19066667	44.05033333	-67.1935	15.39532052	0.8142	155.88
354	5/7/2019 6:48	44.03233333	-67.19166667	44.04866667	-67.19383333	19.99519978	1.0293	155.59
355	5/7/2019 10:47	44.035	-66.80083333	44.04716667	-66.81066667	16.77548387	0.9432	94.16
356	5/7/2019 13:42	44.322	-66.66983333	44.3185	-66.66983333	4.4319583	0.21	189.08
357	5/7/2019 14:37	44.32233333	-66.67166667	44.30633333	-66.66783333	20.02303305	1.0372	189.74
358	5/7/2019 17:47	44.2405	-66.979	44.2275	-66.9935	19.98297873	1.1302	172.27
359	5/7/2019 20:31	44.36366667	-67.01483333	44.35366667	-67.03533333	20.00368563	1.1785	139.68
360	5/7/2019 22:46	44.266	-67.19566667	44.2735	-67.175	20.00534728	1.1183	188.29
361	5/8/2019 2:15	44.35433333	-67.705	44.3405	-67.693	19.97388232	1.1081	70.05
362	5/8/2019 5:02	44.18633333	-68.02966667	44.19966667	-68.01733333	20.00977985	1.0935	86.3
363	5/8/2019 8:11	44.06333333	-67.94933333	44.06766667	-67.92733333	19.99905007	1.0808	101.98
364	5/8/2019 13:17	43.68333333	-68.1945	43.697	-68.182	19.999071	1.1043	180.63
365	5/8/2019 15:55	43.64866667	-68.03816667	43.65683333	-68.05783333	19.9935329	1.1064	189.68
366	5/8/2019 19:07	43.59266667	-67.86066667	43.60883333	-67.85666667	19.99842233	1.0389	247.32
367	5/8/2019 22:51	43.56566667	-68.27366667	43.5795	-68.262	19.99807747	1.0885	195.85
368	5/9/2019 2:05	43.60666667	-68.62566667	43.622	-68.6185	19.9808028	1.0606	148.79
369	5/9/2019 5:04	43.63766667	-68.80833333	43.62733333	-68.82633333	19.99042683	1.1277	131.67
370	5/9/2019 8:13	43.38616667	-68.934	43.38583333	-68.91133333	20.0088576	1.0182	129.82
371	5/9/2019 10:19	43.39616667	-68.9905	43.4125	-68.9925	20.01108048	1.0182	147.05

Table 1: Station report from NOAA Fisheries, Northeast Fisheries Science Center's spring bottom trawl survey, 10 March - 14 May 2019

Station	START TRAWL (GMT)	SET LAT	SET LON	END LAT	END LON	TOW DUR (min)	TOW DIST (nm)	DEPTH MEAN (m)
372	5/9/2019 13:10	43.20933333	-68.89666667	43.2225	-68.9095	19.98781488	1.1116	160.13
373	5/9/2019 15:34	43.26216667	-69.03516667	43.27483333	-69.021	19.9875984	1.1102	165.08
374	5/9/2019 18:46	43.11033333	-69.27566667	43.1185	-69.256	19.99465393	1.1156	209.7
375	5/9/2019 22:37	43.27366667	-69.75416667	43.288	-69.7425	19.99285857	1.1251	140.5
376	5/10/2019 2:16	43.48216667	-69.93366667	43.495	-69.92016667	19.99203835	1.1189	123.11
377	5/10/2019 4:18	43.476	-70.0415	43.474	-70.01883333	20.01709212	1.0401	116.91
378	5/10/2019 8:28	43.02466667	-70.3665	43.041	-70.36133333	20.00640027	1.0738	123.03
379	5/10/2019 9:38	43.03266667	-70.36416667	43.01633333	-70.37016667	19.99597438	1.0909	123.47
380	5/10/2019 12:17	42.94083333	-70.236	42.95366667	-70.25016667	20.00046363	1.1226	173.9
381	5/10/2019 15:16	42.80983333	-70.5245	42.8005	-70.50633333	20.01518292	1.1027	115.3
382	5/10/2019 17:48	42.7375	-70.66116667	42.72633333	-70.65033333	16.24980847	0.9411	39.82
383	5/10/2019 20:10	42.596	-70.582	42.60716667	-70.566	20.00158352	1.1212	48.72
384	5/10/2019 22:30	42.4975	-70.67216667	42.50566667	-70.65266667	20.01153387	1.1159	65.5
385	5/11/2019 0:17	42.517	-70.59533333	42.51716667	-70.61733333	20.0155404	0.9913	70.03
386	5/11/2019 3:02	42.46766667	-70.53583333	42.4705	-70.54216667	6.79893685	0.3718	58.36
387	5/11/2019 6:20	42.67016667	-70.21583333	42.65866667	-70.19966667	20.02890215	1.1084	91.17
388	5/11/2019 9:03	42.6925	-69.969	42.67966667	-69.95466667	20.00472798	1.102	184.23
389	5/11/2019 12:17	42.83766667	-69.81133333	42.82866667	-69.79266667	20.01817438	1.1168	261.76
390	5/11/2019 14:03	42.77833333	-69.69133333	42.76933333	-69.673	20.00916342	1.0835	261.86
391	5/11/2019 16:41	42.61766667	-69.66433333	42.63383333	-69.67083333	19.98012027	1.0991	270.17
392	5/11/2019 19:46	42.63716667	-69.39166667	42.62166667	-69.38383333	20.0020818	1.0686	239.52
393	5/11/2019 22:32	42.377	-69.59366667	42.36333333	-69.6065	19.9875875	1.1423	243.22
395	5/12/2019 0:59	42.38366667	-69.81766667	42.3995	-69.813	19.98679413	1.043	249.48
396	5/12/2019 4:16	42.067	-69.83533333	42.0825	-69.84283333	20.01417767	1.0905	153.52
397	5/12/2019 6:01	42.1605	-69.98833333	42.177	-69.98333333	19.99159475	1.0884	131.37
398	5/12/2019 7:57	42.283	-70.0935	42.29433333	-70.08383333	16.64959485	0.914	92.89
399	5/12/2019 9:42	42.43416667	-70.15216667	42.45	-70.146	20.00519785	1.0847	82.89
400	5/12/2019 12:00	42.33633333	-70.35033333	42.3405	-70.37216667	20.03908298	1.084	92.37
401	5/12/2019 14:08	42.272	-70.57	42.28733333	-70.57583333	19.99635583	1.0503	59.14
402	5/12/2019 15:51	42.32916667	-70.67083333	42.32166667	-70.652	19.97232763	1.0874	51.24
403	5/12/2019 17:58	42.39766667	-70.78883333	42.3905	-70.76933333	19.65901572	1.0894	34.34
404	5/12/2019 22:52	42.26833333	-70.67383333	42.28016667	-70.6885	19.98057745	1.0997	32.82
405	5/12/2019 23:48	42.308	-70.67133333	42.29966667	-70.6535	18.6470822	1.0514	48.11
407	5/13/2019 6:06	41.99033333	-69.94066667	41.98983333	-69.94066667	19.76732818	0.3239	40.55
408	5/13/2019 14:11	42.04333333	-70.444	42.058	-70.4545	20.01533672	1.1025	51.66

Table 2: Catch summary (lbs) of important species by haul from NOAA Fisheries, Northeast Fisheries Science Center's spring bottom trawl survey, 10 March - 14 May 2019

STATION	ATLANTIC COD	HADDOCK	POLLOCK	WHITE HAKE	SILVER HAKE	REDFISH	GOOSEFISH	SPINY DOGFISH	YELLOWTAIL FLOUNDER	WINTER FLOUNDER	AMERICAN PLAICE	WITCH FLOUNDER	WINDOWPANE FLDR	SUMMER FLOUNDER	SCUP	BLACK SEA BASS	ATLANTIC HERRING	ATLANTIC MACKEREL	WINTER SKATE	LITTLE SKATE	BUTTERFISH	AMERICAN LOBSTER	LOLIGO	ILLEX	TOTAL * OTHER	TOTAL ALL	
9	0	0	0	0	0	0	0	41	0	0	0	0	0	0	0	0	0	0	49	5	0	0	0	0	31	126	
10	0	0	0	0	1	0	0	52	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	43	98
11	0	0	0	0	0	0	0	98	0	0	0	0	0	0	0	0	0	0	36	0	0	0	3	0	77	214	
12	0	0	0	0	0	0	10	212	0	0	0	0	0	0	0	0	0	0	15	0	0	0	4	0	58	299	
13	0	0	0	0	0	0	0	121	0	0	0	0	0	0	0	0	0	0	15	0	0	0	2	0	50	188	
14	0	0	0	0	0	0	0	111	0	0	0	0	0	0	0	0	0	0	15	1	0	0	6	0	70	203	
15	0	0	0	0	0	0	0	402	0	0	0	0	0	0	0	0	0	0	33	0	0	0	2	0	41	478	
16	0	0	0	0	0	0	0	381	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	49	434
17	0	0	0	0	0	0	0	211	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	39	252	
18	0	0	0	0	0	0	30	407	0	0	0	0	0	0	0	0	0	0	0	0	28	0	6	0	56	527	
19	0	0	0	0	0	0	11	208	0	0	0	0	0	0	0	0	0	0	0	0	1	0	12	0	7	239	
20	0	0	0	0	0	0	6	1342	0	0	0	0	0	0	0	0	0	0	0	0	1	0	6	0	59	1414	
21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	0	276	295	
22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65	0	61	0	228	354	
23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	10	0	19	0	44	74	
24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	4	0	218	224	
25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	315	315	
26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	316	316	
27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	288	291	
28	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	29	29
29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	6	7	
30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	378	0	17	23	557	975	
31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	6	5	118	133	
32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	1	39	52	
34	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	805	0	3	0	586	1407	
35	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	312	0	13	4	1141	1483	
36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	66	0	320	390	
37	0	0	0	0	0	0	15	989	0	0	0	0	0	0	0	0	0	0	0	0	0	0	154	0	166	1324	
38	0	0	0	0	0	0	5	767	0	0	0	0	0	1	0	0	0	0	0	0	0	0	81	1	69	924	
39	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	243	0	620	14	1825	2707	
41	0	0	0	0	0	0	6	4716	0	0	0	0	0	0	0	0	0	0	0	0	11	0	19	0	1193	5945	
42	0	0	0	0	0	0	0	861	0	0	0	0	0	2	0	0	0	0	0	0	0	0	166	0	392	1421	
43	0	0	0	0	1	0	61	3853	0	0	0	0	0	0	0	0	0	0	0	0	83	0	24	1	8822	12845	
44	0	0	0	0	1	0	8	4745	0	0	0	0	0	12	0	0	0	0	0	0	3	0	59	0	146	4974	
45	0	0	0	0	0	0	12	685	0	0	0	0	0	10	0	0	0	0	0	0	279	0	5	0	46	1037	
46	0	0	0	0	0	0	0	19568	0	0	0	0	0	0	0	11	0	0	0	0	3	0	25	0	62	19669	
47	0	0	0	0	1	0	0	2250	0	0	0	0	0	23	0	0	0	0	0	0	9	0	263	3	788	3337	

Table 2: Catch summary (lbs) of important species by haul from NOAA Fisheries, Northeast Fisheries Science Center's spring bottom trawl survey, 7 March - 14 May 2019

STATION	ATLANTIC COD	HADDOCK	POLLOCK	WHITE HAKE	SILVER HAKE	REDFISH	GOOSEFISH	SPINY DOGFISH	YELLOWTAIL FLOUNDER	WINTER FLOUNDER	AMERICAN PLAICE	WITCH FLOUNDER	WINDOWPANE FLDR	SUMMER FLOUNDER	SCUP	BLACK SEA BASS	ATLANTIC HERRING	ATLANTIC MACKEREL	WINTER SKATE	LITTLE SKATE	BUTTERFISH	AMERICAN LOBSTER	LOLIGO	ILLEX	TOTAL * OTHER	TOTAL ALL
48	0	0	0	0	0	0	0	579	0	0	0	0	0	10	0	0	0	0	0	0	0	0	224	2	253	1068
49	0	0	0	0	35	0	0	2675	0	0	0	0	0	0	0	0	0	0	0	0	0	0	86	1	527	3324
50	0	0	0	0	2	0	0	216	0	0	0	0	0	2	0	0	0	0	0	0	28	0	330	3	216	797
51	0	0	0	0	29	0	147	1734	0	0	0	0	0	14	0	0	0	0	0	0	0	0	3	2	107	2036
52	0	0	0	0	0	0	0	1285	0	0	0	0	0	3	1	1	0	0	0	0	0	0	162	0	213	1665
53	0	0	0	0	0	0	0	1189	0	0	0	0	0	5	0	0	0	0	0	0	20	0	34	0	41	1289
54	0	0	0	0	1	0	0	1828	0	0	0	0	0	12	22	0	0	0	12	39	1	0	12	0	95	2022
55	0	0	0	0	0	0	0	1553	0	0	0	0	0	2	0	0	0	0	0	6	0	0	1	0	19	1581
56	0	0	0	0	0	0	0	672	0	0	0	0	0	3	0	0	0	0	0	0	0	0	17	0	35	727
57	0	0	0	0	0	0	0	156	0	0	0	0	0	2	0	0	0	0	29	4	0	0	1	0	17	209
58	0	0	0	0	0	0	0	3	0	0	0	0	0	2	0	0	0	0	8	1	0	0	2	0	14	30
59	0	0	0	0	1	0	0	6	0	0	0	0	0	3	0	0	0	0	56	9	0	0	0	0	22	97
60	0	0	0	0	0	0	0	35	0	0	0	0	0	2	0	0	0	1	12	12	0	0	0	0	22	84
61	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	25	4	0	0	0	0	20	54
62	0	0	0	0	0	0	0	12	0	0	0	0	2	0	0	0	0	0	68	3	0	0	0	0	8	93
63	0	0	0	0	1	0	0	30	0	0	0	0	0	0	0	0	0	1	17	8	0	0	1	0	24	82
64	0	0	0	0	0	0	0	510	0	0	0	0	0	0	0	0	0	0	9	27	0	0	1	0	7	554
65	0	0	0	0	0	0	0	529	0	0	0	0	0	0	0	0	0	0	28	21	0	0	0	0	7	585
66	0	0	0	0	0	0	0	70	0	0	0	0	4	0	0	0	0	0	0	8	0	0	0	0	6	88
67	0	0	0	0	0	0	8	1212	0	0	0	0	0	12	9	0	0	0	0	104	0	0	25	0	42	1412
68	0	0	0	0	3	0	8	890	0	0	0	0	0	10	0	0	0	0	0	8	0	0	35	0	147	1101
70	0	0	0	0	18	0	33	739	0	0	0	0	0	20	0	0	0	0	0	0	0	0	5	4	82	901
72	0	0	0	0	4	0	18	1172	0	0	0	0	0	45	0	2	0	0	0	0	5	0	292	17	72	1627
73	0	0	0	0	8	0	0	3838	0	0	0	0	0	32	0	0	0	0	0	28	0	0	49	1	114	4070
74	0	0	0	0	1	0	0	980	0	0	0	0	0	43	0	2	0	0	0	0	0	4	92	0	118	1240
75	0	0	0	0	2	0	19	521	0	0	0	0	0	37	0	2	0	0	0	0	144	0	229	6	54	1014
76	0	0	0	0	1	0	0	77	0	0	0	0	0	9	0	0	0	0	0	0	2	0	177	4	85	355
77	0	0	0	0	5	0	75	1535	0	0	0	1	0	6	0	0	0	6	0	0	0	0	91	6	207	1932
78	0	0	0	0	83	0	28	1853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	102	2068
79	0	0	0	0	10	0	18	1945	0	0	0	0	0	3	2	2	0	9	0	0	8	0	59	0	95	2151
80	0	0	0	0	12	0	2	1997	0	0	0	0	0	14	2	4	0	3	0	32	1	0	26	0	292	2385
81	0	0	0	0	19	0	3	1646	0	0	0	0	0	19	14	2	0	0	0	61	0	0	10	0	913	2687
82	0	0	0	0	18	0	8	2073	0	0	0	1	0	24	0	0	0	0	0	153	0	0	6	0	116	2399
83	0	0	0	0	5	0	2	1405	0	0	0	0	3	18	0	0	0	61	29	191	0	0	3	0	43	1760
84	0	0	0	0	0	0	0	1256	0	0	0	0	2	5	0	0	0	1	36	51	0	0	2	0	20	1373
86	0	0	0	0	7	0	27	4668	0	0	0	1	0	10	4	0	0	2	0	22	0	0	24	0	270	5035
87	0	0	0	0	4	0	3	789	0	0	0	0	0	36	2	0	0	8	0	3	1	0	76	0	1972	2894

Table 2: Catch summary (lbs) of important species by haul from NOAA Fisheries, Northeast Fisheries Science Center's spring bottom trawl survey, 7 March - 14 May 2019

