IEc

TECHNICAL DOCUMENTATION FOR THE VERTICAL LINE MODEL

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INDUSTRIAL ECONOMICS, INCORPORATED

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1. INTRODUCTION

BACKGROUND

Commercial fishing gear can inadvertently pose a risk of entanglement to protected marine species, including whales. Along the Atlantic coast of the United States, the risk that whales may become entangled is of particular concern for four populations: the western North Atlantic stock of right whales; the Gulf of Maine stock of humpback whales; the western North Atlantic stock of fin whales; and the Canadian eastern coastal stock of minke whales. The effects of entanglement on members of these species can range from no permanent injury to serious injury or death.

Right whales, humpback whales, and fin whales are listed as endangered species under the Endangered Species Act (ESA). Pursuant to the ESA and the Marine Mammal Protection Act (MMPA), the National Marine Fisheries Service (NMFS) – with guidance from the Atlantic Large Whale Take Reduction Team (ALWTRT) – is responsible for the development and implementation of measures to reduce the risks of entanglement. These measures are embodied in the Atlantic Large Whale Take Reduction Plan (ALWTRP). The plan seeks to reduce the risks of entanglement through a set of gear modifications and other requirements that affect commercial fishing operations in Atlantic waters.

A continuing concern in the evolution of the ALWTRP is the risk of entanglement in vertical line; i.e., buoy lines associated with lobster trap/pot gear, other trap/pot gear, or gillnet gear. To better understand these risks and the potential impact of management measures designed to address them, NMFS requires information on the amount of vertical line used by various fisheries, as well the extent to which that line is fished in areas and during seasons in which whales are likely to be present.

The model described herein – the Vertical Line Model – draws on a variety of sources to provide the information that NMFS requires and to assist both NMFS and the ALWTRT in their efforts to improve the effectiveness of the ALWTRP. The model, developed under contract to NMFS by Industrial Economics, Incorporated (IEc), is designed to address the following types of questions:

- Where do the fisheries that are subject to the requirements of the ALWTRP operate?
- Where are concentrations of vertical line the greatest?
- Do whales frequent areas with high concentrations of vertical line?

The model contains information on a wide range of fixed gear fisheries, including a number of gillnet fisheries, the American lobster fishery, the blue crab fishery, and other trap/pot fisheries. Through the integration of information on fishing activity and gear

configurations, the model analyzes geographic and temporal variations in fishing effort and the distribution of fishing line in waters subject to the ALWTRP. The model also incorporates information on whale sightings and identifies areas and times at which whales and commercial fishing gear are likely to co-occur. The final product is a set of indicators that provide information on factors that contribute to the risk of entanglement at various locations and at different points in time.

Development of the Vertical Line Model began in 2005 and has proceeded since then on a continuous improvement basis. This document describes the model's development and the methods and data employed to support preparation of NMFS' current proposal to incorporate new vertical line requirements into the ALWTRP.

DATA LIMITATIONS AND UNCERTAINTY

The objective of the ALWTRP is to reduce the number of large whales that die or suffer serious injuries as the result of incidental entanglement in commercial fishing gear. In light of this goal, it is important to emphasize that the Vertical Line Model does not provide a basis for estimating the frequency with which entanglements may occur, nor does it provide a basis for estimating the probability that an entanglement will result in a serious injury or death. The risk of serious injury or mortality due to entanglements is likely to be a function of many factors. For example, the *probability* that an entanglement will occur may depend on the amount of gear deployed in a particular area, the number of whales that are present, whether the gear is actively tended, the behavior in which a whale is engaged when gear is encountered (e.g., whether the whale is feeding), or other factors. Similarly, the risk of injury or death *in the event of an entanglement* may depend on the characteristics of the whale involved (species, size, age, health, etc.), the nature of the gear (e.g., whether the gear incorporates weak links designed to help a whale free itself), human intervention (e.g., the feasibility or success of disentanglement efforts), or other variables. The interrelationships among these factors are not fully understood, and the data needed to provide a more complete characterization of risk are not available. Instead, the Vertical Line Model provides relative indicators of the potential for entanglements to occur in different areas and relative indicators of the effect that new regulatory requirements may have on the potential for an entanglement to occur. These indicators do not measure entanglement risks or changes in entanglement risks; however, they provide a relative sense of risks in different areas, as well as insight to the potential impact of alternative regulatory requirements on those risks.

In addition to the limitations noted above, the quality of the information the Vertical Line Model provides is constrained by limitations in the data it employs. Because the data that drive the model were derived from disparate sources, including fishing reports, survey data, and expert judgment, it is not possible to generate statistical confidence intervals that characterize the uncertainty in the model's output. Nonetheless, it is important to recognize several key sources of uncertainty, which we highlight below.

- **The model draws on multiple sources of data to characterize commercial fishing activity and gear use.** There is no single, uniform source of data on commercial fishing activity in waters subject to the ALWTRP. Permitting and reporting requirements vary by political jurisdiction, with states

regulating activity in state waters and NMFS regulating activity in Federal waters. As a result, the available data on commercial fishing activity vary considerably across jurisdictions.

- **Data on fishing activity and gear configurations in state waters vary in specificity and quality.** IEc and NMFS worked directly with state marine resource officials to develop defensible modeling assumptions for vessels fishing exclusively in state waters. For some states, key activity and gear configuration parameters are estimated based on reporting data (e.g., logbook data) furnished by fishermen in accordance with state requirements. For others, surveys are the primary source of this information. In some cases, these surveys are one-time efforts, while others are administered annually (e.g., recall surveys). Finally, for some states, the characterization of fishing activity is based upon the professional judgment of state fisheries experts. In several cases, the data are taken from a mix of sources (e.g., surveys and best professional judgment). Section 4 describes the data and processes employed to develop the key fishing parameters used in the model.
- **Federal lobster permits currently impose no trip reporting requirements.** Unlike Federal permits for other commercial fisheries, Federal lobster permits do not require their holders to report the location of fishing activity; as a result, information on the location of trips taken by vessels that hold Federal lobster permits is limited to those that also hold permits for other fisheries (these vessels must report the location of all fishing activity). In the absence of better data, the model assumes that the activity of lobster vessels that are not required to file trip reports is distributed evenly throughout the Lobster Management Areas (LMAs) in which they are permitted to fish. This approach, which is detailed in Section 4, is a significant source of uncertainty, particularly in LMA 1, where the majority of non-reporting vessels operate.
- **Sightings Per Unit Effort (SPUE) data provide a limited basis for characterizing the distribution of whales.** The Vertical Line Model relies on effort-corrected sightings data to characterize the likely distribution of whales within the waters that are subject to the ALWTRP. The dataset, however, is neither geographically nor temporally comprehensive, adding uncertainty to the analysis of both baseline co-occurrence scores and the impact of alternative management measures. In particular, uncertainty arises from the inclusion of SPUE values in areas or at times with very low survey effort, and the absence of SPUE values (and therefore, co-occurrence values) in areas or at times for which effort-adjusted survey data are unavailable. In addition, other sources of information (e.g., acoustic data or data on habitat conditions, such as the presence of prey species) suggest that whales may be present in places and at times at which no sightings have been recorded. Thus, the SPUE data are both an incomplete and imprecise indicator of the distribution of whales. Section 2 provides additional detail on the SPUE data

and a sensitivity analysis (see Appendix C) developed to address these concerns.

- **The geographic precision of the model's presentation of co-occurrence scores may be overstated.** As described in greater detail in Section 3, the model employs effort-corrected whale sightings information and estimates of the concentration of vertical line in an area to generate a co-occurrence score. These scores are assigned on a discrete basis to individual grid cells; this may imply a higher degree of geographic precision in characterizing the potential for an entanglement than the underlying data warrant.

VALIDATION OF GEAR ASSUMPTIONS

As discussed in detail in Section 4, the model employs a range of assumptions on the configurations of gear used in ALWTRP-regulated fisheries to estimate the number of buoy lines in the water column. Where feasible, IEc sought to validate and improve these assumptions by comparing model results to available data on buoy line counts. With the exception of Massachusetts, however, the data necessary to validate the model's estimates are not available. In lieu of this type of validation, IEc reviewed its assumptions on gear use with representatives of state fisheries management agencies, NMFS gear experts, and fishermen on the ALWTRT. IEc shared its assumptions in writing and in person during multiple presentations to the ALWTRT (see the timeline below) so that all team members were given the opportunity to review and comment. Team members' suggestions were taken into account in subsequent revisions to the gear configuration assumptions. For example, the original assumptions for the Southeast Atlantic black sea bass fishery did not account for pending (now enacted) regulations that restrict the number of traps employed in that fishery. A member of the ALWTRT representing the fishery brought this issue to the attention of the model's developers, who revised the model to reflect this new information.

VALIDATION FOR MASSACHUSETTS TRAP/POT FISHERIES

In 2009, the annual Catch Report survey administered by the Massachusetts Division of Marine Fisheries (DMF) collected data on the average number of buoy lines fished by trap/pot vessels in state waters each month. As described below, IEc employed this information to validate and refine gear configuration assumptions for trap/pot vessels fishing in Massachusetts state waters. IEc also took advantage of the insights gained through this exercise to refine its approach to estimating vertical line use in other jurisdictions.

To begin the validation exercise, IEc used DMF's buoy line data to develop aggregate estimates of the number of vertical lines deployed in state waters each month, adjusting for the fact that only 80 percent of all active vessels reported to the 2009 Catch Report survey. The vertical line estimates were developed for each of Massachusetts' 14 inshore statistical reporting areas (SRAs). IEc then compared the vertical line count generated by the Vertical Line Model to the estimate based on the reported buoy line data. The comparison showed good agreement for Massachusetts waters overall: the estimate of annual vertical line use generated by the model was 96 percent of the estimate based on

reported vertical line use. Some months and SRAs, however, showed greater divergence between the modeled and reported vertical line counts. In collaboration with NMFS and DMF, IEc determined that refinement of the model's underlying gear configuration assumptions was warranted. In particular, the team determined that more detailed trap-per-trawl assumptions were needed to replace earlier assumptions based on the best professional judgment of fishery experts.

To refine the gear configuration assumptions for Massachusetts vessels, IEc analyzed and incorporated detailed vessel-level data provided by DMF. Rather than estimate the concentration of vertical line based on a single model vessel designed to represent the average or typical configuration of gear within a particular SRA, the model now incorporates multiple model vessels for each area – representing the full range of gear configurations in use – and specifies the percentage of active vessels within the area to which each configuration applies. For instance, the model originally assumed that vessels in SRA 5 (the south shore area of Massachusetts) fished 10-trap trawls year round. By incorporating vessel-level data, the model now more accurately reflects the underlying diversity in gear use (i.e., that some vessels in SRA 5 fish 10-trap trawls while others fish longer or shorter sets). Furthermore, the model allows the configurations to vary seasonally. Similar improvements were made to the model's assumptions regarding the number of traps fished per vessel. Follow-up validation exercises showed greatly improved agreement between the reported number of buoy lines and the number estimated by the vertical line model. Section 4 provides a detailed accounting of the data and methods used to develop the Massachusetts gear assumptions.

IMPLICATIONS FOR CHARACTERIZATION OF GEAR USE IN OTHER AREAS

As noted above, the data necessary to validate the model's estimates of vertical line use beyond Massachusetts state waters are not currently available. The validation exercise, however, clarified the importance of providing greater flexibility in characterizing the typical configuration of gear in a particular area. Based on this insight, IEc revised its gear configuration assumptions for several other states with substantial lobster fisheries (Maine, New Hampshire, and Rhode Island) to permit greater flexibility in the characterization of gear use.

DEVELOPMENT TIMELINE

IEc began development of the Vertical Line Model in 2005. Since then the model has undergone numerous updates and revisions, many of which reflect the guidance and assistance of the ALWTRT. In particular, members of the TRT provided information on fishing activity and gear configurations employed within state waters, as well as available data on sightings of endangered whales. Below, we present a brief timeline of the model's development, including formal presentations to the full TRT or its subgroups.

2005. Initial methods development and data collection.

2006. Working prototype.

- Focused on Federal vessel activity in the Northeast for 2004.
- Presented methods and preliminary findings to ALWTRT in December 2006.

2007 – 2008. Model expansion.

- Improved the characterization of commercial fishing activity and gear use.
- Updated the model to include federally permitted activity for 2005 and 2006.
- Incorporated data on State-permitted activity in the Northeast and Mid-Atlantic.
- Refined assumptions on gear configurations in Northeast State waters.
- Incorporated preliminary data on whale sightings for the Northeast.
- Presented expanded model to the ALWTRT in April 2008.

2009. Inclusion of the Southeast.

- Expanded the model to include fishing activity and gear configuration data for the Southeast (includes Federal and State waters).
- Presented updates to the model, along with requests for improved State data at separate Northeast and Mid-Atlantic/Southeast ALWTRT Subgroup meetings in April 2009.

2010. Co-occurrence indicator and scenario generator development.

- Developed distributional approach to characterize gear configurations in key Northeast states.
- Refined co-occurrence indicator using a preliminary effort-adjusted whale sightings dataset.
- Developed the capability to evaluate potential management scenarios, including closures.
- Produced draft model documentation.
- Presented a full accounting of the 2008 baseline, including an in-depth methods discussion, along with NMFS' straw man proposal at separate Northeast (November 2010) and Mid-Atlantic/Southeast ALWTRT Subgroup meetings (April 2011).

2011 – 2012. Proposal analysis and documentation.

- Worked directly with the ALWTRT's Northeast working group to evaluate and improve the model's methods and data sources.
- Incorporated coast-wide effort-adjusted sightings data provided by the North Atlantic Right Whale Consortium, based on recommendations from ALWTRT.
- Presented updated methods and results to ALWTRT, including 2009/2010 baseline and analysis of vertical line management proposals in January 2012.
- Presented analysis of revised vertical line management proposals in April 2012.
- Submitted draft documentation for peer review in June 2012.
- Peer review reports received November 2012.

2013 – 2014. Finalization of baseline for DEIS and FEIS associated with NMFS' vertical line rulemaking.

- Updated baseline state and Federal fishing activity and gear configuration data to 2011 (where available).
- Refined gear configuration assumptions for the other trap/pot fisheries based on interviews with state officials and NMFS gear team.
- Developed sensitivity analysis to address TRT/peer review concerns regarding uncertainty in the effort-adjusted whale sightings dataset.
- Updated documentation to reflect changes in the baseline and clarify issues raised in the peer review.

