

University of Massachusetts Dartmouth School for Marine Science and Technology New Bedford, MA 02744



Final Report

Design and Test of an Innovative Large Mesh Whiting Trawl to Reduce Spiny Dogfish Bycatch in the Southern New England Whiting Fishery





P.O. Box 278 Saunderstown, RI 02874 Phone (401) 515-4662 Fax: (401) 515-4663 Website: www.cfrfoundation.org

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Reduce Spiny Dogfish Bycatch in the Southern New England Whiting

Fishery

Project leader: Pingguo He

University of Massachusetts Dartmouth School for Marine Science and Technology

706 South Rodney French Boulevard, New Bedford, MA 02744

Tel. (508) 910-6323, Email: phe@umassd.edu

Key collaborators: Elias Olafsson, Dantrawl Inc., Seattle, WA

Patrick McGlade, F/V "Enterprise", Wakefield, RI Donald Follett, F/V "Cody", Charlestown, RI

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SMAST-CE-REP-2012-024

Design and Test of an Innovative Large Mesh Whiting Trawl to Reduce Spiny Dogfish Bycatch in the Southern New England Whiting Fishery

P. He, E. Olafsson, S-R. Yngvesson, P. Pedersen, P. McGlade, D. Follett, C. Rillahan and S. Bayse

Abstract

The focus of this project was to test a new large mesh whiting trawl, designed by Dantrawl Inc. of Seattle, for the Southern New England whiting (silver hake, Merluccius bilinearis) fishery to reduce bycatch of spiny dogfish (Squalus acanthias). Started in June 2010, this project has been a true collaboration among a scientist, a gear manufacturer, and the fishing industry. The purpose of the project was to demonstrate if the large mesh trawl, which has been proven successful in the Alaskan pollock fishery, could maintain or increase whiting catch while reducing bycatch of spiny dogfish. A full-scale large mesh whiting trawl was designed, fabricated, and modified as necessary were after initial sea trials. A pair of trawl doors (Thyboron Type 15VF, 4.5 m²) that can operate both on and off bottom was rented for use with the project. Sea trials started in September 2010 with the F/V "Cody" and F/V "Enterprise" using a parallel tow method with a commercial whiting trawl as the control. At the end of that segment, gear rigging was finalized. Sea trials continued in April and May 2011 during which 37 paired-tows were completed. Thirty-six paired-tows were considered valid pairs, with one pair being excluded because the codend was not brought on the vessel due to excessive dogfish in the control gear. From the analysis of the valid 36 pairs, it was found that the new large mesh trawl increased catch of targeted whiting by 34% (mean 35.94 kg/h control vs. 48.28 kg/h experimental), but the increase is not statistically significant (non-parametric paired randomization test, N=36, p=0.0874). Catches of red hake (Urophycis chuss), longfin squid (Doryteuthis pealeii), and scup (Stenotomus chrysops) were similar between the control and the experimental trawls (N=36, p>0.05). The new trawl significantly reduced the catch of spiny dogfish by 58% (p=0.0080), butterfish (Peprilus triacanthus) by 46% (p=0.008), flounders (yellowtail, Limanda ferruginea; windowpane, Scophthalmus aquosus; winter, Pseudopleuronectes americanus; and four-spot, Paralichthys oblongus) by 72% (p=0.001), and skates (little skate, Leucoraja erinacea and winter skate, Leucoraja ocellata) by 71% (p=0.001), when compared with the commercial trawl. While the new trawl achieved the project's goal of maintaining targeted whiting catch and reducing bycatch of dogfishes, the results need to be viewed with caution, as the overall and individual catch rates of whiting were relatively low (0 to 215 kg/h). Therefore more comparative experimental tows are required in the range of commercial catch rates before the new trawl can be recommended for commercial use in the Southern New England whiting fishery.

1. Introduction

Small mesh trawls for whiting (silver hake, *Merluccius bilinearis*), red hake (*Urophycis chuss*) and pink shrimp (*Pandalus borealis*) are managed as exemptions from the Northeast Multispecies Management Plan. Gears used for harvesting these species must meet the requirement of bycatch cap. In addition to groundfish bycatch, spiny dogfish (*Squalus acanthias*) has become a major problem in southern New England whiting fishery, as it can over-crowd the codend, and damage targeted whiting.

In the mid-1990s, Rhode Island researchers attempted to reduce groundfish bycatch in the Southern New England whiting fishery (Milliken and DeAlteris 2004). They explored if large mesh belly windows could be used to release groundfish, especially flounders. Various windows of different constructions and colors were tested. Results indicated that certain combinations of mesh size and twine color were effective in reducing groundfish bycatch. However, the design has never commercialized. From late 1980 through the 1990s and into the early 2000s, Massachusetts Division of Marine Fisheries (DMF) and Maine Department of Marine Resources (DMR) have carried out a series of experiments to devise a gear which can meet the requirement of groundfish bycatch (Amaru 1996; McKiernan et al 1998, 1999; Pol and McKiernan 2004; Schick 2005). At present either a raised footrope chain sweep trawl or a sweepless trawl is required in Cape Cod Bay whiting fishery with specific rigging requirement as described by Pol and McKiernan (2004). More recently, DMF has been working on a development project testing a grid to reduce dogfish bycatch; the result have not yet been made available. In addition, the whiting fishery in Maine also requires a grid with maximum spacing of 50 mm installed just before the codend (Schick 2005). Cookie footropes together with 10" drop chains are typically used in the Southern New England whiting fishery.

Despite of these efforts, bycatch of spiny and smooth dogfish in whiting fishery in Southern New England is still the major problem. Dogfish crush the whiting, reducing catch quality. Also, discarded dogfish may die and contribute to the dogfish mortality. Abundant dogfish bycatch has prevented harvesting of whiting in recent years in Southern New England. A new trawl to harvest whiting and reduce or eliminate dogfish would help utilize the whiting

resource while reducing the associated dogfish mortality; contributing to the financial wellbeing of the fishing industry, and the spiny dogfish resource sustainability.

Large mesh trawls have been used to catch small fish species in many fisheries such as herring, mackerel, Alaska Pollock, and haddock (the Ruhle Trawl). By using large mesh in the front part of the trawl, the vessel can significantly increase the fishing circle with the same amount of towing power. This will be a completely new concept for whiting which has been traditionally a small mesh fishery. Successful development of such a large mesh trawl has a potential for harvesting the species with significant reduction of many bycatch species.

2. Statement of Research

The project was to design and test a new whiting trawl for the Southern New England whiting fishery incorporating a large mesh front end to reduce spiny dogfish, as well as other groundfish species such as flounders, and skates. The question to be answered was: Can we design a new whiting trawl system to harvest the whiting resource using the existing fishing vessel and deck machinery and to reduce bycatch, especially spiny dogfish in Southern New England waters?

3. Project Objectives

The goal of the proposed research is to reduce bycatch of spiny dogfish in the Southern New England whiting trawl fishery through the design and test an innovative large mesh semi-pelagic trawl. Specific objectives are to:

- Design an innovative large mesh semi-pelagic trawl suitable for the Southern
 New England whiting fishery;
- Construct a full-scale trawl system by a gear manufacturer and rent it to the project;
- Conduct sea trials in Southern New England waters to evaluate the design's
 effectiveness in retaining whiting and reducing dogfish and other finfish and
 flatfish, and evaluate its operation and handling in the fishery;
- Conduct outreach and technology transfer upon successful sea trial results.

4. Research Methods

This research involved gear design, construction and sea trials on board two commercial fishing vessels comparing the new trawl system with an existing commercial trawl system when targeting whiting in the Southern England waters. A new **experimental trawl system** from trawl door to codend was compared against the existing **commercial trawl system** (control) also from door to the codend; the two codends were identical. The Null Hypothesis is that there are no differences between catches of whiting and dogfish from the experimental trawl system and those from the commercial trawl system. The Alternative Hypothesis is that the new experimental trawl system will catch more whiting and less spiny dogfish than the commercial trawl system. Other species catch amounts will be evaluated to determine if there are differences between the experimental trawl system and the commercial trawl system.

4.1 Gear design

The experimental whiting trawl was designed by the Dantrawl team including Elias Olafsson and Stig-Rune Yngvesson, both of whom have tremendous experience in the design of large mesh trawls. The new trawl incorporated large meshes at the front end of the trawl. The mesh size at the wing, square and first belly was 6400 mm (20.5') and gradually reduced to 100 mm (4") in the last section of the net (Figure 1, top). A regular commercial codend was used. The bottom panel incorporated large exit openings during the 2010 trials, but was modified to 3.2 m mesh size netting during the 2011 trials, due to large amount of whiting loss (Figure 1, bottom). The new trawl has an estimated wingend spread of 30-36 m and headline height of 4-5 m. The fishing circle at the middle of headline is about 180 m². The new trawl with a large fishing circle might allow for more whiting to come into the trawl, resulting in more catch, even though some of them may escape through the meshes. This fishing strategy has been demonstrated in the Ruhle trawl (Eliminator Trawl) which also uses large mesh in the front part to harvesting haddock (Beutel *et al.* 2008). Traditionally, much smaller mesh (6") has been used for haddock and other groundfish.

Because there are large differences in the design and rigging of the new trawl compared with the existing commercial trawl, we have to take the new trawl from door to the codend as a **trawl system** and compare with the existing trawl system also from the door to the codend. The net plan of the control trawl is shown in Figure 2. The main purpose of the experiment was to demonstrate if the new trawl system was feasible in catching whiting while reducing spiny dogfish.

4.2 Gear construction

The gear was constructed by Dantrawl Inc. of Seattle, WA, USA. The construction and material use was supervised by the Dantrawl technical team. A pair of large, but light weight trawl doors were used to spread the new trawl. The selected trawl door was Thyboron Type 15VF 4.5 m² door (Figure 3).

4.3 Sea trials

The trawl was tested at sea in the Southern New England whiting trawl fishery onboard two vessels of similar lengths (70-75 ft) and horsepower (450 HP): F/V "Enterprise" (skipped by Capt. Patrick McGlade) and F/V "Cody" (skipped by Capt. Donald Follett) (Figure 4). These two vessels use identical nets commercially (Figure 2) and have had very similar fishing power. These vessels are typical whiting trawl vessels operating in the fishery and have the ability to tow the new (experimental) or the control trawl (Figure 2). Following initial gear modifications and rigging adjustment using one vessel, side-by-side parallel tows with one vessel fishing the experimental trawl system ("Experimental") and the other fishing the regular commercial trawl system ("Control") currently in use by the vessels were conducted in 2011. Eleven fishing days (F/V "Cody": 6 days, F/V "Enterprise": 5 days) were completed in 2010 for gear modification and adjustment. Six days each were completed in 2011 for comparative fishing. The nets were switched between the vessels after three fishing days in 2011. During comparative fishing, the vessels fished as closely as possible without causing safety concerns. Tow lengths (one hour) and towing speed (2.8-3.3 knots depending on tides) were closely matched and controlled. Fishing trials were carried out off Rhode Island coast at water depths between 18 and 71.5 fm (Figure 5). A total of 37 pairs of tows were completed in April/May 2011. One paired tow was excluded from analysis due to a large amount of dogfish catch in the control net which prevented the catch from being

brought on board for quantitative evaluation. Analysis was carried out for the 36 paired tows. Summary of detailed tow conditions and gear monitoring/measurement/condition was noted by the Dantrawl team, and is attached as Appendix I.

4.4 Sampling and analysis

Catch and bycatch were quantified from each tow. Whiting (silver hake, *Merluccius bilinearis*), red hake (*Urophycis chuss*) and longfin squid (*Doryteuthis pealeii*, formally *Loligo pealeii*) were considered as major target species. The main bycatch species were spiny dogfish (*Squalus acanthias*), skates (little skate, *Leucoraja erinacea*, and winter skate, *Leucoraja ocellata*), scup (*Stenotomus chrysops*), butterfish (*Peprilus triacanthus*), and flounders (yellowtail flounder, *Limanda ferruginea*, summer flounder, *Paralichthys dentatus*, windowpane, *Scophthalmus aquosus*, and winter flounder, *Pseudopleuronectes americanus*).

Trawl performance was evaluated based on the total catch of target and bycatch species. The catch for each tow was separated into species and weighed to the nearest 0.05 kg. If the tow duration was not exactly 60 minutes, the total catch was standardized to kg/hr. Catch rates between the gears were analyzed using a non-parametric paired randomization test. This test compares the fishing trial data to the same data randomly assigned to a treatment group for each tow. The catch difference between treatment groups was averaged and the actual data was compared to the randomized data sets. Ten thousand randomizing iterations were used to construct a robust data set. The actual data was then compared to the ordered randomized data set and given a rank. If the actual data was in the top or bottom 2.5%, based on rank, it was considered statistically significant. By randomizing the treatments and comparing the actual data to the randomized data, we can determine if the treatment (i.e. fishing gear) can explain the catch differences.

Target species and major bycatch species were individually measured to the nearest cm for total length (whiting, red hake, dogfishes and flounders), fork length (Atlantic herring, Atlantic mackerel, scup and butterfish), and mantle length (longfin squid). Skates were not measured, but were counted. When large quantities of fish were present, sub-samples of about 100 individuals were measured. The number of fish in 1 cm length categories for each paired tow was extrapolated from the sub-samples and the length-frequency distribution was generated for both experimental trawl and control trawl.

The proportion of fish retained at length (L) by the experimental trawl $\Phi(L)$ can be expressed for each length and each paired tow as:

$$\Phi(L) = N_{L,exp} / (N_{L,exp} + N_{L,ctrl})$$

where $N_{L,exp}$ and $N_{L,ctrl}$ are number of fish at length L measured for the experiment trawl (exp) and the control trawl (ctrl) respectively. A value of $\Phi(L) = 0.5$ indicates that there are no differences in the catch in numbers between two trawls at length L. The catch proportion $\Phi(L)$ for fish from two trawls was analyzed using the Generalized Linear Mixed Model (GLMM) with L as the explanatory variable, Φ as the response variable, the individual paired tow, depth, time of day, and vessel as the random effect, and subsample ratio as an offset, following the technique described in Holst and Revill (2009). In this analysis the GLMM was implemented using the glmmPQL function in MASS package of the R statistical software, which uses a penalized quasi-likelihood approach. The polynomial regression GLMM was used to fit curves for the expected proportions of the catch retained by the experiment trawl, after logit transformation, as:

$$logit[\Phi(L)] = \beta_0 + \beta_1 L + \beta_2 L^2 + \beta_3 L^3$$

where β_0 , β_1 , β_2 , β_3 are coefficients. The analyses proceeded by fitting the third order polynomials followed by subsequent reductions of terms until all terms showed statistical significance (p<0.05). Reductions were based on Wald's test, with removal of one term at a time to determine the best-fit model (either constant, linear, 2^{nd} order, and 3^{rd} order) as recommended by Holst and Revill (2009).

5. Results

5.1 Gear handling and operation

After initial familiarization of the new gear in September 2010, the new net was handled with ease using the existing deck machinery during the April and May 2011 sea trials.

5.2 Target species

Whiting (silver hake), red hake, squid, Atlantic herring and Atlantic mackerel are considered as target species, while butterfish, scup, dogfishes, flounders, and skates are considered as bycatch species.

The average catch of target and discarded species is shown in Figure 6. The catch for the majority of the target species - whiting, red hake, Atlantic herring, and longfin squid was not significantly different between the control and the experiment nets, even though large tow-to-tow differences were seen in some species. Of the target species, Atlantic mackerel was the only species in which the experimental trawl catches were significantly reduced (p=0.0028). Variations in the catch rates were great for all these species.

The new trawl caught 34% more whiting by weight [Control: 35.94 ± 4.88 kg/h (mean \pm SEM); Experimental: 48.28 ± 6.56 kg/h], but the difference was not statistically different (Non-parametric paired randomization test, N=36, p=0.0874). Catch rates varied from 0 to 215 kg/h (Figure 7). The new trawl caught more in 22 out of 36 valid paired tows. The plot of length frequencies seems to indicate that the new trawl caught more small whiting (Figure 8), but GLMM analysis did not support the conclusion. None of the models fit the data with statistical significance.

The catch rates of red hake were very similar on a tow-by-tow basis (Figure 9) and in their means (Control: 65.4 ± 14.1 kg/h; Experimental: 63.6 ± 18.1 kg/h). While the new trawl caught 3% less red hake by weight, the difference was not statistically different (N=36, p=0.4678). The size of red hake caught by the two nets are virtually identical, with the experimental net caught slightly more large fish (Figure 9), but it is not statistically significant when analyzed by GLMM.

The catch rates of longfin squid were low, but were very similar between two nets on a tow-by-tow basis (Figure 11) and in their means (Control: 6.3 ± 1.8 kg/h; Experimental: 6.5 ± 2.2 kg/h). The new trawl caught 2% more squid by weight, but the difference is not statistically different (N=36, p=0.4408). The experimental nets caught significantly more small squid,

but the catch rates for large squid >11 cm were very similar as revealed both in length distribution and GLMM analysis (Figure 12).

The experimental trawl caught much less Atlantic herring (26%), but the catch rates were highly variable (Figure 13), and the difference was not statistically different (p=0.1433).

Atlantic mackerel provided the largest catch disparity between the nets among the target species. The experimental nets caught virtually no Atlantic mackerel, while the control net caught an average of 61.9 kg/h of mackerel (Figure 14). Three tows fished by the control nets caught more than 300 kg/h of mackerel while the highest catch for the experimental net was just over 100 kg/h. Even though the catch of mackerel was sporadic, with many zero catch tows, the difference in catch rates was statistically significant (p=0.0028). High variability of length data did not provide enough confidence to evaluate where the reduction was length related.

5.3 Bycatch species

Major bycatch species included scup, butterfish, spiny and smooth dogfishes, little and winter skates, and four species of flounders: yellowtail, summer, windowpane, and winter flounder. For all these bycatch species (or species groups) with the exception of scup, the experimental trawl caught significantly less than the control trawl (Figure 6).

The new trawl caught significantly less (46%) butterfish (by weight) than the control trawl (Mean: Control: 46.1 ± 14.7 kg/h; Experimental: 24.9 ± 8.6 kg/h, p=0.008). The catch rates were highly variable with the main catch occurring at the beginning of the experiment (Figure 15). The length frequency plot indicated that the experimental net appeared to catch slightly more small fish and overall far fewer large fish, by number, compared with the control (Figure 16, top). GLMM analysis indicates that logit-linear model fits the length data and reveals that the experimental net caught significantly less butterfish >14 cm in length (Figure 16, bottom).

Scup catch was very sporadic. Only three pairs of tows caught significant amount of scup great than 100 kg/h (Figure 17). The catch rates of scup were very similar on both tow-bytow basis and in their means (Control: 75.2 ± 26.5 kg/h; Experimental: 78.3 ± 27.5 kg/h). The

new trawl caught 4% more scup by weight, but the difference is not statistically different (N=36, p=0.1682). The length frequency plot indicated that the experimental net appeared to catch slightly fewer small fish and slightly more large fish by number, compared with the control (Figure 18, top). GLMM analysis indicates that the 2nd order model fits the length data and reveals that the experimental net caught significantly less scup <20 cm in length (Figure 18, bottom). There were no differences in catch rates for fish 20 cm and greater.

Dogfishes caught were primarily spiny dogfish, with only a few smooth dogfish. Spiny dogfish were only caught in the first few paired tows (primarily the first day) (Figure 19). Excluded from the graph was a large dogfish tow (Tow #2) with the control gear, estimated at 2721 kg (6000 lbs). The codend was cut and the catch in the codend was not quantitatively evaluated. The experimental trawl caught 771 kg of spiny dogfish in the same tow. Nevertheless, the experimental gear caught significantly less dogfish than the control gear (Control: 185.6 ± 67.1 kg/h; Experimental: 77.6 ± 39.0 kg/h, p=0.0391) – a reduction of 58%. The length frequency plot indicates that the experimental net appears to catch much more small fish by number compared with the control (Figure 20, top). GLMM analysis indicates that the 3^{rd} order model fits the length data and reveals that the experimental net caught significantly less spiny dogfish <54 cm in length (Figure 20, bottom). There were no differences in catch rates for fish 55 cm and greater.

Flounders caught were mainly yellowtail, summer, four-spot and winter flounder. Some of these species were caught in each of the tows and not every species in every tow; therefore they have been combined during the analysis. Analysis of combined flounder catch indicates significantly lower catch rates by the experimental trawl compared with the control (Control: $50.7 \pm 4.7 \text{ kg/h}$; Experimental: $14.0 \pm 2.3 \text{ kg/h}$, p=0.001) – a reduction of 72% (Figure 21).

Skates caught were mainly little skate and winter skate. Analysis of combined skate catch indicates much lower catch rates by the experimental trawl compared with the control (Control: 105.8 ± 13.3 kg/h; Experimental: 30.8 ± 3.7 kg/h, p=0.001) – a reduction of 71% (Figure 22).

When all target and bycatch species are combined, the experimental net caught 37% less in weight compared with the control.

6. Discussions

Using large meshes in front part of a trawl for catching small fish species is not new in trawl design. Pelagic trawls for Atlantic herring and mackerel often have large meshes of several meters in size at its front end. The Eliminator Trawl that has mesh size of 2400 mm at the front has demonstrated to catch similar amount of haddock compared with a commercial trawl of 152 mm mesh size (Beutel et al., 2008). Use of large mesh allows for a large mouth opening due to a reduction in netting drag. A large mouth opening may have compensated for possible loss of fish through large meshes. In this study, we used 6400 mm mesh size at the front end and gradually reduced to 100 mm just before the codend. The commercial trawl used for comparison uses 120 mm mesh size at the front end. As expected, the new large mesh trawl did not reduce the catch of whiting compared with the commercial trawl. In fact there was some increase (34%) in the catch, but the difference is not statistically different due to large variations in catch rates. However, the catch rate for both trawls was low during the experiment. Therefore, the result should be viewed with caution as the performance of the new trawl (and the control) may change when commercial level of concentration of whiting is available. Further trials are thus needed to demonstrate its suitability in Southern New England whiting fishery.

Similar to whiting, the catch rates of other target species (red hake, Atlantic herring, and longfin squid) were also comparable between the experimental trawl and the control trawl, but substantially less butterfish and Atlantic mackerel were caught in the experimental trawl. However, it should be noted that catch rates were extremely variable for all species and a few large tows can change the observed results substantially.

A substantial number of spiny dogfish was only caught during the first 6 pairs of tows. The rest of the comparative tows caught no dogfish for either the new experimental trawl or the control trawl. Regardless, the experimental trawl seemed to catch less dogfish, even with exclusion of a large dogfish tow by the control trawl. Dogfish with its mouth under its head feeds on prey items near the seabed, and has a tendency to escape by diving. Large meshes in the belly of the new trawl may have facilitated the escape.

Comparatively, skates and flounders were more consistent in catch rates, and significant reduction in the catch of these bottom-dwelling species was observed for the new trawl. Large meshes in the belly clearly facilitated escape of these species.

7. Conclusions and Recommendations

While the new trawl achieved the project goal of maintaining targeted whiting catch and reducing bycatch of spiny dogfish, the results need to be viewed with caution, as the overall and individual target species catch rates were quite low (0 to 215 kg/h). Therefore, more comparative experimental tows are required in the range of commercial catch rates before the new trawl can be recommended for commercial use in the Southern New England whiting fishery.

8. Acknowledgements

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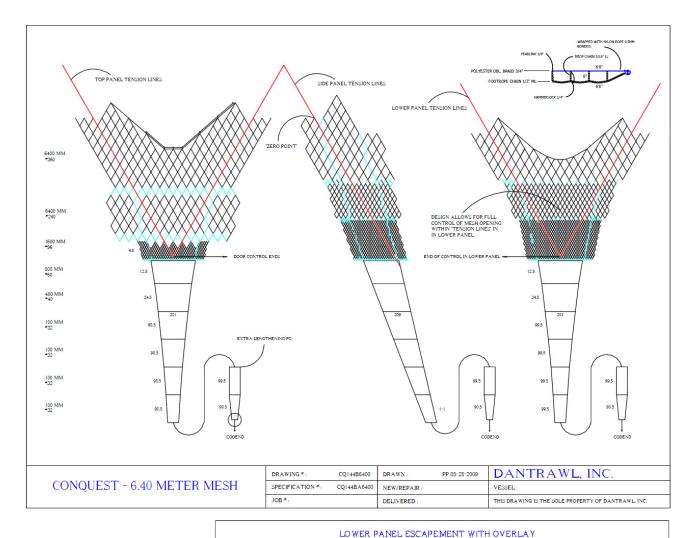
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FIGURES



CONQUEST 144 - 6.40 METER MESH

DANTE MANUAL DIRECTION OF THE DRANTON

DANTE MESH

DANTE MESH

DANTE MANUAL DIRECTION OF THE DRANTON

OF BASE 8

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Figure 1. The design of the large mesh whiting trawl (Conquest 6400) (top) and modification to the belly panel to reduce escape of whiting while encourage escape of spiny dogfish (bottom). Confidential. Limited distribution only.

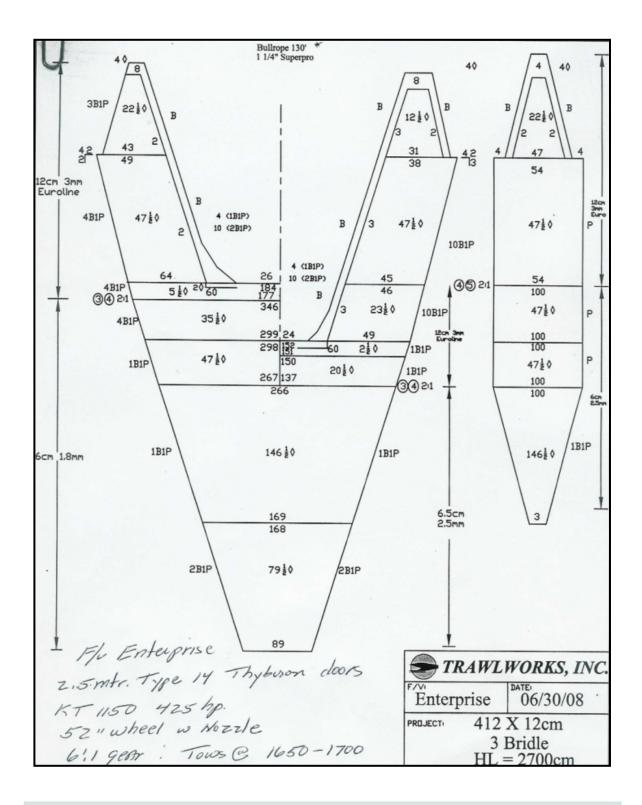


Figure 2. Net plan of the control trawl (commercial whiting trawl) use as "control".

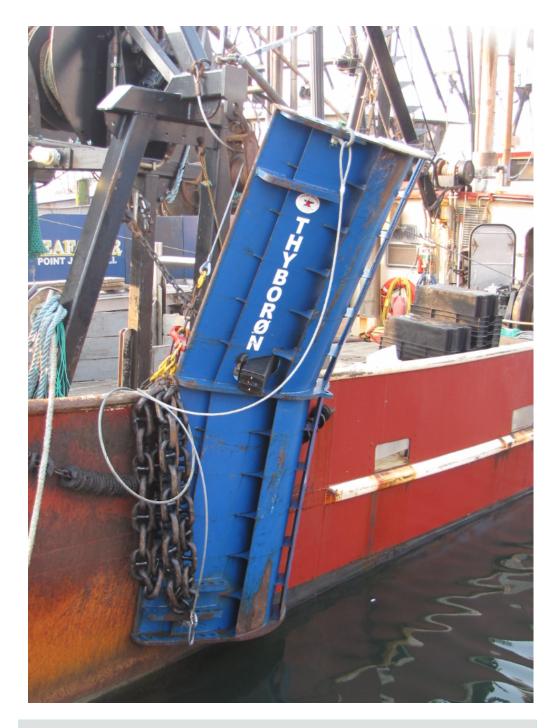


Figure 3. The Thyboron Type 15VF 4.5 \mbox{m}^2 semi-pelagic door used for during the experiment.



Figure 4. F/V "Enterprise", one of the vessels used for the experiment. Another vessel, F/V "Cody" is almost identical to "Enterprise" in size, horse power, and fishing power.

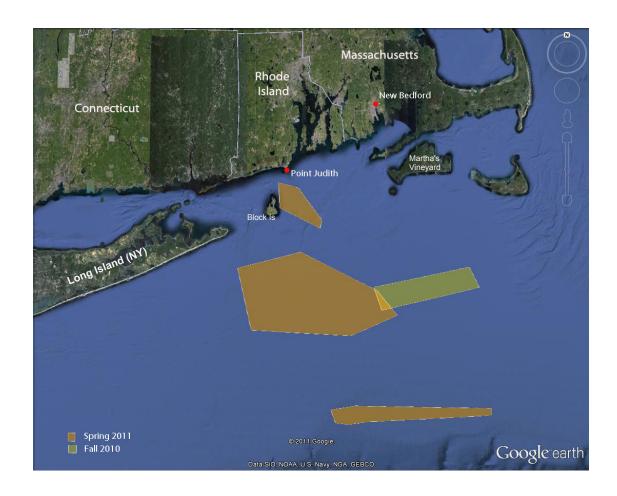
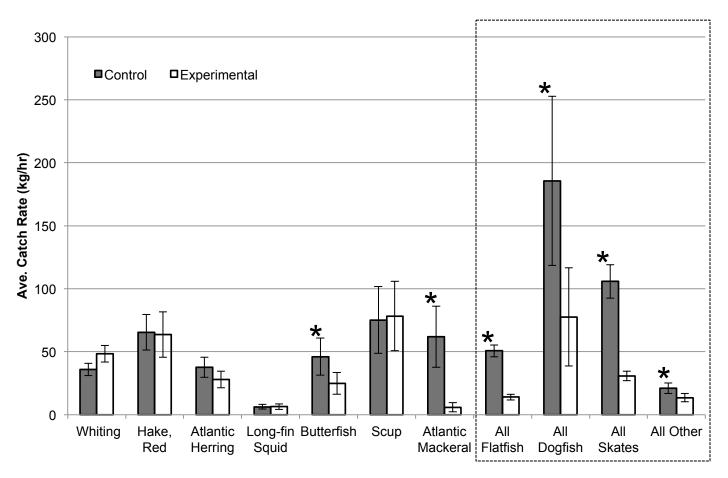


Figure 5. Approximate fishing locations during the 2010 and 2011 fishing trials.



Species	p-value	% change
Whiting	0.0874	34
Red Hake	0.4678	-3
Atlantic Herring	0.1433	-26
Longfin Squid	0.4408	2
Atlantic Mackerel	0.0028	-91
Butterfish	0.0080	-46
Scup	0.1682	4
All Flatfish	0.0001	-72
All Dogfish	0.0391	-58
All Skates	0.0001	-71
All Other	0.0001	-35
Total Catch		-37

Figure 6. Mean catch of target species and major bycatch species (or species groups). Star (*) indicate statistically significant differences of the mean between control and experimental. p-values and percentage changes for each species and species groups are provided in the table.

Whiting, Merluccius bilinearis

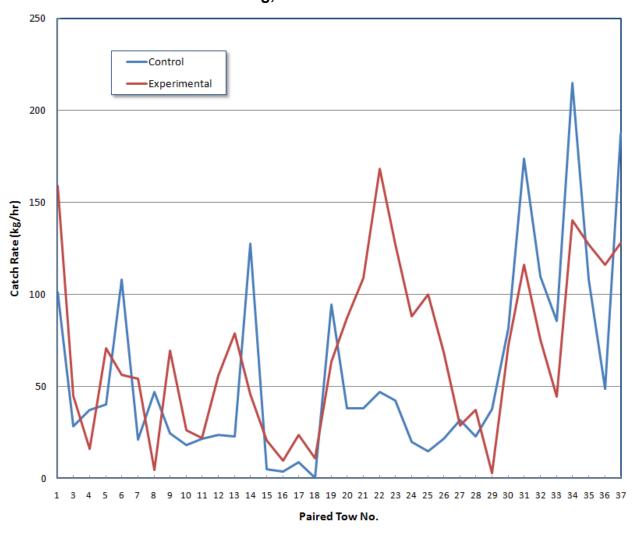


Figure 7. Tow-by-tow catch of whiting, *Merluccius bilinearis*, from the spring 2011 trials.

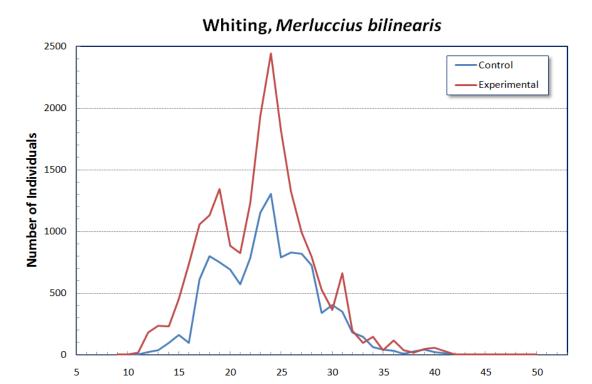
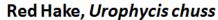


Figure 8. Length distribution of whiting, *Merluccius bilinearis* for the control and the experimental net. Though there seem to be more smaller fish caught in the experimental net, GLMM did not reveal length related differences.

Total Length (cm)



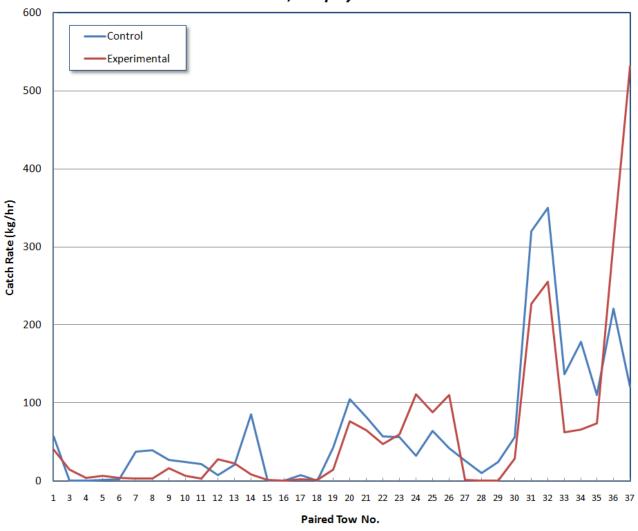


Figure 9. Tow-by-tow catch of red hake, *Urophycis chuss*.

Red Hake, Urophycis chuss

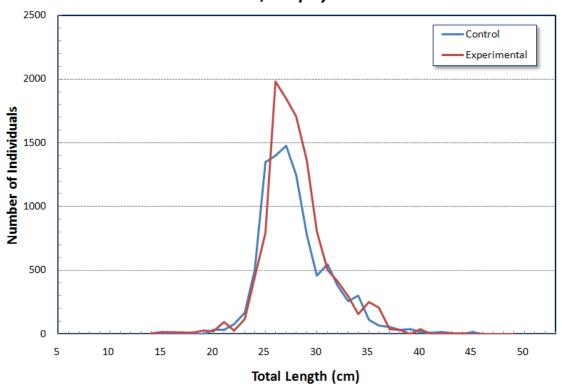


Figure 10. Length distribution of red hake, *Urophycis chuss*, for the control and the experimental net. GLMM analysis did not reveal length related differences between the two nets.

longfin squid, Doryteuthis pealeii

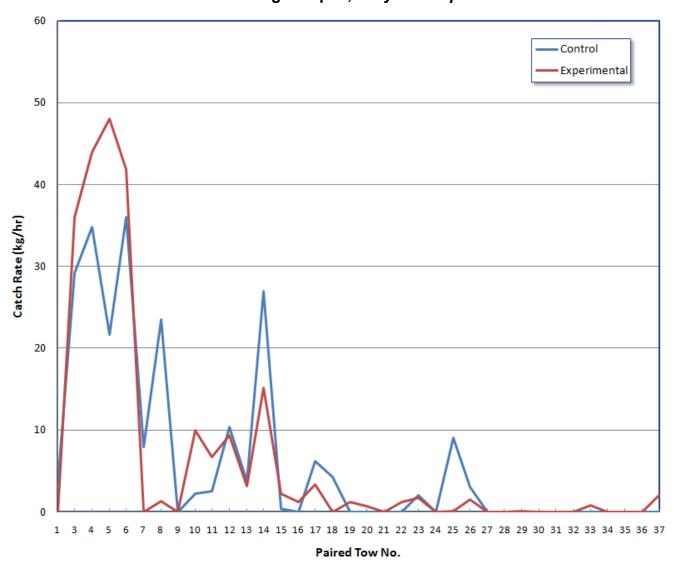


Figure 11. Tow-by-tow catch of longfin squid, *Doryteuthis pealeii*.

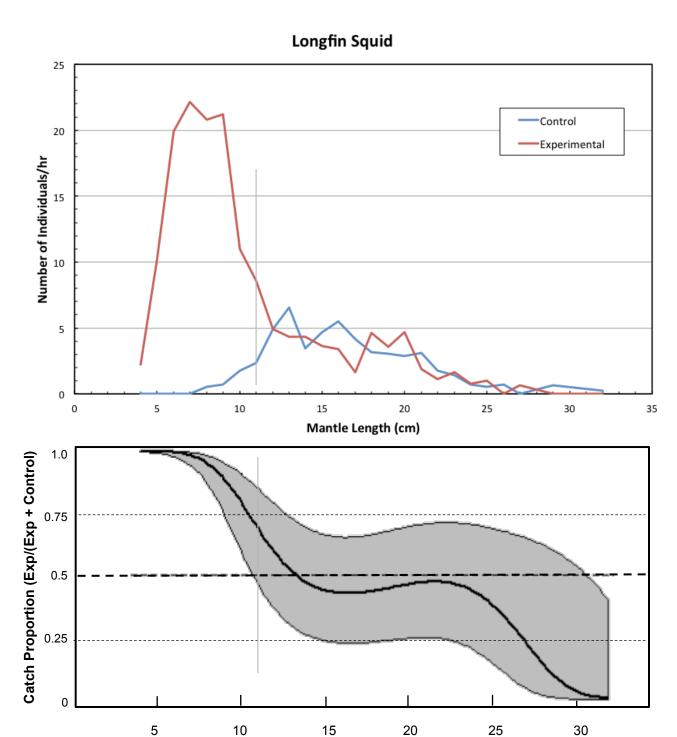


Figure 12. Length distribution of longfin squid *Doryteuthis pealeii* (top) and GLMM analysis (bottom) evaluating if the catch differences of whiting between the nets is length related. The proportion of 0.5 indicate even split between the net at the length. Shaded area indicate 95% confidence level. Vertical line indicate the length below which the experimental net caught more.

Mantle length (cm)

Atlantic Herring, Clupea harengus

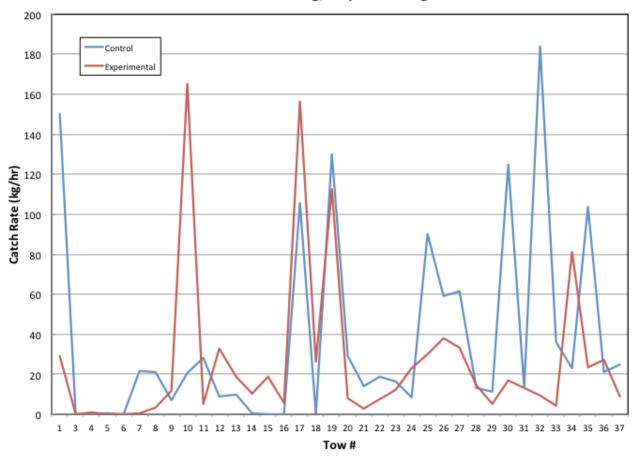


Figure 13. Tow-by-tow catch of Atlantic herring, Clupea harengus.

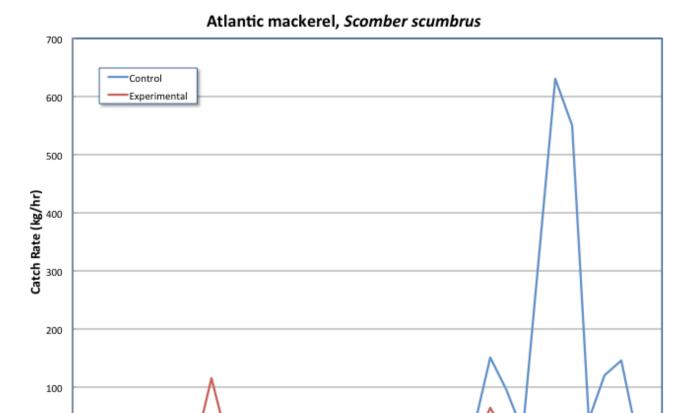


Figure 14. Tow-by-tow catch of Atlantic mackerel, *Scomber scombrus*.

9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37

Paired Tow No.

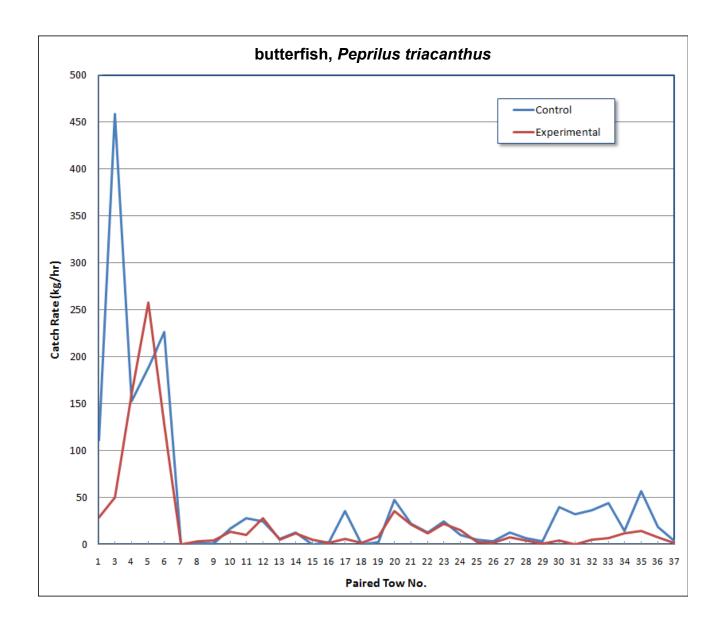


Figure 15. Tow-by-tow catch of butterfish, *Peprilus triacanthus*.

butterfish, Peprilus triacanthus

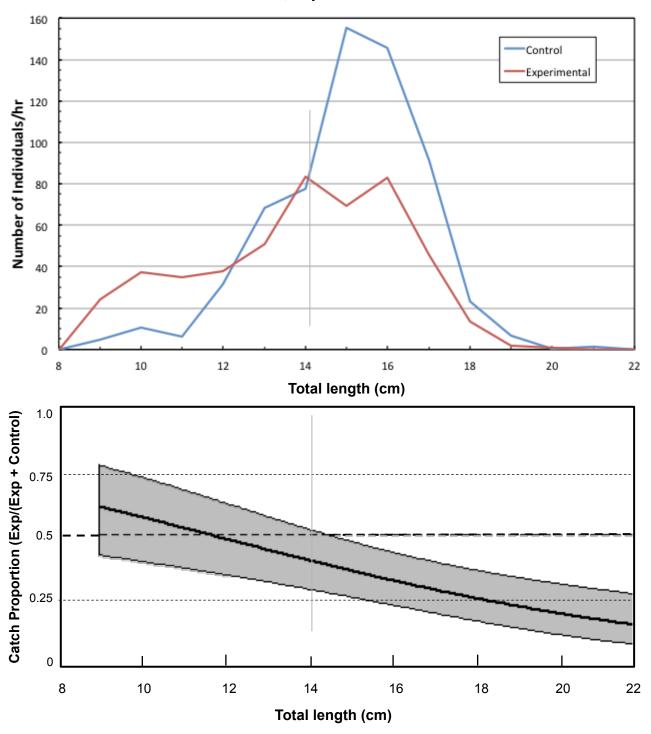


Figure 16. Length distribution of butterfish, *Peprilus triacanthus* (top) and GLMM analysis (bottom) evaluating if the catch differences of whiting between the nets is length related. The proportion of 0.5 indicate even split between the net at the length. Shaded area indicate 95% confidence level. Vertical line indicate the length below which the experimental net caught more.

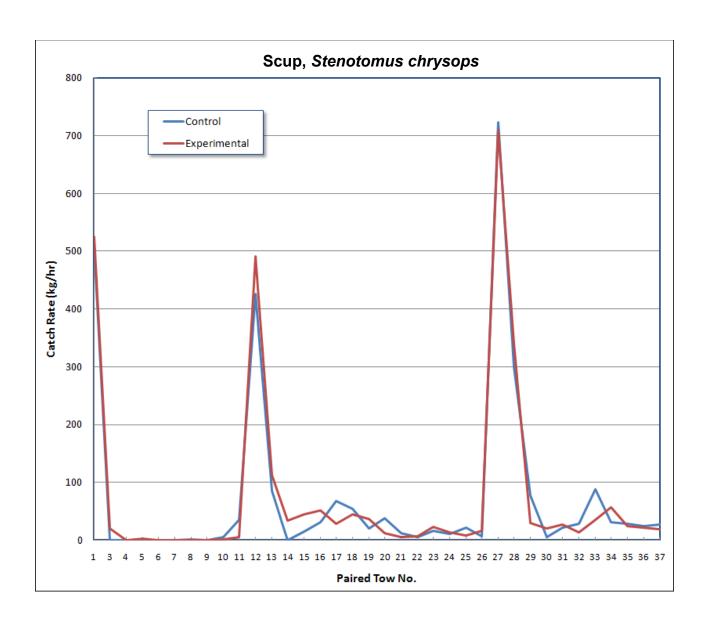


Figure 17. Tow-by-tow catch of scup, Stenotomus chrysops.

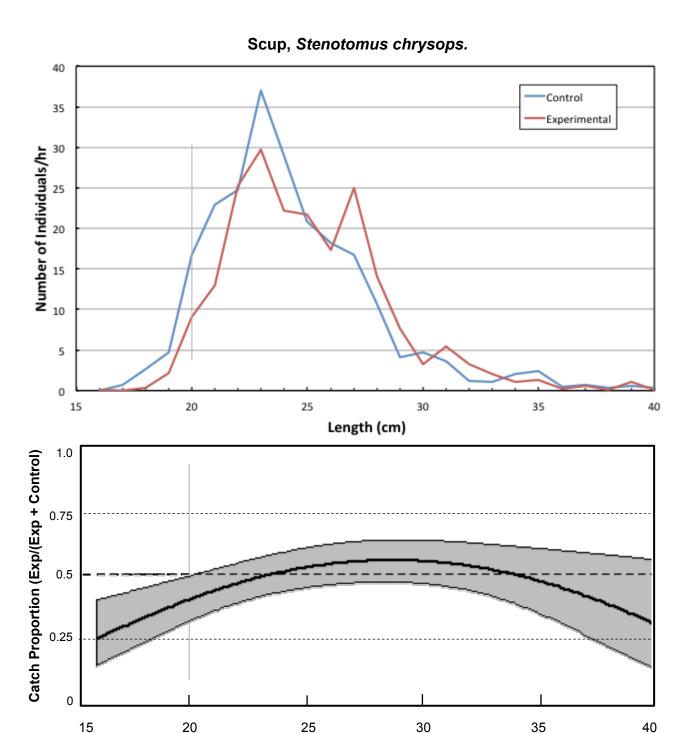


Figure 18. Length distribution of scup, *Stenotomus chrysops* (top) and GLMM analysis (bottom) evaluating if the catch differences of whiting between the nets is length related. The proportion of 0.5 indicate even split between the net at the length. Shaded area indicate 95% confidence level. Vertical line indicate the length below which the experimental net caught more.

Total length (cm)

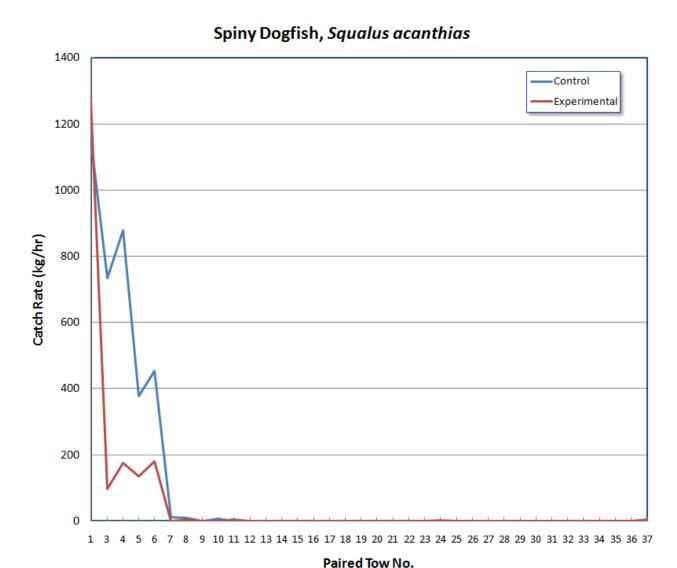


Figure 19. Tow-by-tow catch of spiny dogfish, Squalus acanthias.

Spiny dogfish, Squalus acanthias.

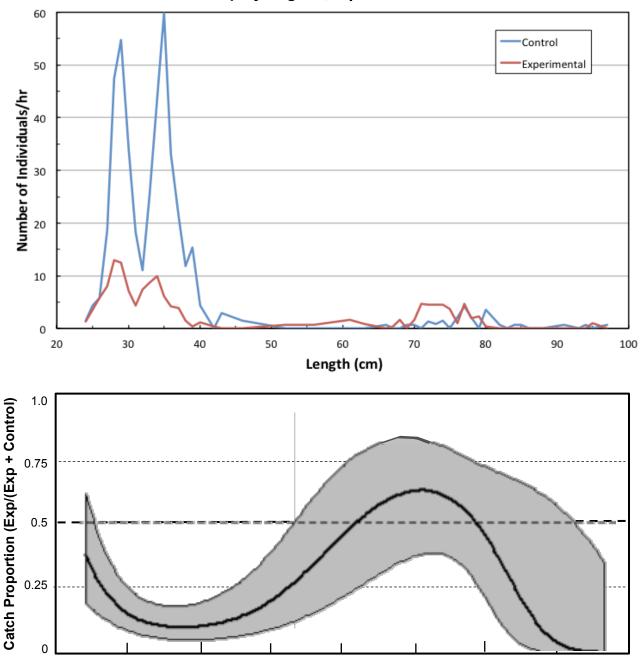


Figure 20. Length distribution of spiny dogfish, *Squalus acanthias* (top) and GLMM analysis (bottom) evaluating if the catch differences of whiting between the nets is length related. The proportion of 0.5 indicate even split between the net at the length. Shaded area indicate 95% confidence level. Vertical line indicate the length below which the experimental net caught more.