STATION	ATLANTIC COD	HADDOCK	POLLOCK	WHITE HAKE	SILVER HAKE	REDFISH	GOOSEFISH	SPINY DOGFISH	YELLOWTAIL FLOUNDER	WINTER FLOUNDER	AMERICAN PLAICE	WITCH FLOUNDER	WINDOWPANE FLDR	SUMMER FLOUNDER	SCUP	BLACK SEA BASS	ATLANTIC HERRING	ATLANTIC MACKEREL	WINTER SKATE	LITTLE SKATE	BUTTERFISH	AMERICAN LOBSTER	LOLIGO	ILLEX	TOTAL * OTHER	TOTAL ALL
88	0	0	0	0	6	0	17	2940	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	1	174	3172
89	0	0	0	0	13	0	1	12848	0	0	0	1	0	7	0	0	0	0	0	0	0	0	21	6	179	13076
90	0	0	0	0	2	0	28	20	0	0	0	0	0	0	0	0	0	1	0	0	0	0	35	1	21	108
91	0	0	0	0	12	0	26	1878	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	2	52	1974
92	0	0	0	0	13	0	0	68	0	0	0	0	0	21	2	1	0	2	0	0	1	0	19	0	728	855
93	0	0	0	0	18	0	2	4	0	0	0	0	0	6	1	272	0	5	0	0	20	0	9	0	1154	1491
95	0	0	0	0	18	0	8	1	0	0	0	0	0	25	0	262	0	11	0	13	12	0	37	0	39	426
96	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	1	0	0	0	1	11	0	87	2	14	123
97	0	0	0	0	0	0	15	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	1	76	135
98	0	0	0	0	16	0	51	196	0	0	0	1	0	0	0	0	0	0	0	0	0	21	40	3	75	403
99	0	0	0	0	19	0	12	5	0	0	0	0	0	19	0	0	0	1	0	0	6	0	65	17	126	270
100	0	0	0	0	68	0	5	69	0	0	0	0	0	14	0	0	0	1	0	0	25	0	5	1	73	261
101	0	0	0	0	51	0	12	4	0	0	0	0	0	29	4	16	0	1	163	16	2	0	1	0	219	518
102	0	0	0	0	50	0	12	28	0	0	0	0	0	31	13	0	0	1	0	0	17	0	1	0	175	328
103	0	0	0	0	9	0	9	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	54	1	28	102
104	0	0	0	0	15	0	8	0	0	0	0	0	0	5	0	0	0	4	33	0	0	0	23	0	140	228
105	0	0	0	0	27	0	29	16	0	0	0	0	0	47	174	7	0	4	77	0	62	0	25	0	90	558
106	0	0	0	0	32	0	24	284	0	0	0	0	0	37	10	1	0	0	22	8	1	0	14	0	700	1133
107	0	0	0	0	18	0	10	160	0	0	0	0	0	30	1	4	0	43	25	9	0	0	3	0	78	381
108	0	0	0	0	10	0	11	1345	0	0	0	0	0	10	0	0	22	157	0	21	0	0	7	0	46	1629
109	0	0	0	0	32	0	24	204	0	0	0	0	0	17	370	0	12	14	27	4	0	0	1	0	112	817
110	0	0	0	0	56	0	42	69	0	0	0	0	0	14	0	0	0	0	12	1	0	1	3	0	74	272
111	0	0	0	0	17	0	13	86	0	0	0	0	0	15	0	0	0	6	8	7	0	0	1	0	132	285
112	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	3	14	0	0	0	0	8	31
113	0	0	0	0	6	0	0	0	1	2	0	0	0	4	0	0	0	0	56	10	0	0	0	0	14	93
114	0	0	0	0	28	0	6	9	0	0	0	0	2	1	0	0	16	0	109	248	0	0	0	0	32	451
115	0	0	0	0	19	0	3	0	0	0	0	0	1	0	0	0	4	0	79	202	0	0	0	0	34	342
116	0	0	0	0	36	0	1	97	0	0	0	0	0	8	0	0	0	0	9	148	0	0	0	0	17	316
117	0	3	0	0	3	0	14	223	0	0	0	0	0	24	0	0	0	1	4	72	0	0	0	0	30	374
118	0	0	0	0	0	0	6	21	0	0	0	0	0	0	0	0	0	0	0	47	0	0	0	0	33	107
119	0	0	0	0	1	0	3	51	0	0	0	0	0	0	0	0	0	0	18	52	0	0	0	0	13	138
120	0	0	0	0	0	0	0	175	0	0	0	0	0	0	0	0	0	0	41	23	0	0	0	0	23	262
121	16	0	0	0	2	0	2	2006	0	0	0	0	0	1	0	0	16	18	9	23	0	0	5	0	10	2108
122	0	0	0	0	6	0	13	579	0	0	0	0	0	4	0	0	0	13	0	263	0	0	0	0	33	911
123	0	0	0	0	54	0	9	763	0	0	0	0	0	2	0	0	0	37	0	237	0	0	2	0	80	1184
124	0	0	0	0	4	0	0	976	0	0	0	0	7	10	0	0	0	46	12	158	0	0	1	0	8	1222
125	0	0	0	0	10	0	0	1986	0	0	0	1	2	5	0	0	0	92	0	153	0	0	1	0	26	2276

Table 2: Catch summary (lbs) of important species by haul from NOAA Fisheries, Northeast Fisheries Science Center's spring bottom trawl survey, 7 March - 14 May 2019

STATION	ATLANTIC COD	HADDOCK	POLLOCK	WHITE HAKE	SILVER HAKE	REDFISH	GOOSEFISH	SPINY DOGFISH	YELLOWTAIL FLOUNDER	WINTER FLOUNDER	AMERICAN PLAICE	WITCH FLOUNDER	WINDOWPANE FLDR	SUMMER FLOUNDER	SCUP	BLACK SEA BASS	ATLANTIC HERRING	ATLANTIC MACKEREL	WINTER SKATE	LITTLE SKATE	BUTTERFISH	AMERICAN LOBSTER	LOLIGO	ILLEX	TOTAL * OTHER	TOTAL ALL
126	0	0	0	0	3	0	0	391	0	0	0	0	1	3	0	0	0	1	13	47	0	0	0	0	3	462
127	0	0	0	0	0	0	14	1500	0	0	0	0	1	1	0	0	0	0	11	56	0	0	1	0	5	1589
128	0	0	0	0	1	0	1	1760	0	0	0	0	1	0	0	0	0	1	9	58	0	0	0	0	16	1847
129	0	0	0	0	1	0	0	1023	0	0	0	0	1	2	0	0	0	0	0	52	0	0	14	0	31	1124
130	0	0	0	0	0	0	0	512	0	0	0	0	1	1	0	0	0	0	0	11	0	0	1	0	3	529
131	0	0	0	0	0	0	0	63	0	0	0	0	0	0	0	0	0	0	36	7	0	0	0	0	1	107
132	0	0	0	0	0	0	0	16	0	0	0	0	3	0	0	0	0	0	13	24	0	0	0	0	6	62
133	0	0	0	0	0	0	0	60	0	0	0	0	3	0	0	0	0	0	102	45	0	0	0	0	14	224
134	0	0	0	0	0	0	0	94	0	0	0	0	3	0	0	0	0	0	40	36	0	0	0	0	20	193
135	0	0	0	0	0	0	0	188	0	0	0	0	2	4	0	0	0	0	95	34	0	0	0	0	8	331
136	0	0	0	0	0	0	0	76	0	0	0	0	4	0	0	0	0	1	10	19	0	0	0	0	23	133
137	0	0	0	0	0	0	0	183	0	0	0	0	2	1	0	0	0	0	14	34	0	0	0	0	22	256
138	0	0	0	0	0	0	0	139	0	0	0	0	0	0	0	0	0	0	2	42	0	0	0	0	29	212
139	0	0	0	0	0	0	0	152	0	0	0	0	0	2	0	0	0	0	5	50	0	0	0	0	13	222
140	0	0	0	0	0	0	0	301	0	3	0	0	0	1	0	0	2	1	19	67	0	0	0	0	12	406
141	0	0	0	0	0	0	0	400	0	0	0	0	3	3	0	0	0	0	2	50	0	0	0	0	0	458
142	0	0	0	0	0	0	0	420	0	0	0	0	0	0	0	0	0	0	20	46	0	0	0	0	22	508
143	0	0	0	0	0	0	0	463	0	0	0	0	1	0	0	0	0	0	11	64	0	0	0	0	2	541
144	0	0	0	0	0	0	0	369	0	0	0	0	0	0	0	0	0	0	5	30	0	0	0	0	6	410
145	0	0	0	0	0	0	0	156	0	0	0	0	0	0	0	0	0	0	0	31	0	0	0	0	6	193
146	0	0	0	0	0	0	0	193	0	0	0	0	1	0	0	0	0	0	0	30	0	0	0	0	4	228
147	0	0	0	0	1	0	0	114	0	1	0	0	4	2	0	0	32	0	4	107	0	0	0	0	3	268
148	0	0	0	0	0	0	0	25	0	3	0	0	8	1	0	0	0	0	1	127	0	0	0	0	10	175
149	0	0	0	0	2	0	0	68	0	1	0	0	3	1	0	0	1	0	33	169	0	0	0	0	2	280
150	0	0	0	0	1	0	0	10	0	1	0	0	5	1	0	0	0	0	8	238	0	7	0	0	4	275
151	0	0	0	0	11	0	14	33	0	2	0	0	2	4	0	0	0	0	46	260	0	0	0	0	12	384
152	0	0	0	0	8	0	0	4	0	0	0	0	6	9	0	0	0	0	26	270	0	0	0	0	7	330
153	12	0	0	0	0	0	0	0	0	8	0	0	1	1	0	0	0	0	72	165	0	0	0	0	6	265
154	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	12	68	0	0	0	0	4	86
155	0	0	0	0	0	0	0	8	0	1	0	0	0	2	0	0	0	0	6	78	0	0	0	0	3	98
156	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	7	23	0	0	0	0	2	33
157	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	10	15	0	0	0	0	5	34
158	0	0	0	0	0	0	0	0	0	3	0	0	1	1	0	0	0	0	34	20	0	0	0	0	28	87
159	0	0	0	0	0	0	1	0	0	2	0	0	0	3	0	0	0	0	13	12	0	0	0	0	3	34
160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	2	8
161	0	0	0	0	1	0	0	0	0	3	0	0	1	2	0	0	0	0	0	10	0	0	0	0	1	18
162	7	0	0	0	44	0	1	0	2	5	0	1	5	6	0	0	0	0	110	77	0	0	0	0	9	267

Table 2: Catch summary (lbs) of important species by haul from NOAA Fisheries, Northeast Fisheries Science Center's spring bottom trawl survey, 7 March - 14 May 2019

STATION	ATLANTIC COD	HADDOCK	POLLOCK	WHITE HAKE	SILVER HAKE	REDFISH	GOOSEFISH	SPINY DOGFISH	YELLOWTAIL FLOUNDER	WINTER FLOUNDER	AMERICAN PLAICE	WITCH FLOUNDER	WINDOWPANE FLDR	SUMMER FLOUNDER	SCUP	BLACK SEA BASS	ATLANTIC HERRING	ATLANTIC MACKEREL	WINTER SKATE	LITTLE SKATE	BUTTERFISH	AMERICAN LOBSTER	LOLIGO	ILLEX	TOTAL * OTHER	TOTAL ALL	
163	0	0	0	0	18	0	0	0	0	2	0	0	3	2	0	0	0	0	17	44	0	0	0	0	3	89	
164	0	0	0	0	6	0	0	0	0	7	0	0	6	5	0	0	0	0	22	54	0	0	0	0	3	103	
165	0	0	0	0	51	0	0	0	0	4	0	0	11	1	0	0	0	0	99	96	0	0	0	0	7	269	
166	0	0	0	0	145	0	1	0	0	17	0	0	4	5	0	0	0	0	15	46	0	0	0	0	13	246	
167	0	3	0	1	41	0	43	1298	0	0	0	0	0	57	10	0	0	0	243	2	1	0	11	0	166	1876	
168	0	0	0	0	17	0	33	13	0	0	0	0	0	85	103	0	0	0	32	2	17	0	11	0	79	392	
169	0	0	0	0	3	0	18	19	0	0	0	0	0	11	7	1	0	782	55	0	53	0	46	5	37	1037	
170	0	0	0	0	1	0	5	7	0	0	0	0	0	0	0	0	0	0	5	0	10	1	62	5	24	120	
172	0	0	0	0	32	0	65	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	1	40	159	
173	0	0	0	0	11	0	31	24	0	0	0	0	0	20	0	0	0	5	0	0	5	0	5	0	70	171	
174	0	0	0	1	12	0	12	3328	0	0	0	0	0	69	0	1	0	0	0	0	4	0	2	0	43	3472	
175	0	3	0	0	11	0	3	490	0	0	0	0	2	2	0	0	2	4	18	7	0	0	0	0	10	552	
176	0	0	0	0	0	0	22	38	0	0	0	0	0	0	0	0	0	11	0	0	91	1	85	11	22	281	
177	0	0	0	0	5	0	6	360	0	0	0	0	0	6	0	0	0	13	0	0	12	0	15	1	65	483	
178	0	0	0	0	16	0	27	6157	0	0	0	0	0	41	0	0	0	6	36	0	51	0	9	1	61	6405	
179	0	0	0	0	31	0	25	516	0	0	0	0	0	0	0	0	0	0	120	0	21	0	10	0	307	1030	
180	0	0	0	0	42	0	85	33	0	0	0	0	0	29	0	0	0	0	63	0	0	1	21	44	197	515	
181	0	0	0	0	17	0	20	14	0	0	0	1	0	20	0	0	0	0	73	0	0	0	33	30	81	289	
182	0	0	0	0	9	0	53	5	0	0	0	1	0	15	0	0	0	0	163	0	0	0	39	31	82	398	
183	0	0	0	0	5	0	9	11	0	0	0	0	0	90	0	0	0	0	80	4	60	0	56	13	154	482	
184	0	0	0	0	2	0	0	0	0	1	0	0	1	0	0	0	0	0	11	50	0	1	0	0	4	70	
186	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	27	0	0	0	0	2	32	
187	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	0	0	36	0	0	0	0	5	44	
191	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
192	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	
193	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	50	55	
194	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	7	9	
195	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	2	0	0	0	0	0	5	11	
196	0	0	0	0	14	0	0	0	0	0	0	0	3	0	0	0	0	0	29	4	0	0	0	0	6	56	
197	0	3	0	0	46	0	2	406	0	0	0	0	0	0	0	0	3	0	97	65	0	0	0	0	30	652	
198	0	9	0	0	46	0	0	9	0	0	0	0	3	2	0	0	1	0	162	266	0	0	0	0	48	546	
199	0	0	0	0	30	0	2	13	0	0	0	0	5	0	0	0	0	2	126	448	0	0	0	0	21	647	
200	0	0	0	0	18	0	2	0	1	1	0	0	8	0	0	0	0	0	129	596	0	0	0	0	14	769	
201	0	0	0	0	15	0	6	0	0	0	0	0	1	3	0	0	0	0	62	151	0	0	0	0	38	276	
202	2	8	0	0	36	0	1	0	1	1	0	0	7	0	0	0	1	1	179	185	0	0	0	0	35	457	
203	1	2	0	0	3	0	0	2	0	3	0	0	0	1	0	0	5	2	43	41	0	0	0	0	7	110	
204	0	0	0	0	15	0	0	0	0	1	0	0	3	0	0	0	1	1	17	30	0	0	0	0	36	104	

Table 2: Catch summary (lbs) of important species by haul from NOAA Fisheries, Northeast Fisheries Science Center's spring bottom trawl survey, 7 March - 14 May 2019

STATION	ATLANTIC COD	HADDOCK	POLLOCK	WHITE HAKE	SILVER HAKE	REDFISH	GOOSEFISH	SPINY DOGFISH	YELLOWTAIL FLOUNDER	WINTER FLOUNDER	AMERICAN PLAICE	WITCH FLOUNDER	WINDOWPANE FLDR	SUMMER FLOUNDER	SCUP	BLACK SEA BASS	ATLANTIC HERRING	ATLANTIC MACKEREL	WINTER SKATE	LITTLE SKATE	BUTTERFISH	AMERICAN LOBSTER	LOLIGO	ILLEX	TOTAL * OTHER	TOTAL ALL
206	0	25	0	0	1	0	0	0	0	0	0	0	2	0	0	0	1	3	8	15	0	0	0	0	11	66
207	1	2	0	0	0	0	0	3	0	8	0	0	1	0	0	0	1	0	4	0	0	0	0	0	12	32
208	1	1	0	0	1	0	0	0	2	6	0	0	1	0	0	0	0	1	5	69	0	0	0	0	10	97
209	0	2	0	0	1	0	0	0	0	0	0	0	3	0	0	0	0	1	10	62	0	0	0	0	24	103
210	0	9	0	0	64	0	9	2	0	0	0	0	2	0	0	0	0	0	60	50	0	0	0	0	39	235
211	0	0	0	0	7	0	0	4	0	0	0	0	19	21	0	0	0	1	156	16	2	0	7	1	774	1008
212	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	0	20	849	79	963
213	0	0	0	0	9	0	9	0	0	0	0	0	0	20	0	0	0	1	45	4	175	0	21	6	160	450
214	0	0	0	0	1	0	12	2	0	0	0	0	0	6	0	0	0	1	714	8	1	0	21	0	259	1025
215	0	10	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	1	292	7	0	5	1	0	20	339
216	0	6	0	0	40	0	3	0	0	0	0	0	1	0	0	0	0	0	38	13	0	0	0	0	9	110
217	4	11	0	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	3	83	0	0	0	0	8	112
218	0	3	0	0	1	0	0	4	0	0	1	0	1	0	0	0	0	76	18	47	0	0	0	0	17	168
219	0	4	0	0	1	0	0	0	0	2	0	0	1	0	0	0	2	811	32	34	0	0	0	0	27	914
220	7	5	2	0	4	8	1	0	0	0	0	0	0	0	0	0	1	21	1	1	0	32	0	0	48	131
221	2	0	0	0	0	1	0	0	0	3	0	0	0	0	0	0	0	1	1	0	0	0	0	0	22	30
224	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	1	2	0	2	0	0	31	45
225	1	0	0	0	9	0	0	0	2	0	1	0	0	0	0	0	1	19	13	19	0	0	0	0	21	86
226	1	0	0	0	0	0	0	0	0	6	0	0	1	0	0	0	0	0	0	0	0	2	0	0	13	23
228	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	3	0	0	0	0	0	2	6
231	0	0	0	0	0	0	0	0	0	7	0	0	1	0	0	0	0	0	0	1	0	0	0	0	6	15
233	0	0	0	0	0	0	0	0	0	10	0	0	1	0	0	0	0	0	0	2	0	0	0	0	256	269
234	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	9	0	0	0	0	143	156
235	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1686	1691
236	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	7	1	0	9	0	4	0	0	28	54
237	0	0	0	0	8	0	0	0	0	8	0	0	2	0	0	0	1283	0	1	2	0	0	0	0	18	1322
238	1	0	0	0	0	0	0	0	1	18	0	0	1	0	0	0	0	0	0	2	0	0	0	0	22	45
239	0	0	0	0	2	0	0	0	32	30	0	0	2	0	0	0	1	22	0	5	0	0	0	0	108	202
241	0	0	0	0	6	0	0	0	49	9	0	0	0	0	0	0	2	8	2	5	0	2	0	0	149	232
242	2	5	1	0	15	0	0	0	13	0	4	0	0	0	0	0	9	7	0	0	0	6	0	0	62	124
243	0	3	0	0	357	0	14	0	1	0	2	2	0	0	0	0	0	0	0	0	0	64	0	0	56	499
244	0	3	0	0	245	0	1	0	0	0	1	1	0	0	0	0	10	3	2	0	0	1	0	0	197	464
245	3	5	0	1	122	3	0	0	0	0	1	2	0	0	0	0	2	0	0	0	0	14	0	0	53	206
248	0	1	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	154	29	0	0	0	0	4	191
249	0	19	0	0	65	0	11	0	0	0	0	0	2	0	0	0	0	0	280	55	0	3	0	0	37	472
250	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	16	7	0	0	0	0	17	41
251	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	9	0	0	0	0	3	39

