

# Resource Survey Report

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Resource Survey Report

Bottom Trawl Survey

Cape Hatteras - Gulf of Maine

11 September - 15 November 2021

NOAA Ship Henry B. Bigelow (FSV 225)

**Submitted to:** NOAA, NEFSC

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**Date:** 2022

## **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 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 trawl is conducted using a standardized 400 x 12cm, 4-seam bottom trawl and 2.2m<sup>2</sup>, 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 change significantly due to an increase of available vessel time from 48 to 60 sea days and a reduction in 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

Fall Multispecies Bottom Trawl Survey  
Cape Hatteras - Gulf of Maine  
11 September - 15 November 2021

The Northeast Fisheries Science Center has completed the 2021 autumn multispecies bottom trawl survey aboard NOAA Ship *Henry B. Bigelow*. A total of 353 representative stations were sampled during September 11 - November 15, 2021.

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 the 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 110 Bongo samples taken of 116.

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) 2021 fall 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 **cannot be 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:

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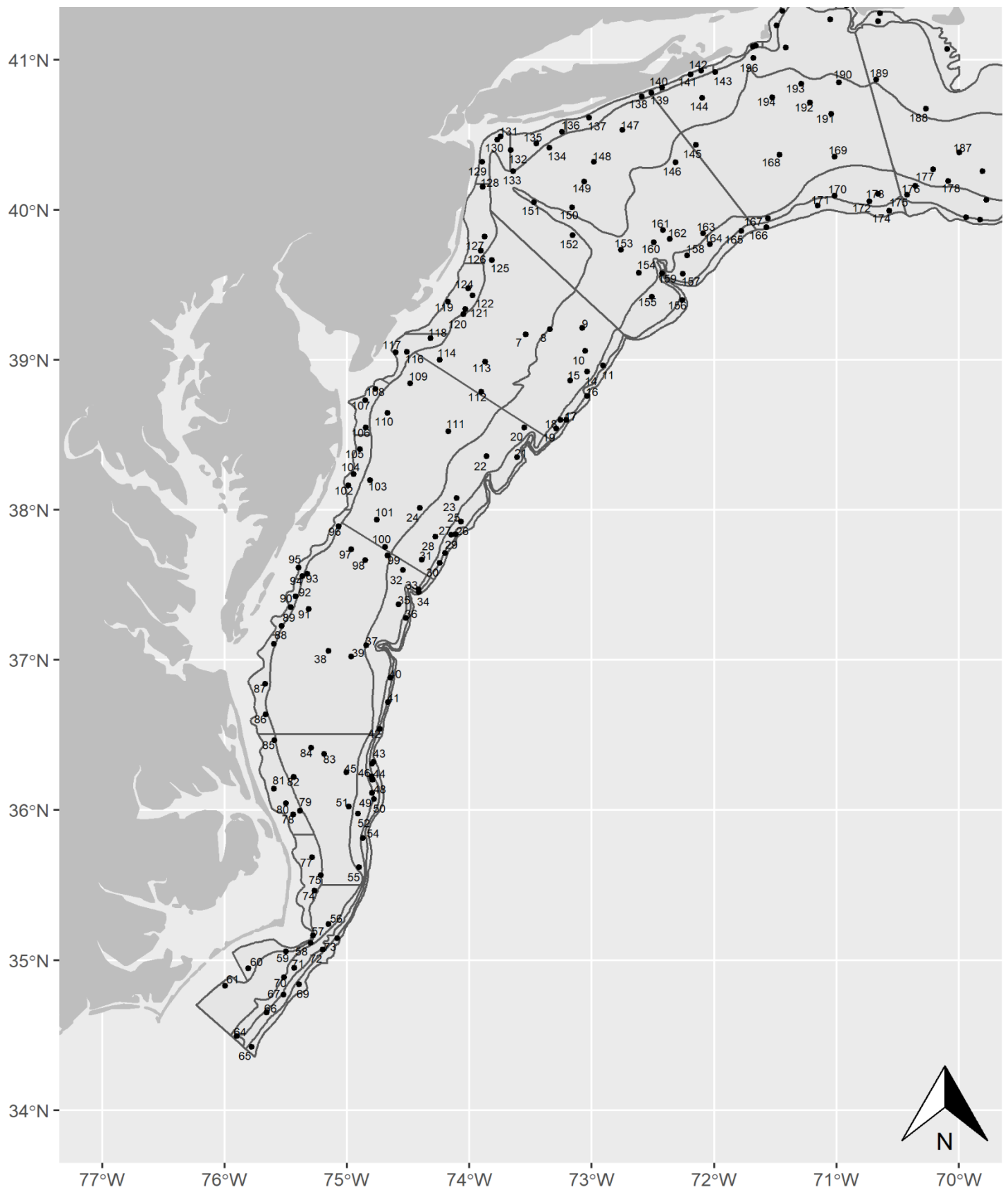


Figure 1. Representative trawl hauls made from NOAA Ship Henry B. Bigelow during the Northeast Fisheries Science Center's Fall Bottom Trawl Survey, 2021-09-11 - 2021-11-15.

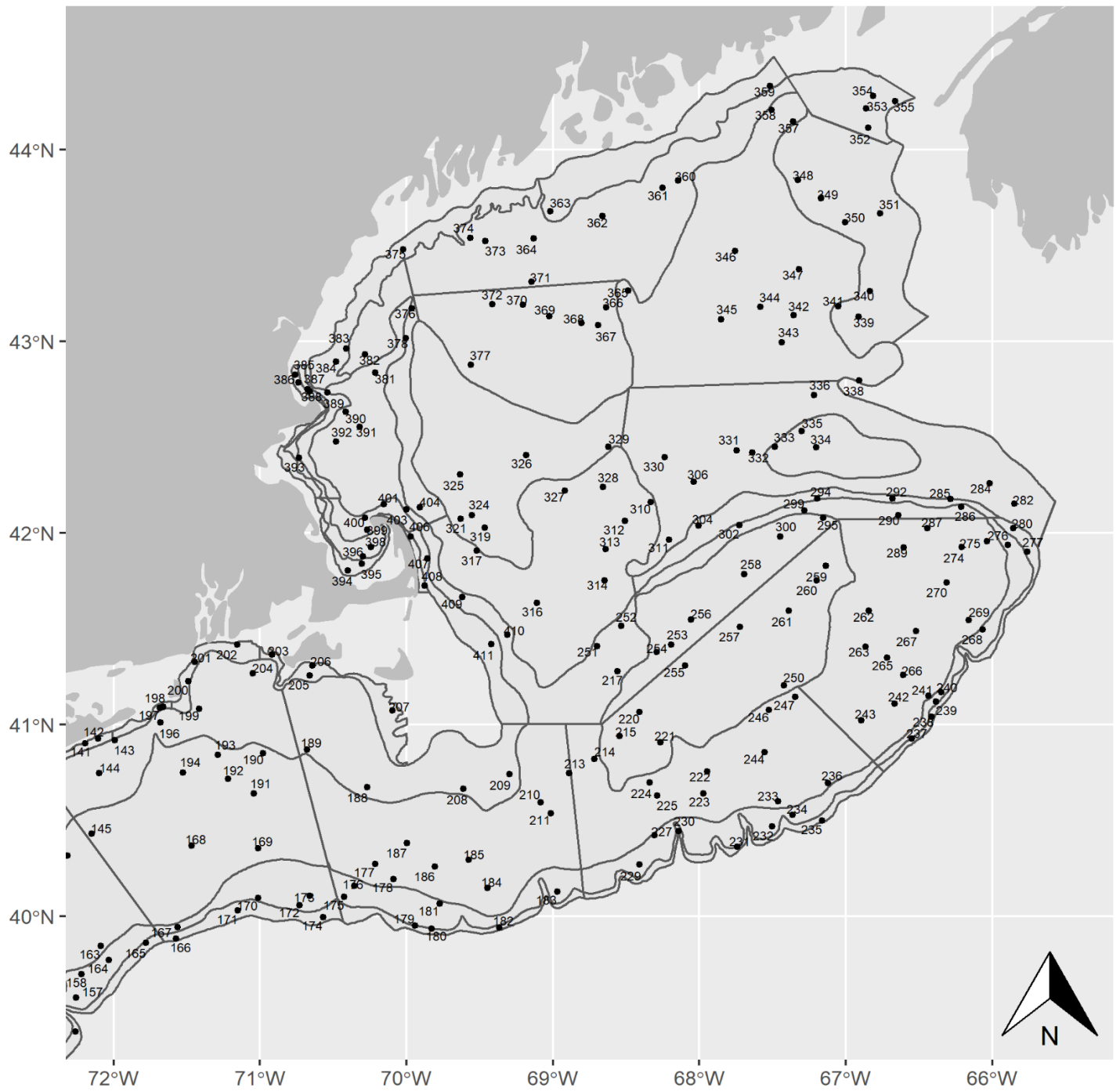


Figure 2. Representative trawl hauls made from NOAA Ship Henry B. Bigelow during the Northeast Fisheries Science Center's Fall Bottom Trawl Survey, 2021-09-11 - 2021-11-15.

Table 1. Station report of valid hauls from the Northeast Fisheries Science Center's Fall Bottom Trawl Survey, 2021-09-11 - 2021-11-15.

STATION	DATE	EST_TIME	DECDEG_BEGLO	DECDEG_BEGLAT	DECDEG_ENDLON	DECDEG_ENDLAT	AVGDEPTH	TOWDUR	TOWDIST_nm
7	9/12/2021	5:07:16	-73.53967	39.17000	-73.55517	39.15850	50	20	0.999215614
8	9/12/2021	7:09:40	-73.34133	39.20217	-73.35367	39.18933	55	19.82	0.960668549
9	9/12/2021	9:30:47	-73.07517	39.21283	-73.09433	39.20533	75	20	1.000538122
10	9/12/2021	11:25:45	-73.05467	39.05867	-73.06550	39.04467	84	19.89	0.980135484
11	9/12/2021	13:39:14	-72.90650	38.96200	-72.91267	38.94650	112	19.9	0.972921153
14	9/12/2021	19:25:36	-73.03567	38.92083	-73.05033	38.90917	85	19.9	0.980164988
15	9/12/2021	20:59:56	-73.17517	38.86300	-73.19133	38.85283	79	19.9	0.972350515
16	9/13/2021	0:17:40	-73.03800	38.75967	-73.04183	38.74383	232	20.03	0.966007368
17	9/13/2021	3:25:49	-73.20667	38.59767	-73.21367	38.58217	207	20.02	0.985694073
18	9/13/2021	5:04:51	-73.25583	38.59733	-73.26300	38.58183	131	19.99	0.988346926
19	9/13/2021	6:56:57	-73.29067	38.54367	-73.30317	38.53083	132	20.01	0.968530051
20	9/13/2021	9:13:39	-73.55117	38.54833	-73.56633	38.53700	74	20.01	0.985455023
21	9/13/2021	11:14:20	-73.61133	38.35267	-73.62133	38.33817	133	19.89	0.988996516
22	9/13/2021	13:32:16	-73.85983	38.35883	-73.86350	38.34233	74	19.92	1.003989855
23	9/13/2021	16:05:04	-74.10383	38.07733	-74.11817	38.06533	79	20	0.98918847
24	9/13/2021	18:07:14	-74.40517	38.01267	-74.41967	37.99967	53	20.57	1.039165321
25	9/13/2021	20:52:44	-74.06917	37.92200	-74.08283	37.90900	133	20.77	1.013929938
26	9/13/2021	22:53:53	-74.11250	37.83600	-74.11483	37.81983	222	20.02	0.975239612
27	9/14/2021	0:28:40	-74.14750	37.83500	-74.15483	37.81950	143	20.02	0.992189691
28	9/14/2021	2:03:51	-74.27667	37.82100	-74.29033	37.80917	86	20.02	0.961814593
29	9/14/2021	4:05:13	-74.19933	37.71083	-74.19017	37.72550	199	20	0.981352432
30	9/14/2021	5:50:07	-74.24133	37.64500	-74.25333	37.63167	197	20	0.982612986
31	9/14/2021	7:35:49	-74.38817	37.66967	-74.39950	37.65550	78	20.01	1.006165572
32	9/14/2021	9:18:56	-74.54017	37.59783	-74.55033	37.58400	69	20	0.9603476
33	9/14/2021	11:14:01	-74.41383	37.46950	-74.42583	37.45683	117	19.87	0.951229207
34	9/14/2021	13:03:11	-74.41017	37.45150	-74.42167	37.43883	235	19.87	0.937104954
35	9/14/2021	15:06:32	-74.57533	37.37183	-74.57933	37.35600	95	20.02	0.967919975
36	9/14/2021	17:02:24	-74.51650	37.28133	-74.52183	37.26517	150	20.02	1.001862104
37	9/14/2021	19:42:46	-74.84050	37.09917	-74.84500	37.08317	60	19.87	0.982819528
38	9/14/2021	21:56:07	-75.15167	37.06000	-75.17250	37.05700	38	19.9	1.016539763
39	9/14/2021	23:47:36	-74.96500	37.02267	-74.95367	37.00833	47	20.04	1.017028715
40	9/15/2021	2:30:46	-74.64633	36.88067	-74.65033	36.86417	141	19.99	1.007289276
41	9/15/2021	4:30:20	-74.66367	36.71933	-74.66700	36.70417	249	20.01	0.922865999

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STATION	DATE	EST_TIME	DECDEG_BEG_LON	DECDEG_BEG_LAT	DECDEG_END_LON	DECDEG_END_LAT	AVGDEPTH	TOWDUR	TOWDIST_nm
42	9/15/2021	7:13:55	-74.73250	36.54017	-74.73033	36.55633	212	20	0.974292587
43	9/15/2021	9:53:52	-74.78450	36.31967	-74.78117	36.33533	196	20	0.952457314
44	9/15/2021	11:49:57	-74.79583	36.30883	-74.79400	36.29267	127	19.89	0.972674407
45	9/15/2021	14:01:46	-75.00517	36.25217	-75.00417	36.23567	43	19.91	0.98979659
46	9/15/2021	16:59:40	-74.79867	36.22367	-74.80033	36.20700	117	20.01	1.001877646
48	9/15/2021	19:34:15	-74.78967	36.20267	-74.79283	36.18650	137	19.9	0.98077317
49	9/15/2021	21:08:33	-74.79400	36.11483	-74.79517	36.09867	171	19.91	0.970232344
50	9/15/2021	22:48:35	-74.77950	36.07433	-74.78117	36.05817	274	19.73	0.971953869
51	9/16/2021	1:11:45	-74.98583	36.02450	-74.99433	36.00917	42	20.04	1.007516697
52	9/16/2021	2:38:57	-74.90700	35.97783	-74.90500	35.96150	85	20.01	0.983391175
54	9/16/2021	6:04:40	-74.86850	35.81450	-74.87383	35.82983	192	20.01	0.954764231
55	9/16/2021	8:28:54	-74.89983	35.61883	-74.89900	35.60250	54	20.01	0.979344891
56	9/16/2021	12:59:32	-75.15100	35.24100	-75.13300	35.23333	26	19.89	0.996802401
57	9/16/2021	15:48:32	-75.27583	35.16533	-75.28300	35.15017	34	20	0.974536258
58	9/16/2021	17:19:45	-75.29483	35.11633	-75.31117	35.10650	48	20.01	0.996715549
59	9/16/2021	19:34:29	-75.49917	35.06000	-75.47900	35.06267	27	19.89	1.006088655
60	9/16/2021	22:20:10	-75.80450	34.94433	-75.78533	34.94817	26	20.03	0.97288769
61	9/17/2021	0:43:30	-75.99533	34.83000	-75.97533	34.83200	31	20.02	0.995094047
64	9/17/2021	6:42:03	-75.90117	34.49300	-75.91617	34.48183	67	20	1.000436609
65	9/17/2021	9:29:49	-75.77733	34.42167	-75.78867	34.41017	286	20	0.889384832
66	9/17/2021	12:13:56	-75.65650	34.65083	-75.66883	34.63867	135	19.9	0.950687494
67	9/17/2021	14:34:03	-75.51700	34.77017	-75.52783	34.75750	182	20	0.928702691
69	9/17/2021	18:57:41	-75.38950	34.83850	-75.40250	34.82683	337	19.89	0.949054173
70	9/17/2021	20:57:14	-75.51450	34.88467	-75.50050	34.89667	67	19.96	0.997090563
71	9/17/2021	22:33:52	-75.43067	34.95017	-75.44133	34.93650	76	20.01	0.973159375
72	9/18/2021	1:16:17	-75.19683	35.06983	-75.21033	35.05933	167	20.03	0.915280661
73	9/18/2021	3:59:37	-75.07833	35.14683	-75.09183	35.13667	302	20.01	0.9011917
74	9/18/2021	7:50:42	-75.26600	35.46217	-75.26633	35.47783	28	20	0.938657145
75	9/18/2021	9:18:47	-75.21400	35.56583	-75.21350	35.58200	30	20.04	0.96885491
77	9/18/2021	11:40:38	-75.28267	35.68517	-75.28500	35.70150	31	19.9	0.985130613
78	9/18/2021	14:30:39	-75.43650	35.97133	-75.43550	35.98767	21	20	0.979827553
79	9/18/2021	17:07:20	-75.38367	35.99617	-75.38583	36.01283	24	20.02	1.004064064
80	9/18/2021	18:36:48	-75.49550	36.04533	-75.47867	36.05517	27	19.88	1.008901805



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81	9/18/2021	20:16:18	-75.59450	36.14200	-75.60300	36.15667	23	19.89	0.970994606
82	9/18/2021	22:00:00	-75.43383	36.22233	-75.43167	36.23867	32	19.9	0.984289629
83	9/19/2021	0:29:38	-75.18583	36.37400	-75.18583	36.39050	33	20.01	0.98862888
84	9/19/2021	2:20:11	-75.29167	36.41533	-75.28550	36.43100	28	20	0.985079045
85	9/19/2021	4:33:48	-75.59333	36.46533	-75.59583	36.48167	26	20	0.986146623
86	9/19/2021	6:52:47	-75.66317	36.63883	-75.66150	36.65533	21	20.01	0.991943804
87	9/19/2021	8:43:26	-75.66617	36.84100	-75.66633	36.85717	20	20.02	0.968785602
88	9/19/2021	10:55:13	-75.59433	37.10883	-75.58717	37.12400	19	19.89	0.9717554
89	9/19/2021	12:22:55	-75.53367	37.22667	-75.52083	37.23917	23	19.9	0.969156163
90	9/19/2021	13:54:06	-75.45783	37.35333	-75.45167	37.36883	26	19.9	0.974568529
91	9/19/2021	15:54:57	-75.31150	37.33900	-75.30183	37.35350	30	20.07	0.984358044
92	9/19/2021	17:34:59	-75.41783	37.42267	-75.41150	37.43850	27	20.02	0.995932815
93	9/19/2021	19:21:59	-75.32350	37.57583	-75.33000	37.59183	25	19.9	1.007731462
94	9/19/2021	20:44:37	-75.36117	37.56017	-75.35333	37.57533	26	19.89	0.982710524
95	9/19/2021	22:21:55	-75.39317	37.61383	-75.38067	37.62700	20	20	0.988796511
96	9/20/2021	1:44:17	-75.06600	37.89217	-75.05400	37.90567	17	19.89	0.989642952
97	9/20/2021	4:02:34	-74.96617	37.73683	-74.96633	37.75333	29	20.02	0.988888122
98	9/20/2021	5:45:45	-74.85167	37.66517	-74.86183	37.67967	38	20.01	0.994810652
99	9/20/2021	7:38:58	-74.66733	37.69567	-74.66200	37.71183	57	20.01	1.001559002
100	9/20/2021	9:13:42	-74.68617	37.75250	-74.67133	37.76433	52	20.01	1.000542304
101	9/20/2021	12:23:53	-74.75400	37.93467	-74.73517	37.94183	32	19.88	0.99173537
102	9/20/2021	15:09:22	-74.98917	38.16267	-74.97817	38.17683	20	20.02	0.995874558
103	9/20/2021	16:58:57	-74.80967	38.19733	-74.79183	38.20533	21	20	0.970232196
104	9/20/2021	18:42:46	-74.94417	38.23900	-74.92500	38.24567	23	19.89	0.990215694
105	9/20/2021	20:37:28	-74.89183	38.40350	-74.88950	38.41967	21	19.94	0.975235913
106	9/20/2021	22:10:24	-74.84483	38.54717	-74.83750	38.56250	24	19.89	0.981713741
107	9/21/2021	0:03:14	-74.85150	38.73150	-74.84000	38.74567	17	20	1.006271233
108	9/21/2021	1:25:08	-74.76867	38.80667	-74.74750	38.80867	21	20.01	0.999963269
109	9/21/2021	3:34:17	-74.48117	38.84450	-74.46067	38.84833	22	20	0.988032309
110	9/21/2021	5:53:06	-74.66883	38.64733	-74.65217	38.63800	29	20	0.962675042
111	9/21/2021	9:09:48	-74.17183	38.52217	-74.15550	38.53283	53	20.02	1.000054531
112	9/21/2021	11:45:48	-73.90067	38.78817	-73.88717	38.80083	47	19.89	0.988662817
113	9/21/2021	13:37:28	-73.87017	38.98783	-73.85050	38.99383	37	19.92	0.9878344