50

30

40

20

60

Length (cm)

70

80

90

100

All Flounders

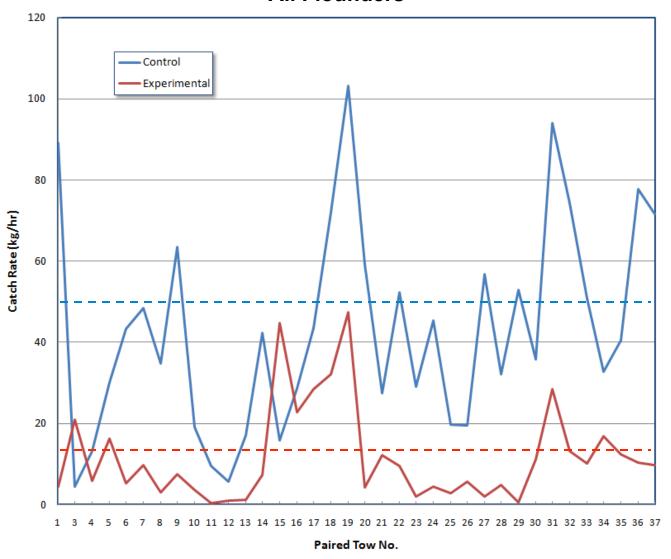


Figure 21. Tow-by-tow catch of flounder, mainly yellowtail flounder, *Limanda ferruginea*, summer, flounder, , *Paralichthys dentatus*, windowpane, *Scophthalmus aquosus*, and winter, flounder, *Pseudopleuronectes americanus*. Dash lines indicate mean catch rates.

Final Report: SNECRI Whiting Trawl

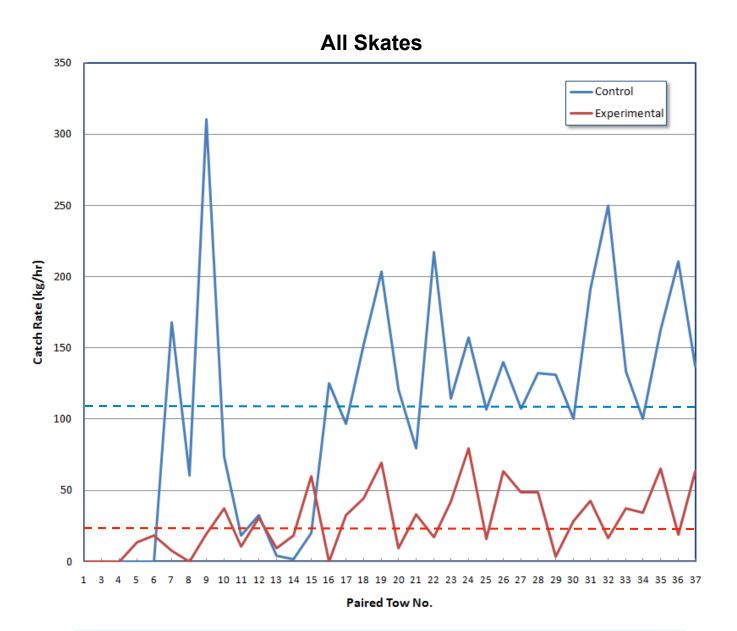


Figure 22. Tow-by-tow catch of combined skates: little skate, *Leucoraja erinacea*, and winter skate, *Leucoraja ocellata*. Dash lines indicate mean catch rates.

Final Report: SNECRI Whiting Trawl

Appendix I

Recording of Tows and Gear Modification Details (from Dantrawl Inc.)

Project Name :	SNECRI Project Phase II - Large Me	ECRI Project Phase II - Large Mesh Pelagic Whiting Trawl Design To Reduce Spiny Dogfish Bycatch							
Date :	April 30th - May 7th, 2011.	Location - Area Description :	Vicinity of Block Island, R.I.						

TRAWL GEAR & EQUIPMENT - DESCRIPTION

CONQUEST TRAWL 144 - 6.40 METER MESH

NOTES & COMMENTS

Door Rigging : Drawing #A1.

Same as in Phase I of this project in 2010. No adjustments were made to trawl door rigging for the duration of Phase II in this research project.

Trawl Rigging : Drawing #B1 & #B2.

Trawl rigging per enclosed plans Drawing #B1 and Drawing #B2 - 15 fathom bridles, 5'10" of inline weight chain (108 lbs.)

and 20 fathom of single sweep from weight chain to doors (OAL from mini bridles to door legs = 35 Fms.) Clump weight chain (390 lbs.) used as indicated on drawing. Centerhole 8" floats (used on trawl last year) were replaced with new "Float Line" at buoyancy of 6.0 kilos per meter resulting in same floatation/buoyancy on trawl as we used during Phase I of this project. This change was made for ease of handling for vessel crew and does not alter or change performance of the

Two more adjustments were made to mini bridle arrangement (Ref. Drawing #B2) since we made the last tow in 2010:

Added 2'4" to mini bridle (B) and 4'4" to mini bridle (D). This was done to reduce mesh opening in side panels and bottom panel to improve retention of the target species (whiting).

Any other adjustments to rigging are outlined below during this survey.

All tows sampled by University of Mass.

Tow #: 1	Vessel Name :	F/V Cody	Set At :	9:05	Haul Back :	10:05	Date :	4/30/2011		
Description	Towing Information		Notes And Comments							
Fishing Depth - Fm.	61 - 58	~ Estimated catch 4500 - 5000 lbs.								
Main Wire - Fm.	250	~ Mixed dogfish (30%) and scup (70%).								
Door Spread - Fm.	81 - 80									
Height On Trawl - Fm.	4.0 - 3.8									
Spread On Trawl - Fm.	NA									
Towing Speed - Knts.	3.4 - 3.1									
Main Engine RPM	1550									

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Tow #:	2	Vessel Name :	F/V Cody	F/V Cody Set At: 11:38 Haul Back: 12:10 Date: 4/30/2011							
Desc	ription	Towing Information			Not	es and comm	ents				
Fishing Do	epth - Fm.	61.5	~ Made adjustment to the 5'10" chain in front of mini bridles by shortening it to OAL of 2'10". Refer to drawing								
Main Wire	- Fm.	250	Drawing #B4. This adj	Drawing #B4. This adjustment results in added 3' of extra set back in lower extensions. This adjustment							
Door Spre	ad - Fm.	84	was made to create a "cock pit" in lower belly to allow for more escapement of dogfish.								
Height On	Trawl - Fm.	4.2									
Spread Or	n Trawl - Fm.	N/A	~ Estimated catch 2500 lb	~ Estimated catch 2500 lbs.							
Towing Sp	peed - Knts.	2.7	~ Dogfish catch reduced	significantly co	ompared with	previous tow.	Dogfish catch	n Apr. 200 - 30	0 lbs.		
Main Engi	ne RPM	1550									
			~ F/V Enterprise reported a large haul/tow of dogfish.								

Tow #:	3	Vessel Name :	F/V Cody Set At: 13:30 Haul Back: 14:00 Date: 4/30/2011							
Descr	ription	Towing Information			Note	es And Comm	ents			
Fishing De	pth - Fm.	70	~ Moved to deeper fishin	~ Moved to deeper fishing depth.						
Main Wire -	- Fm.	350	~ No adjustments made	~ No adjustments made to trawl and rigging. Same rigging as in Tow #2 above.						
Door Sprea	ad - Fm.	85	~ Estimated catch 500 lb	S.						
Height On	Trawl - Fm.	4.4	~ Dogfish less than 100 l	bs.						
Spread On	Trawl - Fm.	N/A								
Towing Sp	eed - Knts.	2.7								
Main Engin	ne RPM	1550								

Tow #:	4	Vessel Name :	F/V Cody	Set At :	F/V Cody Set At: 15:02 Haul Back: 15:35 Date: 4/30/2011						
Des	cription	Towing Information			Note	es And Comm	ents				
Fishing D	epth - Fm.	71.5	~ No adjustments made t	to trawl and rig	ging. Same	rigging as in To	ow #2 & #3 al	oove.			
Main Wire	e - Fm.	300	~ Estimated catch 500 lbs	s. Dogfish est	imated at les	s than 100 lbs.					
Door Spre	ead - Fm.	80 - 87									
Height Or	n Trawl - Fm.	4.2									
Spread O	n Trawl - Fm.	N/A									
Towing S	peed - Knts.	3									
Main Eng	ine RPM	1600									

Tow #:	5	Vessel Name :	F/V Cody	F/V Cody Set At: 17:00 Haul Back: 17:30 Date: 4/30/2011							
Desc	ription	Towing Information			Note	es And Comm	ents				
Fishing De	pth - Fm.	71	~ Made another adjustment to the 5'10" in front of mini bridles by shortening it by yet another 2' to OAL of 0'10".								
Main Wire	- Fm.	300	Refer to Drawing #B4. This results in another 2' of set back to lower extensions.								
Door Sprea	ad - Fm.	83	Now there is total of 5' more set back in lower extensions. Again, this was done to create yet more								
Height On	Trawl - Fm.	4	"cock pit" effect in lower belly to allow for more escapement of dog fish.								
Spread On	Trawl - Fm.	N/A	·								
Towing Sp	eed - Knts.	2.8	~ Estimated catch 400 lbs	S.							
Main Engir	ne RPM	1550	~ Observed less dogfish	catch than in p	pervious two t	ows (#3 & #4).	We relate th	is to increased	d "cock pit" in		
			lower belly.								
			1								

Tow #:	6	Vessel Name :	F/V Cody Set At: 18:12 Haul Back: 18:45 Date: 4/30/2011						
Desc	ription	Towing Information			Note	es And Comm	ents		
Fishing D	epth - Fm.	71.5	~ No adjustments made t	~ No adjustments made to trawl and rigging. Same rigging as in Tow #5.					
Main Wire	- Fm.	300	~ Towing with the current.						
Door Spre	ad - Fm.	81							
Height On	Trawl - Fm.	4.2	~ Estimated catch 300 lb	S.					
Spread Or	n Trawl - Fm.	N/A	~ Very low catch of dogfis	sh.					
Towing S	peed - Knts.	3.2							
Main Engi	ne RPM	1550							

Tow#:	7	Vessel Name :	F/V Cody	Set At :	6:05	Haul Back :	6:35	Date :	5/1/2011	
Desc	ription	Towing Information			Note	es And Comm	ents			
Fishing Do	epth - Fm.	35.7	~ Moved to shallower fishing grounds. Now fishing in 36 Fms.							
Main Wire	- Fm.	175	~ No adjustments made t	~ No adjustments made to trawl and rigging.						
Door Spre	ad - Fm.	80 - 65 - 72	~ Estimated catch 100 lbs	S.						
Height On	Trawl - Fm.	3.7 - 4.2 - 4.0								
Spread Or	n Trawl - Fm.	N/A								
Towing Sp	peed - Knts.	2.8								
Main Engi	ne RPM	N/A								

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Tow #:	8	Vessel Name :	F/V Cody	F/V Cody Set At: 7:40 Haul Back: 8:20 Date: 5/1/2011						
Des	cription	Towing Information			Not	es And Comme	ents			
Fishing D	epth - Fm.	34	~ No adjustments made	to trawl and rig	ging.					
Main Wire	e - Fm.	175 - 150								
Door Spre	ead - Fm.	75 - 67 - 71	~ Estimated catch 50 lbs							
Height Or	n Trawl - Fm.	4								
Spread O	n Trawl - Fm.	N/A								
Towing S	peed - Knts.	3.3								
Main Eng	ine RPM	1600								

Tow#:	9	Vessel Name :	F/V Cody	Set At :	9:31	Haul Back :	10:11	Date :	5/1/2011
Desc	ription	Towing Information			Not	es And Comme	ents		
Fishing Do	epth - Fm.	30	~ No adjustments made t	~ No adjustments made to trawl and rigging.					
Main Wire	- Fm.	150	~ Lost battery power on trawl eye.						
Door Spre	ad - Fm.	78							
Height On	Trawl - Fm.	N/A	~ Estimated catch 100 lbs.						
Spread Or	n Trawl - Fm.	N/A							
Towing Sp	oeed - Knts.	3							
Main Engi	ne RPM	1550							

Tow #:	10	Vessel Name :	F/V Cody	Set At :	11:33	Haul Back :	12:08	Date :	5/1/2011
Des	cription	Towing Information			Not	es And Comm	ents		
Fishing D	epth - Fm.	31	~ No adjustments made t	~ No adjustments made to trawl and rigging.					
Main Wire	e - Fm.	150	~ Trawl eye reinstalled following charging.						
Door Spr	ead - Fm.	77	~ Estimated catch 300 lbs	S.					
Height O	n Trawl - Fm.	N/A	~ Herring 70% and 30% i	mixed.					
Spread O	n Trawl - Fm.	N/A							
Towing S	peed - Knts.	3.2							
Main Eng	jine RPM	1550							

Tow #:	11	Vessel Name :	F/V Cody Set At : 13:29 Haul Back : 14:35 Date : 5/1/2011							
Des	cription	Towing Information			Not	es And Comm	ents			
Fishing D	epth - Fm.	31.4	~ No adjustments made t	~ No adjustments made to trawl and rigging.						
Main Wire	- Fm.	150								
Door Spre	ad - Fm.	75	~ Estimated catch N/A. F	Refer to observ	er's report.					
Height Or	Trawl - Fm.	N/A								
Spread O	n Trawl - Fm.	N/A								
Towing S	peed - Knts.	3.3								
Main Eng	ne RPM	1600								
		·								

Tow #:	12	Vessel Name :	F/V Cody	Set At :	15:20	Haul Back :	16:20	Date :	5/1/2011	
Desc	ription	Towing Information		Notes And Comments						
Fishing De	epth - Fm.	33.5	~ No adjustments made t	to trawl and rig	ıging.					
Main Wire	- Fm.	150								
Door Spre	ad - Fm.	77	~ Estimated catch 1200 I	bs.						
Height On	Trawl - Fm.	4.2	~ Mostly scup (70%) and mixed species (30%).							
Spread Or	Trawl - Fm.	N/A								
Towing Sp	eed - Knts.	3.1								
Main Engi	ne RPM	NA								

Tow #:	13	Vessel Name :	F/V Cody	Set At :	17:17	Haul Back :	17:47	Date :	5/1/2011
Desc	cription	Towing Information			Note	es And Comme	ents		
Fishing D	epth - Fm.	34	~ No adjustments made	to trawl and ri	gging.				
Main Wire	- Fm.	150							
Door Spre	ead - Fm.	77	~ Estimated catch 100 lbs.						
Height On	Trawl - Fm.	4							
Spread Or	n Trawl - Fm.	N/A							
Towing S	peed - Knts.	2.8							
Main Engi	ine RPM	1600							

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Tow #:	14	Vessel Name :	F/V Cody	Set At :	6:17	Haul Back :	6:52	Date :	5/2/2011
Desc	cription	Towing Information			Note	es And Comm	ents		
Fishing D	epth - Fm.	32	~ No adjustments made t	to trawl and rig	ging.				
Main Wire	- Fm.	150							
Door Spre	ead - Fm.	77	~ Estimated catch 250 lbs	S.					
Height On	Trawl - Fm.	3.9							
Spread O	n Trawl - Fm.	N/A							
Towing S	peed - Knts.	3.1							
Main Engi	ine RPM	1600							

Tow#:	15	Vessel Name :	F/V Cody	Set At :	8:02	Haul Back :	8:32	Date :	5/2/2011
Desc	cription	Towing Information			Not	es And Comm	ents		
Fishing D	epth - Fm.	22	~ No adjustments made	to trawl and rig	gging.				
Main Wire	- Fm.	150							
Door Spre	ad - Fm.	79	~ Estimated catch 175 lbs.						
Height On	Trawl - Fm.	4.1							
Spread Or	n Trawl - Fm.	N/A							
Towing S	peed - Knts.	3							
Main Engi	ne RPM	1600							

Tow #:	16	Vessel Name :	F/V Cody	Set At :	9:30	Haul Back :	10:00	Date :	5/2/2011
Des	cription	Towing Information			Not	es And Comm	ents		
Fishing D	epth - Fm.	20	~ No adjustments made t	to trawl and rig	ging.				
Main Wire	e - Fm.	150							
Door Spr	ead - Fm.	76	~ Estimated catch 200 lbs	S.					
Height O	n Trawl - Fm.	4							
Spread O	n Trawl - Fm.	N/A							
Towing S	peed - Knts.	2.8							
Main Eng	ine RPM	1575							

Tow #:	17	Vessel Name :	F/V Cody	Set At :	11:05	Haul Back :	11:35	Date :	5/2/2011
Desc	cription	Towing Information			Note	es And Comm	ents		
Fishing Do	epth - Fm.	21	~ No adjustments made	to trawl and rig	ging.				
Main Wire	- Fm.	150							
Door Spre	ad - Fm.	78	~ Estimated catch 250 lb	s.					
Height On	Trawl - Fm.	4							
Spread Or	n Trawl - Fm.	N/A							
Towing Sp	peed - Knts.	2.8							
Main Engi	ne RPM	NA							
		<u> </u>							

Tow #:	18	Vessel Name :	F/V Cody	Set At :	12:20	Haul Back :	12:50	Date :	5/20/2011
Desc	ription	Towing Information			Note	es And Comm	ents		
Fishing Do	epth - Fm.	22.9	~ No adjustments made t	to trawl and rig	ging.				
Main Wire	- Fm.	150							
Door Spre	ad - Fm.	78	~ Estimated catch 220 lbs	S.					
Height On	Trawl - Fm.	3.9							
Spread Or	n Trawl - Fm.	N/A							
Towing Sp	peed - Knts.	2.8							
Main Engi	ne RPM	1600							
	<u> </u>								

Tow # :	19	Vessel Name :	F/V Cody	Set At :	12:22	Haul Back :	13:52	Date :	5/2/2011
Desc	cription	Towing Information			Not	es And Comm	ents		
Fishing D	epth - Fm.	22.5 - 15	~ No adjustments made t	to trawl and rig	ging.				
Main Wire	- Fm.	150							
Door Spre	ead - Fm.	78	~ Estimated catch 300 lb	S.					
Height Or	Trawl - Fm.	4							
Spread O	n Trawl - Fm.	N/A							
Towing S	peed - Knts.	2.8							
Main Engi	ine RPM	1550							
	_								

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Tow#:	Transfer	Vessel Name :	Trawl To Enterprise	Set At :	Haul B	ick:	Date :	5/3/2011		
Descr	ription	Towing Information	Notes And Comments							
Fishing De	pth - Fm.		~ Conquest Trawl 144 - 6	~ Conquest Trawl 144 - 6.40 now being moved over to F/V Enterprise.						
Main Wire	- Fm.		~ Adjustments made to b	ridle and swee	p rigging as following	Refer to Drawing	j #B6).			
Door Sprea	ıd - Fm.		~ Added 60 ft. of bridles.	~ Added 60 ft. of bridles.						
Height On	Trawl - Fm.		~ Added 120 ft. of ground	d gear (Mudge	ar 5/8" with rubber dis	s 2 3/8") in front o	f bridles.			
Spread On	Trawl - Fm.		~ Reduced set back in lo	wer extension:	by adding 2' of chain	back into chain in	front of mini br	idles. Effective		
Towing Sp	eed - Knts.		set back now in lower e	extensions is 3	. Result is reduced "o	ock pit" effect in lo	wer belly.			
Main Engin	e RPM		~ Added 35' of chain 1/2"	short link dire	ctly to fishingline in bo	som area. This is	done to improv	e bottom contact.		
			~ Refer to last page of this report explaining our reasons for above adjustments.							

Tow #:	20	Vessel Name :	F/V Enterprise	Set At :	6:25	Haul Back :	6:55	Date :	5/5/2011
Desc	ription	Towing Information			Not	es And Comm	ents		
Fishing De	pth - Fm.	30	~ Some twisting occurred	d in fishingline	(port side).	This most likely	happened as	we were char	nging sweep
Main Wire	- Fm.	150	wire while setting the trawl.						
Door Spre	ad - Fm.	89 - 92							
Height On	Trawl - Fm.	3.1	~ Estimated catch N/A. Refer to observer's report.						
Spread On	Trawl - Fm.	N/A							
Towing Sp	eed - Knts.	3	~ Mix of catch improved.						
Main Engi	ne RPM	1725							

Tow #:	21	Vessel Name :	F/V Enterprise	Set At :	8:33	Haul Back :	9:32	Date :	5/5/2011
Desc	ription	Towing Information			Note	s And Comm	ents		
Fishing De	epth - Fm.	32	~ No adjustments made	to trawl and rig	ging. Same i	igging as in to	w #20.		
Main Wire	- Fm.	150	~ Towing with the wind.						
Door Spre	ad - Fm.	91 - 86							
Height On	Trawl - Fm.	4.4	~ Estimated catch 900 lbs.						
Spread On	Trawl - Fm.	N/A							
Towing Sp	eed - Knts.	3	~ Observed good shine of	on the extra ch	ain we installe	ed in bosom pa	rt of the trawl	during haul b	ack.
Main Engi	ne RPM	1700	Improved bottom conta	act.					
			~ Noticed increased catch of whiting and red hake. We do relate this to better herding effect with use of						
			longer bridles & sweep	s, and better b	ottom contact				

Tow #:	22	Vessel Name :	F/V Enterprise	Set At :	10:03	Haul Back :	10:44	Date :	5/5/2011	
Descr	ription	Towing Information			Not	es And Comm	ents			
Fishing De	pth - Fm.	31	~ No adjustments made	to trawl and rig	ging.					
Main Wire -	- Fm.	150	~ Lost spread on trawl de	~ Lost spread on trawl during tow. Noticed during haul back that we had a buoy wrapped around main wire						
Door Sprea	ad - Fm.	90 - 70	and trawl door?	and trawl door?						
Height On	Trawl - Fm.	N/A								
Spread On	Trawl - Fm.	N/A	~ Estimated catch 250 lb	S.						
Towing Sp	eed - Knts.	2.8	~ Same as previous tow.	better catch o	f whiting and	red hake.				
Main Engin	ne RPM	1675								

Tow #: 23	Vessel Name :	F/V Enterprise	Set At :	11:32	Haul Back :	12:32	Date :	5/5/2011
Description	Towing Information			Note	es And Comm	ents		
Fishing Depth - Fm.	30.5	~ No adjustments made t	to trawl and rig	ıging.				
Main Wire - Fm.	150	~ Towing against current	/tide.					
Door Spread - Fm.	87 - 89							
Height On Trawl - Fm.	N/A	~ Estimated catch 700 lbs.						
Spread On Trawl - Fm.	N/A							
Towing Speed - Knts.	2.7							
Main Engine RPM	1750							

Tow #:	24	Vessel Name :	F/V Enterprise	Set At :	13:12	Haul Back :	13:55	Date :	5/5/2011
Desc	cription	Towing Information			Note	es And Comm	ents		
Fishing Do	epth - Fm.	32.5	~ No adjustments made	to trawl and rig	ging.				
Main Wire	- Fm.	150	~ At one time during the	tow, trawl beca	ame heavy to	tow and we los	t some door	spread.	
Door Spre	ad - Fm.	92 - 68	~ Did not observe anything during haul back which may have caused this?						
Height On	Trawl - Fm.	4.1							
Spread Or	n Trawl - Fm.	N/A	~ Estimated catch 300 - 4	400 lbs.					
Towing Sp	peed - Knts.	2.7							
Main Engi	ne RPM	1750							

Page 9 Of 14

Tow #:	25	Vessel Name :	F/V Enterprise	Set At :	15:25	Haul Back :	16:25	Date :	5/5/2011
Desc	ription	Towing Information			Not	es And Comme	ents		
Fishing De	epth - Fm.	33	~ No adjustments made t	to trawl and rig	ıging.				
Main Wire	- Fm.	150							
Door Spre	ad - Fm.	90	~ Estimated catch 350 - 400 lbs.						
Height On	Trawl - Fm.	4.3							
Spread On	Trawl - Fm.	N/A							
Towing Sp	eed - Knts.	2.9 - 3.0							
Main Engi	ne RPM	1750							

Tow#:	26	Vessel Name :	F/V Enterprise	Set At :	16:54	Haul Back :	17:33	Date :	5/5/2011		
Desc	ription	Towing Information			Note	es And Comm	ents				
Fishing De	epth - Fm.	33.4	~ No adjustments made t	to trawl and rig	ging.						
Main Wire	- Fm.	150	~ Lost some door spread during tow and trawl became heavier to tow.								
Door Spre	ad - Fm.	88 - 58	~ Also heavier to haul ba	~ Also heavier to haul back than normal.							
Height On	Trawl - Fm.	4.2	~ Observed lots of herring	~ Observed lots of herring sign and scales in back end of trawl during haul back?							
Spread Or	Trawl - Fm.	N/A	~ Vessel crew commente	ed that this fish	ing ground ar	ea is notorious	for "slime" w	hich will stick	to the meshes		
Towing Sp	eed - Knts.	2.7	and close opening in the	e trawl.							
Main Engi	ne RPM	1750									
			~ Estimated catch 300 - 4	~ Estimated catch 300 - 400 lbs.							

Tow #:	27	Vessel Name :	F/V Enterprise	Set At :	6:05	Haul Back :	6:35	Date :	5/6/2011
Desc	cription	Towing Information			Note	es And Comm	ents		
Fishing D	epth - Fm.	34	~ No adjustments made	to trawl and rig	ıging.				
Main Wire	- Fm.	150							
Door Spre	ead - Fm.	93	~ Estimated catch 1500 lbs. Mostly scup.						
Height On	Trawl - Fm.	4							
Spread Or	n Trawl - Fm.	N/A	~ F/V Cody reports catch	of 700 lbs. N	ix N/A.				
Towing S	peed - Knts.	2.8							
Main Engi	ine RPM	1750							

Tow #:	28	Vessel Name :	F/V Enterprise	Set At :	7:20	Haul Back :	8:20	Date :	5/6/2011	
Desc	cription	Towing Information			Not	es And Comm	ents			
Fishing D	epth - Fm.	37	~ No adjustments made t	to trawl and rig	ging.					
Main Wire	- Fm.	175								
Door Spre	ead - Fm.	100 - 99	~ Estimated catch 1100 -	1200 lbs.						
Height On	Trawl - Fm.	4								
Spread O	n Trawl - Fm.	N/A								
Towing S	peed - Knts.	2.7								
Main Engi	ine RPM	1750								
	_									

Tow #:	29	Vessel Name :	F/V Enterprise	Set At :	9:00	Haul Back :	9:45	Date :	5/6/2011
Desc	ription	Towing Information			Note	es And Comm	ents		
Fishing D	epth - Fm.	38	~ No adjustments made t	to trawl and rig	ıging.				
Main Wire	- Fm.	150	~ Lost signal to trawl eye	during tow.					
Door Spre	ad - Fm.	95 +/-							
Height On	Trawl - Fm.	3.8	~ Estimated catch 200 lbs.						
Spread Or	n Trawl - Fm.	N/A							
Towing S _I	peed - Knts.	3							
Main Engi	ne RPM	1700							

Tow#:	30	Vessel Name :	F/V Enterprise	F/V Enterprise							
Desc	ription	Towing Information			Note	es And Comm	ents				
Fishing Do	epth - Fm.	35 - 33	~ No adjustments made t	to trawl and rig	ıging.						
Main Wire	- Fm.	150									
Door Spre	ad - Fm.	91	~ Estimated catch 900 - 1000 lbs.								
Height On	Trawl - Fm.	4									
Spread Or	Trawl - Fm.	N/A	~ F/V Cody reports catch	of Apr. 2000	bs. (All Mack	erel).					
Towing Sp	eed - Knts.	3									
Main Engi	ne RPM	1725									

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Tow #:	31	Vessel Name :	F/V Enterprise	Set At :	12:45	Haul Back :	13:18	Date :	5/6/2011	
Desc	cription	Towing Information			Note	es And Comm	ents			
Fishing D	epth - Fm.	30	~ No adjustments made	to trawl and rig	ging.					
Main Wire	- Fm.	150								
Door Spre	ead - Fm.	92	~ Estimated catch 900 lbs.							
Height On	Trawl - Fm.	4	~ Caught more cod and	~ Caught more cod and yellowtail flounder than previous tow.						
Spread O	n Trawl - Fm.	N/A								
Towing S	peed - Knts.	2.9								
Main Engi	ine RPM	1700								

Tow # :	32	Vessel Name :	F/V Enterprise	Set At :	13:48	Haul Back :	14:20	Date :	5/6/2011		
Desc	ription	Towing Information			Note	es And Comm	ents				
Fishing De	pth - Fm.	29	~ No adjustments made t	to trawl and rig	ging.						
Main Wire	- Fm.	150	~ Fishingline "rolled up" (Fishingline "rolled up" (?). Too difficult to untangle on vessel. Decision is made to head back into port and							
Door Spre	ad - Fm.	91	clear at the dock.								
Height On	Trawl - Fm.	4	~ Estimated catch 600 - 7	~ Estimated catch 600 - 700 lbs.							
Spread On	Trawl - Fm.	N/A									
Towing Sp	eed - Knts.	2.9	~ Clearing the trawl is con	mpleted by 21:	00. Decision	is made to he	ad back to the	e fishing groun	nds early in		
Main Engi	ne RPM	1700	the morning (May 7th).								

Tow #:	33	Vessel Name :	F/V Enterprise	Set At :	6:35	Haul Back :	7:06	Date :	5/7/2011
Desc	cription	Towing Information			Note	es And Comm	ents		
Fishing D	epth - Fm.	31	~ No adjustments made	to trawl and rig	ging.				
Main Wire	- Fm.	150							
Door Spre	ead - Fm.	93	~ Estimated catch N/A. Refer to observer's report.						
Height On	Trawl - Fm.	3.9							
Spread Or	n Trawl - Fm.	N/A							
Towing S	peed - Knts.	2.8							
Main Engi	ine RPM	1675							

Tow #:	34	Vessel Name :	F/V Enterprise	Set At :	7:33	Haul Back :	8:03	Date :	5/7/2011
Descr	iption	Towing Information			Note	es And Comm	ents		
Fishing Dep	oth - Fm.	33	~ No adjustments made	to trawl and rig	ging.				
Main Wire -	Fm.	150							
Door Sprea	d - Fm.	94	~ Estimated catch 350 - 400 lbs.						
Height On 1	rawl - Fm.	N/A							
Spread On	Trawl - Fm.	N/A							
Towing Spe	ed - Knts.	2.8							
Main Engin	e RPM	1725							

Tow #: 35		Vessel Name :	F/V Enterprise	Set At :	8:33	Haul Back :	9:03	Date :	5/7/2011			
Description		Towing Information			Note	es And Comm	ents					
Fishing Depth - Fn	١.	33	~ No adjustments made	~ No adjustments made to trawl and rigging.								
Main Wire - Fm.		150										
Door Spread - Fm.		90	~ Estimated catch 350 - 4	~ Estimated catch 350 - 400 lbs.								
Height On Trawl -	Fm.	3.9										
Spread On Trawl -	Fm.	N/A										
Towing Speed - Kı	ıts.	3.1										
Main Engine RPM		1750										

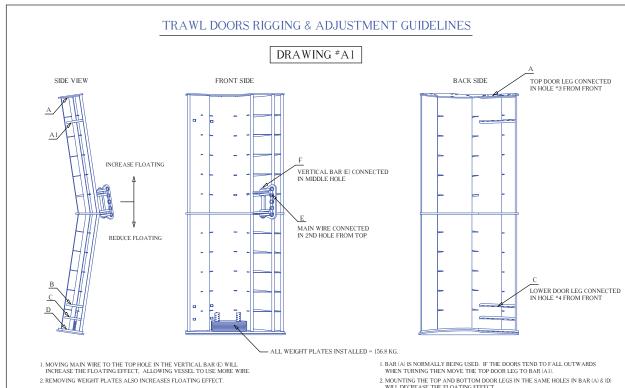
Tow #:	36	Vessel Name :	F/V Enterprise	F/V Enterprise Set At: 9:45 Haul Back: 10:15 Date: 5/7/2011								
Desc	cription	Towing Information	Notes And Comments									
Fishing Do	epth - Fm.	31.5	~ No adjustments made	to trawl and rig	ging.							
Main Wire	- Fm.	150										
Door Spre	ead - Fm.	89	~ Estimated catch N/A. I	~ Estimated catch N/A. Refer to observer's report.								
Height On	Trawl - Fm.	3.8 - 3.9										
Spread Or	n Trawl - Fm.	N/A										
Towing Sp	peed - Knts.	3.1										
Main Engi	ine RPM	1750										

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Tow #:	37	Vessel Name :	F/V Enterprise	Set At :	10:52	Haul Back :	11:22	Date :	5/7/2011				
Des	cription	Towing Information	Notes And Comments										
Fishing D	epth - Fm.	30	~ No adjustments made t	to trawl and rig	ging.								
Main Wire	- Fm.	150											
Door Spre	ead - Fm.	88	~ Estimated catch 800 - 9	~ Estimated catch 800 - 900 lbs.									
Height Or	Trawl - Fm.	4.1	~ Estimated catch/mix re-	d hake & whitii	ng (75%) with	n balance butter	rfish & macke	erel (25%).					
Spread O	n Trawl - Fm.	N/A	~ Last tow of the survey.										
Towing S	peed - Knts.	2.8											
Main Eng	ine RPM	1700											

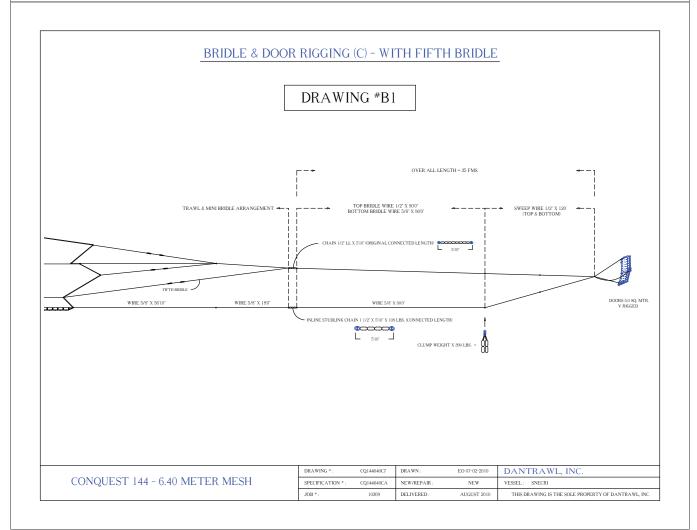
Additional Notes & Comments.

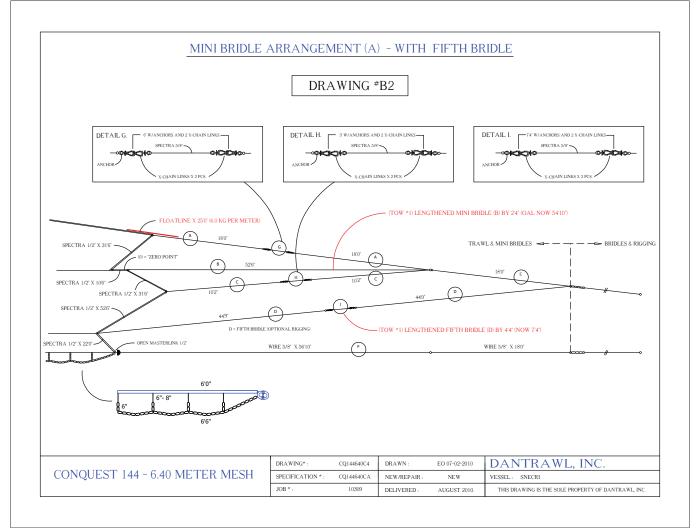
- 1. Noticed lower catch of dogfish when fishing in "shallower" waters, example less than 35 fathoms.
- 2. Creating the "cock pit" effect in lower belly seems to reduce amount of dogfish caught.
- 3. After Tow #2 it was suggested we move to different fishing area since F/V Enterprise was experiencing too much catch of dogfish.
- 4. The reason for lengthening bridle and sweeps between net and doors on the Conquest Trawl (Ref. Tow #20, transfer of trawl over to F/V Enterprise), was to get closer to the same length F/V Enterprise had been using so far in this survey with the conventional bottom trawl (Apr. 80 fathoms). Also to increase the "herding" effect we can achieve from use of longer bridles & sweeps. Longer bridles & sweeps also gives us a more stable trawl.
- 5. Length of bridles and sweeps used on the Conquest Trawl from Tow #20 and for the duration of this survey is 65 fathoms between net and doors vs. 35 fathoms we used when trawl was on F/V Cody.

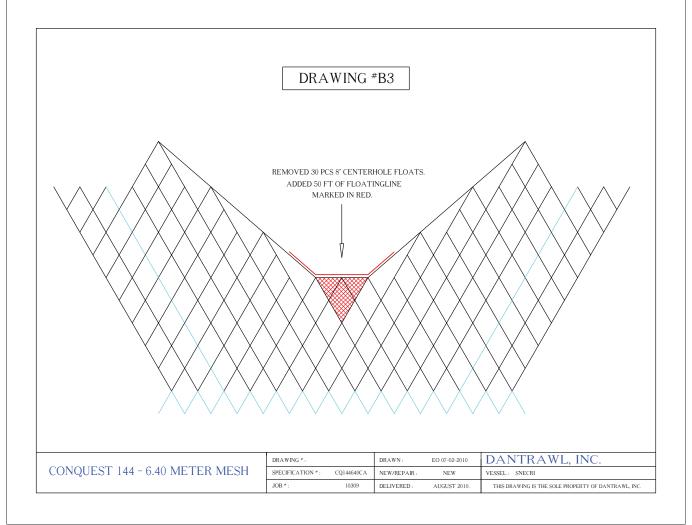


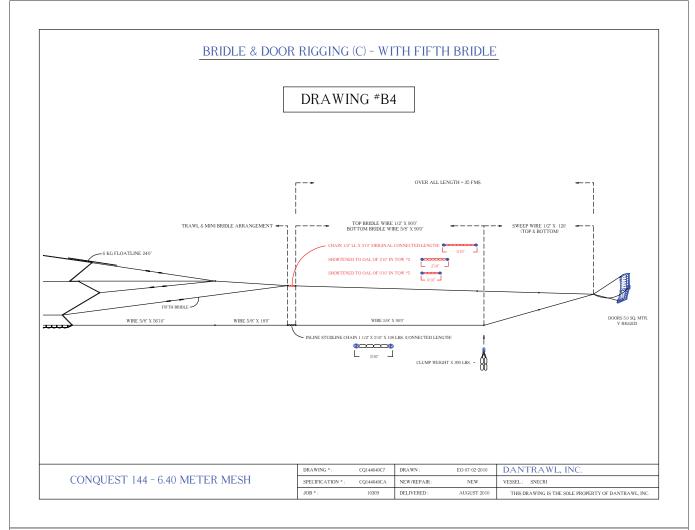
- 3. MOVING TO THE BOTTOM HOLE IN THE VERTICAL BAR (E) DECREASES FLOATING AND THE DOORS WILL WORK DEEPER.
- MOVING BACKWARDS IN THE HORIZONTAL BAR (F) INCREASES SPREAD, RESISTANCE AND DECREASED FLOATING EFFECT.
- 5. MOVING FORWARD IN THE HORIZONTAL BAR (F) REDUCES SPREAD, RESISTANCE AND FLOATING EFFECT.

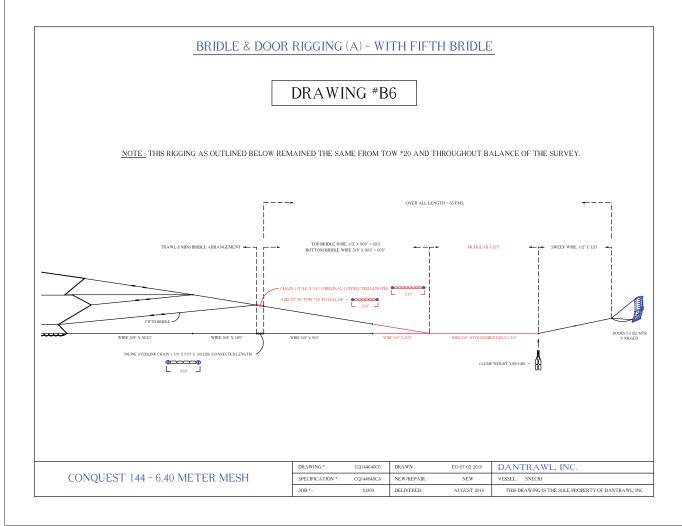
- 2. MOUNTING THE TOP AND BOTTOM DOOR LEGS IN THE SAME HOLES IN BAR (A) & (D) WILL DECREASE THE FLOATING EFFECT.
- 3. MOVING THE BOTTOM DOOR LEG TO THE BOTTOM BAR (D) WILL DECREASE THE FLOATING EFFECT OF THE DOOR.
- 4. MOVING THE BOTTOM DOOR LEG TO THE TOP BAR (B) WILL INCREASE THE FLOATING EFFECT
- 5. MOVING BACKWARDS IN BARS (A), (B), (C) & (D) WILL REDUCE SPREAD AND FLOATING EFFECT.
- 6. MOVING FORWARD IN BARS (A), (B), (C) & (D) INCREASES SPREAD AND FLOATING EFFECT.

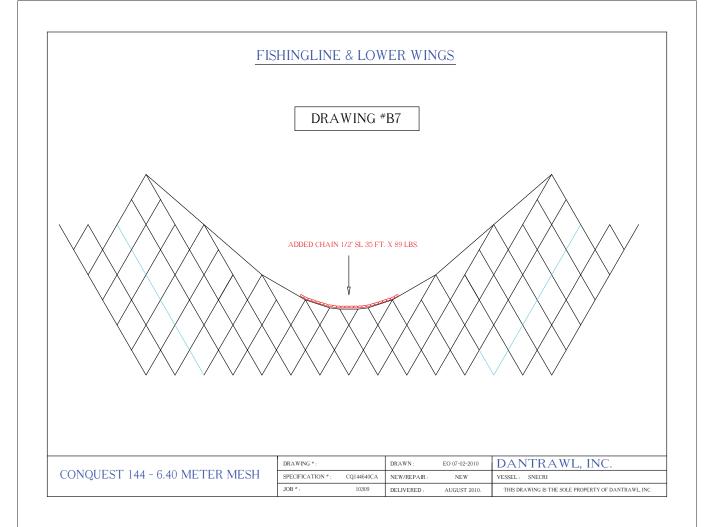












Appendix II

Raw Data

Tow	1		Date		9/21/2010)	Start Tow	Time:	7	7:44	Lat	N 4	0.45.486	Long:	W 70.52.35	Depth:	32 fm
Gear:	Large	Me	Record	der:	P. He		End Tow	Time:	8	3:44	Lat	N 4	0.45.912	Long:	W 70.48.78	Depth:	32 fm
Condit	ions:	Sky:	Clear		Wind:	5	Wind Dir.	W			War	p:	150 fm	1	Tow Speed	2.9 k	t
Hak	e, Silve	er (W	hiting)			Tot	al Weight:		114		Sı	ub-S	ample W	eight:		4	
Le	ngth	С	ount														
18	8	2	2												!		
19	9	2	2												!		
20)	2	2												!		
2:	1	Ç	9												!		
2	2	7	7												!		
2:	3	8	3												!		
2	4	3	3												!		
2.	5	2	4												!		
2	6	3	3												1		
25	9	2	2												1		
3:	1	-	1												!		
3	5	2	1														

Dogfish, Sp	iny	Total Weight:	36	Sub-Sample Weight:	0
Length	Count				
70	1				1
71	1				1
72	2				1
73	1				1
74	1				1
76	1				1
77	2				1
78	1				1
79	1				1
81	1				1
83	2				1
85	2				1
89	1				

Monkfish		Total Weight:	11	Sub-Sample Weight:	0	
Length	Count					
17	1					
22	1					
24	1					
42	1					
47	1					
50	1					
51	1				1	
55	1					

Hake, Red		Total Weight	: 4	Sub-Sample Weight:	0
Length	Count				
19	1				1
20	1				
21	3				1
22	4				!
23	4				1
24	5				
25	2				
26	3				!
27	8				
29	1				!
30	2				1
31	2				!
32	2				
33	2				!

Skate, Little	9	Total Weight:	4	Sub-Sample Weight:	0
Length	Count				
44	1				
45	1				
46	2				!
47	1				!
50	1				1

Squid, Atla	ntic Long-fin	Total Weight:	3	Sub-Sample Weight:	0
Length	Count				
6	2				!
7	10				1
8	2				!
9	14				1
10	6				1
11	4				1
12	7				!
13	6				!
14	4				!
15	3				!
16	2				
17	1				!

Tow	2		Date	ç	9/21/2010		Start Tow	Time:	9:33	Lat	Ν	40.46.217	Long:	W 70.47.55	Depth:	32	fm
Gear	: Large	Ме	Record	der:	P. He		End Tow	Time:	10:33	Lat	Ν	40.46.932	Long:	W 70.43.96	Depth:	31	fm
Cond	litions:	Sky:	Clear		Wind:	3	Wind Dir.	W		War	p:	175 fm	ı	Tow Speed:	2.9 k	t	
На	ke, Silv	er (W	hiting)			Tot	al Weight:		65	Sı	ub-	Sample W	eight:		4		
L	ength	C	Count														
	17		1														

Length	Count	
17	1	₹
18	2	()
19	3	4
20	9	()
21	11	
22	11	4
23	7	
24	2	4
25	2	
26	1	()
27	2	
28	1	()
30	1	(
32	1	()
33	1	₹
34	1	()
35	1	₹
39	1	The state of the s

Dogfish, Sp	iny	Total Weight:	46	Sub-Sample Weight:	0	
Length	Count					
71	1				1	
72	3				1	
73	2				1	
74	2				1	
78	2				1	
79	1				1	
80	1				1	
81	1				1	
84	1				+	
86	1				1	
87	2				1	
90	2				1	
93	1				1	

Skate, Little	Э	Total Weight:	20	Sub-Sample Weight:	0
Length	Count				
41	1				}
43	1				1
44	2				1
45	4				1
46	4				1
47	5				1
48	6				1
49	3				1
50	2				1
51	2				}

Monkfish		Total Weight:	9	Sub-Sample Weight:	0
Length	Count				
28	1				1
29	1				1
64	1				1
66	1				1

Hake, Red		Total Weight	: 9	Sub-Sample Weight:	4
Length	Count				
19	1				1
21	2				}
22	5				}
23	4				}
24	5				}
25	3				}
26	5				}
27	1				}
28	3				1
29	2				}
30	1				1
33	1				1
34	1				}
36	1				1
42	1				1

Squid, Atla	ntic Long-fin	Total Weight:	3	Sub-Sample Weight:	0
Length	Count				
6	2				1
7	8				1
8	9				1
9	10				1
10	6				1
11	6				1
12	6				1
13	3				1
14	8				1
15	3				1
16	2				3
17	1				1

Butterfish		Total Weight:	0.5	Sub-Sample Weight:	0
Length	Count				
13	2				1
14	4				4
15	2				1
16	1				1

Florida Company (Florida) Tabal Maricha O.E. Company (Florida)	
Flounder, Summer (Fluke) Total Weight: 0.5 Sub-Sample Weight:	0

Tow	3		Date	Ç	9/21/2010		Start Tow	Time:	11:52	Lat	N	40.46.7	72	Long:	W 70.42.63	Depth:	31	fm
Gear	Large	Ме	Record	ler:	P. He		End Tow	Time:	12:52	Lat	N	40.47.4	68	Long:	W 70.43.96	Depth:	####	fm
Cond	itions:	Sky:	Clear		Wind:	5	Wind Dir.	W		War	p:	175	fm		Tow Speed:	2.9 I	ĸt	
Do	gfish, S	piny				Tot	al Weight:		49	Sı	ub-	-Sample	e We	eight:		0		
L	ength	C	Count															
(65		1												Ī			
(68		1												1			
-	72	3	3												1			
	73	;	2												1			
	74	;	2												1			
	75	3	3												1			
	76	3	3												1			
-	77	3	3												Ļ			
-	78	;	2												Ļ			
-	79	:	1												Ļ			
	82	:	2												Ļ			
	83	:	2												ļ			
	86	:	1												ļ			
9	93		2															

Hake, Silver	r (Whiting)	Total Weight:	33	Sub-Sample Weight:	5
Length	Count				
16	1				į.
17	2				Ļ
18	5				Ļ
19	6				Ļ
20	10				
21	14				Ļ
22	10				Ļ
23	5				Ļ
24	6				Ļ
25	1				Ļ
26	1				Ļ
27	1				Ļ
28	1				Ļ
29	2				1
30	1				Ļ
31	2				ļ
33	2				Ļ
35	1				Ļ

Squid, Atla	ntic Long-fin	Total Weight:	11.5	Sub-Sample Weight:	2.5
Length	Count				
6	1				
7	4				<u> </u>
8	3				
9	5				Ļ
10	3				Ļ
12	9				Ļ
13	4				Ļ
14	6				Ļ
15	5				Ļ
16	3				
18	1				1

Skate, Little	9	Total Weight:	9	Sub-Sample Weight:	0
Length	Count				
45	1				<u> </u>
46	3				,
47	1				<u> </u>
48	2				,
49	3				
50	2				+
51	1				

Monkfish		Total Weight:	6	Sub-Sample Weight:	0
Length	Count				
29	1				<u> </u>
31	1				1
32	1				<u> </u>
39	1				
41	1				<u> </u>
43	1				1

Bluefish		Total Weight:	4	Sub-Sample Weight:	0	
Length	Count					
71	1				i	

Hake, Red		Total Weight:	3.5	Sub-Sample Weight:	0
Length	Count				
21	1				
22	5				
23	6				
24	2				
25	1				
26	1				
28	1				.
29	1				+
30	1				.
31	1				+
34	1				.
35	1				į.