Table 2: Catch summary (lbs) of important species by haul from NOAA Fisheries, Northeast Fisheries Science Center's spring bottom trawl survey, 7 March - 14 May 2019

STATION	ATLANTIC COD	HADDOCK	POLLOCK	WHITE HAKE	SILVER HAKE	REDFISH	GOOSEFISH	SPINY DOGFISH	YELLOWTAIL FLOUNDER	WINTER FLOUNDER	AMERICAN PLAICE	WITCH FLOUNDER	WINDOWPANE FLDR	SUMMER FLOUNDER	SCUP	BLACK SEA BASS	ATLANTIC HERRING	ATLANTIC MACKEREL	WINTER SKATE	LITTLE SKATE	BUTTERFISH	AMERICAN LOBSTER	LOLIGO	ILLEX	TOTAL * OTHER	TOTAL ALL
252	4	62	0	0	1	0	1	0	0	0	0	2	0	0	0	0	0	0	554	82	0	0	0	0	154	860
253	0	0	0	0	3	0	2	0	0	0	0	1	0	0	0	0	568	4	111	10	0	10	1	1	21	732
255	0	0	0	0	52	0	12	2	0	0	0	0	0	12	0	0	0	0	56	22	1	0	6	1	430	594
256	0	0	0	0	59	0	9	0	0	0	0	9	0	0	0	0	0	0	7	1	0	7	0	1	99	192
257	0	0	0	3	9	0	0	0	0	0	0	0	3	0	0	0	0	0	148	24	0	3	0	0	34	224
258	0	2	0	1	56	0	17	0	0	0	0	0	0	0	0	0	0	0	153	95	0	0	0	0	77	401
259	9	33	7	0	12	0	1	0	15	0	4	0	5	0	0	0	0	0	497	75	0	0	0	0	20	678
260	0	4	0	2	45	0	0	0	0	0	0	0	0	0	0	0	0	4	33	12	0	0	16	0	55	171
261	0	0	0	3	20	0	16	0	0	0	0	1	0	0	0	0	0	0	0	2	8	11	28	2	87	178
262	0	11	0	1	17	0	7	0	0	0	0	0	6	0	0	0	0	0	238	38	0	0	0	0	33	351
263	0	0	0	0	122	0	90	0	0	0	0	0	0	0	0	0	0	0	19	0	0	24	2	2	302	561
265	0	0	0	0	13	0	1	0	40	0	0	2	0	0	0	0	0	0	11	31	0	0	0	0	61	159
266	0	0	0	1	22	0	31	0	0	0	0	0	0	7	0	0	0	1	195	15	0	34	7	0	143	456
267	0	1	0	1	6	0	0	0	0	0	0	0	0	0	0	0	0	0	33	19	0	0	1	1	47	109
268	0	0	0	1	55	0	7	0	0	0	0	0	0	0	0	0	0	0	30	10	1	0	6	0	80	190
269	0	0	0	1	149	0	16	0	0	0	0	1	0	0	0	0	0	0	43	3	1	4	29	4	110	361
270	0	371	0	6	5	0	5	0	0	0	0	0	0	0	0	0	0	2	0	2	0	11	13	1	48	464
271	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	1	11	3	0	8	7	0	52	84
272	10	24	0	0	7	0	0	0	2	4	3	0	6	0	0	0	0	0	245	68	0	1	0	0	26	396
273	2	62	0	0	3	0	0	0	4	4	2	0	2	0	0	0	0	0	1437	356	0	0	0	0	13	1885
274	5	600	6	0	0	0	0	0	0	7	2	0	1	0	0	0	0	0	262	48	0	5	0	0	3	939
275	0	57	3	0	0	0	0	0	0	3	7	0	3	0	0	0	0	0	251	35	0	0	0	0	4	363
276	0	11	6	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	323	14	0	3	0	0	9	369
277	34	219	7	0	1	0	0	0	9	23	4	0	1	0	0	0	17	0	348	24	0	21	0	22	253	983
278	13	44	35	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	14	9	0	25	0	4	68	222
280	14	11	6	3	83	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	91	1	16	26	253
282	0	1	0	0	55	1	30	0	0	0	0	0	0	0	0	0	0	0	7	12	0	36	3	0	16	161
283	0	16	0	0	23	0	27	0	0	0	0	0	0	0	0	0	0	0	31	1	1	162	0	0	68	329
284	9	0	11	12	37	0	0	7	0	0	0	0	0	0	0	0	0	0	0	3	0	61	1	1	92	234
285	0	1	0	0	26	0	6	6	0	0	0	0	0	0	0	0	0	0	0	8	0	19	1	3	45	115
286	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	9	0	0	55	70
288	0	122	0	1	9	0	0	0	0	0	0	0	0	0	0	0	0	1	0	4	0	66	0	1	20	224
289	110	121	15	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	6	14	0	0	0	3	179	449
292	1246	1118	1	0	0	0	0	0	4	3	0	0	0	0	0	0	0	0	24	3	0	0	0	0	10	2409
293	0	46	96	70	48	2	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	225	0	1	162	715
294	12	527	0	82	243	0	74	0	0	0	10	19	0	0	0	0	2	0	15	0	0	15	0	0	236	1235
295	0	11	0	0	4	0	0	0	1	2	3	0	0	0	0	0	0	0	147	14	0	16	0	0	40	238

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STATION	ATLANTIC COD	HADDOCK	POLLOCK	WHITE HAKE	SILVER HAKE	REDFISH	GOOSEFISH	SPINY DOGFISH	YELLOWTAIL FLOUNDER	WINTER FLOUNDER	AMERICAN PLAICE	WITCH FLOUNDER	WINDOWPANE FLDR	SUMMER FLOUNDER	SCUP	BLACK SEA BASS	ATLANTIC HERRING	ATLANTIC MACKEREL	WINTER SKATE	LITTLE SKATE	BUTTERFISH	AMERICAN LOBSTER	LOLIGO	ILLEX	TOTAL * OTHER	TOTAL ALL
296	9	772	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	25	1	0	0	0	0	46	859
297	8	770	20	0	0	0	0	0	1	5	0	0	0	0	0	0	0	0	51	7	0	0	0	0	35	897
298	4	143	0	0	2	0	0	0	0	17	0	0	2	0	0	0	0	0	203	76	0	4	0	0	13	464
299	12	352	0	0	13	0	0	0	0	6	11	0	4	0	0	0	0	0	384	84	0	0	0	0	8	874
300	10	214	0	0	10	0	0	0	2	0	2	0	2	0	0	0	0	0	253	52	0	0	0	0	15	560
302	0	82	0	0	44	0	0	0	0	0	2	0	5	0	0	0	0	0	441	24	0	0	0	0	17	615
303	0	430	5	0	1	0	15	0	0	0	1	0	7	0	0	0	0	0	504	61	0	0	0	0	4	1028
304	3	640	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	8	135	11	0	0	0	0	5	807
305	22	9	0	0	1	0	1	0	0	9	1	0	2	0	0	0	0	0	170	11	0	0	0	0	26	252
306	0	6	0	0	1	0	0	0	0	10	1	0	0	0	0	0	0	0	81	26	0	0	0	0	14	139
307	148	158	5	13	57	11	26	0	0	0	6	8	0	0	0	0	0	0	5	0	0	182	0	0	86	705
308	0	79	0	0	14	0	0	0	1	5	2	0	1	0	0	0	0	0	64	8	0	0	0	0	33	207
309	0	1	0	0	12	0	0	0	0	0	1	0	5	0	0	0	1	0	21	19	0	0	0	0	8	68
310	12	126	0	20	655	0	39	0	0	0	0	11	0	0	0	0	0	0	0	0	0	6	0	0	293	1162
311	0	4	0	0	5	0	0	0	0	1	3	0	2	0	0	0	0	0	45	68	0	4	0	0	13	145
312	0	350	0	2	230	0	0	0	0	0	1	0	0	0	0	0	0	0	66	279	0	0	0	0	21	949
313	0	0	0	0	16	0	0	0	0	0	0	0	2	0	0	0	0	2	14	38	0	0	1	0	16	89
317	0	512	0	0	5	0	10	16	0	0	7	0	0	0	0	0	64	21	0	0	0	3	0	0	94	732
318	0	653	0	0	11	0	0	18	0	0	2	0	0	0	0	0	431	7	6	17	0	0	1	0	20	1166
319	0	1647	0	0	11	0	7	7	0	0	2	0	0	0	0	0	157	9	0	0	0	0	1	0	21	1862
320	1	212	0	3	90	1	38	26	0	0	3	5	0	0	0	0	2	0	0	0	0	0	1	0	89	471
321	0	31	0	1	158	0	7	12	0	0	0	3	0	0	0	0	1	0	0	0	0	0	0	0	50	263
322	0	9	0	25	48	36	29	81	0	0	1	3	0	0	0	0	1	0	0	0	0	0	0	0	81	314
323	0	22	0	5	234	6	41	14	0	0	2	6	0	0	0	0	0	2	0	0	0	0	0	0	73	405
324	0	14	0	22	125	117	33	315	0	0	0	2	0	0	0	0	2	1	0	0	0	4	0	0	68	703
325	9	5	17	19	133	613	52	13	0	0	4	4	0	0	0	0	3	0	0	0	0	6	0	0	96	974
326	0	74	0	11	61	13	68	43	0	0	17	11	0	0	0	0	12	1	0	0	0	4	0	0	38	353
328	0	63	0	15	55	337	39	131	0	0	19	10	0	0	0	0	4	0	0	0	0	0	0	0	43	716
329	0	56	0	24	124	17	31	11	0	0	5	45	0	0	0	0	7	0	0	0	0	5	0	0	43	368
330	0	9	0	5	240	75	87	9	0	0	6	6	0	0	0	0	6	2	0	0	0	0	0	0	46	491
331	0	16	0	9	172	24	19	19	0	0	12	4	0	0	0	0	2	2	0	0	0	9	0	0	115	403
332	0	98	19	57	85	14	83	501	0	0	15	31	0	0	0	0	2	1	0	0	0	6	0	0	222	1134
333	0	25	0	5	32	60	32	6	0	0	5	16	0	0	0	0	0	1	0	0	0	4	0	0	86	272
334	0	23	0	19	89	367	15	0	0	0	7	3	0	0	0	0	1	1	0	0	0	5	1	0	128	659
335	0	7	74	29	11	28	43	0	0	0	0	0	0	0	0	0	0	1	0	0	0	17	0	0	117	327
336	0	11	0	19	50	16	79	0	0	0	0	1	0	0	0	0	2	0	0	0	0	11	0	0	90	279
337	0	7	0	51	197	3	103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57	0	0	110	528

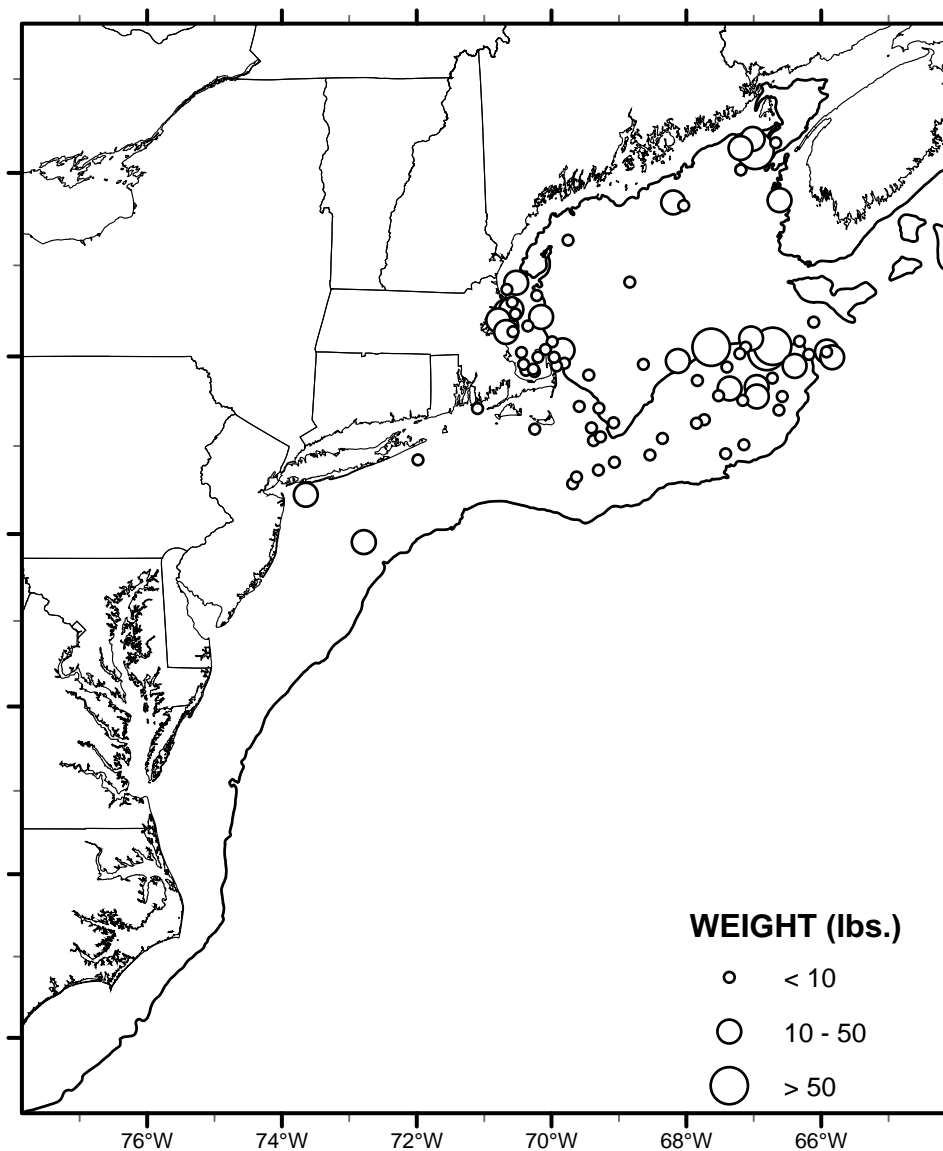
Table 2: Catch summary (lbs) of important species by haul from NOAA Fisheries, Northeast Fisheries Science Center's spring bottom trawl survey, 7 March - 14 May 2019