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STATION	DATE	EST_TIME	DECDEG_BEG_LON	DECDEG_BEG_LAT	DECDEG_END_LON	DECDEG_END_LAT	AVGDEPTH	TOWDUR	TOWDIST_nm
114	9/21/2021	17:15:31	-74.24317	38.99833	-74.22383	39.00517	32	20.01	0.992776197
116	9/21/2021	20:23:16	-74.51167	39.05400	-74.49083	39.05667	24	19.88	0.986777518
117	9/21/2021	22:04:52	-74.60183	39.04883	-74.58533	39.05983	19	19.88	1.014653337
118	9/22/2021	0:23:55	-74.31633	39.14367	-74.29500	39.14500	24	20.01	0.999011141
119	9/22/2021	2:42:44	-74.17617	39.38783	-74.16133	39.40000	20	20	1.00403422
120	9/22/2021	4:20:14	-74.04750	39.30317	-74.05000	39.28700	29	20	0.976127708
121	9/22/2021	5:39:13	-74.03033	39.33933	-74.01033	39.33283	28	20	1.009298328
122	9/22/2021	7:29:16	-73.97383	39.42800	-73.95300	39.42533	26	20.02	0.981681054
124	9/22/2021	10:03:39	-74.00917	39.47617	-73.99400	39.46467	26	20	0.985847098
125	9/22/2021	12:21:13	-73.81533	39.66333	-73.79467	39.65900	24	19.88	0.992189639
126	9/22/2021	13:58:50	-73.90633	39.72750	-73.88967	39.71767	26	19.9	0.970980312
127	9/22/2021	15:38:25	-73.87550	39.82117	-73.86600	39.80650	26	20.02	0.982910224
128	9/22/2021	18:33:23	-73.88917	40.15167	-73.87833	40.13750	25	19.91	0.984861573
129	9/22/2021	20:32:45	-73.89483	40.31950	-73.88750	40.30417	23	19.9	0.978997838
130	9/22/2021	22:30:25	-73.77033	40.46600	-73.74983	40.46033	29	20.01	0.998414766
131	9/22/2021	23:51:37	-73.74283	40.48667	-73.72367	40.47883	25	20.01	0.995283541
132	9/23/2021	1:46:49	-73.66183	40.39583	-73.64783	40.38400	25	20.01	0.956725176
133	9/23/2021	3:48:15	-73.64100	40.25567	-73.62783	40.24267	28	20.01	0.986624379
134	9/23/2021	6:39:23	-73.34400	40.41317	-73.32517	40.40550	33	20.02	0.97794392
135	9/23/2021	8:20:44	-73.45367	40.44250	-73.43383	40.43833	27	20.04	0.942348058
136	9/23/2021	10:15:46	-73.24050	40.52050	-73.21883	40.51900	25	19.89	0.995498979
137	9/23/2021	11:58:42	-73.02167	40.61233	-73.00083	40.60833	24	19.88	0.981773963
138	9/23/2021	14:29:20	-72.59217	40.75467	-72.57100	40.75433	28	20.02	0.965370253
139	9/23/2021	15:45:19	-72.51167	40.78000	-72.49050	40.77817	28	20.03	0.971047184
140	9/23/2021	17:10:40	-72.42583	40.81483	-72.40467	40.81283	26	20.02	0.971687288
141	9/23/2021	19:19:20	-72.19083	40.90017	-72.16967	40.90017	26	19.89	0.963007345
142	9/23/2021	20:36:17	-72.10467	40.92617	-72.08267	40.92583	26	19.92	1.000763436
143	9/23/2021	21:53:08	-71.99200	40.91850	-71.97517	40.90750	32	19.88	1.010639182
144	9/24/2021	0:25:45	-72.09600	40.74450	-72.07650	40.73733	45	20.02	0.987720978
145	9/24/2021	3:58:24	-72.14917	40.43067	-72.13250	40.42017	61	20.01	0.98974703
146	9/24/2021	7:34:40	-72.31333	40.31550	-72.29683	40.30533	58	20	0.972193398
147	9/24/2021	11:02:31	-72.74717	40.53133	-72.72933	40.52250	44	19.9	0.972767709
148	9/24/2021	13:21:59	-72.98067	40.31783	-72.96000	40.31650	43	19.9	0.951872325

Table 1. Station report of valid hauls from the Northeast Fisheries Science Center's Fall Bottom Trawl Survey, 2021-09-11 - 2021-11-15.

STATION	DATE	EST_TIME	DECDEG_BEG_LON	DECDEG_BEG_LAT	DECDEG_END_LON	DECDEG_END_LAT	AVGDEPTH	TOWDUR	TOWDIST_nm
149	9/24/2021	15:15:57	-73.05900	40.18833	-73.03783	40.18983	46	20.01	0.977437934
150	9/24/2021	17:28:27	-73.15983	40.01350	-73.13817	40.01417	46	20.01	0.999596059
151	9/24/2021	19:55:47	-73.47117	40.04850	-73.45300	40.03967	74	19.88	0.990568971
152	9/24/2021	22:44:08	-73.15367	39.82900	-73.13717	39.81800	51	20.01	1.008314146
153	9/25/2021	1:14:38	-72.76133	39.73217	-72.78200	39.73517	70	19.98	0.973386589
154	9/25/2021	3:33:57	-72.61383	39.58050	-72.59750	39.59083	81	20	0.978638486
155	9/25/2021	5:37:44	-72.50850	39.41867	-72.49967	39.43383	124	19.99	0.997617419
156	9/25/2021	8:14:45	-72.25783	39.39633	-72.25400	39.41167	231	20.01	0.936363756
157	9/25/2021	10:39:48	-72.25450	39.57433	-72.23350	39.57283	130	19.89	0.978426029
158	9/25/2021	12:48:20	-72.21767	39.69517	-72.19633	39.69717	125	19.87	0.995283839
159	9/25/2021	15:57:58	-72.42417	39.57550	-72.42533	39.58983	339	18.02	0.860958067
160	9/25/2021	18:07:37	-72.49250	39.78183	-72.47250	39.78617	72	19.88	0.960876151
161	9/25/2021	19:34:35	-72.41567	39.86483	-72.39433	39.86733	74	19.88	0.996939287
162	9/25/2021	20:56:58	-72.36233	39.80550	-72.34150	39.80250	86	19.89	0.979975354
163	9/25/2021	23:18:18	-72.08750	39.84350	-72.10867	39.84350	94	20.01	0.978213522
164	9/26/2021	1:11:42	-72.03250	39.76933	-72.05350	39.76933	131	20.01	0.971539103
165	9/26/2021	4:03:06	-71.77900	39.85933	-71.79550	39.84917	199	19.98	0.976081617
166	9/26/2021	7:41:05	-71.57167	39.88250	-71.59167	39.87867	314	20.01	0.951937379
167	9/26/2021	9:40:44	-71.56167	39.94250	-71.58250	39.94217	127	20	0.9616035
168	9/26/2021	13:14:14	-71.46583	40.36567	-71.48717	40.36433	81	19.88	0.981695475
169	9/26/2021	16:40:21	-71.01317	40.35233	-71.03450	40.35250	93	20.03	0.978618998
170	9/26/2021	21:11:06	-71.01333	40.09367	-71.03433	40.09467	179	19.88	0.968814399
171	9/27/2021	0:29:18	-71.15150	40.02817	-71.17200	40.02500	250	20	0.96375697
172	9/27/2021	3:37:14	-70.73033	40.05700	-70.75017	40.06117	139	20.02	0.947275431
173	9/27/2021	5:24:57	-70.66083	40.10633	-70.68017	40.11150	131	20	0.942424147
174	9/27/2021	8:06:06	-70.56867	39.99233	-70.58900	39.99083	272	20.01	0.941952069
175	9/27/2021	10:18:08	-70.42367	40.09850	-70.44383	40.09850	128	19.88	0.928496556
176	9/27/2021	12:19:14	-70.35533	40.15833	-70.37683	40.15833	122	19.92	0.989049904
177	9/27/2021	14:29:16	-70.21083	40.27033	-70.23167	40.27000	95	20.04	0.957046471
178	9/27/2021	16:51:14	-70.08583	40.19183	-70.10667	40.19250	104	20.04	0.958770877
179	9/27/2021	20:54:39	-69.94267	39.95033	-69.96350	39.95083	203	19.89	0.96174805
180	9/27/2021	23:26:39	-69.82633	39.93317	-69.84650	39.93683	215	20.04	0.956359432
181	9/28/2021	2:00:27	-69.77350	40.06500	-69.79350	40.06767	118	20.01	0.935060032

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STATION	DATE	EST_TIME	DECDEG_BEGLO	DECDEG_BEGLAT	DECDEG_ENDLON	DECDEG_ENDLAT	AVGDEPTH	TOWDUR	TOWDIST_nm
182	9/28/2021	5:37:51	-69.36583	39.93967	-69.38650	39.93617	266	20	0.976606407
183	9/28/2021	9:00:59	-68.97033	40.12833	-68.99067	40.12583	155	20.01	0.947767221
184	9/28/2021	12:50:19	-69.44650	40.14617	-69.46633	40.14133	88	19.89	0.957477124
185	9/28/2021	15:36:31	-69.57400	40.29267	-69.59033	40.28250	77	20.03	0.966428444
186	9/28/2021	18:32:54	-69.80650	40.25750	-69.82450	40.24817	87	19.91	0.998436279
187	9/28/2021	20:54:13	-69.99483	40.38083	-70.01350	40.37250	82	20.02	0.991116042
188	9/28/2021	23:59:58	-70.26700	40.67200	-70.28317	40.66083	51	20	0.99659513
189	9/29/2021	3:05:42	-70.67667	40.86800	-70.69800	40.86817	53	20	0.971125956
190	9/29/2021	5:00:19	-70.97800	40.84833	-70.99317	40.85967	57	19.99	0.968882798
191	9/29/2021	7:39:29	-71.04183	40.63967	-71.04750	40.65550	67	20.02	0.984003707
192	9/29/2021	9:16:59	-71.21583	40.71517	-71.21867	40.73133	60	20.01	0.977919942
193	9/29/2021	10:49:31	-71.28667	40.84033	-71.28817	40.85683	59	19.89	0.991739751
194	9/29/2021	12:52:22	-71.52583	40.74867	-71.52783	40.76567	63	19.89	1.02342114
196	10/13/2021	18:15:39	-71.67733	41.01083	-71.66900	40.99550	42	19.91	0.994310707
197	10/13/2021	20:15:51	-71.68367	41.08717	-71.70550	41.08900	32	19.93	0.996617552
198	10/13/2021	21:54:53	-71.65983	41.09150	-71.64283	41.10167	30	19.89	0.983055787
199	10/13/2021	23:52:00	-71.41550	41.08000	-71.43467	41.08667	37	19.99	0.957139641
200	10/14/2021	1:45:42	-71.48733	41.22617	-71.50800	41.22133	37	20	0.979579628
201	10/14/2021	4:07:24	-71.44267	41.32483	-71.45000	41.30900	21	20	1.005684982
202	10/14/2021	6:46:31	-71.15650	41.41617	-71.17400	41.40667	24	20.01	0.974032301
203	10/14/2021	9:32:31	-70.91550	41.36317	-70.92250	41.34700	32	20.01	1.01979274
204	10/14/2021	12:32:00	-71.04917	41.26683	-71.03100	41.25717	43	19.93	1.005848681
205	10/14/2021	15:15:41	-70.66100	41.25467	-70.68183	41.24933	28	20.01	0.995597811
206	10/14/2021	16:59:54	-70.64250	41.30783	-70.63167	41.29350	24	20	0.989322371
207	10/14/2021	21:08:25	-70.09333	41.07183	-70.09900	41.05617	25	19.97	0.973984141
208	10/15/2021	3:21:12	-69.61050	40.66283	-69.60050	40.64850	51	20	0.973204262
209	10/15/2021	5:43:48	-69.29500	40.73900	-69.30617	40.72483	60	20.01	0.990482057
210	10/15/2021	8:05:39	-69.08300	40.59283	-69.10417	40.59667	76	20.01	0.994406397
211	10/15/2021	9:49:14	-69.01417	40.53650	-69.03317	40.54500	76	20	1.007532109
213	10/15/2021	13:14:46	-68.88750	40.74617	-68.90183	40.75850	68	19.87	0.986927691
214	10/15/2021	15:37:16	-68.71550	40.81967	-68.69383	40.81900	64	20	0.987810894
215	10/15/2021	18:35:41	-68.54367	40.93883	-68.55117	40.92333	56	20.02	0.990041822
217	10/15/2021	23:39:09	-68.56000	41.27617	-68.53967	41.27300	62	19.98	0.939271599

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STATION	DATE	EST_TIME	DECDEG_BEG_LON	DECDEG_BEG_LAT	DECDEG_END_LON	DECDEG_END_LAT	AVGDEPTH	TOWDUR	TOWDIST_nm
220	10/16/2021	8:39:45	-68.40633	41.06450	-68.42617	41.06967	49	20.01	0.951965174
221	10/16/2021	11:24:29	-68.26350	40.90700	-68.28517	40.90283	52	19.89	1.01690692
222	10/16/2021	14:26:49	-67.94650	40.75267	-67.94033	40.76867	74	19.99	0.999743028
223	10/16/2021	16:58:10	-67.97000	40.63850	-67.94800	40.63817	89	20.1	1.005087509
224	10/16/2021	20:09:18	-68.33900	40.69600	-68.34033	40.68000	68	19.93	0.961304262
225	10/16/2021	22:07:30	-68.28817	40.62750	-68.26933	40.61950	85	19.99	0.985139123
227	10/17/2021	4:54:30	-68.30700	40.42067	-68.30650	40.40417	116	19.98	0.989575494
229	10/17/2021	8:37:05	-68.40817	40.26867	-68.41517	40.25300	154	20	0.992845744
230	10/17/2021	13:29:07	-68.14217	40.44217	-68.14983	40.45733	303	19.92	0.974774215
231	10/17/2021	17:24:46	-67.73967	40.36183	-67.75850	40.35633	196	20	0.924610912
232	10/17/2021	20:13:27	-67.50317	40.46717	-67.52167	40.46067	134	19.14	0.93255847
233	10/17/2021	22:34:00	-67.46167	40.59983	-67.47800	40.59017	103	19.99	0.945092555
234	10/18/2021	0:47:05	-67.36317	40.52883	-67.38083	40.52067	146	20	0.945024706
235	10/18/2021	4:06:38	-67.16067	40.49900	-67.18100	40.49300	299	20.01	0.997825001
236	10/18/2021	6:57:50	-67.12233	40.69467	-67.14350	40.69467	107	20	0.966027219
237	10/18/2021	11:21:46	-66.54867	40.92667	-66.56517	40.91567	192	19.91	0.999142461
238	10/18/2021	14:57:26	-66.41167	41.03950	-66.41717	41.05467	344	20.01	0.943136809
239	10/18/2021	17:03:37	-66.38483	41.11883	-66.40050	41.10800	142	19.99	0.96271882
240	10/18/2021	19:22:27	-66.34583	41.16750	-66.35867	41.15450	128	19.9	0.972621055
241	10/18/2021	21:15:02	-66.43633	41.14850	-66.45000	41.13583	101	19.92	0.980209512
242	10/18/2021	23:48:55	-66.66767	41.10717	-66.68867	41.10533	81	20	0.958811113
243	10/19/2021	2:32:16	-66.89350	41.02000	-66.91533	41.01850	75	20	0.995641947
244	10/19/2021	6:57:02	-67.55383	40.85333	-67.57300	40.86300	77	20	1.04759353
246	10/19/2021	9:55:39	-67.52433	41.07533	-67.54517	41.07750	61	20	0.954270182
247	10/19/2021	12:15:04	-67.34500	41.14483	-67.36567	41.14267	58	19.88	0.945806831
250	10/19/2021	16:55:19	-67.42350	41.20367	-67.40300	41.20833	50	20.01	0.969644183
251	10/20/2021	4:38:44	-68.69683	41.40700	-68.70867	41.42050	103	20	0.969959515
252	10/20/2021	6:57:59	-68.53117	41.51433	-68.54800	41.52467	103	20.02	0.979618461
253	10/20/2021	11:04:10	-68.19183	41.41683	-68.19933	41.43167	46	19.91	0.951811998
254	10/20/2021	14:05:28	-68.29233	41.37833	-68.31383	41.38000	56	19.89	0.976244358
255	10/20/2021	16:44:24	-68.09533	41.30733	-68.11683	41.31467	41	20.03	1.066983876
256	10/20/2021	19:34:19	-68.05617	41.54700	-68.03583	41.54033	33	19.88	0.99957369
257	10/20/2021	23:02:27	-67.72150	41.50833	-67.73983	41.50033	40	20.02	0.955630022