Flounder, Southern Total Weight: 2 Sub-Sample Weight: 0

Herring, Atlantic	Total Weight:	1.5	Sub-Sample Weight:	0	

Butterfish		Total Weight:	1	Sub-Sample Weight:	0
Length	Count				
11	2				<u>, </u>
12	2				+
13	5				<u>, </u>
14	3				+
16	3				Ļ
17	1				ļ

Tow	4	Date	9/2	21/2010		Start Tow	Time:	13:45	Lat	N 40.47.809	Long:	W 70.37.73	Depth:	29	fm
Gear:	Large M	le Record	der: P.I	Не		End Tow	Time:	14:44	Lat	N 40.48.621	Long:	W 70.34.47	Depth:	28	fm
Condit	ions: Sl	ky: Clear	W	Vind:	3	Wind Dir.	W		War	rp: 175 fn	า	Tow Speed:	2.9 k	t	
Butt	erfish			-	Tot	al Weight:		180	Sı	ub-Sample W	/eight:		3.5		
Lei	ngth	Count													
10)	7										ì			
11	L	6										ì			
12	2	17										ì			
13	3	20										i			

Hake, Silve	r (Whiting)	Total Weight:	85	Sub-Sample Weight:	4.5
Length	Count				
18	4				i
19	8				i
20	18				i
21	15				i
22	10				i
23	2				i
24	1				i
26	1				i
27	1				i

Squid, Atla	ntic Long-fin	Total Weight:	35.8	Sub-Sample Weight:	4.3	
Length	Count					
6	3				i	
7	2				i	
8	1				i	
9	4				i	
10	5				i	
11	3				i	
12	7				i	
13	5				i	
14	1				i	
15	1				i	
16	2				i	
17	1				ì	

Dogfish, Sp	iny	Total Weight:	31	Sub-Sample Weight:	0
Length	Count				
72	2				;
73	1				ì
74	3				;
76	1				;
77	1				j
78	2				j.
79	1				j
80	1				j.
81	1				j
82	1				j.
85	2				i
95	1				i

Hake, Red		Total Weigh	t: 15	Sub-Sample Weight:	4
Length	Count				
19	1				i
21	1				i
22	1				i
23	4				i
24	3				i
25	8				i
26	5				i
27	4				i
28	2				i
29	1				i
31	1				i
32	1				i

Skate, Little	ġ.	Total We	eight: 13	8.5 Sub-S	Sample Weight:	0	
Length	Count						
46	2					j	
47	2					i	
48	2					i	
49	7					i	
50	4					j	

Bluefish		Tot	al Weight:	6.5	Sub-Sample W	eight:		0	
Length	Count								
66	1						i		
69	1						'		
							<u> </u>		
Scup		Tot	al Weight:	5	Sub-Sample W	eight:		0	
Length	Count								
23	2						ì		
24	2						ì		
25	1						ì		
26	5						i		
27	4						ì		
29	1						ĺ		
Flounder, F	ourspot	Tot	al Weight:	4	Sub-Sample W	eight:		0	
Flounder, F			al Weight:	4	Sub-Sample W Sub-Sample W			0	
Flounder, S	outhern	Tot	al Weight:	4	Sub-Sample W	eight:		0	
	outhern	Tot		4		eight:			
Flounder, S Dogfish, Sm Length	outhern	Tot	al Weight:	4	Sub-Sample W	eight:		0	
Flounder, S Dogfish, Sm	outhern	Tot	al Weight:	4	Sub-Sample W	eight:	j	0	
Flounder, S Dogfish, Sm Length	outhern nooth Count	Tot	al Weight:	2	Sub-Sample W	eight:		0	### fm
Plounder, Some Dogfish, Small Length 90	nooth Count 1 Date	Tot	al Weight:	2 Fime: 16:0	Sub-Sample W Sub-Sample W	eight: eight:	W 70.41.35	0	

Hake, Silve	r (Whiting)	Total Weight:	55	Sub-Sample Weight:	6
Length	Count				
17	1				j
18	1				j
19	14				j
20	16				j.
21	16				j
22	13				j.
23	14				j
24	7				j.
25	1				j
27	2				;
29	2				i
35	1				j.

Dogfish, Sp	iny	Total Weight:	35	Sub-Sample Weight:	0
Length	Count				
70	1				j
74	1				j
75	2				j
76	2				j
77	2				j
79	1				j
80	1				j
81	2				j
82	1				j
84	1				j
86	1				j
89	2				i
90	1				i

Butterfish		Total Weight:	20	Sub-Sample Weight:	2.5	
Length	Count					
10	1				j	
11	5				i	
12	12				j	
13	17				i	
14	3				j	
15	3				i	
16	3				j	
17	1				j	

Hake, Red		Total Weight:	18	Sub-Sample Weight:	4.5
Length	Count				
21	2				;
22	2				j
23	8				j
24	8				j.
25	9				j
26	2				j.
27	4				;
28	1				i
30	1				j

Squid, Atlai	ntic Long-fin	Total Weight	: 15	Sub-Sample Weight:	4
Length	Count				
6	3				i
7	2				i
8	2				i
9	2				i
10	3				i
11	2				i
12	1				i
13	2				i
14	5				i
15	4				i
16	2				i
18	1				;

Skate, Little	!	Total Weight:	7	Sub-Sample Weight:	0
Length	Count				
43	1				j
46	1				j
47	3				j
48	3				;
50	1				j
51	1				j

Monkfish		Total Weight:	6	Sub-Sample Weight:	0
Length	Count				
35	1				i
46	1				i
48	1				i
50	1				i

Flounder, Winter (Blackba	Total Weight:	5	Sub-Sample Weight:	0	

Scup		Total Weight:	2	Sub-Sample Weight:	0	
Length	Count					
24	1				j	
26	3				j.	
29	1				j.	

Skate, Wint	er	Total Weight:	2	Sub-Sample Weight:	0	
Length	Count					
52	1				j	

Tow	6	Date	9/21/2010	Start Tow Time:	18:41 Lat	N 40.44.735	Long: W 70.47.17	Depth: #### fm
Gear:	Large M	e Record	ler: P. He	End Tow Time:	19:40 Lat	N 40.45.130	Long: W 70.43.46	Depth: #### fm
Conditi	ions: Sk	y: Clear	Wind:	6 Wind Dir. W	Warı	o: 175 fm	Tow Speed:	2.9 kt

Hake, Silve	r (Whiting)	Total Weight:	87	Sub-Sample Weight:	5
Length	Count				
18	2				,
19	3				,
20	7				,
21	15				,
22	15				,
23	9				,
24	6				,
25	2				,
26	2				,
27	1				,

Dogfish, Sp	iny	Total Weight:	38	Sub-Sample Weight:	0
Length	Count				
67	1				,
70	1				,
75	1				,
76	1				,
77	2				,
79	3				,
80	3				,
81	1				,
82	1				,
83	1				,
84	1				,
86	1				,
88	1				,
89	1				,
90	1				

Skate, Little		Total Weight:	15	Sub-Sample Weight:	0
Length	Count				
45	1				,
46	4				,
47	2				,
48	4				,
49	8				,
50	2				,
51	1				,
52	1				,

Hake, Red		To	otal Weight:	6	Sub-Sample Weight:	0
Length	Count					
21	2					,
22	2					,
23	7					1
24	3					,
25	8					,
26	4					,
27	3					1
31	2					,
62	1					

Squid, Atla	ntic Long-fin	Total Weight:	5	Sub-Sample Weight:	0
Length	Count				
7	3				,
8	5				,
9	8				,
10	8				,
11	10				,
12	5				,
13	5				,
14	9				,
15	3				,
16	3				,
17	1				1

Skate, Wint	ter	Total Weight:	4	Sub-Sample Weight:	0
Length	Count				
58	1				,
50	1				,
		_			
Butterfish		Total Weight:	2.5	Sub-Sample Weight:	0

Butterfish		Total Weight:	2.5	Sub-Sample Weight:	0
Length	Count				
10	1				,
11	1				,
12	10				,
13	12				,
14	3				,
15	2				,
16	1				
Flounder, G	ulfstream	Total Weight:	2.5	Sub-Sample Weight:	0

Herring, At	lantic	Total Weight:	2	Sub-Sample Weight:	0
Monkfish		Total Weight:	0.7	Sub-Sample Weight:	0
Monkfish Length	Count	Total Weight:	0.7	Sub-Sample Weight:	0

Tow	7		Date	9/23/2010		Start Tow	Time:	6:33	Lat	N 40.50.818	Long:	W 70.19.98	Depth:	#### f	fm
Gear:	Large I	Me R	Recorder:	Pol		End Tow	Time:	7:33	Lat	N 40.50.204	Long:	W 71.22.57	Depth:	#### f	fm
Condit	ions: S	Sky: Cl	lear	Wind:	3	Wind Dir.	NNE		War	p: 175 fm	1	Tow Speed:	3 I	ĸt	

Hake, Silve	r (Whiting)	Total Weight:	227	Sub-Sample Weight:	12
Length	Count				
18	8				}
19	14				}
20	16				1
21	25				}
22	27				1
23	15				}
24	12				1
25	9				}
26	4				1
27	6				}
28	2				}
29	2				1
30	5				}

Butterfish		Total Weigh	nt: 150	Sub-Sample Weight:	6
Length	Count				
12	5				}
13	24				}
14	40				}
15	22				}
16	5				}
17	1				}

Dogfish, Sp	iny	Total Weight	: 122	Sub-Sample Weight:	0
Length	Count				
22	2				}
69	1				}
71	1				1
75	2				}
77	5				}
78	5				}
79	2				}
80	6				}
81	3				;
82	4				}
83	5				}
84	3				}
85	7				}
86	4				}
87	2				}
88	3				;
89	3				}
90	3				;
91	1				}
95	1				}

Squid, Atlar	ntic Long-fin	Total Weight:	10	Sub-Sample Weight:	0.5
Length	Count				
7	3				}
8	4				}
11	1				}
18	1				}

Hake, Red		Total Weight: 5	Sub-Sample Weight: 0.2	
Length	Count			
22	1		3	
23	2		3	
25	1		3	

	sh		To	otal Weight:	2.5	Suk	o-Sample Weight:		0	
Length	h C	Count								
49	:	1						}		
Skate, L	_ittle		To	otal Weight:	2	Suk	o-Sample Weight:		0	
Length	h C	Count								
44		1						;		
45		1						}		
47		1						1		
49		1						,		
50		1						+		
Flounde	er, Yello	wtail	To	otal Weight:	0.5	Suk	o-Sample Weight:		0	
Length	h C	Count								
43		1						;		
Tow	8	Date	9/23/2010	Start Tow	Time:	8:30 Lat N	l 40.50.340 Long:	W 70.23.34	Depth: 31	fm
	rge Me	Recorder:					l 40.50.890 Long:		Depth: ####	fm
Conditions	s: Sky:	Clear	Wind:	Wind Dir.	NNE	Warp	175 fm	Tow Speed:	2.9 kt	
D C										
Butterfi	ish		To	otal Weight:	580	Suk	o-Sample Weight:		6	
Length		Count	To	otal Weight:	580	Suk	o-Sample Weight:		6	
	h C	4	To	otal Weight:	580	Suk	o-Sample Weight:	ı	6	
Length 11 12	h C	4	Т	otal Weight:	580	Suk	o-Sample Weight:		6	
11 12 13	h C	4 3 28	Т	otal Weight:	580	Sub	o-Sample Weight:		6	
11 12 13 14	h C	4 3 28 36	Т	otal Weight:	580	Suk	o-Sample Weight:		6	
Length 11 12 13 14 15	h C	4 3 28 36 36	Т	otal Weight:	580	Suk	o-Sample Weight:	1	6	
11 12 13 14	h C	4 3 28 36	Т	otal Weight:	580	Suk	o-Sample Weight:		6	
11 12 13 14 15 15	h C	4 3 28 36 36 5		otal Weight:	188		o-Sample Weight:	1	2	
11 12 13 14 15 15	h C	4 3 28 36 36 5						1		
11 12 13 14 15 15	h C	4 3 28 36 36 5 'hiting)						1		
Length 11 12 13 14 15 15 Hake, S Length	h C	4 3 28 36 36 5 (hiting)								
Length 11 12 13 14 15 15 Hake, S Length 19	h C	4 3 28 36 36 5 Thiting)								
Length 11 12 13 14 15 15 Hake, S Length 19 20	h C	4 3 28 36 36 5 (hiting) Count 3								
Length 11 12 13 14 15 15 Hake, S Length 19 20 21 21 23	h C	4 3 28 36 36 5 Thitting) Count 3 4 4 5 5								
Length 11 12 13 14 15 15 Hake, S Length 19 20 21 21 23 24	ilver (W	4 3 28 36 36 5 (hiting) Count 3 4 4 5 5								
Length 11 12 13 14 15 15 Hake, S Length 19 20 21 21 23	ilver (W	4 3 28 36 36 5 Thitting) Count 3 4 4 5 5								

ogfish, Sp	iny	Total Weight: 1	06.5 Sub-Sample Weight:	0
Length	Count			
69	1			
71	1			ı
74	1			ı
76	5			I
77	2			I
78	2			I
79	2			I
80	5			I
81	1			ı
83	7			I
84	7			l
85	2			I
86	2			l
87	5			l
88	3			l
93	2			I
95	1			ı
96	1			I
97	1			1

Hake, Red		Total Weight:	8	Sub-Sample Weight:	0.3	
Length	Count					
22	1				1	
23	1				1	
24	1				1	

Squid, Atlai	ntic Long-fin	Total Weight:	8	Sub-Sample Weight:	0.1
Length	Count				
8	1				ı
11	1				1
14	1				1

Dogfish, Sn	nooth	Total Weight:	7.5	Sub-Sample Weight:	0
Length	Count				
97	2				1
96	1				1

Monkfish		Tota	ıl Weight:	6	Su	b-Sample We	eight:		0		
Length	Count					<u> </u>					
48	1)			1
64	1							1			
Bluefish	_	lota	ll Weight:	4	Su	b-Sample We	eight:		0		
Length	Count										
40	1										
Skate, Little		Tota	ıl Weight:	2	Su	b-Sample We	eight:		0		
Length	Count					<u> </u>					
35	1)			1
43	1							1			
47	1							1			
49	1)			
50	1							1			
Tow 1	Date	9/21/2010	Start Tow T	Γime: 7	:45 Lat	N 40.47.088	Long:	W 70.54.13	Depth:	31	fm
Gear: Standar	d Recorder:	C Rillaha	End Tow T	Fime: 8	:45 Lat	N 40.45.680	Long:	W 70.52.10	Depth:	###	fm
Conditions: Sk	ky: Clear	Wind: 3	Wind Dir. \	N	Warp	o: 150 fm		Tow Speed:	3 kt	t	
Hake, Silver	(Whiting)	Tota	ıl Weight:	348	Su	b-Sample We	eight:		15		
Length	Count										
17	1										
18	8										
19	9										
20	15										
21	17										
22	11										
23	3										
24	3										
25	1										
26	2										
29	1										
30	1										
33	1										
36	1										

Skate, Little	9	Total Weight:	119	Sub-Sample Weight:	12
Length	Count				
48	6				
51	2				
52	2				
44	1				
47	2				
49	1				
46	1				
50	1				

Dogfish, Sp	iny	Total Weight:	104	Sub-Sample Weight:	40
Length	Count				
71	2				
72	3				
73	2				
70	1				
74	2				
75	2				
82	1				
83	1				
84	2				
80	1				
85	1				
86	1				
89	1				
90	1				

Hake, Red		Total Weight:	27	Sub-Sample Weight:	5
Length	Count				
22	5				
23	4				
24	2				
25	6				
26	3				
27	2				
28	4				
29	2				
32	1				
33	1				
34	1				
36	1				
43	1				
47	1				·

Monkfish		Total Weight:	16	Sub-Sample Weight:	0
Length	Count				
57	1				
45	1				
67	1				
58	1				
54	1				
33	1				
34	1				
25	1				

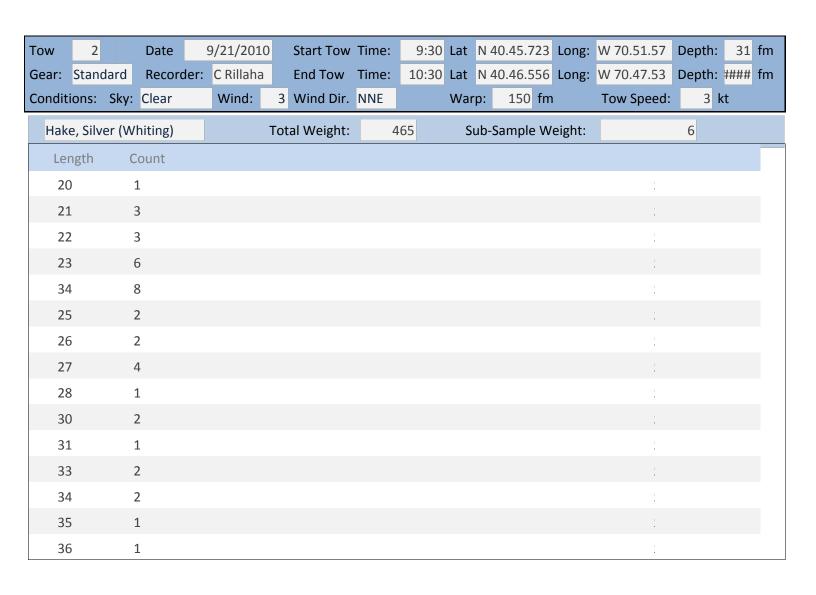
Flounder, F	ourspot	Total Weight:	9	Sub-Sample Weight:	3.5
Length	Count				
17	1				
22	1				
24	2				
26	2				
27	1				
28	2				
29	2				
30	2				
31	1				
32	1				
33	2				
37	1				

Skate, Barn	door	Total Weight:	7	Sub-Sample Weight:	0
Length	Count				
36	1				
45	1				
49	1				
55	1				
61	1				

Flounder, V	Vinter (Blackba	Total Weight: 3	Sub-Sample Weight:	0
Length	Count			
26	1			
29	1			
27	1			•
31	3			

Flounder, G	Gulfstream	Total Weight:	3	Sub-Sample Weight:	1
Length	Count				
12	1				
14	3				
15	11				
16	9				
17	6				
18	1				

Dogfish, Sn	nooth	Total Weight:	3	Sub-Sample Weight:	0
Length	Count				
101	1				
		T	0.5	C. I. C I. Wetch	0
Cusk		Total Weight:	0.5	Sub-Sample Weight:	0
Length	Count				
28	2				
31	2				
Northern S	ea Robin	Total Weight:	0.2	Sub-Sample Weight:	0
Length	Count				
21	1				
28	1				
Herring, At	lantic	Total Weight:	0.1	Sub-Sample Weight:	0



Dogfish, Sp	iny	Total Weight:	212.5	Sub-Sample Weight:	75
Length	Count				
71	1				
73	1				
75	1				
76	2				
77	2				
78	1				
80	4				
81	2				
82	2				
83	1				
84	5				
85	1				
86	3				
87	1				
88	1				
91	1				
96	1				

Skate, Little	9	Total Weight:	87	Sub-Sample Weight:	31
Length	Count				
42	1				1
43	1				1
45	3				1
46	6				1
47	6				1
48	5				1
49	4				1
50	6				1
51	5				1
52	2				1
53	1				

Hake, Red		Total Weight:	50	Sub-Sample Weight:	10	
Length	Count					
28	4					
29	1					
30	1					
31	1					
33	2					
34	6					
35	1					
38	1					
39	2					
40	1				:	
21	2					
22	2				:	
23	5					
24	8				:	
25	4					
26	4					
27	3					

Skate, Barn	door	Total Weight:	15	Sub-Sample Weight:	0
Length	Count				
32	1				
36	1				
39	1				
42	1				
44	1				1
45	1				
48	1				
50	2				
46	1				
54	1				1
55	1				
56	2				1
57	1				
58	1				
59	1				1
47	1				
63	1				
73	1				1

Squid, Atlai	ntic Long-fin	Total Weight:	8	Sub-Sample Weight:	2
Length	Count				
10	3				
11	6				1
12	3				
13	4				1
14	4				
15	2				

Monkfish		Total Weight	: 5	Sub-Sample Weight:	0
Length	Count				
47	1				
48	1				
30	1				
39	1				
12	1				

Flounder, F	ourspot	Total Weight:	5	Sub-Sample Weight:	0
Length	Count			, ,	
22	2				
23	2				:
24	1				1
25	1				:
27	3				1
28	1				:
29	3				1
30	5				!
31	1				1
32	1				
33	1				1
35	1				
37	1				1
39	1				
Flounder, G	Gulfstream	Total Weight:	3	Sub-Sample Weight:	1.5
Length	Count				

Flounder, G	Gulfstream	То	tal Weight:	3	Sub-Sample Weight:		1.5
Length	Count						
14	2					1	
15	7						
16	10						
17	10						
18	10						
19	4						

Northern S	ea Robin	oin Total Weight: 1 Sub-Sample Weight: 0		0	
Length	Count				
27	1				
23	1				:
29	1				
19	1				:
21	1				:
17	1				

Flounder, V	Vinter (Blackba	Total Weight:	0.4	Sub-Sample Weight:	0	
Length	Count					
31	1				1	

Flou	nder,	Yello	wtail		To	tal Weight:		0.4	Sı	ub-S	Sample We	eight:		0		
Ler	ngth	С	Count													
22	2		1													
Herr	ing, A	tlanti	С		To	tal Weight:		0.2	Sı	ıb-9	Sample We	eight:		0		
Ler	ngth	С	Count													
20)		1													
Tow	3		Date	9/21/20	010	Start Tow	Time:	11:25	Lat	ΝΔ	10.46.484	Long:	W 70.47.18	Depth:	29	fm
Gear:	Stand	dard	Recorde	r: C Rilla	ha	End Tow	Time:	12:25	Lat	ΝZ	10.47.282	Long:	W 70.43.08	Depth:	28	fm
Conditi	ions:	Sky:	Clear	Wind	: 4	Wind Dir.	NNE		War	p:	150 fm		Tow Speed:	2.9 k	t	
Hake	e, Silv	er (W	hiting)		To	tal Weight:		160	Su	ub-S	Sample We	eight:		10		
Ler	ngth	C	Count													
16	j	7	2										1			
17	,	4	4										1			
18	3	3	3										1			
19)		1										1			
20)		11										1			
21		į	5										1			
22	2	4	4										1			
23	}	Ç	9										1			
24	ļ		7										i			
25		į	5										1			
26	j	-	7										1			
27	7		6										1			
28	3	2	2										1			
29			4										1			
32	2		1										i			
34			1										1			
38	3	-	1										1			

Dogfish, Sp	iny	Total Weight:	136	Sub-Sample Weight:	56
Length	Count				
67	1				1
70	2				4
71	1				1
72	3				4
73	5				1
74	1				4
75	1				1
77	6				4
79	1				1
80	1				4
81	1				1
82	1				4
83	2				1
84	1				4
85	1				4
85	1				4
86	1				1
87	1				4
92	1				1

Hake, Red		Total Weight:	75	Sub-Sample Weight:	8
Length	Count				
21	1				i
22	2				1
23	10				
24	9				1
25	10				
26	5				1
28	2				
29	2				1
30	3				
31	5				1
33	1				1
34	2				1
35	2				1
36	1				
38	1				;

Skate, Little	е	Total Weight:	65	Sub-Sample Weight:	16
Length	Count				
44	1				+
45	1				*
46	3				+
47	6				1
48	6				1
51	3				4
52	1				}
54	1				1

Squid, Atla	ntic Long-fin	Total Weight:	40	Sub-Sample Weight:	3.5
Length	Count				
9	3				1
10	1				4
11	5				1
12	2				1
13	7				1
14	5				1
15	1				1
16	1				1
17	1				1
18	1				1

Flounder, F	ourspot	Total Weight:	22	Sub-Sample Weight:	9
Length	Count				
20	1				;
22	3				;
23	4				i
24	3				1
25	6				1
26	3				1
27	13				1
28	13				1
29	3				i
30	8				i
31	2				;
32	1				i
35	1				i
39	1				1

Skate, Barn	door	Total Weight:	11	Sub-Sample Weight:	0
Length	Count				
36	1				1
43	1				
50	2				1
37	1				
53	1				;
62	2				;
75	1				1
77	1				i

Skate, Wint	ter	Total Weight:	6.5	Sub-Sample Weight:	0	
Length	Count					
85	1					
64	1				1	

Butterfish		Total Weight:	6	Sub-Sample Weight:	2
Length	Count				
11	1				
12	5				i e
13	11				
14	22				1
15	9				i

Flounder, Y	'ellowtail	Total Weight:	4	Sub-Sample Weight:	0
Length	Count				
26	1				1
29	1				1
32	2				1
33	2				1
34	1				1
36	1				1
40	1				+
43	1				1

Flounder, G	iulfstream	Total Weight:	4	Sub-Sample Weight:	3
Length	Count				
13	1				i
14	2				1
15	6				i
16	8				1
17	16				1
18	13				1
19	11				1
20	2				i

Northern S	ea Robin	Total Weight:	1.5	Sub-Sample Weight:	0
Length	Count				
17	1				
19	3				
18	1				
20	1				
21	2				
22	2				
23	2				
29	1				
19	1				+

Cusk		Total Weight:	0.2	Sub-Sample Weight:	0
Length	Count				
28	1				

Flounder, \	Winter (Blackba	Total Weight:	0.2	Sub-Sample Weight:	0	
Length	Count					
34	1				1	
35	2				1	
40	1					

Tow	4	Date	9/21/2010	Start Tow Time:	13:25 Lat	N 40.47.196	Long:	W 70.42.56	Depth:	#### fm
Gear:	Standard	Record	der: C Rillaha	End Tow Time:	14:25 Lat	N 40.48.072	Long:	W 70.38.56	Depth:	30 fm
Condit	ions: Sk	y: Clear	Wind:	4 Wind Dir. W	War	p: 150 fm	1	Tow Speed:	3 k	t

Hake, Silver	r (Whiting)	Total Weight:	160	Sub-Sample Weight:	6
Length	Count				
19	2				
20	1				
21	6				
22	3				
23	1				
24	4				
26	2				
27	5				
28	4				
29	1				
30	2				
32	4				
36	4				
37	1				
40	1				
44	1				

Dogfish, Sp	iny	Total Weight:	106	Sub-Sample Weight:	54
Length	Count				
64	1				
67	1				
68	1				
69	1				
71	3				
72	1				
73	3				
75	4				
76	2				
77	4				
78	2				·
79	2				
80	1				
84	1				
87	1				
88	1				
91	1				

Butterfish		Total Weight	: 99	Sub-Sample Weight:	2
Length	Count				
11	1				
12	11				
13	20				
14	19				
15	5				
16	1				

Squid, Atla	ntic Long-fin	Total Weight:	75	Sub-Sample Weight:	3
Length	Count				
8	3				
9	8				
10	3				
11	4				
12	7				
13	3				
14	5				
15	3				
16	1				

Skate, Little		Total Weight:	51	Sub-Sample Weight:	19
Length	Count				
45	1				
46	1				
47	3				
48	4				
49	5				
50	3				
51	2				
52	1				

Hake, Red		Total Weight:	50	Sub-Sample Weight:	12
Length	Count				
20	1				
22	7				
23	4				
24	9				
25	15				·
26	13				
27	6				·
28	5				
29	4				
30	1				
31	1				·
32	2				
33	1				
34	2				
35	2				
44	1				
50	1				·

Blue shark		Total Weight:	40	Sub-Sample Weight:	0
Length	Count				
300	1				

Dogfish, Sn	nooth	Total Weight:	26	Sub-Sample Weight:	0
Length	Count				
92	1				
94	2				
99	1				
100	2				
102	1				
106	1				

Flounder, F	ourspot	Total Weight:	25	Sub-Sample Weight:	8
Length	Count				
19	1				
20	2				
21	1				
23	2				
24	1				
25	5				
26	3				
27	8				
28	6				
29	7				
30	3				
31	3				
32	6				
33	1				
34	2				
35	1				·

Scup		Total Weigh	it: 14	Sub-Sample Weight:	5
Length	Count				
19	1				
21	3				
23	4				
24	5				
25	6				

Skate, Barn	door	Total Weight:	7	Sub-Sample Weight:	0
Length	Count				
36	1				
44	1				
45	1				
50	1				
51	1				
55	1				
56	1				·
57	1				
72	1				

Skate, Win	ter	Total Weight:	3	Sub-Sample Weight:	0
Length	Count				
61	1				
65	1				

Flounder, V	Vinter (Blackba	Total Weight:	2	Sub-Sample Weight:	0
Length	Count				
33	1				
34	1				
37	1				
38	1				

Flounder, Y	'ellowtail	Total V	Veight:	1	Sub-Sample Weight	::	0
Length	Count						
23	1						
24	1						
31	2						
34	1						

Flounder, C	Gulfstream	Total Weigh	nt: 1	Sub-Sample Weight:	0
Length	Count				
15	1				
16	4				
17	8				
18	10				
19	3				
20	1				
21	1				

Tow	5		Date	9/21/2010	Start Tow	Time:	15:24	Lat	N 40.45.256	Long:	W 70.42.56	Depth: ##	## fm
Gear:	Standa	ard	Record	ler: C Rillaha	End Tow	Time:	16:25	Lat	N 40.48.072	Long:	W 70.38.56	Depth: ###	## fm
Condit	ions:	Sky:	Clear	Wind:	4 Wind Dir.	w		War	p: 150 fm	า	Tow Speed:	2.9 kt	

Hake, Silve	r (Whiting)	Total Weight:	390	Sub-Sample Weight:	8
Length	Count				
17	1				i
18	2				i
19	13				i
20	22				i
21	14				i
22	10				i
23	1				i
28	1				i
29	4				i
30	1				i
31	2				i
33	1				i
34	1				i
36	2				
40	2				Í

Dogfish, Sp	iny	Total Weight:	71	Sub-Sample Weight:	56	
Length	Count					
68	1				i	
71	1				i	
72	2				i	
73	3				i	
75	1				i	
76	3				i	
77	2				i	
78	7				i	
79	3				i	
80	3				i	
82	2				i	
83	1				i	
87	1				i.	

Skate, Little	2	Total Weight:	43	Sub-Sample Weight:	18
Length	Count				
45	2				i e
46	2				
47	5				i e
48	2				i e
49	2				i
50	4				i e
51	3				i
52	2				i e
58	1				i e
66	1				

Hake, Red		Total W	eight:	40	Sub-Sample Weight:	6	
Length	Count						
18	1					į.	
20	1					į.	
22	3					F	
23	7					F	
24	16					F	
25	10					F	
26	8					F	
27	5					F	
28	4					ř	
29	5						

Squid, Atla	ntic Long-fin	Total Weight:	40	Sub-Sample Weight:	4	
Length	Count					
7	5				i i	
8	10				i	
9	14				i i	
10	11				1	
11	10				i	
12	10				Í	
13	4				i	
14	3				Í	
15	3				i	
16	1				i	

Skate, Barn	door	Total Weight:	12	Sub-Sample Weight:	0
Length	Count				
44	1				i
56	2				i
58	1				i
52	1				i
47	1				i
35	1				i
50	1				i
72	1				1
66	1				i
59	1				i
61	1				i
51	2				1
64	1				i

Flounder, F	ourspot	Total Weight:	9	Sub-Sample Weight:	5
Length	Count				
17	1				ĺ
18	2				i
19	1				i
21	1				i
22	2				i
24	1				i
27	3				i
28	1				i
29	1				i
32	1				i
34	1				i
35	1				í

Flounder, G	Gulfstream	Total Weight:	3	Sub-Sample Weight:	0
Length	Count				
13	6				i
14	7				D
15	16				i
16	17				D
17	15				ì
18	8				i
19	2				i
Skate, Wint	ter	Total Weight:	2	Sub-Sample Weight:	0
Length	Count	rotal Weight		Sub Sumple Weight.	
66	1				j
61	1				į.
		_			
Monkfish		Total Weight:	1	Sub-Sample Weight:	0
Length	Count				
35	1				i
32	1				i e
26	1				i i
Flounder, Y	ellowtail	Total Weight:	1	Sub-Sample Weight:	0
Length	Count				
42	1				i
36	1				j.
31	1				i
Cusk		Total Weight:	0.2	Sub-Sample Weight:	0
Length	Count		0.1		
28	1				i
Northern Se	ea Robin	Total Weight:	0.2	Sub-Sample Weight:	0
Length	Count				
31	1				
22	1				i i

Herring, A	tlantic	Tot	al Weight:	0.	.1	Sub-S	ample W	eight:		0	
Length	Count										
17	2								· 1		
18	1										
Tow 6		9/21/2010	Start Tow	_				_	W 70.52.89	Depth:	33 fm
Gear: Stand				Time:				_	W 70.48.47	Depth: #	
Conditions:	Sky: Clear	Wind: 5	Wind Dir.	W	W	arp:	150 fm		Tow Speed:	3 kt	
Hake, Silve	er (Whiting)	Tot	al Weight:	41	.0	Sub-S	ample W	eight:		8	
Length	Count										
19	4								i		
20	3								i		
21	6								i		
22	7								i		
23	5								i		
24	6								i		
25	6								i		
26	2								i		
27	3								i		
28	1								i		
29	4								i		
30	2								i		
31	3								i		
32	3								i		
35	2								i		
37	1								i		
38	1								i		
	1								j		

Dogfish, Sp	iny	Total Weight:	100	Sub-Sample Weight:	73	
Length	Count					
70	1				i	
72	2				i	
74	1				i	
77	1				i	
78	2				i	
80	4				j	
81	2				j	
82	3				j	
83	1				j	
86	5				j	
88	3				j	
89	1				j	
91	1				i	
92	1				i	
93	1				i	
95	1				i	

Hake, Red		Total Weight:	80	Sub-Sample Weight:	7
Length	Count				
18	1				j.
21	1				j.
22	5				j
23	8				i .
24	13				i
25	11				i i
26	7				j
27	4				i
28	6				i
29	1				i
30	1				i
34	1				i
36	1				j.
33	1				i

Skate, Little	2	Total Weight:	74	Sub-Sample Weight:	9
Length	Count				
46	1				i
43	1				i
48	1				i
51	1				i
47	3				i
49	2				i
50	2				i
45	2				j

Squid, Atlar	ntic Long-fin	Total W	eight:	12	Sub-Sample Weight:	3.5
Length	Count					
7	2					i
8	1					i
9	8					i
10	14					j
11	15					i
12	6					i
13	5					i
14	3					i
15	1					j
16	1					i

Flounder, F	ourspot	Total Weight:	10	Sub-Sample Weight:	0
Length	Count				
18	1				i
19	1				j.
21	1				i
22	1				i -
23	1				i
24	1				1
25	5				i
26	5				i -
27	4				i
28	5				i -
29	2				i
30	5				1
31	3				i
32	5				i
34	3				i
36	1				i -
40	1				i

Skate, Barn	door	Total Weight:	7	Sub-Sample Weight:	0
Length	Count				
59	1				j
55	2				j
57	1				i
50	1				ì
33	1				i
58	1				ì
54	1				i
24	1				ì
25	1				j
51	1				i
39	1				i

Dogfish, Sm	iooth	Total Weight:	4	Sub-Sample Weight:	0
Length	Count				
108	1				i

Flounder, Gu	lfstream	То	tal Weight:		2	Sub-S	Sample W	eight:		0	
Length	Count										
13	8								j		
14	9								j		
15	10								j		
16	8								j		
17	16								j		
18	4								j		
19	1								i		
Floundar Wi	nter (Blackba	To	tal Weight:		0.7	Sub (Sample W	oight:		0	
		10	tai vveigiit.		0.7	3ub-3	sample w	eigiit.		U	
Length	Count										
36	1								i		
29	1)		
Flounder, Ye	lowtail	To	tal Weight:	(0.3	Sub-S	Sample W	eight:		0	
Length	Count										
38	1								j		
Tow 7	Date	9/23/2010	Start Tow	Time:	6:35	Lat N 4	3.51.275	Long:	W 71.19.49	Depth:	30 fm
Tow 7 Gear: Standard	_			Time: Time:	6:35 7:35				W 71.19.49 W 71.24.14	Depth:	30 fm 30 fm
	d Recorder:	C Rillaha		Time:				Long:		Depth:	30 fm
Gear: Standard	d Recorder: y: Partly Clou	C Rillaha Wind: 4	End Tow	Time:		Lat N 4 Warp:	0.50.817	Long:	W 71.24.14	Depth:	30 fm
Gear: Standard Conditions: Sk	d Recorder: y: Partly Clou	C Rillaha Wind: 4	End Tow Wind Dir.	Time:	7:35	Lat N 4 Warp:	0.50.817 150 fm	Long:	W 71.24.14	Depth:	30 fm
Gear: Standard Conditions: Sk Hake, Silver (Recorder: y: Partly Clou Whiting)	C Rillaha Wind: 4	End Tow Wind Dir.	Time:	7:35	Lat N 4 Warp:	0.50.817 150 fm	Long:	W 71.24.14	Depth:	30 fm
Gear: Standard Conditions: Sk Hake, Silver (Length	Recorder: y: Partly Clou Whiting) Count	C Rillaha Wind: 4	End Tow Wind Dir.	Time:	7:35	Lat N 4 Warp:	0.50.817 150 fm	Long:	W 71.24.14 Tow Speed:	Depth:	30 fm
Gear: Standard Conditions: Sk Hake, Silver (Length 17	Recorder: y: Partly Clou Whiting) Count	C Rillaha Wind: 4	End Tow Wind Dir.	Time:	7:35	Lat N 4 Warp:	0.50.817 150 fm	Long:	W 71.24.14 Tow Speed:	Depth:	30 fm
Gear: Standard Conditions: Sk Hake, Silver (Length 17 18	Recorder: y: Partly Clou Whiting) Count 1	C Rillaha Wind: 4	End Tow Wind Dir.	Time:	7:35	Lat N 4 Warp:	0.50.817 150 fm	Long:	W 71.24.14 Tow Speed:	Depth:	30 fm
Gear: Standard Conditions: Sk Hake, Silver (Length 17 18 19	Recorder: y: Partly Cloud Whiting) Count 1 1 8	C Rillaha Wind: 4	End Tow Wind Dir.	Time:	7:35	Lat N 4 Warp:	0.50.817 150 fm	Long:	W 71.24.14 Tow Speed:	Depth:	30 fm
Gear: Standard Conditions: Sk Hake, Silver (Length 17 18 19 20	Recorder: y: Partly Clou Whiting) Count 1 1 8 7	C Rillaha Wind: 4	End Tow Wind Dir.	Time:	7:35	Lat N 4 Warp:	0.50.817 150 fm	Long:	W 71.24.14 Tow Speed:	Depth:	30 fm
Gear: Standard Conditions: Sk Hake, Silver (Length 17 18 19 20 21	Recorder: y: Partly Clou Whiting) Count 1 1 8 7 15	C Rillaha Wind: 4	End Tow Wind Dir.	Time:	7:35	Lat N 4 Warp:	0.50.817 150 fm	Long:	W 71.24.14 Tow Speed:	Depth:	30 fm
Gear: Standard Conditions: Sk Hake, Silver (Length 17 18 19 20 21 22	Recorder: y: Partly Clou Whiting) Count 1 1 8 7 15 6	C Rillaha Wind: 4	End Tow Wind Dir.	Time:	7:35	Lat N 4 Warp:	0.50.817 150 fm	Long:	W 71.24.14 Tow Speed:	Depth:	30 fm
Gear: Standard Conditions: Sk Hake, Silver (Length 17 18 19 20 21 22 23	Recorder: y: Partly Clou Whiting) Count 1 1 8 7 15 6	C Rillaha Wind: 4	End Tow Wind Dir.	Time:	7:35	Lat N 4 Warp:	0.50.817 150 fm	Long:	W 71.24.14 Tow Speed:	Depth:	30 fm
Gear: Standard Conditions: Sk Hake, Silver (Length 17 18 19 20 21 22 23 25	Recorder: y: Partly Cloud Whiting) Count 1 1 8 7 15 6 6 1	C Rillaha Wind: 4	End Tow Wind Dir.	Time:	7:35	Lat N 4 Warp:	0.50.817 150 fm	Long:	W 71.24.14 Tow Speed:	Depth:	30 fm
Gear: Standard Conditions: Sk Hake, Silver (Length 17 18 19 20 21 22 23 25 26	Recorder: y: Partly Cloud Whiting) Count 1 1 8 7 15 6 6 1 9	C Rillaha Wind: 4	End Tow Wind Dir.	Time:	7:35	Lat N 4 Warp:	0.50.817 150 fm	Long:	W 71.24.14 Tow Speed:	Depth:	30 fm
Gear: Standard Conditions: Sk Hake, Silver (Length 17 18 19 20 21 22 23 25 26 27	Recorder: y: Partly Cloud Whiting) Count 1 1 8 7 15 6 6 1 9 3	C Rillaha Wind: 4	End Tow Wind Dir.	Time:	7:35	Lat N 4 Warp:	0.50.817 150 fm	Long:	W 71.24.14 Tow Speed:	Depth:	30 fm
Gear: Standard Conditions: Sk Hake, Silver (Length 17 18 19 20 21 22 23 25 26 27 28	Recorder: y: Partly Cloud Whiting) Count 1 1 8 7 15 6 6 1 9 3 5	C Rillaha Wind: 4	End Tow Wind Dir.	Time:	7:35	Lat N 4 Warp:	0.50.817 150 fm	Long:	W 71.24.14 Tow Speed:	Depth:	30 fm

Dogfish, Sp	iny	Total Weight:	756	Sub-Sample Weight:	55
Length	Count				
68	1				,
72	1				,
73	1				
76	2				r
77	4				r
79	1				r
80	1				
81	1				r
82	2				r
83	2				r
86	4				r
87	2				*
88	1				•
89	2				•
90	1				•
91	1				1
92	1				r
96	1				r
97	1				•

Butterfish		Total Weight:	330	Sub-Sample Weight:	2
Length	Count				
12	1				,
13	5				
14	20				,
15	22				,
16	8				,
17	2				

Hake, Red		Total Weight:	91	Sub-Sample Weight:	3
Length	Count				
17	1				,
18	3				,
19	3				,
20	2				,
21	2				,
22	4				,
23	4				,
24	4				,
25	5				,
26	2				,
27	2				,
28	3				ı
30	1				ı
31	1				r
33	1				r
34	1				r
35	3				r
38	2				,
39	1				· ·

Skate, Little	9	Total Weight:	55	Sub-Sample Weight:	23
Length	Count				
40	2				,
41	1				,
42	2				,
43	1				,
44	1				
45	1				•
46	5				,
47	3				•
48	4				
49	2				,
50	1				,
52	1				,

Flounder, V	Vinter (Blackba	Total Weight:	22	Sub-Sample Weight:	9
Length	Count				
23	1				
31	1				,
33	1				,
34	1				•
35	1				,
36	1				,
37	4				,
38	1				,
39	3				,
40	1				,
41	2				
42	2				,
44	1				,
45	4				,

Flounder, Y	'ellowtail	Total Weight:	18	Sub-Sample Weight:	9
Length	Count				
31	1				,
33	1				,
34	2				,
36	3				,
37	2				,
38	3				,
39	4				,
41	1				,
43	2				,
44	2				,
46	1				

Total Weight: 4 Sub-Sample Weight: 2						
8 3 9 3 10 2 11 5 12 6 13 6 14 5 15 1 Flounder, Fourspot Total Weight: 3.5 Sub-Sample Weight: 0 Length Count 21 2 22 2 24 2 26 1 27 3 28 1 31 1 33 1 35 1 Skate, Barndoor Total Weight: 2 Sub-Sample Weight: 0 Length Count 42 1 49 1 50 1 55 1 Monkfish Total Weight: 1 Sub-Sample Weight: 0 Length Count 48 1	Squid,	Atlantic Long-fin	Total Weight:	4	Sub-Sample Weight:	2
9 3 10 2 11 5 12 6 13 6 14 5 15 1 Flounder, Fourspot Total Weight: 3.5 Sub-Sample Weight: 0 Length Count 21 2 22 2 24 2 26 1 27 3 28 1 31 1 33 1 33 1 35 1 Skate, Barndoor Total Weight: 2 Sub-Sample Weight: 0 Length Count 42 1 49 1 50 1 55 1 Monkfish Total Weight: 1 Sub-Sample Weight: 0	Lengt	h Count				
10	8	3				•
11	9	3				7
12	10	2				•
13	11	5				
Total Weight: Sub-Sample Weight: O	12	6				•
Flounder, Fourspot	13	6				7
Flounder, Fourspot	14	5				•
Length Count 21 2 22 2 24 2 26 1 27 3 28 1 31 1 33 1 35 1 Skate, Barndoor Total Weight: 2 Sub-Sample Weight: 0 Length Count 42 1 49 1 ' 50 1 ' 55 1 ' Monkfish Total Weight: 1 Sub-Sample Weight: 0 Length Count 48 1 '	15	1				•
Length Count 21 2 22 2 24 2 26 1 27 3 28 1 31 1 33 1 35 1 Skate, Barndoor Total Weight: 2 Sub-Sample Weight: 0 Length Count 42 1 49 1 ' 50 1 ' 55 1 ' Monkfish Total Weight: 1 Sub-Sample Weight: 0 Length Count 48 1 '						
21			Total Weight:	3.5	Sub-Sample Weight:	0
22 2 24 2 26 1 27 3 28 1 31 1 33 1 35 1 Skate, Barndoor Total Weight: 2 Sub-Sample Weight: 0 Length Count 42						
24 2 26 1 27 3 28 1 31 1 33 1 35 1 Skate, Barndoor Total Weight: 2 Sub-Sample Weight: 0 Length Count 42 1 ' 49 1 ' 50 1 ' 55 1 ' Monkfish Total Weight: 1 Sub-Sample Weight: 0 Length Count 48 1 '	21	2				,
26 1 27 3 28 1 31 1 33 1 35 1 Skate, Barndoor Total Weight: 2 Sub-Sample Weight: 0 Length Count 42 1 49 1 50 1 55 1 Monkfish Total Weight: 1 Sub-Sample Weight: 0 Length Count 48 1	22	2				,
27 3	24	2				•
28 1 31 1 33 1 35 1 Skate, Barndoor Total Weight: 2 Sub-Sample Weight: 0 Length Count 42 1 49 1 50 1 55 1 Monkfish Total Weight: 1 Sub-Sample Weight: 0 Length Count 48 1	26	1				'
31	27	3				•
33 1 35 1 Skate, Barndoor Total Weight: 2 Sub-Sample Weight: 0 Length Count 42 1 49 1 50 1 55 1 Monkfish Total Weight: 1 Sub-Sample Weight: 0 Length Count 48 1	28	1				,
Skate, Barndoor Total Weight: 2 Sub-Sample Weight: 0 Length Count 42 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	31	1				,
Skate, Barndoor Total Weight: 2 Sub-Sample Weight: 0 Length Count 42 1 49 1 50 1 55 1 Monkfish Total Weight: 1 Sub-Sample Weight: 0 Length Count 48 1	33	1				,
Length Count 42 1 49 1 50 1 55 1 Monkfish Total Weight: 1 Sub-Sample Weight: 0 Length Count 48 1	35	1				
Length Count 42 1 49 1 50 1 55 1 Monkfish Total Weight: 1 Sub-Sample Weight: 0 Length Count 48 1	Skato I	Parndoor	Total Weight:	2	Suh-Sample Weight	0
42 1 49 1 50 1 55 1 Monkfish Total Weight: 1 Sub-Sample Weight: 0 Length Count 48 1			Total Weight.	2	Jub-Sample Weight.	0
49 1 50 1 55 1 Monkfish Total Weight: 1 Sub-Sample Weight: 0 Length Count 48 1						•
50 1 55 1 55 1 Sub-Sample Weight: 0 Length Count 48 1						
Monkfish Total Weight: 1 Sub-Sample Weight: 0 Length Count 48 1						
Monkfish Total Weight: 1 Sub-Sample Weight: 0 Length Count 48 1						
Length Count 48 1	55	1				
48 1	Monkfi	sh	Total Weight:	1	Sub-Sample Weight:	0
	Lengt	h Count				
Tow 8 Date 9/23/2010 Start Tow Time: 8:35 Lat N 40.50.748 Long: W 71.23.76 Depth: 30 fm	48	1				,
Tow 8 Date 9/23/2010 Start Tow Time: 8:35 Lat N 40.50.748 Long: W 71.23.76 Depth: 30 fm						
	Tow	8 Date	9/23/2010 Start Tow	Time: 8:35	Lat N 40.50.748 Long:	W 71.23.76 Depth: 30 fm

Gear: Standard

Recorder: C Rillaha

Conditions: Sky: Partly Clou Wind:

End Tow Time:

4 Wind Dir. SW

9:35 Lat N 40.51.227 Long: W 71.19.80

150 fm

Warp:

30 fm

Depth:

3.2 **kt**

Tow Speed:

Dogfish, Sp	iny	Total Weight:	630	Sub-Sample Weight:	52
Length	Count				
73	1				}
75	1				}
76	1				}
78	1				}
79	3				}
80	2				}
81	1				}
82	2				}
83	2				}
84	2				}
85	2				}
86	4				}
87	1				}
89	3				}
90	1				}
92	1				}
96	1				}

Butterfish		Total Weight	: 432	Sub-Sample Weight:	2
Length	Count				
12	3				}
13	18				}
14	24				}
15	20				}
16	7				}

Hake, Silver	(Whiting)	Total Weight:	250	Sub-Sample Weight:	4.5
Length	Count				
16	1				1
18	5				1
19	17				
20	14				1
21	10				
22	7				1
23	5				
24	2				1
25	4				
27	4				1
28	3				
29	2				
30	5				1
31	1				
33	1				
36	1				;

Hake, Red		Total Weight:	148	Sub-Sample Weight:	5.5
Length	Count				
19	2				
20	4				3
21	14				
22	14				
23	9				
24	2				
25	5				
26	3				
27	3				
28	3				
29	3				
31	4				1
32	3				1
33	1				1
34	2				3
35	1				4
38	1				1

Skate, Little	2	Total Weight:	20.5	Sub-Sample Weight:	0
Length	Count				
25	1				1
32	1				}
33	1				1
34	1				1
36	1				;
37	2				1
39	2				1
40	4				1
41	5				;
43	2				1
44	7				1
45	4				1
46	3				i .
47	3				1
48	3				}
49	5				;
50	3				}
51	5				;
52	1				1

Flounder, V	Vinter (Blackba	Total Weight:	9	Sub-Sample Weight:	0
Length	Count				
26	2				1
28	1				1
33	1				1
34	1				1
36	2				1
37	1				1
38	2				1
40	1				1
43	1				1
46	1				1
49	2				}

		Total Weight:	9	Sub-Sample Weight:	0
Length	Count				
21	1				1
22	1				3
23	2				1
28	3				3
30	1				1
32	2				3
34	1				1
36	1				3
37	1				1
38	1				3
39	3				1
40	1				3
41	2				1
44	2				1
45	2				1
46	1				
47	2				1

Dogfish, Sm	nooth	Total Weight:	6	Sub-Sample Weight:	0	
Length	Count					
92	1				1	
99	1				1	
98	1				}	

Skate, Win	ter	Total Weight:	4.5	Sub-Sample Weight:	0	
Length	Count					
81	1				}	
71	1				}	

Skate, Barr	ndoor	Total Weight:	2.5	Sub-Sample Weight:	0	
Length	Count					
60	1				1	
69	1				1	

Flounder, F	ourspot	To	otal Weight:	2	Sub-Sample Weight:	0	
Length	Count						
22	2					}	
24	1					}	
25	1					}	
26	1					+	
27	1					}	
28	1					1	
29	3					1	
30	1					1	
31	1					1	
32	1					1	
33	1					1	
34	1					}	
	5.	1/20/2011	C: . .			W 70 40 46 B . II	

34	1								1			
Tow 1 Gear: Large M		4/30/2011 CR	Start Tow End Tow			-			W 70.13.16 W 70.14.59	Depth:	61 58	fm fm
Conditions: S	ky: Mostly Clo	Wind:	3 Wind Dir.	NNW		Warp	o: 250 f	m	Tow Speed:	3.4 k	t	
Dogfish, Spir	ny	Т	otal Weight:	12	.70	Su	ıb-Sample '	Weight:	4	11.5		
Length	Count											
61	2								1			
63	1								1			
68	2								1			
70	2								1			
71	3								1			
72	4								1			
73	5								1			
74	4											
75	2								1			
77	3											