STATION	ATLANTIC COD	HADDOCK	POLLOCK	WHITE HAKE	SILVER HAKE	REDFISH	GOOSEFISH	SPINY DOGFISH	YELLOWTAIL FLOUNDER	WINTER FLOUNDER	AMERICAN PLAICE	WITCH FLOUNDER	WINDOWPANE FLDR	SUMMER FLOUNDER	SCUP	BLACK SEA BASS	ATLANTIC HERRING	ATLANTIC MACKEREL	WINTER SKATE	LITTLE SKATE	BUTTERFISH	AMERICAN LOBSTER	LOLIGO	ILLEX	TOTAL * OTHER	TOTAL ALL
338	0	6	0	77	20	5	154	0	0	0	0	0	0	0	0	0	1	0	0	0	0	97	0	0	99	459
339	0	2	3	102	60	0	138	0	0	0	0	0	0	0	0	0	0	4	0	0	0	32	0	0	132	473
340	0	52	5	22	56	10	13	0	0	0	0	2	0	0	0	0	0	0	0	0	0	7	0	0	180	347
341	0	7	24	35	64	26	7	1473	0	0	0	0	0	0	0	0	0	0	0	0	0	86	0	0	53	1775
342	0	6	0	64	126	22	18	166	0	0	0	5	0	0	0	0	9	1	0	0	0	16	0	0	47	480
343	0	50	1	65	55	64	31	89	0	0	3	8	0	0	0	0	6	4	0	0	0	0	0	0	33	409
344	0	63	6	71	13	1	44	0	0	0	3	1	0	0	0	0	11	1	0	0	0	0	0	0	35	249
345	0	25	0	30	128	1	69	2	0	0	1	3	0	0	0	0	4	1	0	0	0	11	0	0	86	361
346	0	11	19	493	23	14	12	10	0	0	0	1	0	0	0	0	3	1	0	0	0	21	0	0	55	663
349	0	281	9	3	22	0	0	0	0	2	1	1	0	0	0	0	19	16	0	0	0	4	0	0	7	365
350	21	268	5	0	0	0	0	0	0	64	0	0	0	0	0	0	1	1	0	1	0	68	0	0	76	505
351	0	0	0	9	106	11	4	9	0	0	1	4	0	0	0	0	5	1	0	0	0	13	0	0	26	189
352	0	8	0	17	12	35	12	48	0	0	0	1	0	0	0	0	4	4	0	0	0	4	0	0	19	164
354	0	8	9	24	65	0	13	2	0	0	0	18	0	0	0	0	8	1	0	0	0	2	0	0	76	226
355	0	277	1	0	2	0	0	0	0	17	0	0	0	0	0	0	127	285	0	0	0	14	0	0	18	741
357	3	49	0	0	5	15	0	7	0	0	0	0	0	0	0	0	2	0	0	0	0	22	0	0	24	127
358	94	23	0	33	45	59	6	0	0	5	0	39	0	0	0	0	1	0	0	0	0	28	0	0	55	388
359	46	7	0	32	13	1	0	4	0	5	0	37	0	0	0	0	1	0	0	0	0	58	0	0	36	240
360	10	6	0	10	13	0	8	21	0	0	0	1	0	0	0	0	3	1	0	0	0	28	0	0	26	127
361	0	0	0	2	16	0	1	0	0	7	6	0	0	0	0	0	54	0	0	0	0	242	0	0	13	341
362	0	0	0	2	48	0	2	0	0	2	4	0	0	0	0	0	43	0	0	0	0	203	0	0	10	314
363	0	0	0	4	87	0	2	0	0	1	1	2	0	0	0	0	45	0	0	0	0	159	0	0	54	355
364	10	46	0	37	113	3	14	20	0	0	1	6	0	0	0	0	5	0	0	0	0	19	0	0	35	309
365	1	19	0	39	140	1	19	35	0	0	0	19	0	0	0	0	2	0	0	0	0	13	0	0	35	323
366	0	34	0	126	34	1	28	42	0	0	5	1	0	0	0	0	17	0	0	0	0	6	0	0	20	314
367	0	48	0	29	72	3	13	2	0	0	9	22	0	0	0	0	5	2	0	0	0	1	0	0	27	233
368	0	1	0	7	526	0	3	0	0	0	3	6	0	0	0	0	3	0	0	0	0	18	0	0	14	581
369	0	2	0	5	137	0	10	0	0	0	4	0	0	0	0	0	9	0	0	0	0	77	0	0	12	256
370	0	5	0	2	47	0	4	0	0	0	7	1	0	0	0	0	8	0	0	0	0	26	0	0	22	122
371	0	26	0	2	211	0	21	0	0	0	7	1	0	0	0	0	14	0	0	0	0	5	0	0	26	313
372	0	45	0	2	304	2	15	14	0	0	14	23	0	0	0	0	9	0	0	0	0	7	0	0	27	462
373	0	129	6	4	293	18	3	20	0	0	5	3	0	0	0	0	7	3	0	0	0	4	0	0	26	521
374	0	15	0	4	73	126	29	0	0	0	44	14	0	0	0	0	4	0	0	0	0	8	0	0	35	352
375	7	11	0	0	73	5	8	9	0	0	10	1	0	0	0	0	10	0	0	0	0	9	0	0	36	179
376	0	9	0	1	187	0	23	0	0	0	29	2	0	0	0	0	0	0	0	0	0	17	0	0	19	287
377	0	0	0	5	70	0	7	0	1	1	18	1	0	0	0	0	0	0	0	0	0	33	0	0	13	149
379	0	49	0	0	103	3	8	0	0	0	25	5	0	0	0	0	2	0	0	0	0	28	0	0	56	279

Table 2: Catch summary (lbs) of important species by haul from NOAA Fisheries, Northeast Fisheries Science Center's spring bottom trawl survey, 7 March - 14 May 2019

STATION	ATLANTIC COD	HADDOCK	POLLOCK	WHITE HAKE	SILVER HAKE	REDFISH	GOOSEFISH	SPINY DOGFISH	YELLOWTAIL FLOUNDER	WINTER FLOUNDER	AMERICAN PLAICE	WITCH FLOUNDER	WINDOWPANE FLDR	SUMMER FLOUNDER	SCUP	BLACK SEA BASS	ATLANTIC HERRING	ATLANTIC MACKEREL	WINTER SKATE	LITTLE SKATE	BUTTERFISH	AMERICAN LOBSTER	LOLIGO	ILLEX	TOTAL * OTHER	TOTAL ALL
380	0	42	0	0	238	21	2	0	1	0	8	4	0	0	0	0	3	0	0	0	0	36	0	0	118	473
381	35	469	0	1	59	8	6	0	12	2	25	11	0	0	0	0	2	0	0	0	0	10	0	0	101	741
382	3	0	0	0	0	0	6	0	22	12	0	0	0	0	0	0	8	0	0	8	0	35	0	0	70	164
383	4	0	1	0	2	0	2	0	177	80	6	0	0	0	0	0	1043	7	0	16	0	93	0	0	52	1483
384	25	857	0	1	9	1	2	0	185	29	34	1	0	0	0	0	9	0	0	0	0	102	0	0	41	1296
385	14	207	0	0	18	2	2	0	170	12	57	1	0	0	0	0	10	0	0	0	0	48	0	0	28	569
387	5	102	0	0	16	13	0	0	1	3	2	1	0	0	0	0	8	0	0	0	0	4	0	0	39	194
388	0	14	0	32	240	122	62	33	0	0	4	2	0	0	0	0	2	1	0	0	0	0	0	0	103	615
389	0	98	0	23	171	4	37	82	0	0	4	2	0	0	0	0	0	0	0	0	0	7	0	0	64	492
390	0	30	0	66	203	9	19	402	0	0	1	0	0	0	0	0	0	1	0	0	0	5	0	0	45	781
391	0	39	0	37	74	44	47	169	0	0	4	0	0	0	0	0	0	0	0	0	0	2	0	0	36	452
392	0	49	0	9	19	38	18	17	0	0	5	2	0	0	0	0	1	0	0	0	0	0	0	0	27	185
393	0	49	0	19	107	202	72	27	0	0	1	0	0	0	0	0	0	1	0	0	0	3	0	0	40	521
395	0	32	3	49	131	46	69	49	0	0	10	1	0	0	0	0	0	2	0	0	0	14	0	0	66	472
396	12	24	0	0	137	5	4	20	4	0	2	9	0	0	0	0	0	0	0	0	0	132	0	0	166	515
397	3	29	2	1	67	1	11	0	7	2	3	3	0	0	0	0	2	0	0	0	0	65	0	0	135	331
398	0	54	0	0	17	1	3	0	3	3	1	0	0	0	0	0	2	0	0	0	0	48	0	0	68	200
399	39	552	1	0	3	0	0	0	8	35	0	0	0	0	0	0	5	0	0	0	0	9	0	0	65	717
400	0	0	0	0	13	0	19	0	32	5	33	1	0	0	0	0	1	0	26	77	0	5	0	0	46	258
401	9	429	0	0	10	0	0	0	47	11	9	0	0	0	0	0	767	1	0	2	0	13	0	0	82	1380
402	18	230	0	0	5	0	0	0	132	59	9	2	0	0	0	0	7	0	0	3	0	14	0	0	98	577
403	14	16	0	0	1	0	0	0	38	53	0	0	0	0	0	0	0	0	0	2	0	55	0	0	81	260
404	10	0	0	0	0	0	0	0	3	109	0	0	0	0	0	0	0	0	1	5	0	71	0	0	33	232
408	0	0	0	0	5	0	0	0	7	19	3	0	0	0	0	0	31	0	0	2	0	28	0	0	54	149
Total	2151	16163	431	2142	11807	2696	3980	136339	1036	866	607	488	248	1427	752	593	5065	2772	13541	9706	3103	3551	4902	1196	45067	270629

ATLANTIC COD



HADDOCK

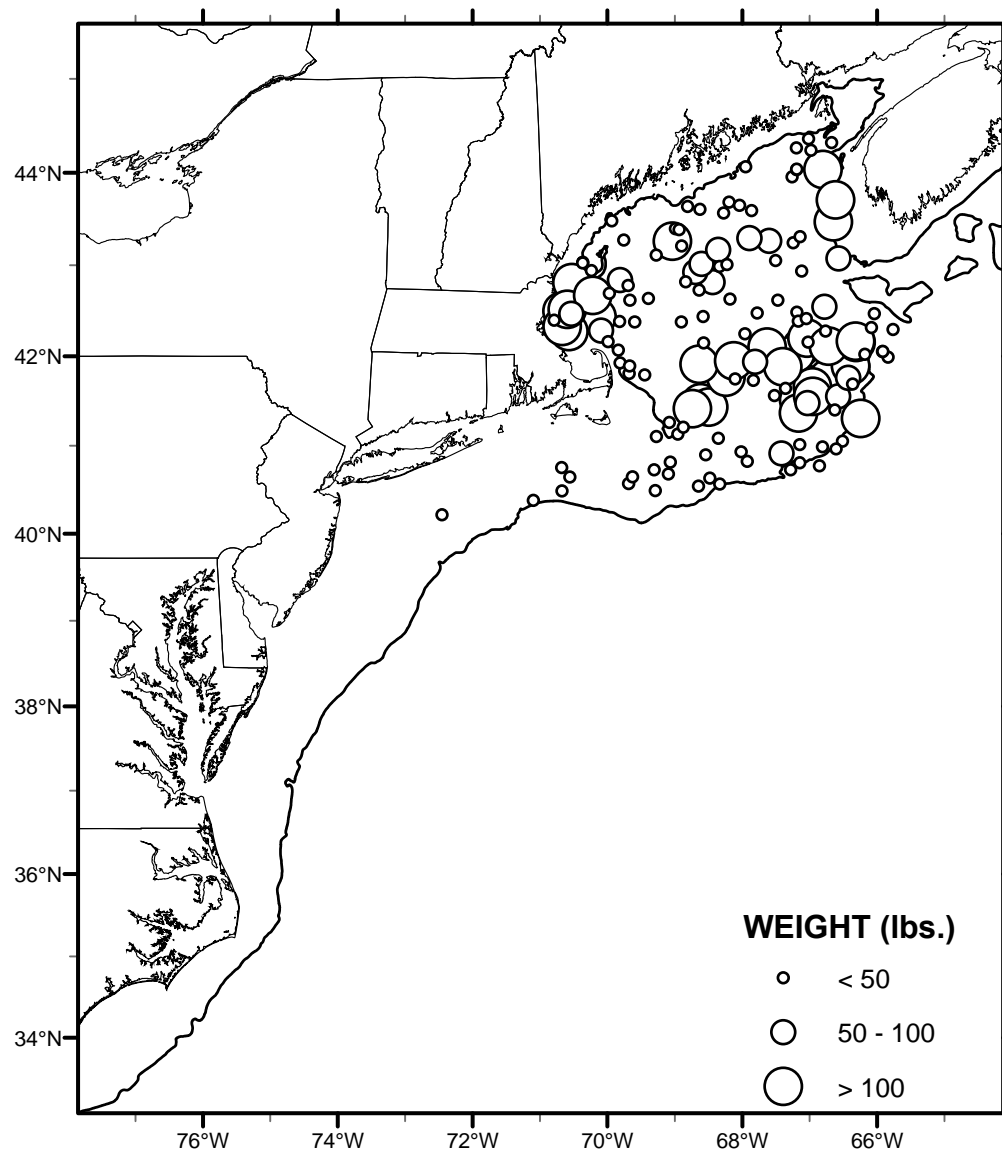
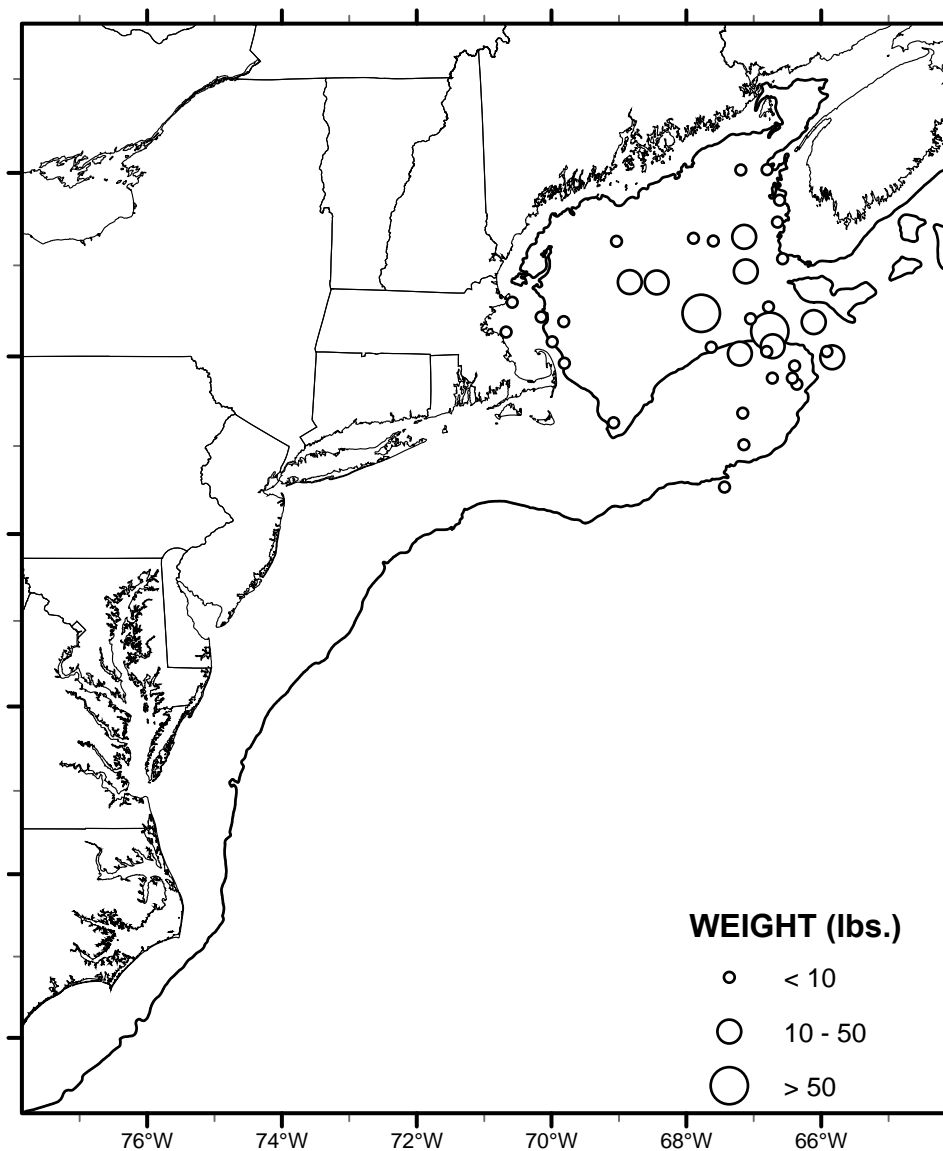


Figure 3: Total number of Atlantic cod (left panel) and haddock (right panel) per tow from NOAA Fisheries, Northeast Fisheries Science Center's spring bottom trawl survey, 10 March - 14 May 2019