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STATION	DATE	EST_TIME	DECDEG_BEG_LON	DECDEG_BEG_LAT	DECDEG_END_LON	DECDEG_END_LAT	AVGDEPTH	TOWDUR	TOWDIST_nm
258	10/21/2021	2:53:19	-67.69400	41.78283	-67.69667	41.79917	35	19.99	0.986878405
259	10/21/2021	7:22:33	-67.13450	41.82667	-67.14600	41.81333	59	20	0.951655496
260	10/21/2021	9:18:27	-67.19950	41.75200	-67.21300	41.73983	55	20	0.948720358
261	10/21/2021	12:09:30	-67.39050	41.59333	-67.38367	41.57650	57	20.08	1.055323651
262	10/21/2021	15:28:26	-66.84067	41.59317	-66.82417	41.60383	71	19.99	0.980226549
263	10/21/2021	18:01:22	-66.86517	41.40467	-66.85650	41.42000	73	20.02	0.999285848
265	10/21/2021	20:17:17	-66.71750	41.34833	-66.69517	41.34950	78	19.91	1.011628342
266	10/21/2021	22:36:53	-66.60583	41.25817	-66.59450	41.24417	86	20.01	0.983809101
267	10/22/2021	1:14:16	-66.51883	41.48733	-66.53233	41.47483	88	20.01	0.965702613
268	10/22/2021	4:16:03	-66.06667	41.49500	-66.08500	41.48567	118	19.98	0.998305934
269	10/22/2021	6:42:51	-66.16083	41.54283	-66.14000	41.54917	99	20.01	1.012527771
270	10/22/2021	9:34:05	-66.31117	41.74100	-66.32717	41.73017	87	20	0.968840046
274	10/22/2021	11:49:15	-66.20667	41.92583	-66.20917	41.90933	85	19.92	0.995885651
275	10/22/2021	13:43:14	-66.03567	41.95617	-66.05733	41.95500	95	19.88	0.972442262
276	10/22/2021	16:03:38	-65.89317	41.93617	-65.90817	41.94850	118	20.09	0.999101282
277	10/22/2021	18:20:49	-65.75933	41.90050	-65.77050	41.91467	193	19.89	0.985997253
280	10/22/2021	21:15:51	-65.85700	42.02367	-65.84283	42.01067	220	19.91	1.004661083
282	10/23/2021	0:46:27	-65.85000	42.15050	-65.84050	42.13550	249	20.08	0.994568951
284	10/23/2021	4:39:18	-66.01600	42.25767	-66.02383	42.27317	250	20	0.992987072
285	10/23/2021	8:07:33	-66.28400	42.17533	-66.30383	42.16917	193	20.01	0.959020976
286	10/23/2021	10:12:35	-66.21317	42.13550	-66.23200	42.12800	110	19.88	0.953537055
287	10/23/2021	12:48:02	-66.44433	42.02400	-66.46417	42.01800	83	19.87	0.957214031
289	10/23/2021	15:28:28	-66.60433	41.92200	-66.59900	41.93800	73	20.01	0.988860994
290	10/23/2021	17:58:55	-66.64150	42.09267	-66.64867	42.10817	78	20.01	0.983197968
292	10/23/2021	20:07:10	-66.68083	42.17900	-66.70283	42.17917	198	19.91	0.981475061
294	10/23/2021	23:40:23	-67.19500	42.17850	-67.21750	42.17800	175	20.01	1.004190096
295	10/24/2021	1:41:09	-67.15350	42.07850	-67.17483	42.08200	51	20.02	0.97599082
299	10/24/2021	4:16:24	-67.28183	42.11683	-67.30350	42.11683	73	19.99	0.967516202
300	10/24/2021	6:46:44	-67.44717	41.97983	-67.45700	41.99483	41	20	1.001445552
302	10/24/2021	9:31:10	-67.72450	42.04050	-67.74483	42.03467	159	20.01	0.974067693
304	10/24/2021	12:27:57	-68.00533	42.03617	-68.02683	42.03200	203	19.88	0.993261932
306	10/24/2021	15:24:46	-68.03800	42.26733	-68.05917	42.26783	186	20.02	0.943422631
310	10/24/2021	18:16:04	-68.33033	42.15917	-68.34983	42.16583	186	19.9	0.957581036

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STATION	DATE	EST_TIME	DECDEG_BEGLO	DECDEG_BEGLAT	DECDEG_ENDLON	DECDEG_ENDLAT	AVGDEPTH	TOWDUR	TOWDIST_nm
311	10/24/2021	20:57:18	-68.20683	41.96433	-68.22850	41.96400	224	19.89	0.970040505
312	10/24/2021	23:43:43	-68.50700	42.06183	-68.52817	42.05917	181	20.01	0.959443165
313	10/25/2021	2:33:59	-68.64017	41.91600	-68.66183	41.91717	169	19.91	0.97303179
314	10/25/2021	5:06:09	-68.64583	41.75250	-68.64117	41.76900	183	19.9	1.011479989
316	10/25/2021	8:28:50	-69.11000	41.63317	-69.08817	41.63117	163	20.01	0.989617513
317	10/25/2021	12:38:52	-69.52000	41.90633	-69.50067	41.89800	206	19.9	1.000033049
319	10/25/2021	14:57:06	-69.46450	42.02667	-69.44350	42.02200	206	20.2	0.979920602
321	10/25/2021	17:44:36	-69.62783	42.07250	-69.60833	42.06583	225	20.01	0.958764435
324	10/25/2021	21:49:25	-69.55317	42.09283	-69.55233	42.10917	225	19.87	0.980353243
325	10/26/2021	0:35:16	-69.63117	42.30583	-69.62567	42.29000	250	20.01	0.980699451
326	10/26/2021	5:00:17	-69.18183	42.40500	-69.15950	42.40617	228	19.91	0.995180525
327	11/3/2021	21:59:38	-68.91850	42.22083	-68.93700	42.23000	179	20.02	0.991159837
328	11/4/2021	0:52:39	-68.65700	42.23983	-68.67167	42.25133	199	20.02	0.950236102
329	11/4/2021	4:02:48	-68.62183	42.44933	-68.60017	42.45067	197	20.04	0.965708087
330	11/4/2021	7:24:16	-68.23633	42.39367	-68.25683	42.38883	196	19.92	0.956449983
331	11/4/2021	12:30:58	-67.74517	42.43083	-67.74633	42.44717	223	20	0.981071784
332	11/4/2021	14:49:32	-67.63800	42.41833	-67.64567	42.43317	258	19.99	0.952730526
333	11/4/2021	17:23:07	-67.48500	42.44933	-67.46883	42.46100	303	20.02	1.002653728
334	11/4/2021	20:22:20	-67.20000	42.44483	-67.22233	42.44950	352	20.01	1.030796148
335	11/4/2021	23:23:31	-67.30183	42.53067	-67.27983	42.53317	316	20	0.987401878
336	11/5/2021	3:02:17	-67.21683	42.71867	-67.22867	42.73267	221	20.02	0.989483433
338	11/5/2021	9:45:04	-66.90650	42.79500	-66.89200	42.78267	205	19.89	0.978583254
339	11/5/2021	14:11:29	-66.91267	43.12817	-66.92733	43.13967	165	19.99	0.94394712
340	11/5/2021	17:07:48	-66.83367	43.26067	-66.82500	43.27683	160	20	1.041535003
341	11/5/2021	20:00:21	-67.05000	43.18317	-67.03317	43.17317	194	20.01	0.951813939
342	11/5/2021	23:42:21	-67.35417	43.13517	-67.37150	43.14450	167	20.02	0.945088206
343	11/6/2021	3:02:40	-67.43600	42.99267	-67.44150	43.00867	227	20.04	0.989841867
344	11/6/2021	7:20:02	-67.58267	43.17867	-67.56817	43.19083	195	19.89	0.968372435
345	11/6/2021	10:04:41	-67.85200	43.11300	-67.86067	43.12817	197	19.88	0.986311771
346	11/6/2021	14:06:54	-67.75433	43.46950	-67.76833	43.48200	241	19.99	0.96767819
347	11/6/2021	17:38:04	-67.32083	43.37533	-67.30933	43.38933	202	19.99	0.979048887
348	11/6/2021	21:22:02	-67.32783	43.84050	-67.34233	43.82850	201	20.01	0.956466727
349	11/6/2021	23:50:08	-67.16750	43.74567	-67.17167	43.72983	175	20.01	0.967068195

Table 1. Station report of valid hauls from the Northeast Fisheries Science Center's Fall Bottom Trawl Survey, 2021-09-11 - 2021-11-15.

STATION	DATE	EST_TIME	DECDEG_BEGON	DECDEG_BEGLAT	DECDEG_ENDLON	DECDEG_ENDLAT	AVGDEPTH	TOWDUR	TOWDIST_nm
350	11/7/2021	2:17:53	-67.00500	43.61950	-66.98833	43.60883	180	20.03	0.968130533
351	11/7/2021	4:56:36	-66.76517	43.66817	-66.74783	43.67867	121	20.01	0.98312182
352	11/7/2021	8:27:51	-66.84500	44.11433	-66.84733	44.09850	158	19.98	0.955270526
353	11/7/2021	10:30:18	-66.86133	44.21450	-66.87433	44.20117	189	19.9	0.977079257
354	11/7/2021	12:36:51	-66.81400	44.28083	-66.83167	44.26917	184	20	1.034370908
355	11/7/2021	15:28:25	-66.66383	44.25300	-66.65000	44.26517	193	19.99	0.942694867
357	11/7/2021	19:48:35	-67.35900	44.14567	-67.33750	44.15300	189	20.01	1.027715581
358	11/7/2021	22:03:33	-67.50583	44.20783	-67.49583	44.22300	190	20.01	1.00711633
359	11/8/2021	1:37:42	-67.51850	44.33250	-67.50117	44.34200	103	20.03	0.939144167
360	11/8/2021	12:31:41	-68.14583	43.83967	-68.14667	43.82300	192	20.01	1.000576365
361	11/8/2021	14:21:41	-68.25150	43.80100	-68.22867	43.80083	186	20.01	0.99219988
362	11/8/2021	17:47:13	-68.66183	43.65300	-68.64200	43.65950	144	20	0.947802441
363	11/8/2021	22:56:05	-69.01633	43.67767	-68.99983	43.68300	101	16.85	0.786427225
364	11/9/2021	1:48:47	-69.13017	43.53667	-69.12917	43.52083	143	20	0.950897384
365	11/9/2021	6:49:47	-68.48550	43.26417	-68.46583	43.27083	184	20.02	0.950367245
366	11/9/2021	9:48:53	-68.63567	43.17750	-68.64000	43.16217	178	20.01	0.93925144
367	11/9/2021	12:07:16	-68.69000	43.08383	-68.68650	43.06717	188	20	1.011506078
368	11/9/2021	14:11:17	-68.80567	43.09517	-68.80317	43.07917	189	20.01	0.966052515
369	11/9/2021	16:50:28	-69.02350	43.12933	-69.00283	43.12467	162	20.01	0.950221348
370	11/9/2021	19:12:34	-69.20533	43.19117	-69.19500	43.17700	194	20.01	0.963310601
371	11/9/2021	21:24:25	-69.14350	43.31083	-69.13683	43.29533	151	20.01	0.974620534
372	11/9/2021	23:54:28	-69.41183	43.19183	-69.39767	43.20467	169	20	0.989556959
373	11/10/2021	2:52:38	-69.46083	43.52183	-69.44183	43.51383	140	20.02	0.958317627
374	11/10/2021	5:25:41	-69.56233	43.53783	-69.55733	43.55300	147	20.06	0.935678149
375	11/10/2021	9:22:06	-70.02317	43.48033	-70.02300	43.49717	112	20	1.009905133
376	11/10/2021	12:31:42	-69.96383	43.17083	-69.95783	43.18633	146	20	0.96639129
377	11/10/2021	16:12:55	-69.55867	42.87667	-69.54400	42.88900	171	20.06	0.982791616
378	11/10/2021	19:33:58	-70.00450	43.01467	-70.00633	43.03050	139	20.01	0.953170912
381	11/10/2021	23:24:10	-70.21150	42.83717	-70.19450	42.84717	55	20	0.96067806
382	11/11/2021	1:45:35	-70.28367	42.93117	-70.30000	42.94150	140	19.99	0.949935844
383	11/11/2021	3:47:54	-70.40900	42.96150	-70.40783	42.97767	113	20.02	0.971138377
384	11/11/2021	6:30:31	-70.47917	42.89200	-70.49550	42.90300	102	20.03	0.97684282
385	11/11/2021	9:06:39	-70.75750	42.82417	-70.74867	42.83950	31	20.01	0.998984289



Table 1. Station report of valid hauls from the Northeast Fisheries Science Center's Fall Bottom Trawl Survey, 2021-09-11 - 2021-11-15.

STATION	DATE	EST_TIME	DECDEG_BEGLO	DECDEG_BEGLAT	DECDEG_ENDLON	DECDEG_ENDLAT	AVGDEPTH	TOWDUR	TOWDIST_nm
386	11/11/2021	10:28:25	-70.73583	42.78283	-70.74167	42.79900	31	20.01	1.003411183
387	11/11/2021	11:57:14	-70.67333	42.74967	-70.67883	42.76550	40	20.01	0.980328313
388	11/11/2021	13:18:21	-70.66000	42.73783	-70.66933	42.75250	42	20	0.971717838
389	11/11/2021	15:18:09	-70.53783	42.73133	-70.54667	42.71667	86	20.05	0.962553662
390	11/11/2021	18:07:21	-70.41383	42.63167	-70.39333	42.63633	77	19.99	0.950082553
391	11/11/2021	20:01:05	-70.32050	42.55150	-70.31983	42.56800	165	20.02	0.990122557
392	11/11/2021	22:11:02	-70.47867	42.47517	-70.49017	42.48917	86	20.03	0.982749897
393	11/12/2021	5:19:46	-70.73167	42.39033	-70.71150	42.38483	53	20.06	0.95544749
394	11/12/2021	12:47:52	-70.40000	41.80383	-70.38400	41.79200	23	20.01	1.009546637
395	11/12/2021	19:08:06	-70.30517	41.83900	-70.29033	41.82700	27	20.41	0.980110255
396	11/12/2021	20:32:15	-70.29750	41.87667	-70.31217	41.86417	31	20.03	0.9971301
398	11/12/2021	23:08:38	-70.24183	41.92567	-70.26000	41.91633	33	19.99	0.987680738
399	11/13/2021	3:18:27	-70.26783	42.01683	-70.28867	42.01583	50	20.16	0.933716114
400	11/13/2021	5:05:50	-70.28183	42.07933	-70.27567	42.09450	64	20.04	0.950445469
401	11/13/2021	8:24:32	-70.15317	42.15017	-70.17300	42.14383	46	19.89	0.963274027
403	11/13/2021	12:59:09	-70.00050	42.12133	-69.98683	42.10883	94	20.02	0.966704691
404	11/13/2021	14:57:47	-69.90683	42.13350	-69.88867	42.12400	150	20.04	0.991167279
406	11/14/2021	8:51:55	-69.96883	41.98133	-69.97833	41.99600	30	19.89	0.976965734
407	11/14/2021	11:04:07	-69.85733	41.86617	-69.86083	41.88133	56	18.98	0.922988279
408	11/14/2021	13:02:59	-69.87567	41.72267	-69.87500	41.73600	23	16.49	0.800167125
409	11/14/2021	15:08:51	-69.61717	41.66283	-69.63633	41.67017	86	19.99	0.967609723
410	11/14/2021	18:35:31	-69.31150	41.46700	-69.31383	41.45117	87	20	0.955306301
411	11/14/2021	20:57:31	-69.42117	41.41967	-69.41950	41.40367	40	17.66	0.962444692





Table 2: Catch summary (lbs) of important species by haul from the Northeast Fisheries Science Center's Fall Bottom Trawl Survey, 2021-09-11 - 2021-11-15.

STATION	ACADIAN REDFISH	AMERICAN LOBSTER	AMERICAN PLAICE	ATLANTIC COD	ATLANTIC HERRING	ATLANTIC MACKEREL	BLUEFISH	BUTTERFISH	GOOSEFISH	HADDOCK	LONGFIN SQUID	NORTHERN SHORTFIN SQUID	POLLOCK	RED HAKE	SILVER HAKE	SPINY DOGFISH	SUMMER FLOUNDER	WHITE HAKE	WINDOWPANE	WINTER FLOUNDER	WITCH FLOUNDER	YELLOWTAIL FLOUNDER	OTHER	TOTAL	
70	0	0	0	0	0	0	0	0	0	0	190	0	0	0	0	0	0	0	0	0	0	0	55	245	
71	0	0	0	0	0	0	0	0	0	0	158	0	0	0	0	0	0	0	0	0	0	0	0	114	272
72	0	0	0	0	0	0	0	2	0	0	219	1	0	0	1	0	0	0	0	0	0	0	0	126	349
73	0	0	0	0	0	0	0	0	0	0	1	209	0	0	1	0	0	0	0	0	0	0	0	45	256
74	0	0	0	0	0	0	0	2	0	0	46	1	0	0	0	0	0	0	0	0	0	0	0	668	717
75	0	0	0	0	0	0	0	0	0	0	87	0	0	0	0	0	0	0	0	0	0	0	0	1675	1762
77	0	0	0	0	0	0	0	1	0	0	45	0	0	0	0	0	0	0	0	0	0	0	0	1866	1912
78	0	0	0	0	0	0	0	3	0	0	114	0	0	0	0	0	0	0	0	0	0	0	0	518	635
79	0	0	0	0	0	0	0	3	0	0	435	0	0	0	0	0	0	0	0	0	0	0	0	16193	16631
80	0	0	0	0	0	0	0	16	0	0	34	0	0	0	0	0	1	0	0	0	0	0	0	3093	3144
81	0	0	0	0	0	0	0	42	0	0	3	0	0	0	0	0	4	0	0	0	0	0	0	2155	2204
82	0	0	0	0	0	0	0	127	0	0	3	0	0	0	0	0	1	0	0	0	0	0	0	2001	2132
83	0	0	0	0	0	0	0	19	0	0	402	0	0	0	0	0	1	0	0	0	0	0	0	34	456
84	0	0	0	0	0	0	0	29	0	0	594	0	0	0	0	0	2	0	3	0	0	0	0	56	684
85	0	0	0	0	0	0	0	42	0	0	166	0	0	0	0	0	1	0	0	0	0	0	0	2743	2952
86	0	0	0	0	0	0	0	34	0	0	159	0	0	0	0	0	0	0	0	0	0	0	0	18345	18538
87	0	0	0	0	0	0	0	16	0	0	56	0	0	0	0	0	0	0	1	0	0	0	0	492	565
88	0	0	0	0	0	0	0	14	0	0	127	0	0	0	0	0	0	0	0	0	0	0	0	14840	14981
89	0	0	0	0	0	0	0	561	0	0	98	0	0	0	0	0	0	0	0	0	0	0	0	19086	19745
90	0	0	0	0	0	0	2	1010	0	0	920	0	0	0	0	0	5	0	0	0	0	0	0	14623	16560
91	0	0	0	0	0	0	0	15	0	0	3717	0	0	0	0	0	0	0	0	0	0	0	0	101	3833
92	0	0	0	0	0	0	0	6304	0	0	897	0	0	0	0	0	5	0	0	0	0	0	0	4366	11572
93	0	0	0	0	0	0	0	21	0	0	29	0	0	0	2	0	1	0	0	0	0	0	0	2780	2833
94	0	0	0	0	0	0	0	48	0	0	23	0	0	0	0	0	2	0	4	0	0	0	0	5784	5861
95	0	0	0	0	0	0	5	75	0	0	5	0	0	0	0	0	15	0	0	0	0	0	0	2805	2905
96	0	0	0	0	0	0	0	20	0	0	164	0	0	0	0	0	0	0	0	0	0	0	0	374	558
97	0	0	0	0	0	0	0	2	0	0	1260	0	0	0	0	0	3	0	1	0	0	0	0	668	1934

Table 2: Catch summary (lbs) of important species by haul from the Northeast Fisheries Science Center's Fall Bottom Trawl Survey, 2021-09-11 - 2021-11-15.