2. SCOPE OF THE MODEL

SOFTWARE

The Vertical Line Model resides on a combined platform of Microsoft Access 2003 and ESRI ArcGIS Desktop Version 10.0. Microsoft Access provides the user an interface with the model and supports efficient storage, retrieval, and analysis of the large datasets used to characterize fishing activity and whale sightings. ArcGIS enables spatial analysis and provides outputs in map form. The model also produces map images that can be imported into Microsoft PowerPoint to create animations demonstrating changes in indicators over time.

GEOGRAPHIC AND TEMPORAL SCOPE

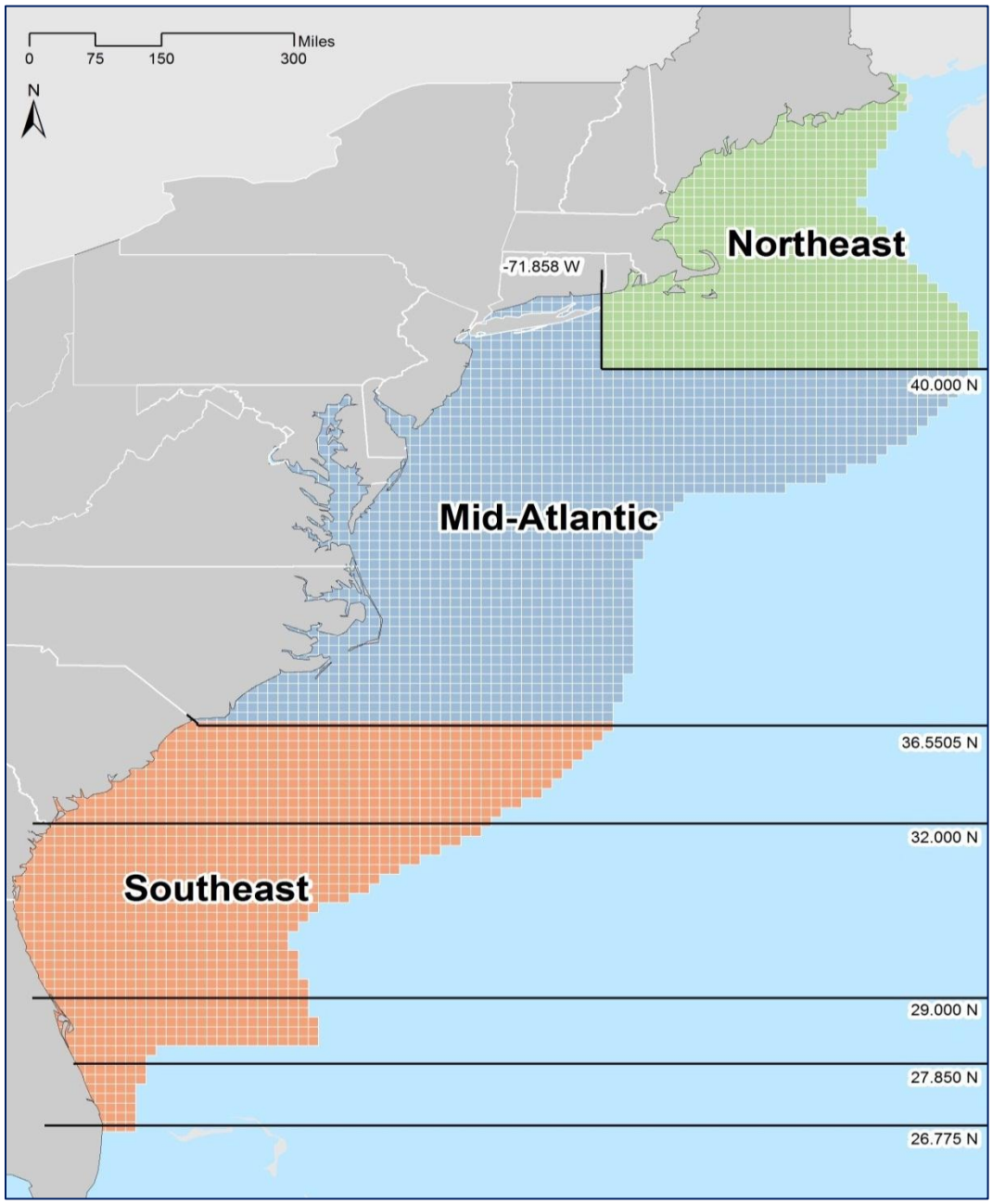
The model analyzes all the commercial fisheries subject to the ALWTRP, including those operating in the Northeast Atlantic, Mid-Atlantic, and Southeast Atlantic. The geographic range of the model mirrors that of the ALWTRP: it extends from the Canadian border to southeast Florida (at 26 degrees 46.5 minutes N latitude), and includes all Atlantic waters within the limits of the United States' Exclusive Economic Zone (EEZ).[1]

To facilitate the integration of data on fishing activity, gear configurations, and whale sightings, the model analyzes information on a common spatial grid, with consistent positioning and resolution (i.e., cell size). It employs two spatial grids for analysis. The model analyzes fishing activity and gear distribution on a one-minute grid. This allows the model to delineate activity within relatively small fishing areas, such as state fishing zones. For mapping purposes, fishing activity and gear distribution are aggregated to a standardized ten-minute grid, which matches the grid cell size used to develop the effort-adjusted whale sightings data. Likewise, the co-occurrence indicator is presented at the ten-minute grid cell level. Exhibit 1 illustrates the geographic scope of the model, displayed on a 10-minute grid.

The model currently incorporates data on fishing activity in Federal waters from 2000 to 2011. This range represents the most recent period for which data on commercial fishing activity are available. Because states have differing data collection programs that have evolved over time, the availability of data characterizing fishing in state waters varies by state. At minimum, the model incorporates state data that characterize vessel activity from 2008 to 2010; many states have provided data from prior years, and some have provided data for 2011. Section 4 describes the data provided by each state in greater detail.

[1] The model's geographic range includes certain inshore waters currently exempted from the requirements of the ALWTRP.

EXHIBIT 1. GEOGRAPHIC SCOPE OF THE VERTICAL LINE MODEL



COMMERCIAL FISHERIES

To account for differences in fishing practices and to allow for more detailed analysis of results, the model treats the lobster, gillnet, blue crab (south of the Delaware/New Jersey border), and other trap/pot fisheries as distinct groups. For each group, IEc collected spatially explicit data on fishing activity and the configuration of gear employed by fishing vessels. Exhibit 2 summarizes the fisheries considered in the model.

EXHIBIT 2. FISHERIES ANALYZED IN THE VERTICAL LINE MODEL

GROUP	CORRESPONDING ALWTRP FISHERY	PERIOD OF ACTIVITY
Lobster	Northeast/Mid-Atlantic American lobster trap/pot	Year-round
Gillnet	Northeast sink and anchored float gillnet fisheries	Year-round
	Mid-Atlantic gillnet fishery	Year-round
	Southeast sink and anchored gillnet fisheries	Varies
Blue Crab	Mid-Atlantic/Southeast blue crab fishery	Varies
Other trap/pot	Atlantic other trap/pot fishery (includes blue crab in the Northeast)	Varies

Note: The model currently excludes Northeast drift gillnet vessels.
Source: Department of Commerce, National Oceanic and Atmospheric Administration. January 2010. *Guide To The Atlantic Large Whale Take Reduction Plan*. Available at http://www.nero.noaa.gov/whaletrp/.

WHALE SIGHTINGS

As with other datasets used in the model, IEc worked with the ALWTRT to identify data that describe the distribution of large whales in the waters subject to the ALWTRP. Based on the recommendations of the TRT, IEc worked with the North Atlantic Right Whale Consortium (NARWC) to obtain an amalgamated dataset derived from shipboard and aerial surveys to characterize the seasonal distribution of right whales, humpback whales, and fin whales. These data are adjusted for the level of effort employed to locate whales from the air and sea, providing an indication of sightings per unit of survey effort (SPUE). The TRT identified these surveys as the best available information on the distribution of large whales in the Atlantic.

The NARWC SPUE dataset includes information obtained from surveys conducted between October 1978 and May 2010. Appendix A lists the sources of the SPUE data, which include both aerial and shipboard track surveys.[2] To be included in the NARWC dataset, a survey must:

- Provide sufficient records of the survey platform's time and position to reconstruct its trackline;

[2] As initially designed, the model incorporated effort-corrected sightings data provided by the Northeast Fisheries Science Center (NEFSC), based on aerial surveys conducted in the Northeast from 2002 to 2007. The ALWTRT concluded that the temporal and geographic coverage provided by this dataset was insufficient for use in the Vertical Line Model. Team members familiar with the available data identified the NARWC dataset as a more complete source. Working in conjunction with NEFSC, NARWC furnished IEc with monthly SPUE data aligned to the model's 10-minute grid structure.

- Have been conducted with at least one trained observer who recorded periods of dedicated observation or no observation;
- Report the whale species, group size, and position for each sighting; and
- Provide data on sightings conditions.

The records included from each survey in the dataset include only those which meet the NARWC's minimum standards for acceptable sightings conditions; i.e., visibility of at least two nautical miles, a sea state of Beaufort 4 or lower, and, for aerial surveys, a maximum altitude of no greater than 1,200 feet. The dataset includes only sightings of live whales, and excludes all records in which the identification of the species is uncertain.

The NARWC SPUE dataset aggregates the following fields by 10-minute grid cell and month:

- Effort, defined as the total kilometers surveyed;
- Sightings, defined as the total number of individuals of each species observed;
- SPUE, in units of whales (separated by species) per 1000 kilometers of valid effort (calculated as 1000*[Sightings/Effort]).

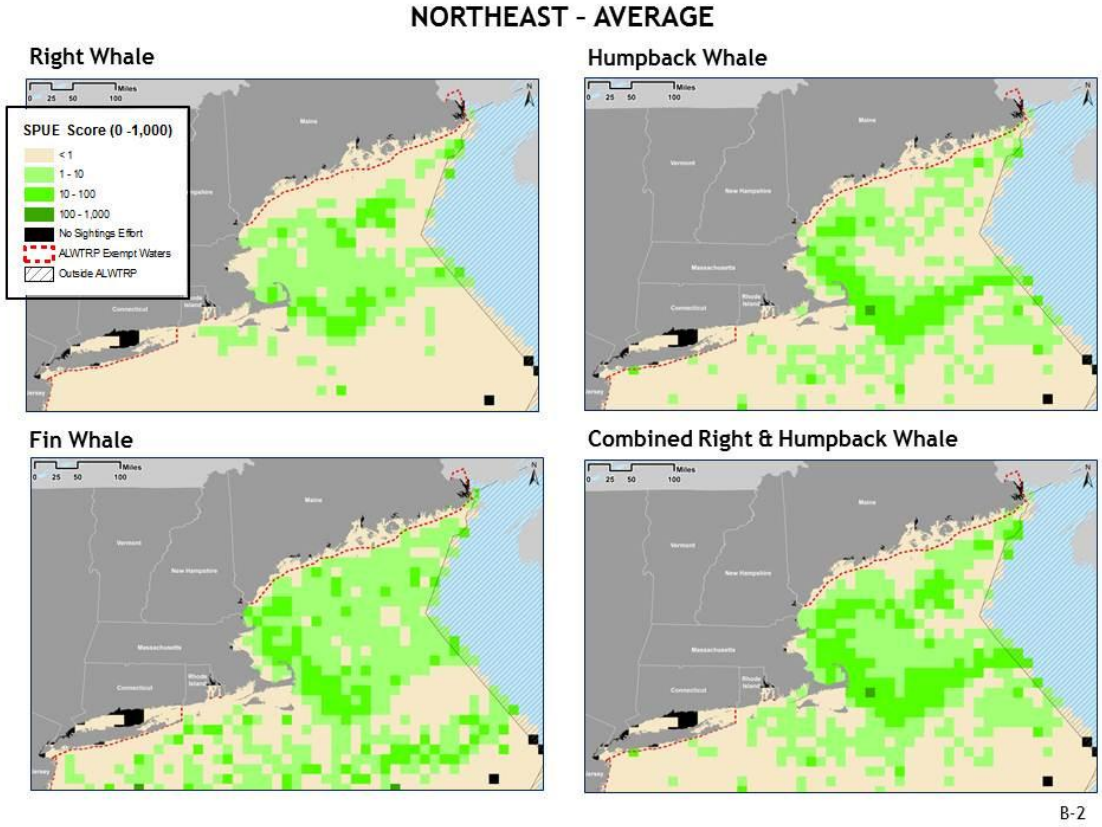
The Vertical Line Model can further aggregate the sightings data, producing combined SPUE datasets that sum across all or a subset of the whale species within each grid cell and month. Users may employ these values in developing the Whale Sightings and Vertical Line Co-Occurrence Indicator (see below). Exhibit 3 presents maps that illustrate average monthly SPUE values for the Northeast, indexed on a scale of 0 to 1000.[3] Note that the model also can produce monthly or seasonal maps of SPUE values for all three regions: Northeast, Mid-Atlantic, and Southeast. Monthly SPUE values for each region are presented in Appendix B.

LIMITATIONS OF THE NARWC SPUE DATA

The NARWC SPUE dataset is subject to a number of limitations. For example, the dataset gives equal weight to sightings reported from survey platforms – airplanes and ships – that are known to differ with respect to search efficiency. Similarly, the dataset does not adjust SPUE values to account for variation in search efficiency across species within a platform; in the case of NEFSC aerial surveys, the estimated effective width of a survey track ranges from approximately 0.8 nautical miles for humpback whales to approximately 1.0 nautical mile for right whales and 1.4 nautical miles for humpback whales. Failure to account for these differences is a source of imprecision in the model's characterization of the seasonal distribution of whales.

[3] The model also allows users to view opportunistic sightings data, as reported in the NARWC database. Raw sightings data from the NARWC database are strictly observational; they are not effort-adjusted and the management documents in which they are used are not peer-reviewed. Distributional patterns based on these data are likely to be biased by where, and when, surveys were conducted. We include the raw NARWC sightings data in the model primarily for reference purposes. In addition, the opportunistic sightings data are employed in a sensitivity analysis to develop an adjusted estimate of SPUE values and investigate how the use of these values would influence associated co-occurrence scores (see Appendix C).