POLLOCK



BLUEFISH

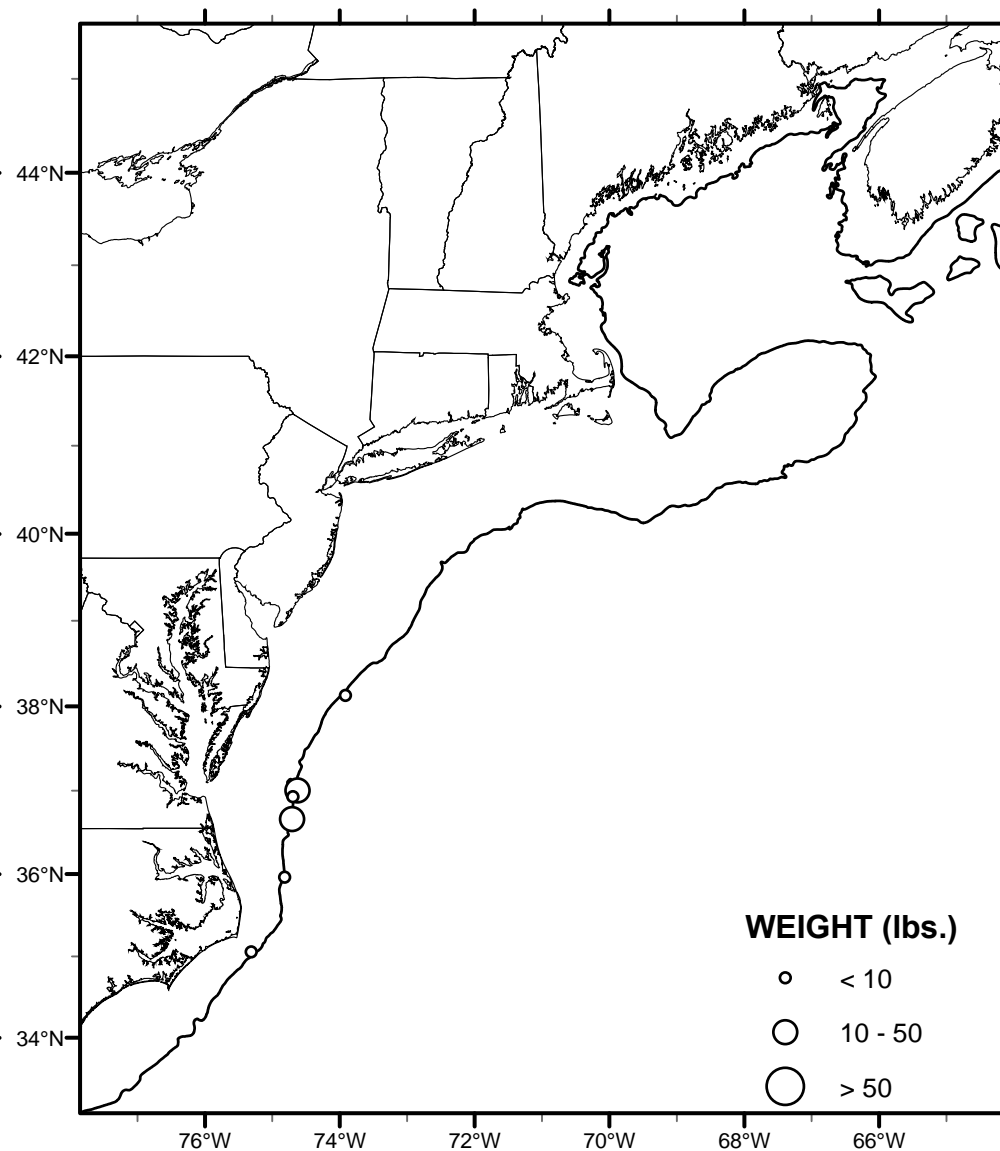
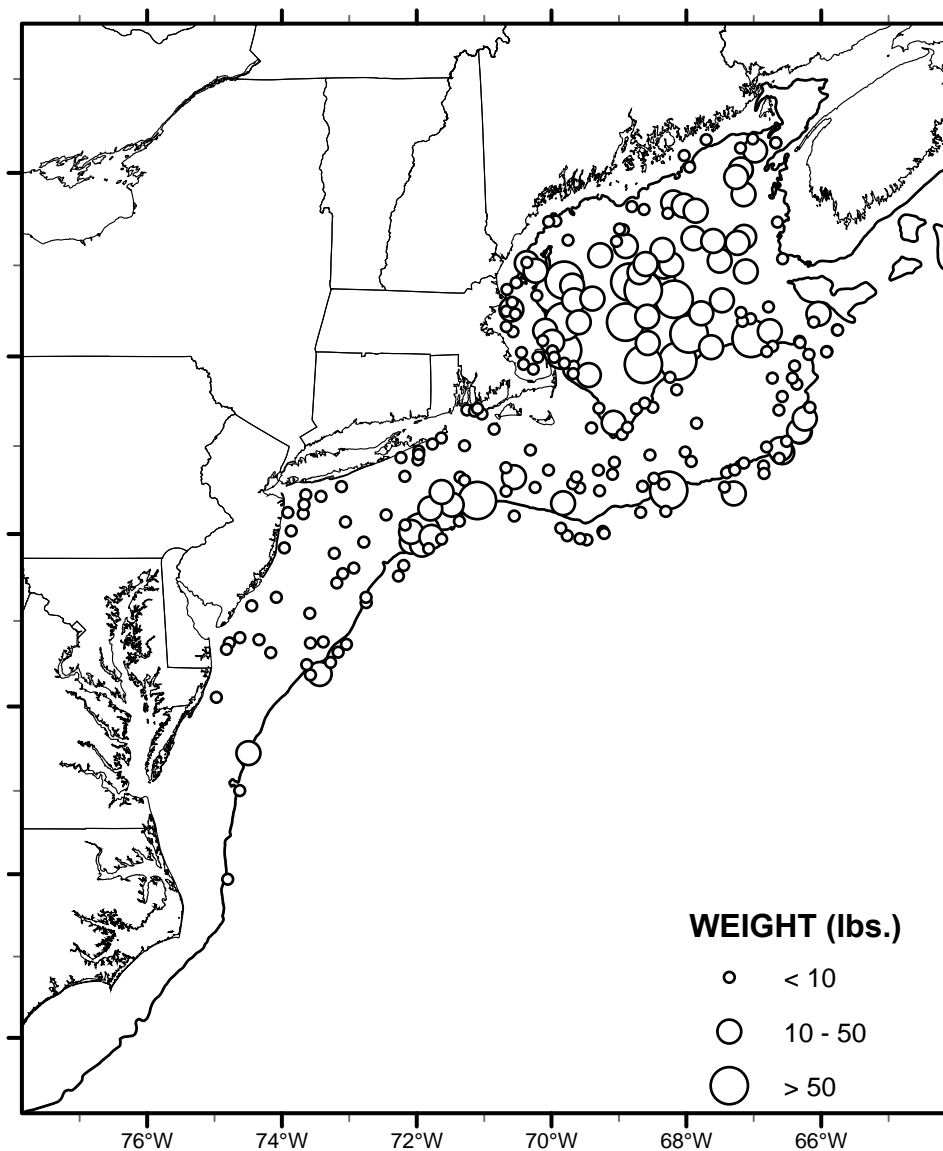


Figure 4: Total number of pollock (left panel) and bluefish (right panel) per tow from NOAA Fisheries, Northeast Fisheries Science Center's spring bottom trawl survey, 10 March - 14 May 2019

RED HAKE



WHITE HAKE

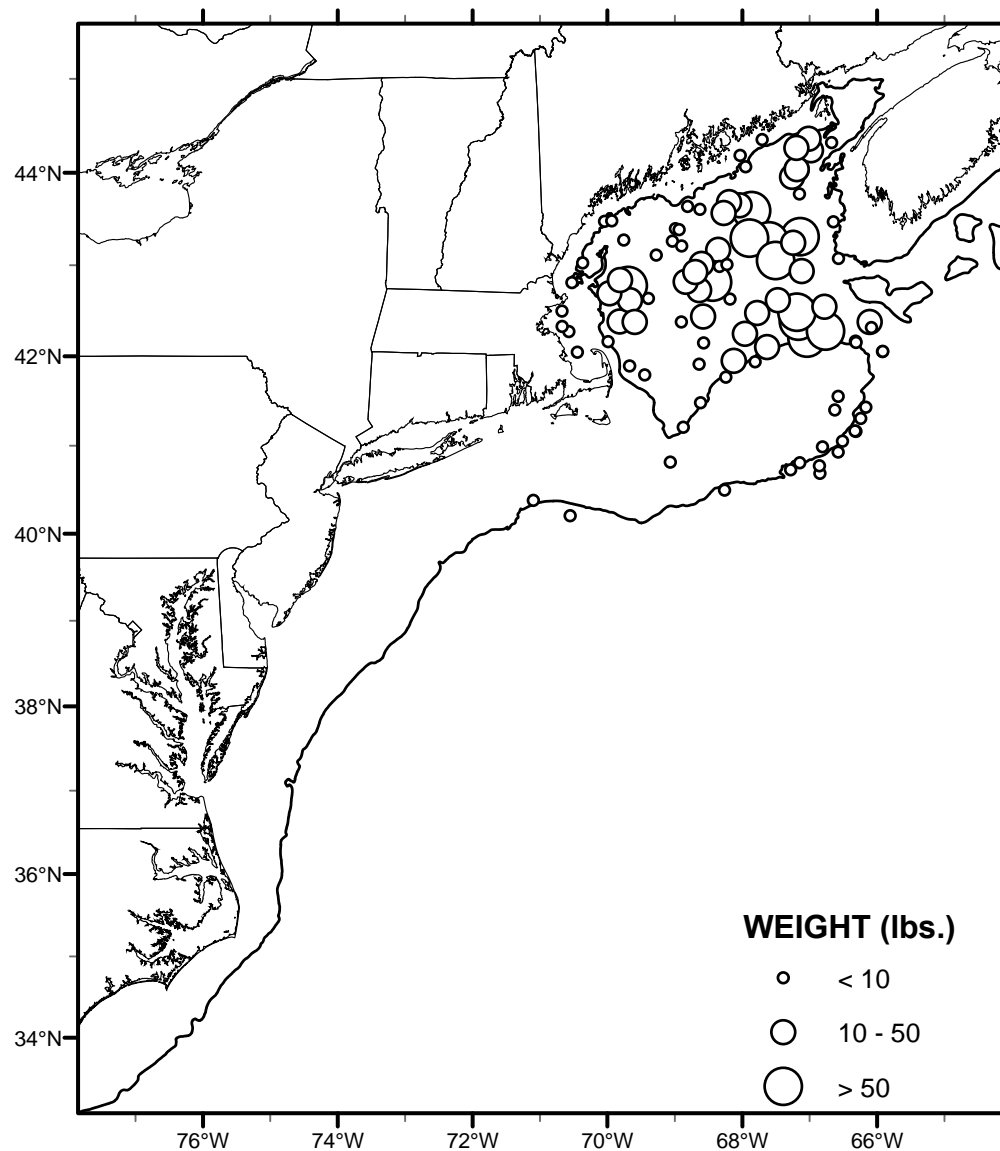
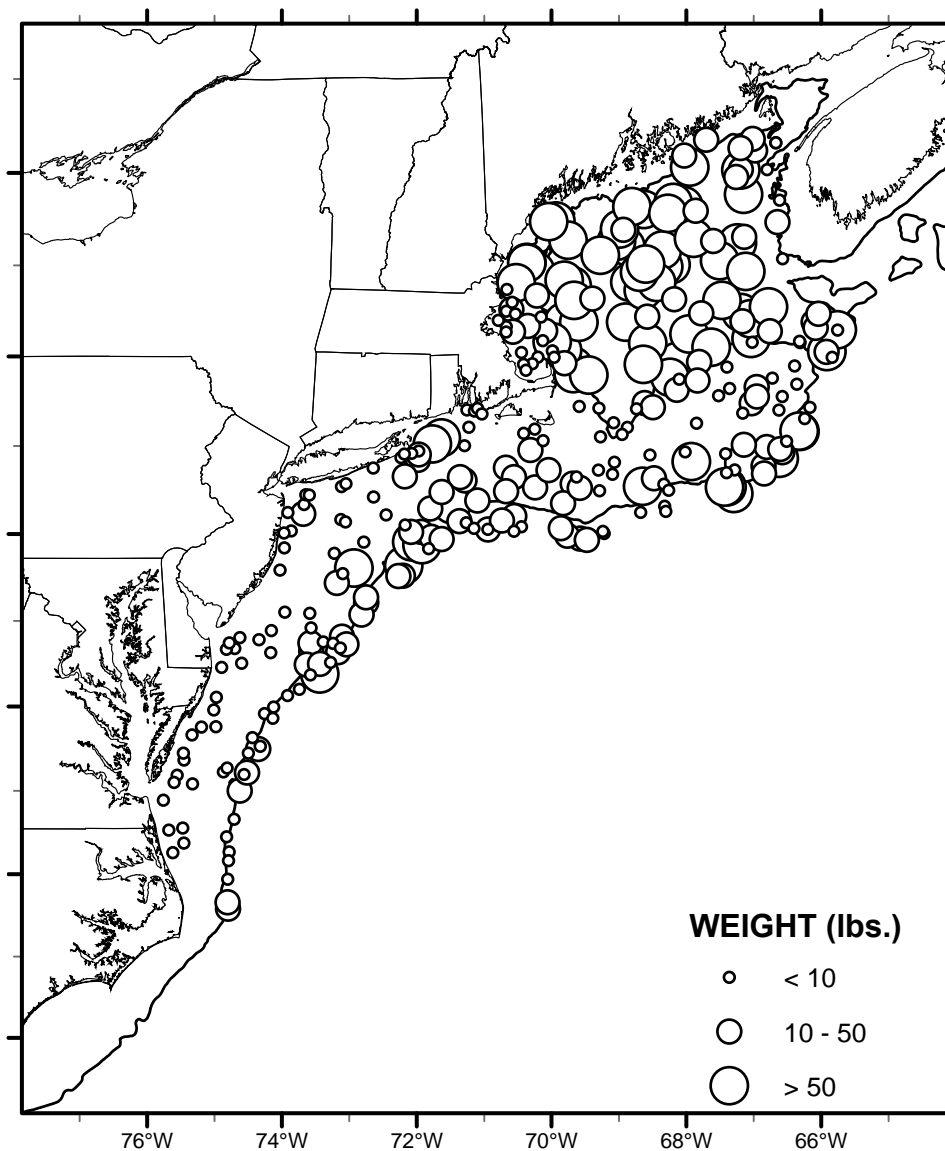


Figure 5: Total number of red hake (left panel) and white hake (right panel) per tow from NOAA Fisheries, Northeast Fisheries Science Center's spring bottom trawl survey, 10 March - 14 May 2019

SILVER HAKE



ACADIAN REDFISH

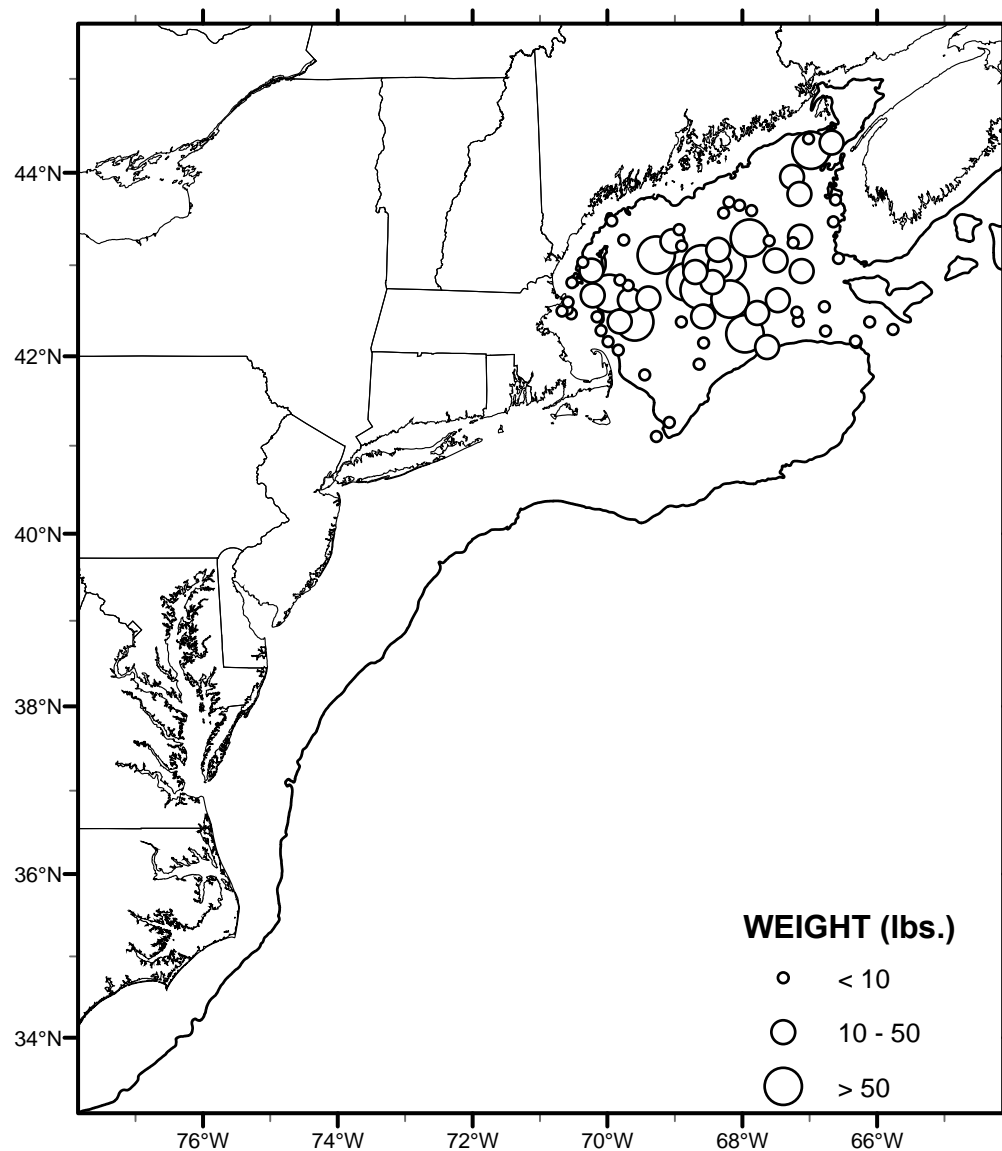
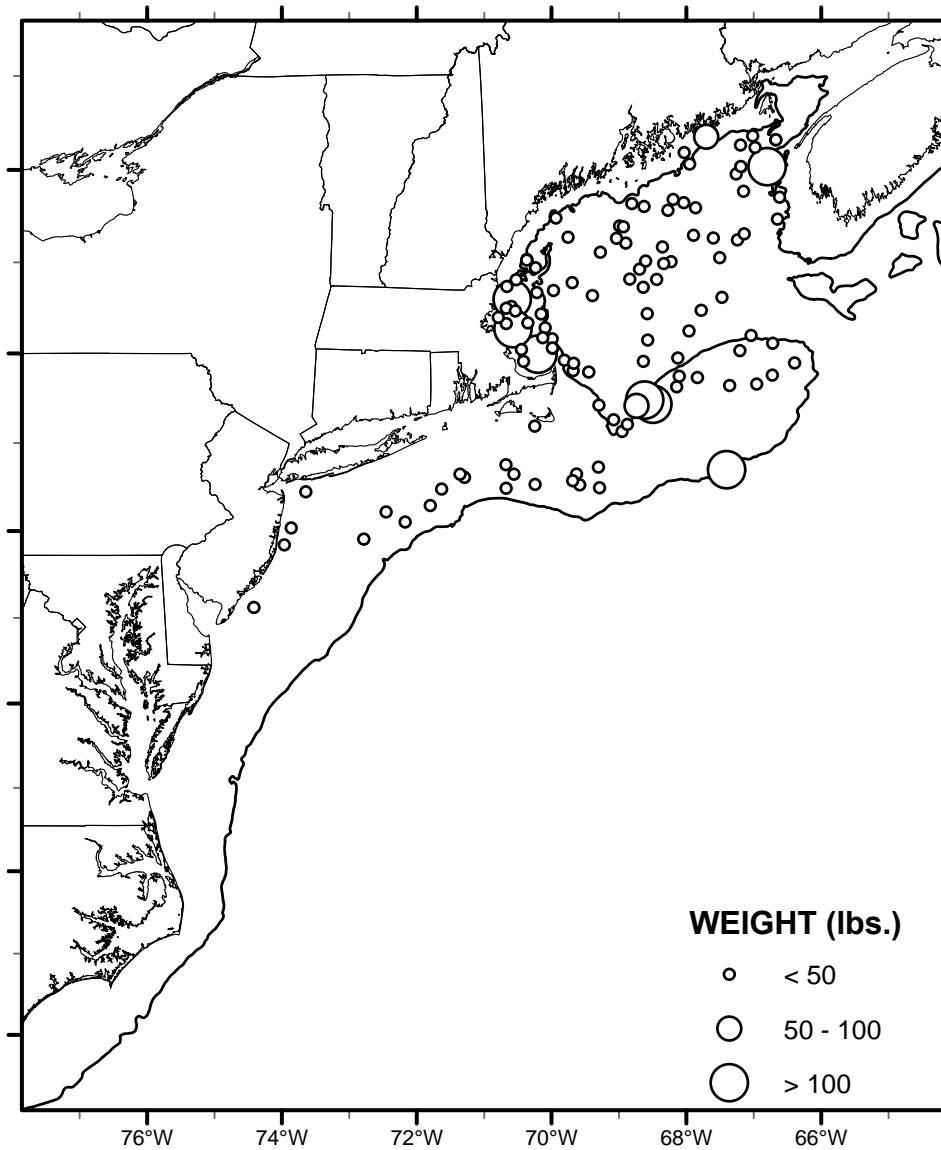