STATION	ACADIAN REDFISH	AMERICAN LOBSTER	AMERICAN PLAICE	ATLANTIC COD	ATLANTIC HERRING	ATLANTIC MACKEREL	BLUEFISH	BUTTERFISH	GOOSEFISH	HADDOCK	LONGFIN SQUID	NORTHERN SHORTFIN SQUID	POLLOCK	RED HAKE	SILVER HAKE	SPINY DOGFISH	SUMMER FLOUNDER	WHITE HAKE	WINDOWPANE	WINTER FLOUNDER	WITCH FLOUNDER	YELLOWTAIL FLOUNDER	OTHER	TOTAL
98	0	0	0	0	0	0	0	0	1	0	5142	0	0	0	0	1	0	0	1	0	0	0	188	5333
99	0	0	0	0	0	0	0	1	28	0	27053	0	0	0	0	0	0	0	0	0	0	0	11	27093
100	0	0	0	0	0	0	0	1	9	0	4942	0	0	0	0	0	0	0	0	0	0	0	10	4962
101	0	0	0	0	0	0	0	1	1	0	5965	0	0	0	0	0	0	0	1	0	0	0	15	5983
102	0	0	0	0	0	0	0	431	0	0	1598	0	0	0	0	0	2	0	2	0	0	0	7125	9158
103	0	0	0	0	0	0	0	21	0	0	73	0	0	0	0	0	3	0	0	0	0	0	504	601
104	0	0	0	0	0	0	0	8	0	0	11	0	0	0	1	0	0	0	0	0	0	0	6640	6660
105	0	0	0	0	0	0	0	263	0	0	8	0	0	0	0	0	5	0	7	0	0	0	2233	2516
106	0	4	0	0	0	0	0	479	0	0	31	0	0	0	8	0	2	0	3	0	0	0	2238	2765
107	0	0	0	0	0	0	1	554	0	0	126	0	0	0	0	0	5	0	1	0	0	0	418	1105
108	0	0	0	0	0	1	0	92	0	0	182	0	0	0	1	0	17	0	2	0	0	0	2706	3001
109	0	0	0	0	0	0	0	3	0	0	24	0	0	0	0	0	2	0	5	0	0	0	164	198
110	0	2	0	0	0	0	0	15	0	0	3386	0	0	0	0	0	12	0	1	0	0	0	1358	4774
111	0	0	0	0	0	0	0	35	1	0	4024	0	0	0	1	0	0	0	0	0	0	0	457	4518
112	0	0	0	0	0	0	0	7	0	0	2438	1	0	0	1	0	0	0	0	0	0	0	378	2825
113	0	0	0	0	0	0	0	2	0	0	1476	0	0	0	0	0	0	0	0	0	0	0	8	1486
114	0	0	0	0	0	0	0	4	0	0	2058	0	0	0	0	0	1	0	0	0	0	0	168	2231
116	0	0	0	0	0	0	0	58	0	0	58	0	0	0	15	0	19	0	4	0	0	0	2798	2952
117	0	0	0	0	0	0	5	228	0	0	38	0	0	0	4	0	1	0	1	0	0	0	730	1007
118	0	0	0	0	0	0	3	4315	0	0	81	0	0	0	0	0	0	0	0	0	0	0	417	4816
119	0	0	0	0	0	0	0	38	0	0	81	0	0	0	1	0	9	0	3	0	0	0	743	875
120	0	1	0	0	0	0	0	16	0	0	117	0	0	0	0	0	2	0	2	0	0	0	211	349
121	0	0	0	0	0	0	0	8	0	0	633	0	0	0	0	0	0	0	0	0	0	0	39	680
122	0	0	0	0	0	0	0	16	0	0	1105	0	0	0	0	0	1	0	2	0	0	0	6	1130
124	0	0	0	0	0	0	0	4	0	0	979	0	0	0	0	0	2	0	4	0	0	0	272	1261
125	0	0	0	0	0	0	0	1	0	0	175	0	0	0	0	0	7	0	0	0	0	0	241	424
126	0	0	0	0	0	0	0	0	0	0	643	0	0	0	0	0	1	0	4	0	0	0	506	1154



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STATION	ACADIAN REDFISH	AMERICAN LOBSTER	AMERICAN PLAICE	ATLANTIC COD	ATLANTIC HERRING	ATLANTIC MACKEREL	BLUEFISH	BUTTERFISH	GOOSEFISH	HADDOCK	LONGFIN SQUID	NORTHERN SHORTFIN SQUID	POLLOCK	RED HAKE	SILVER HAKE	SPINY DOGFISH	SUMMER FLOUNDER	WHITE HAKE	WINDOWPANE	WINTER FLOUNDER	WITCH FLOUNDER	YELLOWTAIL FLOUNDER	OTHER	TOTAL
154	0	1	0	0	0	0	0	26	5	0	1325	4	0	0	0	0	0	0	0	0	0	0	433	1794
155	0	0	0	0	0	0	0	1	2	0	1015	81	0	0	0	0	0	0	0	0	0	0	6	1105
156	0	1	0	0	0	0	0	0	0	0	268	65	0	0	0	0	0	0	0	0	0	0	211	545
157	0	0	0	0	0	0	0	0	0	0	1284	65	0	0	0	0	0	0	0	0	0	0	15	1364
158	0	0	0	0	0	0	0	0	0	0	2019	17	0	0	0	0	0	0	0	0	0	0	39	2075
159	0	21	0	0	0	0	0	0	11	0	9	9	0	0	0	5	0	0	0	0	0	0	270	325
160	0	0	0	0	0	0	0	1153	6	0	1974	5	0	1	0	0	0	0	0	0	0	0	1620	4759
161	0	0	0	0	0	0	0	1724	3	0	1259	0	0	0	1	0	0	0	0	0	0	0	241	3228
162	0	0	0	0	0	0	0	164	6	0	534	5	0	0	4	0	0	0	0	0	0	0	100	813
163	0	0	0	0	0	0	0	503	2	0	171	4	0	0	2	1	0	0	0	0	0	0	210	893
164	0	0	0	0	0	0	0	30	2	0	879	245	0	0	1	0	0	0	0	0	0	0	334	1491
165	0	0	0	0	0	0	0	3	7	0	316	686	0	1	1	0	0	0	0	0	0	0	440	1454
166	0	29	0	0	0	0	0	1	14	0	1	101	0	18	12	2	0	0	0	0	0	0	920	1098
167	0	0	0	0	0	0	0	11	0	0	4268	161	0	0	3	0	0	0	0	0	0	0	48	4491
168	0	1	0	0	0	0	0	346	4	0	2462	1	0	5	3	0	0	0	0	0	0	0	39	2861
169	0	4	0	0	0	0	0	1683	4	0	4659	7	0	0	7	0	0	0	0	0	0	0	66	6430
170	0	3	0	0	0	0	0	38	7	0	143	20	0	2	0	0	0	0	0	0	0	0	284	497
171	0	6	0	0	0	0	0	0	5	0	13	81	0	2	30	0	0	0	0	0	0	0	253	390
172	0	2	0	0	0	0	0	0	0	0	792	50	0	3	3	0	0	0	0	0	0	0	169	1019
173	0	1	0	0	0	0	0	5	1	0	990	12	0	0	0	0	0	0	0	0	0	0	127	1136
174	0	16	0	0	0	0	0	0	8	0	155	220	0	2	10	0	0	0	0	0	0	0	218	629
175	0	0	0	0	0	0	0	12	1	0	5168	761	0	0	1	0	0	0	0	0	0	0	81	6024
176	0	1	0	0	0	0	0	5	1	0	2351	49	0	0	0	0	0	0	0	0	0	0	13	2420
177	0	1	0	0	0	0	0	102	7	0	8242	60	0	0	1	0	0	0	0	0	0	0	196	8609
178	0	3	0	0	0	0	0	60	0	0	5252	138	0	0	0	0	0	0	0	0	0	0	33	5486
179	0	23	0	0	0	0	0	4	1	0	1	14	0	7	1	1	0	0	0	0	0	0	214	266
180	0	14	0	0	0	0	0	0	0	0	6	125	0	0	2	1	0	0	0	0	0	0	950	1098

Table 2: Catch summary (lbs) of important species by haul from the Northeast Fisheries Science Center's Fall Bottom Trawl Survey, 2021-09-11 - 2021-11-15.

STATION	ACADIAN REDFISH	AMERICAN LOBSTER	AMERICAN PLAICE	ATLANTIC COD	ATLANTIC HERRING	ATLANTIC MACKEREL	BLUEFISH	BUTTERFISH	GOOSEFISH	HADDOCK	LONGFIN SQUID	NORTHERN SHORTFIN SQUID	POLLOCK	RED HAKE	SILVER HAKE	SPINY DOGFISH	SUMMER FLOUNDER	WHITE HAKE	WINDOWPANE	WINTER FLOUNDER	WITCH FLOUNDER	YELLOWTAIL FLOUNDER	OTHER	TOTAL	
181	0	0	0	0	0	0	0	77	2	0	27	8	0	0	0	0	0	0	0	0	0	0	112	226	
182	0	0	0	0	0	0	0	2	1	0	0	37	0	2	0	0	0	0	0	0	0	0	0	564	606
183	0	0	0	0	0	0	0	11	0	0	94	6	0	0	2	0	0	0	0	0	0	0	126	239	
184	0	1	0	0	0	0	0	3	0	0	1192	17	0	0	0	0	0	0	0	0	0	0	46	1259	
185	0	0	0	0	0	0	0	46	1	0	3173	13	0	1	7	0	0	0	0	0	0	0	161	3402	
186	0	0	0	0	0	1	0	968	9	0	234	3	0	1	13	0	0	0	0	0	0	0	323	1552	
187	0	0	0	0	0	0	0	468	4	0	486	0	0	1	4	0	0	0	0	0	0	0	183	1146	
188	0	0	0	0	0	0	0	95	1	0	56	0	0	16	277	0	21	0	0	0	0	0	1376	1842	
189	0	0	0	0	0	2	0	152	2	0	213	0	0	44	162	2	4	0	0	0	0	3	986	1570	
190	0	1	0	0	0	0	0	424	1	0	1950	0	0	81	156	1	4	0	0	0	0	0	664	3282	
191	0	0	0	0	0	0	0	168	15	0	1592	0	0	5	41	0	0	0	0	0	0	0	386	2207	
192	0	1	0	0	0	0	0	1913	1	0	4776	0	0	85	6	0	1	0	0	0	0	0	187	6970	
193	0	0	0	0	0	5	0	591	0	0	2819	0	0	44	21	1	0	0	0	0	0	0	275	3756	
194	0	0	0	0	0	3	0	2512	4	0	3703	0	0	2	5	0	0	0	0	0	0	0	112	6341	
196	0	0	0	0	0	0	0	8	0	0	224	0	0	1	47	18	67	0	13	1	0	0	8815	9194	
197	0	0	0	0	0	0	0	11	0	0	354	0	0	0	2	1	11	0	4	6	0	0	1296	1685	
198	0	0	0	0	0	0	0	25	0	0	682	0	0	0	3	0	15	0	1	9	0	0	1651	2386	
199	0	1	0	5	0	0	0	76	0	0	622	0	0	3	2	1	27	0	0	31	0	0	3991	4759	
200	0	0	0	0	0	0	5	67	0	0	403	0	0	0	12	0	21	0	14	5	0	0	6205	6732	
201	0	1	0	0	0	5	0	4	0	0	144	0	0	0	0	0	2	0	1	27	0	0	523	707	
202	0	0	0	0	0	0	0	10	0	0	389	0	0	0	0	0	1	0	0	1	0	0	255	656	
203	0	3	0	0	0	0	1	7246	0	0	612	0	0	16	38	0	2	0	0	16	0	0	1068	9002	
204	0	1	0	0	0	0	0	4849	0	0	1326	0	0	0	3	0	14	0	1	2	0	0	2381	8577	
205	0	0	0	0	0	0	0	360	0	0	1060	0	0	0	0	1	0	0	0	1	0	0	1631	3053	
206	0	0	0	0	0	0	0	1701	0	0	1101	0	0	0	0	0	2	0	1	0	0	0	1748	4553	
207	0	0	0	0	0	0	0	160	0	0	78	0	0	2	186	0	0	0	88	0	0	0	2358	2872	
208	0	0	0	0	0	0	0	7	0	0	450	0	0	0	25	13	9	0	102	0	0	0	432	1038	



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STATION	ACADIAN REDFISH	AMERICAN LOBSTER	AMERICAN PLAICE	ATLANTIC COD	ATLANTIC HERRING	ATLANTIC MACKEREL	BLUEFISH	BUTTERFISH	GOOSEFISH	HADDOCK	LONGFIN SQUID	NORTHERN SHORTFIN SQUID	POLLOCK	RED HAKE	SILVER HAKE	SPINY DOGFISH	SUMMER FLOUNDER	WHITE HAKE	WINDOWPANE	WINTER FLOUNDER	WITCH FLOUNDER	YELLOWTAIL FLOUNDER	OTHER	TOTAL
209	0	0	0	0	0	0	0	5	0	0	1050	0	0	0	19	16	4	0	1	1	0	0	739	1835
210	0	0	0	0	0	0	0	2473	0	0	1298	8	0	18	13	15	0	0	0	0	0	0	116	3941
211	0	0	0	0	0	0	0	26	2	0	890	11	0	26	3	18	0	0	0	0	0	0	89	1065
213	0	0	0	0	0	0	0	1	0	0	2362	20	0	1	9	8	0	0	0	0	0	0	102	2503
214	0	0	0	0	0	0	0	5	0	0	629	2	0	0	12	25	6	0	1	0	0	0	59	739
215	0	1	0	0	0	0	0	839	0	0	133	35	0	3	46	8	0	0	1	0	0	0	520	1586
217	0	5	0	0	0	0	0	78	0	0	16	5	0	17	258	161	2	0	62	0	0	0	380	984
220	0	0	0	0	0	0	0	31	0	0	1201	4	0	0	2	333	0	0	1	0	0	0	263	1835
221	0	0	0	0	0	0	0	0	0	0	373	22	0	0	11	134	2	0	2	0	0	0	155	699
222	0	1	0	0	0	0	0	1	2	1	4843	432	0	11	6	41	0	0	0	0	0	0	221	5559
223	0	0	0	0	0	8	0	175	6	0	667	53	0	31	65	5	0	0	0	0	0	0	455	1465
224	0	0	0	0	0	0	0	243	1	0	87	11	0	27	195	537	0	0	4	0	0	0	340	1445
225	0	3	0	0	0	0	0	288	2	0	47	5	0	53	54	10	0	0	0	0	0	0	798	1260
227	0	0	0	0	0	0	0	467	0	0	2811	188	0	21	90	0	0	0	0	0	0	0	127	3704
229	0	0	0	0	0	0	0	0	0	0	603	1	0	2	0	0	0	0	0	0	0	0	57	663
230	0	48	0	0	0	0	0	0	1	0	15	1	0	7	3	0	0	0	0	0	0	0	399	474
231	0	0	0	0	0	0	0	0	0	0	0	4	0	1	2	0	0	0	0	0	0	0	166	173
232	0	0	0	0	0	0	0	5	0	0	82	16	0	13	12	0	0	0	0	0	0	0	234	362
233	0	0	0	0	0	0	0	2	0	0	7	13	0	15	67	0	0	0	0	0	0	0	99	203
234	0	0	0	0	0	0	0	52	0	0	5	4	0	3	20	0	0	0	0	0	0	0	117	201
235	1	20	0	0	0	0	0	0	0	0	0	24	0	11	3	0	0	1	0	0	0	0	277	337
236	0	1	0	0	0	0	0	0	0	0	70	4	0	0	24	0	0	0	0	0	0	0	31	130
237	0	1	0	0	0	0	0	0	0	0	86	3	0	0	11	0	0	0	0	0	0	0	22	123
238	0	1	0	0	0	0	0	0	3	0	4	38	0	15	59	0	0	0	0	0	1	0	1278	1399
239	0	3	0	0	0	0	0	19245	0	0	78	15	0	68	341	0	0	0	0	0	0	0	50	19800
240	0	0	0	0	0	0	0	0	0	0	31	10	0	4	146	0	0	0	0	0	0	0	64	255
241	0	0	0	0	0	0	0	0	1	0	47	10	0	74	149	0	0	0	0	0	0	0	1131	1412

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STATION	ACADIAN REDFISH	AMERICAN LOBSTER	AMERICAN PLAICE	ATLANTIC COD	ATLANTIC HERRING	ATLANTIC MACKEREL	BLUEFISH	BUTTERFISH	GOOSEFISH	HADDOCK	LONGFIN SQUID	NORTHERN SHORTFIN SQUID	POLLOCK	RED HAKE	SILVER HAKE	SPINY DOGFISH	SUMMER FLOUNDER	WHITE HAKE	WINDOWPANE	WINTER FLOUNDER	WITCH FLOUNDER	YELLOWTAIL FLOUNDER	OTHER	TOTAL
242	0	0	0	0	0	0	0	0	0	0	7	1	0	103	109	52	0	1	0	0	0	1	3362	3636
243	0	0	0	0	0	0	0	5	2	1	8	1	0	118	327	92	0	0	0	0	0	1	1211	1766
244	0	0	0	0	0	0	0	1	0	1	2997	22	0	30	17	1384	0	0	0	0	0	0	1220	5672
246	0	1	0	0	0	0	0	4	0	0	1185	3	0	1	3	64	0	2	2	0	0	0	74	1339
247	0	0	0	0	0	0	0	6	0	0	2016	173	0	0	9	114	1	0	1	0	0	0	63	2383
250	0	0	0	0	0	0	0	243	0	0	543	0	0	0	74	13	4	0	24	0	0	0	104	1005
251	0	0	4	0	16	0	0	2	10	119	2	3	0	35	38	68	0	0	0	2	0	0	674	973
252	0	0	0	0	28	0	0	699	7	22	247	2	0	55	56	1	0	0	0	1	0	0	310	1428
253	0	0	0	0	0	0	0	12975	0	0	2365	1	0	0	0	65	0	0	3	0	0	0	51	15460
254	0	5	0	0	0	0	0	19	0	0	229	0	0	0	0	370	3	0	6	0	0	0	622	1254
255	0	0	0	0	0	0	0	20	0	0	909	0	0	0	5	5	0	0	16	0	0	0	187	1142
256	0	0	0	0	0	0	0	11	0	0	321	1	0	0	0	57	0	0	38	0	0	0	1897	2325
257	0	0	0	0	0	0	0	14	0	0	327	5	0	0	4	16	0	0	9	0	0	0	152	527
258	0	0	0	0	0	0	0	153	0	0	138	1	0	0	29	77	0	0	4	2	0	0	528	932
259	0	1	0	0	0	2	0	3592	0	0	1869	7	0	1	6	360	0	0	19	0	0	0	83	5940
260	0	0	0	0	0	3	0	27277	0	0	8086	27	0	1	2	89	0	0	4	0	0	0	36	35525
261	0	5	0	0	0	0	0	147	0	0	1913	7	0	0	42	451	3	0	40	4	0	0	530	3142
262	0	9	0	0	0	0	0	9	1	0	1329	8	0	5	42	42	0	0	0	0	0	0	49	1494
263	0	25	0	0	0	0	0	6	4	13	103	20	0	33	54	21	1	0	0	1	0	11	501	793
265	0	0	0	0	0	0	0	2	4	2	18	14	0	0	13	25	0	0	0	0	0	9	186	273
266	0	2	0	0	0	0	0	0	6	0	0	4	0	60	31	171	0	0	0	0	0	12	884	1170
267	0	6	0	0	0	0	0	7	1	6	4	3	0	45	68	16	0	1	0	0	0	15	315	487
268	0	8	0	0	0	0	0	44	0	0	37	5	0	37	161	0	0	0	0	0	0	0	410	702
269	0	5	0	0	0	0	0	17	1	20	35	3	0	13	574	2	0	0	0	0	0	0	825	1495
270	0	9	0	0	0	0	0	22074	0	88	2728	48	0	3	4	30	0	0	0	0	0	4	38	25026
274	0	29	0	54	0	0	0	1478	5	1303	3315	94	0	42	66	3	0	0	0	30	0	0	688	7107
275	0	3	0	0	0	0	0	34	4	34686	3220	94	0	6	1	123	0	1	0	3	0	0	791	38966