EXHIBIT 3. EXAMPLE NARWC SPUE DATA (NORTHEAST)



A potentially more significant issue is that the NARWC SPUE dataset is neither geographically nor temporally comprehensive, adding uncertainty to the analysis of co-occurrence. This uncertainty arises from the inclusion of SPUE values in areas or months with very low survey effort, as well as from the absence of SPUE values (and therefore, co-occurrence values) in areas or months for which effort-adjusted survey data are completely unavailable. In addition, other sources of information (e.g., acoustic data) indicate that whales may be present in places and at times at which no sightings have been recorded. Thus, the SPUE data are both an incomplete and imprecise indicator of the distribution of whales.

Members of the ALWTRT and peer reviewers have encouraged an attempt to evaluate the sensitivity of the model's findings to the most critical limitations in the SPUE data. In response to this concern, IEc has developed an analysis that examines the sensitivity of baseline co-occurrence scores to alternative assumptions about the presence of whales in areas or at times for which SPUE data are not available, or may be too limited to be reliable. Appendix C presents the results of this analysis.

OTHER POTENTIAL SOURCES OF INFORMATION

While the focus of whale information employed in the model continues to be the NARWC's SPUE dataset, the model's design allows for the incorporation of additional

data that may help to describe the temporal and geographic distribution of whales in waters subject to the ALWTRP. In recent meetings, the ALWTRT has discussed the potential for inclusion of data on the distribution of whales from acoustic surveys, as well as data on other factors that may help to identify areas in which whales are likely to be present (e.g., information on habitat or the distribution of prey species). To date, however, the TRT has yet to reach consensus on the extent to which these data should be incorporated into the model.

INDICATORS OF FISHING ACTIVITY AND POTENTIAL RISK OF ENTANGLEMENT

The model generates four indicators to describe fishing activity and the potential for interactions between large whales and fishing gear.

- **Number of Active Vessels –** Using Federal and state data sources, the model estimates the number of commercial fishing vessels that participate in each fishery. The methods employed to estimate the number of active vessels vary by location and fishery.
- **Number of Vertical Lines –** Based on the number of active vessels and data on typical gear configurations (e.g., the number of vertical lines employed per vessel), the model estimates the number of vertical lines employed by each fishery.[4]
- **Length of Groundlines –** Using similar information, the model can estimate the total length of groundline (i.e., fishing line linking traps to traps and/or traps and gillnets to anchors) in the water.[5]
- **Whale Sightings and Vertical Line Co-Occurrence Indicator –** As a relative measure of the potential for an entanglement to occur, the model combines effort-adjusted whale sightings information with estimates of the number of vertical lines in the water at a particular location and time. The co-occurrence indicator can be generated for each individual whale species (right, humpback, and fin) or for any combination of the three.

Section 3 provides an overview of the methods employed to produce these indicators. Section 4 provides descriptions of the specific methods and data sources used to develop estimates of the number of active vessels and vertical lines in individual areas.

[4] Since vertical lines span the entire water column, from the surface to the ocean floor, the model assumes that the frequency of whale interactions with vertical lines is not influenced by the quantity (length) of line in the water column. The length of vertical line in the water can be estimated using bathymetry data that has been aggregated into the model's grid structure.

[5] As groundline has not been the recent focus of the ALWTRT, IEc has not presented the results of a groundline analysis to the TRT for comment. The TRT has been briefed on the methods and data sources used to estimate the baseline length of groundline in the water.

3. OVERVIEW OF METHODS

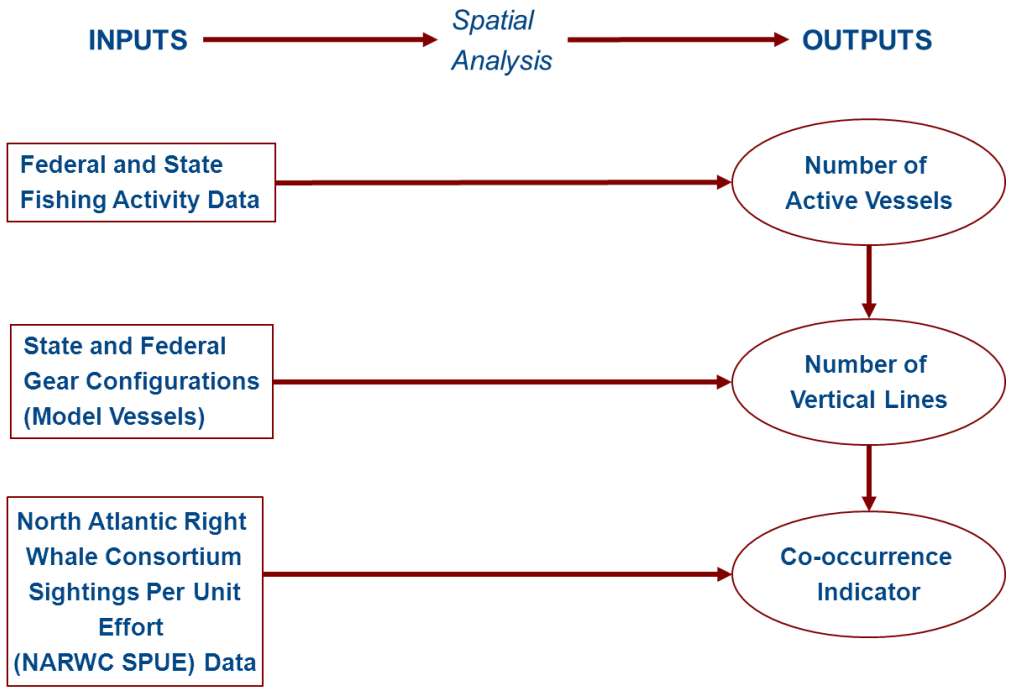
INTRODUCTION

This section presents a general overview of the Vertical Line Model and the calculations used to estimate the indicators discussed in Section 2. It also briefly describes the model's scenario building and reporting capabilities.

CONCEPTUAL OVERVIEW

Exhibit 4 presents a conceptual representation of the Vertical Line Model. The model develops spatially explicit monthly estimates of each indicator. Using Federal and state data describing fishing effort and location, the model first estimates the number of vessels operating in each grid cell each month. The model then combines the number of active fishing vessels and information on vessel gear configurations to generate monthly estimates of the number of vertical lines and the length of groundline within each cell. Finally, the model combines the vertical line estimate with the effort-adjusted NARWC whale sightings data to produce the combined whale-vertical line co-occurrence indicator. Below, we detail the general approach used to estimate each indicator.

EXHIBIT 4. CONCEPTUAL DIAGRAM OF THE VERTICAL LINE MODEL



NUMBER OF ACTIVE VESSELS

Based on GIS layers provided by NMFS and state fisheries administrators, the model assigns each 1-minute grid cell either to a particular state's jurisdiction or to one of several Federal fishery management zones. Where data permit, grid cells in state waters are assigned to appropriate state management areas (e.g., Massachusetts Division of Marine Fisheries Statistical Reporting Areas) and are demarcated as exempt or non-exempt waters based on their location with respect to the current ALWTRP exemption line. Grid cells in Federal waters are delineated by Lobster Management Zone and/or ALWTRP trap/pot areas, including Northern Nearshore, Southern Nearshore, and Offshore waters.[6]

Using data on fishing effort from a variety of sources, including the Northeast Vessel Trip Report (VTR) system, NMFS' Northeast Permit database, the Southeast Logbook, state records, and judgments from NMFS gear experts and state fisheries administrators, IEc has developed area-specific methods to generate monthly estimates of the number of vessels that are active within Federal and state management zones. Section 4 provides additional detail on the management zones and approaches employed. Appendix D provides 2010/2011 baseline estimates of the number of active vessels.

NUMBER OF VERTICAL LINES AND LENGTH OF GROUNDLINE

MODEL VESSEL DEVELOPMENT

Given the broad scope of the ALWTRP, a vessel-by-vessel analysis of fishing gear and location is infeasible. Instead, the model is based upon the development of a set of model vessels, each of which represents a group of vessels that are likely to share similar operating characteristics. As currently configured, the model draws on approximately 300 individual model vessels to characterize gear use under baseline conditions; however, users may add new model vessels via the user-interface. The model's interface allows users to assign one or more model vessels to a suite of regions, including:[7]

- Lobster Management Areas (LMAs);
- ALWTRP trap/pot areas;
- Federal waters off the coast of Maine delineated by distance from shore;
- State waters (exempt and non-exempt); and
- State management areas (where available).

Appendix E provides maps of the regions employed in the model.

[6] Grid cells that overlap two or more management zones are assigned to the zone that accounts for the greatest share of the cell's total area.

[7] The model also employs special management areas, including Stellwagen Bank/Jeffreys Ledge, the Great South Channel Restricted Area, and the Cape Cod Bay Restricted Area; however, these areas are not used to assign model vessel gear configurations to the baseline.

Lobster, Blue Crab, and Other Trap/Pot Model Vessel Calculations

For each lobster, blue crab, or other trap/pot model vessel, the model allows the user to specify the following gear configuration parameters:

- Total Traps Fished;
- Number of Traps per Trawl;
- Number of Endlines (i.e., buoy lines) per Trawl;
- Length of Groundline between Traps (in feet);
- Number of Anchors per Trawl; and
- Length of Anchor Lines (in feet).

Using these inputs, the model employs the equations specified in Exhibit 5 to calculate the number of vertical lines and length of groundline associated with each model vessel.

EXHIBIT 5. GEAR USED BY LOBSTER, BLUE CRAB, AND OTHER TRAP/POT VESSELS

$$\text{Number of Vertical Lines} = \frac{\text{Total Traps Fished}}{\text{Traps per Trawl}} \times \text{Endlines per Trawl}$$

$$\text{Length of Groundline} = \frac{\text{Total Traps Fished}}{\text{Traps per Trawl}} \times \left[\left((\text{Traps per Trawl} - 1) \times \text{Length of Groundline between Traps} \right) + \left(\text{Anchors per Trawl} \times \text{Length of Anchor Lines} \right) \right]$$

Gillnet Model Vessel Calculations

For each gillnet model vessel, the model allows the user to specify the following gear configuration parameters:[8, 9]

- Total Strings Fished;
- Endlines per String;

[8] For use in potential revisions to the model, IEc also collected information on the number of net panels per string, the height and length of the net panels, and the length of the line between the net panels. Currently, these values are not used in the calculations described above.

[9] While wet storage of gear subject to the ALWTRP is prohibited, trap/pot gear generally remains in the water as long as it is being actively fished – in some cases, year-round. In contrast, gillnet gear may be fished in an area for as little as a few hours. Since the potential for whales to encounter gear depends in part on the duration of time the gear is deployed, the Vertical Line Model initially was designed to take variation in soak time into account in characterizing the concentration of vertical line in an area during a particular month. At the December 2010 meeting of the ALWTRT's Northeast Subgroup, the team raised concerns about the adequacy of the approach employed to determine and adjust for soak time. IEc received suggestions on alternative methods; however, consensus on a specific method was not reached. The team requested that IEc conduct a model run to test the impact and importance of the soak time assumption. IEc conducted the test assuming that vertical line from gillnets would remain in the water for the entire month. The test showed that this assumption resulted in a small increase in the estimate of the total number of lines deployed (0.07 to 0.4 percent, depending on the month). The results proved to be relatively insensitive to the treatment of gillnet soak time because the overall figure is driven primarily by the use of vertical line in trap/pot fisheries. Given this finding, the working group assigned to examine the issue determined that soak time was not of sufficient importance to warrant further analysis or more detailed treatment in the model.

- Number of Anchors per String; and
- Length of Anchor Lines.

Using these inputs, the model employs the equations specified in Exhibit 6 to calculate the number of vertical lines and length of groundline associated with each model vessel.

EXHIBIT 6. GEAR USED BY GILLNET VESSELS

$$Number\ of\ Vertical\ Lines = Total\ Strings\ Fished \times Endlines\ Per\ String$$

$$Length\ of\ Groundline = Total\ Strings\ Fished \times Anchors\ Per\ String \times Length\ of\ Anchor\ Lines$$

Seasonal Variation

To account for seasonal variation in the number of traps or strings fished per vessel, each model vessel is also characterized by monthly scalars. For the month in which the model vessel is assumed to fish the highest number of traps or strings, the monthly scalar is set to one. The monthly scalar for the other months of the year is indexed as a percentage of the peak month. For example, consider a case in which the highest number of traps fished occurs in September, with 500 traps fished per vessel. In March, when fishermen typically fish fewer traps, only 200 traps are fished per vessel. In this case, the monthly scalar for March would be 0.4 [= 200 / 500].

INDICATOR DEVELOPMENT

Number of Vertical Lines

To estimate the total number of vertical lines in the water, the model considers each fishery group (i.e., lobster, gillnet, blue crab, other trap/pot) independently. Users have the option to view results for each group separately or as the sum of all four groups. For each group the model first estimates the average number of vertical lines per grid cell, based on the model vessels assigned to that grid cell and the applicable monthly scalar(s). Where data permit (see Section 4 below for more detail), several model vessels may be assigned to the same grid cell. In these cases, each model vessel represents the percentage of vessels within the grid cell that operate with its particular configuration. This effectively allows for the development of weighted average estimates for the number of vertical lines in a given grid cell. We present two example calculations below.

- **Example 1 – Assignment of One Model Vessel:** Activity within a particular one-minute grid cell is represented solely by Model Vessel A. The maximum number of vertical lines deployed by this model vessel in any month is 200. To characterize activity in August, the model assigns a monthly gear scalar of 0.75; thus, in August, Model Vessel A is assumed to deploy 150 vertical lines. If two vessels are active within this area in August, then the estimated number of vertical lines within the cell for that month would be 300.

- **Example 2 – Assignment of Multiple Model Vessels:** Activity within a one-minute grid cell is represented by model vessels A, B, and C. The maximum number of vertical lines deployed by these model vessels is 200, 100, and 80, respectively. For August, the model assigns these vessels monthly gear scalars of 0.75, 0.8, and 0.5, yielding a vertical line estimate of 150, 80, and 40, respectively. The share of vessels fishing with each configuration is estimated as 50 percent, 30 percent, and 20 percent, respectively. For this grid cell, the model would estimate a weighted average of 107 vertical lines per vessel ([150 * 0.5] + [80*0.3] + [40*0.2]).[10]

Appendix F provides 2010/2011 baseline estimates of the number of vertical lines.