Figure 6: Total number of silver hake (left panel) and Acadian redfish (right panel) per tow from NOAA Fisheries, Northeast Fisheries Science Center's spring bottom trawl survey, 10 March - 14 May 2019

ATLANTIC HERRING



ATLANTIC MACKEREL

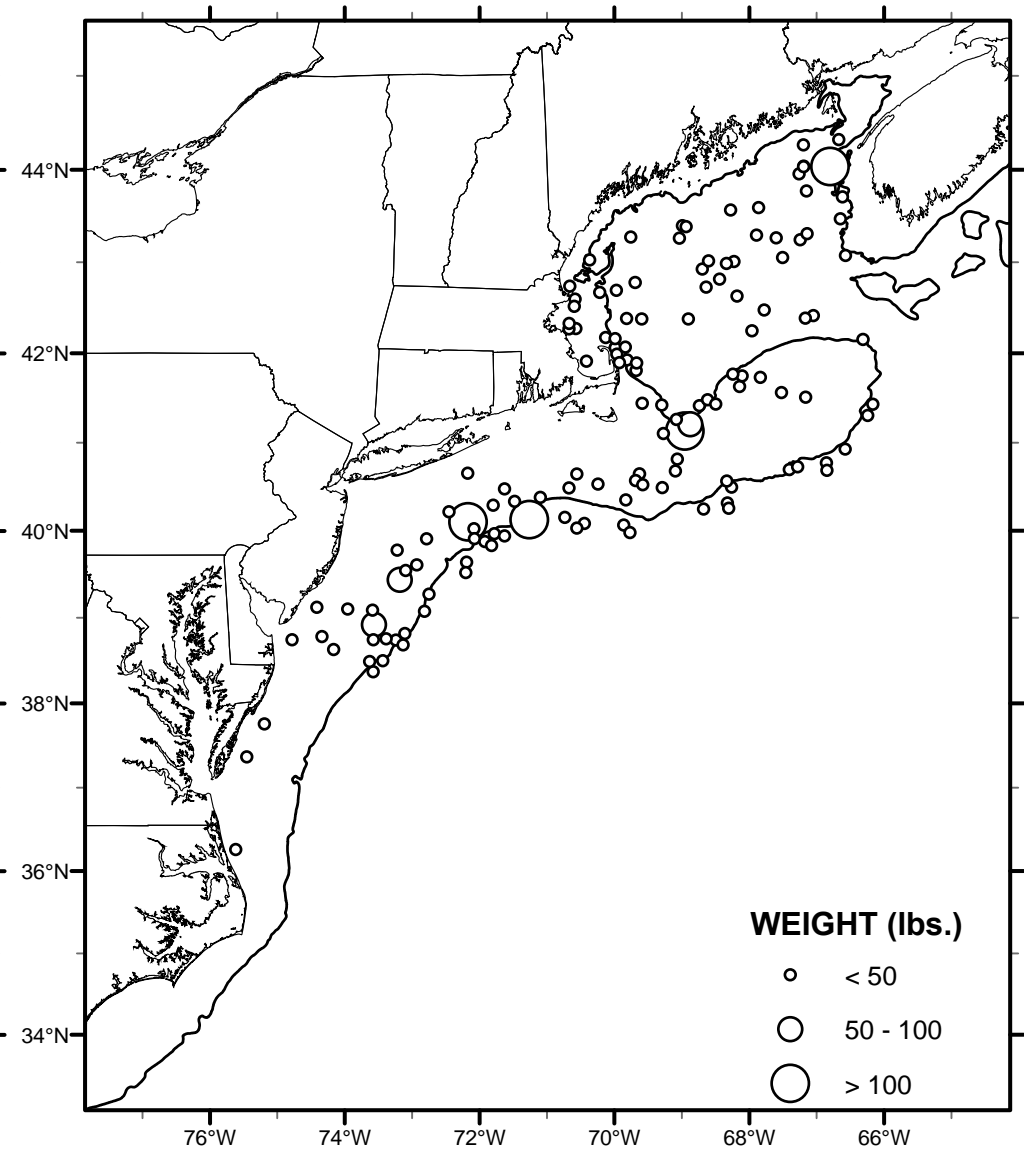
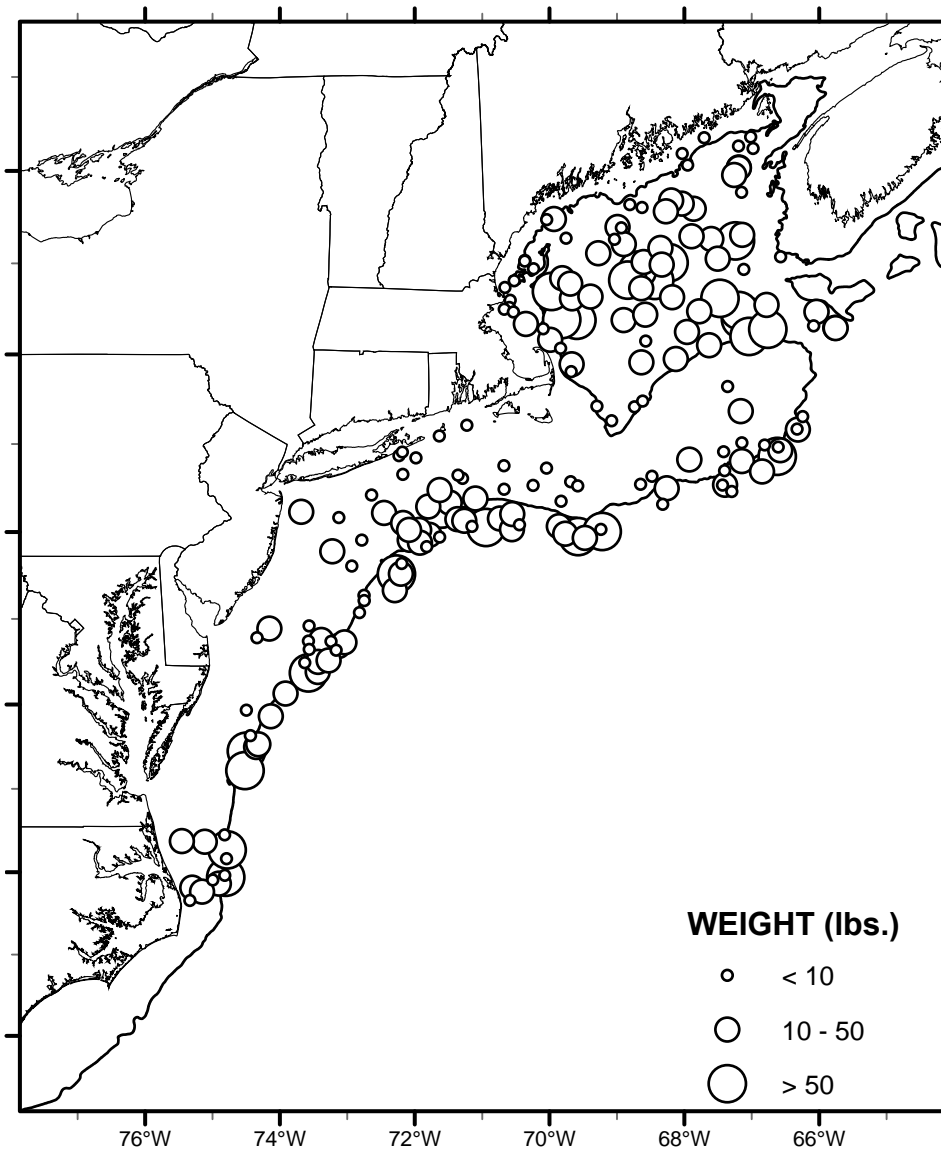


Figure 7: Total number of Atlantic herring (left panel) and Atlantic mackerel (right panel) per tow from NOAA Fisheries, Northeast Fisheries Science Center's spring bottom trawl survey, 10 March - 14 May 2019

GOOSEFISH



SPINY DOGFISH

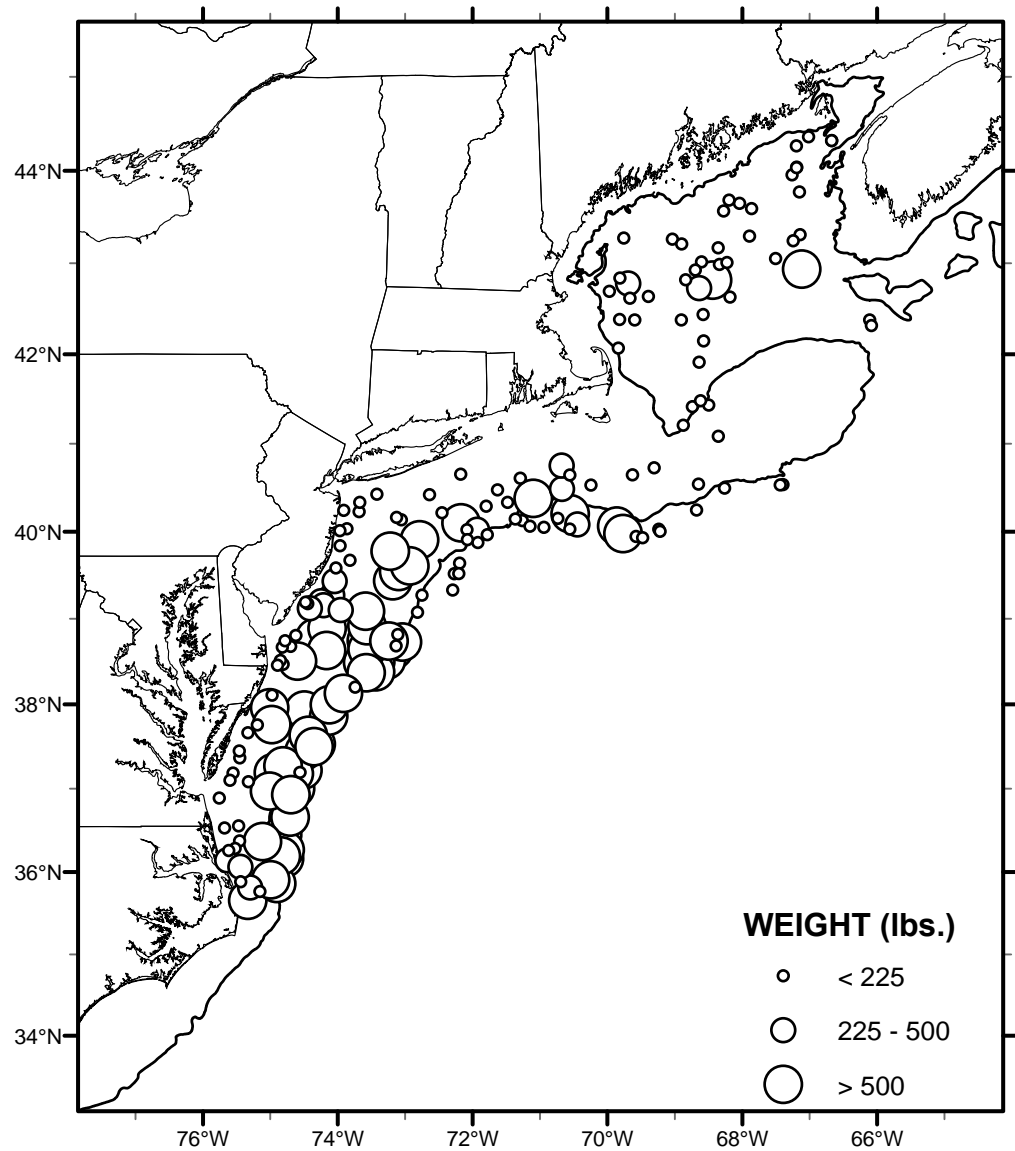
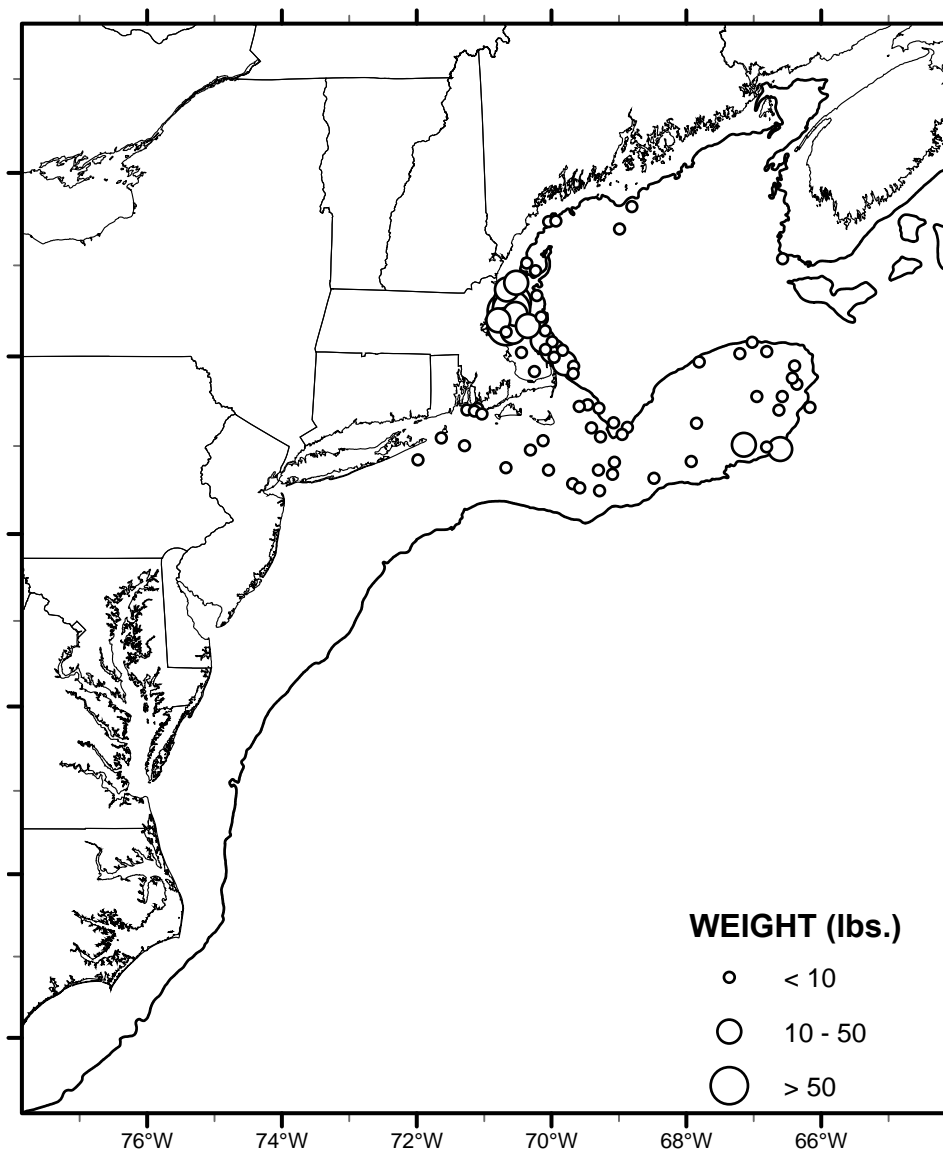