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STATION	ACADIAN REDFISH	AMERICAN LOBSTER	AMERICAN PLAICE	ATLANTIC COD	ATLANTIC HERRING	ATLANTIC MACKEREL	BLUEFISH	BUTTERFISH	GOOSEFISH	HADDOCK	LONGFIN SQUID	NORTHERN SHORTFIN SQUID	POLLOCK	RED HAKE	SILVER HAKE	SPINY DOGFISH	SUMMER FLOUNDER	WHITE HAKE	WINDOWPANE	WINTER FLOUNDER	WITCH FLOUNDER	YELLOWTAIL FLOUNDER	OTHER	TOTAL
276	16	2	0	18	0	0	0	3	0	2275	110	5	1	0	0	1	0	0	0	0	0	0	207	2638
277	0	3	0	15	0	0	0	0	0	400	0	1	26	1	12	0	0	0	0	0	0	0	46	504
280	0	1	0	0	0	0	0	2	0	118	0	1	0	2	70	0	0	2	0	0	0	0	34	230
282	0	0	0	2	0	0	0	1	0	11	0	1	0	0	1	0	0	0	0	0	0	0	49	65
284	0	0	0	0	0	0	0	2	0	31	0	0	0	0	0	5	0	0	0	0	0	0	63	101
285	5	19	0	1	1	0	0	1	0	98	0	3	0	76	235	259	0	1	0	0	0	0	50	749
286	1	3	0	0	0	0	0	0	0	132	9	0	0	3	7	8	0	0	0	0	0	0	21	184
287	0	7	0	13	0	0	0	1983	0	968	1636	10	0	10	137	0	0	1	0	4	0	9	537	5315
289	0	14	0	0	1	10	0	51	1	20	854	7	0	6	451	31	2	1	1	41	0	0	204	1695
290	0	10	0	6	0	0	0	7	8	1041	53	3	0	6	358	5	0	6	0	38	0	0	975	2516
292	2	20	11	0	1	0	0	6	22	1	1	0	0	146	2181	0	0	1	0	0	27	0	71	2490
294	0	0	0	0	78	0	0	1	27	5	0	3	0	162	1117	2	0	1	0	0	50	0	47	1493
295	0	10	0	1	16	87	0	447	3	1	180	1	0	9	231	4	0	0	0	28	0	0	572	1590
299	0	16	0	0	3	0	0	5	2	196	19	0	0	93	1446	0	0	0	0	53	0	1	879	2713
300	0	0	0	0	0	211	0	1933	0	0	333	0	0	0	9	2	1	0	6	1	0	0	232	2728
302	1	0	24	0	75	0	0	18	13	3	28	12	0	462	1466	4	0	0	0	0	28	0	118	2252
304	1112	2	0	0	7	0	0	16	0	124	1	1	0	36	318	11	0	6	0	0	0	0	26	1660
306	213	1	0	1	3	0	0	11	1	81	0	8	0	24	291	4	0	0	0	0	1	0	44	683
310	2	0	3	0	17	0	0	15	12	1	0	0	0	251	1623	7	0	6	0	0	2	0	28	1967
311	4	9	0	0	7	0	0	6	2	1	0	0	0	58	1102	10	0	7	0	0	0	0	39	1245
312	11	0	42	0	57	0	0	8	8	2	0	1	0	172	1405	8	0	4	0	0	14	0	32	1764
313	7	0	27	0	127	0	0	2	6	4	0	2	0	175	1691	6	0	2	0	0	3	0	13	2065
314	7	1	4	0	22	0	0	11	4	2	1	15	0	229	634	1	0	1	0	0	2	0	28	962
316	487	2	33	3	12	0	0	3	7	93	0	5	0	193	234	34	0	8	0	0	23	0	61	1198
317	117	0	13	0	2	0	0	9	2	42	1	1	0	123	565	21	0	7	0	0	3	0	39	945
319	680	0	15	0	7	0	0	0	6	61	0	1	0	70	569	16	0	7	0	0	1	0	48	1481
321	13	0	8	0	6	0	0	1	5	8	0	0	0	55	1573	9	0	8	0	0	2	0	13	1701

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324	17	0	20	0	7	0	0	1	5	6	0	3	0	40	970	5	0	4	0	0	3	0	34	1115
325	16	0	11	0	0	0	0	1	7	7	1	8	0	45	1663	32	0	5	0	0	1	0	12	1809
326	7	0	4	0	5	0	0	1	8	9	0	3	0	65	883	25	0	2	0	0	1	0	55	1068
327	243	0	10	0	157	0	0	2	6	2	0	0	0	67	875	3	0	10	0	0	7	0	19	1401
328	44	0	25	0	54	0	0	2	4	1	0	2	0	92	1290	8	0	7	0	0	1	0	71	1601
329	20	0	0	0	83	0	0	0	4	10	0	1	0	76	859	2	0	10	0	0	2	0	43	1110
330	428	1	0	0	4	0	0	0	3	51	0	0	0	105	261	16	0	3	0	0	7	0	48	927
331	125	1	1	1	3	0	0	0	3	4	0	0	0	10	535	9	0	2	0	0	0	0	64	758
332	10	0	3	0	3	0	0	1	17	0	0	1	0	24	295	0	0	8	0	0	0	0	48	410
333	6	1	1	0	6	0	0	6	11	0	0	0	0	4	620	0	0	10	0	0	2	0	55	722
334	19	3	0	0	0	0	0	0	3	0	0	1	0	0	706	2	0	7	0	0	0	0	51	792
335	3	4	3	0	0	0	0	2	9	0	1	4	0	1	597	2	0	15	0	0	1	0	29	671
336	82	8	0	0	2	0	0	1	0	6	0	2	2	33	1005	0	0	2	0	0	2	0	110	1255
338	29	5	0	0	0	1	0	0	2	3	0	1	3	34	701	45	0	12	0	0	0	0	33	869
339	50	9	0	1	8	0	0	1	2	84	1	2	0	32	269	101	0	7	0	0	9	0	12	588
340	0	24	0	0	2	1	0	3	10	8	0	0	0	205	2752	2	0	2	0	0	0	0	23	3032
341	30	6	0	0	8	0	0	5	2	4	0	2	0	31	1660	73	0	5	0	0	2	0	32	1860
342	28	2	0	0	2	0	0	1	1	20	0	2	2	52	14182	6	0	6	0	0	0	0	17	14321
343	0	0	0	0	8	1	0	2	9	2	0	0	0	58	5380	174	0	5	0	0	0	0	35	5674
344	19	1	1	0	0	0	0	8	6	45	0	0	0	42	668	1	0	32	0	0	3	0	32	858
345	76	1	2	0	0	0	0	0	7	4	0	0	0	77	119	0	0	6	0	0	2	0	33	327
346	9	0	0	0	1	0	0	0	8	10	0	0	0	41	1014	2	0	13	0	0	2	0	20	1120
347	11	12	0	0	6	3	0	9	3	12	0	0	0	44	728	8	0	15	0	0	14	0	26	891
348	26	11	0	0	31	1	0	3	4	0	0	1	0	43	3759	13	0	21	0	0	8	0	70	3991
349	2	14	1	0	10	0	0	11	17	1	0	0	0	47	784	16	0	11	0	0	5	0	14	933
350	70	20	0	2	5	13	0	2	7	6	0	1	1	62	373	162	0	14	0	0	7	0	28	773
351	9	19	40	1	4	12	0	2	5	268	0	1	0	106	73	10	0	7	0	16	4	0	278	855

Table 2: Catch summary (lbs) of important species by haul from the Northeast Fisheries Science Center's Fall Bottom Trawl Survey, 2021-09-11 - 2021-11-15.

STATION	ACADIAN REDFISH	AMERICAN LOBSTER	AMERICAN PLAICE	ATLANTIC COD	ATLANTIC HERRING	ATLANTIC MACKEREL	BLUEFISH	BUTTERFISH	GOOSEFISH	HADDOCK	LONGFIN SQUID	NORTHERN SHORTFIN SQUID	POLLOCK	RED HAKE	SILVER HAKE	SPINY DOGFISH	SUMMER FLOUNDER	WHITE HAKE	WINDOWPANE	WINTER FLOUNDER	WITCH FLOUNDER	YELLOWTAIL FLOUNDER	OTHER	TOTAL
352	43	24	0	0	8	22	0	0	8	8	0	0	0	87	264	14	0	7	0	1	54	0	163	703
353	210	19	0	1	0	0	0	2	1	1	0	1	0	138	5027	11	0	20	0	0	12	0	66	5509
354	11937	37	0	5	1	0	0	0	0	0	0	0	0	166	1338	0	0	11	0	0	2	0	85	13582
355	32	3	0	0	51	4	0	0	2	4	0	0	0	186	5489	248	0	53	0	1	5	0	58	6136
357	6	4	0	0	32	5	0	1	9	0	0	0	0	19	153	57	0	10	0	0	1	0	44	341
358	1	7	0	0	62	0	0	0	18	0	0	1	0	33	189	65	0	30	0	0	8	0	37	451
359	3	29	3	0	145	0	0	3	17	1	0	0	0	154	259	4	0	33	2	65	3	0	25	746
360	1	13	8	0	4	0	0	1	26	2	0	3	1	264	507	12	0	12	0	1	40	0	84	979
361	9	12	1	0	1	0	0	1	14	1	0	2	0	152	349	10	0	33	0	0	35	0	21	641
362	1	11	7	0	7	0	0	13	20	2	0	5	0	472	811	2	0	9	0	0	28	0	28	1416
363	6	233	8	0	4	12	0	46	10	3	13	6	1	113	201	1	0	9	9	9	10	0	80	774
364	2	3	53	0	4	0	0	10	38	6	0	6	1	493	1067	13	0	11	0	1	123	0	69	1900
365	19	0	10	0	0	0	0	19	20	6	0	2	1	222	1021	1	0	6	0	0	49	0	39	1415
366	499	0	7	0	0	0	0	5	12	2	0	4	0	207	977	1	0	5	0	0	14	0	32	1765
367	1221	0	14	0	0	0	0	23	16	4	0	4	0	229	1645	1	0	13	0	0	11	0	60	3241
368	197	0	34	0	0	0	0	8	17	3	0	0	0	188	1285	16	0	3	0	0	28	0	22	1801
369	150	0	48	0	12	2	0	2	21	9	0	2	0	278	1219	4	0	7	0	0	13	0	22	1789
370	56	1	27	0	5	2	0	3	8	10	0	4	1	207	2015	12	0	3	0	0	21	0	47	2422
371	54	1	17	0	2	0	0	0	14	10	0	4	0	323	704	30	0	6	0	0	25	0	57	1247
372	324	0	25	0	19	0	0	2	35	8	0	5	0	231	846	127	0	5	0	0	4	0	53	1684
373	93	12	22	0	0	0	0	0	54	1	0	14	4	443	1882	10	0	23	0	0	21	0	16	2595
374	12	5	22	0	6	0	0	5	42	11	2	3	2	481	2639	0	0	19	0	0	38	0	34	3321
375	7	27	32	0	1	1	0	3	16	1	44	0	1	114	2156	3	0	6	1	8	13	5	125	2564
376	100	4	18	0	9	1	0	1	58	1	8	11	1	289	1152	51	0	13	0	0	24	0	74	1815
377	1055	0	47	0	0	2	0	0	21	4	2	5	0	171	1081	79	0	6	0	0	17	0	57	2547
378	455	6	9	0	4	0	0	0	43	0	0	3	1	115	765	548	0	30	0	0	13	0	28	2020
381	2	4	0	40	0	0	0	0	0	833	186	4	47	14	22	0	0	2	0	164	0	131	622	2071

Table 2: Catch summary (lbs) of important species by haul from the Northeast Fisheries Science Center's Fall Bottom Trawl Survey, 2021-09-11 - 2021-11-15.

STATION	ACADIAN REDFISH	AMERICAN LOBSTER	AMERICAN PLAICE	ATLANTIC COD	ATLANTIC HERRING	ATLANTIC MACKEREL	BLUEFISH	BUTTERFISH	GOOSEFISH	HADDOCK	LONGFIN SQUID	NORTHERN SHORTFIN SQUID	POLLOCK	RED HAKE	SILVER HAKE	SPINY DOGFISH	SUMMER FLOUNDER	WHITE HAKE	WINDOWPANE	WINTER FLOUNDER	WITCH FLOUNDER	YELLOWTAIL FLOUNDER	OTHER	TOTAL
382	581	2	152	1	22	0	0	0	34	10	1	4	2	302	6450	93	0	48	0	0	62	0	23	7787
383	8	177	86	0	20	4	0	5	15	1	5	5	0	104	1545	0	0	1	0	1	7	7	26	2017
384	2	49	69	0	3	7	0	3	23	1	233	3	0	75	1761	0	0	1	0	4	9	43	90	2376
385	0	41	1	1	4	334	0	1	2	0	211	0	0	0	5	0	0	0	2	9	1	7	531	1150
386	0	6	0	0	0	38	0	1	1	0	36	0	0	19	1	0	0	0	1	4	0	5	2577	2689
387	0	62	0	0	0	1008	0	0	0	3	23	0	0	0	11	0	0	0	1	41	0	22	120	1291
388	0	56	0	0	1	24	0	0	1	1	40	0	0	3	20	0	0	0	2	47	0	39	197	431
389	3	140	13	0	199	3	0	449	10	0	584	1	0	45	523	0	1	4	2	53	2	138	148	2318
390	30	100	7	35	3	2	0	27	3	109	28	1	0	143	188	1	0	2	3	62	0	454	262	1460
391	21	8	405	0	1	0	0	4	45	4	4	1	0	414	103	8	0	3	0	2	6	4	30	1063
392	15	58	191	1	5	2	0	3	42	6	9	0	0	213	153	1	1	1	1	28	1	197	80	1008
393	142	160	6	78	0	0	0	0	3	14	14	0	2	211	193	0	0	0	2	160	0	6	545	1536
394	0	3	1	0	1	0	0	702	0	0	108	0	0	1	84	0	3	0	6	107	0	0	984	2000
395	0	0	0	1	0	4	0	189	2	0	84	0	0	7	2217	0	2	0	43	207	0	0	626	3382
396	0	1	0	0	0	4	0	86	5	0	27	0	0	26	1875	0	1	0	60	80	0	2	360	2527
398	0	2	0	0	7	2	0	83	8	0	36	0	0	40	2335	0	1	6	43	106	0	1	331	3001
399	0	2	0	1	3	2	0	94	3	0	41	0	0	62	896	0	4	1	3	24	0	0	153	1289
400	0	53	0	9	19	28	0	13	0	8	136	0	0	448	598	0	1	1	2	104	0	8	2390	3818
401	0	18	0	1	112	9900	0	3	2	0	92	0	0	1	7	0	1	0	0	29	0	41	73	10280
403	0	49	0	2	2	541	0	23	8	5	578	0	0	202	1032	2	0	2	0	19	0	71	211	2747
404	5	2	17	0	35	12	0	9	18	1	350	0	0	250	601	16	0	0	0	0	6	4	79	1405
406	0	0	0	0	7	3897	0	2	0	0	291	0	0	0	0	0	0	0	1	11	0	7	33	4249
407	0	63	0	3	4	375	0	7	3	0	120	0	0	0	136	0	0	0	0	6	0	78	83	878
408	0	1	0	0	3	9	0	1	0	0	108	0	0	0	0	0	0	0	2	1	0	2	13	140
409	0	11	0	1	34	44	0	87	3	47	479	0	0	98	135	1137	0	0	0	0	0	0	57	2133
410	1	21	0	0	18	3	0	15	4	26	8	2	0	210	707	11	0	0	0	4	0	7	1629	2666
411	0	7	0	161	49	28	0	1	0	145	102	0	7	27	97	1636	0	0	4	107	0	17	343	2731

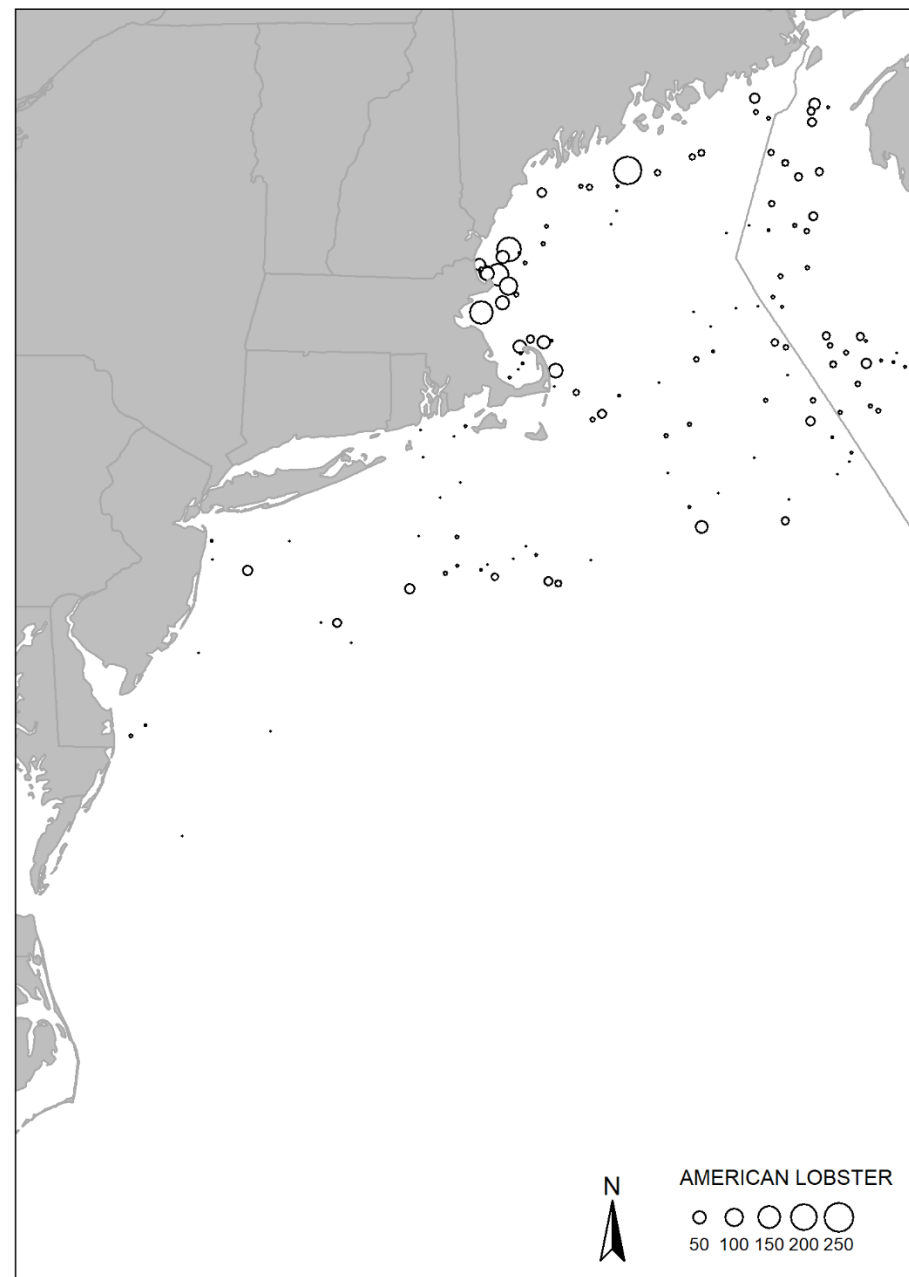
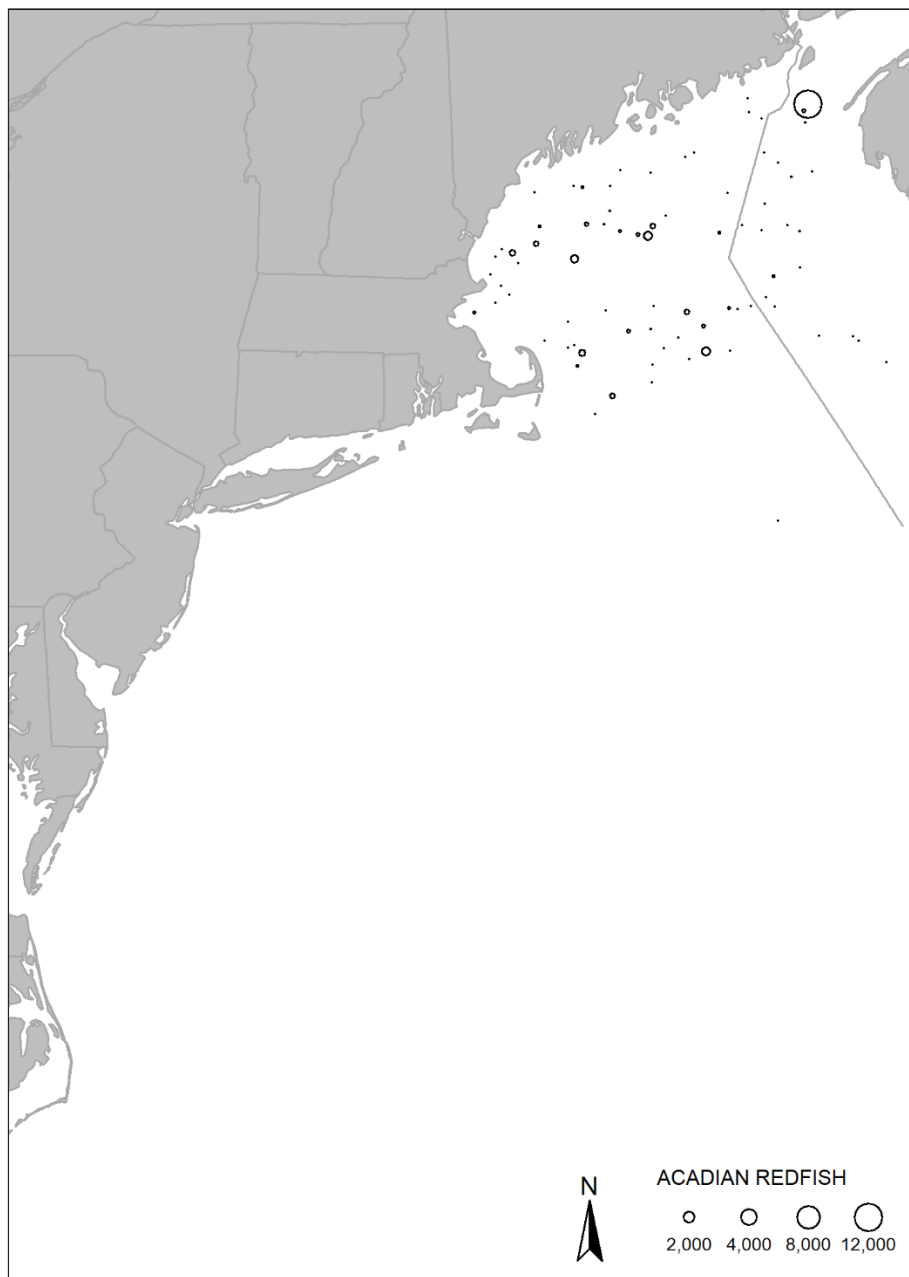


Figure 3. Total number of Acadian redfish (left) and American lobster (right) per tow from the Northeast Fisheries Science Center's Fall Bottom Trawl Survey, 2021-09-11 - 2021-11-15.