Length of Groundline

To estimate the total length of groundline in the water, the model employs the same approach described above for vertical lines, but uses the length of groundline estimates developed for each model vessel.

COMBINED WHALE SIGHTINGS AND VERTICAL LINE INDICATOR (CO-OCCURRENCE)

As a relative indicator of the potential for whale entanglement in commercial fishing line, the model combines effort-adjusted whale sightings information provided by NARWC with estimates of the number of vertical lines in the water at a particular location and time.[11] To facilitate presentation and interpretation of the co-occurrence indicator, the underlying vertical line and whale sightings measures are indexed on a scale from 0 to 1,000.[12] For each grid cell, the indexed values are then multiplied to generate a combined indicator score, which may range in value from zero to 1 million.[13] Based on the grid cell size used to develop the effort-corrected whale sightings data, the co-occurrence indicator is presented at the ten-minute grid cell level. Appendix G provides monthly maps showing 2010/2011 baseline co-occurrence scores for right and humpback whales, combined.

It is important to note that the method described above will assign a co-occurrence score of zero whenever the vertical line score or SPUE score is zero. While this is conceptually appropriate – there is no potential for whales to interact with vertical line where whales are not present or when gear is absent – it has nonetheless raised concern among some members of the ALWTRT that it provides a misleading characterization of risk. This concern stems from the understanding that to date, effort to survey the Atlantic coast for

[10] In several Northeast states (see Section 4), the data provide the ability to delineate distributions of model vessels based on traps per trawl and traps fished. The calculations employed to estimate the number of vertical lines across these distributions are the same as those described under Example 2, with the primary difference being a larger number of model vessels assigned to individual areas. In addition, the gear distributions vary monthly, which removes the need for seasonal gear scalars. In these cases, the seasonal scalars for all model vessels are set to one.

[11] The vertical line component of the combined indicator reflects the sum of the number of vertical lines estimated across the fishery groups (i.e., lobster, gillnet, blue crab, and other trap/pot).

[12] Specifically, for each measure, the highest value identified across all months and grid cells is set to 1,000. Other grid cell values are then indexed to the scale by dividing by the highest value and multiplying by 1,000.

[13] As stated above, users may view monthly maps of the NARWC's effort-corrected whale sightings information. This information is indexed on a 0 to 1,000 scale.

the presence of whales is in some areas inadequate to provide a reliable portrayal of their seasonal distribution. It also stems from the recognition that, absent physical barriers to entry, individual members of the species of concern could occur anywhere within the jurisdiction of the ALWTRP. Given these concerns, IEc worked with NMFS and the ALWTRT to develop methods of adjusting SPUE values to account for the potential presence of whales in areas or months for which the available SPUE are inadequate. Appendix C describes these methods and presents an analysis of the impact of employing adjusted SPUE values on co-occurrence scores.

SCENARIO GENERATION

The model allows users to test for the impact of different management scenarios on the four indicators described above. Users may develop scenarios that employ one or more of the following actions:

- **Gear configuration requirements –** The user can develop scenarios that impose specific gear configuration requirements, such as establishing restrictions on the number of traps per trawl allowed in a given area. For example, in an area that currently allows fishermen to employ singles, users could develop a scenario that requires a minimum of three traps per trawl. In this case, the model would increase the number of traps per trawl for those model vessels fishing singles and doubles to three traps per trawl. This action would reduce the number of vertical lines in that area.
- **Redistribute fishing effort –** The user may wish to develop scenarios that call for an increase or decrease in fishing effort in an area. The model allows for the user to specify, as a percentage of baseline effort, the magnitude of this change. For example, the user may wish to test the impact of a closure on a particular area. In this case, the model will eliminate all fishing effort within the selected area. Users have the option to redistribute this effort to nearby areas if desired.

REPORTING TOOLS

The model's interface provides the capability for users to explore both baseline conditions and the implications of different management scenarios for each indicator described above. Results are available as:

- **Maps –** Users can produce a map for a specific month and indicator or the average value across specified months. In addition, users can develop maps that show the change in indicator values associated with a particular management measure (e.g., a reduction in vertical lines from the baseline). Exhibit 7 provides maps that illustrate the monthly average distribution of vessel activity and vertical line in the Northeast region, along with an illustration of the co-occurrence scores associated with the estimated distribution of gear. The exhibit also includes a map illustrating the reduction

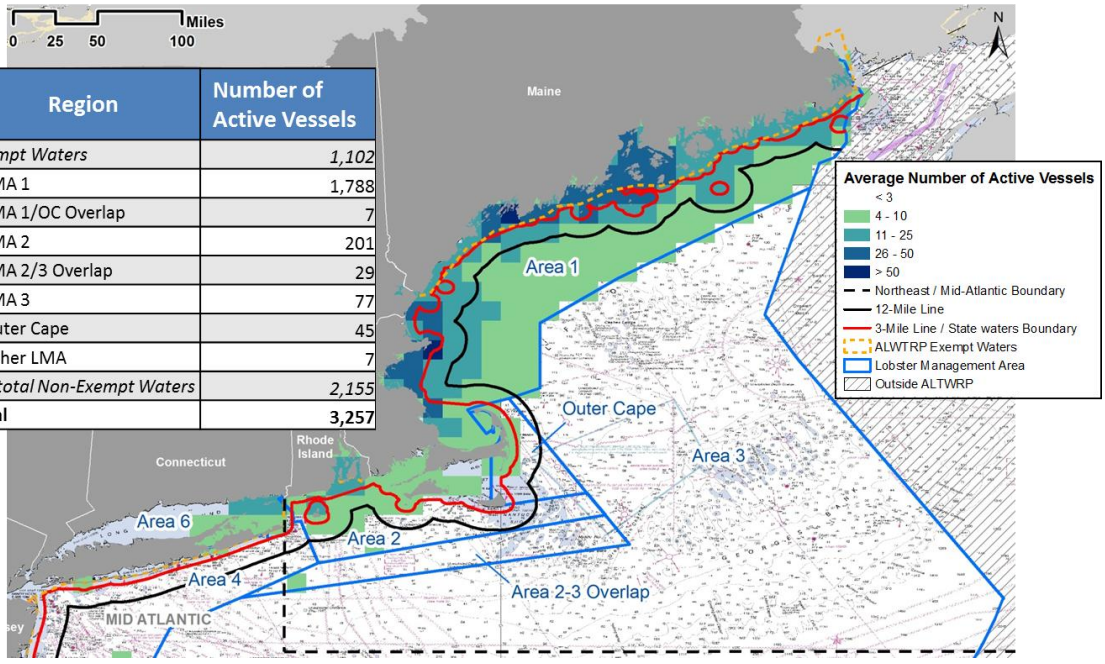
in vertical line associated with a proposed management measure, and two charts indicating coast-wide metrics.

- **Tables and charts –** The model's reporting tools give users the ability to empirically analyze results through the production of tables and charts. The model contains basic charting capabilities, but also allows for export to MS Excel for the development of more complex analyses.[14]
- **Animations –** Users can export monthly or seasonal maps to create PowerPoint animations. These animations can be used to visually display changes across months (or seasons) or between the baseline and alternative management scenarios.

EXHIBIT 7. ILLUSTRATIVE MODEL OUTPUTS

2010/2011 Northeast Baseline (Average)
Estimated Number of Active Vessels ~ All Fisheries

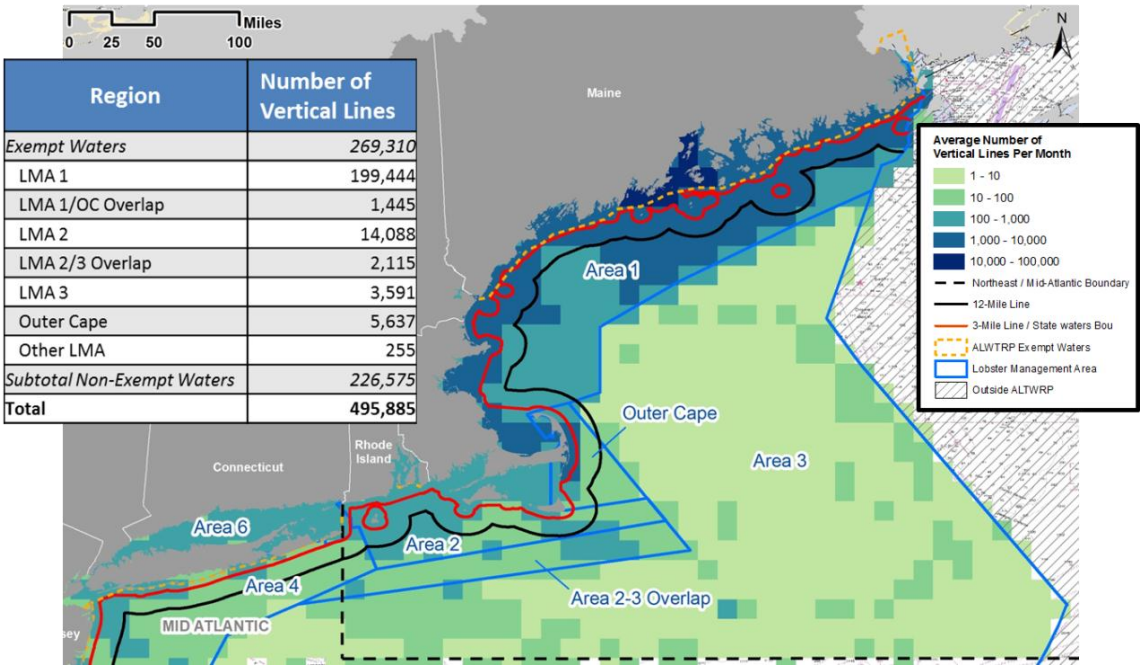
Region	Number of Active Vessels
Exempt Waters	*1,102*
LMA 1	1,788
LMA 1/OC Overlap	7
LMA 2	201
LMA 2/3 Overlap	29
LMA 3	77
Outer Cape	45
Other LMA	7
Subtotal Non-Exempt Waters	*2,155*
Total	**3,257**



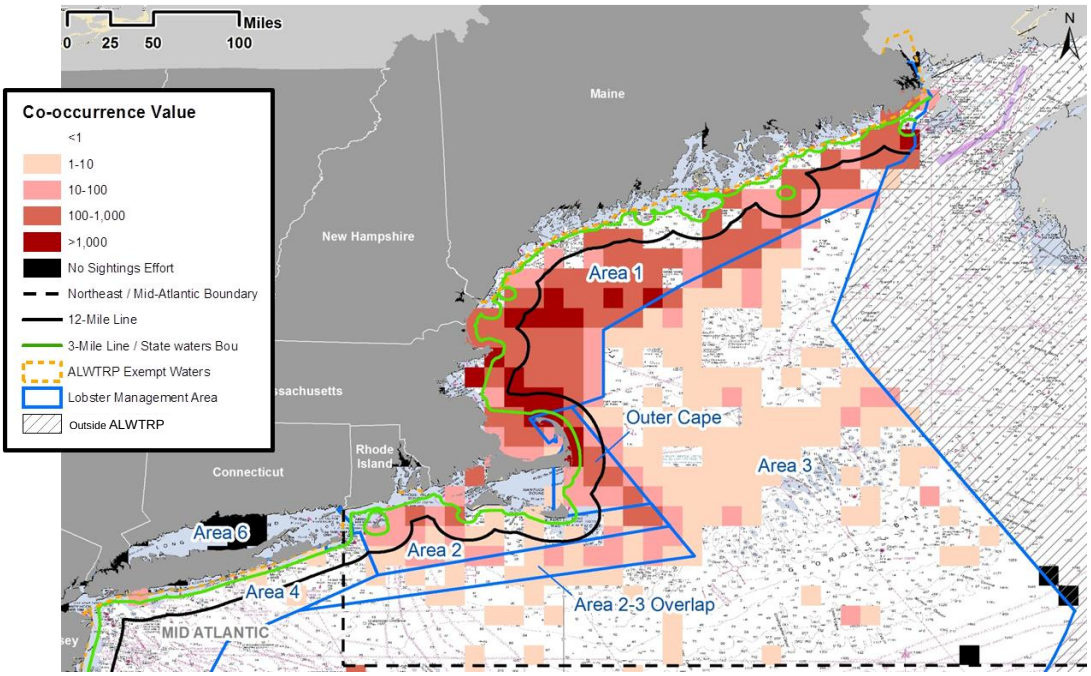
[14] In addition to the four model indicators, users can generate estimates of the number vessels affected by a particular management scenario; i.e., vessels that change their gear configurations or relocate/eliminate their fishing effort in response to a closure.