Figure 8: Total number of goosefish (left panel) and spiny dogfish (right panel) per tow from NOAA Fisheries, Northeast Fisheries Science Center's spring bottom trawl survey, 10 March - 14 May 2019

YELLOWTAIL FLOUNDER



WINTER FLOUNDER

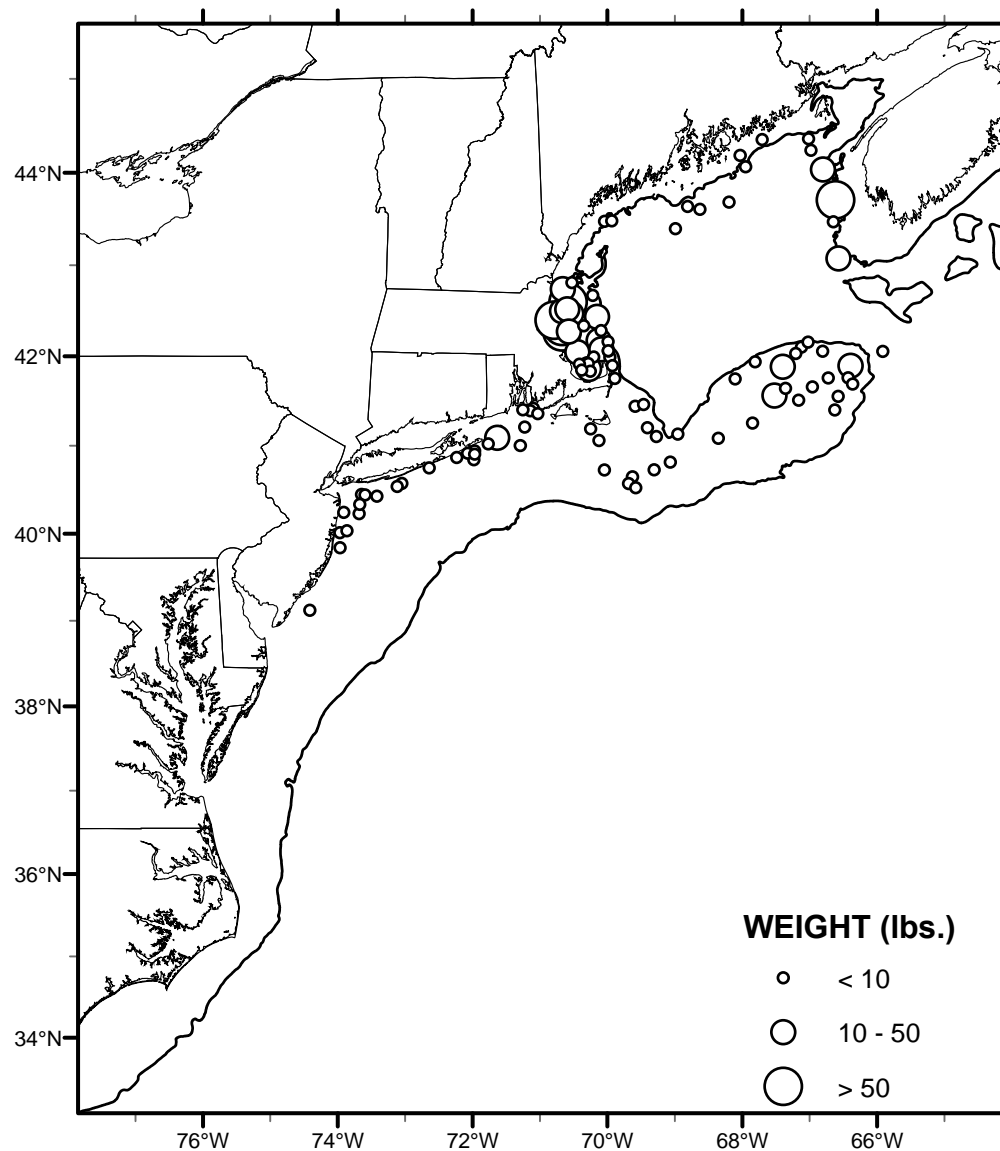
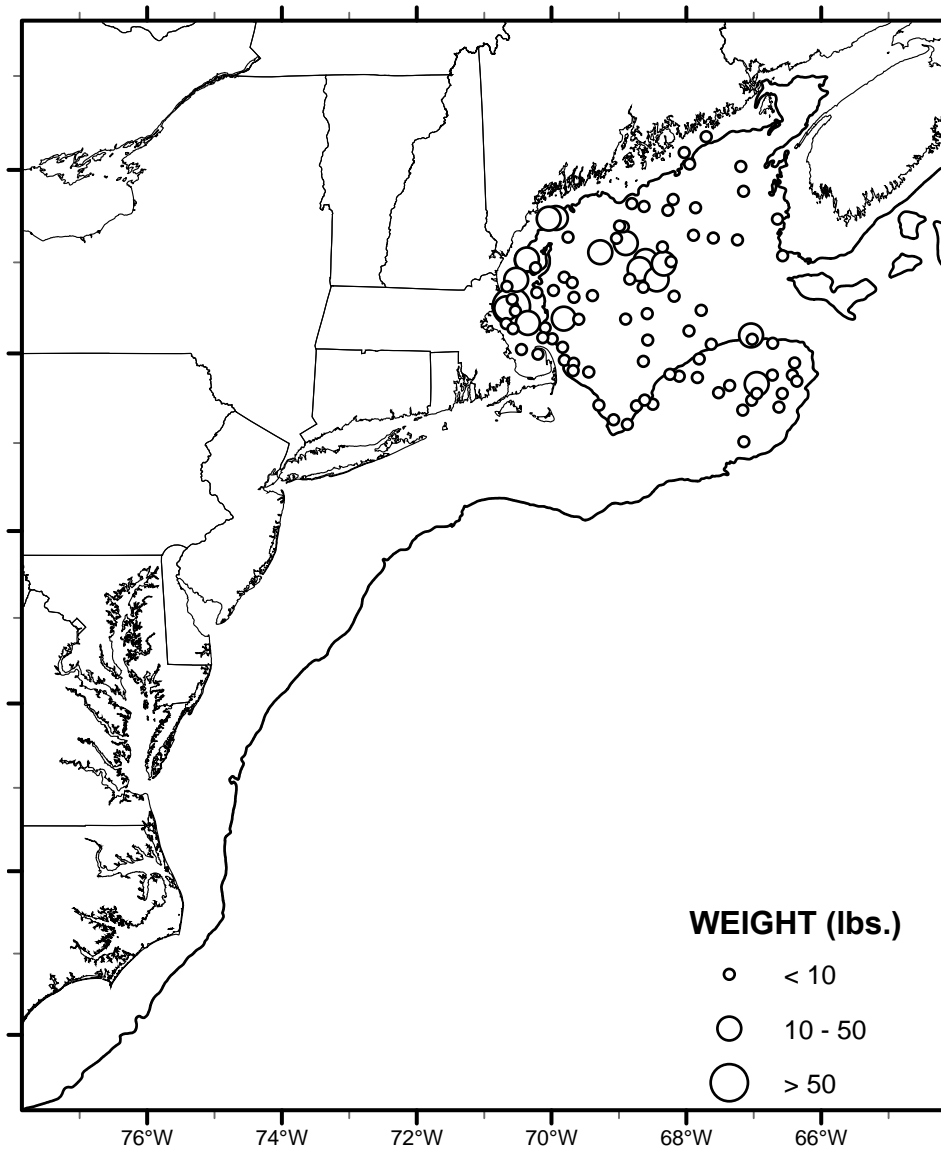


Figure 9: Total number of yellowtail flounder (left panel) and winter flounder (right panel) per tow from NOAA Fisheries, Northeast Fisheries Science Center's spring bottom trawl survey, 10 March - 14 May 2019

AMERICAN PLAICE



WITCH FLOUNDER

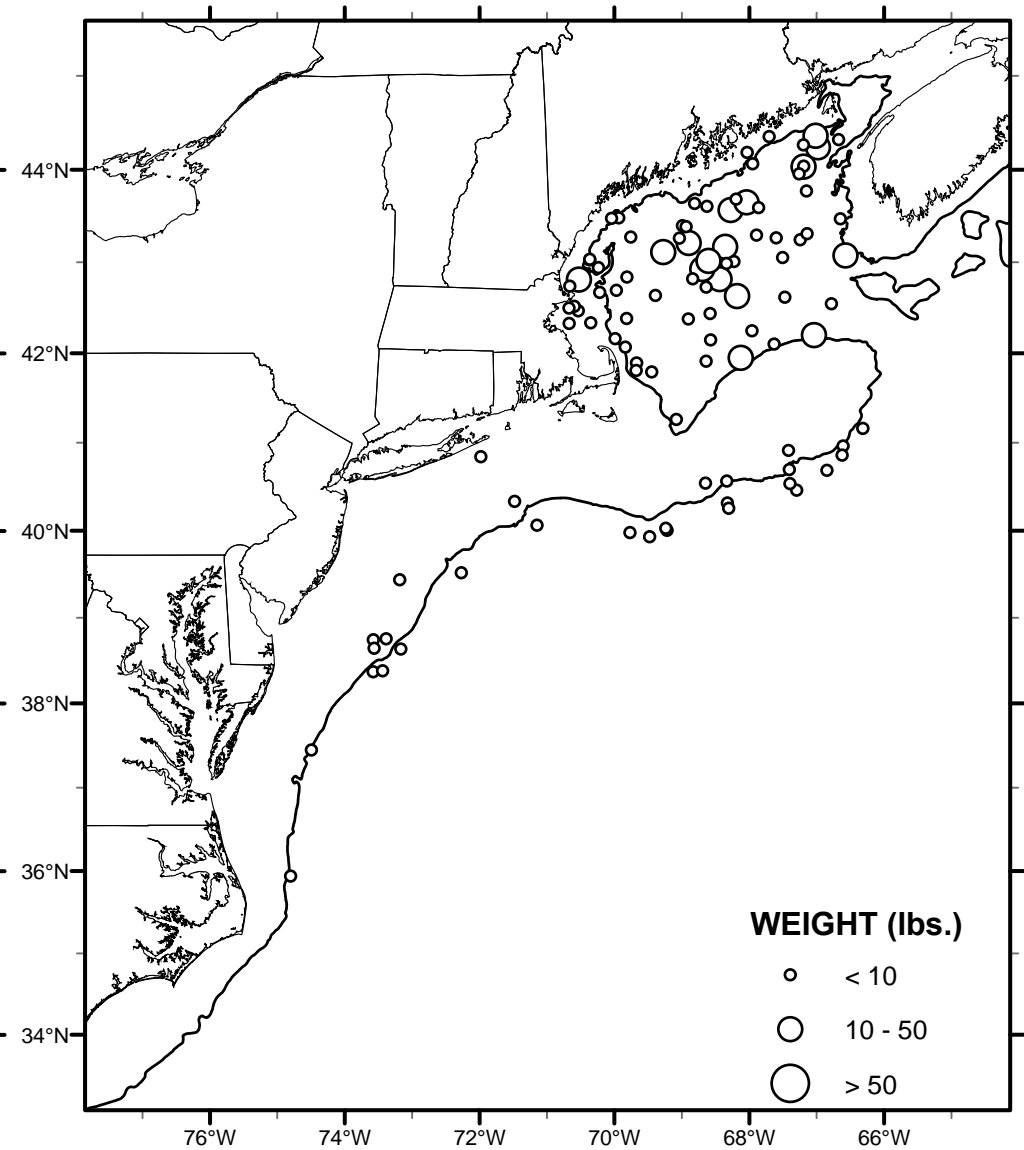
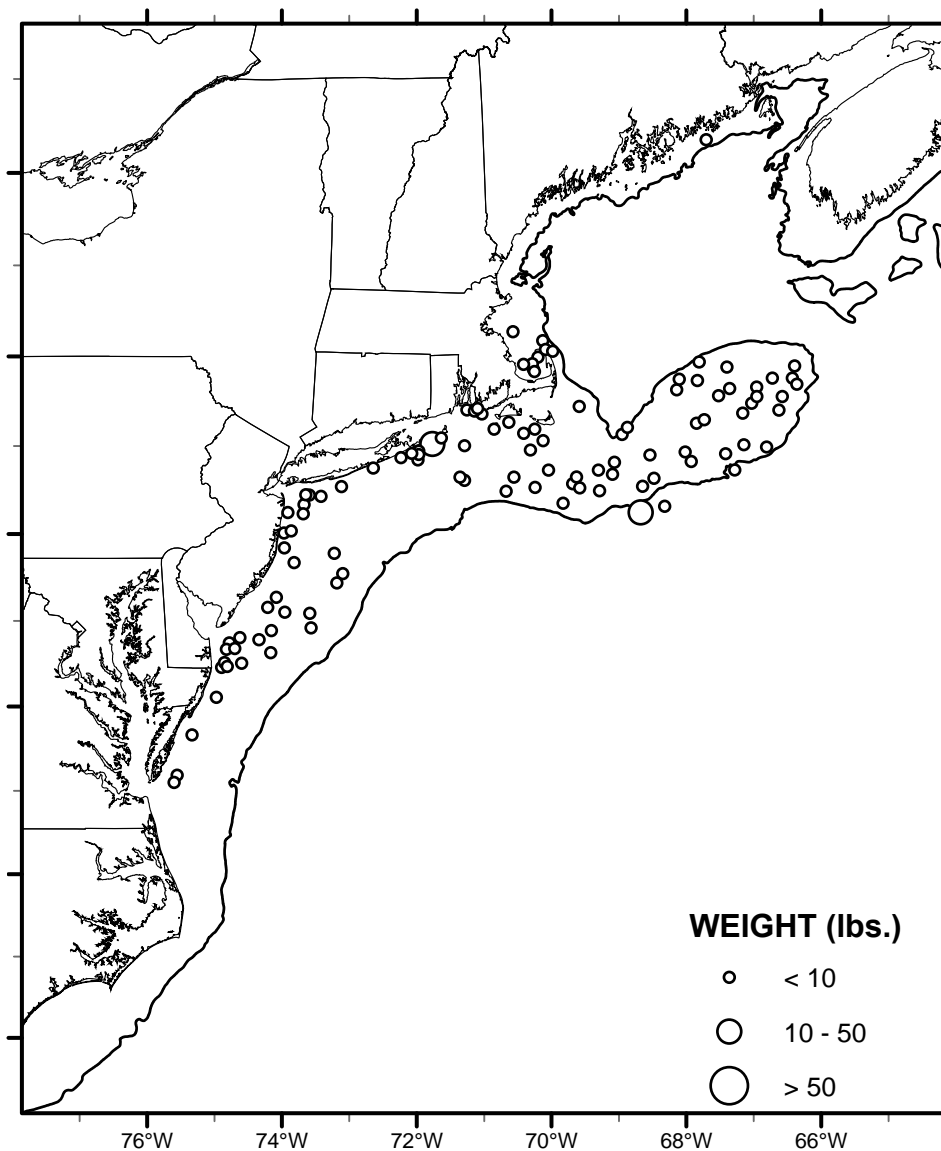


Figure 10: Total number of American plaice (left panel) and witch flounder (right panel) per tow from NOAA Fisheries, Northeast Fisheries Science Center's spring bottom trawl survey, 10 March - 14 May 2019