Figure 4. Total number of American plaice (left) and Atlantic cod (right) per tow from the Northeast Fisheries Science Center's Fall Bottom Trawl Survey, 2021-09-11 - 2021-11-15.



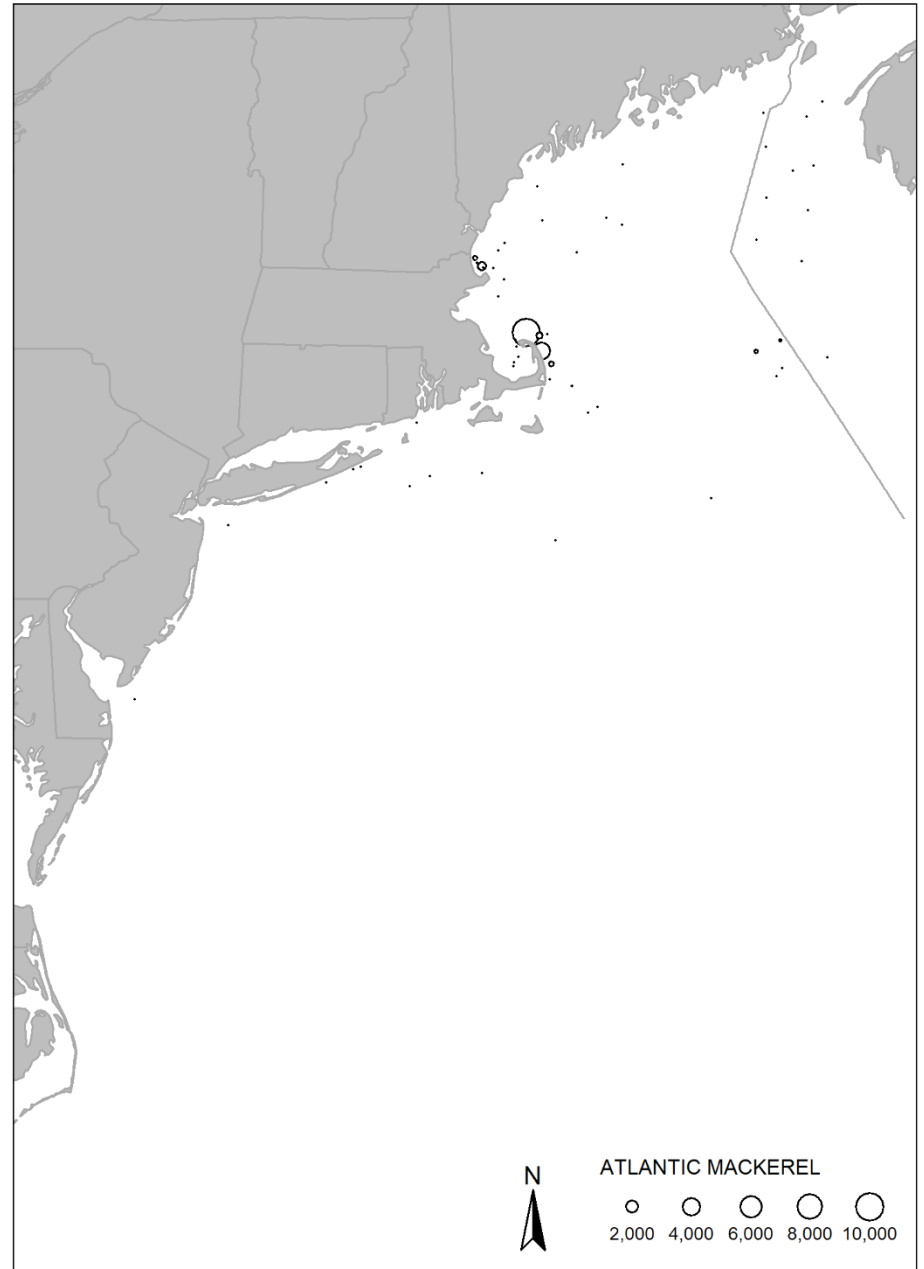


Figure 5. Total number of Atlantic herring (left) and Atlantic mackerel (right) per tow from the Northeast Fisheries Science Center's Fall Bottom Trawl Survey, 2021-09-11 - 2021-11-15.

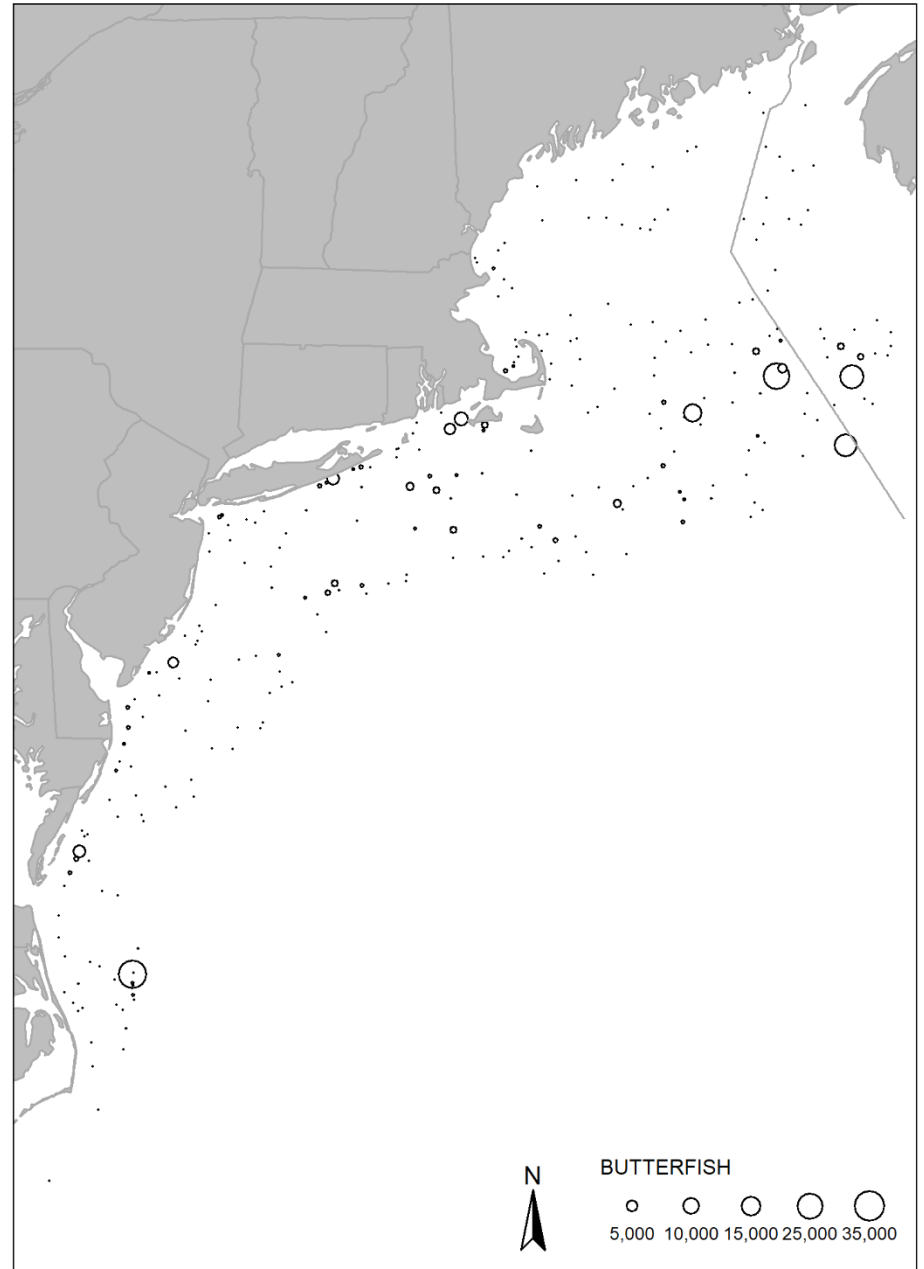
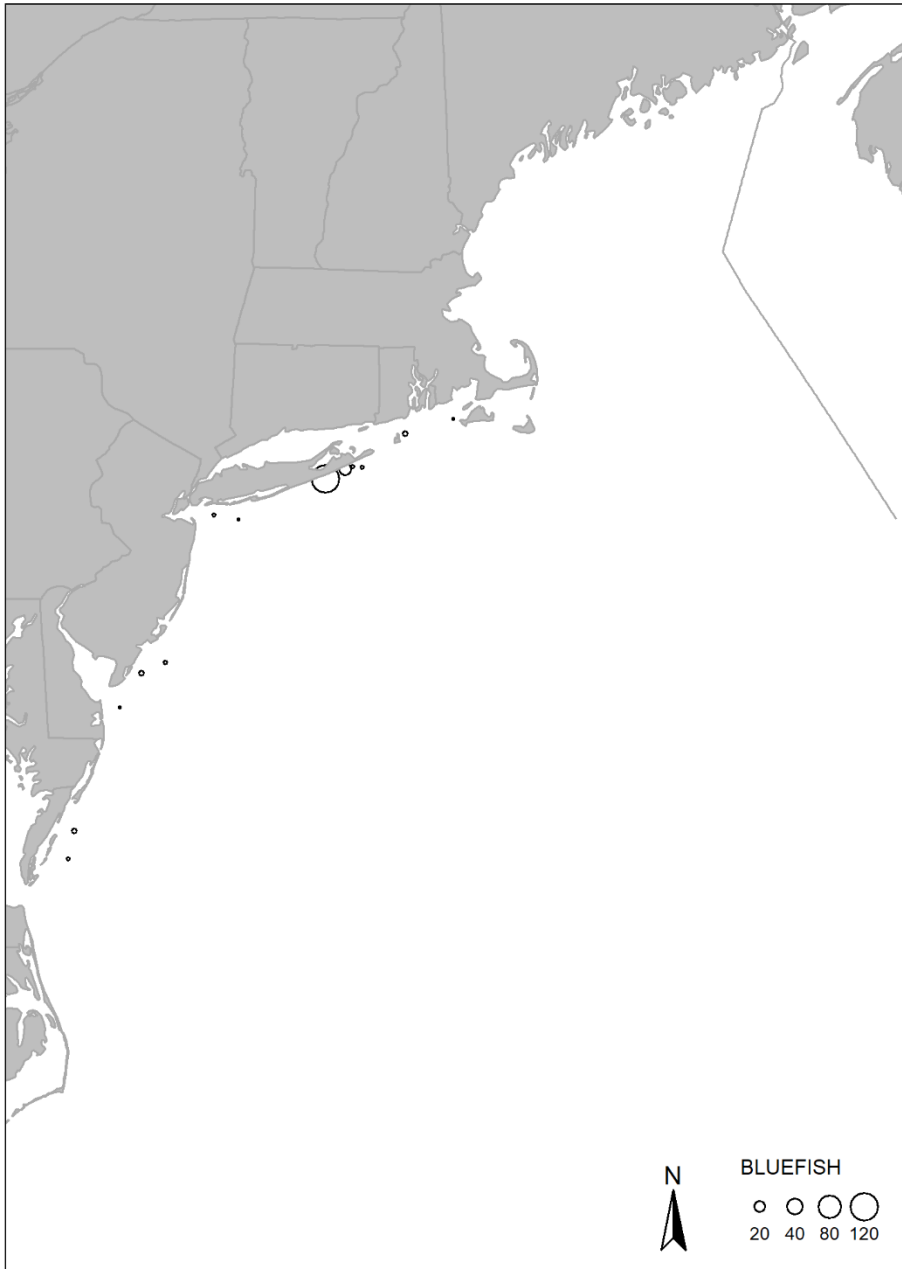


Figure 6. Total number of bluefish (left) and butterfish (right) per tow from the Northeast Fisheries Science Center's Fall Bottom Trawl Survey, 2021-09-11 - 2021-11-15.

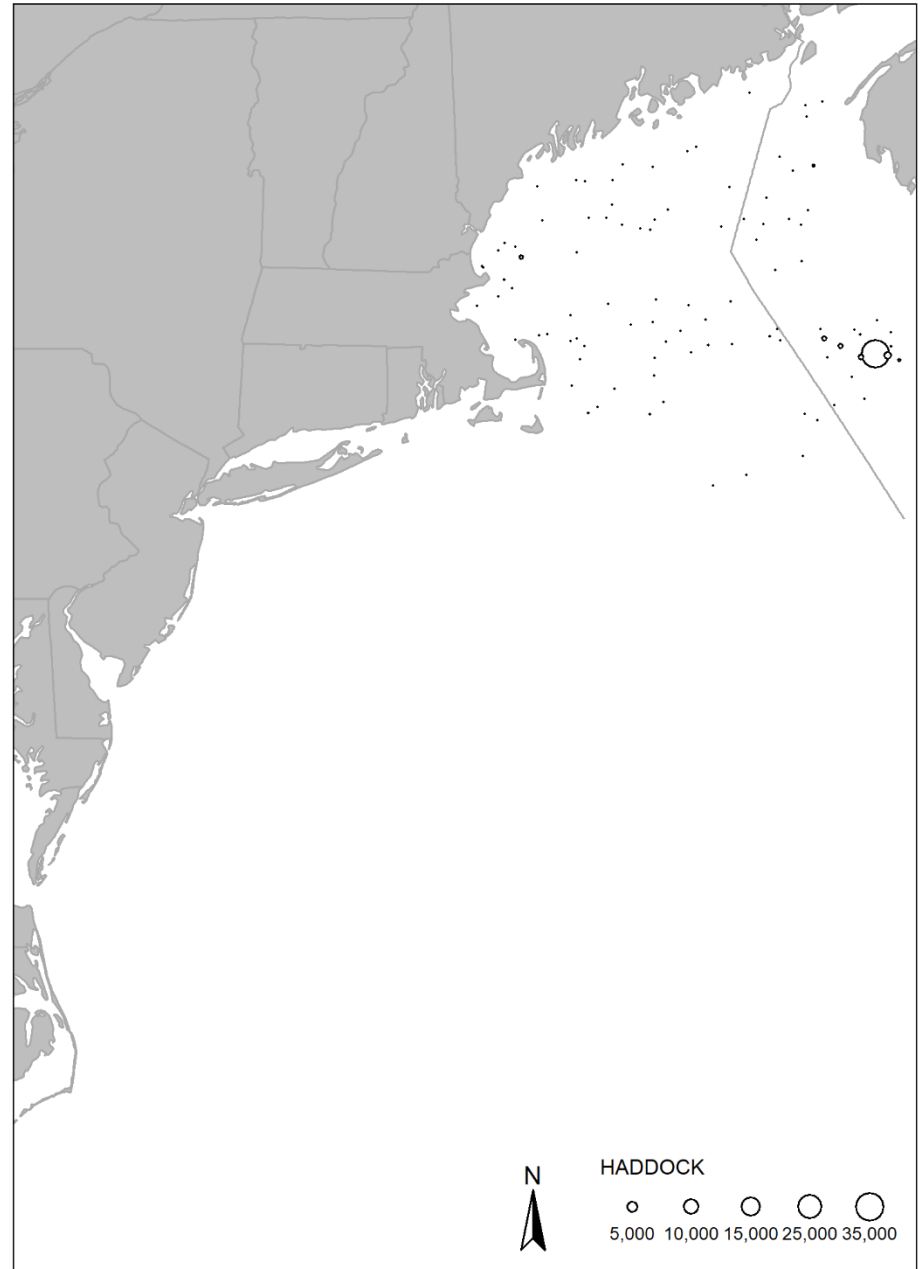
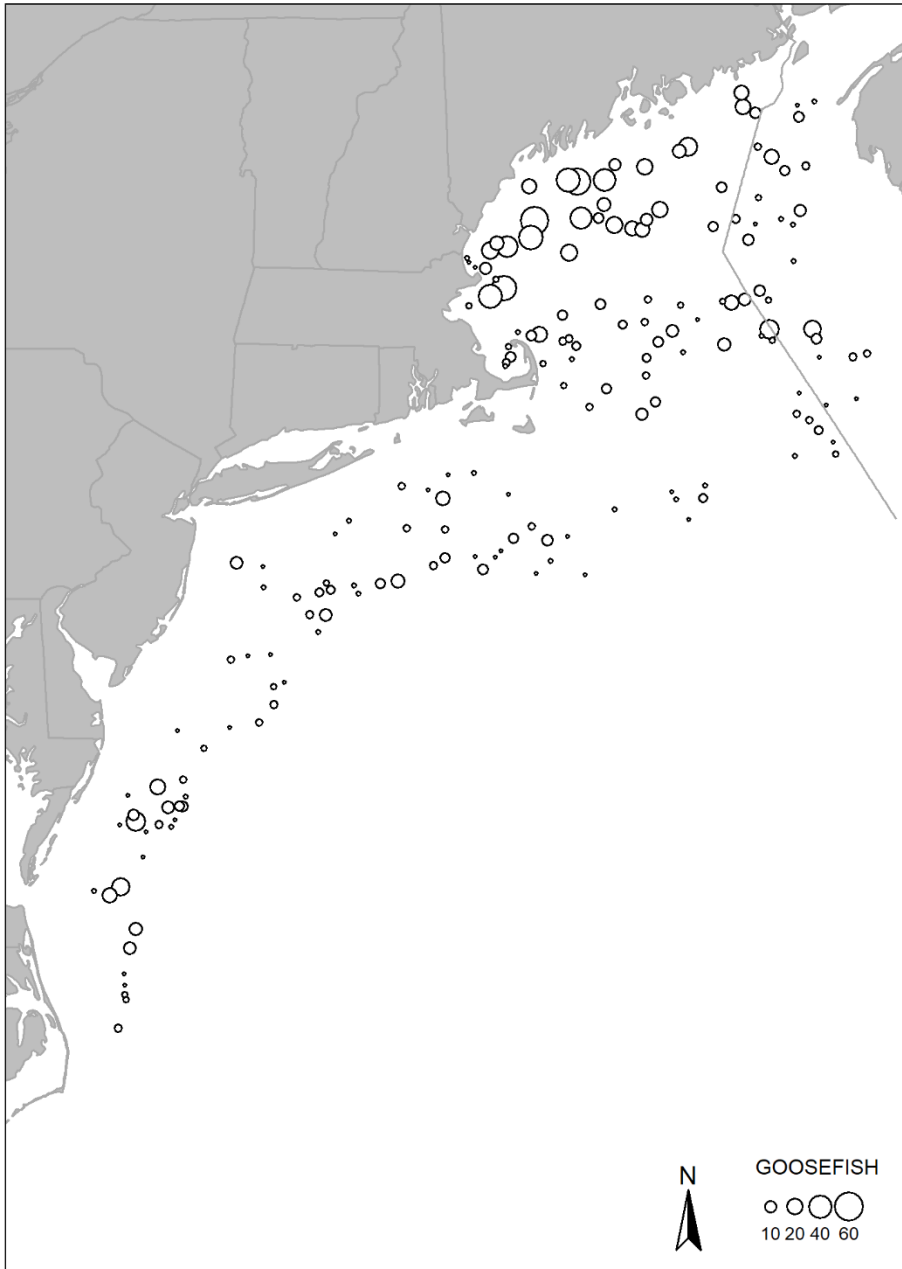


Figure 7. Total number of goosefish (left) and haddock (right) per tow from the Northeast Fisheries Science Center's Fall Bottom Trawl Survey, 2021-09-11 - 2021-11-15.