)

)

Scup		Total Weight:	525	Sub-Sample Weight:	15.9
Length	Count				
19	1				1
20	1				1
21	2				1
22	6				1
23	8				1
24	7				1
25	6				1
27	7				1
26	5				1
28	1				1
29	1				1
30	1				1
31	1				1

Hake, Silve	r (Whiting)	Total Weight	:: 159	Sub-Sample Weight:	7.4	
Length	Count					
22	6				1	
23	11				1	
24	15				1	
25	13				1	
26	8				1	
27	6				1	
28	2				1	
29	1				1	
30	1					
31	1				1	
33	1				1	
39	1				1	

Hake, Red		Total Weight:	40.5	Sub-Sample Weight:	1.9
Length	Count				
29	5				
32	1				ı
35	1				ı
36	1				ı
23	1				
26	1				ı

Herring, At	lantic	Total Weight:	29	Sub-Sample Weight:	2.1
Length	Count				
25	1				1
26	2				1
28	1				
37	1				1

Butterfish		Total Weight:	28.9	Sub-Sample Weight:	1.2
Length	Count				
12	4				
13	4				
14	4				
15	4				
16	3				
17	2				

Black Sea b	ass	Total Weight:	21.2	Sub-Sample Weight:	9.6
Length	Count				
23	2				1
24	2				1
33	1				1
34	2				1
35	1				1
36	4				1
37	1				1
40	3				1
41	1				1
42	1				1

Flounder, S	Summer (Fluke)	Total Weight:	4.5	Sub-Sample Weight:	
Length	Count				
34	2				ı
37	2				I
39	1				ı
57	1				I
62	1				ı
Monkfish		Total Weight:	2.6	Sub-Sample Weight:	
Length	Count				
40	1				ı
46	1				I.
Tow 2	Date	4 /20 /2044 CL - 1 T			
		4/30/2011 Start Tow		Lat N 40.12.730 Long:	
Gear: Large	Me Recorder:	CR End Tow	Time: 12:08	Lat N 40.13.234 Long:	W 71.09.20 Depth: #### fn
Gear: Large		CR End Tow	Time: 12:08		
Gear: Large	Me Recorder: Sky: Mostly Clo	CR End Tow	Time: 12:08	Lat N 40.13.234 Long:	W 71.09.20 Depth: #### fn
Gear: Large Conditions:	Me Recorder: Sky: Mostly Clo	CR End Tow Wind: 3 Wind Dir.	Time: 12:08	Lat N 40.13.234 Long: Warp: 250 fm	W 71.09.20 Depth: #### fn Tow Speed: 2.7 kt
Gear: Large Conditions: Dogfish, Sp	Me Recorder: Sky: Mostly Clo	CR End Tow Wind: 3 Wind Dir.	Time: 12:08	Lat N 40.13.234 Long: Warp: 250 fm	W 71.09.20 Depth: #### fn Tow Speed: 2.7 kt
Gear: Large Conditions: Dogfish, Sp Length	Me Recorder: Sky: Mostly Clo biny Count	CR End Tow Wind: 3 Wind Dir.	Time: 12:08	Lat N 40.13.234 Long: Warp: 250 fm	W 71.09.20 Depth: #### fn Tow Speed: 2.7 kt 49.3
Gear: Large Conditions: Dogfish, Sp Length 68	Me Recorder: Sky: Mostly Clo Diny Count 1	CR End Tow Wind: 3 Wind Dir.	Time: 12:08	Lat N 40.13.234 Long: Warp: 250 fm	W 71.09.20 Depth: #### fn Tow Speed: 2.7 kt 49.3
Gear: Large Conditions: Dogfish, Sp Length 68 69	Me Recorder: Sky: Mostly Clo Diny Count 1 1	CR End Tow Wind: 3 Wind Dir.	Time: 12:08	Lat N 40.13.234 Long: Warp: 250 fm	W 71.09.20 Depth: #### fn Tow Speed: 2.7 kt 49.3
Gear: Large Conditions: Dogfish, Sp Length 68 69 73	Me Recorder: Sky: Mostly Clo Diny Count 1 1 2	CR End Tow Wind: 3 Wind Dir.	Time: 12:08	Lat N 40.13.234 Long: Warp: 250 fm	W 71.09.20 Depth: #### fn Tow Speed: 2.7 kt 49.3
Gear: Large Conditions: Dogfish, Sp Length 68 69 73 74	Me Recorder: Sky: Mostly Clo Diny Count 1 1 2 6	CR End Tow Wind: 3 Wind Dir.	Time: 12:08	Lat N 40.13.234 Long: Warp: 250 fm	W 71.09.20 Depth: #### fn Tow Speed: 2.7 kt 49.3
Gear: Large Conditions: Dogfish, Sp Length 68 69 73 74 75	Me Recorder: Sky: Mostly Clo Diny Count 1 1 2 6 5	CR End Tow Wind: 3 Wind Dir.	Time: 12:08	Lat N 40.13.234 Long: Warp: 250 fm	W 71.09.20 Depth: #### fn Tow Speed: 2.7 kt 49.3
Gear: Large Conditions: Dogfish, Sp Length 68 69 73 74 75 76	Me Recorder: Sky: Mostly Clo Diny Count 1 1 2 6 5 5	CR End Tow Wind: 3 Wind Dir.	Time: 12:08	Lat N 40.13.234 Long: Warp: 250 fm	W 71.09.20 Depth: #### fn Tow Speed: 2.7 kt 49.3
Gear: Large Conditions: Dogfish, Sp Length 68 69 73 74 75 76 77	Me Recorder: Sky: Mostly Clo Diny Count 1 1 2 6 5 5 3	CR End Tow Wind: 3 Wind Dir.	Time: 12:08	Lat N 40.13.234 Long: Warp: 250 fm	W 71.09.20 Depth: #### fn Tow Speed: 2.7 kt 49.3

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Scup		Total Weight:	319.9	Sub-Sample Weight:	12.6	
Length	Count					
18	1				1	
20	1				1	
21	1				1	
22	2				1	
23	1				1	
24	5				1	
25	4				1	
26	1				1	
27	2				1	
28	1				1	
29	4				1	
30	1				1	
31	2				1	
32	2)	
34	1)	

Hake, Silve	r (Whiting)	Total Weight	: 258.2	Sub-Sample Weight:	4	
Length	Count					
21	1)	
22	5)	
23	8)	
24	15)	
25	9)	
26	7)	
27	4)	
28	1)	
33	1)	

Butterfish		Total Wei	ight: 26	.8 Sub-Sample Weight	1.4
Length	Count				
9	2				1
10	4				1
11	4				1
12	1				1
19	6				1
14	5				1
15	2				T.
16	5				1
17	2				1
18	1				1

Hake, Red		Total Weight:	18.7	Sub-Sample Weight:	1.2
Length	Count				
24	1				ı
26	1				1
27	2				ı
28	2				1
29	2				ı
30	3				
31	1				ı
33	1				
35	1				l

Squid, Atla	ntic Long-fin	Total Weigh	t: 17.8	Sub-Sample Weight:	0.5
Length	Count				
9	1				
10	1				1
11	1				ı
12	1				1
15	1				1
16	1				
20	1				I

Flound	er, Sum	mer (Fluke)		Tota	ıl Weight:		4.2	S	ub-Sam	ple W	eight:			
Lengtl	h (Count												
40		1)		
45		1										1		
	g, Atlant			Tota	l Weight:		0.9	S	ub-Sam	iple W	eight:			
Lengt		Count												
24		1)		
25		3)		
26		2										ı		
27		3										1		
28		1										ı		
31		1										1		
Black S	ea bass			Tota	ıl Weight:		0.7	S	ub-Sam	ple W	eight:			
Lengtl	h (Count												
22		1										1		
23		1										1		
24		1										1		
25		1										1		
Flound	or Four	rsnot		Tota	J Woight:		0.5	c	ub-Sam	nla M	oiaht:			
Flound				TOLA	ıl Weight:		0.5	3	ub-Saii	ipie w	eignt:			
Lengtl		Count												
22		1										,		
26		1										,		
27		1										,		
29		1										1		
Flound	er, Gulfs	stream		Tota	ıl Weight:		0.4	S	ub-Sam	ple W	eight:			
Lengt	h (Count												
14		2)		
15		7										1		
16		5)		
17		1)		
18		1										ì		
Tow	3	Date	4/30/2011	L	Start Tow	Time:	13:30	Lat	N 40.1	0.700	Long:	W 71.07.52	Depth:	70 fm
Gear: La					End Tow	Time:	14:00	Lat	N 40.1	0.829	Long:	W 71.05.61	Depth:	71 fm
		Overcast	Wind:	3	Wind Dir.	NNW		War	p: 3	50 fm		Tow Speed:	2.7 k	t

Dogfish, Sp	iny	Total Weight:	49	Sub-Sample Weight:	6.5
Length	Count				
25	2				
26	2				
27	3				
28	4				
29	3				
30	5				
31	2				
32	3				
33	3				
34	1				
35	6				
36	4				
40	2				
42	1				

Butterfish		Total Weight:	25	Sub-Sample Weight:	5
Length	Count				
9	3				
10	7				
11	7				·
12	8				
13	6				·
14	7				
15	6				·
16	9				
17	4				
18	1				

Hake, Silve	r (Whiting)	Total Weight:	22.5	Sub-Sample Weight:	5.1
Length	Count				
22	2				
23	5				
24	8				
25	1				
26	2				
27	3				
29	1				
30	1				
31	4				

Squid, Atla	ntic Long-fin	Total Weight:	18	Sub-Sample Weight:	3.6
Length	Count				
4	2				
5	1				
6	3				
7	3				
8	2				
9	1				
10	3				
11	2				
12	1				
15	2				
16	2				
17	1				
18	3				
19	3				
20	1				
24	1				

Scup		Total Weight:	10	Sub-Sample Weight:	1
Length	Count				
33	1				·

Hake, Red		Total Weight:	7.2	Sub-Sample Weight:	3.5
Length	Count				
24	1				
25	1				
26	1				
18	1				
29	2				
30	1				
32	1				
34	1				·

Flounder, S	Summer (Fluke)	Total Weight:	6.9	Sub-Sample Weight:	
Length	Count				
33	1				
39	1				
47	1				
48	1				
59	1				

Flounder, F	ourspot	Total Weight:	3.6	Sub-Sample Weight:	
Length	Count				
24	1				
25	1				
26	2				
29	2				
33	1				
37	1				
38	1				

Black Sea b	ass	Total Weight:	3.1	Sub-Sample Weight:	
Length	Count				
29	2				
31	1				
32	1				

Monkfish		Total Weight:	2.9	Sub-Sample Weight:	
Length	Count				
42	1				

Tow	4		Date	4	1/30/2011	L	Start Tow	Time:	15:05	Lat	N 4	0.12.730	Long:	W 71.06.46	Depth:	71	fm
Gear:	Large	Ме	Record	der:	CR		End Tow	Time:	15:35	Lat	N 4	0.10.429	Long:	W 71.08.50	Depth:	70	fm
Condit	tions:	Sky:	Overca	st	Wind:	3	Wind Dir.	NNW		War	p:	300 fm		Tow Speed:	2.9 k	t	
Dog	gfish, S	piny				Tot	al Weight:		88	Sı	ub-S	Sample W	eight:		6.6		
Le	ngth	C	Count														
20	6		1														
2	7	4	4														
28	8	(6														
29	9	:	3														
30	0	:	1											1			
3:	1	:	2														
32	2	4	4											1			
33	3	;	3											1			
34	4		10											1			
3!	5		2														
30	6	:	2														

Butterfish		Total Weigh	nt: 80	Sub-Sample Weight:	3.2
Length	Count				
9	1				1
10	3				:
11	6				!
12	7				;
13	6				:
14	7				:
15	6				:
16	12				:
17	8				:
18	1				:

Dogfish, Sn	nooth	Total Weight:	22.3	Sub-Sample Weight:	
Length	Count				
80	1				
82	1				
87	1				
88	1				
92	2				
96	1				
102	1				
104	1				

Squid, Atla	ntic Long-fin	Total Weight:	22	Sub-Sample Weight:	2.6
Length	Count				
5	2				
6	1				1
7	3				
8	2				
9	1				
10	1				:
11	2				
12	1				1
13	2				1
14	2				:
16	1				1
18	2				1
19	3				1
21	1				1
22	1				1
23	2				:
24	1				1
25	1				

Hake, Silver	(Whiting)	Total Weight:	8	Sub-Sample Weight:	6
Length	Count				
23	2				
24	1				
25	2				•
26	1				
27	1				•
29	1				
30	3				•
31	1				
32	4				•
33	1				
34	3				•
35	2				
38	1				
39	1				
40	1				1

Hake, Red		Total Weight:	2	Sub-Sample Weight:	1.2	
Length	Count					
21	1					
24	1					
25	1					
26	1					
28	1					
29	1					
30	1				:	
32	1				1	

Flounder, S	ummer (Fluke)	Total Weight: 1	.8 Sub-Sample Weight:
Length	Count		
39	1		
40	1		1
45	1		1

Black Sea b	ass	Total Weight: 1.8	Sub-Sample Weight:	
Length	Count			
30	3			
35	1			:
45	1			

Flounder, F	ourspot	Total Weight:	1.1	Sub-Sample Weight:	
Length	Count				
25	1				
26	1				
28	1				
30	1				
34	2				

Herring, At	lantic	Total Weight:	0.5	Sub-Sample Weight:	
Length	Count				
27	1				
30	1				

Mackeral, A	Atlantic	Total Weight:	0.5	Sub-Sample Weight:	
Length	Count				
30	1				
32	1				

Tow	6		Date	4/3	30/2011	S	Start Tow	Time:	18:15	Lat	N 40.11.3	310 Lon	g: W 71.02.38	Depth:	72	fm
Gear:	Large	Me	Record	der: CR	R	E	nd Tow	Time:	18:45	Lat	N 40.11.3	366 Lon	g: W 71.06.26	Depth:	73	fm
Conditi	ions:	Sky:	Overca	st V	Vind:	2 V	Wind Dir.	NNW		War	p : 300	fm	Tow Speed	: 3.2 k	t	

Dogfish, Sp	iny	Total Weight:	89.9	Sub-Sample Weight:	4.8
Length	Count				
24	1				+
25	2				1
26	3				1
27	2				1
28	5				1
29	7				
30	4				1
31	2				1
32	2				1
33	5				1
34	2				i
35	2				1
36	1				i
37	3				1
71	2				i
72	1				i .
74	1				i
75	2				1
76	1				i
77	2				
78	1				i
79	1				1
95	1				i

Butterfish		Total Weigh	nt: 63.8	Sub-Sample Weight:	3.3
Length	Count				
9	2				
10	9				1
11	6				i
12	2				1
13	10				
14	13				i .
15	10				i
16	6				
17	2				1
19	1				1

Hake, Silve	r (Whiting)	Total Weight:	28.2	Sub-Sample Weight:	3
Length	Count				
22	1				1
23	3				1
24	9				1
25	6				1
26	3				1
29	1				1
30	1				1
31	1				1
32	1				+

Squid, Atlai	ntic Long-fin	Total Weight:	20.9	Sub-Sample Weight:	2.2
Length	Count				
4	2				-
5	8				1
6	13				3
7	19				1
8	11				
9	6				1
10	4				
11	2				1
14	1				
16	1				1
17	1				
18	1				1
19	2				1
20	1				1
25	1				3

Skate, Clearnose Total Weight: 9.2 Sub-Sample Weight:	Skate, Clearnose	Total Weight:	9.2	Sub-Sample Weight:		
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Black Sea ba	iss	Tot	al Weight:		3	Sı	ub-Sample We	eight:				
Length	Count											
23	1								1			
28	3								;			
30	2								1			
32	1								-			
33	1								1			
Flounder, Fo		lot	al Weight:	4	2.1	Si	ub-Sample We	eight:				
Length	Count											
24	1								i			
26	3								İ			
30	2								i			
31	1								1			
34	3								1			
Hake, Red		Tot	al Weight:		2.1	Sı	ub-Sample We	eight:		1		
Length	Count	100	ar Weight.	•		υ,	ab Jampie We					
26	1											
27	3								1			
29	1								1			
30	1								İ			
Weakfish		Tot	al Weight:	-	1.7	Sı	ub-Sample We	eight:				
Length	Count											
1	2								1			
John Dory		Tot	al Weight:		0.6	Sı	ub-Sample We	eight:				
Length	Count											
1	2								i			
Flounder, Su	ummer (Fluke)	Tot	al Weight:	(0.5	Sı	ub-Sample We	eight:				
Length	Count											
39	1								;			
Tow 5	Date	4/30/2011	Start Tow	Time:	17:00	Lat	N 40.10.900	Long:	W 71.05.53	Depth:	72	fm
Gear: Large N			End Tow				N 40.11.106	_		Depth:	72	

Conditions: Sky: Overcast

Wind:

2 Wind Dir. NNW

Warp:

300 fm

Tow Speed:

2.8 kt

Butterfish		Total Weight:	129	Sub-Sample Weight:	2.9
Length	Count				
9	8				
10	8				
11	6				
12	7				
13	5				
14	13				
15	6				
16	5				
17	3				
18	1				

Dogfish, Sp	iny	Total Weight:	65 Sub-Sample Weight:	10.5
Length	Count			
24	1			
25	2			
26	3			
27	5			
28	5			
29	5			
32	3			
39	1			
40	1			
67	1			
73	1			
79	1			
80	1			

Hake, Silve	r (Whiting)	Total Weight:	35.5	Sub-Sample Weight:	3.1
Length	Count				
23	5				
24	6				
26	1				
27	5				
28	2				
29	1				
31	1				
32	1				
33	1				

Squid, Atla	ntic Long-fin	Total Weight:	24	Sub-Sample Weight:	2.1
Length	Count				
4	1				
5	2				
6	8				
7	5				
8	10				
9	8				
10	5				
11	3				
12	1				
17	1				
20	1				
21	2				
22	1				
23	1				
27	1				

Skate, Barn	door	Total Weight:	6.7	Sub-Sample Weight:	
Length	Count				
1	1				

Flounder, S	ummer (Fluke)	Total Weight:	4.9	Sub-Sample Weight:	
Length	Count				
35	1				·
39	1				
40	1				
44	1				
47	1				
51	1				

Hake, Red		Total Weight:	3.5	Sub-Sample Weight:	2.6
Length	Count				
24	1				
25	2				
26	1				
27	2				
28	1				·
29	3				
30	2				
31	2				
22	2				

Flounder, F	ourspot	Total Weight:	3.2	Sub-Sample Weight:	
Length	Count				
22	2				
23	1				
25	1				
26	1				
27	3				
28	3				
29	1				
30	1				
31	1				
34	3				
35	1				

Blac	k Sea l	bass				Tota	al Weight:		3		Sı	ub-Sa	mple W	eight:						
Ler	ngth	С	ount																	
25		1	L																	
32		1	L																	
39		1	L																	
35		1	L													•				
49		1	L																	
Mon	ıkfish					Tota	al Weight:		2.5		Sı	ıb-Sa	mple W	/eight:						
	ngth	C	ount											0.8						
58		1																		
		_	-																	
Dogt	fish, Sı	moot	h			Tota	al Weight:		2		Sı	ub-Sa	mple W	eight:						
Ler	ngth	С	ount																	
83		1	L																	
Scup)					Tota	al Weight:		1		Sı	ub-Sa	mple W	eight:						
Ler	ngth	С	ount																	
34		1	L																	
John	Dory					Tota	al Weight:		0.5		Sı	ub-Sa	mple W	eight:						
Ler	ngth	С	ount																	
31		1																		
Tow	7		Date		5/1/201	1	Start Tow	Time:					.40.430					-	35	
Gear:			Record	ler:	CR		End Tow			6:40			.40.650		_				35	fm
Conditi	ons:	Sky:	Clear		Wind:	2	Wind Dir.	NE			War	p:	175 fm	1	Tow S	Speed:	2.	8 kt		

Length		Total Weight:	27.2	Sub-Sample Weight:	7.9
Length	Count				
16	10				ì
17	11				
18	8				ì
19	2				
20	2				i
21	6				1
22	8				i
23	11				1
24	14				ì
25	5				
26	4				ì
27	2				
28	1				ì
31	2				
33	2				ì
36	1				
37	1				i
39	1				i

Monkfish		Total Weight:	26.4	Sub-Sample Weight:		
Length	Count					
45	1				j	
31	1					
97	1				; }	

Skate, Little		Tota	l Weight:	3.9	Sub-Sample Weight:	
Length	Count					
1	6					

Flounder, S	ummer (Fluke)	Total Weight:	2.7	Sub-Sample Weight:	
Length	Count				
33	1				i
41	1				i i
51	1				i

Hake, Red		Total W	eight:	1.5	Sub-Sample W	eight:	0.5	
Length	Count				<u> </u>			
20	1							
24	1							
26	1						i	
27	3						i I	
Flounder, Sa	and Dab (Win	Total W	eight:	1.1	Sub-Sample W	eight:		
Length	Count							
21	1						i	
22	1						i	
24	3						i	
25	1						i	
Flauredon Fa		Total M	/aiabt.	1 1	Cula Camanda VA	aiabt.		
Flounder, Fo		Total W	eignt:	1.1	Sub-Sample W	eignt:		
Length	Count							
18	1						i	
25	1						ì	
28	3						i	
29	1						ì	
31	1						i	
Sea Raven		Total W	eight:	1	Sub-Sample W	eight:		
Length	Count							
1	10						i	
Herring, Atla	antic	Total W	eight:	0.2	Sub-Sample W	eight:		
Length	Count							
19	1						i	
20	4						i	
21	2						i	
Tow 8	Date		rt Tow Time		At N 40.35.910			pth: 34 fm
Gear: Large M			Tow Time		at N 40.42.862			pth: 34 fm
Conditions: S			nd Dir. NE		Warp: 175 fm		ow Speed:	3.3 kt
Skate, Little		Total W	eight:	5	Sub-Sample W	eight:		
Length	Count							
1	6						i	

Hake, Silver	(Whiting)	Total Weig	ht: 4.8	Sub-Sample Weight:		
Length	Count					
15	3				j	
16	5				j	
17	9				j	
18	5				j	
19	4				i	
20	2				i	
21	1				i	
22	5				i	
23	9				i	
24	10				i	
25	4				i	
26	3				j.	
27	2				i .	
30	1				i .	
31	1				i	

Hake, Red		Total Weight:	3.2	Sub-Sample Weight:		
Length	Count					
21	1				j	
24	4				j	
25	2				j	
26	4				j	
27	5				j	
30	4				j	
31	2				j	
34	1				j	
35	1				i	

Butterfish		Т	otal Weight:	3.1	Sub-Sample Weight:		
Length	Count						
12	1					i	
13	4					i	
14	11					i	
15	8					i	
16	4					i	

Length Count 1 1	Skate, Wint	er	Total Weight:	2.7	Sub-Sample Weight:	
1 1	Length	Count				
	1	1				i

Herring, At	lantic	Total Weight:	2.3	Sub-Sample Weight:		
Length	Count					
18	3				j	
19	8				j	
20	6				j	
21	5				j	
22	2				j	
23	2				j	

Flounder, S	ummer (Fluke)	Total Weight:	1.8	Sub-Sample Weight:		
Length	Count					
55	1				j	

Squid, Atlai	ntic Long-fin	Total Weight:	1.3	Sub-Sample Weight:		
Length	Count					
5	2				j	
6	4				j	
7	4				j	
8	4				j	
9	7				i	
10	1				j	
13	1				i	
15	1				j	
18	1				i	
20	1				j	

Flounder, S	and Dab (Win	Total Weight:	0.9	Sub-Sample Weight:		
Length	Count					
19	1				j	
20	1				j	
22	2				j	
25	1				j	
29	1				j	

Sea Raven				Total Wei	ght:		0.9	S	ub-Sa	mple W	eight:				
Length	Co	ount													
1	1	0										j			
Mackeral,	Atlant	ic		Total Wei	ght:		0.4	S	ub-Sa	mple W	eight:				
Length	Co	ount													
1	3											j			
			_												
Flounder,	Fours	oot		Total Wei	ght:		0.3	S	ub-Sa	mple W	eight:				
Length	Co	ount													
16	1											j			
22	1											i			
26	1											j			
29	1											i			
Black Sea I	bass			Total Wei	ght:		0.2	S	ub-Sa	mple W	eight:				
Length		ount								<u>'</u>					
26	1											j			
_															
Haddock				Total Wei	ght:		0.1	S	ub-Sa	mple W	eight:				
Length	Сс	ount													
24	1											j			1
Tow 9		Date	5/1/201	1 Start	Tow ⁻	Time:	9:38	Lat	N 40	.46.264	Long:	W 70.57.56	Depth:	30	fm
Gear: Large	Me	Recorder:	CR	End T	ow .	Time:	10:08	Lat	N 40	.46.074	Long:	W 70.59.51	Depth:	31	fm
Conditions:	Sky:	Clear	Wind:	4 Wind	Dir.	NE		War	p:	150 fm		Tow Speed:	3 k	t	

Hake, Silver	(Whiting)	Total Weight:	34.7	Sub-Sample Weight:	6.7
Length	Count				
17	3				,
19	3				,
20	1				,
21	4				,
22	8				,
23	6				,
24	5				,
25	12				,
26	5				,
27	3				,
28	1				,
29	2				,
31	3				
32	1				•
40	1				,

Hake, Red		Total Weight:	8.1	Sub-Sample Weight:	4.6
Length	Count				
23	1				,
24	1				,
25	3				,
26	6				,
27	6				,
28	6				,
29	3				,
30	1				,
31	1				,
32	2				,
35	1				,
38	1				r

Skate, Wint	er	Total Weight:	7	Sub-Sample Weight:		
Length	Count					
1	2				,	

Herring, At	lantic	Total Weight:	5	Sub-Sample Weight:		
Length	Count					
18	6				,	
19	14				1	
20	24				,	
21	10				1	
22	6				,	
23	5				1	
25	1				1	

Skate, Little		Total Weight:	2.9	Sub-Sample Weight:		
Length	Count					
1	5				,	

Flounder, Y	'ellowtail	Total Weight:	2.8	Sub-Sample Weight:	
Length	Count				
35	1				,
36	1				,
37	1				,

Butterfish		Total Weight:	1.9	Sub-Sample Weight:		
Length	Count					
12	1				,	
13	4				,	
14	11				,	
15	8				,	
16	4				ı	

Mackeral, A	Atlantic	Total Weight:	1.1	Sub-Sample Weight:	
Length	Count				
18	2				,
19	5				,
21	6				,
23	1				

Flounder, Fo	urcnot	Tot	al Weight:		0.7	Cui	b-Sample W	oight				
		101	.ai weigiit.		J. 7	Su	ib-sample w	eigiit.				
Length	Count								,			
21	1											
25	1								1			
30	1											
Sea Raven		Tot	al Weight:		0.7	Su	b-Sample W	eight:				
Length	Count											
1	6								,			
Haddock		Tot	al Weight:		0.6	Su	b-Sample W	eight:				
Length	Count											
21	1								r			-
24	1								,			
26	3								,			
Atlantic Cod		Tot	al Weight:		0.4	Su	b-Sample W	eight:				
Length	Count											
36	1								•			
Floundar Sa	nd Dab (Win	Tot	al Weight:		0.3	Su	b-Sample W	oight				
		100	.ai vveigiit.		J.5	Su	ib-sample w	eigiit.				
Length	Count 1								,			
21	1								,			
Tow 10	Date	5/1/2011	Start Tow	Time:	11:33	Lat	N 40.49.500	Long:	W 71.07.86	Depth:	31	fm
Gear: Large M	le Recorder:	CR	End Tow	Time:	12:06	Lat	N 40.49.259	Long:	W 71.10.13	Depth:	32	fm
Conditions: Sk	cy: Clear	Wind: 4	Wind Dir.	NE		Warp	o: 150 fm		Tow Speed:	3.2 I	ĸt	
Herring, Atla	ntic	Tot	al Weight:	8	7.3	Su	b-Sample W	eight:		3.3		
Length	Count											
19	14								;			_
20	22								1			
21	9											

Mackeral,	Atlantic	Total Weight:	63.6	Sub-Sample Weight:	3.6	
Length	Count					
18	7					
19	11				1	
20	22					
21	11				}	
23	1					

Skate, Winter		Total Weight:	17.5	Sub-Sample Weight:		
Length C	ount					
1 5	5				}	

Hake, Silve	r (Whiting)	Total Weight:	14.5	Sub-Sample Weight:	1.3
Length	Count				
13	2				1
14	1				}
15	1				1
16	4				}
17	4				1
18	6				}
19	3				1
22	2				}
23	2				1
25	2				1
28	1				}

Butterfish		Total Weight:	7.3	Sub-Sample Weight:	0.6
Length	Count				
13	1				1
14	1				1
15	2				1
16	3				1
18	1				}

Squid, Atlan	tic Long-fin	Tota	al Weight:		5.5	Sul	b-Sample We	eight:		0.5	
Length	Count										
14	1								}		
18	1								;		
20	1								1		
					2.6	6.1				0.0	
Hake, Red		lot	al Weight:		3.6	Sul	b-Sample We	eight:		0.3	
Length	Count										
26	2								;		
28	1								}		
Menhaden,	Atlantic	Tota	al Weight:		3.6	Sul	b-Sample We	eight:		0.3	
Length	Count						· ·				
19	1								<u> </u>		
21	2										
									,		
Skate, Little		Tota	al Weight:		3.1	Sul	b-Sample We	eight:			
Length	Count										
1	5								}		
Flounder, Ye	ellowtail	Tota	al Weight:		1.6	Sul	b-Sample We	eight:			
Length	Count										
34	1								}		
47	1								;		
Scup		Tota	al Weight:		0.8	Sul	b-Sample We	eight:			
Length	Count										
25	1								;		
27	1								1		
Flounder, Fo	nurcnot	Tot	al Weight:		0.4	Cul	b-Sample We	oight:			
		TOU	ai vveigiit.		0.4	Sul	b-Sample We	igiit.			
Length	Count										
25	1								1		
29	1								ì		
33	1										
Tow 11	Date	5/1/2011	Start Tow	Time:	13:33	Lat N	N 40.47.340	Long:	W 71.19.55	Depth:	33 fm
Gear: Large N	le Recorder:		End Tow	Time:	14:33	Lat N	N 40.46.516	Long:	W 71.24.35	Depth:	33 fm
Conditions: S	ky: Clear	Wind: 3	Wind Dir.	NE		Warp	: 150 fm		Tow Speed:	3.3 kt	

Herring, At	lantic	Total Weight:	47	Sub-Sample Weight:	4.6
Length	Count				
18	20				1
19	28				1
20	14				1

Hake, Silve	r (Whiting)	Total Weight:	22.2	Sub-Sample Weight:	4.4
Length	Count				
12	1				1
13	1				1
14	1				1
15	1				+
16	4				1
17	14				1
18	11				1
19	6				1
20	1				1
21	6				1
22	8				1
23	5				1
24	7				1
25	4				1
26	1				1
30	1				1
34	1				1

Butterfish		Total Weight:	10.5	Sub-Sample Weight:	3.1	
Length	Count					
13	3				1	
14	3				1	
15	10				1	
16	4					
17	2				1	
18	1				1	
19	1				I	

Squid, Atlai	ntic Long-fin	Total Weight:	6.7	Sub-Sample Weight:	1.3
Length	Count				
8	2				ı
9	2				1
10	5				+
11	1				1
12	4				1
16	4				1
14	2				1
15	1				1
Scup		Total Weight:	5.7	Sub-Sample Weight:	1.1
Length	Count			, ,	
19	1				ı
22	1				1
31	1				1
		7			
Skate, Wint		Total Weight:	5.5	Sub-Sample Weight:	
Length	Count				
1	2				1
Skate, Little	2	Total Weight:	5.4	Sub-Sample Weight:	
Length	Count				
1	9)
Dogfish, Sp	inu	Total Weight:	3.7	Sub-Sample Weight:	
Length	Count	Total Weight.	3.7	Jub-Jampie Weight.	
80	2				1
OU	۷				'
Hake, Red		Total Weight:	3.5	Sub-Sample Weight:	0.7
Length	Count				
27	1				ı
28	2				1
29	1				1

		1										
Mackeral, At	lantic	Tota	al Weight:	2	6	Sı	ub-Sample We	eight:		0.5		
Length	Count											
18	2								1			
19	1								1			
20	2								1			
21	1								1			
Menhaden,	Atlantic	Tota	al Weight:	2	2	Sı	ub-Sample We	eight:		0.5		
Length	Count											
21	1								ı			
22	1								1			
23	2								1			
Flounder, Sa	nd Dab (Win	Tota	al Weight:	0	0.3	Sı	ub-Sample We	eight:				
Length	Count											
22	1								1			
24	1								1			
Haddock		Tota	al Weight:	0	0.3	Sı	ub-Sample We	eight:				
Length	Count											
23	1								ı			-
25	1								1			
Flounder, Fo	urspot	Tota	al Weight:	0).1	Sı	ub-Sample We	eight:				
Length	Count		.				,					
31	1								ı			
Tow 12	Date	5/1/2011	Start Tow	Time:	15:20	Lat	N 40.45.900	Long:	W 71.20.23	Depth:	34	fm

Warp:

150 fm

Tow Speed:

3.1 **kt**

Wind:

Conditions: Sky: Clear

3 Wind Dir. NE

Scup		Total Weight:	490.5	Sub-Sample Weight:	14
Length	Count				
20	1				1
22	4				1
23	5				1
24	4				1
25	5				1
26	1				1
27	5				1
28	1				1
29	2				1
30	1				1
31	2)
32	1				1
35	1				1

Hake, Silve	(Whiting)	Total Weight:	56.1	Sub-Sample Weight:	5.2
Length	Count				
13	1				1
16	2				1
17	2				1
18	7				1
19	3				1
20	7				1
21	5				1
22	6				1
23	9				1
24	9				1
25	3				1
26	4				1
27	3				1
28	1				1
30	2				1
31	2				1
32	2				1

Herring, At	lantic	Total Weight:	32.7	Sub-Sample Weight:	1.8
Length	Count				
17	7				
18	10				1
19	9				
20	2				1
21	2				1
22	1				1

Butterfish		Total Weigh	nt: 28.1	Sub-Sample Weight:	2.8
Length	Count				
13	6				ı
14	5				1
15	12				ı
16	10				1
17	3				ı
18	1)

Hake, Red		Total Weight:	28.1	Sub-Sample Weight:	4.1
Length	Count				
24	3				1
25	5)
26	7)
27	6)
28	4)
29	4)
30	2				1
32	1				

Skate, Wint	er	Total Weight:	22.9	Sub-Sample Weight:		
Length	Count					
1	6				1	

Squid, Atlar	ntic Long-fin	Total Weight:	9.4	Sub-Sample Weight:	0.3
Length	Count				
10	1)
11	2				1
12	1)
14	1)
20	1				l
Skate, Little)	Total Weight:	8.1	Sub-Sample Weight:	
Length	Count				
1	12				1
Flounder, F	ourspot	Total Weight:	0.7	Sub-Sample Weight:	
Length	Count				
16	1				1
18	1				1
19	1				1
25	4				1
26	1				1
28	1				l.
Black Sea b	ass	Total Weight:	0.5	Sub-Sample Weight:	
Length	Count		<u> </u>		
31	1				1
Flounder. S	and Dab (Win	Total Weight:	0.4	Sub-Sample Weight:	
Length	Count	,			
25	1)
27	1				1
Atlantic Co	d	Total Weight:	0.3	Sub-Sample Weight:	
Length	Count				
35	1				1
Menhaden,	. Atlantic	Total Weight:	0.1	Sub-Sample Weight:	
	Count				
Length					

Tow	13	Date	5/1/2011	Start Tow	Time:	17:17	Lat	N 40.41.634	Long:	W 71.36.76	Depth:	34 fm
Gear:	Large Me	Recorder:	CR	End Tow	Time:	17:55	Lat	N 40.47.624	Long:	W 71.34.07	Depth:	36 fm
Conditi	ions: Sky:	Clear	Wind:	3 Wind Dir.	NE		War	p: 150 fn	า	Tow Speed:	2.8 k	t

Scup		Total Weight:	71	Sub-Sample Weight:	23.7
Length	Count				
22	4				
23	3				
24	7				
25	4				
26	3				
27	5				
28	9				
29	5				
30	1				
31	1				
32	2				
33	2				
34	2				·

Hake, Silver	r (Whiting)	Total Weight:	50	Sub-Sample Weight:	5.9
Length	Count				
11	1				
12	1				
13	4				
14	7				
15	3				
16	9				
17	9				
18	8				
19	5				
20	8				
22	10				
23	13				
24	8				
25	3				·
26	4				
30	2				·
32	1				

Hake, Red		Total Weight:	14.5	Sub-Sample Weight:	4.6
Length	Count				
21	1				
22	1				
24	2				
25	5				
26	4				
27	6				
28	5				
29	4				
30	4				
31	2				
32	1				

Herring, At	lantic	Total Weight:	12	Sub-Sample Weight:	2.3
Length	Count				
16	1				
17	16				
18	16				
19	4				
20	1				·
22	1				

Skate, Little		Total Weight:	6	Sub-Sample Weight:	
Length	Count				
1	10				

Butterfish		Total Weight:	3.2	Sub-Sample Weight:	1.2
Length	Count				
14	4				
15	6				
16	3				

Squid, Atlar	ntic Long-fin	Total Weight:	2	Sub-Sample Weight:	
Length	Count				
8	1				
9	1				
11	1				
12	1				
14	4				
15	2				
16	4				
17	1				
18	1				
20	1				
21	1				·
Monkfish		Total Weight:	0.7	Sub-Sample Weight:	
Length	Count				
33	1				
Flounder, S	ummer (Fluke)	Total Weight:	0.6	Sub-Sample Weight:	
Length	Count				
41	1				·
Flounder, F	ourspot	Total Weight:	0.2	Sub-Sample Weight:	
Length	Count				
22	1				

22	2	1									
26	;	1									
Tow	14	Date	5/2/2011	Start Tow Time:	6:17 Lat	N 41.06.440	Long:	W 71.17.08	Depth:	32	fm
Gear:	Large Me	Record	der: cr	End Tow Time:	6:47 Lat	N 41.07.944	Long:	W 71.17.77	Depth:	34	fm

Warp:

150 fm

Tow Speed:

3.1 kt

Conditions: Sky: Clear

Wind:

2 Wind Dir. NW

Flounder, V	Winter (Blackba	Total Weight:	22.9	Sub-Sample Weight:		
Length	Count					
22	1					
23	3					
24	7					
25	13				:	
26	4				1	
27	3					
28	4				1	
29	8					
30	5				1	
31	3					
32	3				1	
33	1				:	
34	3				1	
35	3				:	
36	2				1	
37	2				:	
38	4				1	
40	1				!	

Hake, Silve	(Whiting)	Total '	Weight:	22.9	Sub-Sample Weigh	nt: 9.6
Length	Count					
16	1					
17	2					
18	2					
19	2					
20	3					
21	1					
22	5					
23	11					
24	9					
25	13					
26	12					
27	7					
28	7					
29	4					
30	5					
31	1					

Scup		Total Weight:	16.8	Sub-Sample Weight:		
Length	Count					
21	1				•	
22	2					
23	1					
24	4				:	
26	1					
27	2					
28	3					
29	1					
30	1					
31	3					
32	5					
33	1					
34	3					

Skate, Little		Total Weight:	9.1	Sub-Sample Weight:		
Length	Count					
1	13				:	

Squid, Atlar	ntic Long-fin	Total Weight:	7.6	Sub-Sample Weight:	2.5
Length	Count				
10	3				
11	9				
12	6				
13	5				
14	1				
15	4				
16	3				
19	1				
Butterfish		Total Weight:	6.1	Sub-Sample Weight:	2

Butterfish		Total Weight:	6.1	Sub-Sample Weight:	2
Length	Count				
15	5				•
16	8				
17	7				

Herring, At	lantic	Total Weight:	5.1	Sub-Sample Weight:	1.7
Length	Count				
17	4				
18	8				1
19	1				
20	2				1
21	1				1
22	1				1

Hake, Red		Total Weig	ht: 4.3	Sub-Sample Weight:	1.4
Length	Count				
27	1				
28	1				
33	1				
36	1				
44	1				

Atlantic Cod	d	Total Weight:	4.1	Sub-Sample Weight:	
Length	Count				
40	1				
47	1				:
63	1				:

Flounder, Ye	llowtail	Tota	Weight:	3.1	S	ub-Sample	Weight:			
Length	Count									
33	2									
35	1									
36	1									
37	1									
39	1									
42	1									
			-		1					
Sea Raven		Tota	Weight:	2.7	S	ub-Sample	Weight:			
Length	Count									
1	8									
Eel, Conger		Tota	Weight:	1.1	S	ub-Sample	Weight:			
Mackeral, At	lantic	Tota	Weight:	0.7	S	ub-Sample	Weight:			
Length	Count									
30	1									
33	1									
	/-!				1					
	mmer (Fluke)	Tota	Weight:	0.6	S	ub-Sample	Weight:			
Length	Count									
32	1							•		
					1					
Haddock		Tota	Weight:	0.2	S	ub-Sample	Weight:			
Length	Count									
25	1									
Tow 15	Date	5/2/2011	Start Tow	Γime:	8:00 Lat	N 41.09.8	60 Long:	W 71.24.59	Depth:	22 fm
Gear: Large M			_	Γime:				W 71.25.02	Depth:	22 fm
Conditions: Sk	xy: Clear	Wind: 2	Wind Dir.	W	Wa	rp: 150	fm	Tow Speed:	3 kt	
Skate, Little		Tota	Weight:	24.8	9	ub-Sample	Weight:			
Length	Count									
1	46							i		

Scup		Total	Weight:	22.3	Sub-Sample Weight:		
Length	Count						
20	2						
21	5					1	
23	7					İ	
22	1					İ	
24	4						
25	6					1	
26	5						
27	1					1	
28	6						
29	6					i	
30	1					1	
31	1					1	
32	1					1	
33	1					1	
34	1					1	
36	1					i	

Flounder, V	Vinter (Blackba	Total Weight:	18.7	Sub-Sample Weight:		
Length	Count					
20	1				1	
22	1				1	
23	6				1	
24	10				1	
25	13				i	
26	13				i	
27	4				1	
28	3				1	
29	3				1	
30	1				i	
31	4				i	
32	2				1	
34	2				1	
35	2				1	
36	2				1	
40	1				1	

Hake, Silve	r (Whiting)	Total V	Veight:	10.3	Sub-Sample Weight:	3.5
Length	Count					
12	2					1
13	1					1
14	4					1
15	2					1
16	2					1
18	1					
19	2					1
21	3					
22	5					
23	3					
24	4					i .
25	7					1
26	4					
27	2					
	_					· · · · · · · · · · · · · · · · · · ·
Herring, Atl		Total V	Veight:	9.3	Sub-Sample Weight:	
		Total V	Veight:	9.3	Sub-Sample Weight:	
Herring, Atl	lantic	Total V	Veight:	9.3	Sub-Sample Weight:	
Herring, At	lantic Count	Total V	Veight:	9.3	Sub-Sample Weight:	
Herring, Atl Length 15	lantic Count 1	Total V	Veight:	9.3	Sub-Sample Weight:	;
Herring, Atl Length 15 16	Count 1 1	Total V	Veight:	9.3	Sub-Sample Weight:	
Herring, Atl Length 15 16 17	Count 1 1 6	Total V	Veight:	9.3	Sub-Sample Weight:	
Herring, Atl Length 15 16 17 18	Count 1 1 6 43	Total V	Veight:	9.3	Sub-Sample Weight:	
Herring, Atl Length 15 16 17 18 19 20	Count 1 1 6 43 17 10					; ; ;
Herring, Atl Length 15 16 17 18 19 20 Ocean Pout	Count 1 1 6 43 17 10		Veight:	9.3	Sub-Sample Weight: Sub-Sample Weight:	; ; ;
Herring, Atl Length 15 16 17 18 19 20	Count 1 1 6 43 17 10					; ; ;
Herring, Atl Length 15 16 17 18 19 20 Ocean Pout	lantic Count 1 1 6 43 17 10 t Count					
Herring, Atl Length 15 16 17 18 19 20 Ocean Pout	Count 1 1 6 43 17 10 t Count 6	Total V				

Atlantic Cod	d	Total Wei	ght: 4.4	Sub-Sample Weight:		
Length	Count					
59	2				1	

Flounder, Y	'ellowtail	Total Weight:	2.5	Sub-Sample Weight:	
Length	Count				
28	1				i
34	2				1
35	1				1
38	1				1
40	1				

Butterfish		Total Weight:	2.4	Sub-Sample Weight:	
Length	Count				
13	1				
14	1				
15	3				
16	6				
17	6				
18	2				
19	2				
20	1				

Squid, Atlai	ntic Long-fin	Total Weight:	1.1	Sub-Sample Weight:		
Length	Count					
12	6					
13	2					
14	1					
15	1					
16	1				}	
8	1					
9	2				}	
10	2					
11	2					

Sea Raven		Total Weight:	0.8	Sub-Sample Weight:		
Length	Count					
1	2				;	

Flounder, Su	ımmer (Fluke)	To	otal Weight:		0.6	Su	ıb-Sample W	eight:				
Length	Count				<u> </u>							
31	1								;			
32	1								;			
Hake, Red		To	otal Weight:		0.5	Su	ıb-Sample W	eight:				
Length	Count											
14	1								i			
21	1								i			
28	1								;			
33	1								İ			
El l C .	. I Dala (MC)		1.1347.1.1.		0.4	6	l. C l. W					
	nd Dab (Win	10	otal Weight:		0.4	Su	ıb-Sample W	eignt:				
Length	Count											
31	1								İ			
Haddock		To	otal Weight:		0.4	Su	ıb-Sample W	eight:				
Length	Count											
24	1								ŀ			
26	1								ŀ			
Mackeral, A	tlantic	To	otal Weight:		0.3	Su	ıb-Sample W	eight:				
Length	Count				0.0		Jan., p. 10					
31	1											
21	Т								1			
Flounder, Fo	nursnot	To	otal Weight:		0.2	Su	ıb-Sample W	eight:				
Length	Count				0.2							
28	1								-			
ow 16	Date	5/2/2011	Start Tow	Time:	9:30	Lat	N 41.12.410	Long:	W 71,30.36	Depth:	20	fm
Gear: Large N			End Tow				N 41.13.388	_		Depth:	19	

Scup		Total Weight:	26	Sub-Sample Weight:		
Length	Count					
19	1					
20	4					
21	4					
22	7					
23	5					
24	7					
25	5					
26	4					
27	6					
28	5					
29	7					
30	1					
31	5					
32	1				·	

Atlantic Co	d	Total Weight:	24.6	Sub-Sample Weight:		
Length	Count					
40	1					
41	1					
42	1					
43	2					
44	3					
45	2					
46	1					
47	1					
48	2					
50	1					
52	3					
56	1					
58	2				·	

Skate, Little		Total Weight:	17.1	Sub-Sample Weight:	
Length	Count				
1	30				

Ocean Pout		Total Weight:	14.5	Sub-Sample Weight:	
Length	Count				
1	14				

Skate, Wint	er	Total Weight:	11.5	Sub-Sample Weight:	
Length	Count				
1	4				

Flounder, V	Vinter (Blackba	Total Weight:	10.5	Sub-Sample Weight:		
Length	Count					
22	3					
23	2					
24	1					
25	2					
26	7					
27	3					
28	1					
29	3					
30	2				·	
31	1					
32	1					
33	1				·	
34	1					
35	1					
37	3					
40	1					

Hake, Silve	r (Whiting)	Tota	al Weight:	4.8	Sub-Sample Weight:		
Length	Count						
9	1						
10	2						
11	5						
12	13						
13	5						
14	5						
15	3						
16	2						
18	3						
19	2					•	
20	1					•	
21	3						
22	2					•	
23	5						
24	5						
25	6						
26	5						
27	3						
28	3					•	
30	1						

Length Count 60 1	Striped Bass	Total Weight:	4.2 S	Sub-Sample Weight:	
60 1	Length Co	t			
	60 1				

Length Count	Black Sea bass	Total Weight: 2.3	Sub-Sample Weight:
	Length Count		
3/ 1	37 1		

Herring, Atl	lantic	Total Weight:	2.2	Sub-Sample Weight:	
Length	Count				
16	1				
17	5				
18	13				
19	13				
20	3				
23	1				

Butterfish		Т	Total Weight:	0.9	Sub-Sample Weight:	
Length	Count					
14	2					
15	3					
16	3					
17	1					
18	2					

Herring, Blu	ueback	Total Weight:	0.7	Sub-Sample Weight:	
Length	Count				
19	2				
20	1				
21	1				
24	2				

Squid, Atla	ntic Long-fin	Total Weight:	0.6	Sub-Sample Weight:		
Length	Count					
9	1				•	
11	1					
12	2					
13	2					
16	2					

Flounder, F	ourspot	Total Weight:	0.4	Sub-Sample Weight:	
Length	Count				
24	1				
27	1				
28	1				

Flounder, Y	'ellowtail	Tota	l Weight:	0.3	Su	b-Sample We	eight:			
Length	Count									
29	1									
Flounder, S	and Dab (Win	Tota	ıl Weight:	0.2	Su	b-Sample We	eight:			
Length	Count									
25	1									
Hake, Red		Tota	ıl Weight:	0.1	Su	b-Sample We	eight:			
Length	Count	-								
27	1									
Tow 17	Date	5/2/2011	Start Tow	Time: 11	:04 Lat 1	N 41.16.280	Long:	W 71.26.18	Depth:	21 fr
Gear: Large I	Me Recorder:	CR	End Tow	Time: 11	.:34 Lat 1	N 41.15.942	Long:	W 71.29.09	Depth:	22 fr
Conditions: S	Sky: Clear	Wind: 2	Wind Dir.	NW	Warp	: 150 fm		Tow Speed:	2.9 k	t
Herring, Blu	ueback	Tota	ıl Weight:	78.2	Su	b-Sample We	eight:		8.5	
Length	Count									
15	1							ì		
16	3							i		
17	5							· 1		
18	10							· 1		
19	21							i		
20	20							1		
21	14							ì		
	14									
22	5							ì		
22	5	Tota	ıl Weight:	16.3	Sul	b-Sample We	eight:	i i		
22 Skate, Little	5	Tota	ıl Weight:	16.3	Su	b-Sample We	eight:			
22	5	Tota	ıl Weight:	16.3	Su	b-Sample We	eight:			

Scup		Total Weight:	13.9	Sub-Sample Weight:		
Length	Count					
19	1				i	
20	2				i	
21	2				i	
22	2				i	
23	2				i	
24	3				i	
25	3				i	
26	6				i	
27	3				i	
28	3				ì	
29	1				i	
30	1				i	
31	2				i	
32	2				i	
35	2				i	

Hake, Silver	r (Whiting)	Tota	al Weight:	11.8	Sub-Sample Weight:		
Length	Count						
12	1						
13	1						
15	1					i	
16	1					i	
17	1					i	
19	1					i	
20	2					i	
22	7						
23	12					i	
24	12						
25	10						
26	7						
27	7					i	
28	5						
29	8					i	
30	1						
31	1						

Flounder, V	Vinter (Blackba	Total Weight:	10.9	Sub-Sample Weight:		
Length	Count					
18	1				i	
19	1				i	
21	1				i	
22	4				i	
23	5				i	
24	9				i	
25	5				i	
26	2				i	
27	3				i	
29	4				i	
30	1				i	
31	1				i	
36	1				i	
37	2				i	

Atlantic Cod	d	Total Weight:	5.1	Sub-Sample Weight:		
Length	Count					
41	1					
42	1					
43	1				1	
44	1					

Striped Bass	S	Total Weight:	3.2	Sub-Sample Weight:		
Length	Count					
53	1				i	

Butterfish		Total Weight:	2.9	Sub-Sample Weight:		
Length	Count					
14	2				i	
15	4				i	
16	2				i	
17	3				i	
18	2				i	
20	1					

Flounder, S	ummer (Fluke)	Total Weight:	2.1	Sub-Sample Weight:		
Length	Count					
35	2				i	
41	1				i	
	ntic Long-fin	Total Weight:	1.7	Sub-Sample Weight:		
Length	Count					
11	5				i	
13	2				i	
14	6				i	
16	4				i	
Hake, Red		Total Weight:	1.2	Sub-Sample Weight:		
Length	Count		<u> </u>			
24	1				i	
26	1				i	
35	1				i	
42	1				i	
				ſ		
Ocean Pout	:	Total Weight:	1.2	Sub-Sample Weight:		
Length	Count					
1	1				i	
Flounder, F	ourspot	Total Weight:	0.9	Sub-Sample Weight:		
Length	Count	Total Weight	0.5	San Sample Weight		
16	1				į	
23	1					
30	2					
30	-				<u>'</u>	
Sea Raven		Total Weight:	0.4	Sub-Sample Weight:		
Length	Count					
1	2				i	
Flounder, Sa	and Dab (Win	Total Weight:	0.3	Sub-Sample Weight:		
Length	Count			1		
24	1				į	
25	1					
23	1				l .	