2010/2011 Northeast Baseline (Average)
Estimated Number of Vertical Lines ~ All Fisheries

Region	Number of Vertical Lines
Exempt Waters	*269,310*
LMA 1	199,444
LMA 1/OC Overlap	1,445
LMA 2	14,088
LMA 2/3 Overlap	2,115
LMA 3	3,591
Outer Cape	5,637
Other LMA	255
Subtotal Non-Exempt Waters	*226,575*
Total	**495,885**



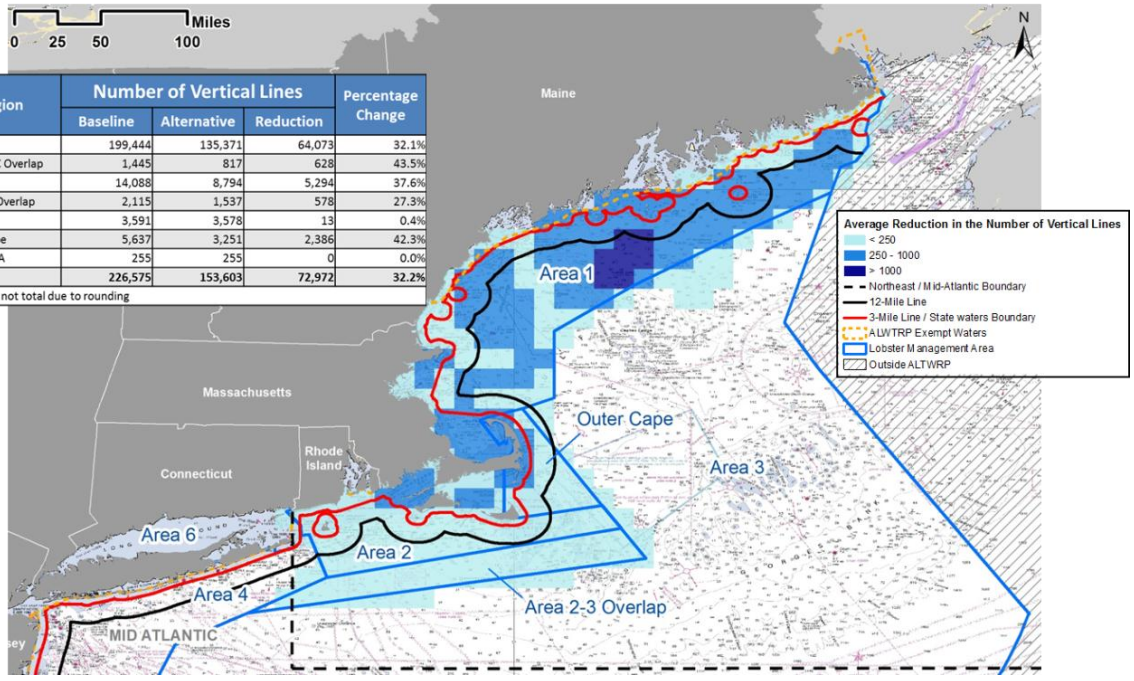
2010/2011 Northeast Baseline (Monthly Average)
Co-occurrence of Vertical Lines & Right/Humpback Whales ~ All Fisheries

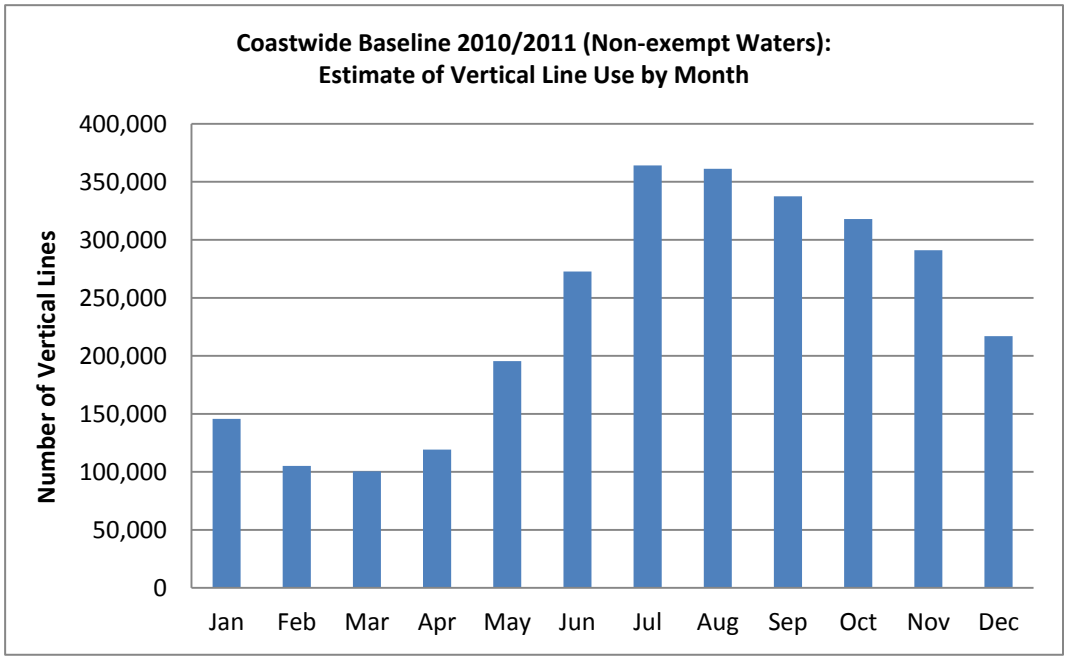


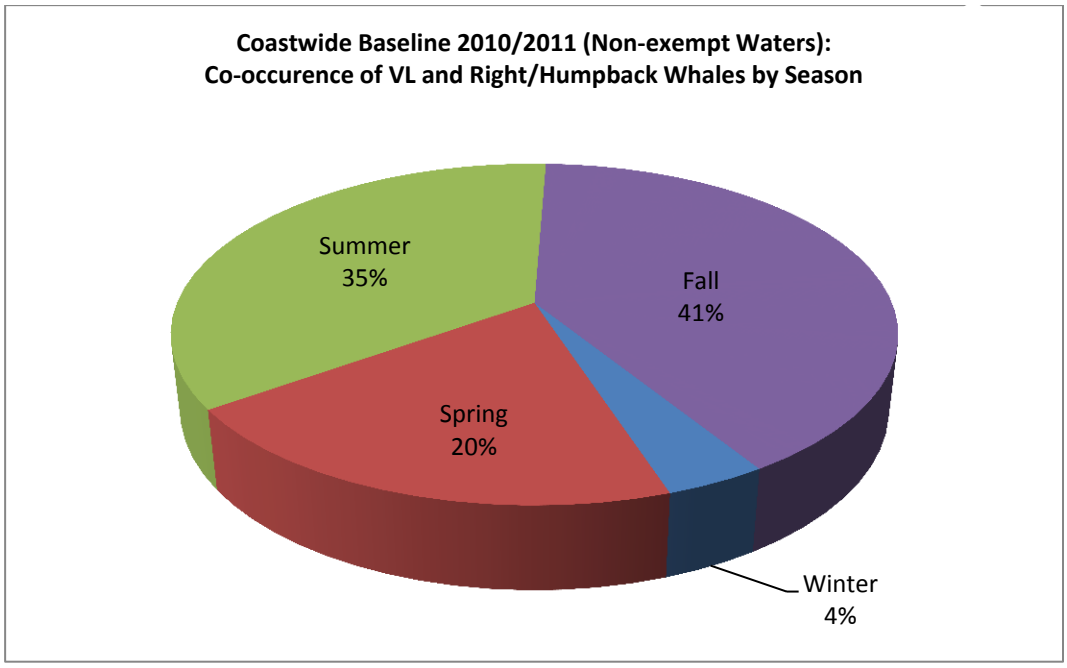
2010/2011 Northeast Comparison – Baseline to a Potential Alternative (Average)
Estimated Reduction in the Number of Vertical Lines ~ All Fisheries

Region	Number of Vertical Lines			Percentage Change
	Baseline	Alternative	Reduction	
LMA 1	199,444	135,371	64,073	32.1%
LMA 1/OC Overlap	1,445	817	628	43.5%
LMA 2	14,088	8,794	5,294	37.6%
LMA 2/3 Overlap	2,115	1,537	578	27.3%
LMA 3	3,591	3,578	13	0.4%
Outer Cape	5,637	3,251	2,386	42.3%
Other LMA	255	255	0	0.0%
Total	**226,575**	**153,603**	**72,972**	**32.2%**

*Sums may not total due to rounding




Coastwide Baseline 2010/2011 (Non-exempt Waters):
Estimate of Vertical Line Use by Month
Number of Vertical Lines
400,000
350,000
300,000
250,000
200,000
150,000
100,000
50,000
0
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec


Coastwide Baseline 2010/2011 (Non-exempt Waters):
Co-occurence of VL and Right/Humpback Whales by Season
Summer
35%
Fall
41%
Spring
20%
Winter
4%

4. LOCATION-SPECIFIC METHODS AND DATA SOURCES

FEDERAL WATERS

NUMBER OF ACTIVE VESSELS

To determine the number of active vessels operating within Federal waters, the model relies primarily upon NMFS' Northeast Vessel Trip Report (VTR) system and the Southeast Logbook. VTR covers Federal waters north of Cape Hatteras, North Carolina. Most commercial fishing permits administered by NMFS' Northeast Regional Office (NERO) require fishermen to file a VTR at the conclusion of every trip.[15] VTR provides data on the gear the vessel employed and the area in which it fished, along with other information. Specifically, fishermen provide longitude and latitude coordinates that represent their average location for each fishing trip. The Southeast Logbook, which covers Federal waters south of Cape Hatteras, similarly requires trip-level reporting; however, fishermen are required to identify the location of their fishing effort on a 1-degree grid, as opposed to a specific location.

Through spatial analysis of the VTR and Logbook data, the model assigns trips to the spatial grid that the user specifies, creating a series of monthly datasets for each fishery (i.e., lobster, blue crab, other trap/pot, and gillnet). For each vessel, the model then apportions activity based on the ratio of trips reported within a particular grid cell to the total number of trips taken within the month. For example, consider a vessel that reports 10 trips during the course of a month, seven within Cell A and three within Cell B. The model apportions this vessel's activity for the month by assigning 0.7 active vessels to Cell A and 0.3 active vessels to Cell B. In the final step, the model sums the apportioned activity from all vessels within each grid cell. Below, we detail the additional data, processing steps, and caveats specific to the model's characterization of each of the four fisheries. Exhibits 8 through 10 provide estimates of the number of vessels active in Federal waters in 2011, by month and fishery.

Lobster

A Federal lobster permit gives a vessel the right to fish in the Lobster Management Area(s) (LMA) the permit specifies. Unlike other permits administered by NERO, Federal lobster permits currently impose no trip report requirements. As a result, the VTR database typically does not contain information on the activity of vessels that hold a Federal lobster permit but no other Federal permit. Information on the location of trips taken by vessels that hold Federal lobster permits is limited to those that also hold permits for other fisheries that impose VTR requirements; these vessels must report all fishing activity to NERO.

[15] Technically, the regulations require fishermen to submit separate reports for each statistical area and type of gear fished. In practice, many fishermen compile all information for a single trip on one form.

To identify vessels that hold only a lobster permit and are not required to submit VTRs, the model relies on NMFS' Northeast Permit Database. For each LMA, the model compares VTR and permit data to identify vessels that are permitted only for the lobster fishery and thus not subject to VTR requirements. Because some fishermen maintain a Federal permit but do not actively fish, the model estimates the number of such vessels that are active within the LMA by scaling the total number of permitted vessels by the proportion of other permitted lobster trap/pot vessels (i.e., those vessels required to report to VTR) that actively fished in a given month.[16] In the absence of more detailed information on the location of fishing activity, the model assumes that the activity of these vessels is distributed evenly across the LMA, and apportions activity to each grid cell within the LMA accordingly. For LMA 3, we assume that permitted activity is concentrated north of the divide between LMA 4 and 5; thus, active vessels are only apportioned to this area.[17] Finally, to estimate the total number of vessels active in each grid cell for each month, the model adds the number of active vessels estimated from the permit data to the number obtained from VTR.

Blue Crab

While fishing for blue crab occurs along the entire range of the ALWTRP, analysis of VTR and discussions with state fisheries managers indicate that most blue crab fishing occurs south of New Jersey. To reflect blue crab's importance in these waters, the model identifies blue crab as a separate fishery (based on VTR and Logbook gear and species codes) in waters south of the New Jersey/Delaware border.[18] This fishery is heavily concentrated in inshore areas. This is confirmed by 2011 fishing activity data, which report no blue crab fishing in Federal waters south of New Jersey.

Other Trap/Pot

Within the other trap/pot (OTP) fishery, commercial fishermen often maintain and use different types of gear to target different species. Thus, the model assumes that each OTP vessel maintains separate sets of gear for each species it targets. To provide an accurate characterization of the amount of gear such vessels employ, the model treats multi-purpose trips as separate events. For example, a vessel that targets both black sea bass and hagfish on the same trip is treated as having taken two trips to the same location. The determination of the species targeted is based on VTR and Logbook gear and species codes.

[16] This approach assumes similar behavior between those lobster vessels that report to VTR and those that do not.

[17] The distribution of Federal lobster vessels that do not report to VTR is a significant source of uncertainty in the model, particularly in LMA 1, where the majority of non-reporting vessels operate. For example, in July 2011 (a month of heavy activity), the model estimates that approximately 1,070 non-reporting Federal lobster vessels were active in LMA 1. This represents approximately 42 percent of all lobster vessels active in the non-exempt waters of the LMA. Similarly, the model estimates that approximately 74 non-reporting Federal lobster vessels were active in LMA 2; this represents roughly 21 percent of all of the vessels in that area that fished in non-exempt waters. In LMA 3, the model estimates that the active lobster fleet included approximately 22 non-reporting vessels, while in the Outer Cape LMA the total was seven. These figures represent 29 percent and 9 percent, respectively, of the vessels in these areas that fished in non-exempt waters.

[18] Blue crab fishing activity north of this border is included as a component of the other/trap pot fishery.

EXHIBIT 8. ESTIMATED NUMBER OF ACTIVE LOBSTER VESSELS IN FEDERAL WATERS (2011)

REGION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVERAGE
LMA 1	892	703	621	693	818	971	1,116	1,140	1,177	1,180	1,186	1,068	964
LMA 2	33	26	31	47	64	69	78	78	69	56	50	45	54
LMA 3	66	58	58	51	51	57	60	59	60	56	60	54	58
Outer Cape	7	3	3	3	10	11	11	15	13	14	13	11	9
LMA 1/OC Overlap	0	0	0	0	0	0	0	0	0	0	0	0	0
LMA 2/3 Overlap	18	15	18	24	30	32	33	32	31	31	26	26	26
Other LMA (Northeast)	0	0	0	0	1	1	1	1	1	0	1	2	1
Other LMA (Mid-Atlantic)	29	20	16	25	36	40	38	42	38	34	32	28	32
Total	1,045	825	748	844	1,010	1,181	1,338	1,368	1,389	1,371	1,368	1,234	1,143

EXHIBIT 9. ESTIMATED NUMBER OF ACTIVE OTHER TRAP/POT VESSELS IN FEDERAL WATERS (2011)

REGION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVERAGE
Northeast	5	6	3	4	5	4	6	4	2	2	3	4	4
Mid-Atlantic	5	1	2	11	20	22	12	5	8	12	17	17	11
Southeast	0	0	0	0	0	21	11	0	0	0	0	0	3
Total	10	7	5	15	24	47	29	9	10	14	20	22	18

EXHIBIT 10. ESTIMATED NUMBER OF ACTIVE GILLNET VESSELS IN FEDERAL WATERS (2011)

REGION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVERAGE
Northeast	59	44	52	51	80	98	95	81	64	66	74	69	69
Mid-Atlantic	82	66	47	46	54	40	21	16	29	36	64	71	48
Southeast	1	2	5	9	9	6	3	6	13	11	7	1	6
Total	142	112	103	106	142	144	120	103	106	113	145	142	123

Gillnet

The model identifies gillnet activity based on VTR and Logbook gear codes.