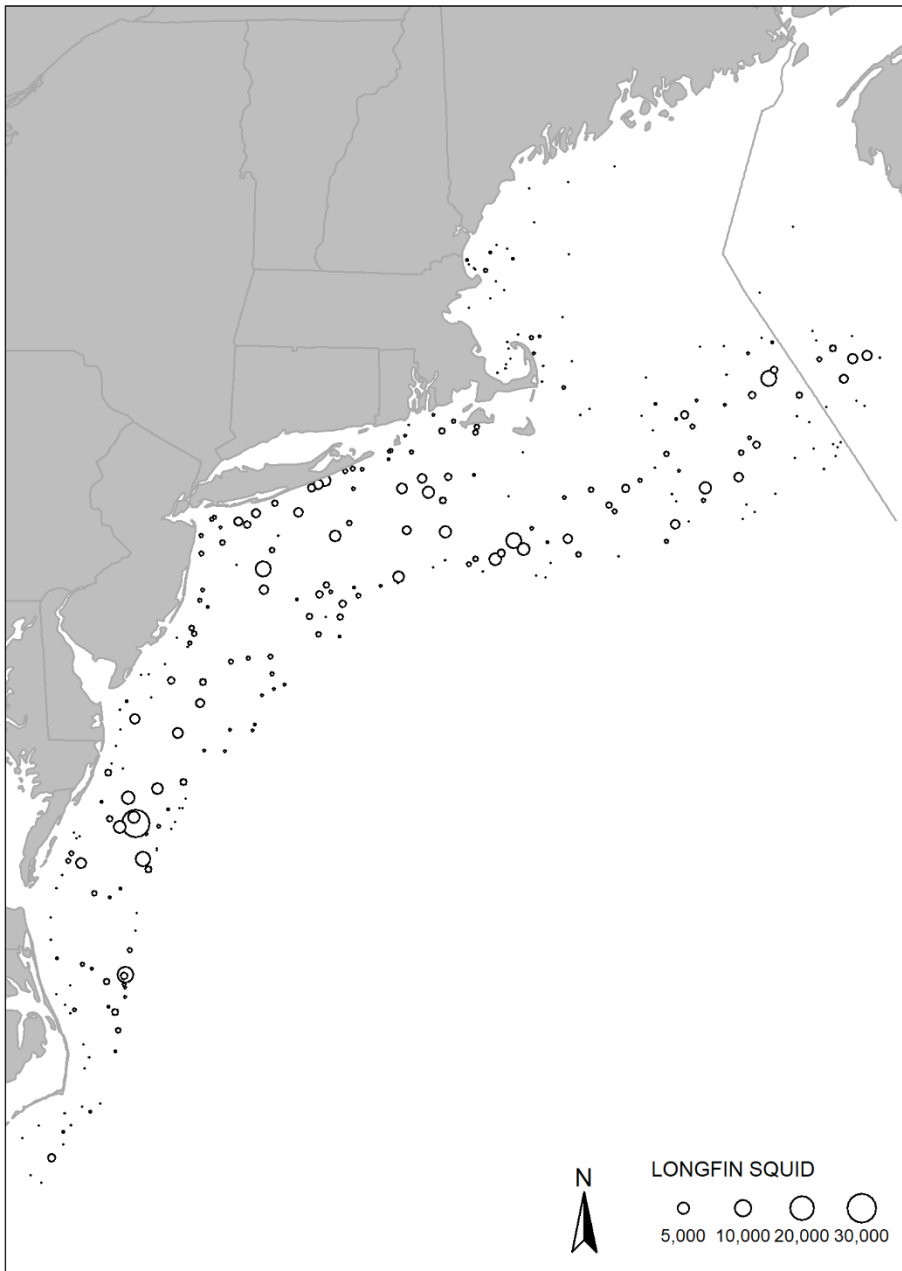


Figure 8. Total number of longfin squid (left) and shortfin squid (right) per tow from the Northeast Fisheries Science Center's Fall Bottom Trawl Survey, 2021-09-11 - 2021-11-15.

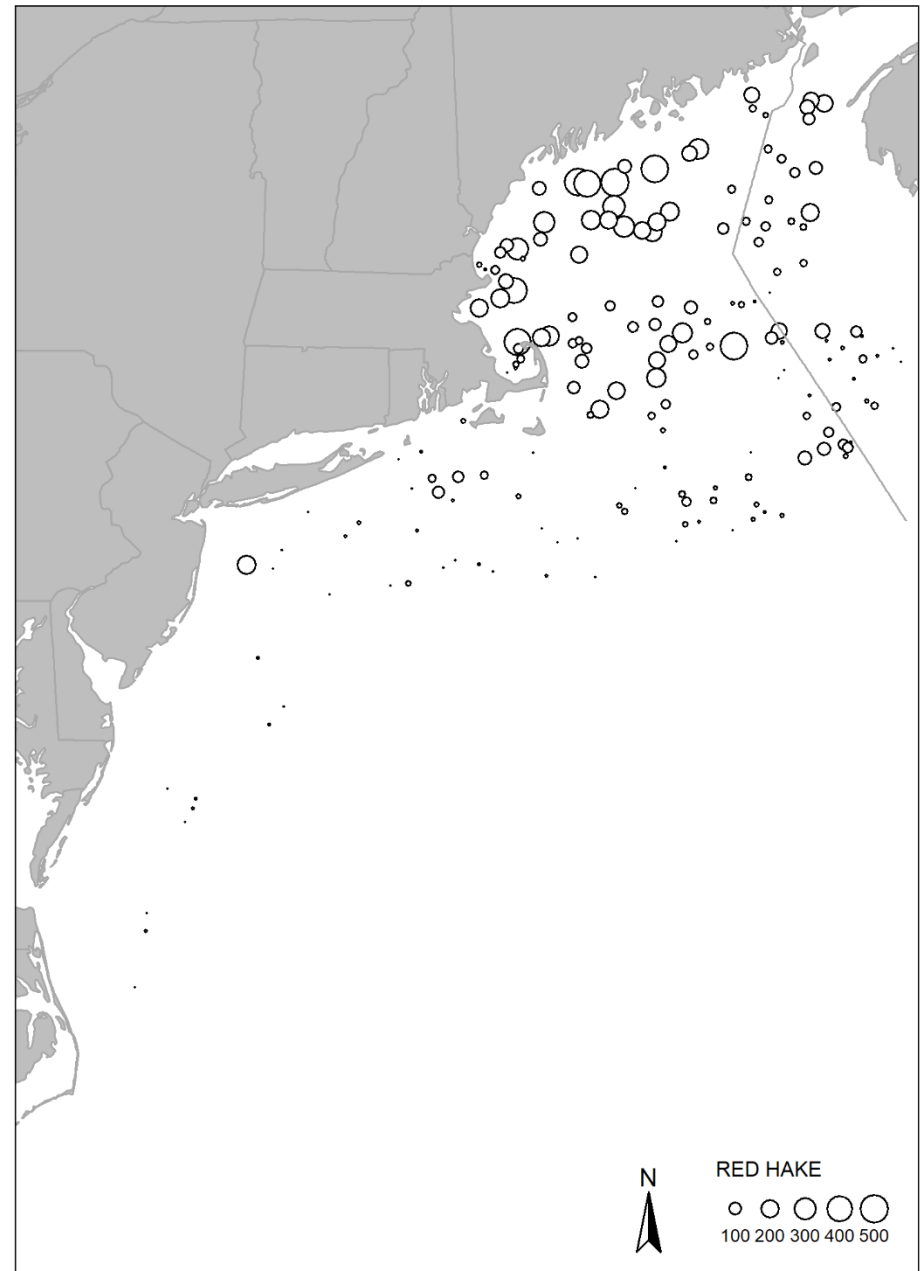
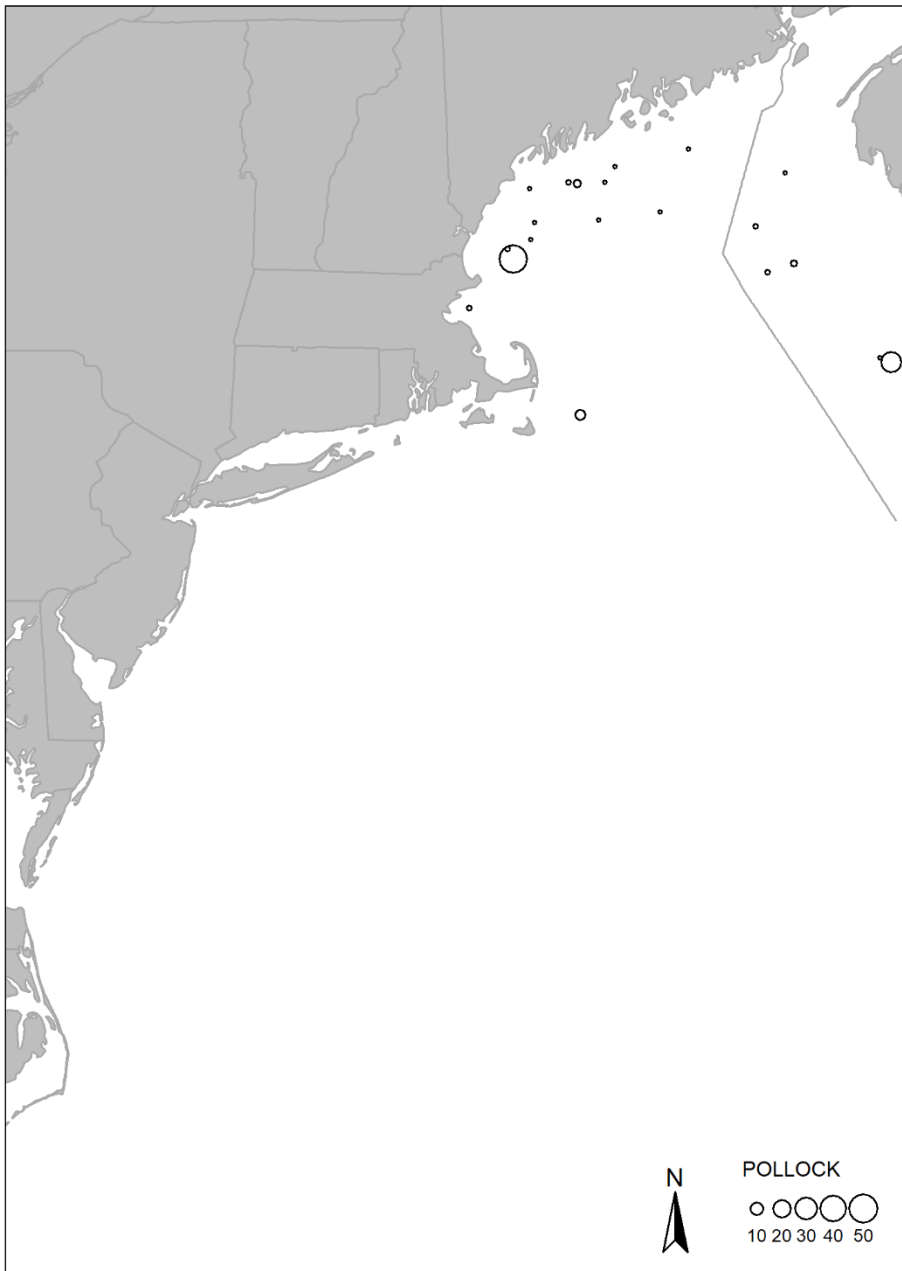


Figure 9. Total number of pollock (left) and red hake (right) per tow from the Northeast Fisheries Science Center’s Fall Bottom Trawl Survey, 2021-09-11 - 2021-11-15.

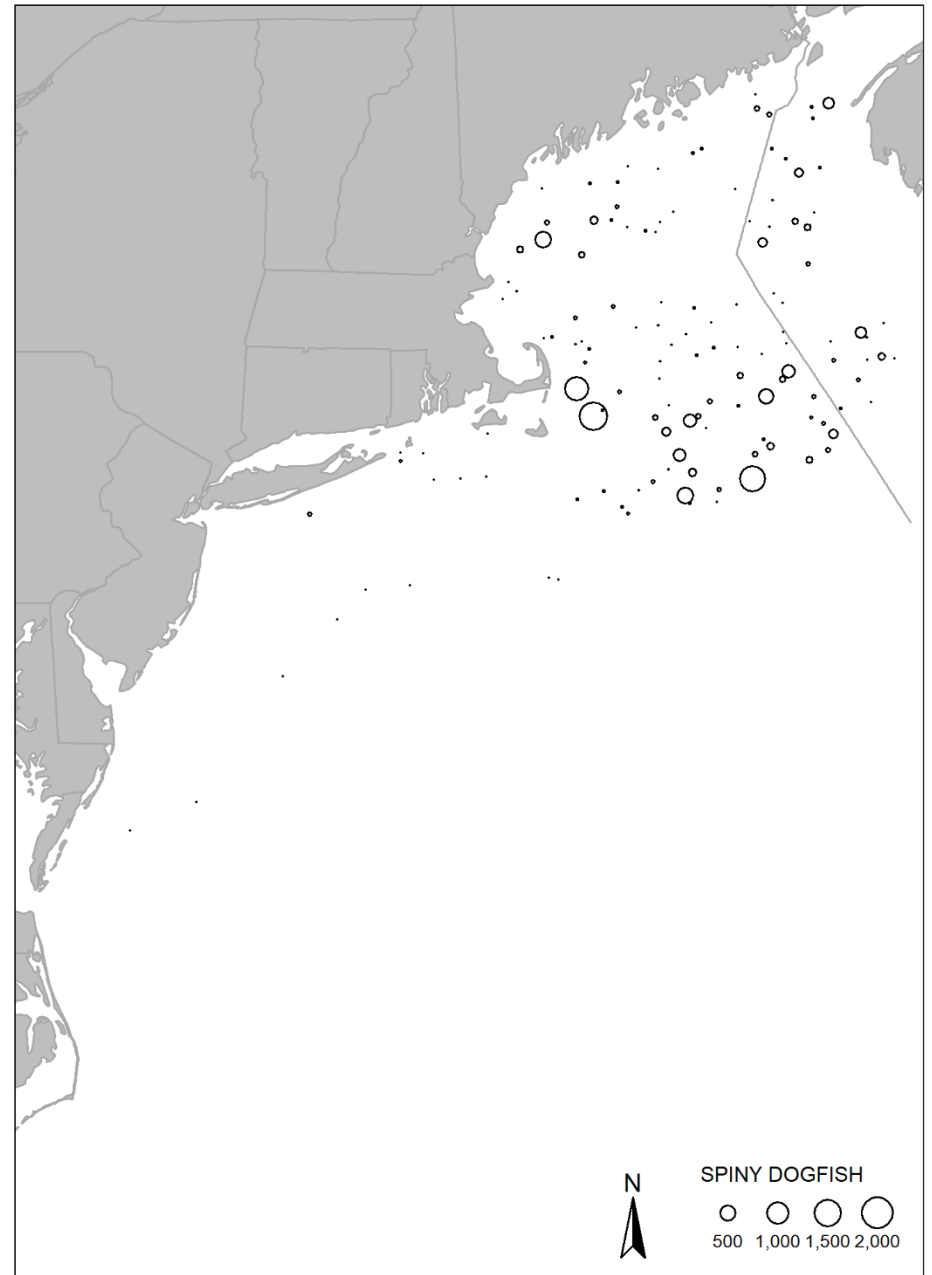
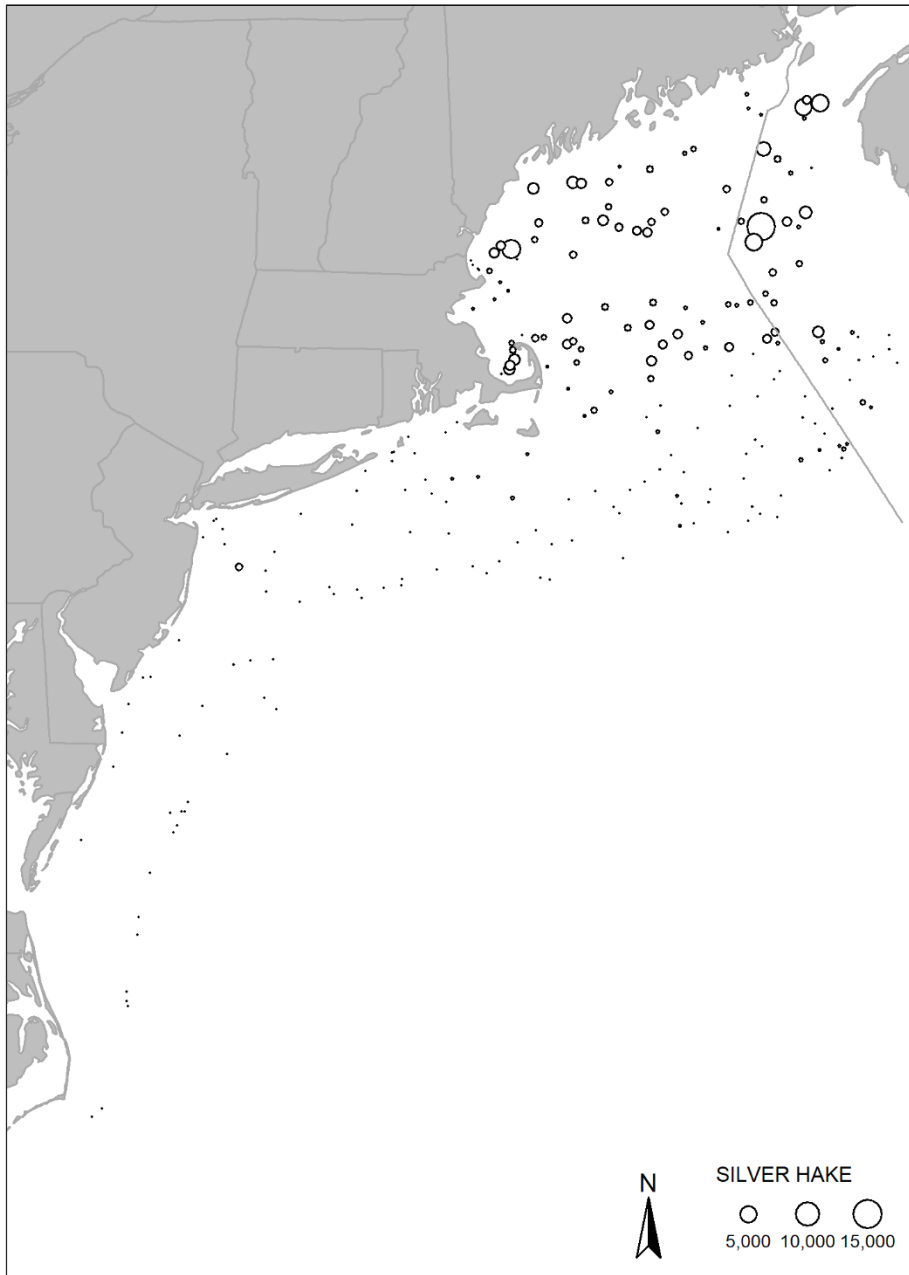


Figure 10. Total number of silver hake (left) and spiny dogfish (right) per tow from the Northeast Fisheries Science Center's Fall Bottom Trawl Survey, 2021-09-11 - 2021-11-15.