WINDOWPANE FLOUNDER



SUMMER FLOUNDER

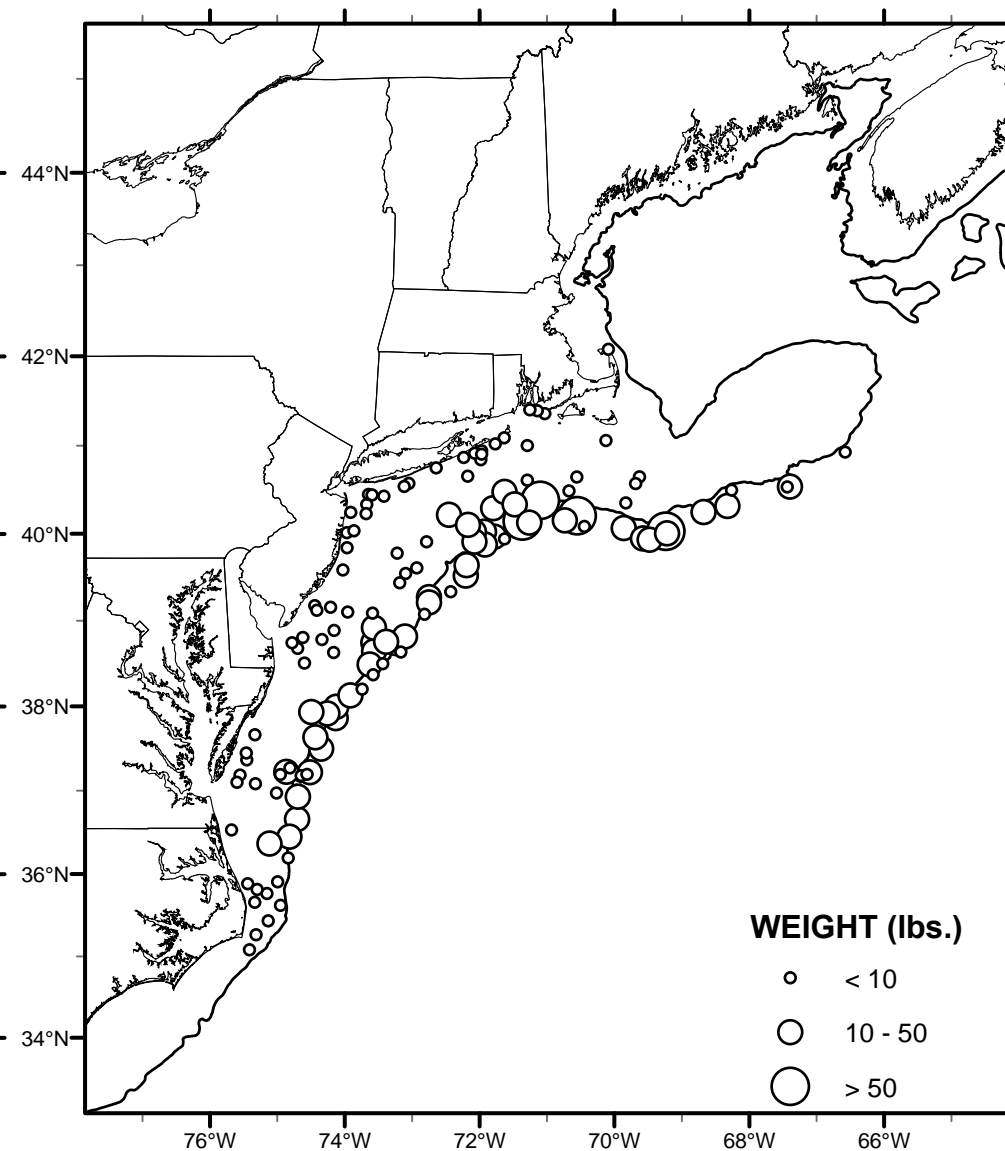
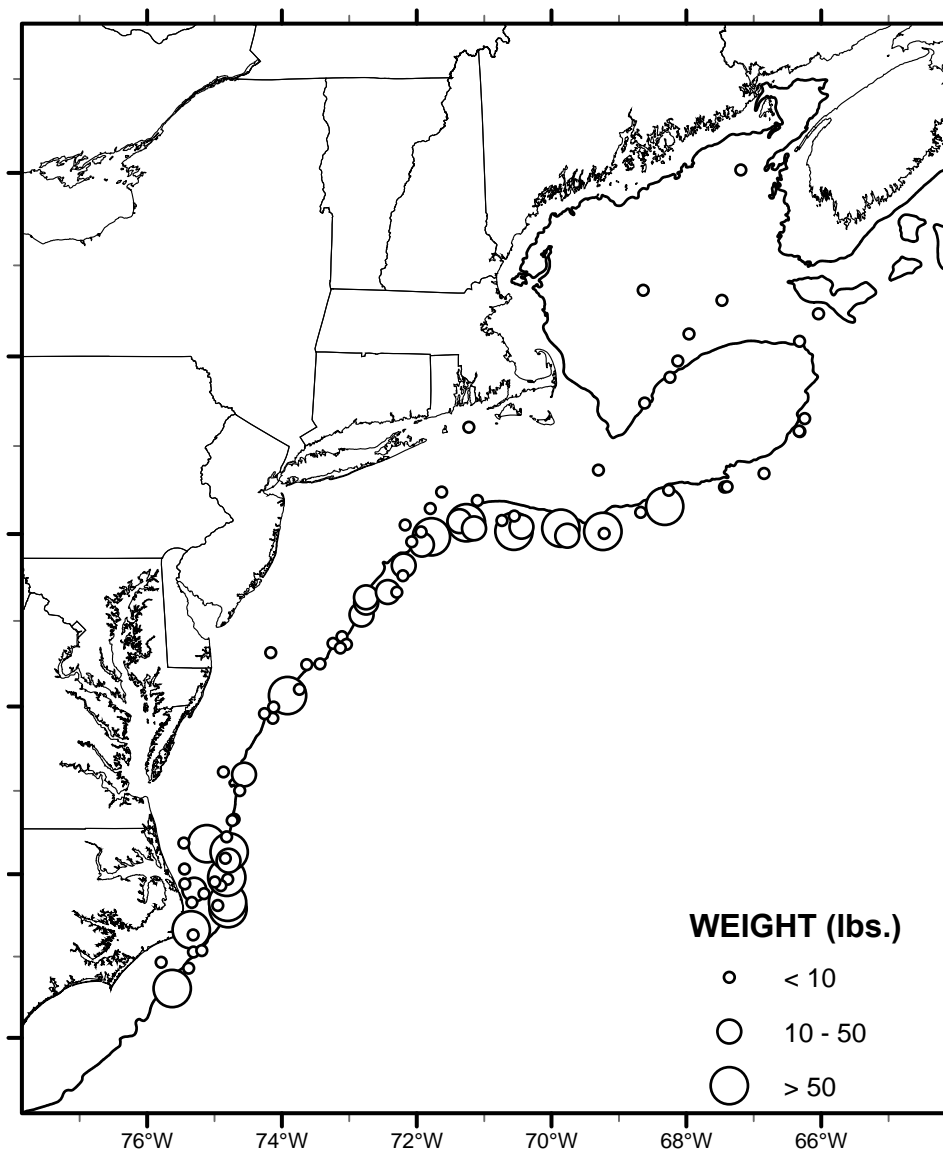


Figure 11: Total number of windowpane flounder (left panel) and summer flounder (right panel) per tow from NOAA Fisheries, Northeast Fisheries Science Center's spring bottom trawl survey, 10 March - 14 May 2019

BUTTERFISH



AMERICAN LOBSTER

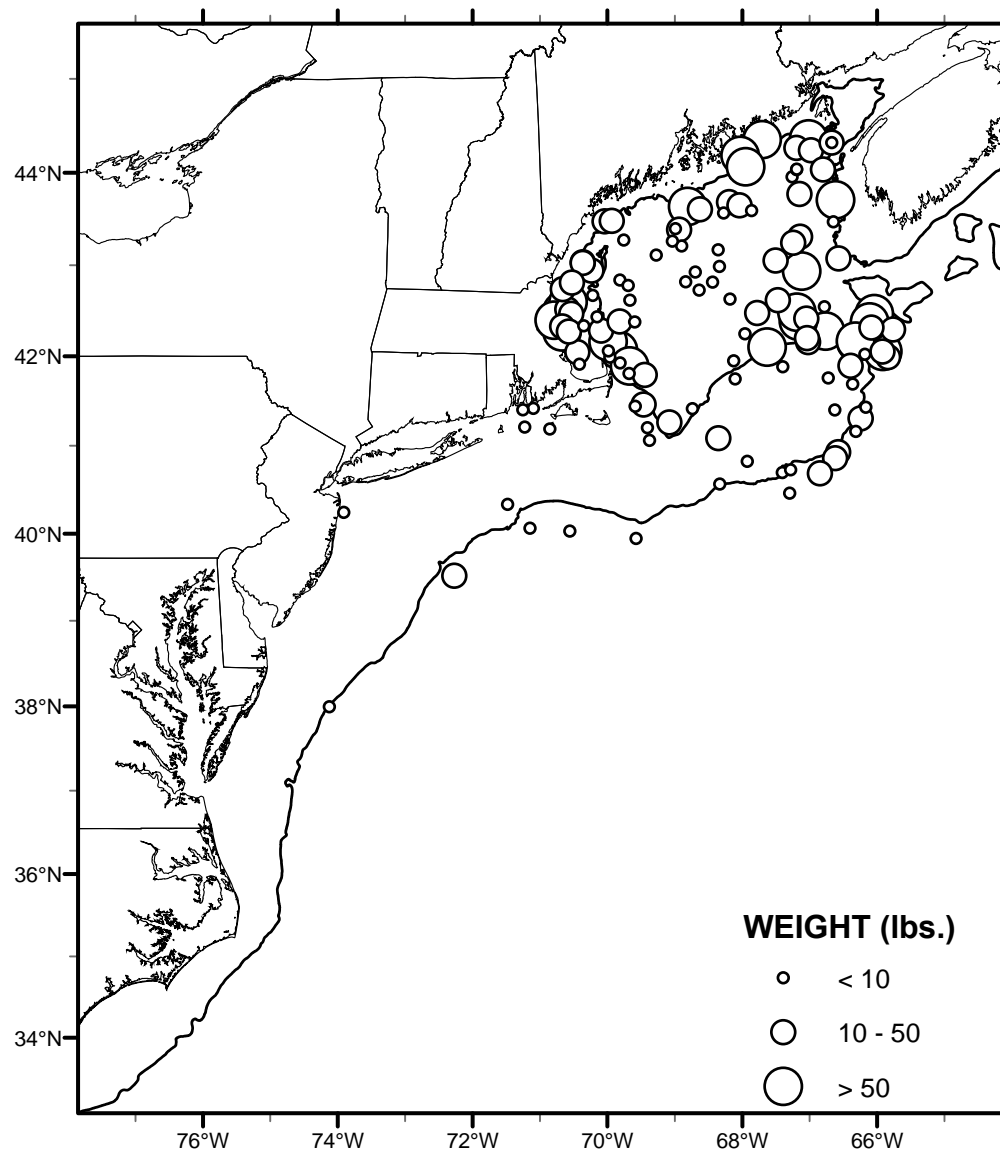
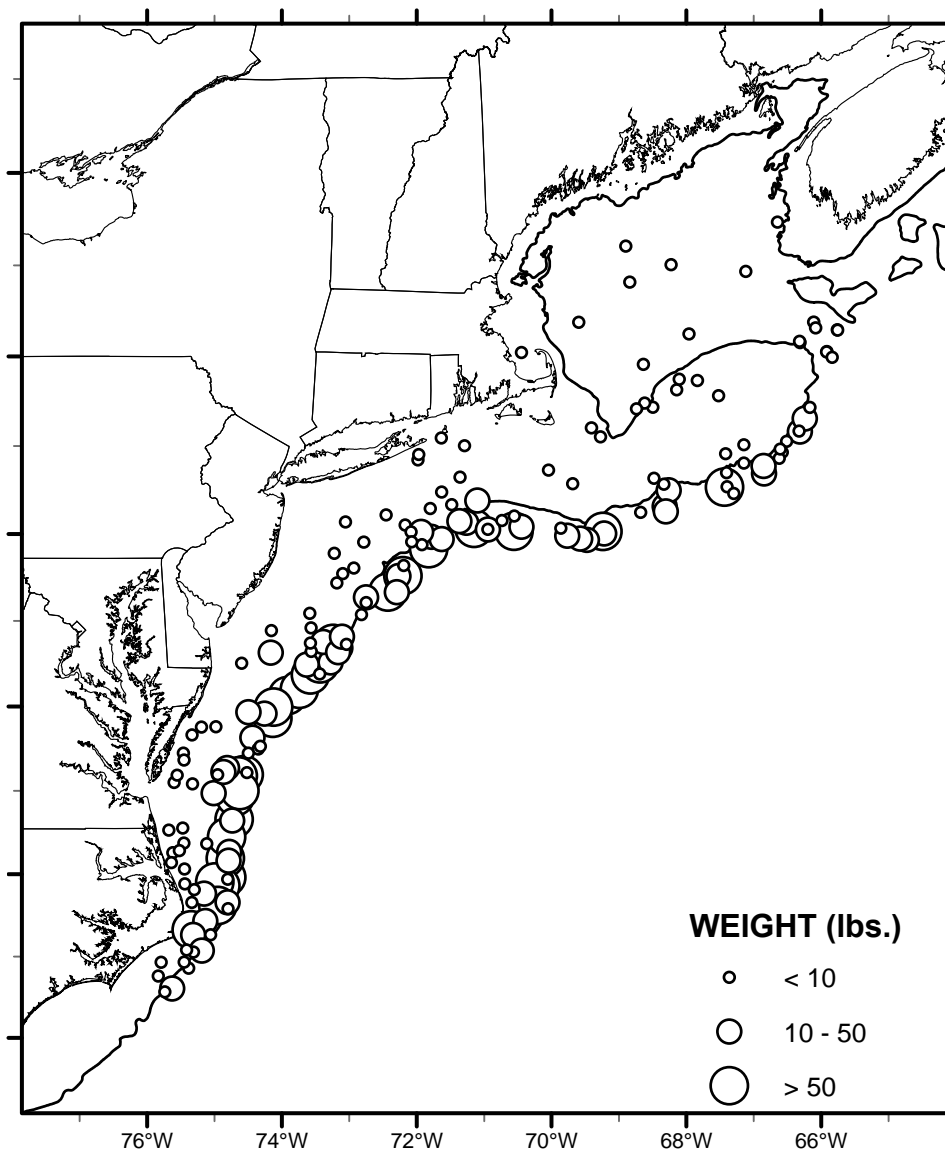


Figure 12: Total number of butterfish (left panel) and American lobster (right panel) per tow from NOAA Fisheries, Northeast Fisheries Science Center's spring bottom trawl survey, 10 March - 14 May 2019

LOLIGO SQUID



ILLEX SQUID

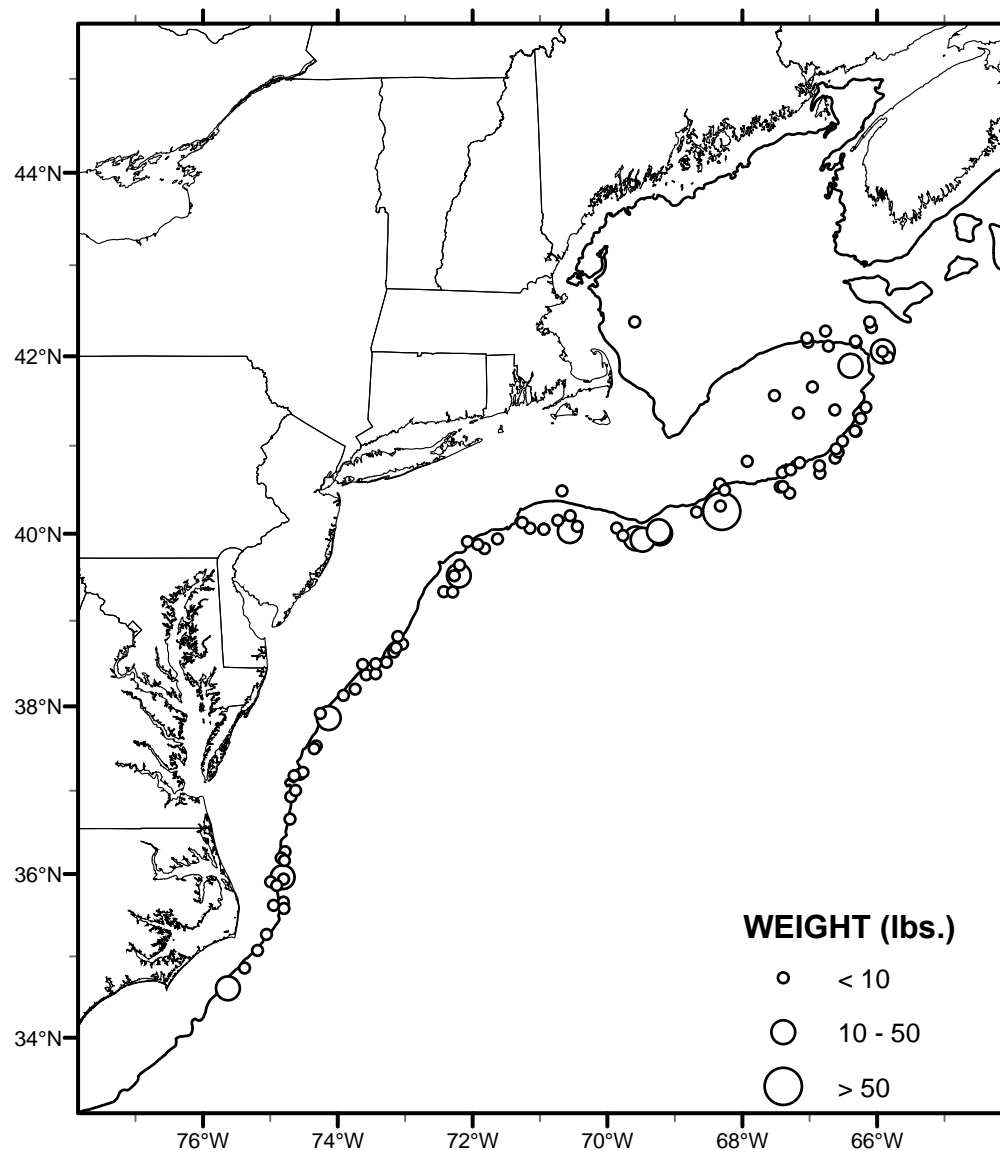


Figure 13: Total number of loligo squid (left panel) and illex squid (right panel) per tow from NOAA Fisheries, Northeast Fisheries Science Center's spring bottom trawl survey, 10 March - 14 May 2019