GEAR CONFIGURATIONS FOR MODEL VESSELS

To specify model vessels for Federal waters, the spatial grid was delineated into Nearshore and Offshore waters for the Northeast, Mid-Atlantic, and Southeast. Exhibits 11 to 14 show the baseline gear configuration assumptions that the model employs for lobster, blue crab, other trap/pot, and gillnet vessels in these waters. Based on discussions with NMFS gear specialists, the model's default values assume no seasonal adjustments for the number of traps or strings fished in Federal waters.

Lobster

The specification of model vessels for the lobster fishery was developed through consultation with NMFS gear specialists, who provided information based on their own experience and outreach to state agencies. In addition, for Northeast Nearshore waters off the coast of Maine and Massachusetts, information provided by the Maine Department of Marine Resources and Massachusetts Division of Marine Fisheries were employed. See the Maine and Massachusetts profiles (below) for the gear configuration assumptions developed for these areas.

Blue Crab

Discussions with state fisheries managers and analysis of Federal activity data indicate that the vast majority of blue crab fishing occurs in state waters or in Nearshore waters close to the state waters' boundaries. This indicates that those fishing for blue crab in Federal waters likely use gear configurations similar to those used in state waters. To specify model vessels for the blue crab fisheries in Federal waters, the model averages the gear configurations from nearby state waters. Specifically, the Mid-Atlantic blue crab fisheries reflect an average of the blue crab configurations reported for ocean waters within the jurisdiction of Delaware, Maryland, Virginia, or North Carolina. Similarly, the Southeast blue crab fisheries reflect an average of the configurations reported for ocean waters within the jurisdiction of South Carolina, Georgia, or Florida.

Other Trap/Pot

The specification of model vessels for the other trap/pot fishery was developed through consultation with NMFS gear specialists and ALWTRT members, who provided information based on their own experience, fisheries management plans, and outreach to state agencies. For Northeast Nearshore waters, the suite of model vessels includes those that target black sea bass, hagfish, conch/whelk, scup, and shrimp.[19] For Mid-Atlantic Nearshore waters, model vessels are specified for the black sea bass (separate configurations for North and South of Cape Hatteras), conch/whelk, and scup fisheries. For the Northeast and Mid-Atlantic Offshore waters, the suite of model vessels includes those targeting hagfish and red crab. For Southeast Nearshore and Offshore waters, a model vessel is specified for black sea bass, the only significant other trap/pot fishery in

[19] Exhibit 10 also lists model parameters for vessels that target shrimp in Northeast state waters. These parameters are employed as a default in Maine and New Hampshire, as these states were not unable to provide more detailed information on the typical configuration of gear in their shrimp fisheries.

that area. This model vessel is based on recent amendments to the fishery management plan for black sea bass, which places trap limits on those targeting the species.[20]

Gillnet

The specification of model vessels for the gillnet fishery relies on data collected through the Northeast Domestic Fisheries Observer Program, which is operated by NMFS' Northeast Fisheries Science Center (NEFSC). The Observer Program maintains and distributes data on fishing activity off the Northeastern and Mid-Atlantic U.S. for scientific and management purposes. Under the program, trained scientific observers travel aboard commercial fishing vessels to obtain data that are not readily obtainable by other means, focusing in particular on detailed observation of gear rigging and deployment. Using these data, model vessels were developed for the Northeast sink gillnet and Mid-Atlantic gillnet fisheries, based on the average Observer values for each of those regions. The Northeast sink gillnet model vessel is assigned to Northeast Nearshore and Northeast Offshore waters, while the Mid-Atlantic gillnet model vessel is assigned to Mid-Atlantic Nearshore, Mid-Atlantic Offshore, Southeast Nearshore, and Southeast Offshore waters.[21] In addition, for some Northeast Nearshore waters off the coast of Massachusetts, information provided by the Massachusetts Division of Marine Fisheries was employed. See the Massachusetts profile (below) for the gear configuration assumptions developed for these areas.

EXHIBIT 11. BASELINE GEAR CONFIGURATION ASSUMPTIONS FOR FEDERAL WATERS: LOBSTER

AREA	TOTAL TRAPS FISHED IN MAX. MONTH	TRAPS PER TRAWL	NUMBER OF ENDLINES PER TRAWL	NUMBER OF ANCHOR LINES PER TRAWL
Northeast Nearshore	700	12	2	0
Mid-Atlantic Nearshore	700	15	2	2
Offshore	1200	40	2	2

[20] For more information, see http://www.safmc.net/LinkClick.aspx?fileticket=ZZ%2boyENgblQ%3d&tabid=248.

[21] The gillnet gear configuration assumptions for Federal waters were derived from Northeast Observer data records for 2009 through 2011.

EXHIBIT 12. BASELINE GEAR CONFIGURATION ASSUMPTIONS FOR FEDERAL WATERS: BLUE CRAB

AREA	TOTAL TRAPS FISHED IN MAX. MONTH	TRAPS PER TRAWL	NUMBER OF ENDLINES PER TRAWL	NUMBER OF ANCHOR LINES PER TRAWL
Mid-Atlantic Nearshore and Offshore	136	1	1	0
Southeast Nearshore and Offshore	164	1	1	0

EXHIBIT 13. BASELINE GEAR CONFIGURATION ASSUMPTIONS FOR FEDERAL WATERS: OTHER TRAP/POT

AREA/FISHERY	TOTAL TRAPS FISHED IN MAX. MONTH	TRAPS PER TRAWL	NUMBER OF ENDLINES PER TRAWL	NUMBER OF ANCHOR LINES PER TRAWL
Northeast State Waters – Shrimp	100	2	1	0
Northeast Nearshore – Scup	50	2	1	0
Northeast Nearshore – Black Sea Bass	50	2	1	0
Northeast Nearshore - Shrimp	100	2	1	0
Northeast Nearshore – Hagfish	500	40	2	0
Northeast Nearshore – Conch/Whelk	150	2	1	0
Northeast Offshore - Hagfish	500	40	2	0
Northeast Offshore – Red Crab	600	150	2	0
Mid-Atlantic Nearshore - Black Sea Bass (North of Cape Hatteras)	800	20	2	2
Mid-Atlantic Nearshore - Black Sea Bass (South of Cape Hatteras)	35	1	1	0
Mid-Atlantic Nearshore – Scup	50	1	1	0
Mid-Atlantic Nearshore - Conch/Whelk	150	1	1	0
Mid-Atlantic Offshore - Hagfish	500	40	2	0

AREA/FISHERY	TOTAL TRAPS FISHED IN MAX. MONTH	TRAPS PER TRAWL	NUMBER OF ENDLINES PER TRAWL	NUMBER OF ANCHOR LINES PER TRAWL
Mid-Atlantic Offshore – Red Crab	600	150	2	0
Southeast Nearshore – Black Sea Bass	35	1	1	0
Southern Offshore - Black Sea Bass	35	1	1	0

EXHIBIT 14. BASELINE GEAR CONFIGURATION ASSUMPTIONS FOR FEDERAL WATERS: GILLNET

AREA	TOTAL NUMBER OF STRINGS FISHED	NET PANELS PER STRING	ENDLINES PER STRING	ANCHORS PER STRING	LENGTH OF ANCHOR LINE (FEET)
Northeast Nearshore and Offshore	3	13	2	2	10
Mid-Atlantic Nearshore and Offshore	3	7	2	2	10
Southeast Nearshore and Offshore	3	7	2	2	10

STATE WATERS

NMFS and IEc have worked directly with state marine resource officials to develop baseline modeling assumptions for vessels fishing exclusively in state waters. Key modeling parameters for lobster, blue crab, and other trap/pot vessels include: (1) the number of vessels active in different months of the year; (2) the total number of traps fished in different areas; and (3) the typical number of traps per trawl. For gillnet vessels, key parameters include: (1) the number of vessels active in different months of the year; and (2) the total number of strings typically fished.

The model development effort has attempted to obtain the most recent and highest quality data available from each state to characterize fishing effort in state waters. Exhibit 11 provides a brief overview of the data. As shown, the model currently incorporates activity data for 2010 and, in some cases, 2011; many states have submitted data for previous years as well. The exhibit also characterizes information obtained on gear configurations. As shown, gear information sources vary from state to state:

- For some states, key gear configuration parameters are estimated based on reporting data (e.g., logbook data) furnished by fishermen in accordance with state requirements.
- For other states, surveys are the primary source of gear configuration information. In some cases, these surveys are one-time efforts, while others are administered annually (e.g., recall surveys).
- For other states, gear configurations are largely based on the best professional judgment of state fisheries experts.

In several cases, the gear data are taken from a mix of sources (e.g., surveys and best professional judgment). All baseline gear configuration assumptions are based on information from 2009, 2010, or 2011.

The individual state profiles in this section provide detailed descriptions of the data and analysis used to characterize vessels fishing in state waters. We have shared these profiles with the relevant state contact(s) and incorporated their comments as appropriate.

EXHIBIT 11. SUMMARY OF DATA FOR VESSELS THAT FISH EXCLUSIVELY IN STATE WATERS

STATE	YEAR COVERED BY MOST RECENT ACTIVITY DATA	GEAR CONFIGURATION DATA	
		DATA SOURCE	YEAR
ME	2011	Survey	2010
NH	2010	Reporting	2010
MA	2010	Reporting/Survey	2009
RI	2010	Reporting	2010
CT	2011	Reporting	2011
NY	2010	Survey/BPJ	2010
NJ	2010	BPJ	N.A.
DE	2011	Reporting	2011
MD	2010	Reporting/BPJ	2010
VA	2010	Reporting	2010
NC	2011	Survey/BPJ	2009
SC	2010	Reporting	2010
GA	2010	Survey	2009
FL	2010	Reporting	2010

MAINE

The discussion below explains the model's characterization of the activity and gear associated with lobster vessels fishing in Maine waters.

NUMBER OF ACTIVE VESSELS

To estimate the number of lobster vessels operating exclusively in state waters, we use two categories of data provided by the Maine Department of Marine Resources.[22] First, DMR relied on permit data to provide information on the number of vessels licensed to lobster in each of the state's seven lobster management zones (Zones A through G). Figure ME-1 depicts the location of these zones. For the years 2008 through 2011, DMR provided a separate analysis of these data that identified vessels that hold a state permit but no Federal permits. Second, DMR provided an analysis of its "100% dealer reporting" data that shows the percentage of vessels with the foregoing permit characteristics in each zone that were active in each month (see Table ME-1). Active vessels are those that landed at least 100 pounds of lobster. We multiply the number of vessels in each zone that hold only a state lobster permit by the percent of vessels reported to be active in each month to obtain the number of active vessels by month (see Table ME-2). The model assumes that the activity of these vessels is distributed evenly throughout the state-waters portion of each lobster zone.

GEAR CONFIGURATIONS FOR MODEL VESSELS

To characterize gear configurations, the model relies primarily on data obtained via DMR's Annual Logs survey, a mail-based survey issued in 2010 to all Maine lobstermen as part of the state's permit renewal package. The survey requested basic gear configuration information, including the number of traps fished and the number of vertical lines associated with those traps. Respondents also reported their approximate fishing location, specifying one or more of 21 areas, and provided separate information for each month. DMR distributed the survey in spring of 2010; therefore, it likely reflects gear configurations and fishing practices from 2009. Approximately 2,100 lobstermen responded to the survey; of these, 1,966 respondents actively fished and provided gear information. This sample represents just over half of all lobstermen active in 2009.

In many state waters, the model estimates the concentration of vertical line based on average gear configuration parameters for a given area. The size and complexity of the lobster fishery in Maine call for a more detailed approach. Rather than estimate the concentration of vertical line based on a single model vessel designed to represent the average or typical configuration of gear within a particular area, the chosen approach incorporates multiple model vessels for each area – representing the full range of gear configurations currently in use – and specifies the percentage of active vessels within the area to which each configuration applies. The discussion below describes the analysis in greater detail.

[22] In addition to the lobster fishery, DMR also regulates the gillnet fishery and issues permits to gillnet vessels. However, DMR notes that very few gillnet vessels have been active in recent years. To the extent that gillnet vessels fish exclusively with state permits (and are therefore not reflected in the VTR data), the model may understate the use of vertical line in Maine waters.