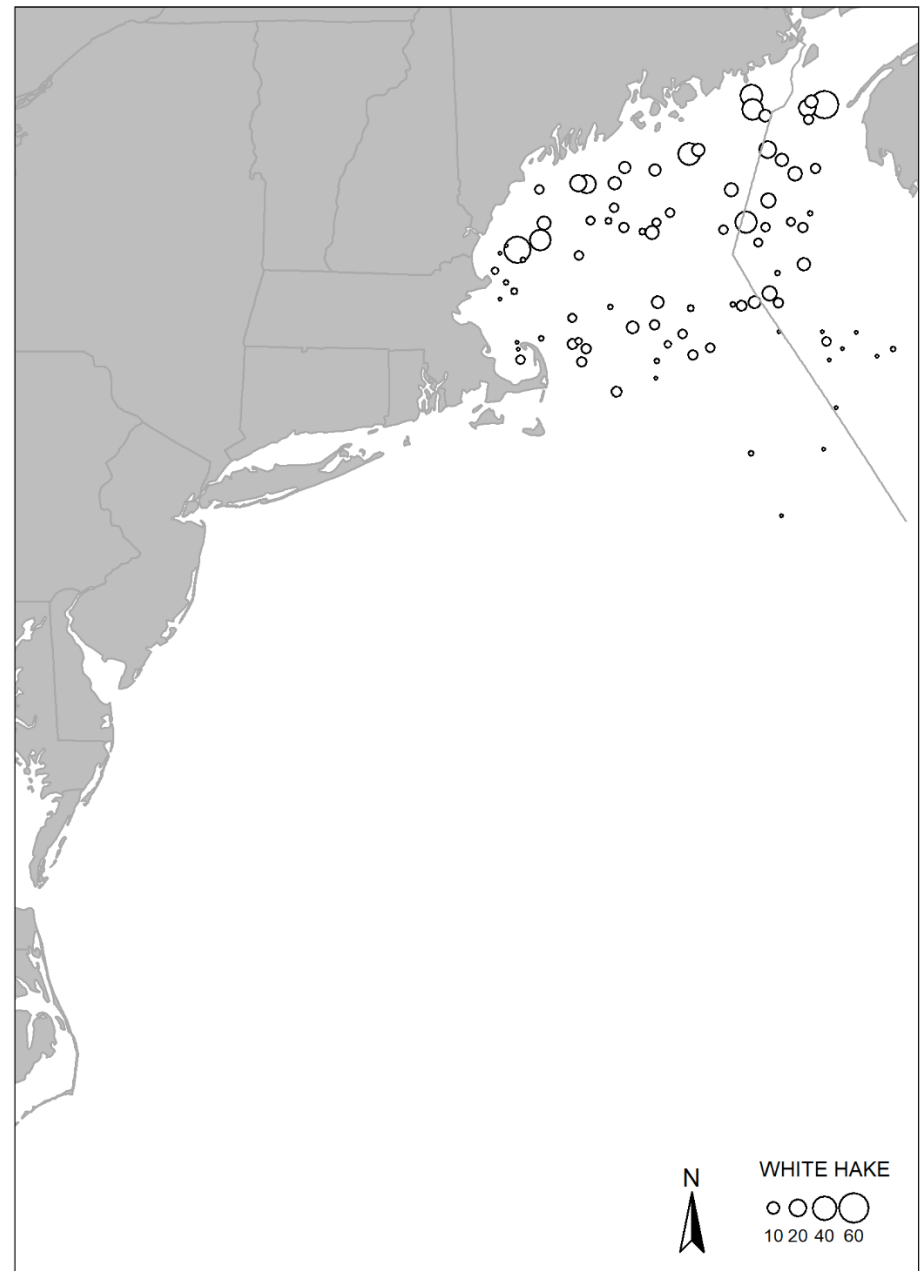
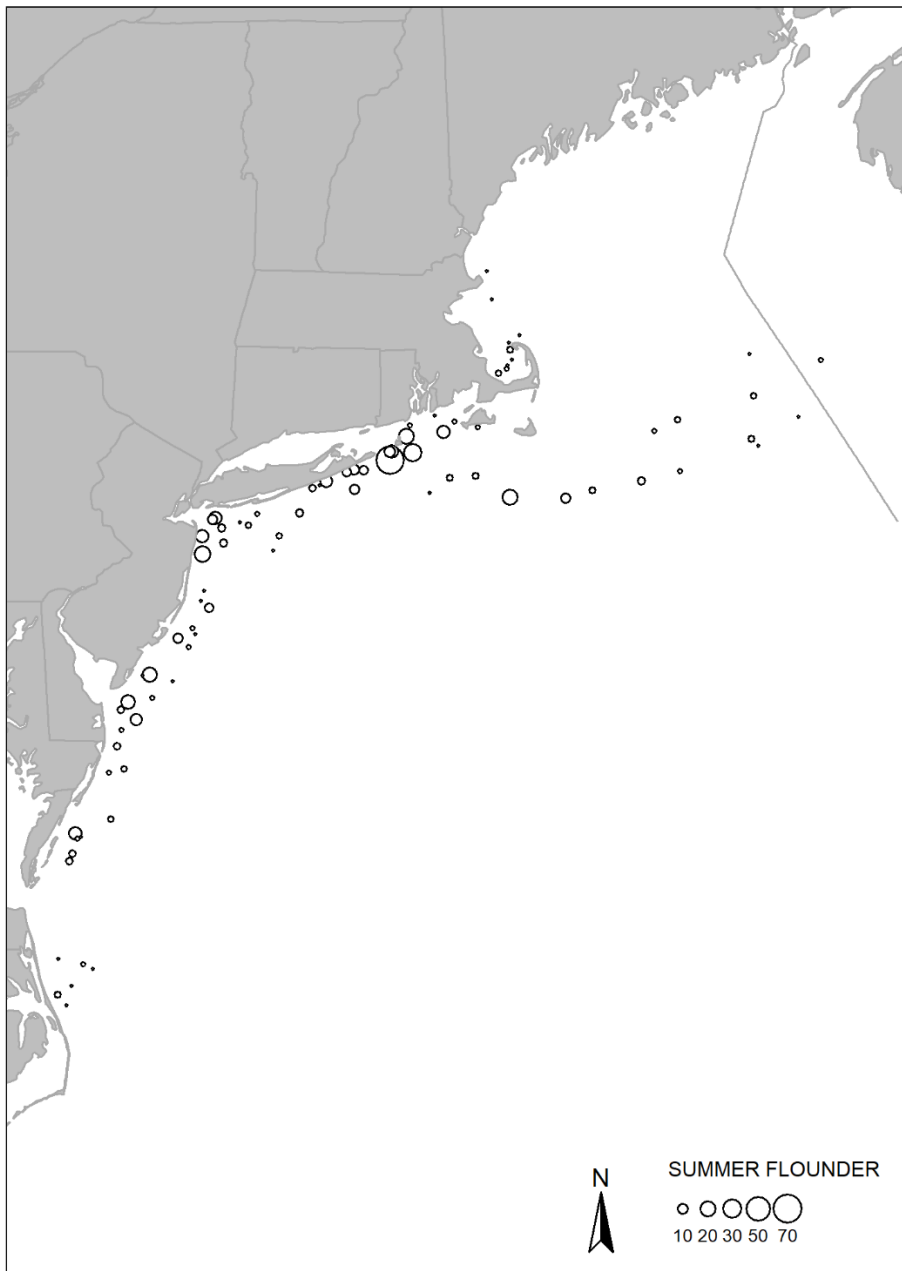


Figure 11. Total number of summer flounder (left) and white hake (right) per tow from the Northeast Fisheries Science Center's Fall Bottom Trawl Survey, 2021-09-11 - 2021-11-15.

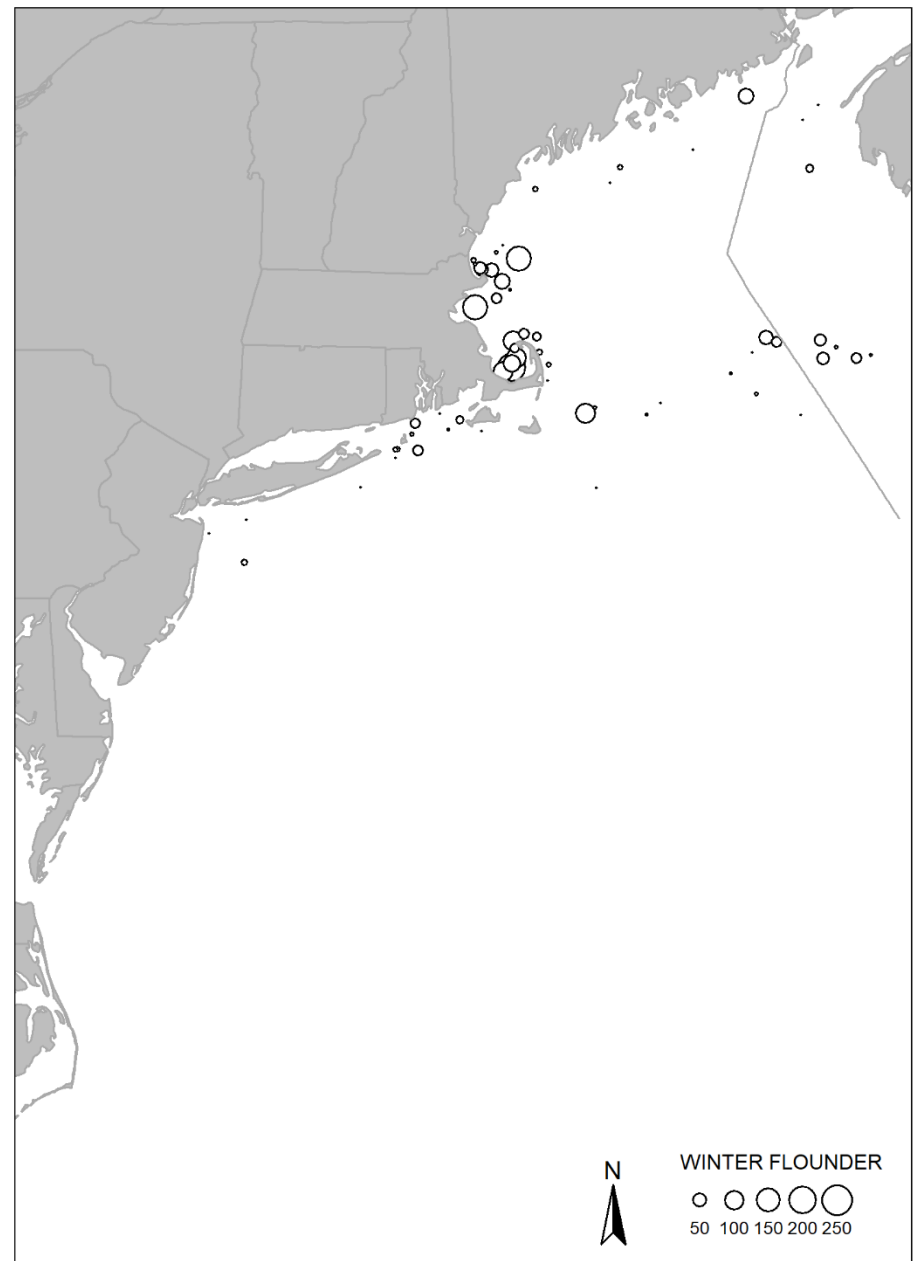
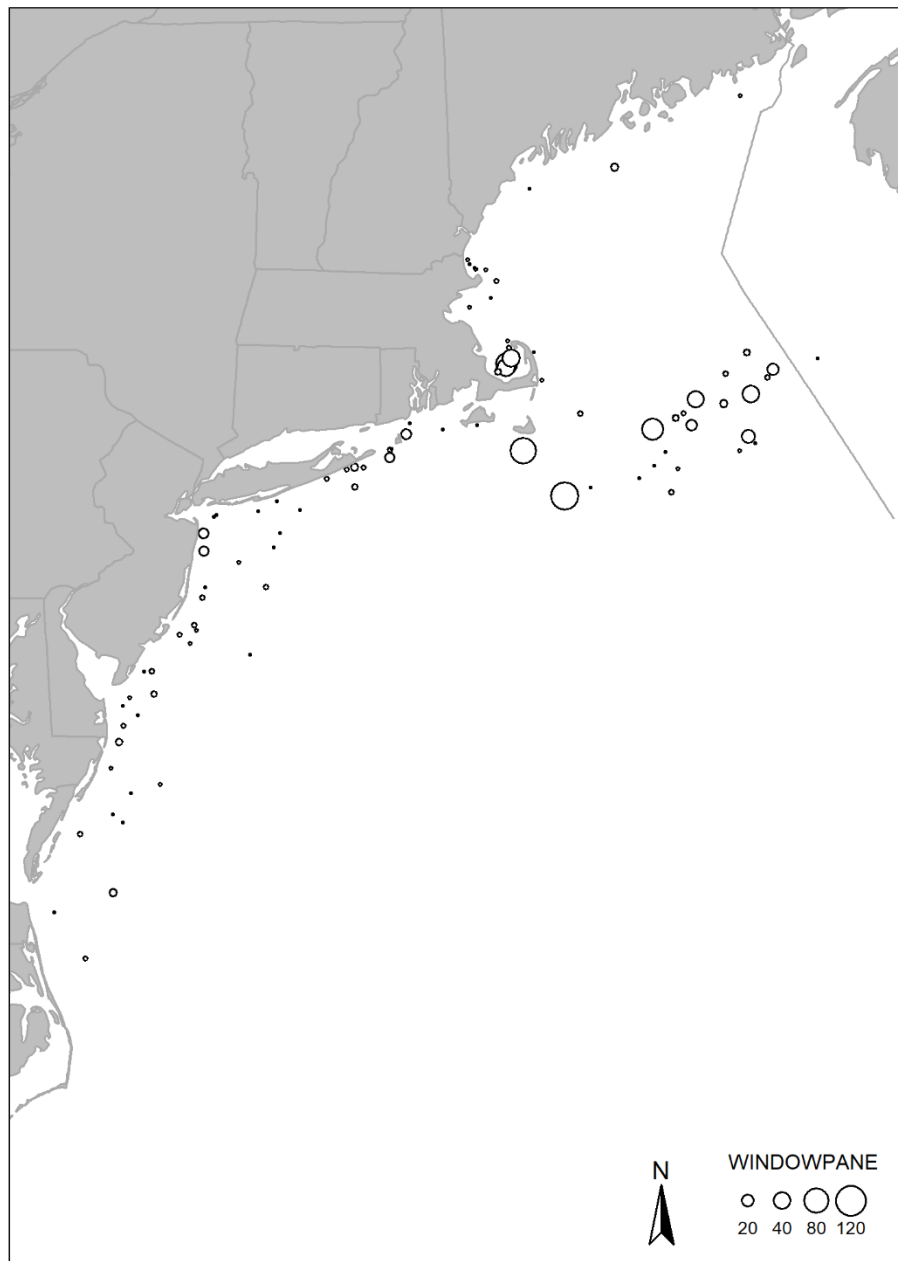


Figure 12. Total number of windowpane flounder (left) and winter flounder (right) per tow from the Northeast Fisheries Science Center's Fall Bottom Trawl Survey, 2021-09-11 - 2021-11-15.



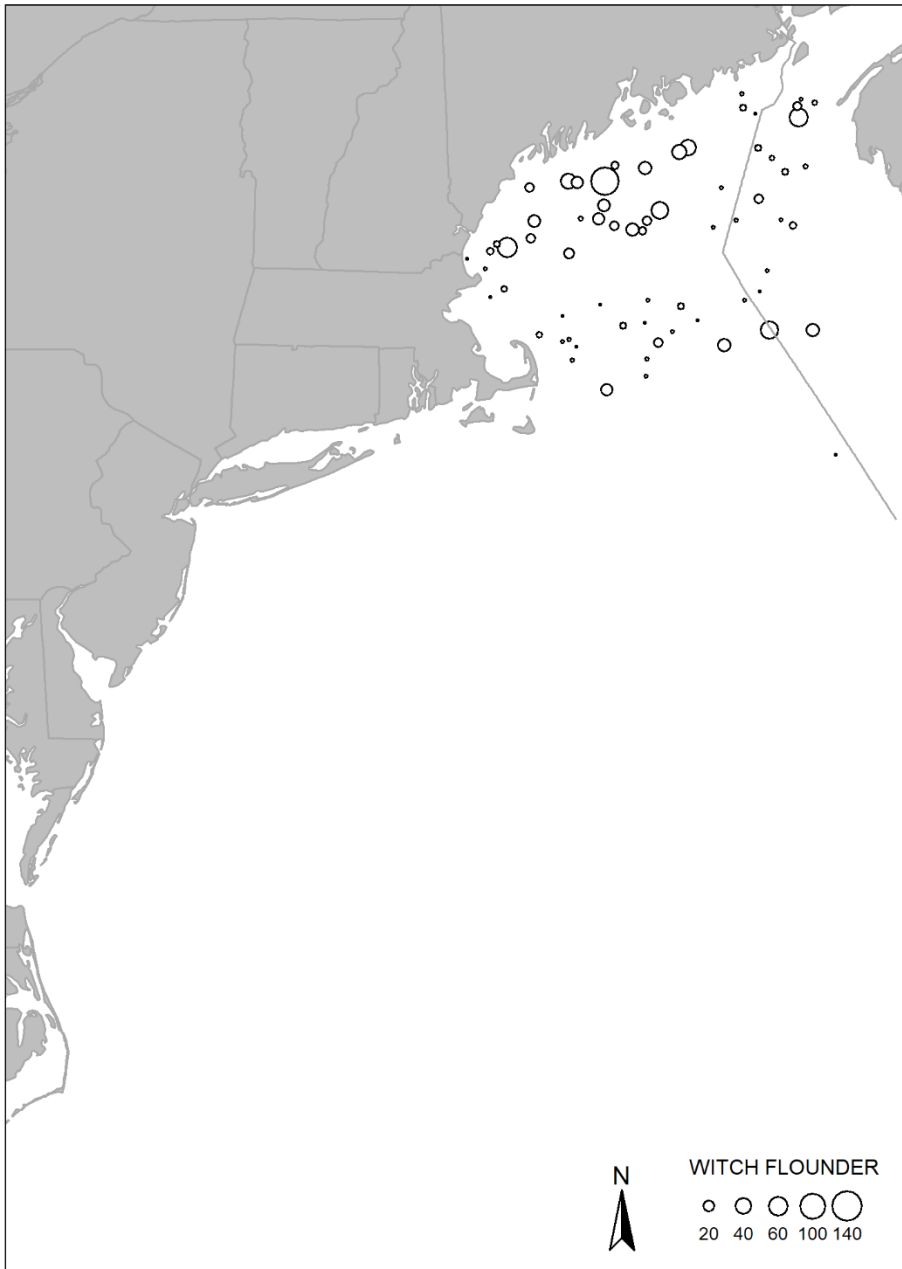


Figure 13. Total number of witch flounder (left) and yellowtail flounder (right) per tow from the Northeast Fisheries Science Center's Fall Bottom Trawl Survey, 2021-09-11 - 2021-11-15.