Tow	18		Date		5/2/2011		Start Tow	Time:	12:2	0 Lat	N 4	41.15.280	Long:	W 71.29.80	Depth	ո։ 2	22 fm	
Gear:	Large	Me	Record	er:	cr		End Tow	Time:	12:5	0 Lat	N 4	47.16.495	Long:	W 71.31.09	Depth	ո։ 2	23 fm	1
Condit	ions:	Sky:	Clear		Wind:	2	Wind Dir.	NW		Wai	rp:	150 fm	ı	Tow Speed:	3	kt		
Scu)					Tot	al Weight:	2	2.2	S	ub-	Sample W	eight:					
Le	ngth	С	ount															
19)	1	1											i				
20)	2	2											i				
22	L	2	2											i				
22	2	3	3											i				
23	3	6	5											i				
24	1	5	5											i				
25	5	4	1											i				
26	5	3	3											i				
27	7	5	5											i				
28	3	7	7											i				
29)	۷	1											i				
30)	2	2											j				
32	2	3	3											j				
33	3	1	1											j				
34	1	1	1											j				

18.9

Sub-Sample Weight:

Total Weight:

Skate, Little

Count

34

Length

Flounder, V	Vinter (Blackba	Total Weight:	14.5	Sub-Sample Weight:		
Length	Count					
18	2				i	
19	1				i	
20	1				i	
21	3				i	
22	3				j	
23	2				i	
24	6				i	
25	6				i	
26	2				i	
27	2				i	
28	1				i	
29	3				i	
30	2				i	
35	2				i	
39	1				i	
45	1				j	
Herring, Blu	ıeback	Total Weight:	13.2	Sub-Sample Weight:	4.9	
Length	Count	-		-		

Herring, Blu	ıeback	Total Weigh	t: 13.2	Sub-Sample Weight:	4.9
Length	Count				
16	1				i
17	4				i
18	4				i
19	9				i
20	8				i
21	5				i

Ocean Pout		Total Weight:	10.6	Sub-Sample Weight:		
Length	Count					
1	8				j	

Hake, Silve	r (Whiting)	Total Weight:	5.4	Sub-Sample Weight:	
Length	Count				
11	3				i
12	5				j
13	7				i
14	3				i
15	1				i
16	3				i
17	1				i
19	3				i
20	1				i
21	2				i
22	1				i
23	2				i
24	4				i
25	5				i
26	5				i
27	4				i
28	2				i
29	1				i
30	1				i
Skate, Win	ter	Total Weight:	3.3	Sub-Sample Weight:	
Length	Count				
1	2				

Skate, Win	ter	Total Weight:	3.3	Sub-Sample Weight:		
Length	Count					
1	2				j	

Sea Raven		Total Weight:	2.7	Sub-Sample Weight:		
Length	Count					
1	9				i	

Atlantic Cod	d	Total Weight:	1.1	Sub-Sample Weight:		
Length	Count					
46	1				j	

Flounder, S	Summer (Fluke)		Total Weight:	1.	.1	Sul	o-Sample W	eight:			
Length	Count										
34	1								j		
43	1								ì		
Dttef: -l-		<u>-</u>	F-4-1 \A/-:- -4.	0	7	C. J	- Cl- \\	-:			
Butterfish			Total Weight:	0.	. /	Sur	o-Sample W	eignt:			
Length	Count										
16	1								j		
17	5								i		
18	1								j		
19	1								j		
Squid, Atla	ntic Long-fin	7	Гotal Weight:	0.	.6	Sul	o-Sample W	eight:			
Length	Count										
12	2								j		
13	1								i		
14	1								i		
15	3								i		
18	1								j		
Flounder, S	Sand Dab (Win	7	Total Weight:	0.	.3	Sul	o-Sample W	eight:			
Length	Count										
16	1								j		
22	1								i		
Flounder, F	ourspot	7	Гotal Weight:	0.	.2	Sul	o-Sample W	eight:			
Length	Count										
25	1								i		
Tow 19	Date	5/2/2011	Start Tow	Time:	13:20	Lat N	V 41.17.280	Long:	W 71.30.50	Depth:	22 fm
Gear: Large			End Tow	Time:				_		Depth:	15 fm
Conditions:		Wind:	2 Wind Dir.	NW		Warp			Tow Speed:	3 kt	

Herring, Blu	ueback	Total Weight:	56.4	Sub-Sample Weight:	3.9
Length	Count				
11	1				,
12	1				•
13	2				•
14	1				•
15	6				•
16	10				•
17	10				•
18	12				•
19	9				,
20	5				,
21	1				,

Hake, Silve	r (Whiting)	Total Weight:	31.8	Sub-Sample Weight:	7.9
Length	Count				
15	1				
17	2				
19	1				
20	2				
21	2				1
22	6				
23	11				
24	7				1
25	5				
26	4				1
27	7				
28	9				1
29	5				
30	2				1
31	2				
32	1				•

Ocean Pout		Total Weight:	29.8	Sub-Sample Weight:		
Length	Count					
1	19				,	

Skate, Little		Total Weight:	26.7	Sub-Sample Weight:		
Length	Count					
1	43				,	

Flounder, V	Vinter (Blackba	Total Weight:	20.3	Sub-Sample Weight:	8.1
Length	Count				
20	1				,
22	1				,
23	3				,
24	2				,
25	7				,
26	3				,
27	5				,
28	1				,
29	1				,
34	1				,
35	1				,
36	1				,
38	1				,
40	1				,

Scup		Total Weight:	18.6	Sub-Sample Weight:		
Length	Count					
16	1				,	
20	1				,	
21	1				,	
22	5				,	
23	1				,	
24	6				,	
25	6				,	
26	3				,	
27	2				,	
28	2				,	
29	3				,	
30	1				,	
31	3				,	
32	3				,	
35	2				,	

Skate, Wint	er	Total Weight:	8.1	Sub-Sample Weight:	
Length	Count				
1	5				4

Hake, Red		Total Weight:	7.2	Sub-Sample Weight:	4.6
Length	Count				
26	1				,
27	1				,
29	4				1
30	1				1
31	1				
32	2				1
33	1				
34	1				,
35	1				,
37	1				1
38	2				1
42	1				T

Butterfish		Total Weight:	4	Sub-Sample Weight:	1.5
Length	Count				
13	2				,
14	3				,
15	3				
16	4				,
17	5				

Flounder, F	ourspot	Total Weight:	1.8	Sub-Sample Weight:		
Length	Count					
25	1				,	
26	1				,	
30	2				,	
34	2				,	

Flounder, S	Summer (Fluke)	Total Weight:	1.4	Sub-Sample Weight:		
Length	Count					
37	1				•	
45	1				,	

Squid, Atla	ntic Long-fin	Total Weight:	0.6	Sub-Sample Weight:		
Length	Count					
10	2				1	
12	2				1	
13	2				1	
14	1				1	
19	1				r	

Flounder, S	and Dab (Win	Total Weight:	0.2	Sub-Sample Weight:	
Length	Count				
21	1				
24	1				•

Tow	20	Date	5/5/2011	Start Tow Time:	6:25 Lat N	40.53.236 Long:	W 71.36.43 Dept	h: 31 fm
Gear:	Standard	Recorder:	CR	End Tow Time:	6:55 Lat N	40.53.236 Long :	W 71.36.43 Dept	h: 31 fm
Condit	ions: Sky:	Partly Clou	Wind:	6 Wind Dir. W	Warp:	150 fm	Tow Speed: 3.	kt

Hake, Red		Total Weight:	52.6	Sub-Sample Weight:	9.2
Length	Count				
23	1				1
24	2				1
25	5				1
26	10				+
27	6				1
28	6				;
29	6				;
30	4				}
31	5				;
32	2				}
33	5				;
35	1				}

Skate, Wint	er	Total Weight:	51.5	Sub-Sample Weight:		
Length	Count					
1	25				}	

Butterfish		Total Weight:	23.8	Sub-Sample Weight:	5.9
Length	Count				
13	4				
14	15				}
15	14				
16	12				}
17	4				
18	2				

Scup		Total Weight:	19	Sub-Sample Weight:	9.5
Length	Count				
19	1				}
20	1				3
21	1				}
22	2				3
23	1				}
24	3				3
25	4				}
26	3				3
28	2				}
30	1				3
34	1				}

Hake, Silve	r (Whiting)	Total Weight:	19	Sub-Sample Weight:	4.7
Length	Count				
13	1				1
18	3				;
19	4				1
20	1				}
22	4				1
23	3				}
24	4				1
25	3				}
26	1				
27	4				}
28	2				1
30	2				;

Ocean Pout		Total Weight:	16	Sub-Sample Weight:		
Length	Count					
1	13				1	

Herring, At	lantic	Total Weight:	14.6	Sub-Sample Weight:	3.6
Length	Count				
15	2				}
16	2				}
17	3				1
18	4				}
19	2				1
20	2				}
21	1				+
22	2				}
23	1				1
25	2				}

Flounder, Y	ellowtail	Total Weight:	12	Sub-Sample Weight:		
Length	Count					
24	1				}	
27	1				}	
30	3				}	
31	1				}	
32	2				1	
34	4				1	
35	1				1	
36	3				1	
37	1				;	
39	2				;	
40	2				;	
42	2				1	
44	2				}	

		1			
Mackeral, A	tlantic	Total Weight:	11.8	Sub-Sample Weight:	5.9
Length	Count				
28	1				3
29	5				1
30	5				1
32	2				
Skate, Little		Total Weight:	9	Sub-Sample Weight:	
Length	Count	10001110161101		Sub sumple Weighti	
1	12				;
1	12				1
Monkfish		Total Weight:	7.2	Sub-Sample Weight:	
Length	Count	<u>-</u>			
38	1				
40	1				}
Flounder, Su	ımmer (Fluke)	Total Weight:	6.6	Sub-Sample Weight:	
Length	Count				
33	1				}
36	1				+
70	1				
Flounder W	/inter (Blackba	Total Weight:	4.3	Sub-Sample Weight:	
Length	Count	Total Weight.	7.3	Sub Sample Weight.	
25	1				;
33	1				,
36	1				
37	1				;
41	1				;
1.4	<u> </u>				,
Sea Raven		Total Weight:	3.9	Sub-Sample Weight:	
Length	Count				
1	8				}

Length Count 26 1 28 2 29 2 30 1 31 1 32 2 Flounder, Witch (Grey sol Total Weight: 3.2 Sub-Sample Weight: Length Count 31	Flounder, F	ourspot	Tot	al Weight:	3.5	s s	Sub-Sample W	eight:			
26				<u> </u>			<u> </u>				
29 2 30 1 31 1 32 2 3		1							;		
30	28	2							;		
State	29	2							;		
Flounder, Witch (Grey sol Total Weight: 3.2 Sub-Sample Weight:	30	1							1		
Flounder, Witch (Grey sol Total Weight: 3.2 Sub-Sample Weight:	31	1							;		
Length Count 31	32	2							}		
Length Count	Flounder, V	Witch (Grey sol	Tot	al Weight:	3.2	<u> </u>	Sub-Sample Wo	eight:			
31											
Standard Recorder: CR End Tow Time: 8:30 Lat N 40.53.054 Long: W 71.26.52 Depth: 32 fraction Standard Recorder: CR End Tow Time: 9:30 Lat N 40.52.877 Long: W 71.22.42 Depth: 31 fraction Standard Standard Recorder: CR End Tow Time: 9:30 Lat N 40.52.877 Long: W 71.22.42 Depth: 31 fraction Standard Standard Standard Recorder: CR End Tow Time: 9:30 Lat N 40.52.877 Long: W 71.22.42 Depth: 31 fraction Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standard Standa									;		
Skate	43	1							;		
Recorder: CR	45	1							;		
Mind Dir. W Warp: 125 fm Tow Speed: 3 kt Hake, Red Total Weight: 81.6 Sub-Sample Weight: 3 Length Count	ow 21	Date	5/5/2011	Start Tow	Time:	8:30 Lat	N 40.53.054	Long:	W 71.26.52	Depth:	32 fr
Hake, Red	Character Character			Food Tour		0.20 1.1					24 (
Length Count 25 9 26 3 27 4 28 1 29 3 32 1 34 1 Skate, Winter Total Weight: 65 Sub-Sample Weight: Length Count	ear: Standa	ard Recorder:	CR	End Tow	Time:	9:30 Lat	N 40.52.877	Long:	W 71.22.42	Depth:	31 fr
25 9 26 3 27 4 28 1 29 3 32 1 34 1 Skate, Winter Total Weight: 65 Sub-Sample Weight: Length Count								_			
26 3 27 4 28 1 29 3 32 1 34 1 Skate, Winter Total Weight: 65 Sub-Sample Weight: Length Count	Conditions:		Wind: 5	Wind Dir.	W	Wa	rp: 125 fm			3 kt	
27 4 28 1 29 3 32 1 34 1 Skate, Winter Total Weight: 65 Sub-Sample Weight: Length Count	Conditions: !	Sky: Partly Clou	Wind: 5	Wind Dir.	W	Wa	rp: 125 fm			3 kt	
28 1 29 3 32 1 34 1 Skate, Winter Total Weight: 65 Sub-Sample Weight:	Hake, Red Length	Sky: Partly Clou Count	Wind: 5	Wind Dir.	W	Wa	rp: 125 fm		Tow Speed:	3 kt	
29 3 32 1 34 1 Skate, Winter Total Weight: 65 Length Count	Hake, Red Length 25	Sky: Partly Clou Count 9	Wind: 5	Wind Dir.	W	Wa	rp: 125 fm		Tow Speed:	3 kt	
32 1 34 1 Skate, Winter Total Weight: 65 Sub-Sample Weight: Length Count	Hake, Red Length 25 26	Count 9 3	Wind: 5	Wind Dir.	W	Wa	rp: 125 fm		Tow Speed:	3 kt	
34 1 Skate, Winter Total Weight: 65 Sub-Sample Weight: Length Count	Hake, Red Length 25 26 27	Count 9 3 4	Wind: 5	Wind Dir.	W	Wa	rp: 125 fm		Tow Speed:	3 kt	
Skate, Winter Total Weight: 65 Sub-Sample Weight: Length Count	Hake, Red Length 25 26 27 28	Count 9 3 4 1	Wind: 5	Wind Dir.	W	Wa	rp: 125 fm		Tow Speed:	3 kt	
Length Count	Hake, Red Length 25 26 27 28 29	Count 9 3 4 1 3	Wind: 5	Wind Dir.	W	Wa	rp: 125 fm		Tow Speed:	3 kt	
	Hake, Red Length 25 26 27 28 29 32	Count 9 3 4 1 3 1	Wind: 5	Wind Dir.	W	Wa	rp: 125 fm		Tow Speed:	3 kt	
1 24	Hake, Red Length 25 26 27 28 29 32 34	Count 9 3 4 1 3 1	Wind: 5	Wind Dir.	W 81.6	Wa S	rp: 125 fm	eight:	Tow Speed:	3 kt	
	Hake, Red Length 25 26 27 28 29 32 34 Skate, Wint	Count 9 3 4 1 3 1	Wind: 5	Wind Dir.	W 81.6	Wa S	rp: 125 fm	eight:	Tow Speed:	3 kt	

Hake, Silver	r (Whiting)	Total Weight:	38	Sub-Sample Weight:	4.8
Length	Count				
15	3				1
16	1				1
17	2				1
18	5				1
19	4				1
20	2				1
21	3				1
22	3				1
23	6				1
24	9				1
25	2				1
26	1				1
27	5				1
28	2				1
29	2				1
30	1				1
31	2				T
Butterfish		Total Weight:	21.6	Sub-Sample Weight:	2.7
Length	Count				

Butterfish		Total Weight:	21.6	Sub-Sample Weight:	2.7	
Length	Count					
14	4					
15	11				ı	
16	11				ı	
17	5					
17	1				1	

Skate, Little		Total Weight:	14.5	Sub-Sample Weight:		
Length	Count					
1	40				ı	

Flounder, Y	'ellowtail	Total Weight:	14.3	Sub-Sample Weight:		
Length	Count					
28	2				1	
29	1					
33	1				1	
35	1					
37	5					
38	2					
39	2					
40	6					
41	3					
42	1					
43	1					
44	1				ı	

Herring, At	lantic	Total Weight:	14	Sub-Sample Weight:	1.8	
Length	Count					
17	3				1	
18	2				1	
20	1				1	
21	1				1	
22	1				1	
23	3				1	
24	2				1	
25	1				1	
26	1				1	

Scup		Total Weight:	12	Sub-Sample Weight:	1.5
Length	Count				
20	2				
21	2				1
22	1				
25	1				1

Ocean Pout	Total Weight:	8.3	Sub-Sample Weight:		
Length Cour	nt				
1 11				l	

Flounder, S	ummer (Fluke)	Total Weight:	5.1	Sub-Sample Weight:		
Length	Count					
30	1				1	
31	1				1	
34	1				1	
36	2				1	
45	1				1	
57	1				1	

Flounder, F	ourspot	Total Weight:	3.2	Sub-Sample Weight:	
Length	Count				
18	1				1
22	1				1
24	1				1
25	1				1
26	1				1
27	1				1
29	1				
30	2				1
31	3				
32	3				1
34	1				1

Flounder, V	Vinter (Blackba	Total Weight:	2.6	Sub-Sample Weight:		
Length	Count					
26	1					
31	1				ı	
32	1					
36	1				ı	
40	1				1	

Monkfish		Total Weight:	2.3	Sub-Sample Weight:		
Length	Count					
39	1				1	
55	1				l	

Flounder, S	and Dab (Win	Total Weight:	2.2	Sub-Sample Weight:		
Length	Count					
21	2)	
22	2)	
23	2)	
24	3)	
25	2				1	
26	2				1	

Tow	22		Date		5/5/2013	1	Start Tow	Time:	10:05	Lat	N 4	40.53.290	Long:	W 71.21.90	Depth:	31	fm
Gear:	Stand	ard	Record	ler:	CR		End Tow	Time:	10:45	Lat	N 4	40.54.420	Long:	W 71.19.60	Depth:	30	fm
Conditi	ons:	Sky:	Partly C	lou	Wind:	5	Wind Dir.	W		War	p:	125 fm	ı	Tow Speed:	3 k	t	
Skat	e, Wir	iter				Tot	al Weight:		120	S	ub-	Sample W	eight:				
Ler	ngth	С	ount														
1		4	18											1			

Hake, Red		Total Weight:	37.8	Sub-Sample Weight:	6.3
Length	Count				
24	2)
25	7)
26	6)
27	5				1
28	6				1
29	6				1
30	5				1
31	4				1
32	1				ı
34	1				1
33	1				1
36	2				1
40	1				

Hake, Silve	(Whiting)	Total Weight:	31.5	Sub-Sample Weight:	5.2
Length	Count				
15	1)
16	1)
17	4				1
18	4				1
19	10				1
20	3				1
21	3				1
22	4)
23	6				1
24	6)
25	4				1
26	1)
27	3)
28	6)
29	2)
30	2				1

Skate, Little		Total Weight:	24.9	Sub-Sample Weight:		
Length	Count					
1	36)	

Flounder, Y	'ellowtail	Total Weight:	23	Sub-Sample Weight:	11.5
Length	Count				
27	2)
32	1				1
33	2				1
34	2)
35	2				1
36	1				1
37	3				1
38	3				1
39	1				
40	4)
41	1				
42	1				1

Herring, At	lantic	Total Weight:	12.6	Sub-Sample Weight:	2.1
Length	Count				
16	1				
17	5				1
18	4				1
19	3				1
20	4				1
21	5				1
22	1				l
23	2				ı
24	1				

Atlantic Co	d	Total Weight:	12.3	Sub-Sample Weight:	
Length	Count				
33	1				1
35	1				1
37	1				1
38	1				1
39	3				1
43	1				1
44	1				1
45	1				1
46	1				
53	1				1
60	1				1

Butterfish		Total Weight:	8.4	Sub-Sample Weight:	1.4	
Length	Count					
14	2				1	
15	4				1	
16	5				1	
18	2				1	

Monkfish		Total Weight:	8	Sub-Sample Weight:		
Length	Count					
36	1				ı	
52	1				1	
75	1				1	

Ocea	an Pou	ut			Total \	Weight:		7.2	Su	ub-Sample W	eight:				
Ler	ngth	С	ount												
1		8	3									1			
Flou	nder,	Winte	er (Blackba		Total \	Weight:		5	Sı	ub-Sample W	eight:		2.5		
Ler	ngth	С	ount												
32		1	L									1			
36	;	1	L)			
37	•	1	L									1			
38	}	1	L									1			
Flou	nder,	Fours	not		Total \	Neight:		4.4	Sı	ıb-Sample W	'eight:		2.2		
	ngth		ount								0.8				
29		1)			
30			2)			
34			2									1			1
42		1)			
Scup)				Total \	Weight:		3.3	Sı	ub-Sample W	eight:		0.6		
Ler	ngth	С	ount												
17	'	1	L									1			
21			L									1			
22		1	L									l			
Flou	nder,	Sand	Dab (Win		Total \	Weight:		2.4	Sı	ub-Sample W	eight:		1.2		
Ler	ngth	С	ount												
23		3	3									١			
25	;	3	3									1			
27	,	1	L									1			
Can	Davas				Total	Maiabti		1.0	c.	uh Campla M	loiah+.				
	Raven				TOLAL	Weight:		1.9	30	ub-Sample W	eignt:				
	ngth		ount												
1		8	5									1			
Tow	23		Date	5/5/2011	St	art Tow	Time:	11:30	Lat	N 40.53.570	Long:	W 71.21.35	Depth:	31 f	fm
Gear:	Stand	lard	Recorder:	CR	Er	d Tow	Time:			N 40.52.800			Depth:	31 f	fm
Conditi	ons:	Sky:	Partly Clou	Wind:	5 W	ind Dir.	W		War	p: 150 fm	1	Tow Speed:	2.9 kt		

Skate, Wint	er	Total Weight:	81.3	Sub-Sample Weight:	
Length	Count				
1	32				

Hake, Red		Total Weight:	56.6	Sub-Sample Weight:	7.9
Length	Count				
24	4				
25	5				
26	8				
27	10				
28	6				
29	2				
30	4				
31	1				
32	4				
33	1				
34	2				·
35	2				
36	1				

Hake, Silver	r (Whiting)	Total Weight:	42.3	Sub-Sample Weight:	7.3
Length	Count				
17	2				
18	4				
19	1				
20	1				
21	1				
22	6				
23	6				
24	9				
25	6				
26	2				
27	5				
28	1				
29	3				
30	1				
31	1				
32	1				
34	1				·

Skate, Little		Total Weight:	33.3	Sub-Sample Weight:	
Length	Count				
1	50				

Butterfish		Total Weight:	24.5	Sub-Sample Weight:	4.9
Length	Count				
13	1				
14	5				
15	13				
16	15				
17	13				
18	4				

Flounder, Y	'ellowtail	Total Weight:	18.4	Sub-Sample Weight:	14.7
Length	Count				
28	1				
29	1				
30	1				•
32	1				
34	3				
35	2				
36	4				•
37	2				
38	5				•
39	3				
40	4				•
41	1				
42	1				
43	1				
44	1				

Herring, At	lantic	Total Weight:	16.5	Sub-Sample Weight:	3.3
Length	Count				
15	1				
16	4				
17	18				
18	18				
19	8				
20	2				
21	1				
22	2				

Scup		Total Weight:	15.5	Sub-Sample Weight:	3.1
Length	Count				
17	1				
19	1				
20	1				
21	3				
22	1				
23	1				
24	3				
28	1				

Atlantic Co	d	Total Weigl	nt: 8.4	Sub-Sample Weight:	
Length	Count				
37	1				
30	1				
42	1				
43	1				
45	1				
47	2				
48	1				·
50	1				

Sea Raven		Total Weight:	5.9	Sub-Sample Weight:	
Length	Count				
1	25				

Ocean Pout		Total Weight:	5.7	Sub-Sample Weight:	
Length	Count				
1	8				

Flounder, F	ourspot	Total Weight:	3.9	Sub-Sample Weight:	3.1
Length	Count				
28	2				
29	1				
30	2				•
31	3				
32	2				
34	1				
39	1				
	·	·		·	·

Flounder, S	Sand Dab (Win	Total Weight:	2.6	Sub-Sample Weight:	
Length	Count				
19	1				
21	1				
22	1				
25	2				
26	2				·
27	1				
30	1				•

Flounder, V	Winter (Blackba	Total Weight:	2.2	Sub-Sample Weight:	1.7	
Length	Count					
34	1				•	
38	1					
40	1					

Squid, Atla	ntic Long-fin	Total Weight:	2 Sub-Sample Weight:	0.4
Length	Count			
19	2			
16	1			
22	1			

Flounder, S	ummer (Fluke)	Total Weight:	1.9	Sub-Sample Weight:	
Length	Count				
31	1				,
42	1				
61	1				

Macke	ral, Atla	ntic	To	tal Weight:		1.2	Sı	ub-Sa	ample W	eight:		0.3	
Lengt	th (Count											
25		1											
27		1											
Monkf	ish		To	tal Weight:		0.4	Sı	ıh-Sa	ample W	eight:			
Lengt		Count		veignt.		J. 4		<i>10 3</i> (ampic vv	Cigirc.			
25		1											
23		1									•		
Tow	24	Date	5/5/2011	Start Tow	Time:	13:05	Lat	N 40	0.53.040	Long:	W 71.46.00	Depth:	31 fr
	andard	Recorder:		End Tow	Time:	_				_	W 71.28.82		31 fr
Condition	ns: Sky:	Partly Clou	Wind:	Wind Dir.	W		War	p:	150 fm	1	Tow Speed	: 3 I	ĸt
Skate,	Winter		To	tal Weight:	1	.26	Sı	ub-Sa	ample W	eight:			
Lengt	:h (Count											
1		46											
Hake,	Red		To	tal Weight:	20	6.8	Sı	ub-Sa	ample W	eight:		6.7	
Lengt	:h (Count											
24		5											
25		4									1		
26		8									1		
27		9											
28		3											
29		3											
30		2									1		
31		1											
32		2											

Flounder, Y	'ellowtail	Total Weight:	20.5	Sub-Sample Weight:		
Length	Count					
27	1					
28	3				:	
29	2					
33	2				:	
34	1					
35	2				:	
36	2				:	
38	1				:	
39	6				:	
40	6				:	
41	4				:	
42	4				:	
43	1				:	

Hake, Silve	er (Whiting)	Total Weight:	16.6	Sub-Sample Weight:	4.2
Length	Count				
15	1				
19	1				
20	1				•
22	4				
23	3				1
24	6				
25	6				1
26	6				1
27	3				
28	1				1
30	3				:
36	1				:

Scup		Total Weight:	8.8	Sub-Sample Weight:	2.2
Length	Count				
21	2				.!
22	2				
23	1				
24	1				
28	1				

Butterfish		Tota	al Weight:	8.6	Sub-Sample Wei	ght:	2.2
Length	Count						
13	2						
14	2						
15	5					1	
16	8					1	
17	9					1	

Flounder, F	ourspot	Total Weight:	7.4	Sub-Sample Weight:	
Length	Count				
25	3				
22	1				:
26	2				
27	4				
28	1				1
29	4				!
30	4				1
31	3				
32	3				1
34	1				
35	1				1
36	2				
37	1				1

Herring, At	lantic	Total Weight:	7.2	Sub-Sample Weight:	1.9
Length	Count				
14	1				:
16	1				:
17	8				:
18	5				
19	5				1
20	2				1
22	1				1
23	2				1

Flounder, W	Vinter (Blackba	Total Weight:	5.6	Sub-Sample Weight:		
Length	Count					
32	1				:	
33	1				1	
34	1				1	
35	1					
36	2					
40	1					
42	1					
Skate, Little		Total Weight:	5	Sub-Sample Weight:		
Length	Count					
1	8				:	
Monkfish		Total Weight:	4.8	Sub-Sample Weight:		
Length	Count					
26	1					
38	1				!	
45	1					
46	1					
Sea Raven		Total Weight:	4.8	Sub-Sample Weight:		
Length	Count					
1	20				1	
Ocean Pout		Total Weight:	4.3	Sub-Sample Weight:		
Length	Count			244 24pic 116.6/10		
1	5					
					•	
Flounder, Si	ummer (Fluke)	Total Weight:	2.8	Sub-Sample Weight:		
Length	Count					
28	1					
31	1				:	
33	1				1	

Atlantic Cod		Total Weight:	2	Sub-Sample Weight:	
Length	Count				
59	1				:
Flounder, Sa	and Dab (Win	Total Weight:	1.5	Sub-Sample Weight:	
Length	Count	'			
23	1				
24	3				:
25	1				
29	1				!
30	1				1
Mackeral, A	tlantic	Total Weight:	1	Sub-Sample Weight:	0.3
Length	Count	-			
19	2				1
24	1				
Black Sea ba	ISS	Total Weight:	0.5	Sub-Sample Weight:	
Length	Count				
34	1				!
Гоw 25	Date	5/5/2011 Start Tow	Time: 15:2!	5 Lat N 40.46.450 Long:	W 71.26.04 Depth: 31 fm
Gear: Standar	rd Recorder:	CR End Tow			W 71.23.99 Depth: 32 fm
Conditions: S	ky: Clear	Wind: 4 Wind Dir.	W	Warp: 150 fm	Tow Speed: 3 kt
Skate, Winte	er	Total Weight:	92.6	Sub-Sample Weight:	
Length	Count				
1	36				1
Herring, Atla		Total Weight:	90	Sub-Sample Weight:	3.4
Length	Count				
16	3				i
17	17				į.
18	19				i
19	11				i
20	3				;
24	1				1
25	1				

Hake, Red		Total Weight:	64	Sub-Sample Weight:	6.4
Length	Count				
22	1				1
23	1				
24	5				4
25	13				
26	11				1
27	9				4
28	6				1
29	3				4
30	2				+
31	1				
35	1				į.

Mackeral, A	Atlantic	Total Weight:	39	Sub-Sample Weight:	3.9
Length	Count				
18	1				
20	1				1
21	3				1
22	2				1
25	1				1
26	4				1
27	4				
28	1				1
29	1				1
31	1				
32	1				1

Scup		Total Weight:	21	Sub-Sample Weight:	2.1
Length	Count				
21	2				
22	1				
23	3				1
24	1				
18	1				1

Hake, Silve	r (Whiting)	Total Weight:	15	Sub-Sample Weight:	1.5
Length	Count				
17	1				1
18	1				4
19	2				1
20	1				4
21	4				1
22	2				4
23	3				1
24	1				1
25	2				1
26	1				1
30	1				1
32	1				

Skate, Little		Total Weight:	14	Sub-Sample Weight:		
Length	Count					
1	20				1	

Squid, Atlai	ntic Long-fin	Total Weight:	9	Sub-Sample Weight:	0.9
Length	Count				
10	1				
14	1				
16	1				
17	1				
19	1				
20	1				1.

Length	ourspot	Total Weight:	6.6	Sub-Sample Weight:	
	Count		<u> </u>		
14	1				1
22	1				1
23	3				1
24	3				
25	3				3
26	3				4
27	5				i.
29	5				1
30	3				
31	1				
32	2				
33	1				1
Flounder, St	ummer (Fluke)	Total Weight:	5.4	Sub-Sample Weight:	
Length	Count		<u> </u>		
49	1				1
59	1				;
Butterfish		Total Weight:	5	Sub-Sample Weight:	1.3
Length	Count				
14	1				1
15	3				4
16	5				l .
17	2				1
18	1				;
Flounder, W	/inter (Blackba	Total Weight:	2.8	Sub-Sample Weight:	
Length	Count				
38	1				1
50	1				+
45					
	ellowtail	Total Weight:	2.5	Sub-Sample Weight:	
45	ellowtail	Total Weight:	2.5	Sub-Sample Weight:	

Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Coun					· ·						,		
24 3 26 1 28 1 29 1 Coean Pout Length Count 1 4 Sea Raven Total Weight: 1.5 Sub-Sample Weight: Length Count 1 6 Monkfish Total Weight: 0.9 Sub-Sample Weight: Length Count											Count	h C	Len
26 1 28 1 29 1 Cocan Pout Length Count 1 4 Sea Raven Total Weight: 1.5 Sub-Sample Weight: Length Count 1 6 Monkfish Total Weight: 0.9 Sub-Sample Weight: Length Length Count			1								1		22
28 1 29 1 Ocean Pout Length Count 1 4 Sea Raven Total Weight: 1.5 Sub-Sample Weight: Length Count 1 6 Monkfish Total Weight: 0.9 Sub-Sample Weight: Length Count Count Ocean Pout Total Weight: 0.9 Sub-Sample Weight: Length Count Ocean Pout Total Weight: 0.9 Sub-Sample Weight: Length Count											3		24
Ocean Pout Total Weight: 2.5 Sub-Sample Weight: Length Count 1 4 Sea Raven Total Weight: 1.5 Sub-Sample Weight: Length Count 1 6 Monkfish Total Weight: 0.9 Sub-Sample Weight: Length Count Count Total Weight: 0.9 Sub-Sample Weight:			i								1		26
Ocean Pout Total Weight: 2.5 Sub-Sample Weight: Length Count 1 4 Sea Raven Total Weight: 1.5 Sub-Sample Weight: Length Count 1 6 Monkfish Total Weight: 0.9 Sub-Sample Weight: Length Count Length Count Total Weight: O.9 Sub-Sample Weight: Length Count Total Weight: Total Weight: D.9 Sub-Sample Weight: Length Count Total Weight: D.9 Sub-Sample Weight: Length Count Total Weight: D.9 Sub-Sample Weight: D.9 Sub-Sample Weight: D.9 Sub-Sample Weight: D.9 Sub-Sample Weight: D.9 Sub-Sample Weight: D.9 Sub-Sample Weight: D.9 Sub-Sample Weight: D.9 Sub-Sample Weight: D.9 Sub-Sample Weight: D.9 D.9 Sub-Sample Weight: D.9 D.9 D.9 D.9 D.9 D.9 D.9 D.			;								1		28
Length Count 1 4 Sea Raven Total Weight: 1.5 Sub-Sample Weight: Length Count 1 6 Monkfish Total Weight: 0.9 Sub-Sample Weight: Length Count			ŀ								1		29
Length Count 1 4 Sea Raven Total Weight: 1.5 Sub-Sample Weight: Length Count 1 6 Monkfish Total Weight: 0.9 Sub-Sample Weight: Length Count				eight:	-Sample W	Sub-	2.5		tal Weight:	To		Pout	Ocea
Sea Raven Total Weight: 1.5 Sub-Sample Weight: Length Count 1 6 Monkfish Total Weight: 0.9 Sub-Sample Weight: Length Count											Count	h (Len
Length Count 1 6 Monkfish Total Weight: 0.9 Sub-Sample Weight: Length Count			i								4		1
Length Count 1 6 Monkfish Total Weight: 0.9 Sub-Sample Weight: Length Count				oiaht.	Cample W	Cub	1 [tal Maight.	Та			Coo D
1 6 Monkfish Total Weight: 0.9 Sub-Sample Weight: Length Count				eignt:	-Sample w	Sub-	1.5		tai weight:	10			
Monkfish Total Weight: 0.9 Sub-Sample Weight: Length Count													
Length Count			1								Ь		1
				eight:	-Sample W	Sub-	0.9		tal Weight:	To		sh	Monk
30 1											Count	h C	Len
			1								1		30
Haddock Total Weight: 0.2 Sub-Sample Weight:				eight:	Sample W	Sub-	0.2		tal Weight:	To		ck	Hadd
Length Count					·						Count	h (Leng
21 1			;								1		
22 1			į.								1		22
	32 fr	_		_			_						_
Gear: Standard Recorder: CR End Tow Time: 17:35 Lat N 40.41.400 Long: W 71.22.47 Depth: 3 Conditions: Sky: Clear Wind: 5 Wind Dir. W Warp: 150 fm Tow Speed: 3 kt	31 fr			_			17:3						
Skate, Winter Total Weight: 65.5 Sub-Sample Weight:							5 5	_			3.53.		
Length Count				CIBIT.	Sample VV	Jub	3.3		tai vveigiit.				
											ิดนท†	h c	lend

Herring, At	lantic	Total Weight:	39.3	Sub-Sample Weight:	4.9
Length	Count				
17	2				
18	17				
19	23				
20	3				
21	3				
22	1				
23	2				
24	2				
25	2				
27	1				

Hake, Red		Total Weight:	28	Sub-Sample Weight:	5.6
Length	Count				
24	5				
25	4				
26	12				
27	5				
28	5				
29	4				
30	2				
31	1				
32	1				
33	1				
37	1				

Skate, Little		Total Weight:	28	Sub-Sample Weight:	
Length	Count				
1	42				

Mackeral, A	Atlantic	Total Weight:	18.5 Sub-Sample Weight:	3.7
Length	Count			
19	3			
20	2			
26	3			
27	3			
28	2			
29	4			
30	1			
31	1			

Hake, Silve	(Whiting)	Total Weight:	14.5	Sub-Sample Weight:	4.6
Length	Count				
16	1				
18	2				
19	2				
20	2				
21	2				
22	7				
23	5				
24	3				
25	3				
26	1				
27	2				
28	1				
29	2				
31	1				
32	1				
34	1				
38	1				٠

Flounder, F	ourspot	Total Weight:	6.3	Sub-Sample Weight:	
Length	Count				
22	1				
24	1				
25	7				
26	3				
27	8				
28	2				
29	2				
30	3				
31	1				
32	2				
34	3				
40	1				

Scup		Total Weight:	4.4	Sub-Sample Weight:	
Length	Count				
17	1				
18	1				
21	1				
22	2				
23	1				
24	3				
26	2				
30	1				
31	1				

Flounder, S	and Dab (Win	Total Weight:	3.1	Sub-Sample Weight:	
Length	Count				
23	2				
24	6				
25	5				
26	1				
27	2				

Flounder, Ye	ellowtail	Total Weight:	3	Sub-Sample Weight:	
Length	Count				
30	1				·
31	1				
35	1				
36	1				
37	1				
38	1				
40	1				
Ocean Pout		Total Weight:	2.7	Sub-Sample Weight:	
Length	Count				
1	5				
Butterfish		Total Weight:	2	Sub-Sample Weight:	0.4
Length	Count				
15	3				
17	1				
19	1				
C D		T. (1) M. (1) I		C. l. C l. Martil	
Sea Raven		Total Weight:	2	Sub-Sample Weight:	
Length	Count				
1	5				·
Squid, Atlan	ntic Long-fin	Total Weight:	2	Sub-Sample Weight:	0.4
Length	Count				
11	3				
12	3				
15	1				
Atlantic Coc	d	Total Weight:	1.5	Sub-Sample Weight:	
Length	Count				
49	1				
Monkfish		Total Maight.	0.9	Sub-Sample Weight:	
	Corret	Total Weight:	0.9	Sub-Sample Weight:	
Length	Count 1				
31					

Blac	ck Sea	hass			Tot	al Weight:		0.9		Sı	ub-Sampl	le Weig	ht:					
	ngth		ount			ar Weight.		0.5			,							
25		1																
3:		1																
3,			•												•			
Flou	under,	Winte	er (Blackba		Tot	al Weight:		0.6		Sı	ub-Sampl	le Weig	ht:					
Le	ngth	C	ount															
28	8	1																
Hac	ldock				Tot	al Weight:		0.4		Sı	ub-Sampl	le Weig	ht:					
Le	ngth	C	ount															
2:	3	1																
2	4	1																
Tow	27		Date	5/6/2013	1	Start Tow					N 40.37.		_			Depth:		fm
Gear:			Recorder:	CR	2		Time:		6:35		N 40.45.	_	ng:			Depth:		fm
Condit		Ѕку:	Clear	Wind:		Wind Dir.				War		fm		Tow Sp	eea:	3	KT	
Scu	р				Tot	al Weight:		422		Sı	ub-Sampl	le Weig	ht:		1	.4.7		
Le	ngth	C	ount															
20	0	1													i			
2:	1	3													i			
2:	2	3													i			
23	3	7	,												i			
24	4	4													i			
2.	5	5													i			
20	6	6	;												i			
2	7	7	,												i			
28	8	4													i			
Ma	ckeral,	Atlan	tic		Tot	al Weight:		88		Sı	ub-Sampl	le Weig	ht:			3.1		
	ngth		ount								•							
18		1													i			
19			.2												i			
20			.1												i			
2:		5													i			
2:		5													į			
2.		2													i			
28		1													i			

Skate, Winter		Total Weight:	43.2	Sub-Sample Weight:		
Length	Count					
1	16				i	

Herring, At	lantic	Total Weight:	36	Sub-Sample Weight:	1.3
Length	Count				
16	1				i
17	8				i
18	9				i
19	2				i
20	1				i
21	1				i

Skate, Little		Total Weight	: 19.5	Sub-Sample Weight:	
Length	Count				
1	31				

Hake, Silve	r (Whiting)	Total Weight:	18.5	Sub-Sample Weight:	4.4
Length	Count				
14	1				i
16	2				
17	2				
18	4				
19	4				
20	3				
21	4				
22	6				
23	4				
24	4				i
25	2				i
26	3				i
27	3				i
28	3				i
29	1				i
30	2				i

Flounder, Y	'ellowtail	Total Weight:	17.8	Sub-Sample Weight:		
Length	Count					
25	1				i	
26	1				i	
27	1				i	
28	1				i	
30	2				i	
31	2				i	
33	6				i	
34	5				i	
35	1				i	
36	3				i	
37	1				i	
38	2				i	
40	2				i	
41	4				i	
42	1				i	
43	2				i	
44	2				i	
45	1					

Hake, Red		Total Weight:	15	Sub-Sample Weight:	2.8
Length	Count				
25	5				
26	3				i
27	1				i
28	1				i
29	2				ì
31	2				1
32	2				ì
34	1				i
35	1				i I

Ocean Pout		Total Weight:	10.2	Sub-Sample Weight:		
Length	Count					
1	25				i	

Flounder, S	ummer (Fluke)	Total Weight:	8.6	Sub-Sample Weight:	
Length	Count				
30	1				
31	2				
32	3				
34	2				
36	1				
37	1				
39	1				
50	1				
63	1				

Butterfish		Tota	ıl Weight:	7.2	Sub-Sample Weight:	1.4
Length	Count					
14	4					i
15	5					į.
16	2					i
17	1					i e
18	1					i
19	1					i I

Flounder, F	ourspot	Total Weight:	5.4	Sub-Sample Weight:		
Length	Count					
21	2				i	
22	1				ì	
25	6				ì	
27	2				ì	
29	4				ì	
30	6				ì	
31	3				ì	
32	1				ì	
33	2				ì	
35	1				ì	
39	1				i	

Monkt	rfish			Total Weigh	t:	3.8	Su	ub-Sample	Weight:				
Leng	gth (Count						<u> </u>					
24		1								i			
24		2											
47		1								i			
Sea Ra				Total Weigh	t:	2.9	Sı	ub-Sample	Weight:				
Leng		Count											
1		10								i			
		15 1 /14				0 =							
		d Dab (Win		Total Weigh	t:	0.7	St	ub-Sample	Weight:				
Leng		Count											
22		2								i			
23		1								i			
25		1								1			
							C.	l. Cl.	\\/a:~b+.				
Flound	der, Wint	ter (Blackba		Total Weigh	t:	0.6	St	ub-Sample	weight:				
		ter (Blackba Count		Total Weigh	t:	0.6	St	ub-Sample	weight:				
Flound Leng	gth (Total Weigh	t:	0.6	St	ıb-sample	weight:	j			
Leng	gth (Count		Total Weigh	t:	0.6	50	ub-Sample	weight:	·			
Leng 36	gth (Count	5/6/201							W 71.40.93	Depth:	37	fm
Leng 36	gth (Count 1	5/6/201 cr		w Time	e: 7:	20 Lat	N 40.43.6	00 Long:		Depth:	37 37	
Leng 36 Tow Gear: St	28 28	Count 1 Date Recorder:		1 Start To	w Time	e: 7:	20 Lat	N 40.43.6 N 40.40.5	00 Long: 40 Long:	W 71.40.93	Depth:	37	
Leng 36 Tow Gear: St	28 Standard	Count 1 Date Recorder:	cr	1 Start To	w Time	e: 7:	20 Lat 25 Lat War	N 40.43.6 N 40.40.5	00 Long: 40 Long: fm	W 71.40.93 W 71.40.79 Tow Speed:	Depth:	37	
Leng 36 Tow Gear: St	28 Standard ons: Sky:	Count 1 Date Recorder:	cr	1 Start To End Tov 2 Wind Di	w Time	e: 7: e: 8:	20 Lat 25 Lat War	N 40.43.6 N 40.40.5 p: 150	00 Long: 40 Long: fm	W 71.40.93 W 71.40.79 Tow Speed:	Depth: 2.9 k	37	
Leng 36 Fow Gear: St Condition	28 Standard ons: Sky:	Date Recorder: Clear	cr	1 Start To End Tov 2 Wind Di	w Time	e: 7: e: 8:	20 Lat 25 Lat War	N 40.43.6 N 40.40.5 p: 150	00 Long: 40 Long: fm	W 71.40.93 W 71.40.79 Tow Speed:	Depth: 2.9 k	37	
Leng 36 Fow Gear: St Condition Scup Leng	28 Standard ons: Sky:	Date Recorder: Clear	cr	1 Start To End Tov 2 Wind Di	w Time	e: 7: e: 8:	20 Lat 25 Lat War	N 40.43.6 N 40.40.5 p: 150	00 Long: 40 Long: fm	W 71.40.93 W 71.40.79 Tow Speed:	Depth: 2.9 k	37	
Leng 36 Fow Gear: St Condition Scup Leng 18	28 standard ons: Sky:	Date Recorder: Clear Count	cr	1 Start To End Tov 2 Wind Di	w Time	e: 7: e: 8:	20 Lat 25 Lat War	N 40.43.6 N 40.40.5 p: 150	00 Long: 40 Long: fm	W 71.40.93 W 71.40.79 Tow Speed:	Depth: 2.9 k	37	
Leng 36 Tow Gear: St Condition Scup Leng 18 19	28 Standard ons: Sky:	Date Recorder: Clear Count 1 5	cr	1 Start To End Tov 2 Wind Di	w Time	e: 7: e: 8:	20 Lat 25 Lat War	N 40.43.6 N 40.40.5 p: 150	00 Long: 40 Long: fm	W 71.40.93 W 71.40.79 Tow Speed:	Depth: 2.9 k	37	
Leng 36 Tow Gear: St Condition Scup Leng 18 19 20	28 Standard ons: Sky	Date Recorder: Clear Count 1 5 9	cr	1 Start To End Tov 2 Wind Di	w Time	e: 7: e: 8:	20 Lat 25 Lat War	N 40.43.6 N 40.40.5 p: 150	00 Long: 40 Long: fm	W 71.40.93 W 71.40.79 Tow Speed:	Depth: 2.9 k	37	
Leng 36 Tow Gear: St Condition Scup Leng 18 19 20 21	28 Standard	Date Recorder: Clear Count 1 5 9 16	cr	1 Start To End Tov 2 Wind Di	w Time	e: 7: e: 8:	20 Lat 25 Lat War	N 40.43.6 N 40.40.5 p: 150	00 Long: 40 Long: fm	W 71.40.93 W 71.40.79 Tow Speed:	Depth: 2.9 k	37	
Leng 36 Tow Gear: St Condition 18 19 20 21 22	28 Standard ons: Sky	Date Recorder: Clear Count 1 5 9 16 12	cr	1 Start To End Tov 2 Wind Di	w Time	e: 7: e: 8:	20 Lat 25 Lat War	N 40.43.6 N 40.40.5 p: 150	00 Long: 40 Long: fm	W 71.40.93 W 71.40.79 Tow Speed:	Depth: 2.9 k	37	
Leng 36 Tow Gear: St Condition Scup Leng 18 19 20 21 22 23	28 Standard ons: Skys	Date Recorder: Clear Count 1 5 9 16 12 9	cr	1 Start To End Tov 2 Wind Di	w Time / Time r. SW	e: 7: e: 8:	20 Lat 25 Lat War	N 40.43.6 N 40.40.5 p: 150	00 Long: 40 Long: fm	W 71.40.93 W 71.40.79 Tow Speed:	Depth: 2.9 k	37	
Leng 36 Tow Gear: St Condition Scup Leng 18 19 20 21 22 23 24	28 Standard ons: Sky:	Date Recorder: Clear Count 1 5 9 16 12 9 5	cr	1 Start To End Tov 2 Wind Di	w Time / Time r. SW	e: 7: e: 8:	20 Lat 25 Lat War	N 40.43.6 N 40.40.5 p: 150	00 Long: 40 Long: fm	W 71.40.93 W 71.40.79 Tow Speed:	Depth: 2.9 k	37	
Leng 36 36 50 50 50 50 50 50 50 50 50 50 50 50 50	28 Standard ons: Sky:	Date Recorder: Clear Count 1 5 9 16 12 9 5 5	cr	1 Start To End Tov 2 Wind Di	w Time / Time r. SW	e: 7: e: 8:	20 Lat 25 Lat War	N 40.43.6 N 40.40.5 p: 150	00 Long: 40 Long: fm	W 71.40.93 W 71.40.79 Tow Speed:	Depth: 2.9 k	37	
Leng 36 Tow Gear: St Condition 18 19 20 21 22 23 24 25 26	28 Standard ons: Sky:	Date Recorder: Clear Count 1 5 9 16 12 9 5 5 2	cr	1 Start To End Tov 2 Wind Di	w Time / Time r. SW	e: 7: e: 8:	20 Lat 25 Lat War	N 40.43.6 N 40.40.5 p: 150	00 Long: 40 Long: fm	W 71.40.93 W 71.40.79 Tow Speed:	Depth: 2.9 k	37	

	Total Weight:	113.5	Sub-Sample Weight:		
Length Count					
1 32				j	

Mackeral, A	Atlantic	Total Weight:	105	Sub-Sample Weight:	5.9
Length	Count				
18	5				i
19	13				j
20	17				j
21	12				j
22	4				i
23	1				i
24	1				j
25	3				j
26	3				i
27	2				j
28	1				j
30	1				i

Length Count	
1 44	i

Hake, Silve	r (Whiting)	Total Weight:	25	Sub-Sample Weight:	3.8
Length	Count				
17	3				i
18	2				i
19	2				i
20	4				i
21	3				i
22	6				i
27	10				i
24	2				i
25	3				i
26	3				i
27	1				i
28	4				i
31	1				i

Monkfish		Total Weight:	16.7	Sub-Sample Weight:		
Length	Count					
33	1				ì	
42	2				ì	
34	1				ì	
45	1				ì	
46	1				i	
48	2				i	
52	1				i	
55	1				i	

Herring, At	lantic	Total Weight:	14.5	Sub-Sample Weight:	0.8
Length	Count				
18	1				i
19	3				i
20	1				i
21	2				i
25	1				i

Flounder, F	ourspot	Total Weight:	11.6	Sub-Sample Weight:	7.7
Length	Count				
22	1				i
23	1				j.
24	1				j
25	3				;
26	3				j
27	5				;
28	2				i
29	3				i i
30	7				i
31	1				i .
32	4				i
33	2				i
35	1				i
36	1				i
37	1				i
38	1				i .