FIGURE ME-1. MAINE LOBSTER ZONES

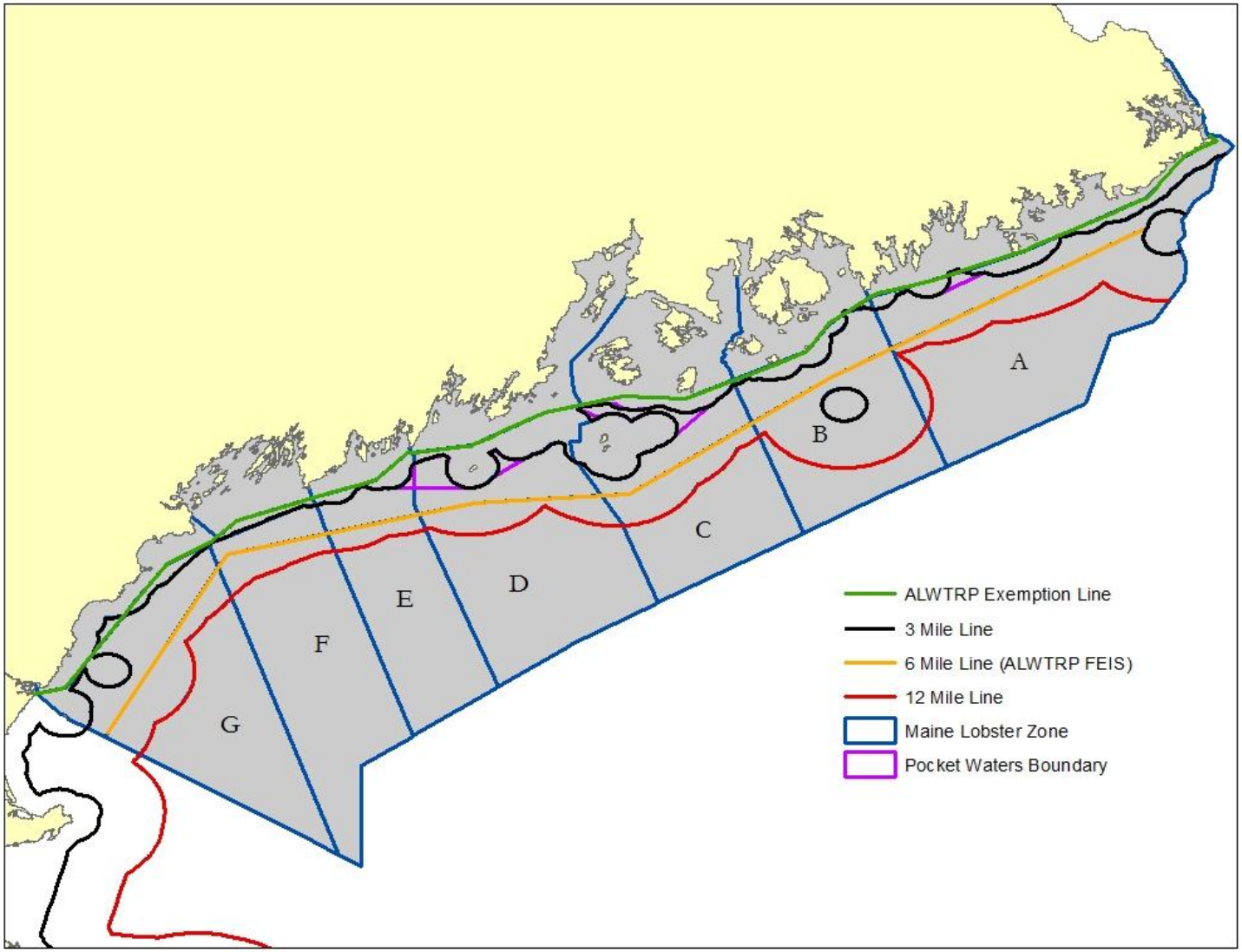


TABLE ME-1. PERCENTAGE OF LOBSTER VESSELS HOLDING ONLY A STATE PERMIT THAT WERE ACTIVE (2011)

MONTH	ZONE A	ZONE B	ZONE C	ZONE D	ZONE E	ZONE F	ZONE G
January	2%	5%	12%	6%	9%	4%	8%
February	0%	3%	6%	3%	5%	2%	3%
March	1%	4%	7%	3%	5%	2%	4%
April	4%	11%	1%	8%	7%	3%	7%
May	14%	21%	27%	17%	14%	6%	15%
June	26%	34%	44%	34%	33%	28%	26%
July	54%	57%	63%	56%	42%	47%	40%
August	58%	66%	66%	61%	47%	47%	43%
September	55%	59%	63%	57%	42%	44%	37%
October	47%	53%	57%	55%	37%	43%	35%
November	29%	39%	45%	45%	31%	31%	28%
December	7%	18%	21%	24%	21%	13%	18%

TABLE ME-2. ESTIMATED NUMBER OF ACTIVE LOBSTER VESSELS HOLDING ONLY A STATE PERMIT (2011)

MONTH	ZONE A	ZONE B	ZONE C	ZONE D	ZONE E	ZONE F	ZONE G	ALL ZONES
January	14	23	100	59	36	31	27	290
February	4	3	52	25	20	18	11	143
March	8	17	64	31	20	20	13	173
April	39	49	11	81	29	24	22	255
May	119	96	236	173	58	48	48	778
June	232	156	379	340	138	226	82	1,553
July	474	258	542	555	174	383	127	2,513
August	510	298	566	601	196	382	137	2,690
September	485	269	545	570	176	359	119	2,523
October	415	238	491	548	154	346	112	2,304
November	255	176	387	448	131	249	88	1,734
December	59	80	185	235	89	106	57	811

Distributional Approach

The two parameters of primary interest in specifying model vessels for the Maine lobster fishery are the number of traps fished per vessel and the number of traps fished per trawl. To specify a distribution for these parameters, we create several categories or bins for classifying data records. For traps fished per vessel, we use the following categories for the specification of model vessels: 1-200, 201-400, 401-600, and more than 600 traps.

The Annual Logs survey did not require lobstermen to explicitly report traps per trawl; instead, respondents specified the number of traps fished and the number of vertical lines employed. We combine this information to estimate traps per trawl. We first divide the number of pots fished by the number of lines fished to calculate the number of traps per line. Consistent with DMR guidance, we then assume that if the traps-per-line figure is four or less, the vessel fishes with one endline per trawl. If the traps per line figure is greater than four, we assume two endlines are used. The traps per trawl estimates are derived by multiplying the number of traps per line by the assumed lines per trawl. For instance, if the traps-per-line figure is seven, we assume two endlines, and the vessel is assumed to fish 14 traps per trawl. We calculate traps per trawl individually for each record in the database.[23]

The Annual Logs data indicate that the majority of lobstermen who responded to the survey regularly fish singles or doubles; the use of large numbers of traps per trawl is less common, except in Federal waters. In addition, Maine DMR and NMFS also recommended additional trap-per-trawl categories that accommodate anticipated "trawl-up" scenarios. Therefore, the analysis uses the following categories for the specification of model vessels: 1, 2, 3, 4, 5-7, 8-9, 10-14, 15-19, and 20+ traps per trawl.

Table ME-3 incorporates the categories specified above to illustrate the application of the approach to characterizing gear use. The table shows, for a hypothetical area and month, the percentage of vessels that fish a given combination of traps and traps per trawl. In this case, for instance, 30 percent of vessels fish 201 to 400 traps, configured as triples. As discussed below, the model employs matrices like this to characterize the baseline distribution of gear use in specified areas off the Maine coast. The distribution for each area varies on a monthly basis, reflecting the monthly variation in gear configurations reported in the survey.

[23] Note that this method necessarily leads to a "gap" in the estimate of traps per trawl; specifically, it yields no individual records where a vessel fishes five, six, or seven traps per trawl.

TABLE ME-3. DISTRIBUTION OF VESSELS FISHING A GIVEN CONFIGURATION OF GEAR FOR A HYPOTHETICAL AREA AND MONTH

TRAPS PER TRAWL	TRAPS PER VESSEL				
	1-200 TRAPS	201-400 TRAPS	401-600 TRAPS	MORE THAN 600 TRAPS	TOTAL
1	10%	20%	10%		40%
2					
3	10%	30%	10%		50%
4			5%		5%
5 to 7					
8 to 9					
10 to 14					
15 to 19				5%	5%
20+					
Total	20%	50%	25%	5%	100%

Model Vessel Areas

The model vessels incorporate the 21 areas that lobstermen could report in the Annual Logs data. Specifically, respondents specified the Maine lobster zone fished (A through G) and distance from shore – state exempt waters, state non-exempt waters, or Federal waters (beyond three miles). Table ME-4 presents a table showing the number of survey respondents in each area and month. As shown, the number of observations for each area/month combination is generally very good, with only two instances of a sample size less than five. The smaller sample sizes tend to occur in Federal waters during summer months, when the activity of the Maine lobster fleet tends to concentrate inshore.

Model Vessel Parameters

Attachment ME-A presents the results of our analysis of gear distributions reported in the survey data, organized by the 21 areas in all 12 months. Separate tables summarize the number and percentage of survey respondents (i.e., two sets of tables for each month).

The vertical line model assigns the mix of gear configurations in a given area/month to vessels that fish there during that period. For instance, if the model estimates that 200 vessels fish in the "Zone A State Exempt" area in May, the model assigns the mix of gear configurations in the May "Zone A State Exempt" crosstab to these 200 active vessels.

TABLE ME-4. NUMBER OF ANNUAL LOGS SURVEY RESPONSES, BY AREA AND MONTH

MODEL VESSEL AREA	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Zone A Exempt State	10	9	25	94	170	293	387	394	378	313	180	55
Zone A Non-exempt State	24	21	26	71	86	103	106	113	128	131	107	69
Zone A Federal	73	67	72	102	112	99	78	79	98	123	124	107
Zone B Exempt State	21	17	29	90	141	212	246	252	237	210	144	63
Zone B Non-exempt State	29	26	33	51	49	43	40	44	58	73	74	56
Zone B Federal	56	53	52	49	40	23	13	19	38	69	82	76
Zone C Exempt State	27	23	31	103	172	269	334	341	319	273	176	69
Zone C Non-exempt State	37	30	34	55	69	68	56	66	77	97	79	59
Zone C Federal	39	32	33	35	25	9	5	8	15	40	46	41
Zone D Exempt State	16	16	25	74	143	248	316	326	317	269	191	77
Zone D Non-exempt State	26	19	25	66	88	89	74	87	111	133	121	83
Zone D Federal	55	49	49	55	52	29	8	7	18	46	71	71
Zone E Exempt State	25	22	23	49	81	138	161	163	156	137	90	51
Zone E Non-exempt State	18	15	15	19	26	23	22	26	44	44	40	29
Zone E Federal	39	35	31	23	17	8	2	6	19	33	41	37
Zone F Exempt State	24	23	26	32	62	164	202	211	205	184	118	62
Zone F Non-exempt State	9	8	8	15	25	36	45	43	43	45	37	21
Zone F Federal	16	14	12	8	9	5	1	6	9	19	29	28
Zone G Exempt State	34	31	31	65	100	120	140	139	141	130	91	55
Zone G Non-exempt State	26	23	20	29	40	42	43	46	48	54	47	38
Zone G Federal	46	40	36	28	21	16	16	18	26	42	44	37

To calculate the number of vertical lines deployed, the model must apply specific numerical values to parameters specified with ranges. For example, for the traps per trawl variable, we need to assign numerical values to the "8 to 9" range, the "10 to 14" range, etc. To do so, we calculate the average traps per trawl for all responses in the range, across all months. We do the same for the number of traps fished, calculating an average number of traps for each of the ranges. Table ME-5 summarizes the resulting values. It is essential to keep in mind that these are averages *within* each range. The model recognizes that gear configurations vary seasonally and by area, incorporating this variation through the distribution of active vessels to different model vessels (i.e., different combinations of traps and traps-per-trawl).

TABLE ME-5. POINT ESTIMATES APPLIED FOR GEAR CONFIGURATION RANGES

VARIABLE	RANGE	VALUE APPLIED IN MODEL	NUMBER OF OBSERVATIONS
Traps per Trawl	5 to 7	NA*	NA*
	8 to 9	8.8	130
	10 to 14	10.7	1,064
	15 to 19	15.5	319
	20+	23.6	491
Number of Traps Fished	1-200 Traps	133	6,656
	201-400 Traps	341	5,632
	401-600 Traps	546	3,181
	600+ Traps	776	3,823

* As noted, the method for deriving traps per trawl necessarily leads to a "gap" in the estimate of traps per trawl; specifically, it yields no individual records where a vessel fishes five, six, or seven traps per trawl.

ATTACHMENT ME-A

DISTRIBUTION OF GEAR CONFIGURATIONS BY MONTH AND AREA

JANUARY

NUMBER OF RESPONDENTS

Month	January
Zone	A
Area	Exempt State

Traps per Trawl	Traps per Ve 1 to 200	201 to 400	401 to 600	601+	Grand Total
1		1			1
2	4	2			6
3	1				1
4					
8 to 9					
10 to 14	1				1
15 to 19		1			1
20+					
Grand Total	**6**	**4**			**10**

Month	January
Zone	A
Area	Non-exempt State

Traps per Trawl	Traps per Vesse 1 to 200	201 to 400	401 to 60	601+	Grand Total
1	1				1
2	6	2			8
3	1	2			3
4	3	1			4
8 to 9		1	1		2
10 to 14	4				4
15 to 19	1				1
20+	1				1
Grand To	**17**	**6**	**1**		**24**

Month	January
Zone	A
Area	Federal

Traps per Trawl	Traps p 1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	2	4	1	2	9
3		4	1	4	9
4	1	9		5	15
8 to 9		1			1
10 to 14	4	2	9	5	20
15 to 19		2	2	4	8
20+		1	1	9	11
Grand To	**7**	**23**	**14**	**29**	**73**

Month	January
Zone	B
Area	Exempt State

Traps per Trawl	Traps per Ve 1 to 200	201 to 400	401 to 600	601+	Grand Total
1		3			3
2	14	4			18
3					
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	**14**	**7**			**21**

Month	January
Zone	B
Area	Non-exempt State

Traps per Trawl	Traps per Vesse 1 to 200	201 to 400	401 to 60	601+	Grand Total
1	1				1
2	16	8	1		25
3	2	1			3
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand To	**19**	**9**	**1**		**29**

Month	January
Zone	B
Area	Federal

Traps per Trawl	Traps p 1 to 200	201 to 400	401 to 600	601+	Grand Total
1			1		1
2	12	9	5	2	28
3		11	2	4	17
4		3			3
8 to 9		1			1
10 to 14		1		2	3
15 to 19					
20+		1	2		3
Grand To	**12**	**26**	**10**	**8**	**56**

Month	January
Zone	C
Area	Exempt State

Traps per Trawl	Traps per Ve 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1	2			3
2	7	10	4	2	23
3				1	1
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	**8**	**12**	**4**	**3**	**27**

Month	January
Zone	C
Area	Non-exempt State

Traps per Trawl	Traps per Vesse 1 to 200	201 to 400	401 to 60	601+	Grand Total
1					
2	9	17	6	1	33
3	1	2	1		4
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand To	**10**	**19**	**7**	**1**	**37**

Month	January
Zone	C
Area	Federal

Traps per Trawl	Traps p 1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	6	5	1	1	13
3		3	3	4	10
4	1	2		1	4
8 to 9					
10 to 14			2	4	6
15 to 19		1		5	6
20+					
Grand To	**7**	**11**	**6**	**15**	**39**

Month	January
Zone	D
Area	Exempt State

Traps per Trawl	Traps per Ve 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	4	2	1		7
2	4	3	1	1	9
3					
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	**8**	**5**	**2**	**1**	**16**