Hake, Red		Total Weight:	11	Sub-Sample Weight:	2.5	
Length	Count					
24	1				i	
25	4				i	
26	5				i	
27	2				i	
28	1				i	
29	1				i	
30	2				i	
33	2				i	

Flounder, S	Summer (Fluke)	Total Weight:	9.9	Sub-Sample Weight:	6.6
Length	Count				
28	1				i
30	1				i
31	1				i
32	1				i
33	3				i
34	1				i
35	1				j
36	1				i
38	2				i
42	1				i
55	1				i

Flounder, Y	'ellowtail	Total Weight:	7.9	Sub-Sample Weight:	5.3
Length	Count				
27	2				i
32	1				i
33	1				i
36	1				i
37	1				i
38	2				i
39	1				i
40	1				i
41	1				i

Butterfish		Т	otal Weight:		7	Sub-Sample W	eight:		0.9	
Length	Count									
15	3							j		
16	7							j		
17	1							j		
EL L MA		_			. .				2.5	
	itch (Grey sol	ı	otal Weight:		5.3	Sub-Sample W	eignt:		3.5	
Length	Count									
35	1							i		
43	2							i		
45	1							i		
48	1							i		
Ocean Pout		Т	otal Weight:		2.6	Sub-Sample W	eight:			
Length	Count									
1	5							j		
Sea Raven		Т	otal Weight:		2.5	Sub-Sample W	eight:			
Length	Count	<u> </u>					<u> </u>			
1	10							:		
								'		
Eloundor Ca	and Dab (Win	т	otal Weight:		0.2	Sub-Sample W	oight			
	·	<u>'</u>	Otal Weight.		0.2	Sub-Sample W	eigiit.			
Length	Count									
24	1							; 		
·ow 20	Data	E/6/2011	Start Tow	Time	0.00	Lat N 40 40 F00	Longe	W/71 20 4F	Donth	35 fm
ow 29 Gear: Standar	Date rd Recorder:	5/6/2011 CR	End Tow			Lat N 40.40.580 Lat N 40.41.240	_		Depth:	36 fm
Conditions: Sl		Wind:	3 Wind Dir.		3.43	Warp: 150 fm	_	Tow Speed:	3 kt	
_					00			. orr speca.	3 K	
Skate, Winte		Т	otal Weight:		80	Sub-Sample W	eignt:			
Length	Count									
1	24							1		

Scup		Total Weight:	58	Sub-Sample Weight:	8.3
Length	Count				
17	1				,
19	4				•
20	6				,
21	2				•
22	5				,
23	3				•
24	4				,
27	3				•
29	1				,
30	1				•
18	3				,

Hake, Silve	r (Whiting)	Total Weight:	28.4	Sub-Sample Weight:	2.9
Length	Count				
17	4				,
18	5				,
19	2				,
20	1				,
21	4				,
22	1				,
23	4				,
24	4				,
25	2				,
26	1				,
29	2				,
30	1				,
33	1				1

Flounder, F	ourspot	Total Weight:	24.2	Sub-Sample Weight:	12.1	
Length	Count					
20	1				,	
23	3				,	
24	2				,	
25	2				,	
26	6				,	
27	8				,	
28	3				,	
29	4				,	
30	2				,	
31	4				,	
32	3				,	
33	3				,	
34	1				,	
35	2				,	
36	2				1	
37	1				,	
39	1				1	
Mackeral /	\tlantic	Total Weight:	18 5	Suh-Sample Weight	2.6	

Mackeral, A	Atlantic	Total Weight:	18.5	Sub-Sample Weight:	2.6
Length	Count				
18	1				,
19	2				,
20	7				,
21	4				,
22	1				,
26	5				,
27	3				,

Skate, Little		Total Weight:	18.5	Sub-Sample Weight:		
Length	Count					
1	26				,	

Hake, Red		Total Weight:	18.2	Sub-Sample Weight:	5.8
Length	Count				
20	1				r
22	1				r
23	2				r
24	3				r
25	7				,
26	11				,
27	6				,
28	7				,
29	4				,
31	1				,
32	2				,
33	1				•

Flounder, S	Summer (Fluke)	Total Weight:	10.2	Sub-Sample Weight:	7.5
Length	Count				
32	1				
33	2				,
34	2				
36	1				•
39	1				
41	1				,
42	1				
43	1				,
44	1				,
48	1				1

Herring, At	lantic	Total Weight:	8.5	Sub-Sample Weight:	1.2
Length	Count				
18	6				,
19	7				,
20	4				

Flounder,	Witch (Grey sol	Total Weight:	5.3	Sub-Sample Weight:	2.7
Length	Count				
31	1				,
34	3				•
39	1				•
42	2				•
Ocean Pou	+	Total Waight	4	Sub Sample Weight	
		Total Weight:	4	Sub-Sample Weight:	
Length	Count				,
1	9				'
Butterfish		Total Weight:	2.7	Sub-Sample Weight:	0.3
Length	Count				
15	1				,
17	2				'
Monkfish		Total Weight:	1.5	Sub-Sample Weight:	
Length	Count				
45	1				*
Sea Raven		Total Weight:	1	Sub-Sample Weight:	
Length	Count				
1	3				
Black Sea	hace	Total Weight	0.2	Sub Sample Weight	
		Total Weight:	0.3	Sub-Sample Weight:	
Length	Count				,
26	1				·
Tow 30	Date	5/6/2011 Start Tow	Time: 11:15	Lat N 40.49.670 Long:	W 71.32.94 Depth: 33 fm
Gear: Stand				Lat N 40.52.772 Long:	
Conditions:	Sky: Clear	Wind: 3 Wind Dir.	SW	Warp: 150 fm	Tow Speed: 3 kt

Mackeral, A	Atlantic	Total Weight:	335	Sub-Sample Weight:	5.8
Length	Count				
18	3				1
19	11				1
20	26				1
21	17				4
22	6				3
23	2				4
24	1				1
25	1				4

Herring, At	lantic	Total Weight:	125	Sub-Sample Weight:	4.8
Length	Count				
16	2				1
17	8				1
18	16				1
19	13				
20	7				1
21	1				1
23	1				1
25	1				1

		Skate, Winter	Total Weight:	100.2	Sub-Sample Weight:	
--	--	---------------	---------------	-------	--------------------	--

Hake, Silver	r (Whiting)	Total Weight:	82	Sub-Sample Weight:	6.4
Length	Count				
14	1				}
17	3				}
18	4				}
19	5				}
20	9				}
21	4				}
22	3				}
23	3				}
24	8				}
25	4				}
26	2				}
27	3				}
28	2				}
29	1				}
31	3				}
32	1				}

Hake, Red		Total Weight:	56	Sub-Sample Weight:	6.7
Length	Count				
21	1				}
24	1				}
25	3				}
26	3				}
27	6				}
28	7				}
29	1				1
31	4				}
33	1				1
34	1				}
39	2				}

Butterfish		Total Weight:	40	Sub-Sample Weight:	3.2
Length	Count				
12	1				}
14	5				}
15	5				}
16	6				}
17	4				}
18	1				}

Flounder, Y	ellowtail	Total Weight:	23.9	Sub-Sample Weight:	15.9
Length	Count				
29	1				
32	1				
34	4				}
36	2				}
37	3				}
38	2				}
39	3				}
40	4				}
41	5				}
43	2				}

Atlantic Co	d	Total Weight:	19.6	Sub-Sample Weight:		
Length	Count					
42	1				}	
46	4				}	
47	3				}	
49	1				}	
51	1				1	
58	1				}	
61	1				1	
62	1				}	

Flounder, S	ummer (Fluke)	Total Weight:	6.3	Sub-Sample Weight:	4.2
Length	Count				
31	1				3
34	1				1
37	1				3
38	1				}
41	1				}
42	1				4
46	1				1

		- 0		
Flounder, Fourspot	Total Weight:	5.3	Sub-Sample Weight:	3.4

Scup		Total Weight:	5	Sub-Sample Weight:	2.2
Length	Count				
20	6				1
21	3				1
22	2				3
24	1				4
25	1				3
26	1				4
33	1				3
Sea Raven		Total Weight:	1.5	Sub-Sample Weight:	

Monkfish		Total Weight:	1	Sub-Sample Weight:		
Length	Count					
36	1				}	

Ocean Pout		Total Weight:	0.6	Sub-Sample Weight:		
Length	Count					
1	2				ŀ	

Flounder, V	Vinter (Blackba	Total Weight:	0.3	Sub-Sample Weight:	0.2
Length	Count				
34	1				

Tow	31		Date		5/6/2011		Start Tow	Time:	12:45	Lat	N 4	40.53.150	Long:	W 71.32.04	Depth:	30	fm
Gear:	Stand	dard	Record	der:	CR		End Tow	Time:	13:15	Lat	N 4	40.54.700	Long:	W 71.30.40	Depth:	30	fm
Condit	ions:	Sky:	Clear		Wind:	3	Wind Dir.	SW		War	p:	150 fm		Tow Speed:	3 kt		
Mad	ckeral,	, Atlar	ntic			Tot	al Weight:		315	S	ub-	Sample W	eight:		5.7		
Le	ngth	C	Count														
19	9		10											1			
20)		22											1			
2:	1		10											1			
22	2		6											1			
23	3		3											1			
24	4		1											1			
2	5		1											1			
20	5		1)			
2	7		2											1			
28	3		2											1			

Hake, Red		Total Weight:	160	Sub-Sample Weight:	5.9
Length	Count				
23	1				
24	2				ı
25	1				ı
26	6				ı
27	8				
28	6				ı
29	5				ı
30	1				ı
31	3				
32	2				
34	2				1

Hake, Silve	(Whiting)	Total Weight:	87	Sub-Sample Weight:	5.1	
Length	Count					
17	1				1	
18	2				1	
19	4					
20	2				1	
21	1					
22	2				ı	
23	9				1	
24	6				1	
25	2					
26	6				ı	
27	3					
28	3				ı	
30	2				ı	
31	1				I	
32	1					
34	1				ı	

Skate, Wint	er	Total Weight:	80.5	Sub-Sample Weight:		
Length	Count					
1	28				1	

Flounder, Y	ellowtail	Total Weight:	36.5	Sub-Sample Weight:	18.3
Length	Count				
26	1				
27	2				ı
29	2				ı
30	2				ı
32	1				1
33	4				ı
34	3				ı
35	4				ı
36	2				1
37	2				ı
39	3				ı
40	3				1
42	1				
43	2				
44	1				ı

Butterfish		Total Weight:	16	Sub-Sample Weight:	1.6
Length	Count				
12	1				1
13	4				1
14	3				1
15	7				1
16	3				1
18	1				1

Skate, Little		Total Weight:	15.2	Sub-Sample Weight:		
Length	Count					
1	16				1	

Scup		Total Weight:	10.8	Sub-Sample Weight:	10.5
Length	Count				
19	1				
20	3				1
21	8				1
22	5				1
23	5				1
24	4				1
25	2				1
26	3				1
27	1				1
29	1				ı
33	1				ı

Herring, At	lantic	Total Weight:	6.5	Sub-Sample Weight:	2.4
Length	Count				
16	5				1
17	10				
17	11				
19	4				1
20	1				
22	2				1
23	2				ı

Flounder, V	Vinter (Blackba	Total Weight:	3.7	Sub-Sample Weight:	1.9
Length	Count				
22	1				1
31	2				1
32	1				1
36	1				1

Flounder, S	ummer (Fluke)	Total Weight:	3.2	Sub-Sample Weight:	1.6
Length	Count				
33	1				1
35	1				1
42	1				1

Flounder, F	ourspot	Total Weight:	2.6	Sub-Sample Weight:	1.3
Length	Count				
25	2				
27	1				ı
30	1				1
33	1				1
35	1				1

Flounder, S	and Dab (Win	Total Weight:	1 Sub-Sample Weight:	0.5
Length	Count			
22	1			ı
23	1			1
25	1			ı

Tow	32		Date		5/6/201	L	Start Tow	Time:	13:50	Lat	N 4	40.55.270	Long:	W 71.29.65	Depth:	29 f	fm
Gear:	Stand	lard	Record	der:	CR		End Tow	Time:	14:20	Lat	N 4	40.57.116	Long:	W 71.29.70	Depth:	28 f	fm
Condi	tions:	Sky:	Clear		Wind:	3	Wind Dir.	SW		War	p:	150 fm	ı	Tow Speed:	3 k	t	
Ma	ckeral,	Atlan	tic			Tot	al Weight:	4	275	S	ub-	Sample W	eight:		4.5		
Le	ength	С	ount														
1	.8	3	3)			
1	.9	1	12)			
2	.0	1	13)			
2	.1	5	5)			
2	.2	3	3)			
2	.3	2	2)			
2	.4	2	2)			
2	.6	1	L)			
2	.7	2	2)			
2	.8	2	2											1			

)

Hake, Red		Total Weight:	175	Sub-Sample Weight:	6.3
Length	Count				
20	1				1
22	1				1
23	1				1
24	4				1
25	10				1
26	6				1
27	6				1
28	7				1
29	2				1
30	2				1
31	3				1
32	3				1
33	1				1

Skate, Winter	Total Weight:	114.2 Sub	o-Sample Weight:	
Length Coun				
1 44				1

Herring, At	lantic	Total Weight:	92	Sub-Sample Weight:	3.3	
Length	Count					
16	2				1	
17	11				1	
18	21				1	
19	7				1	
20	3				ı	
23	2				1	
24	1				1	
27	1				1	

Hake, Silve	r (Whiting)	Total Weight: 5	Sub-Sample Weight:	1.9
Length	Count			
15	1			1
18	1			1
17	1			1
19	1			1
20	3			1
21	1			1
23	1			1
24	8			1
25	2			1
26	1			1
27	1			1
29	1			1

Butterfish		Total Weight:	18	Sub-Sample Weight:	0.7
Length	Count				
14	1				1
15	2				1
16	2				1
17	2				1

Flounder, Y	'ellowtail	Total Weight:	16.2	Sub-Sample Weight:	12.9
Length	Count				
25	1				1
27	5				1
28	1				1
29	1				1
30	2				1
34	2				1
36	2				1
37	3				1
38	3				1
39	2				1
40	2				1
41	2				1
42	1				
43	1				ı

Scup		Total Weight:	14	Sub-Sample Weight:	1.5
Length	Count				
22	1				
23	1				1
24	1				1
27	1				1

Flounder, V	Vinter (Blackba	Total Weight:	12.4	Sub-Sample Weight:	9.9
Length	Count				
24	1				1
25	2				1
30	2				1
31	3				1
32	1				1
33	2				1
34	2				1
35	5				1
37	2				1
40	1				1

Skate, Little		Total Weight:	10.8	Sub-Sample Weight:		
Length	Count					
1	16)	

Flounder, S	ummer (Fluke)	Total Weight:	8	Sub-Sample Weight:	
Length	Count				
32	1				1
34	3				1
40	1				1
41	1				1
39	1				1
57	1				ı

Ocean Pout		Total Weight:	4.9	Sub-Sample Weight:		
Length	Count					
1	4				1	

Atla	ntic C	od			Total Weig	ht:		2	Sı	ub-San	nple W	eight:					
Le	ngth	С	ount														
53	3	1	-											١			
Flou	ınder,	Sand	Dab (Win		Total Weig	ht:	().5	Sı	ub-San	nple W	eight:					
Le	ngth	С	ount														
23	3	1	-											١			
26	ŝ	1	-											1			
Tour	22		Data	F /7 /204	1 C+	ov.	Time	6.25	Lot	N 40 1	T 4 000	Long	VA / 74	27.20	Dorath	24	for
Tow Gear:	33 Stand	lard	Date Recorder:	5/7/201	1 Start T End To		Time:]		54.990 53.367	_	_		Depth:		
			Partly Clou		3 Wind I			7.03	War		150 fm	_		Speed:			
	e, Red		7 7 7 7 7		Total Weig			3.2			nple W				6.2		
					Total Weig	π.	00	0.2	31	ub-Saii	lipie vv	eigiit.			0.2		
	ngth		ount														
22		1															
23		1															
24		4												•			
25		g												•			
26			.1											•			
27			.5														
28		4															
29		6															
30		5															
33		5															
33	3	1															
Skat	te, Litt	le			Total Weig	ht:	66	5.8	Sı	ub-San	nple W	eight:					

Scup		Total Weight:	44	Sub-Sample Weight:	4
Length	Count				
19	1				
20	3				
21	3				
22	2				
23	2				
26	1				
27	1				
30	1				

Hake, Silve	r (Whiting)	Total Weight:	42.9	Sub-Sample Weight:	3.9
Length	Count				
14	1				
15	3				
16	1				
17	2				
18	4				
19	2				
20	2				
21	3				
22	2				
23	2				
24	3				
25	4				
27	4				
28	3				
31	1				
32	1				
33	1				

Mackeral, A	Atlantic	Total Weight:	22.5	Sub-Sample Weight:	2.1
Length	Count				
17	2				
18	6				
19	7				
20	3				
21	1				
31	2				
32	1				

Butterfish		Total Weight:	22	Sub-Sample Weight:	2
Length	Count				
17	7				
13	1				
14	1				
15	8				
16	7				

Herring, At	lantic	Total Weight:	18.2	Sub-Sample Weight:	1.7
Length	Count				
15	1				
16	1				
17	5				
18	6				
19	6				
20	2				
21	1				
26	1				

Flounder, Y	'ellowtail	Total Weight:	17.4	Sub-Sample Weight:	
Length	Count				
27	1				
28	2				
30	2				
31	2				
32	1				
33	5				
34	5				
37	7				
38	3				
39	1				
40	4				
42	3				
43	1				

Atlantic Co	d	Total Weight:	5	Sub-Sample Weight:	
Length	Count				
50	1				
67	1				

Flounder, V	Vinter (Blackba	Total Weight:	4	Sub-Sample Weight:	
Length	Count				
26	1				
27	1				
30	2				
33	1				
34	1				
35	1				
36	1				
38	1				

Flounder, F	ourspot	Total Weight:	2.5	Sub-Sample Weight:	
Length	Count				
23	1				
26	1				
27	1				
28	1				
29	1				
31	2				
32	2				
36	1				
37	1				

Length Count			
1 5			

Flounder, S	ummer (Fluke)	Total Weight: 1.	5 Sub-Sample Weight:
Length	Count		
32	2		
33	1		
38	1		

Tow	34		Date		5/7/2011		Start Tow	Time:	7:30	Lat	N 40).53.070	Long:	W 71.27.03	Depth:	32	fm
Gear:	Stand	lard	Record	der:	CR		End Tow	Time:	8:00	Lat	N 40).51.646	Long:	W 71.27.15	Depth:	33	fm
Condit	ions:	Sky:	Partly 0	Clou	Wind:	3	Wind Dir.	WNW		War	p:	150 fm		Tow Speed:	3 k	t	

Hake, Silve	r (Whiting)	Total Weight:	107.5	Sub-Sample Weight:	5.1
Length	Count				
12	1				
13	1				
14	2				
15	2				
16	1				
17	4				
18	7				
19	3				
20	4				
21	4				
22	7				
23	4				
24	5				
25	5				
26	2				
27	3				
30	1				
33	3				1-

Hake, Red		Total Weight:	89	Sub-Sample Weight:	5.8
Length	Count				
23	2				
24	1				
25	6				
26	5				
27	10				
28	2				1
29	2				
31	3				
32	2				
33	1				1
34	1				1
36	1				
42	1				1

Mackeral, A	Atlantic	Total Weight:	60	Sub-Sample Weight:	3.9
Length	Count				
17	3				
18	10				
19	18				
20	8				
21	5				
27	2				:

	1			
Skate, Winter	Total Weight:	50	Sub-Sample Weight:	

Scup		Total Weight:	15.4	Sub-Sample Weight:	11.4
Length	Count				
19	1				•
20	1				:
21	2				
22	2				:
24	4				
25	1				:
26	1				
27	1				:
28	2				
29	3				:
30	2				
31	2				
33	1				
36	1				

Herring, At	lantic	Total Weight:	11.5	Sub-Sample Weight:	0.8
Length	Count				
17	2				
18	4				
19	5				
20	1				

Flounder, Y	'ellowtail	Total Weight:	9.5	Sub-Sample Weight:	
Length	Count				
33	2				
34	1				
35	1				
36	2				
37	1				
38	3				
40	3				
41	4				
46	1				

Butterfish		Total Weight:	7	Sub-Sample Weight:	0.5
Length	Count				
15	2				1
16	2				
19	1				

Monkfish		Total Weight:	6	Sub-Sample Weight:		
Length	Count					
39	1					
49	1					
58	1				1	

Flounder, F	ourspot	Total Weight:	3.6	Sub-Sample Weight:		
Length	Count					
24	1					
26	1					
27	2					
28	3					
29	2					
38	1					
40	1				1	

Flounder, S	ummer (Fluke)	Total Weight:	1.6	Sub-Sample Weight:	
Length	Count				
32	1				:
35	1				:
44	1				

Flounder,	Winter (Blackba	Total Weight	: 1.4	Sub-Sample Wei	ght:	
Length	Count					
31	2				:	
37	1					
Atlantic Co	od	Total Weight	: 0.8	Sub-Sample Wei	ght:	
Length	Count					
46	1				1	
Flounder,	Sand Dab (Win	Total Weight	: 0.3	Sub-Sample Wei	ght:	
Length	Count					
22	1				:	
24	1				!	
23	1					
Black Sea	bass	Total Weight	: 0.3	Sub-Sample Wei	ght:	
Length	Count					
31	1				!	
Tow 35	Date	5/7/2011 Start Tov		30 Lat N 40.52.320 L		Depth: 32 fm
Gear: Stand				00 Lat N 40.53.870 L		Depth: 32 fm
Conditions:	Sky: Clear	Wind: 3 Wind Dir	. WNW	Warp: 150 fm	Tow Speed:	3 kt
Skate, Wir	nter	Total Weight	: 81.4	Sub-Sample Wei	ght:	

Mackeral, A	Atlantic	Total Weight:	73.2	Sub-Sample Weight:	5.7
Length	Count				
17	7				1
19	20				1
20	17				1
21	4				
22	2				1

Hake, Red		Total Weight	t: 55	Sub-Sample Weight:	4.3
Length	Count				
22	1				1
23	2				1
24	1				1
25	4				l .
26	7				1
28	4				l .
28	5				1
29	3				l .
30	1				i e
34	1				k.
35	1				

Hake, Silve	r (Whiting)	Total Weight:	54	Sub-Sample Weight:	4.2
Length	Count				
13	1				1
17	5				1
18	5				i
19	5				1
20	6				1
21	4				1
22	3				i
23	7				1
24	6				1
25	2				1
26	3				1
27	1				1
28	3				1

Herring, At	lantic	Total Weight:	51.8	Sub-Sample Weight:	4
Length	Count				
17	6				1
18	22				1
19	16				1
20	5				1
21	2				1

Butterfish		Total Weight:	28.5	Sub-Sample Weight:	3.4
Length	Count				
13	2				
14	6				1
15	11				
16	15				1
17	5				1
18	1				1

Scup		Total Weight:	14.3	Sub-Sample Weight:	4
Length	Count				
19	1				1
20	2				1
21	1				1
22	3				1
24	2				1
26	1				1
27	1				1
32	1				

Flounder, Y	ellowtail	Total Weight:	12.3	Sub-Sample Weight:		
Length	Count					
32	1				i	
33	1					
34	4				i	
35	2				i	
36	4				i	
37	3				i	
38	1				i	
39	1					
40	3				i	
41	2				i	
44	1					
45	1				i	

Ocean Pout		Total Weight:	8	Sub-Sample Weight:		
Length	Count					
1	8				1	

Length Count 31 1 34 1 36 1 63 1 Flounder, Fourspot Total Weight: 2.5 Sub-Sample Weight: 23 2 26 1 27 2 31 1 32 1 37 1 Flounder, Winter (Blackba) Total Weight: 0.9 Sub-Sample Weight: Length Count 31 1 35 1	Flounder, Su						
31	<u> </u>	ımmer (Fluke)	Total Weight:	4.2	Sub-Sample Weight:		
34	Length	Count					
36 1 63 1 Flounder, Fourspot Total Weight: Length Count 23 2 26 1 27 2 31 1 32 1 37 1 Flounder, Winter (Blackba) Total Weight: 0.9 Sub-Sample Weight: Length Count 31 1 35 1	31	1				4	
Flounder, Fourspot Total Weight: 2.5 Sub-Sample Weight: Length Count 23	34	1				1	
Flounder, Fourspot	36	1				1	
Length Count 23 2 26 1 27 2 31 1 32 1 37 1 Flounder, Winter (Blackba) Length Count 31 1 35 1 Sub-Sample Weight:	63	1				1	
Length Count 23 2 26 1 27 2 31 1 32 1 37 1 Flounder, Winter (Blackba) Length Count 31 1 35 1				0.5			
23			lotal Weight:	2.5	Sub-Sample Weight:		_
26 1 27 2 31 1 32 1 37 1 Flounder, Winter (Blackba Count 31 1 35 1	Length	Count					
27 2 31 1 32 1 37 1 Flounder, Winter (Blackba Total Weight: 0.9 Sub-Sample Weight: Length Count 31 1 35 1	23	2				4	
31 1 32 1 37 1 Flounder, Winter (Blackba Total Weight: 0.9 Sub-Sample Weight: 1.1 Length Count 1.1 35 1	26	1				1	
32 1 37 1 Flounder, Winter (Blackba Total Weight: 0.9 Sub-Sample Weight: Length Count 31 1 35 1	27	2				1	
Flounder, Winter (Blackba Total Weight: 0.9 Sub-Sample Weight: Length Count 31 1 35 1	31	1				l.	
Flounder, Winter (Blackba Total Weight: 0.9 Sub-Sample Weight: Length Count 31 1 35 1	32	1				4	
Length Count 31 1 35 1	37	1				4	
Length Count 31 1 35 1							
31 1 35 1	Flounder, W	/inter (Blackba	Total Weight:	0.9	Sub-Sample Weight:		
35 1	Length	Count					
	31	1				4	
	35	1				1	
Flounder, Sand Dab (Win Total Weight: 0.3 Sub-Sample Weight:	Floundar Ca	and Dab (Min	Total Weight:	0.2	Sub-Sample Weight:		
			Total Weight:	0.3	Sub-Sample Weight:		
Length Count							
22 1	2.2						
25 2		2					
Tow 36 Date 5/7/2011 Start Tow Time: 9:45 Lat N 40.55.090 Long: W 71.27.15 Depth: 31 fi	25	_					

End Tow Time:

3 Wind Dir. WNW

10:15 Lat N 40.56.727 Long: W 71.26.31

150 fm

Warp:

Depth:

3.3 **kt**

Tow Speed:

30 fm

Gear: Standard

Conditions: Sky: Clear

Recorder: CR

Wind:

Hake, Red		Total Weight:	110.5	Sub-Sample Weight:	5.5
Length	Count				
24	4				
25	5				
26	5				
27	8				
28	10				
29	3				
30	2				
32	2				
34	1				
	·	·	·	·	·

105.5

Sub-Sample Weight:

Total Weight:

Skate, Winter

44

1

Flounder, Y	'ellowtail	Total Weight:	28	Sub-Sample Weight:	14
Length	Count				
28	1				
29	1				
31	1				
32	3				
33	4				
34	2				
35	5				
36	1				
37	2				
39	1				
40	1				
41	4				
42	1				
43	1				

Hake, Silve	r (Whiting)	Total Weight:	24.3	Sub-Sample Weight:	2.8
Length	Count				
17	4				
18	3				
19	3				
20	1				
21	1				
22	2				
23	4				
24	3				
25	1				
26	1				
27	2				
28	3				
29	1				
30	2			_	

Scup		Total Weight:	11.9	Sub-Sample Weight:	2
Length	Count				
21	3				
22	1				
26	1				
29	1				

Ocean Pout		Total Weight:	11.5	Sub-Sample Weight:	
Length	Count				
1	12				

Herring, At	lantic	Total Weight:	10.6	Sub-Sample Weight:	1.3
Length	Count				
16	3				
17	3				
18	4				
19	4				
20	3				
21	1				
24	1				

Butterfish		Total Weight:	9.5	Sub-Sample Weight:	1.1	
Length	Count					
14	1					
15	3					
16	5					
17	2					
19	1					

Monkfish		Total Weight:	8.5	Sub-Sample Weight:	
Length	Count				
50	1				
72	1				

Mackeral, A	Atlantic	Total Weight:	8	Sub-Sample Weight:	1
Length	Count				
18	1				
19	3				
20	1				
21	1				
24	1				
25	1				
31	1				

Flounder, S	Summer (Fluke)	Total Weight:	5.5 Sub-Sample Weight:	2.8
Length	Count			
30	1			
35	1			
56	1			

Flounder, V	Vinter (Blackba	Total Weight:	5.4	Sub-Sample Weight:	2.7
Length	Count				
27	1				
30	1				
31	1				
33	1				
37	2				

Atlaı	ntic Co	od				Tot	tal Weight	:	4.3	Sı	ub-S	Sample W	eight:			
Ler	ngth	С	ount													
46	,	-	1													-
47	,	2	2													
48	}	í	1											•		
					- /- /											
Tow	37	de a e	Date	1	5/7/20	11	Start To				_		_	W 71.24.54		fm
Gear: Conditi			Record	ier:	CR Wind:	2	End Tow Wind Dir			War		150 fm	_	W 71.22.50 Tow Speed		fm
					willu.											
			hiting)			Tot	tal Weight	:	93.8	Sı	ub-S	Sample W	eight:		12.1	
	ngth		ount													
15			2											i		
16			1											Ì		
17			2											i		
18			2											Ì		
19			1											ì		
20			3											Ì		
21			1											i		
22			3											i		
23			3											i		
24			4											ì		
26			5											i		
26			7											ì		
27			5											Ĺ		
28			5											1		
29			5											ì		
30)	į	5											ì		

Skate, Winter Total Weight: 68.6 Sub-Sample Weight:

Hake, Red		Total Weight:	60.5	Sub-Sample Weight:	7.8
Length	Count				
25	5				i
26	7				
27	8				i
28	9				i
29	5				i
30	6				i
31	4				
33	1				i
34	1				
36	1				i
38	1				i

Atlantic Cod	d	Total Weight:	58.1	Sub-Sample Weight:		
Length	Count					
39	3				i	
40	3					
41	2				i	
42	3				i	
43	3				i	
44	8				i	
45	3				1	
46	2					
48	4				ì	
49	3				i	
50	3				i	
51	5				i	
52	3				i	
53	2				i	
55	1				i	
57	1				i	
60	1				i	

Flounder, Y	'ellowtail	Total Weight:	20.5	Sub-Sample Weight:	14.5	
Length	Count					
26	1				i	
30	1				i	
31	1				i	
34	2				i	
35	2				i	
36	6				i	
37	4				i	
38	1				i	
39	1				i	
40	4				i	
41	2				i	
43	1					

Scup		Total Weight:	13.2	Sub-Sample Weight:	1.8	
Length	Count					
22	2				Í	
25	1				i	
26	1				i	
27	1					

Herring, At	lantic	Total Weight:	12.5	Sub-Sample Weight:	1.6
Length	Count				
15	1				i
16	1				i
17	2				i
18	9				i
19	5				i
20	2				i
21	1				i
22	1				i
25	1				i

Ocean Pout		Total Weight:	7.6	Sub-Sample Weight:		
Length	Count					
1	8				i	

Flounder, W	inter (Blackba	Total Weight:	5	Sub-Sample Weight:	3.8
Length	Count				
23	1				i
26	1				
29	1				i
30	2				
34	1				i
El l	11.1.40	Tarah Wataba	4	C. I. CI. Watala	2.2
	itch (Grey sol	Total Weight:	4	Sub-Sample Weight:	2.3
Length	Count				
30	1				i
31	1				i I
32	1				i i
Flounder, Su	mmer (Fluke)	Total Weight:	3.2	Sub-Sample Weight:	
Length	Count				
36	1				
45	1				i
Flounder Sa	nd Dab (Win	Total Weight:	3.1	Sub-Sample Weight:	1.4
Length	Count	Total Weight.	3.1	Sub Sumple Weight.	1.7
19	1				i e e e e e e e e e e e e e e e e e e e
21	1				i
22	1				
24	1				i
25	3				i i
26	1				i
Monkfish		Total Weight:	2.4	Sub-Sample Weight:	
Length	Count				
49	1				i i
Butterfish		Total Weight:	2	Sub-Sample Weight:	0.3
Length	Count				
12	1				i e
15	1				i i
16	1				i

Tow Gear:	1 Standa	ard	Date Recorder:	4/30/2011 SB	Start Tow End Tow					_	W 71.11.83 W 71.14.19	Depth:		
Condi	tions:	Sky:	Overcast	Wind:	2 Wind Dir.	Е	Wa	arp:	175 fm		Tow Speed:	3.2 k	t	
Dog	gfish, Sp	oiny			Total Weight:	113	84	Sub-Sa	ample We	eight:		16.3		
Le	ength	С	ount											
6	6	1	L								j			
6	9	1	L								ì			
7	0	1	L								j			
7	2	2	2								j			
7	3	1	L								j			
7	4	2	2								j			
7	6	3	3								j			
7	7	Е	5								j			
7	8	3	3								j			
8	0	1	L								j			
8	2	1	L								j			
8	4	1	L								i			
8	5	1	L								j			
9	1	1	L								j			
9	4	1	L								j			
9	7	1	L								j			
Scu	ın				Total Weight:	49	00	Sub-Sa	ample We	viaht:	1	12.8		
			ount		Total Weight.	43	79	3ub-3a	inple we	igiit.		12.0		
	ength										j			
1		1												
2		4												
2		1	16											
2			1								,			
2		1									i			
2	U	1)			
Sha	ıd, Hick	ory			Total Weight:	147	.6	Sub-Sa	ample We	eight:		4.2		
Le	ength	С	ount											
1		1	18								i			

Butterfish		Total Weight:	108.9	Sub-Sample Weight:	8.1
Length	Count				
9	13				j
10	13				j
11	13				j
12	14				i
13	10				i
14	12				i
15	25				i
16	13				i
17	7				i
18	5				Ì

Hake, Silve	r (Whiting)	Total Weight:	99.5	Sub-Sample Weight:	29.4
Length	Count				
22	5				i
23	10				i
24	3				i
25	3				i
26	2				i
27	1				i
28	1				i
31	1				i

Flounder, F	ourspot	Total Weight:	49	Sub-Sample Weight:	1.4	
Length	Count					
25	1				j	
26	1				j	
27	2				i	
32	1				j	

Hake, Red		Total Weight: 49	Sub-Sample Weight: 1.4	
Length	Count			
31	1		i i	
33	2		¥	
34	2		i.	

Flounder, S	ummer (Fluke)	Total Weight:	35.2	Sub-Sample Weight:		
Length	Count					
35	1				i	
32	1				ì	
36	1				i	
39	1				i	
43	1				i	
45	1				i	
46	1				i	
49	1				i	
50	2				i	
54	3				i	
55	2				i	
56	1				ì	
59	1				i	
60	1				i	
64	2				i	
66	1				i	
68	1				i	

Black Sea b	ass	Total Weight:	24	Sub-Sample Weight:	
Length	Count				
22	1				i
25	1				i
27	1				i
28	2				j
31	2				i
32	1				i
34	2				i
35	1				i
38	1				i
40	1				i
48	1				ì

Hake, Spott	ed	Total Weight:	7	Sub-Sample Weight:	0.2	
Length	Count					
1	18				i	

Squid, Atla	ntic Long-fin	Total Weight:	3.6	Sub-Sample Weight:		
Length	Count					
10	4				i	
11	4				j	
12	1				j	
13	1				j	
14	2				i	
15	2				j	
16	1				j	
17	1				j	
18	1				j	
19	2				j	
20	1				i	
21	2				j	
22	1				i	
23	1				j	

Flounder, G	iulfstream	Total Weight:	3.5	Sub-Sample Weight:	0.1
Length	Count				
16	1				j

Tow	3	Date	4/30/2011	Start Tow Time:	13:02 Lat	N 40.10.514	Long:	W 71.08.00	Depth:	70 fm
Gear:	Standard	Record	ler: SB	End Tow Time:	13:39 Lat	N 40.10.589	Long:	W 71.05.76	Depth:	70 fm
Condi	tions: Sk	y: Overca:	st Wind:	2 Wind Dir. E	War	rp: 175 fm	1	Tow Speed:	3.2 k	t

Dogfish, Sp	iny	Total Weight:	453	Sub-Sample Weight:	8.6
Length	Count				
28	4				}
29	4				}
30	4				1
31	1				}
32	1				1
33	2				1
34	8				;
35	6				}
36	5				;
37	2				}
38	5				}
39	4				}

Butterfish		Total Weight:	283	Sub-Sample Weight:	4.2
Length	Count				
14	6				}
15	14				}
16	16				}
17	12				}
18	1				1
10	1				1

Squid, Atla	ntic Long-fin	Total Weight:	18	Sub-Sample Weight:	3
Length	Count				
15	2				}
16	2				i d
17	1				
18	2				i d
19	3				
20	3				1
21	3				1
22	1				}
24	1				}
29	1				
32	1				1

Hake, Silve	r (Whiting)	Total Weight:	17.5	Sub-Sample Weight:	2.9
Length	Count				
24	11				}
25	5				}
26	4				}
27	5				}
28	4				}
29	2				}
30	3				}
31	2				}
32	2				}
33	2				}

Dogfish, Sm	nooth	Total Weight:	4.2	Sub-Sample Weight:		
Length	Count					
77	1				1	
94	1				1	
Black Sea b		Total Weight:	3.6	Sub-Sample Weight:		_
Length	Count					
30	1				1	
31	1				}	
32	1				1	
39	2				1	
40	1				3	
Flounder S	ummer (Fluke)	Total Weight:	1.6	Sub-Sample Weight:		
Length	Count	Total Weight.	1.0	Sub Sumple Weight.		
36	1				<u> </u>	
					· · · · · · · · · · · · · · · · · · ·	
45	1				,	
47	1				<u> </u>	
Flounder, F	ourspot	Total Weight:	1.1	Sub-Sample Weight:		
Length	Count	_				
36	1				1	
38	1				}	
		_				
Mackeral, A	Atlantic	Total Weight:	1.1	Sub-Sample Weight:		
Length	Count					
34	1				1	
36	1				}	
Ocean Pout		Total Weight:	0.6	Sub-Sample Weight:		
		Total Weight.	0.0	Sub-Sample Weight.		
Length	Count					
29	1				<u> </u>	
Day Cirk Ci	-:-	T. 1. 1344 1 1 1	0.6	Code Consideration 1		
Dogfish, Ch	<u> </u>	Total Weight:	0.6	Sub-Sample Weight:		
Length	Count					
38	1				1	
41	1				1	

Hake, Red		To	tal Weight:	(0.5	Suk	-Sample W	eight:			
Length	Count										
24	1								1		
John Dory		To	tal Weight:	(0.5	Suk	-Sample W	eight:			
Length	Count										
1	1								;		
Tow 4	Date	4/30/2011	Start Tow	Time:	13:40	Lat N	40.10.630	Long:	W 70.06.07	Depth:	70 fm
Gear: Standar	d Recorder:	SB	End Tow	Time:	14:11	Lat N	40.10.298	Long:	W 71.08.49	Depth:	70 fm
Conditions: S	ky: Overcast	Wind: 2	Wind Dir.	Е		Warp	175 fm	l	Tow Speed:	3 k	t
Dogfish, Spir	าง	To	tal Weight:	4	54	Suk	-Sample W	eight:		8.5	
Length	Count										
25	1								ı		
26	2								ı		
27	4								ı		
28	6								ı		
29	2								ı		
30	3								ı		
31	4								ı		
32	1								ı		
33	5								ı		
34	7								ı		
35	4								ı		
36	5								ı		
37	1								ı		
39	1								ı		
40	1										
43	1								ı		
80	1								1		
Butterfish		To	tal Weight:		79	Suk	-Sample W	eight:		4.8	
Length	Count										
	Count										

Hake, Silve	r (Whiting)	Total Weight:	19.3	Sub-Sample Weight:	4.1	
Length	Count					
19	2				1	
20	2				1	
21	2					
22	2				1	
23	6					
25	2				1	
26	7					
27	7				1	
28	3					
29	3				1	
30	6					
31	3				1	
32	2				1	
34	2				1	
35	2				1	
36	3				1	

Squid, Atlai	ntic Long-fin	Total Weigh	it: 18	Sub-Sample Weight:	7.2
Length	Count				
18	5				1
19	1				1
20	5				1
21	3				1
22	5				
23	6				1
24	2				
26	1				1
10	5				
11	3				1
12	4				
13	2				1
14	2				ı
15	3				1
16	4				ı
17	3				1

Flounder, S	Summer (Fluke)	To	otal Weight:	6.	8 5	Sub-Samp	ole Weigh	t:			
Length	Count	1									
42	1							ı			
44	1										
64	1										
71	1							ı			
Black Sea b	225	To	otal Weight:	1.	1 9	Suh-Samr	ole Weigh				
Length	Count		itai weigiit.	1.	1 3	oub-Sairi	Jie Weigin				
32	1										
37	1							,			
37	1							'			
Hake, Spott	ted	To	otal Weight:	0.	3 5	Sub-Samր	ole Weigh	t:			
Length	Count										
1	4							1			
Tow 5	Date	4/30/2011	Start Tow	Time:	16:51 Lat	N 40.10).713 Lon	g: W 71.05.89	Depth:	75 fn	n
Gear: Standa	ard Recorder:	SB	End Tow	Time:	17:27 Lat	N 40.10).911 Lon	g: W 71.03.12	Depth:	75 fn	
											n
Conditions:	Sky: Overcast	Wind: 2	Wind Dir.		Wa		75 fm	Tow Speed	: 3.2 k	t	n
Dogfish, Sp					Wa	rp: 17			3.2 k	t	n
			Wind Dir.	E	Wa	rp: 17	75 fm			t	n
Dogfish, Sp	iny		Wind Dir.	E	Wa	rp: 17	75 fm			t	m
Dogfish, Sp Length	iny Count		Wind Dir.	E	Wa	rp: 17	75 fm			t	m
Dogfish, Sp Length 24	Count		Wind Dir.	E	Wa	rp: 17	75 fm	::		t	n
Dogfish, Sp Length 24 25 27 28	Count 1 1 5 4		Wind Dir.	E	Wa	rp: 17	75 fm	::		t	n
Dogfish, Sp Length 24 25 27 28 29	Count 1 1 5 4 5		Wind Dir.	E	Wa	rp: 17	75 fm	::		t	n
Dogfish, Sp Length 24 25 27 28 29 30	Count 1 1 5 4 5 4		Wind Dir.	E	Wa	rp: 17	75 fm	1		t	n
Dogfish, Sp Length 24 25 27 28 29 30 31	Count 1 1 5 4 5 4 3		Wind Dir.	E	Wa	rp: 17	75 fm			t	n
Dogfish, Sp Length 24 25 27 28 29 30 31 32	Count 1 1 5 4 5 4 3 4		Wind Dir.	E	Wa	rp: 17	75 fm	1		t	n
Dogfish, Sp Length 24 25 27 28 29 30 31 32 33	Count 1 1 5 4 5 4 3 4 4		Wind Dir.	E	Wa	rp: 17	75 fm			t	n
Dogfish, Sp Length 24 25 27 28 29 30 31 32 33 34	Count 1 1 5 4 5 4 3 4 4 3		Wind Dir.	E	Wa	rp: 17	75 fm			t	n
Dogfish, Sp Length 24 25 27 28 29 30 31 32 33 34 35	Count 1 1 5 4 5 4 3 4 4 3 3 3		Wind Dir.	E	Wa	rp: 17	75 fm			t	n
Dogfish, Sp Length 24 25 27 28 29 30 31 32 33 34 35 36	Count 1 1 5 4 5 4 3 4 4 3 3 3 3		Wind Dir.	E	Wa	rp: 17	75 fm			t	n
Dogfish, Sp Length 24 25 27 28 29 30 31 32 33 34 35 36 37	Count 1 1 5 4 5 4 3 4 4 3 3 3 6		Wind Dir.	E	Wa	rp: 17	75 fm				n
Dogfish, Sp Length 24 25 27 28 29 30 31 32 33 34 35 36 37 39	Count 1 1 5 4 5 4 3 4 4 3 3 2		Wind Dir.	E	Wa	rp: 17	75 fm				n
Dogfish, Sp Length 24 25 27 28 29 30 31 32 33 34 35 36 37	Count 1 1 5 4 5 4 3 4 4 3 3 3 6		Wind Dir.	E	Wa	rp: 17	75 fm				n

Butterfish		Total Weight:	113	Sub-Sample Weight:	1.9
Length	Count				
12	1				1
12	2				1
13	9				1
15	8				1
16	7				1
17	2				1

Hake, Silve	r (Whiting)	Total Weight:	24.1	Sub-Sample Weight:	6.5
Length	Count				
24	4				1
25	3				1
26	4				1
27	2)
28	4				1
29	3				1
30	1)
31	4)
32	2)
33	1)
35	2)
36	1)
38	1)
39	1)
40	1)

Flounder, S	ummer (Fluke)	Total Weight:	17.8	Sub-Sample Weight:		
Length	Count					
38	1				1	
41	1)	
42	1				1	
47	1)	
48	1				1	
50	2)	
51	1				1	
52	1)	
53	1				l	
57	1				l	
62	2				1	
34	1				l	
38	1				l	

Squid, Atla	ntic Long-fin	Total Weight:	13	Sub-Sample Weight:	10	
Length	Count					
8	1)	
9	6)	
10	2					
11	4)	
14	4					
15	2)	
16	1)	
17	8					
18	7				l	
19	3					
20	2				ı	
12	1					
13	1				1	

Black Sea ba	ISS	Total Weight:	6.2	Sub-Sample Weight:	5.1
Length	Count				
28	1				ı
29	2				I.
30	2				ı
31	1				I.
32	1				ı
33	1				I.
42	1				I
Mackeral, A	tlantic	Total Weight:	4.6	Sub-Sample Weight:	
				out campie it eight	
Hake, Spotte	ed	Total Weight:	0.7	Sub-Sample Weight:	
Length	Count				
1	4				ı
Dogfish, Cha	ain	Total Weight:	0.4	Sub-Sample Weight:	
Length	Count				
40	1				ı
Flounder, Fo	ourspot	Total Weight:	0.3	Sub-Sample Weight:	
Length	Count				
1	1				ı
Shad, Ameri	can	Total Weight:	0.2	Sub-Sample Weight:	
Length	Count				
27	1				ı
John Dory		Total Weight:	0.1	Sub-Sample Weight:	
Length	Count				
12	1				ı
Tow 6	Date	4/30/2011 Start Tow	Time: 18:0	5 Lat N 40.11.030 Long:	W 71.02.88 Depth: 70 fm
Gear: Standar	d Recorder:	: SB End Tow	Time: 18:3	5 Lat N 40.11.240 Long:	W 71.00.28 Depth: 70 fm
Conditions: S	ky: Overcast	Wind: 2 Wind Dir.	E	Warp: 175 fm	Tow Speed: 3.2 kt

Dogfish, Sp	iny	Total Weight:	227	Sub-Sample Weight:	5.1
Length	Count				
28	6				
29	13				
30	4				
35	12				
36	1				
37	2				

Butterfish		Total Weight:	113	Sub-Sample Weight:	2.7
Length	Count				
12	1				
13	9				
14	12				
15	16				
16	2				

Hake, Silve	r (Whiting)	Total Weight:	54	Sub-Sample Weight:	4.8
Length	Count				
22	2				
23	2				
24	2				
25	8				
26	4				
27	10				
28	6				
30	4				

Flounder, S	Summer (Fluke)	Total Weight:	19	Sub-Sample Weight:	
Length	Count				
40	2				
42	2				
43	1				
47	1				
49	2				
50	1				
51	2				
52	2				
53	1				
64	1				

Squid, Atla	ntic Long-fin	Total Weight:	18	Sub-Sample Weight:	2.5
Length	Count				
8	1				
11	1				
13	1				
14	1				
16	2				
17	5				
18	1				
19	1				
20	1				
21	2				
22	1				
23	1				
25	1				
29	1				

Flounder, Fo	ourspot	Total Wei	ght: 2	.7 Su	b-Sample Weight:		
Length	Count						
24	1						
25	2						
26	4						
27	1						
29	1						
31	1						
32	1					·	
34	2					•	
35	2						
Hake, Spotte	ad	Total Ma	ght:	.9 Su	b-Sample Weight:		
		Total Wei	gnt: 0	.9 3 u	b-Sample Weight:		
Length	Count						
1	5						
Occasio Docat		Total Mai	alat.	7 C	h Camania Maiahta		
Ocean Pout		Total Wei	gnt: 0	.7 Su	b-Sample Weight:		
Length	Count						
1	2						
Haka Dad		Total Mai	alat.	1 6	h Camania Maiabh		
Hake, Red		Total Wei	gnt: U	.1 Su	b-Sample Weight:		
Length	Count						
24	1					·	
Dogfish Cha	nin .	Total Mari	aht. 0	1	h Cample Maistr		
Dogfish, Cha		Total Wei	grit: 0	.1 Su	b-Sample Weight:		
Length	Count						
1	1						
Tow 7	Date	5/1/2011 Start	Tow Time:	6:10 Lat	N 40.40.528 Long	· W 70 E0 CE D	epth: 36 fm
Gear: Standar					N 40.40.528 Long		epth: 36 fm
Conditions: S		Wind: 2 Wind		Warp		Tow Speed:	3 kt
Skate, Barno		Total Wei			b-Sample Weight:		
Skate, Darrie	1001	Total Wei	giit.	Ju Su	o Jampie Weight.		

Hake, Red		Total Weight:	21.8	Sub-Sample Weight:	
Length	Count				
21	1				
22	6				1
23	3				!
24	5				1
25	6				
26	6				1
27	13				
29	7				1
30	11				:

Flounder, F	ourspot	Total Weight:	18.1	Sub-Sample Weight:	1.3
Length	Count				
21	1				
22	1				1
23	1				
24	1				1
27	1				
28	1				1
30	3				
31	1				

Mix Herring/Shad Total Weight: 12

Hake, Silve	r (Whiting)	Total Weight:	12.3	Sub-Sample Weight:	4.9
Length	Count				
14	2				
15	2				:
16	10				
17	11				:
18	4				:
14	8				:
20	4				:
23	6				:
24	6				
25	2				:
26	2				

Flounder, S	and Dab (Win	Total Weight:	7.7	Sub-Sample Weight:	3.7
Length	Count				
18	1				1
19	1				1
20	2				1
21	3				1
22	3				1
23	4				1
24	4				1
25	2				1
26	4				1

Dogfish, Sp	iny	Total Weight:	7.2	Sub-Sample Weight:	
Length	Count				
33	1				
73	2				
76	1				
83	1				

Skate, Thor	ny	Total Weight:	7.1	Sub-Sample Weight:	
Length	Count				
1	7				

Monkfish		Total Weight: 5.2	Sub-Sample Weight:	
Length	Count			
32	3			
35	1			
41	1			
42	1			

Squid, Atla	ntic Long-fin	Total Weight:	4.6	Sub-Sample Weight:	
Length	Count				
9	5				
15	3				
16	3				
17	5				
19	3				
22	3				
23	3				
26	3				

Flounder, S	ummer (Fluke)	Total Weight:	2.4	Sub-Sample Weight:	
Length	Count				
36	1				
40	2				
44	1				

Northern Sea F	Robin	Total Weight:	0.8	Sub-Sample Weight:	
Length (Count				
1	7				

Mackeral, A	Atlantic	Total Weight:	0.6	Sub-Sample Weight:	
Length	Count				
19	1				1
22	1				1
24	3				!
25	1				1

Butterfish		Total Weight:	0.1	Sub-Sample Weight:	
Length	Count				
14	1				
16	3				

Oce	an Pout	t			To	otal Weight:	(0.1	Su	ıb-Sample W	eight:				
Lei	ngth	C	ount												
1		1	-												
Sea	Raven				To	otal Weight:	(0.1	Su	ıb-Sample W	eight:				
Lei	ngth	C	ount												
1		1													
Tow	8		Date	5/1/2	011	Start Tow	Time:	7:40	Lat	N 40.43.520	Long:	W 70.48.80	Depth:	36	fm
Gear:	Standa	ard	Recorde	: SB		End Tow	Time:	8:26	Lat	N 40.42.993	Long:	W 70.52.07	Depth:	36	fm
Condit	ions: S	Sky:	Clear	Wind	: 2	Wind Dir.	E		Warp	o: 150 fm	1	Tow Speed:	3 k	t	
Mix	Skate				To	otal Weight:	38	3.8	Su	ıb-Sample W	eight:				

Hake, Silve	r (Whiting)	Total Weight:	36	Sub-Sample Weight:	2.2
Length	Count				
17	8				1
18	8				
19	8				
20	4				1
21	4				
22	8				1
23	12				
28	8				1
30	1				
31	1				1
32	1				
33	1				1
38	1				i
39	2				1
40	1				1

Hake, Red		Total Weight:	30.5	Sub-Sample Weight:	14.3
Length	Count				
21	4				1
22	3				1
23	7				1
25	6				1
26	9				i
27	9				1
28	5				i
29	3				1
30	2				
32	2				1
33	2				1
20	2				1
24	2				1
31	5				1
34	1				i
35	4				1
37	1				i
39	1				i

Squid, Atla	ntic Long-fin	Total Weight:	18	Sub-Sample Weight:	4.7
Length	Count				
10	2				1
11	1				
14	6				+
15	4				
16	6				
18	3				
20	2				
21	6				
24	1				
25	1				•
26	3				1

Mix Herring/Shad	Total Weight:	16.2	Sub-Sample Weight:		
------------------	---------------	------	--------------------	--	--

Flounder, F	ourspot	Total Weight:	15.6	Sub-Sample Weight:	8.5
Length	Count				
14	1				1
15	1				
17	7				
18	2				1
19	7				•
20	1				1
22	1				
23	11				1
24	3				1
25	1				1
26	2				1
27	5				1
28	1				1
29	4				}
31	3				1
36	2				}
37	2				1
38	2				}
39	2				1

Dogfish, Sp	iny	Total Weight:	7.8	Sub-Sample Weight:		
Length	Count					
26	1				1	
34	2					
35	2					
76	1				1	
79	1				i .	

8.9

Sub-Sample Weight:

Total Weight:

Mix Sculpin/Raven/Robin

Monkfish		Total Weight:	6.5	Sub-Sample Weight:		
Length	Count					
37	1				1	
42	2				İ	

Mackeral,	Atlantic	Total Weight:	4.8	Sub-Sample Weight:	
Length	Count				
1	15				1

Flounder, Y	'ellowtail	Total Weight:	4.6	Sub-Sample Weight:		
Length	Count					
36	2				ŀ	
37	1				ŀ	
38	1				i .	

Flounder, S	and Dab (Win	Total Weight:	3.8	Sub-Sample Weight:	2.3
Length	Count				
21	3				
22	2				1
23	4				1
24	2				
27	7				
29	4				
30	2				

Length Count	
60 1	1

Flounder, S	Summer (Fluke)	Total Weight:	2	Sub-Sample Weight:	
Length	Count				
35	1				
36	1				
39	43				

Butterfish		Total Weight:	1.1	Sub-Sample Weight:		
Length	Count					
13	1					
14	2				i .	
15	5					
16	5				1	
17	1				i .	

Scup		Total Weight:	1	Sub-Sample Weight:		
Length	Count				,	
26	1				1	
32	1				¥.	
Flounder, V	Witch (Grey sol	Total Weight:	0.7	Sub-Sample Weight:		
Length	Count					
31	1				1	
44	1				i	
Ocean Pour	t	Total Weight:	0.1	Sub-Sample Weight:		
Length	Count					
1	2				1	
Black Sea b	ass	Total Weight:	0.1	Sub-Sample Weight:		

Tow	9	Date	5/1/2011	Start Tow	Time:	9:35 La	N 40.46.493	Long:	W 70.57.17	Depth:	30 fm
Gear:	Standard	Recorder:	SB	End Tow	Time:	10:10 La	N 40.46.227	Long:	W 70.59.64	Depth:	30 fm
Condit	ions: Sky:	Clear	Wind:	2 Wind Dir.	Е	W	arp: 150 fm	1	Tow Speed:	3 k t	t
Mix	Skate		1	Total Weight:	18	31	Sub-Sample W	eight:			

Flounder, F	ourspot	Total Weight:	19.9	Sub-Sample Weight:	4.1
Length	Count				
25	1				
26	4				
27	2				
28	4				
29	2				
30	2				
31	4				
32	2				
34	2				

Hake, Red		Total Weight:	15.8	Sub-Sample Weight:	6.1
Length	Count				
27	5				
28	10				
29	6				
30	8				
31	3				
32	1				
34	2				
38	2				
25	2				
26	2				

Hake, Silve	er (Whiting)	Total Weight:	14.3	Sub-Sample Weight:	5.3
Length	Count				
22	2				
23	10				
24	4				
25	6				
26	2				
27	2				
28	2				
29	2				
30	4				
31	8				

Flounder, Y	'ellowtail	Total Weight:	10	Sub-Sample Weight:	4.6
Length	Count				
30	1				
34	1				
35	3				
36	1				
38	1				·
39	1				
42	1				·
44	1				

Mix Sculpin/Raven/Robin Total Weight: 8.7 Sub-Sample Weight:

Dogfish, Sp	iny	Total Weight:	4.4	Sub-Sample Weight:	
Length	Count				
76	1				
88	1				
Mix Herring	r/Shad	Total Weight:	4.1	Suh-Sample Weight:	

Mix Herring/Shad	rotai weight:	4.1	Sub-Sample Weight:	

Flounder, S	and Dab (Win	Total Weight:	3.2	Sub-Sample Weight:	1.3
Length	Count				
21	1				
22	1				
23	2				
24	1				
25	2				
28	1				

Length Count 1 10	Ocean Pout		Total Weight:	3.1	Sub-Sample Weight:	
1 10	Length (Count				
	1	10				

Flounder, V	Vitch (Grey sol	Total Weight:	1.8	Sub-Sample Weight:	
Length	Count				
29	1				
32	1				
34	1				
35	1				
36	1				
42	1				

Flounder, S	ummer (Fluke)	Total Weight: 1.5	Sub-Sample Weight:
Length	Count		
32	1		
35	1		
43	1		

Butterfish		Total Weight:	0.6	Sub-Sample Weight:	
Length	Count				
13	2				
14	6				
15	3				

Flounder, Winter (Blackba	Total Weight:	0.6	Sub-Sample Weight:	

Length Count 1 4	Northern Sea Robin	Total Weight:	0.4	Sub-Sample Weight:	
1 4	Length Count				
	1 4				

Tow	10	Date	5/1/2011	Start Tow Tir	me: 11:26	Lat	N 40.49.695	Long:	W 71.07.19	Depth:	30 fm
Gear:	Standard	Recorde	r: SB	End Tow Tir	me: 12:10	Lat	N 40.49.447	Long:	W 71.10.24	Depth:	30 fm
Conditi	ons: Sky:	Clear	Wind:	2 Wind Dir. E		War	p: 150 fm	ı	Tow Speed:	3 k	t
Mix	Skate			Total Weight:	54.1	Sı	ub-Sample W	eight:			

Hake, Red		Total Weight:	17.9	Sub-Sample Weight:	4.5
Length	Count				
24	1				i i
25	2				i e
26	1				i i
28	1				i e
29	6				i i
31	5				i e
32	3				i i
33	3				i e
34	4				i
35	1				i i
36	1				i.
37	2				i .

15.2

Sub-Sample Weight:

Total Weight:

Mix Herring/Shad

Hake, Silve	r (Whiting)	Total V	Veight:	13.2	Sub-Sample Weight:	1.9
Length	Count					
17	3					i
18	5					
20	1					i
21	1					
22	1					i
23	3					i
24	2					i
25	1					i
26	1					i
27	2					i e
28	2					i
29	3					

Butterfish		Total Weight:	12.6	Sub-Sample Weight:	0.4
Length	Count				
10	2				i
11	1				ì
12	12				i
13	11				
14	8				i
15	7				
16	8				·
18	1				i

Flounder, F	ourspot	Total Weight:	8.4	Sub-Sample Weight:	4.7
Length	Count				
24	6				i
28	6				i
29	6				i
30	2				i
31	6				i
33	2				i
35	2				i

Longhorn S	culpin	Total Weight:	6.4	Sub-Sample Weight:		
Length	Count					
1	26				i	

Dogfish, Sp	iny	Total Weight:	5.7	Sub-Sample Weight:		
Length	Count					
38	1				i	
74	1				i	
93	1				i	

Flounder, S	and Dab (Win	Total Weight:	5.6	Sub-Sample Weight:	4.3
Length	Count				
19	1				1
21	2				1
22	4				1
23	6				
24	3				
25	3				
26	2				
27	5				
28	2				
29	3				
30	1				1

Ocean Pout	Total Weight:	4.6	Sub-Sample Weight:		
Length Count					
1 8				i	

Scup		Total Weight:	3.5	Sub-Sample Weight:		
Length	Count					
21	4				1	
22	2				1	
23	3				ì	
26	1				1	
27	2				1	

Squid, Atla	ntic Long-fin	Total Weight:	1.6	Sub-Sample Weight:	
Length	Count				
10	1				i
11	2				i
13	1				i
14	3				
15	2				i
16	2				i
18	1				i
21	1				
22	1				i

Mon	kfish			Total Weight:	1	L S	ub-Sa	ample W	eight:				
Len	gth	Count											
29		1								ì			
31		1								ì			
Mad	roral A	tlantic		Total Maight	0.7	7	ub C	۱۸۷ مامسم	oiabt.				
	keral, A			Total Weight:	0.7	3	นม-วั	ample W	eignt:				
Len	gth	Count											
20		5								ì			
21		3								ì			
22		2								1			
Tow	11	Date	5/1/2011				_		_	W 71.19.04	Depth:	30 fm	
Gear:	Standa	rd Recorder	: SB	End Tow	Time:	14:37 Lat	N 40	0.46.725	Long:	W 71.24.66	Depth:	30 fm	n
Condition	ons: S	ky: Clear	Wind:	2 Wind Dir.	E	Wai	rp:	150 fm		Tow Speed:	3 k	t	
Condition Scup		ky: Clear		2 Wind Dir. Total Weight:	E 45.4	7		150 fm			3 k	t	
		Count				7						t	
Scup						7						t	
Scup Len	gth	Count				7						t	
Scup Len 20	gth	Count 1				7						t	
Scup Len 20 21	gth	Count 1 1				7						t	
Scup Len 20 21 22	gth	Count 1 1				7				i i i i i i i i i i i i i i i i i i i		t	
Scup Len 20 21 22 23	gth	Count 1 1 1 1				7				i i i i i i i i i i i i i i i i i i i		t	
Scup Len 20 21 22 23 24	gth	Count 1 1 1 1 3				7				i i i i i i i i i i i i i i i i i i i		t	
Scup Len 20 21 22 23 24 25	gth	Count 1 1 1 1 1 1				7				i i i i i i i i i i i i i i i i i i i		t	
Scup Len 20 21 22 23 24 25 26	gth	Count 1 1 1 1 1 4				7				i i i i i i i i i i i i i i i i i i i		t	
20 21 22 23 24 25 26 27	gth	Count 1 1 1 1 4 9				7				i i i i i i i i i i i i i i i i i i i		t	

Mix Herring/Shad	Total Weight:	36.7	Sub-Sample Weight:	

Butterfish		Total Weight:	36.3	Sub-Sample Weight:	1	
Length	Count					
15	1				i	
16	3				j	
17	3				i	
18	2				i	
19	1				j	

Hake, Silve	r (Whiting)	Total Weight:	28.3	Sub-Sample Weight:	6.3
Length	Count				
24	2				i
25	6				i
26	5				i
27	3				i
28	2				i
29	7				i
30	4				i
31	6				i
32	2				i
37	2				i

Hake, Red		Total Weight:	28.2	Sub-Sample Weight:	6.2
Length	Count				
25	2				j
26	10				i
27	2				i
28	6				ÿ
29	2				i
30	4				ÿ
31	2				i
32	1				i
33	1				i
34	2				ÿ
35	1				i
36	1				i
37	2				i
39	1				ÿ
40	1				i

Mix Skate		Total Weight:	23.9	Sub-Sample Weight:		
Length	Count					
1	27				j	

Flounder, F	ourspot	Total Weight:	8	Sub-Sample Weight:	4.7
Length	Count				
24	2				i
25	6				j
26	4				j
28	2				j
29	8				j
31	4				i
33	1				j
34	1				j
38	1				j
39	1				ì

Flounder, S	and Dab (Win	Total Weight:	4.4	Sub-Sample Weight:	2.3
Length	Count				
23	2				i
25	5				i
26	1				i
27	2				i
29	2				j

Squid, Atlar	ntic Long-fin	Total Weight:	3.3	Sub-Sample Weight:	2.8
Length	Count				
8	1				j
9	1				j
10	2				j
12	6				j
13	6				i
14	3				i
15	4				i
16	3				j
17	4				i
18	1				i
19	1				i
21	1				i
22	2				j
23	1				j
Longhorn S	culpin	Total Weight:	1.9	Sub-Sample Weight:	
Length	Count				
1	8				i
Mackeral, A	Atlantic	Total Weight:	1.6	Sub-Sample Weight:	
Length	Count				
27	2				i
28	1				i
31	1				i
33	1				i
34	1				j
Ocean Pout	-	Total Weight:	1.3	Sub-Sample Weight:	
Length	Count			can campic ricigiti	
1	3				i
_	<u> </u>				
Atlantic Cod	d	Total Weight:	0.8	Sub-Sample Weight:	
Length	Count			, , , , , ,	
46	1				i
-⊤∪	1				,

Haddock	<				Tot	al Weight:		0.3	Si	ub-	Sample W	eight:				
Length	C	ount														
23	2	2											j			
26	í.	1											j			
Scallop,	Sea	_			Tot	al Weight:		0.3	Sı	ub-9	Sample W	eight:				_
Length		Count				ui		0.5		u	5 411. 5 15	016				
1		3											1			
								_								
Norther	n Sea R	obin			Tot	al Weight:		0.2	Si	ub-S	Sample W	eight:				
Length	C	ount														
1	2	4											j			
Dogfish,	Spiny				Tot	al Weight:		0.1	S	ub-	Sample W	eight:				
Length	C	ount														
29	:	1											j			_
Tow 12	2	Date		5/1/2011		Start Tow	Time:	15:20	Lat	N 4	10.46.100	Long:	W 71.20.03	Depth	30	fm
Gear: Star	ndard	Record	er:	SB		End Tow	Time:	16:24	Lat	N 4	10.45.858	Long:	W 71.32.48	Depth	30	fm
Conditions	: Sky:	Clear		Wind:	2	Wind Dir.	E		War	p:	150 fm		Tow Speed:	3	kt	

Scup		Total Weight:	454	Sub-Sample Weight:	40.6
Length	Count				
20	4				,
22	2				,
23	1				,
24	12				,
25	8				•
26	12				,
27	9				•
28	8				•
29	4				•
30	8				•
31	9				•
32	2				•
33	1				•
34	4				•
35	7				ı
37	2				ı
38	1				
39	2				,
40	1				1

Mix Skate		Total Weight:	35	Sub-Sample Weight:		
Length	Count					
1	32				,	

Butterfish		Total Weight:	26.4	Sub-Sample Weight:	4.4
Length	Count				
14	4				•
16	12				
17	24				•
18	5				
19	3				,
20	2				,
21	8				*

Hake, Silve	r (Whiting)	Total Weight:	25.1	Sub-Sample Weight:	5.8	
Length	Count					
15	1				,	
16	1				,	
18	3				,	
19	6				,	
20	4				,	
21	3				,	
22	4				,	
23	5				,	
24	8				,	
25	2				,	
26	3				,	
29	2				,	
30	4				,	
31	8				,	
32	4				,	
33	2				,	
34	3				,	
35	1				,	

Squid, Atla	ntic Long-fin	Total Weight:	11.1	Sub-Sample Weight:	3.7
Length	Count				
12	3				,
13	6				,
14	5				1
15	2				
16	3				,
17	3				
18	6				,
19	7				,
20	1				,
21	2				,

Mix Herring/Shad Total W	eight: 9.5	Sub-Sample Weight:		
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Hake, Red		Total Weight:	8.3	Sub-Sample Weight:	4.7
Length	Count				
25	1				,
26	2				,
27	1				•
28	4				*
29	3				•
30	5				*
31	3				•
32	2				*
33	3				•
34	2				*
35	3				1
36	1				,
37	1				,

Flounder, F	ourspot	Total Weight:	4.2	Sub-Sample Weight:	2.7	
Length	Count					
23	3				,	
25	1				•	
26	1				•	
27	2				•	
29	3				•	
30	2				•	
31	1				•	
32	2				,	
34	1				•	
35	1				•	
37	2				1	

Longhorn Sculpin		Total Weight:	1.7	Sub-Sample Weight:		
Length	Count					
1	6				•	

	/=! ! \					
	ummer (Fluke)	Total Weight:	1.1	Sub-Sample Weight:		
Length	Count					
33	1				,	
35	1				1	
37	1				,	
Ocean Pout		Total Weight:	0.9	Sub-Sample Weight:		
Length	Count					
1	3				•	
Weakfish		Total Weight:	0.7	Sub-Sample Weight:		
Length	Count					
43	1					
Black Sea bass		Total Weight:	0.5	Sub-Sample Weight:		
Length	Count					
33	1					
Flounder, Ye	ellowtail	Total Weight:	0.4	Sub-Sample Weight:		
Length	Count					
38	1				,	
Monkfish		Total Weight:	0.3	Sub-Sample Weight:		
Length	Count	Total Weight.	0.5	Sub-Sample Weight.		
36	1				,	
Flounder, W	itch (Grey sol	Total Weight:	0.2	Sub-Sample Weight:		
Length	Count					
30	1				,	
Haddock		Total Weight:	0.2	Sub-Sample Weight:		
	Carret					
Length	Count					

Flounder, G	Gulfstream	Total Weight:	0.1	Sub-Sample Weight:	
Length	Count				
1	5				

1		5												,			
Tow	13		Date	į	5/1/2011	1	Start Tow	Time:	16:20	Lat	N 40.46	6.420 I	ong:	W 71.36.69	Depth:	37	fm
Gear:	Stand	ard	Record	er: S	SB		End Tow	Time:	17:27	Lat	N 40.47	7.831 I	ong:	W 71.34.96	Depth:	37	fm
Condit	tions:	Sky:	Clear		Wind:	2	Wind Dir.	Е		War	p: 15	50 fm		Tow Speed	: 3 k	t	
Scu	р					Tota	ıl Weight:	9	4.7	Sı	ub-Sam	ple We	ight:		18.3		
Le	ngth	C	ount														
19	9	1												1			
20	0	1												1			
2:	1	1												}			
22	2	1												}			
23	3	4												}			
24	4	4												}			
2!	5	4												}			
20	6	6	j											}			
2	7	1												}			
28	8	3												}			
29	9	3												}			
30	0	4												;			
33	3	1												}			
34	4	1												}			
30	6	2												}			

Hake, Silve	r (Whiting)	Total Weight:	25.7	Sub-Sample Weight:	11.3
Length	Count				
21	1				1
22	2				1
23	6				1
24	10				1
25	4				1
26	7				1
27	4				}
28	8				1
29	2				}
30	3				1
31	2				}
32	6				1
33	1				}
34	1				1
38	1				i D
39	1))
42	1				
50	1				l D

Hake, Red		Total Weight:	23	Sub-Sample Weight:	7.5
Length	Count				
21	1				}
22	1				}
23	1				1
24	1				}
25	4				1
26	4				}
27	5				1
28	6				}
29	3				1
30	5				}
31	3				1
33	4				}
34	1				1
35	1				}
37	1				}
38	1				}
39	1				}
40	1				}

Flounder, F	ourspot	Total Weight:	15	Sub-Sample Weight:	2.4	
Length	Count					
22	1					
23	1					
24	1					
25	1					
27	3					
28	1					
29	4					
31	1					
33	1					
35	1				}	
38	1					
17	1					
18	1				}	
19	2				}	

Mix Herring/Shad Total Weight: 11.2 Sub-Sample Weight:	Mix Herring/Shad	Total Weight:	11.2	Sub-Sample Weight:		
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Butterfish		Total Weigh	t: 7	Sub-Sample Weight:	4.4
Length	Count				
16	4				1
17	20				}
18	15				}
19	5				1
20	2				1
21	5				1
22	3				}

Length Count
1 7

Mix Skate	Total Weight:	4.9	Sub-Sample Weight:		
Length Count					
1 9				}	

Squid, Atla	ntic Long-fin	Total Weight:	4.2	Sub-Sample Weight:	
Length	Count				
10	1				}
11	4				}
12	5				}
13	8				}
14	10				}
15	10				}
16	2				}
17	6				}
18	1				}
19	3				

Flounder	, Yellowtail	To	tal Weight:	1	.8	Su	b-Sample W	eight:			
Length	Count										
39	1								}		
41	1								}		
42	1										
Flounder	, Summer (Fluke)	Тс	tal Weight:	1	.4	Su	b-Sample W	eight:			
Length	Count										
31	1								1		
39	1								1		
40	1								;		
Monkfish	1	To	tal Weight:	1	.2	Su	b-Sample W	eight:			
Length	Count										
28	1								}		
Flounder	, Winter (Blackba	To	tal Weight:	0	.5	Su	b-Sample W	eight:			
Length	Count										
39	1								;		
Flounder	, Witch (Grey sol	To	tal Weight:	0	.4	Su	b-Sample W	eight:			
Length	Count										
42	1								}		
Longhorr	Sculpin	Тс	tal Weight:	0	.4	Su	b-Sample W	oight:			
Length	Count	10	tai Weigiit.	0	.4	Ju	b-Sample vv	eigiit.			
1	1								}		
Scallop, S	Sea	To	tal Weight:	0	.4	Su	b-Sample W	eight:			
Length	Count										
1	1								}		
w 14	Date	5/2/2011	Start Tow	Time:	6:13	Lat	N 41.05.612	Long:	W 71.17.81	Depth:	32 fn
ear: Stan	dard Recorder:	SB	End Tow	Time:	6:53	Lat	N 41.07.816	Long:	W 71.17.92	Depth:	32 fn
nditions:	Sky: Clear	Wind: 2	Wind Dir.	Е		Warp	o: 150 fm		Tow Speed:	3 k	ct

Hake, Silve	r (Whiting)	Total Weight:	85	Sub-Sample Weight:	10
Length	Count				
19	1				
20	1				1
21	1				
22	1				1
23	3				
24	7				
25	1				
26	15				1
27	4				
28	8				
29	4				
30	3				1
31	3				
32	4				1
33	1				
35	1				ı

Hake, Red		Total Weight:	56.7	Sub-Sample Weight:	5
Length	Count				
29	1				1
30	1				
31	2				
32	3				
33	1				
34	1				
35	3				
36	1				
37	1				1
38	1				ı
39	1				1
41	1				1
45	1				1

Squid, Atlar	ntic Long-fin	Total Weight:	18	Sub-Sample Weight:	0.5
Length	Count				
12	2				1
13	3				1
15	1				1
16	1				1

Flounder, S	ummer (Fluke)	Total Weight:	13.6	Sub-Sample Weight:		
Length	Count					
35	1				ı	
36	1				1	

Flounder, V	Vinter (Blackba	Total Weight:	12.4	Sub-Sample Weight:	3.6
Length	Count				
22	1				1
23	3				1
24	1				1
25	1				1
26	2				1
27	4				1
30	1				ı
34	1				1

Butterfish		Total Weight:	8.4	Sub-Sample Weight:	5.2	
Length	Count					
15	6				ı	
16	16				1	
17	13				1	
18	4					
19	9				1	

Atlantic Cod	d	Total Weight:	2.8	Sub-Sample Weight:		
Length	Count					
66	1				1	

Flounder, Ye	ellowtail	Total Weight:	1.5	Sub-Sample Weight:		
Length	Count			1 0		
33	1				ı	
37	1				ı	
43	1				ı	
Skate, Thorr	ny	Total Weight:	0.9	Sub-Sample Weight:		
Length	Count					
1	2				l	
Mackeral, A	tlantic	Total Weight:	0.7	Sub-Sample Weight:		
Length	Count					
31	1				ı	
32	1				I	
34	1				1	
Ch		T .1.1111	0.5	Colo Consolination		
Shad, Ameri		Total Weight:	0.5	Sub-Sample Weight:		
Length	Count					
19	2				ı	
20	3				ı	
Flounder, Sa	and Dab (Win	Total Weight:	0.4	Sub-Sample Weight:		
Length	Count					
24	1				ı	
26	1				L	
Skate, Barno		Total Weight:	0.4	Sub-Sample Weight:		
Length	Count					
1	1				ı	
Flounder, Fo		Total Weight:	0.3	Sub-Sample Weight:		
Length	Count					
22	1				ı	
30	1				l	
Longhorn So	culpin	Total Weight:	0.1	Sub-Sample Weight:		
Length	Count					
1	1				ı	
_						

Lobs	ster, Aı	meric	an	T	otal Weight:	0.1	Sı	ub-Sample W	eight:			
Ler	ngth	С	ount				<u>'</u>					
1		1	L							ı		
STAF	RFISH,	SEAS	TAR, NK	T	otal Weight:	0.1	Sı	ub-Sample W	eight:			
Ler	ngth	С	ount									
1		1	L							1		
Tow	15		Date	5/2/2011	Start Tow	Time:	8:02 Lat	N 41.09.556	Long:	W 71.24.66	Depth:	30 fm
C											•	
Gear:	Stand	ard	Recorder:	SB	End Tow	Time:	8:36 Lat	N 41.11.398	_	W 71.25.45	Depth:	30 fm
Gear: Conditi					End Tow Wind Dir.		8:36 Lat War	N 41.11.398	Long:	W 71.25.45 Tow Speed:	Depth:	
Conditi				Wind:			War	N 41.11.398	Long:		Depth:	
Conditi Mix	ions:	Sky:		Wind:	2 Wind Dir.	E	War	N 41.11.398 p: 150 fm	Long:		Depth:	
Conditi Mix	ions: Skate	Sky:	Clear	Wind:	2 Wind Dir.	E	War	N 41.11.398 p: 150 fm	Long:		Depth:	

Scup		Total Weight:	8.5	Sub-Sample Weight:		
Length	Count					
21	1				1	
22	1				1	
24	2				1	
26	4				1	
27	1				1	
28	2				1	
29	2				1	
30	3)	
32	1)	
34	1)	

Flounder, V	Vinter (Blackba	Total Weight:	8.1	Sub-Sample Weight:		
Length	Count					
34	1				1	
37	2				1	
38	2				1	
40	1)	
43	1				1	
23	1				1	
24	3				ı	
26	1				1	
27	1				1	
31	1				1	
32	1				ı	
36	1				1	

Longhorn S	culpin	Total Weight:	4.7	Sub-Sample Weight:		
Length	Count					
1	14				1	

Hake, Silve	r (Whiting)	Total Weight:	2.8	Sub-Sample Weight:		
Length	Count					
23	1				ı	
24	1				l	
25	8				l	
26	3				l	
27	6				l	
28	1				l	
29	1				l	
30	1				l	
31	1				l	
33	1					

Ocean Pout		Total Weight:	2.7	Sub-Sample Weight:		
Length	Count					
1	6				1	

Atlantic Cod	t	Total Weight: 1.8	Sub-Sample Weight:	
Length	Count			
56	1		ı	
Black Sea b	ass	Total Weight: 1.7	Sub-Sample Weight:	
Length	Count			
34	1		ı	
30	1		ı	
38	1		l l	
Flounder, S	ummer (Fluke)	Total Weight: 0.7	Sub-Sample Weight:	
Length	Count			
39	1		ı	
41	1		1	
43	1		1	
Flounder, F	ourspot	Total Weight: 0.2	Sub-Sample Weight:	
Length	Count			
31	1		ı	
Squid, Atlar	ntic Long-fin	Total Weight: 0.2	Sub-Sample Weight:	
Length	Count			
10	2		ı	
13	1		ı	
14	2		1	
15	1)	
Butterfish		Total Weight: 0.1	Sub-Sample Weight:	
Length	Count			
16	1		1	
Shad, Amer	ican	Total Weight: 0.1	Sub-Sample Weight:	
Length	Count			

Lobster, Ame	erican	Total Weight:	0.1	Sub-Sample Weight:		
Length	Count					
1	1				ı	

Tow	16		Date		5/2/2011	L	Start Tow	Time:	9:20	Lat	N 4	1.11.905	Long:	W 71.30.51	Depth:	32	fm
Gear	: Stand	ard	Record	er:	SB		End Tow	Time:	10:00	Lat	N 4	1.13.217	Long:	W 71.29.16	Depth:	32	fm
Conc	ditions:	Sky:	Clear		Wind:	2	Wind Dir.	E		War	p:	150 fm	l	Tow Speed:	3 k	t	
M	ix Skate					Tot	al Weight:	54	4.9	Sı	ub-S	ample W	eight:				
L	ength	C	ount														
	1	7	'3														

Atlantic Co	d	Total Weight:	21.9	Sub-Sample Weight:	
Length	Count				
39	1				
43	4				
44	2				
45	2				
47	3				
49	3				
50	2				
51	2				
54	1				

Scup		Total Weight:	20.4	Sub-Sample Weight:	
Length	Count				
18	1				
20	2				
21	4				
22	1				
23	2				
24	6				
25	7				
26	9				
27	3				
28	3				
29	4				
30	3				
31	1				
32	1				
38	1				

Flounder, V	Vinter (Blackba	Total Weigh	t: 15.8	Sub-Sample Weight:		
Length	Count					
20	1					
22	1					
24	2					
25	2					
26	6				·	
27	3					
28	5					
29	2					
30	2				·	
31	1					
32	2				·	
33	5					
34	1					
36	2				,	
38	1				·	
39	2					
40	2					

Ocean Pout		Total Weight:	9.5	Sub-Sample Weight:	
Length	Count				
1	9				

Longhorn Sculpin		Total Weight:	6.3	Sub-Sample Weight:	
Length	Count				
1	17				

Hake, Silve	r (Whiting)	Total Weight:	2.6	Sub-Sample Weight:		
Length	Count					
20	1					
22	1					
23	3					
24	2					
25	3					
26	3				,	
27	1					
28	2				,	
29	6					

Flounder, S	Summer (Fluke)	Total Weight:	1.9	Sub-Sample Weight:	
Length	Count				
36	1				
40	1				
32	1				
36	1				

Butterfish		Total Weight:	1.4	Sub-Sample Weight:		
Length	Count					
16	4					
17	4					
18	2				·	
19	2				·	
21	1					

Flounder, F	ourspot	Total Weight:	1.1	Sub-Sample Weight:		
Length	Count					
25	1					
33	1					
26	1					
33	1					
23	1				·	

Flounder, Sand Dab (Win		Total Weight:	0.3	Sub-Sample Weight:	
Length	Count				
30	1				·
39	1				

Tow	17	Date	5/2/2011	Start Tow	Time:	10:59 L	Lat N	41.16.335	Long:	W 71.26.29	Depth:	30 fm
Gear:	Standard	Recorde	r: SB	End Tow	Time:	11:37 L	Lat N	l 41.15.875	Long:	W 71.28.90	Depth:	30 fm
Condit	ions: Sky:	Clear	Wind:	2 Wind Dir.	E	١	Warp:	: 150 fm		Tow Speed:	3 k	t
Mix	Herring/Sh	nad		Total Weight:	67	7	Suk	o-Sample W	eight:			

Mix Skate	Total Weight:	61.4	Sub-Sample Weight:	

Scup		Total Weight:	42.9	Sub-Sample Weight:	12.7
Length	Count				
20	2				•
21	1				
22	5				
23	3				1
24	3				
25	4				
26	3				
27	2				1
28	2				
29	1				
30	2				1
31	1				1
34	2				1
35	1				:

Butterfish		Tot	al Weight:	22.3	Sub-Sample Weight:	2.8	
Length	Count						
13	1						
14	2						
15	4						
16	9						
17	8						
18	3						
19	1						

Flounder, V	Vinter (Blackba	Total Weight:	20.4	Sub-Sample Weight:	8.4
Length	Count				
20	1				
22	2				:
23	2				
24	4				1
25	6				
26	8				1
27	4				
28	4				1
30	1				1
31	1				:
44	1				

Ocean Pout		Total Weight:	9.3	Sub-Sample Weight:	
Length	Count				
1	9				•

Flounder, S	ummer (Fluke)	Total Weight:	7.2	Sub-Sample Weight:		
Length	Count					
28	1				1	
29	1				1	
30	1				1	
35	3				1	
38	1				1	
39	1				1	
40	1				1	

Longhorn S	culpin	Total Weight:	5.8	Sub-Sample Weight:	
Length	Count				
1	23				

Hake, Silve	r (Whiting)	Total Weight:	5.5	Sub-Sample Weight:		
Length	Count					
22	2					
24	7					
25	10					
26	10					
27	8					
28	5					
29	2					
30	3				!	

Hake, Red		Т	otal Weight:	4.6	Sub-Sample Weight:		
Length	Count						
27	1						
28	1						
29	1						
31	1						
32	1					•	
34	1					•	
35	2					•	
37	1					•	
38	1					•	
40	1					•	
45	2						
46	2					1	

Squid, Atlar	ntic Long-fin	То	tal Weight:		3.9	Su	b-Sample W	eight:			
Length	Count										
8	1										
9	2										
10	2										
11	6										
12	3										
13	6										
14	6										
15	7										
16	3										
18	1										
20	1										
Can Dayon		To	tal \\/a:abt.) F	Ç.	de Comando MA	aialat.			
Sea Raven		10	tal Weight:		3.5	St	b-Sample W	eignt:			
Length	Count										
1	3										
Ctringd Dag	•	To	tal Maight.		2.0	Ç.	h Cample W	aiaht.			
Striped Bass		10	tal Weight:		2.8	St	b-Sample W	eignt:			
Length	Count										
48	1										
52	1										
Lobster, Am	nerican	То	tal Weight:		1.6	Su	b-Sample W	eight:			
Length	Count										
1	10										
Tow 18	Date	5/2/2011	Start Tow	Time:	12:20	Lat	N 41.15.160	Long:	W 71.29.87	Depth:	30 fm
Gear: Standa	rd Recorder:	SB	End Tow	Time:	12:52	Lat	N 41.16.317	Long:	W 71.31.03	Depth:	30 fm
Conditions: S	Sky: Clear	Wind: 2	Wind Dir.	E		Warı	o: 150 fm	1	Tow Speed:	3 kt	
Mix Skate		То	tal Weight:	8:	1.2	Su	b-Sample W	eight:			

SPONGE, NK	Total Weight:	45.4	Sub-Sample Weight:	

Flounder, V	Vinter (Blackba	Total Weight:	34	Sub-Sample Weight:	8.3
Length	Count				
20	1				
21	2				
22	3				
23	4				
24	6				
25	2				
26	9				
27	3				
28	4				
29	3				
30	3				+
31	1				
33	1				l .

Scup		Total Weight:	29.2	Sub-Sample Weight:	18
Length	Count				
22	1				i
23	1				1
24	2				i
26	2				1
27	3				1
28	8				1
29	3				i
31	1				1
32	1				i
33	4				1
34	2				i
36	1				;
37	1				1

Ocean Pout		Total Weight:	23.6	Sub-Sample Weight:		
Length	Count					
1	20				i	

Longitorn Sculpin Total Weight. 8.3 Sub-Sample Weight.	Longhorn Sculpin	Total Weight:	8.5	Sub-Sample Weight:		
--------------------------------------------------------	------------------	---------------	-----	--------------------	--	--

Flounder, S	ummer (Fluke)	Total Weight:	3.2	Sub-Sample Weight:	
Length	Count				
31	1				
34	3				
35	1				
39	1				
40	1				

Squid, Atla	ntic Long-fin	Total Weight:	2.3	Sub-Sample Weight:	
Length	Count				
12	1				1
13	2				4
14	4				1
15	4				4
16	2				i i
18	2				4
19	2				i i
20	3				4
24	1				4

Atlantic Cod		Total Weight:	1.6	Sub-Sample Weight:		
Length	Count					
42	1					
44	1				1	

Flounder, S	Sand Dab (Win	Total Weight:	0.5	Sub-Sample Weight:		
Length	Count					
25	1					
27	1				1	

Flou	ınder,	Fours	spot		То	tal Weight:		0.4	Su	ıb-Sam	ple W	eight:				
Lei	ngth	C	Count													
26	5	-	1													
31	1	:	1										1			
Flou	ınder,	Witch	n (Grey s	ol	То	tal Weight:		0.3	Su	ıb-Sam	ple W	eight:				
Lei	ngth	C	Count													
37	7	-	1										İ			
Hak	e, Silvo	er (W	hiting)		To	tal Weight:		0.1	Su	ıb-Sam	ple W	eight:				
Lei	ngth	C	Count													
29	9	-	1										i			
Tow	19		Date		5/2/2011	Start Tow	Time:	13:20	Lat	N 41.1	6.760	Long:	W 71.30.38	Depth:	30	fm
Gear:	Stand	lard	Record	ler:	SB	End Tow	Time:	13:41	Lat	N 41.1	8.217	Long:	W 71.30.93	Depth:	30	fm
Condit	ions:	Sky:	Clear		Wind: 2	Wind Dir.	Е		War	o: 1	50 fm		Tow Speed:	3 k	t	
Mix	Skate				То	tal Weight:	7	1.3	Su	ıb-Sam	ple W	eight:				

Mix Herring/Shad Total Weight: 45.4 Sub-Sample Weight:

Flounder, V	Vinter (Blackba	Total Weight:	36.1	Sub-Sample Weight:	6.2
Length	Count				
17	2				
18	2				
19	2				
20	2				
21	2				
22	3				
23	4				
24	4				
25	1				
26	6				
27	2				
28	4				
29	1				
30	1				
32	1				
34	1				
36	1				
37	1				

Hake, Silver	(Whiting)	Total Weight:	33.1	Sub-Sample Weight:	5.5
Length	Count				
18	1				
19	2				
20	1				
21	2				
22	1				
23	4				
24	3				
25	4				
26	6				
27	6				
28	4				
29	3				
30	4				
31	7				

Hake, Red		Total Weight:	14.9	Sub-Sample Weight:	8.3
Length	Count				
28	3				
29	1				
30	1				
31	1				
32	3				
33	2				
34	3				
35	2				
36	2				
37	1				
38	1				
39	1				
49	1				

Scup		Total Weight:	7.1	Sub-Sample Weight:		
Length	Count					
24	2					
27	1					
30	1					
31	5					
34	1					
35	2				•	

Butterfish		Total Weight:	0.9	Sub-Sample Weight:	
Length	Count				
14	2				
15	2				
16	1				
17	7				

Tow	20	Date	5/5/2011	Start Tow Time:	6:25 Lat N	1 40.54.694 Long:	W 71.29.40	Depth:	30 fm
Gear:	Large Me	Recorde	r: SB	End Tow Time:	6:59 Lat N	V 40.53.728 Long:	W 71.30.27	Depth:	24 fm
Condit	ions: Sky:	Partly Clo	ou Wind:	3 Wind Dir. E	Warp	: 150 fm	Tow Speed:	3 k t	t

Hake, Silve	(Whiting)	Total Weight:	49.4	Sub-Sample Weight:	14.9
Length	Count				
13	2				i
14	2				
15	3				
16	3				
17	5				
18	3				1
19	3				
20	3				
21	3				i
22	7				1
24	6				i
25	9				1
26	3				i
27	3				1
28	7				i
28	1				1
30	3				i
31	2				1
33	2				1

Hake, Red		Total Weight:	43.6	Sub-Sample Weight:	7.1
Length	Count				
14	1				i
15	2				i
19	1				i
22	1				i
23	1				i
24	3				i
25	8				i
26	19				i
27	9				i
28	13				i
29	4				i
31	1				
33	1				i

Butterfish		Total Weight:	20.2	Sub-Sample Weight:	6
Length	Count				
13	1				i
14	7				i
15	12				i
16	15				i
17	24				i
18	9				
20	1				Ü

Scup		Total Weight:	6.5	Sub-Sample Weight:	
Length	Count				
21	2				ì
24	2				i
25	1				i
26	1				i
27	2				i
28	1				ř
29	1				ì
30	2				i
31	1				i
38	1				i

Skate, Thorny		Total Weight:	5.5	Sub-Sample Weight:	
Length	Count				
1	10				i

Mix Herring/Shad		Total Weight:	4.5	Sub-Sample Weight:	
Length	Count				
1	54				i

Flounder,	Yellowtail	Total Weight:	0.9	Sub-Sample Weight:		
Length	Count					
29	1					
31	1				i	
32	1				i	

Flounder, Summer (Fluke) Total Weight: 0.5 Sub-Sample Weight	
	::
Length Count	
37 1	i
Northern Sea Robin Total Weight: 0.4 Sub-Sample Weight	:
Length Count	
1 11	i
CRAB, CANCER, NK Total Weight: 0.4 Sub-Sample Weight	:
Length Count	
1 6	1
	'
Squid, Atlantic Long-fin Total Weight: 0.4 Sub-Sample Weight	
Length Count	
13 1	ı
14 2	1
16 2	1
Flounder, Fourspot Total Weight: 0.3 Sub-Sample Weight	:
Length Count	
26 1	
27 1	
2, 1	·
Flounder, Winter (Blackba Total Weight: 0.2 Sub-Sample Weight	:
Length Count	
26 1	i
Flounder, Witch (Grey sol Total Weight: 0.2 Sub-Sample Weight	:
Length Count	
23 1	i
Flounder, Sand Dab (Win Total Weight: 0.2 Sub-Sample Weight	
· · · ·	
24 1	1

Ocea	an Poı	ut				Tot	al Weight:		0.2	Sı	ub-	Sample W	eight:				
Ler	ngth	С	ount									<u> </u>					
1		1	1											i			
Long	ghorn	Sculp	in			Tot	al Weight:		0.2	Sı	ub-	Sample W	eight:				
Ler	ngth	С	ount														
1		1	1											i			
Flou	nder,	Gulfs	tream			Tot	al Weight:		0.1	Sı	ub-	Sample W	eight:				
Ler	ngth	С	ount														
15	,	1	1											i			
Hade	dock					Tot	al Weight:		0.1	Sı	ub-	Sample W	eight:				
Ler	ngth	С	ount														
22	2	1	1											i			
Tow	21		Date		5/5/201	1	Start Tow]			Ŭ	W 71.26.84	Depth:		fm
Gear:	Large		Record		SB		End Tow	Time:	9:29	Lat	N 4	10.52.706	Long:	W 71.22.71	Depth:	33	fm
Conditi	ions:	Sky:	Partly 0	Clou	Wind:	3	Wind Dir.	Е		War	p:	150 fm		Tow Speed:	3 k	t	

Hake, Silver	(Whiting)	Total Weight:	114.5	Sub-Sample Weight:	7.2
Length	Count				
15	3				i
17	2				j
18	9				i
19	3				i
20	3				i
22	5				j
23	12				i
24	9				j
25	3				i
26	7				j
27	2				i
28	3				j
29	3				i
30	1				i
31	3				j
32	2				i
40	1				i

Hake, Red		Total Weight:	67.9	Sub-Sample Weight:	4.8
Length	Count				
24	3				i
25	4				j
26	14				j
27	10				i
28	7				i
29	3				i
30	3				i
31	4				i
32	1				i
38	1				i

Butterfish		Total Weight:	22.4	Sub-Sample Weight:	5.3	
Length	Count					
14	3				j	
15	24				i	
16	22				i	
17	10				i	
18	2				i	
19	1				i	
20	1				i	

20	1				i	
Skate, Tho	rny	Total Weight:	18.7	Sub-Sample Weight:		
Length	Count					
1	24				j	
Skate, Win	ter	Total Weight:	16.4	Sub-Sample Weight:		
Length	Count					
1	6				j	
1	6				i	

Scup		Total Weight:	5.1	Sub-Sample Weight:	
Length	Count				
20	1				i
21	4				i
22	2				i
23	2				i
26	2				i
27	4				i
33	1				i

Length Count 38 2 39 1 26 1 38 1 33 1 37 1 27 1 40 1 32 1 27 1 28 1 40 1 38 1	Flounder, Y	ellowtail	Total Weight:	4.9	Sub-Sample Weight:		
39 1 26 1 38 1 33 1 37 1 27 1 40 1 32 1 27 1 28 1	Length	Count					
26 1 38 1 33 1 37 1 27 1 40 1 32 1 27 1 28 1	38	2				j	
38 1 33 1 37 1 27 1 40 1 32 1 27 1 28 1	39	1				j.	
33 1 37 1 27 1 40 1 32 1 27 1 28 1	26	1				j	
37 1 27 1 40 1 32 1 27 1 28 1	38	1				j.	
27 1 40 1 32 1 27 1 28 1	33	1				i	
40 1 32 1 27 1 28 1	37	1				j.	
32 1 27 1 28 1	27	1				i	
27 1 28 1	40	1				j.	
28 1	32	1					
	27	1				i	
40 1	28	1				i	
	40	1				j	

Mix Herring/Shad	Total Weight:	2.8	Sub-Sample Weight:	

Atlantic Cod		Total Weight:	1.6	Sub-Sample Weight:		
Length	Count					
36	1				j	
48	1				j	
Flounder, Su	ımmer (Fluke)	Total Weight:	0.9	Sub-Sample Weight:		
Length	Count					
42	1				j	
Ocean Pout		Total Weight:	0.4	Sub-Sample Weight:		
Length	Count					
1	2				i	

10:00 Lat N 40.52.850 Long: W 71.21.88 Depth:

10:45 Lat N 40.54.220 Long: W 71.19.59

150 fm

Warp:

32 fm

32 fm

Depth:

3 kt

Tow Speed:

Start Tow Time:

End Tow Time:

2 Wind Dir. E

Tow

22

Conditions: Sky: Clear

Gear: Large Me

Date

Recorder: SB

5/5/2011

Wind:

Hake, Silve	r (Whiting)	Total Weight:	126.2	Sub-Sample Weight:	7
Length	Count				
16	1				,
18	2				,
19	1				,
20	2				•
21	1				,
22	3				•
24	15				,
25	9				,
26	10				,
27	4				•
28	8				,
29	3				•
30	1				,

Hake, Red		Total Weight:	35.8	Sub-Sample Weight:	4.3	
Length	Count					
21	1				,	
22	2				,	
24	3				,	
25	4				,	
26	7				,	
27	11				,	
28	6				,	
29	1				,	
30	1				,	
31	1				,	

Length Count 1 15	Mix Skate		Total Weight:	13	Sub-Sample Weight:	
1 15	Length	Count				
	1	15				,

Butterfish		Total Weight:	9	Sub-Sample Weight:	3.4
Length	Count				
14	1				,
15	1				,
16	13				,
17	14				,
18	6				,
19	1				

Atlantic Co	d	Total Weight:	8	Sub-Sample Weight:	
Length	Count				
69	1				,
42	1				,
32	1				,
38	2				,
41	1				,
52	1				•

Monkfish		Total Weight:	5.9	Sub-Sample Weight:		
Length	Count					
42	1				,	
64	1				,	
28	1				,	

Mix Herring/Shad	Total Weight:	5.7	Sub-Sample Weight:		
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Scup		Total Weight:	5.2	Sub-Sample Weight:	
Length	Count				
19	1				,
21	1				,
22	2				•
23	3				,
25	1				,
26	3				,
27	3				•
34	1				•

Flounder, Y	'ellowtail	Total Weight:	3.5	Sub-Sample Weight:		
Length	Count					
39	1				,	
41	1				,	
36	1				,	
40	1				,	
32	1				,	
34	1				,	
45	1				,	

Ocean Pout	Total Weight:	2.4	Sub-Sample Weight:	
Length Count				
1 3				F

Flounder, \	Vinter (Blackba	Total Weight: 1.4	Sub-Sample Weight:	
Length	Count			
28	1		,	
38	1		,	
31	1		,	

Length Count 1 9	Mix Sculpin	/Raven/Robin	Total Weight:	1.3	Sub-Sample Weight:	
1 9	Length	Count				
	1	9				1

Flounder, S	Sand Dab (Win	Total Weight:	1	Sub-Sample Weight:		
Length	Count					
23	1				,	
24	1				,	
25	1				,	
26	1				,	
28	1				1	

	ourspot	Total Weight:	0.9	Sub-Sample Weight:		
Length	Count					
15	1				,	
17	1				,	
20	2					
25	1				,	
27	1				•	
28	1					
29	1				•	
34	1				,	
Cauld Atlant	atic Long fin	Total Mainte	0.0	Cub Comple Maint		
	ntic Long-fin	Total Weight:	0.9	Sub-Sample Weight:		
Length	Count				,	
7	1				,	
8	1				,	
9	1				,	
10	3				,	
11	2					
	,					
12					,	
13	2				,	
13 14	2				,	
13 14 20	2 1 1				,	
13 14	2				,	
13 14 20 22	2 1 1	Total Weight:	0.4	Sub-Sample Weight:	,	
13 14 20 22	2 1 1 1	Total Weight:	0.4	Sub-Sample Weight:	,	
13 14 20 22 Flounder, V	2 1 1 1 Vitch (Grey sol	Total Weight:	0.4	Sub-Sample Weight:	,	
13 14 20 22 Flounder, V	2 1 1 1 Vitch (Grey sol	Total Weight: Total Weight:	0.4	Sub-Sample Weight: Sub-Sample Weight:	,	
13 14 20 22 Flounder, V Length 36	2 1 1 1 Vitch (Grey sol				,	

Black Sea ba	ass	Total Weight:	0.3	Sub-Sample Weight:		
Length	Count					
31	1				•	

Tow 23 Gear: Large	Date Me Recorder:	5/5/2011 SB	Start Tow End Tow	_				ong: W 71.20.77		fm fm
	Sky: Mostly Clo		Wind Dir.				150 fm	Tow Speed		
Hake, Silve	r (Whiting)	Tot	al Weight:	133.	7	Sub-San	mple Wei	ght:	5.4	
Length	Count	<u> </u>								
17	1							}		
19	1							1		
20	2							;		
21	2							}		
22	5							1		
23	8							1		
24	14							1		
25	9							;		
26	7							}		
27	5							}		
28	4							1		
Hake, Red		Tot	al Weight:	62.	7	Sub-San	nple Weig	ght:	3.8	
Length	Count				<u> </u>				!	
19	1							;		
21	1							1		
23	1							}		
24	5									
26	11							1		
27	14							1		
28	10							1		
29	2							1		
30	1							1		
31	1							1		

44

Sub-Sample Weight:

Total Weight:

Mix Skate

Length

1

Count

47

Scup		Total Weight:	24.6	Sub-Sample Weight:	19.9
Length	Count				
18	3				}
19	1				}
21	6				}
22	8				}
23	5				}
24	2				}
25	3				}
26	2				}
27	2				}
28	6				}
29	6				}
30	2				}
31	1				}
32	2				}
33	1				}
34	1				}
36	1				}

		Total Weight:	23.4	Sub-Sample Weight:	4.3
Length Co	Count				
14 1	1				1
15 1	13				1
16 2	29				}
17 5	5				+
18 3	3				}

Mix Herring/Shad	Total Weight:	12.9	Sub-Sample Weight:	

Atlantic Co	d	Total Weight:	4.5	Sub-Sample Weight:	
Length	Count				
48	1				1
54	1				1
40	1				1
43	1				}

Flounder, F	ourspot	Total Weight:	2.2	Sub-Sample Weight:		
Length	Count					
35	1				}	
26	1				}	
39	1				1	
37	1				}	
27	1				1	
32	1				}	
16	1				1	
25	1				}	
38	1				}	
Squid, Atla	ntic Long-fin	Total Weight:	1.8	Sub-Sample Weight:		
Length	Count					

Squid, Atla	ntic Long-fin	Total Weight:	1.8	Sub-Sample Weight:		
Length	Count					
10	2				}	
11	1				}	
12	2				}	
13	4				}	
14	3				}	
15	3				1	
16	3				}	
19	1				}	
21	2				}	

Northern Se	ea Robin	Total Weight:	0.9	Sub-Sample Weight:		
Length	Count					
1	11				1	

Black Sea bass		Total Weight:	0.7	Sub-Sample Weight:		
Length	Count					
38	1				}	

То	w	24		Date		5/5/2011		Start Tow	Time:	13:00	Lat	N 40.52.890	Long:	W 71.25.06	Depth:	32 fm	า
Ge	ear:	Large	Ме	Record	der:	SB		End Tow	Time:	13:50	Lat	N 40.52.890	Long:	W 71.20.41	Depth:	32 fm	า
Co	onditi	ions:	Sky:	Mostly	Clo	Wind:	3	Wind Dir.	W		War	p: 150 fn	า	Tow Speed:	3 k	t	

Hake, Red		Total Weight: 92	5 Sub-Sample Weight:	7.2
Length	Count			
23	1			1
25	2			1
26	2)
27	5			1
28	7)
29	1			1
30	3			1
31	1			1
32	5			1
33	2			1
35	3			1
36	1			1
37	1			
38	1			1
40	1			1

Hake, Silve	r (Whiting)	Total Weig	ht: 73.6	Sub-Sample Weight:	5.3
Length	Count				
12	2				1
14	3				
15	3				1
16	5				
17	11				ı
18	4				
19	8				ı
20	4				l
21	4				ı
22	2				
23	9				ı
24	8				l
25	5				1
26	1				1
27	6				ı
28	3				ı
29	3				ı

Mix Skate		Total Weight:	66.2	Sub-Sample Weight:		
Length	Count					
1	60				1	
Mix Herring	g/Shad	Total Weight:	19.2	Sub-Sample Weight:		

Butterfish		Total Weight:	12.4	Sub-Sample Weight:	2.8
Length	Count				
14	1				1
15	6				1
16	9				1
17	5				1
18	7				1
20	1				1

Scup		Total Weight:	11.4	Sub-Sample Weight:	5.9
Length	Count				
20	1				1
23	2				1
24	1				1
25	4				1
26	3				ı
27	1				l .
30	2				1
36	1				1

Ocean Pout	t	Total Weight:	3.5	Sub-Sample Weight:		
Length	Count					
1	5				ı	

Flounder, Fo	ourspot	Total Weight:	1.6	Sub-Sample Weight:	
Length	Count				
21	1				ı
22	1				T.
23	1				ı
24	1				1
25	1				1
26	1				1
27	1				1
29	1				I
30	1				1
32	3				1
Dogfish, Spi	ny	Total Weight:	1.4	Sub-Sample Weight:	
Length	Count			<u> </u>	
74	1				ı
Flounder, Yo	ellowtail	Total Weight:	0.6	Sub-Sample Weight:	
Length	Count				
26	1				ı
27	2				T.
32	1				1
Flounder M	/inter (Blackba	Total Weight:	0.5	Sub-Sample Weight:	
Length	Count	Total Weight.	0.5	Sub Sumple Weight.	
29	1				
33	1				,
33	1				'
Flounder, St	ummer (Fluke)	Total Weight:	0.5	Sub-Sample Weight:	
Length	Count				
32	1				ı
33	1				1
Flounder S	and Dab (Win	Total Weight:	0.4	Sub-Sample Weight:	
Length	Count	- Total Weight	0.1	Tan Tample Weight	
24	1				
22	1				
26	1				
25	1				
23	_				

Northern Se	ea Robin	Total Weight:	0.3 Sub-Sample Weight:	
Length	Count			
1	9			ı
Flounder, W	itch (Grey sol	Total Weight:	0.1 Sub-Sample Weight:	
Length	Count			
36	1			I
Flounder, G	ulfstream	Total Weight:	0.1 Sub-Sample Weight:	
Length				
	Count			
12	Count 1			1
12 14				1
	1			
14	1)

End Tow Time:

4 Wind Dir. W

16:24 Lat N 40.43.787 Long: W 71.23.75 Depth:

Tow Speed:

150 fm

Warp:

32 fm

3 kt

Gear: Large Me

Recorder: SB

Conditions: Sky: Mostly Clo Wind:

Hake, Silve	r (Whiting)	Total Weight:	106.6	Sub-Sample Weight:	6.7
Length	Count				
19	1				
20	1				1
21	1				
22	5				
23	7				
24	6				
25	2				
26	2				
27	5				
28	1				
30	1				1
31	1				
32	1				1
34	2				1
35	1				1
36	2				1
37	1				1
39	1				1
40	1				1

Hake, Red		Total Weight:	93.7	Sub-Sample Weight:	4
Length	Count				
25	6				
26	9				1
27	9				ı
28	12				1
29	3				ı
30	3				1
31	1				ı
33	2				1
34	1				
40	1				

Mix Herring/Shad	Total Weight:	31.9	Sub-Sample Weight:		
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Mix Skate		Total Weight:	17.3	Sub-Sample Weight:		
Length	Count					
1	22				l	

Scup		Total Weight:	8.4	Sub-Sample Weight:	7.1	
Length	Count					
19	1				1	
20	1				1	
21	4				1	
22	4				1	
23	3)	
24	2				1	
26	1)	
30	1)	
35	1)	

Butterfish		Total Weig	ht: 3	Sub-Sa	imple Weight:		
Length	Count						
14	1					1	
15	6)	
16	9					1	
17	2					1	
18	1)	

Monkfish		Total Weight:	2	Sub-Sample Weight:		
Length	Count					
52	1)	
13	1)	

Flounder, F	ourspot	Total Weight:	1.1	Sub-Sample Weight:	
Length	Count				
36	1				1
33	1				
27	1				
31	1				
21	1				1
23	1				1

Eloundor Su	ımmer (Fluke)	Total Weight:	0.8	Sub-Sample Weight:		
		Total Weight.	0.8	Sub-Sample Weight.		
Length	Count					
38	1				l	
35	1				l	
Flounder, Ye	ellowtail	Total Weight:	0.7	Sub-Sample Weight:		
Length	Count					
34	1				1	
39	1				1	
Northern Se	a Rohin	Total Weight:	0.6	Sub-Sample Weight:		
Length	Count	Total Weight.	0.0	Sub Sumple Weight.		
1	13				1	
1	13				,	
Flounder Sa	and Dab (Win	Total Weight:	0.4	Sub-Sample Weight:		
	Count	Total Weight.	0.4	Sub-Sample Weight.		
Length						
28	1)	
24	1				l	
Haddock		Total Weight:	0.3	Sub-Sample Weight:		
Length	Count					
24	1				1	
23	1				1	
0		T 1 M/	0.2	C. la Carrada Martida		
Ocean Pout		Total Weight:	0.3	Sub-Sample Weight:		
Length	Count					
1	1				l	
·						
Haddock		Total Weight:	0.1	Sub-Sample Weight:		
Length	Count					
24	1				l	
23	1				l	
Mackeral, At	tlantic	Total Weight:	0.1	Sub-Sample Weight:		
Length	Count					
Length 21	Count 1)	

			-											
Squid	d, Atla	ntic L	ong-fin		Total Weight:	(0.1	Sul	b-Sample W	eight:				
Len	gth	Co	ount											
21		1									1			
Tow	26		Date	5/5/2011	Start Tow	Time:	16:55	Lat 1	N 40.43.600	Long:	W 71.23.20	Depth:	32	fm
Gear:	Large	Me	Recorder:	SB	End Tow	Time:	17:35	Lat 1	N 40.41.010	Long:	W 71.22.32	Depth:	32	fm
Condition	ons:	Sky:	Partly Clou	Wind:	3 Wind Dir.	W		Warp	: 150 fm		Tow Speed:	3 k	t	
Hake	, Red				Total Weight:	73	3.2	Sul	b-Sample W	eight:		4.4		
Len	gth	Co	ount											
20		1												
21		2												
23		1												
24		4												
25		7												
26		1	0											

Hake, Silve	r (Whiting)	Total Weight:	45.7	Sub-Sample Weight:	9.3
Length	Count				
15	5				
16	3				
17	6				
18	7				
19	5				·
20	6				
21	1				·
22	6				
23	2				·
24	2				
25	1				
28	1				
29	1				
30	3				
31	3				
32	5				
33	2				
34	3				
35	2				·
36	1				
38	1				
Mix Skate		Total Weight:	42.4	Sub-Sample Weight:	

Mix Skate		Total Weight:	42.4	Sub-Sample Weight:	
Length	Count				
1	33				

Mix Herring/Shad Total Weight: 25.

Scup		Total Weight:	10.9	Sub-Sample Weight:	9.9
Length	Count				
21	3				·
22	5				
23	5				
25	5				
26	1				
28	2				
34	2				
36	1				

Flounder, S	ummer (Fluke)	Total Weight:	1.2	Sub-Sample Weight:	
Length	Count				
45	1				
33	1				

Flounder, F	ourspot	Total Weight:	1.1	Sub-Sample Weight:		
Length	Count					
31	1					
26	1					
32	1					
27	1					
31	2				•	

Northern Se	ea Robin	Total Weight:	1	Sub-Sample Weight:	
Length	Count				
1	17				

Squid, Atla	ntic Long-fin	Total Weight:	1	Sub-Sample Weight:	
Length	Count				
8	1				
10	2				
11	4				
12	6				
13	1				·
14	1				
15	2				·
17	2				

		_				
Butterfish		Total Weight:	0.9	Sub-Sample Weight:		
Length	Count					
15	3				•	
16	5					
17	3					
Flounder, Sa	and Dab (Win	Total Weight:	0.9	Sub-Sample Weight:		
Length	Count					
24	4					
23	2					
Atlantic Cod	t	Total Weight:	0.8	Sub-Sample Weight:		
Length	Count					
29	1					
Flounder, Y	ellowtail	Total Weight:	0.6	Sub-Sample Weight:		
Length	Count					
35	1					
29	1					
Ocean Pout	:	Total Weight:	0.3	Sub-Sample Weight:		
Length	Count					
1	2					
Γow 27	Date	5/6/2011 Start Tow	Time: 5:50	Lat N 40.47.830 Long:	W 71.40.24 Dept	th: 32 fm

End Tow Time:

3 Wind Dir. W

6:36 Lat N 40.45.818 Long: W 71.40.70 Depth:

Tow Speed:

150 fm

Warp:

36 fm

3 kt

Recorder: SB

Wind:

Gear: Large Me

Conditions: Sky: Clear

Scup		Total Weight:	544	Sub-Sample Weight:	19.4
Length	Count				
21	1				
22	5				
23	9				
24	4				
25	4				
26	7				
27	8				
28	7				1
29	2				1
31	1				1
39	1				

Mackeral, A	Atlantic	Total Weight:	50	Sub-Sample Weight:	10
Length	Count				
18	1				
19	10				1
20	24				
21	21				1
22	13				
23	4				1
24	6				
25	4				1
26	1				1
27	4				1
28	3				1
32	1				1
33	1				

Mix Skate		Total Weight:	37.4	Sub-Sample Weight:	
Length	Count				
1	39				

Mix Herring/Shad	Total Weight:	25.5	Sub-Sample Weight:		
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Hake, Silve	r (Whiting)	Total Weight:	22	Sub-Sample Weight:	9.5
Length	Count				
11	1				.!
12	1				
13	2				
14	4				
16	2				
17	6				
18	2				
19	4				
20	3				:
21	3				
22	3				:
23	12				
24	18				:
25	7				
26	3				:
27	4				
28	7				:
29	2				
30	3				
31	2				
32	2				
33	1				!
37	1				
39	1				
42	1				
43	1				

Butterfish		Total Weight:	6	Sub-Sample Weight:	
Length	Count				
14	1				
15	8				
16	29				
17	23				:

Flounder,	Yellowtail	Total '	Weight:	1.5	Sub-Sample \	Neight:		
Length	Count							
31	1						1	
38	1						1	
43	1							
Hake, Red		Total '	Weight:	1.1	Sub-Sample \	Weight:		
Length	Count							
32	2							
33	2							
34	1							
Tow 28	Date	5/6/2011 St	art Tow Time	e: 7:15	Lat N 40.44.99	0 Long:	W 71.40.71	Depth: 36 fm
Gear: Large	Me Recorder:	SB Er	nd Tow Time	e: 8:19	Lat N 40.41.02	8 Long:	W 71.40.27	Depth: 36 fm
Conditions:	Sky: Clear	Wind: 4 W	ind Dir. W		Warp: 150 f	m	Tow Speed:	3 kt
Scup		Total '	Weight:	363	Sub-Sample \	Weight:	2	1.2
Length	Count							
19	1						1	
20	11						1	
21	13						1	
22	10						1	
23	8						1	
24	6						1	
25	6						1	
26	3						i	
27	4						ł	
28	3						1	
32	2							
33	2							
37	1						1	

Sub-Sample Weight:

Total Weight:

Mix Skate

Hake, Silve	er (Whiting)	Total W	eight: 39	.6 Sub-Sample Weight:	7.4
Length	Count				
16	2				1
17	3				
18	5				i
19	5				
20	1				
21	2				
22	2				1
23	2				
24	5				
25	7				
26	3				
27	2				
28	2				
29	3				
30	2				
31	3				
32	2				
33	2				
35	1				
38	1				1

Mackeral, Atlantic		Total Weight:	16.4	Sub-Sample Weight:	4
Length	Count				
18	1				1
19	9				1
20	22				1
21	15				1
22	8				1
23	1				1

		Mix Herring/Shad	Total Weight:	15.6	Sub-Sample Weight:		
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Butterfish		To	tal Weight:		4	S	ub-Sample We	eight:				
Length	Count											
14	5								i			
15	8											
16	21											
17	7											
18	4								ļ			
Flounder, Su	mmer (Fluke)	To	tal Weight:		3.4	S	ub-Sample We	eight:				
Length	Count											
45	2								1			
46	1								İ			
Flounder, Ye	llowtail	To	tal Weight:		0.9	S	ub-Sample We	eight:				
Length	Count	<u> </u>										
42	1								i			
Flounder, Fo	urspot	To	tal Weight:		0.8	S	ub-Sample We	eight:				
Length	Count	<u> </u>										
30	1								i			
29	1								i			
Hake, Red		To	tal Weight:		0.8	S	ub-Sample We	eight:				
Length	Count											
32	2											
33	4											
34	1								1			
35	2								1			
36	1								i			
38	1								ļ			
Monkfish		To	tal Weight:		0.1	S	ub-Sample We	eight:				
Length	Count											
11	1								i			
Гоw 29	Date	5/6/2011	Start Tow	Time:	9:00	Lat	N 40.40.300	Long:	W 71.39.99	Depth:	36	fm
Gear: Large M	e Recorder:		End Tow	Time:			N 40.40.941	_		Depth:		fm

Conditions: Sky: Clear

Wind:

3 Wind Dir. W

Warp:

150 fm

Tow Speed:

3 kt

Scup		Total Weight:	53.4	Sub-Sample Weight:	13.6
Length	Count				
18	2				
19	4				
20	10				
21	12				
22	11				
23	5				
24	7				
25	3				
28	3				·
31	1				

Skate, Thorny		Total Weight:	2.8	Sub-Sample Weight:	
Length	Count				
1	5				

Herring, Blu	ueback	Total Weight:	2.7	Sub-Sample Weight:	
Length	Count				
16	1				
18	13				
19	17				
20	13				
21	1				

Hake, Silve	r (Whiting)	Total Wei	ght: 2.	3 Sub-Sample Weight:		
Length	Count					
12	1					
13	1					
14	3					
15	4					
16	4					
17	8					
18	5					
19	3					
20	1					
22	2					
23	1					
24	1					
25	1				•	
26	2					
27	3					
28	1					
29	1					
30	1				·	

Mackeral, A	Atlantic	Total Weight:	1.8	Sub-Sample Weight:	
Length	Count				
18	1				
19	10				
20	7				
21	3				
22	2				
23	1				

Length Count	Shad, Hicko	ory	Total Weight:	1.4	Sub-Sample Weight:		
20	Length	Count					
21	16	1					
22	20	1					
23	21	1					
Sub-Sample Weight:	22	1					
Butterfish	23	4					
Sutterfish	24	1					
Length Count 12 3 13 3 3 14 3 3 15 1 16 2 2 1 16 2 2 1 17 18 18 18 18 18 18	25	2					
Length Count 12 3 13 3 3 14 3 3 15 1 16 2 2 1 16 2 2 1 17 18 18 18 18 18 18							
12 3 13 3 14 3 15 1 16 2 2 1	Butterfish		Total Weight:	0.8	Sub-Sample Weight:		
13 3 14 3 15 1 16 2 2	Length	Count					
14 3 15 1 16 2 Hake, Red Total Weight: 0.6 Length Count 23 1 26 3 27 2 Flounder, Fourspot Total Weight: 0.3 Sub-Sample Weight: Length Count 12 1 13 1 Northern Sea Robin Total Weight: 0.1 Sub-Sample Weight: Length Count Length Count	12	3					
15	13	3					
Hake, Red	14	3					
Hake, Red Total Weight: 0.6 Sub-Sample Weight: Length Count 23	15	1					
Length Count 23 1 26 3 27 2 Flounder, Fourspot Length Count 29 1 Flounder, Gulfstream Length Count 12 1 13 1 Northern Sea Robin Total Weight: Not Sub-Sample Weight: Nothern Sea Robin Total Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Su	16	2					
Length Count 23 1 26 3 27 2 Flounder, Fourspot Length Count 29 1 Flounder, Gulfstream Length Count 12 1 13 1 Northern Sea Robin Total Weight: Not Sub-Sample Weight: Nothern Sea Robin Total Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Sub-Sample Weight: O.1 Su			1				
23 1 26 3 27 2 Flounder, Fourspot Total Weight: 0.3 Sub-Sample Weight: Length Count 29 1 Flounder, Gulfstream Total Weight: 0.1 Sub-Sample Weight: Length Count 13 13 1 Northern Sea Robin Total Weight: 0.1 Sub-Sample Weight: Length Count	Hake, Red		Total Weight:	0.6	Sub-Sample Weight:		
26 3 27 2 Flounder, Fourspot Total Weight: 0.3 Sub-Sample Weight: Length Count 29 1 Flounder, Gulfstream Total Weight: 0.1 Sub-Sample Weight: Length Count 12 1 13 1 Northern Sea Robin Total Weight: 0.1 Sub-Sample Weight: Length Count Count Sub-Sample Weight: 0.1 Sub-Sample Weight:	Length	Count					
Flounder, Fourspot Total Weight: 0.3 Sub-Sample Weight: Length Count 29 1 Flounder, Gulfstream Total Weight: 0.1 Sub-Sample Weight: Length Count 12 1 13 1 Northern Sea Robin Total Weight: 0.1 Sub-Sample Weight: Length Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count	23	1					
Flounder, Fourspot Total Weight: 0.3 Sub-Sample Weight: Length Count 29 1 Flounder, Gulfstream Total Weight: 0.1 Sub-Sample Weight: Length Count 12 1 13 1 Northern Sea Robin Total Weight: 0.1 Sub-Sample Weight: Length Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count Count	26	3					
Length Count 29 1 Flounder, Gulfstream Total Weight: 0.1 Sub-Sample Weight: Length Count 12 1 13 1 Northern Sea Robin Total Weight: 0.1 Sub-Sample Weight: Length Count	27	2					
Length Count 29 1 Flounder, Gulfstream Total Weight: 0.1 Sub-Sample Weight: Length Count 12 1 13 1 Northern Sea Robin Total Weight: 0.1 Sub-Sample Weight: Length Count	Flounday F	ourspot	Total Waight	0.2	Cub Comple Weight		
Flounder, Gulfstream Total Weight: 0.1 Sub-Sample Weight: Length Count 12 1			Total Weight:	0.3	Sub-Sample Weight:		
Flounder, Gulfstream Total Weight: 0.1 Sub-Sample Weight: Length Count 12 1 13 1 Northern Sea Robin Total Weight: 0.1 Sub-Sample Weight: Length Count							
Length Count 12 1 13 1 Northern Sea Robin Total Weight: 0.1 Sub-Sample Weight: Length Count	29	1				•	
Length Count 12 1 13 1 Northern Sea Robin Total Weight: 0.1 Sub-Sample Weight: Length Count							
12 1 13 1 Northern Sea Robin Total Weight: 0.1 Sub-Sample Weight: Length Count		iulfstream	Total Weight:	0.1	Sub-Sample Weight:		
Northern Sea Robin Total Weight: 0.1 Sub-Sample Weight: Length Count	Length	Count					
Northern Sea Robin Total Weight: 0.1 Sub-Sample Weight: Length Count	12	1				·	
Length Count	13	1					
Length Count	Northern Sc	ea Rohin	Total Weight	0.1	Suh-Samnle Weight		
			i Otal Weight.	0.1	Jub-Jampie Weight.		
1 2							
	1	2				·	

Squid, Atlar	ntic Long-fin	Total Weight:	0.1	Sub-Sample Weight:	
Length	Count				
13	1				

1	5		_														
Tow	30		Date		5/6/201	.1	Start Tow		_				_	W 71.33.27	Depth:	_	fm
Gear:			Recor	der:			End Tow		12:13				_	W 71.32.52			fm
Condit	tions:	Sky:	Clear		Wind:	2	Wind Dir.	W		War	p:	150 fm		Tow Speed:	3 I	ct	
Hak	ce, Silve	er (W	hiting)			Tot	al Weight:	7	8.4	Sı	ub-Sa	ample W	eight:		4.2		
Le	ngth	C	Count														
1	8		1											i			
2	0		1											i			
2	1	:	1											i			
2.	2	;	2											i			
2.	3	:	1											i			
2	4	3	3											i			
2	5	4	4											i			
2	6		1											i			
2	7	3	3											i			
2	8		3											i			
2	9	:	1											i			
3	0		3											i			
3	1	:	2											i			
3	2	:	1											i			
3	3		1											, 1			

Hake, Red		Total Weight:	31	Sub-Sample Weight:	5.3
Length	Count				
23	1				i
24	2				
25	4				ì
26	14				
27	8				i i
28	3				
29	6				i
30	3				
31	2				i

Mix Skate		Total Weight:	30.5	Sub-Sample Weight:		
Length	Count					
1	18				ì	

Scup		Total Weight:	22.4	Sub-Sample Weight:		
Length	Count					
19	1				I	
20	2				; 1	
21	2				i I	
22	7				i I	
23	4				i I	
24	5				i I	
25	2				i I	
26	3				i I	
27	5				i I	
28	3				Ì	
29	1				Ì	
30	2				Ì	
31	4				Ì	
32	4				Ì	
33	1				ì	
34	1				i I	
37	1				i	
38	2				i I	

Mix Herring/Shad	Total Weight:	18.2	Sub-Sample Weight:		
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Atlantic Co	d	Total Weight:	10.9	Sub-Sample Weight:		
Length	Count					
53	1				i	
54	1				i	
56	1				i	
58	1				i	
55	1				i	
49	1				i	

Flounder, Y	'ellowtail	Total Weight:	8.5	Sub-Sample Weight:		
Length	Count					
28	1				i	
34	3				i	
35	2				i	
37	1				i	
39	1				i	
40	2				i	
41	1				i	
42	4				i	
43	1				i	
44	1				i	

Mackeral, A	Atlantic	Total Weight:	5.3	Sub-Sample Weight:	
Length	Count				
19	10				i
20	26				4
21	17				į.
22	21				i

Butterfish		Tota	l Weight:	4.7	Sub-Sample W	eight:	
Length	Count						
14	3					i	
15	20					ì	
16	24					i	
17	10					ì	

Flounder, S	ummer (Fluke)	Total Weight: 1.7	Sub-Sample Weight:
Length	Count		
40	1		i
35	1		i i
34	1		i
41	1		i

Black Sea ba	ass	Total Weight:	1.7	Sub-Sample Weight:		
Length	Count				<u> </u>	
44	1				i	
31	1				i	
25	1				i	
23	1				i	
	Vinter (Blackba	Total Weight:	0.9	Sub-Sample Weight:		
Length	Count					
1	1				i	
		_				
Flounder, Sa	and Dab (Win	Total Weight:	0.5	Sub-Sample Weight:		
Length	Count					
25	1				i	
24	2				i	
Flounder, Fo	ourspot	Total Weight:	0.5	Sub-Sample Weight:		
Length	Count	rotal Weight		ous sumple weight.		
27	1				i e e e e e e e e e e e e e e e e e e e	
23	1				,	
28	1				,	
24	1				· · · · · · · · · · · · · · · · · · ·	
Sea Raven		Total Weight:	0.4	Sub-Sample Weight:		
Length	Count					
1	1				i	
Monkfish		Total Weight:	0.2	Sub-Sample Weight:		
Length	Count					
22	1				i i	
Haddock		Total Weight:	0.2	Sub-Sample Weight:		
Length	Count					
26	1				1	

Dogfish, Ch	ain	Total Weight:	0.2	Sub-Sample Weight:	
Length	Count				
1	1				

Tow	31		Date		5/6/2013	1	Start Tow	Time:	12:15	Lat	N 40	0.53.030	Long:	W 71.31.81	Depth:	30 fm
Gear:	Large	Me	Record	der:	SB		End Tow	Time:	12:45	Lat	N 40	0.54.650	Long:	W 71.30.07	Depth:	30 fm
Condit	ions:	Sky:	Clear		Wind:	2	Wind Dir.	W		War	rp:	150 fm	l	Tow Speed:	3 k	t
Hak	e, Red					Tot	al Weight:	11	3.4	S	ub-S	ample W	eight:		4.9	
Lei	ngth	С	ount													
24	1	1	1											i		
25	5	3	3											i		
26	õ	4	1											i		
27	7	5	5											i		
28	3	4	1											i		
29	9	6	õ											ì		
30)	2	2											ì		
32	2	1	1											ì		
33	3	2	2											ì		
34	1	2	2											i		
35	5	1	1											i		
37	7	1	1											Ì		

Hake, Silve	r (Whiting)	Total Weight:	58.1	Sub-Sample Weight:	6
Length	Count				
13	1				i
18	1				i
22	3				i
23	3				i
24	11				i
25	10				i
26	11				i
27	8				i
28	5				i
29	3				i

Mix Skate		Total Weight:	21.3	Sub-Sample Weight:		
Length	Count					
1	25				j	

Scup		Total Weight:	13.2	Sub-Sample Weight:		
Length	Count					
18	1				i	
20	2				i	
21	4				i	
22	10				i	
23	2				i	
24	3				i	
25	3				i	
26	3				i	
27	2				i	
28	1				i	
29	1				i	
30	2				i	
32	1				i	
34	1				j	
37	1				ì	

Flounder, Y	'ellowtail	Total Weight:	10.3	Sub-Sample Weight:		
Length	Count					
31	1				i	
32	1				i	
33	3				i	
37	3				i	
39	4				i	
40	4				i	
41	1				i	
42	2				i	

Mix Herring/Shad Total Weight: 6.7 Sub-Sample Weight:

Monkfish		Total Weight:	3.3	Sub-Sample Weight:	
Length	Count	-			
57	1				j
29	1				i
1					
	ummer (Fluke)	Total Weight:	1.7	Sub-Sample Weight:	
Length	Count				
43	1				i
31	1				i
Atlantic Cod	i	Total Weight:	1.4	Sub-Sample Weight:	
Length	Count				
52	1				i
Flounder, F	ourspot	Total Weight:	1.2	Sub-Sample Weight:	
Length	Count				
28	1				i
32	1				i
25	1				i
25	1				i
22	1				i
31	1				i
Flounder, W	/inter (Blackba	Total Weight:	1	Sub-Sample Weight:	
Length	Count	Total Weight		Sub Sumple Weight	
29	1				i
35	1				i
Northern Se	ea Robin	Total Weight:	0.2	Sub-Sample Weight:	
Length	Count				
1	1				i
Haddock		Total Weight:	0.1	Sub-Sample Weight:	
Longoth	Count				
Length					

Blad	ck Sea	hass				Tota	al Weight:		0.1	Sı	ıh-S:	ample W	eight:				
	ength		ount			1011	ar weight.		0.1		10 5	umpic vv	Cigire.				
2		1												j			
2	4													1			
Lon	ighorn	Caulo	in			Tota	al Weight:		0.1	Ç,	ıh C	ample W	oiabtı				
						1016	ai weigiit.		0.1	30	10-20	ampie w	eigiit.				
	ength		ount														
1		1	L											i			
Tow	32		Date		5/6/2011	=	Start Tow						_	W 71.29.27	Depth:		fm
Gear:			Recor	der:	SB			Time:	14:20				_	W 71.29.24	Depth:		fm
Condi	tions:	Ѕку:	Clear		Wind:		Wind Dir.			Warı	0:	150 fm		Tow Speed:	3 k	Ţ.	
Hak	ke, Red	<u> </u>				Tota	al Weight:	17	0.1	Sı	ıb-Sa	ample W	eight:		6.5		
Le	ength	С	ount														
2	3	1	L											,			
2	4	2	2											,			
2	5	1	L											,			
2	6	1	16											,			
2	7	5	5											,			
2	8	7	7											,			
2	9	2	2											,			
3	0	2)											,			
3	1	3	3											,			
3	2	1												,			

Hake, Silver	r (Whiting)	Total Weight:	50.3	Sub-Sample Weight:	5.1
Length	Count				
15	3				,
16	2				
17	2				•
18	2				,
19	5				•
20	2				,
21	1				,
23	5				,
24	4				,
25	3				,
26	4				,
27	3				,
28	5				,
29	4				,
30	3				,
37	1				,
Mix Skate		Total Weight:	11.1	Sub-Sample Weight:	

Mix Skate		Total Weight:	11.1	Sub-Sample Weight:	
Length	Count				
1	9				•

Scup		Total Weight:	9.3	Sub-Sample Weight:	
Length	Count				
20	2				,
21	4				,
22	7				,
23	2				,
24	5				,
25	7				,
27	4				,
28	1				

Mix Herring/Shad	Total Weight:	6.4	Sub-Sample Weight:		
------------------	---------------	-----	--------------------	--	--

Flounder, S	ummer (Fluke)	Total Weight:	5.1	Sub-Sample Weight:		
Length	Count					
74	1				•	
41	1					
31	1				,	
A.I: 0		-	4.0			
Atlantic Cod		Total Weight:	4.8	Sub-Sample Weight:		
Length	Count				,	
66	1					
41	1				,	
43	1				<u>'</u>	
Butterfish		Total Weight:	3.4	Sub-Sample Weight:		
Length	Count					
15	7				,	
16	20				,	
17	12				,	
Flounder, Y	I	Total Weight:	2.5	Sub-Sample Weight:		
Length	Count					
28	1				,	
32	1				,	
35	1				,	
39	2				,	
40	1				,	
Flounder, V	Vinter (Blackba	Total Weight:	0.7	Sub-Sample Weight:		
Length	Count					
40	1				,	
Monkfish		Total Weight:	0.3	Sub-Sample Weight:		
Length	Count			-		
23	1				,	
23						
	Vitch (Grey sol	Total Weight:	0.3	Sub-Sample Weight:		
	Vitch (Grey sol	Total Weight:	0.3	Sub-Sample Weight:		

Longhorn So	culpin	Total Weight:	0.3	Sub-Sample Weight:		
Length	Count					
1	1				,	
Black Sea ba	ass	Total Weight:	0.2	Sub-Sample Weight:		
Length	Count					
25	1				,	
Flounder, Sa	and Dab (Win	Total Weight:	0.1	Sub-Sample Weight:		
Length	Count					
22	1				,	
Flounder, F	ourspot	Total Weight:	0.1	Sub-Sample Weight:		
Length	Count					
28	1				,	
Tow 33	Date	5/7/2011 Start Tow	Time: 6:28	Lat N 40.55.637 Long:	W 71.27.11 Dep	th: 32 fm
Gear: Large N			Time: 7:06		W 71.26.98 Dep	
Conditions: S	Sky: Mostly Clo	Wind: 2 Wind Dir.	W	Warp: 150 fm	Tow Speed:	3 kt
Hake, Red		Total Weight:	39.4	Sub-Sample Weight:		

Hake, Silve	r (Whiting)	Total Weight:	28.2	Sub-Sample Weight:	5.8
Length	Count				
22	3				}
24	4				}
25	1				}
26	6				}
27	4				}
28	3				}
29	2				}
30	2				}
31	4				}
32	1				}
33	1				1
34	2				}
37	1				}

Length Count 1 17	Mix Skate	Total Weight:	23.6	Sub-Sample Weight:	
1 17	Length Count				
	1 17				}

Scup		Total Weight:	22.7	Sub-Sample Weight:	21.8
Length	Count				
19	1				
20	2				
21	9				
22	11				
23	11				
24	6				
25	10				
26	7				
27	3				
28	1				
29	3				
31	1				
32	1				
34	2				;

Flounder, Y	'ellowtail	Total Weight:	4.6	Sub-Sample Weight:		
Length	Count					
27	2				1	
28	2				}	
30	1				}	
31	1				}	
33	2				}	
34	1				}	
35	1				}	
36	1				}	
40	1				}	
42	1				}	

Butterfish		Total '	Weight:	4	Sub-Sample Weight:		
Length	Count						
15	15					}	
16	17					}	
17	9					}	
18	2					}	
19	2					}	

Mix Herring/Shad	Total Weight:	2.6	Sub-Sample Weight:	
<u> </u>	ا		, ,	

Flounder, \	Winter (Blackba	Total Weight:	1.8	Sub-Sample Weight:		
Length	Count					
35	1				}	
26	1				}	
24	1				}	
22	1				}	

Ocean Pout	Total Weight:	1.2 Sub-Sample Weight:
Length Count		
1 2		

Squi	d, Atl	antic	Long-fin		Tot	al Weight:		0.5		Sı	ıb-Sa	ample W	eight:					
Ler	ngth	С	ount															
10)		1												;			
14	ļ	:	1												;			
16	<u>;</u>	:	1												}			
23	}		1												}			
Blacl	k Sea	bass			Tot	al Weight:		0.2		Sı	ıb-Sa	ample W	eight:					
	ngth		Count															
26			1												;			
Tow	34		Date	5/7/2012	1	Start Tow	Time:	: 7	7:30	Lat	N 40).53.320	Long:	W 71.2	6.79	Depth:	30	fm
Gear:	Large	е Ме	Recorder:	SB		End Tow	Time:	8	3:00	Lat	N 40).51.670	Long:	W 71.2	6.86	Depth:	30	fm
Conditi	ions:	Sky:	Mostly Clo	Wind:	2	Wind Dir.	W			War	p:	150 fm	1	Tow S _I	peed:	3	kt	
Hake	e, Silv	er (W	hiting)		Tot	al Weight:		70.1		Sı	ıb-Sa	ample W	eight:			5.6		
Ler	ngth	C	ount															
12	2	,	1												ı			•
14	ļ	2	2)			
18	3		1												1			
19)		1												ı			
21	-	3	3												1			
22	2	4	4)			
23	}	(5												1			
24	ļ		10												1			
25	;		17												١			
26	j	9	9												I			
27	,	3	3												١			
28	3	3	3												1			
29)	-	1)			
Mix	Herri	ng/Sh	ad		Tot	al Weight:		40.7		Sı	ıb-Sa	ample W	eight:					

Hake, Red	Total Weight: 32.8	Sub-Sample Weight:	

Scup		Total Weight:	28.3	Sub-Sample Weight:		
Length	Count					
19	1				1	
20	4				1	
21	9				1	
22	12				1	
23	9				1	
24	10				1	
25	9				1	
26	6				1	
27	6				1	
28	2				1	
29	3				1	
30	1				1	
31	1				1	
32	1				1	
33	1				1	
34	1				ı	
35	2				1	
37	1				1	
40	1				į.	

Mix Skate		Total Weight:	17.3	Sub-Sample Weight:		
Length	Count					
1	18				1	

Butterfish Total Weight: 6.1 Sub-Sample Weight:

Flounder, Y	'ellowtail	Total Weight:	3	Sub-Sample Weight:		
Length	Count					
32	1				ı	
36	2				ı	
41	1				1	
42	1				I	

Monkfish		Total Weight:	2.5	Sub-Sample Weight:		
Length	Count					
40	1				l .	
27	1				1	
32	1				ı	
Flounder, W	/inter (Blackba	Total Weight:	2.4	Sub-Sample Weight:		
Length	Count		<u>'</u>			
31	1				ı	
45	1				1	
Flounder, Fo	ourspot	Total Weight:	1.3	Sub-Sample Weight:		
Length	Count	'				
25	1)	
30	1)	
31	1				1	
33	1				L	
Flounder, Su	ummer (Fluke)	Total Weight:	0.9	Sub-Sample Weight:		
Length	Count					
33	1				l	
24	1				ı	
Flounder, Sa	and Dab (Win	Total Weight:	0.8	Sub-Sample Weight:		
Length	Count	,	<u> </u>			
14	1				l .	
18	1				1	
22	1				ı	
Haddock		Total Weight:	0.7	Sub-Sample Weight:		
Length	Count					
31	1				ı	
Black Sea ba	ass	Total Weight:	0.7	Sub-Sample Weight:		
Length	Count	Total Weight	3.7	Tan Campie Weight		
41	1				ı	

	-																
Nort	thern :	Sea Ro	obin			Tot	al Weight:		0.3	S	Sub-	Sample Wo	eight:				
Ler	ngth	С	ount														
1		3	3											1			
Tow	35		Date		5/7/202	11	Start Tow	Time:	8:	30 Lat	N 4	40.51.720	Long:	W 71.76.40	Depth:	33	fm
Gear:	Large	Me	Record	ler:	SB		End Tow	Time:	9:	00 Lat	N 4	40.53.720	Long:	W 71.27.04	Depth:	33	fm
Conditi	ions:	Sky:	Mostly	Clo	Wind:	2	Wind Dir.	W		Wa	rp:	150 fm		Tow Speed:	3 k	t	
Hake	e, Silve	er (Wl	hiting)			Tot	al Weight:	6	3.6	S	ub-	Sample W	eight:		2.6		
Ler	ngth	С	ount														
12	2	1	L)			
13	}	2	2)			
14		2	2)			
15	;	2	2											1			
16		3	3											1			
17	7	5	5											1			
18	3	4	1											1			
19)	5	5)			
20)	3	3)			
21	_	2	<u> </u>)			

)

)

)

Hake, Red		Total Weight:	37	Sub-Sample Weight:	6.2
Length	Count				
15	1				
18	1				1
19	1				1
21	1				
23	1				1
24	1				1
25	7				
26	12				
27	9				
28	8				
29	3				
31	1				
32	1				
35	1				
36	2				1

Mix Skate		Total Weight:	32.7	Sub-Sample Weight:	
Length	Count				
1	58				

Scup		Total Weight:	11.9	Sub-Sample Weight:		
Length	Count					
20	4)	
21	4)	
22	8)	
23	6)	
24	3)	
25	1)	
26	3)	
27	1)	
28	2)	
29	1)	
30	2)	
31	1)	
34	1				l .	

Mix Herring	g/Shad	Total Weight:	11.8	Sub-Sample Weight:	
Butterfish		Total Weight:	7.1	Sub-Sample Weight:	
Length	Count				
13	2				l
14	5)
15	13				1
16	23)
17	26)
18	7)
Flavord V	allaustail	Tatal Maria	-	Cult Committee 144	
Flounder, Y		Total Weight:	5	Sub-Sample Weight:	
Length	Count				
22	1)
33	1)
37	2				
38	1)
41	2				,
43	2				l
Ocean Pout	<u> </u>	Total Weight:	3.4	Sub-Sample Weight:	
Length	Count				
1	4				l
Atlantic Cod	d	Total Weight:	0.9	Sub-Sample Weight:	
Length	Count	-			
45	1)
Flounder. W	Vinter (Blackba	Total Weight:	0.8	Sub-Sample Weight:	
Length	Count				
22	1				ı
Flounder, F	ourspot	Total Weight:	0.4	Sub-Sample Weight:	
	Count	Total Weight.	0.4	Sub Sumple Weight.	
Length					
36	1				1

Longhorn	Sculpin	Tot	al Weight:	0.2	Suk	o-Sample We	oight:			
		100	ai weigiit.	0.2	Jul	-sample we	eigiit.			
Length	Count									
1	1							1		
Haddock		Tot	al Weight:	0.1	Sub	o-Sample We	eight:			
Length	Count									
25	1							1		
Tow 36	Date	5/7/2011	Start Tow	Time:	9:45 Lat N	I 40.54.120	Long:	W 71.27.17	Depth:	36 fm
Gear: Large	Me Recorder:	SB	End Tow	Time: 1	0:15 Lat N	I 40.56.285	Long:	W 71.25.90	Depth:	36 fm
Conditions:	Sky: Clear	Wind: 2	Wind Dir.	W	Warp	150 fm		Tow Speed:	3 k	t
Hake, Red		Tota	al Weight:	152.7	Suk	o-Sample We	eight:		6.1	
Length										
	Count									
21	1									
21										
	1									
24	1								,	
24 25	1 3 6									
24 25 26	1 3 6 9									
24 25 26 27	1 3 6 9 11									
24 25 26 27 28	1 3 6 9 11 10									

Hake, Silve	r (Whiting)	Total Weight:	58	Sub-Sample Weight:	3.3
Length	Count				
15	2				
16	4				·
17	2				
18	3				·
19	9				
20	2				·
21	5				
22	3				·
23	5				
24	4				·
25	3				
26	3				·
27	1				·
28	2				
32	1				·

Scup		Total Weight:	10.8	Sub-Sample Weight:	
Length	Count				
21	4				
22	3				
23	6				
24	3				
25	5				
26	2				
27	8				
30	2				

13.6

Sub-Sample Weight:

Total Weight:

Mix Herring/Shad

Butterfish		Total We	ight: 3.8	Sub-Sample Weight	: 1.5
Length	Count				
13	2				
14	2				
15	3				
16	7				
17	3				
20	1				
		-1			

Flounder, Y	'ellowtail	Total Weig	ht:	3	Sub-Sample Weight:	
Length	Count					
34	1					
35	1					
37	2					
38	1					
39	1					

Monkfish		Total Weight:	2.9	Sub-Sample Weight:	
Length	Count				
59	1				

Flounder, V	Vinter (Blackba	Total Weight:	1.9	Sub-Sample Weight:	
Length	Count				
25	1				
28	1				
38	1				
42	1				

Haddock		Total W	eight:	0.6	Sub-Sample Weight:	
Length	Count					
22	1					
24	1					
23	1					
25	1					

Ocean Pout		Total Weight:	0.6	Sub-Sample Weight:	
Length	Count				
1	1				

Flounder,	Summer (Fluke)	Total W	/eight:	0.2 Sub-	Sample Weight:			
Length	Count							
30	1							
Flounder,	Fourspot	Total W	/eight:	0.1 Sub-	Sample Weight:			
Length	Count							
26	1							
24	1							
Tow 37	Date	5/7/2011 Sta	rt Tow Time:	10.50 Let N	10.56.390 Long:	W 71 24 76	Donth	29 fm
Gear: Large			d Tow Time:		10.56.380 Long:		•	29 IIII 29 fm
Conditions:			nd Dir. W	Warp:	150 fm	Tow Speed:	3 kt	23 1111
Hake Red	1	Total W	/eight: 28	3.5 Sub-	Sample Weight:		3.6	
Hake, Red		Total W	/eight: 28	3.5 Sub-	Sample Weight:		3.6	
Length	Count	Total W	/eight: 28.	3.5 Sub -:	Sample Weight:		3.6	
Length 27	Count 2	Total W	/eight: 28	3.5 Sub -	Sample Weight:		3.6	
Length 27 28	Count 2 3	Total W	/eight: 28	3.5 Sub-	Sample Weight:		3.6	
Length 27 28 29	Count 2 3 7	Total W	/eight: 28	3.5 Sub-	Sample Weight:		3.6	
Length 27 28 29 30	Count 2 3 7 5	Total W	/eight: 28	3.5 Sub-	Sample Weight:		3.6	
Length 27 28 29	Count 2 3 7	Total W	/eight: 28	3.5 Sub-	Sample Weight:		3.6	
Length 27 28 29 30 31	Count 2 3 7 5 3	Total W	/eight: 28	3.5 Sub-	Sample Weight:		3.6	
Length 27 28 29 30 31 32	Count 2 3 7 5 3 3	Total W	/eight: 28	3.5 Sub-	Sample Weight:		3.6	
Length 27 28 29 30 31 32 33	Count 2 3 7 5 3 3 2	Total W	/eight: 28	3.5 Sub-	Sample Weight:		3.6	

Hake, Silve	r (Whiting)	Total Weight:	68.2	Sub-Sample Weight:	2.9
Length	Count				
12	1				
13	1				
15	2				
16	3				
17	4				
18	4				
19	7				
20	4				
21	4				
22	1				
23	1				
29	2				
30	1				
31	5				
34	1				
36	1				:

Mix Skate		Total Weight:	33.9	Sub-Sample Weight:		
Length	Count					
1	20				1	

Atlantic Co	d	Total Weight:	33.4	Sub-Sample Weight:	
Length	Count				
42	4				1
43	2				1
44	1				1
45	1				
46	4				
47	3				
51	4				1
52	1				1
53	1				
54	1				1
58	1				1
81	1				1

Scup		Total Weight:	9.8	Sub-Sample Weight:	
Length	Count				
18	1				
19	1				:
20	3				
21	6				:
22	5				
23	3				
24	5				
26	1				:
27	4				
28	3				
29	3				
30	1				
31	1				•

Flounder, Y	'ellowtail	Total Weight:	3.5	Sub-Sample Weight:	
Length	Count				
29	1				
32	1				
36	1				
38	1				
39	1				
41	1				

4.9

Sub-Sample Weight:

Total Weight:

Mix Herring/Shad

Dogfish, Spi	iny	Total Weight:	1.9	Sub-Sample Weight:	
Length	Count				
74	1				

Flounder, V	Vinter (Blackba	Total Weight:	1.7	Sub-Sample Weight:	
Length	Count				
38	1				
34	1				
31	1				

Squid, Atlai	ntic Long-fin	Total W	eight:	1.1	Sub-Sample Weight:	
Length	Count					
10	2					
13	1					
15	2					
17	1					
19	1					
20	1					

Butterfish		Total Weigh	t: 1	Sub-Sample Weight:	
Length	Count				
15	5				
16	4				
18	1				
19	1				

Haddock		Total Weight:	0.5	Sub-Sample Weight:	
Length	Count				
25	2				

Black Sea bass	Total Weight:	0.4	Sub-Sample Weight:	
Length Count				
19 1				1