Month	January
Zone	D
Area	Non-exempt State

Traps per Trawl	Traps per Vesse 1 to 200	201 to 400	401 to 60	601+	Grand Total
1					
2	12	8	1	2	23
3	1	2			3
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand To	**13**	**10**	**1**	**2**	**26**

Month	January
Zone	D
Area	Federal

Traps per Trawl	Traps p 1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	8	10	3	5	26
3	2	7	7	7	23
4				1	1
8 to 9					
10 to 14		2			2
15 to 19		1		1	2
20+				1	1
Grand To	**10**	**20**	**10**	**15**	**55**

Month	January
Zone	E
Area	Exempt State

Traps per Trawl	Traps per Ve 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	6		1		7
2	8	2	4		14
3	2		2		4
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	**16**	**2**	**7**		**25**

Month	January
Zone	E
Area	Non-exempt State

Traps per Trawl	Traps per Vesse 1 to 200	201 to 400	401 to 60	601+	Grand Total
1	3	1			4
2	8	2			10
3	1	1			2
4	1				1
8 to 9					
10 to 14					
15 to 19	1				1
20+					
Grand To	**14**	**4**			**18**

Month	January
Zone	E
Area	Federal

Traps per Trawl	Traps p 1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	6	5	6		17
3	1	4	10		15
4		1	1		2
8 to 9					
10 to 14		2	2		4
15 to 19					
20+			1		1
Grand To	**7**	**12**	**20**		**39**

Month	January
Zone	F
Area	Exempt State

Traps per Trawl	Traps per Ve 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1				1
2	1				1
3	5	2	1	1	9
4	1	3			4
8 to 9		1			1
10 to 14	1	2	2		5
15 to 19	1	2			3
20+					
Grand Total	**10**	**10**	**3**	**1**	**24**

Month	January
Zone	F
Area	Non-exempt State

Traps per Trawl	Traps per Vesse 1 to 200	201 to 400	401 to 60	601+	Grand Total
1					
2					
3	1	1	1	3	6
4	1				1
8 to 9					
10 to 14					
15 to 19				1	1
20+		1			1
Grand To	**2**	**2**	**1**	**4**	**9**

Month	January
Zone	F
Area	Federal

Traps per Trawl	Traps p 1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2					
3		1			1
4		1			1
8 to 9			1		1
10 to 14	2	2	1	3	8
15 to 19	2		1		3
20+	1			1	2
Grand To	**5**	**4**	**3**	**4**	**16**

Month	January
Zone	G
Area	Exempt State

Traps per Trawl	Traps per Ve 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	4	2	1		7
2	15	3	1	1	20
3	1	3	1		5
4	1				1
8 to 9					
10 to 14					
15 to 19		1			1
20+					
Grand Total	**21**	**9**	**3**	**1**	**34**

Month	January
Zone	G
Area	Non-exempt State

Traps per Trawl	Traps per Vesse 1 to 200	201 to 400	401 to 60	601+	Grand Total
1					
2	10	4	5		19
3	1				1
4					
8 to 9					
10 to 14		3			3
15 to 19				2	2
20+	1				1
Grand To	**12**	**7**	**5**	**2**	**26**

Month	January
Zone	G
Area	Federal

Traps per Trawl	Traps p 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1	1		1	3
2	9	6		1	16
3	2		2	1	5
4			1		1
8 to 9					
10 to 14	3	5	1	1	10
15 to 19	2	3	1	1	7
20+		2		2	4
Grand To	**17**	**17**	**5**	**7**	**46**

JANUARY

PERCENTAGE OF RESPONDENTS

Month	January
Zone	A
Area	Exempt State

Traps per Trawl	Traps per Ves 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	10%	0%	0%	10%
2	40%	20%	0%	0%	60%
3	10%	0%	0%	0%	10%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	10%	0%	0%	0%	10%
15 to 19	0%	10%	0%	0%	10%
20+	0%	0%	0%	0%	0%
Grand Tota	60%	40%	0%	0%	100%

Month	January
Zone	A
Area	Non-exempt State

Traps per Trawl	Traps per Vessel 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	4%	0%	0%	0%	4%
2	25%	8%	0%	0%	33%
3	4%	8%	0%	0%	13%
4	13%	4%	0%	0%	17%
8 to 9	0%	4%	4%	0%	8%
10 to 14	17%	0%	0%	0%	17%
15 to 19	4%	0%	0%	0%	4%
20+	4%	0%	0%	0%	4%
Grand Tota	71%	25%	4%	0%	100%

Month	January
Zone	A
Area	Federal

Traps per Trawl	Traps per Ve 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	3%	5%	1%	3%	12%
3	0%	5%	1%	5%	12%
4	1%	12%	0%	7%	21%
8 to 9	0%	1%	0%	0%	1%
10 to 14	5%	3%	12%	7%	27%
15 to 19	0%	3%	3%	5%	11%
20+	0%	1%	1%	12%	15%
Grand Tota	10%	32%	19%	40%	100%

Month	January
Zone	B
Area	Exempt State

Traps per Trawl	Traps per Ves 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	14%	0%	0%	14%
2	67%	19%	0%	0%	86%
3	0%	0%	0%	0%	0%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Tota	67%	33%	0%	0%	100%

Month	January
Zone	B
Area	Non-exempt State

Traps per Trawl	Traps per Vessel 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	3%	0%	0%	0%	3%
2	55%	28%	3%	0%	86%
3	7%	3%	0%	0%	10%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Tota	66%	31%	3%	0%	100%

Month	January
Zone	B
Area	Federal

Traps per Trawl	Traps per Ve 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	2%	0%	2%
2	21%	16%	9%	4%	50%
3	0%	20%	4%	7%	30%
4	0%	5%	0%	0%	5%
8 to 9	0%	2%	0%	0%	2%
10 to 14	0%	2%	0%	4%	5%
15 to 19	0%	0%	0%	0%	0%
20+	0%	2%	4%	0%	5%
Grand Tota	21%	46%	18%	14%	100%

Month	January
Zone	C
Area	Exempt State

Traps per Trawl	Traps per Ves 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	4%	7%	0%	0%	11%
2	26%	37%	15%	7%	85%
3	0%	0%	0%	4%	4%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Tota	30%	44%	15%	11%	100%

Month	January
Zone	C
Area	Non-exempt State

Traps per Trawl	Traps per Vessel 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	24%	46%	16%	3%	89%
3	3%	5%	3%	0%	11%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Tota	27%	51%	19%	3%	100%

Month	January
Zone	C
Area	Federal

Traps per Trawl	Traps per Ve 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	15%	13%	3%	3%	33%
3	0%	8%	8%	10%	26%
4	3%	5%	0%	3%	10%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	5%	10%	15%
15 to 19	0%	3%	0%	13%	15%
20+	0%	0%	0%	0%	0%
Grand Tota	18%	28%	15%	38%	100%

Month	January
Zone	D
Area	Exempt State

Traps per Trawl	Traps per Ves 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	25%	13%	6%	0%	44%
2	25%	19%	6%	6%	56%
3	0%	0%	0%	0%	0%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Tota	50%	31%	13%	6%	100%

Month	January
Zone	D
Area	Non-exempt State

Traps per Trawl	Traps per Vessel 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	46%	31%	4%	8%	88%
3	4%	8%	0%	0%	12%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Tota	50%	38%	4%	8%	100%

Month	January
Zone	D
Area	Federal

Traps per Trawl	Traps per Ve 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	15%	18%	5%	9%	47%
3	4%	13%	13%	13%	42%
4	0%	0%	0%	2%	2%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	4%	0%	0%	4%
15 to 19	0%	2%	0%	2%	4%
20+	0%	0%	0%	2%	2%
Grand Tota	18%	36%	18%	27%	100%

Month	January
Zone	E
Area	Exempt State

Traps per Trawl	Traps per Ves 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	24%	0%	4%	0%	28%
2	32%	8%	16%	0%	56%
3	8%	0%	8%	0%	16%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Tota	64%	8%	28%	0%	100%

Month	January
Zone	E
Area	Non-exempt State

Traps per Trawl	Traps per Vessel 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	17%	6%	0%	0%	22%
2	44%	11%	0%	0%	56%
3	6%	6%	0%	0%	11%
4	6%	0%	0%	0%	6%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	6%	0%	0%	0%	6%
20+	0%	0%	0%	0%	0%
Grand Tota	78%	22%	0%	0%	100%

Month	January
Zone	E
Area	Federal

Traps per Trawl	Traps per Ve 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	15%	13%	15%	0%	44%
3	3%	10%	26%	0%	38%
4	0%	3%	3%	0%	5%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	5%	5%	0%	10%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	3%	0%	3%
Grand Tota	18%	31%	51%	0%	100%

Month	January
Zone	F
Area	Exempt State

Traps per Trawl	Traps per Ves 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	4%	0%	0%	0%	4%
2	4%	0%	0%	0%	4%
3	21%	8%	4%	4%	38%
4	4%	13%	0%	0%	17%
8 to 9	0%	4%	0%	0%	4%
10 to 14	4%	8%	8%	0%	21%
15 to 19	4%	8%	0%	0%	13%
20+	0%	0%	0%	0%	0%
Grand Tota	42%	42%	13%	4%	100%

Month	January
Zone	F
Area	Non-exempt State

Traps per Trawl	Traps per Vessel 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3	11%	11%	11%	33%	67%
4	11%	0%	0%	0%	11%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	11%	11%
20+	0%	11%	0%	0%	11%
Grand Tota	22%	22%	11%	44%	100%

Month	January
Zone	F
Area	Federal

Traps per Trawl	Traps per Ve 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3	0%	6%	0%	0%	6%
4	0%	6%	0%	0%	6%
8 to 9	0%	0%	6%	0%	6%
10 to 14	13%	13%	6%	19%	50%
15 to 19	13%	0%	6%	0%	19%
20+	6%	0%	0%	6%	13%
Grand Tota	31%	25%	19%	25%	100%

Month	January
Zone	G
Area	Exempt State

Traps per Trawl	Traps per Ves 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	12%	6%	3%	0%	21%
2	44%	9%	3%	3%	59%
3	3%	9%	3%	0%	15%
4	3%	0%	0%	0%	3%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	3%	0%	0%	3%
20+	0%	0%	0%	0%	0%
Grand Tota	62%	26%	9%	3%	100%

Month	January
Zone	G
Area	Non-exempt State

Traps per Trawl	Traps per Vessel 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	38%	15%	19%	0%	73%
3	4%	0%	0%	0%	4%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	12%	0%	0%	12%
15 to 19	0%	0%	0%	8%	8%
20+	4%	0%	0%	0%	4%
Grand Tota	46%	27%	19%	8%	100%

Month	January
Zone	G
Area	Federal

Traps per Trawl	Traps per Ve 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	2%	2%	0%	2%	7%
2	20%	13%	0%	2%	35%
3	4%	0%	4%	2%	11%
4	0%	0%	2%	0%	2%
8 to 9	0%	0%	0%	0%	0%
10 to 14	7%	11%	2%	2%	22%
15 to 19	4%	7%	2%	2%	15%
20+	0%	4%	0%	4%	9%
Grand Tota	37%	37%	11%	15%	100%

FEBRUARY
NUMBER OF RESPONDENTS

Month: February | Zone: A | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1	1			2
2	3	1			4
3	1				1
4					
8 to 9					
10 to 14	1				1
15 to 19		1			1
20+					
Grand Total	6	3			9

Month: February | Zone: A | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	6	1			7
3	1	2			3
4	1	1			2
8 to 9		1	1		2
10 to 14	4				4
15 to 19	1				1
20+	2				2
Grand Total	15	5	1		21

Month: February | Zone: A | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	1	1	2	1	5
3		3	1	6	10
4	1	9		5	15
8 to 9					
10 to 14	4	1	10	3	18
15 to 19		1	2	4	7
20+		2	1	9	12
Grand Total	6	17	16	28	67

Month: February | Zone: B | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1		2			2
2	12	3			15
3					
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	12	5			17

Month: February | Zone: B | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1				1
2	13	8	1		22
3	2	1			3
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	16	9	1		26

Month: February | Zone: B | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	11	8	7		26
3		9	3	3	15
4	1	3			4
8 to 9		1			1
10 to 14	1	1		2	4
15 to 19					
20+		1	2		3
Grand Total	13	23	12	5	53

Month: February | Zone: C | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1	2			3
2	7	8	2	2	19
3				1	1
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	8	10	2	3	23

Month: February | Zone: C | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	8	15	3	1	27
3	1	2			3
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	9	17	3	1	30

Month: February | Zone: C | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	3	5		1	9
3		1	2	4	7
4	1	1		1	3
8 to 9					
10 to 14	1		2	4	7
15 to 19		1		5	6
20+					
Grand Total	5	8	4	15	32

Month: February | Zone: D | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	4	3			7
2	4	2	1	2	9
3					
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	8	5	1	2	16

Month: February | Zone: D | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	10	6			16
3	1	2			3
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	11	8			19

Month: February | Zone: D | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	4	6	2	5	17
3	2	8	10	7	27
4	1			1	2
8 to 9					
10 to 14		1			1
15 to 19				1	1
20+				1	1
Grand Total	7	15	12	15	49

Month: February | Zone: E | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	5		2		7
2	6	4	1		11
3	2		2		4
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	13	4	5		22

Month: February | Zone: E | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	2	1			3
2	8				8
3	1	1			2
4	1				1
8 to 9					
10 to 14					
15 to 19	1				1
20+					
Grand Total	13	2			15

Month: February | Zone: E | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	6	4	5		15
3		5	9		14
4		1	1		2
8 to 9					
10 to 14		2	2		4
15 to 19					
20+					
Grand Total	6	12	17		35

Month: February | Zone: F | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1				1
2	1				1
3	3	3	1	1	8
4	2	3			5
8 to 9		1			1
10 to 14	2	2	1		5
15 to 19	1	1			2
20+					
Grand Total	10	10	2	1	23

Month: February | Zone: F | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2					
3	1	1	1	3	6
4					
8 to 9					
10 to 14					
15 to 19				1	1
20+		1			1
Grand Total	1	2	1	4	8

Month: February | Zone: F | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2					
3					
4	1				1
8 to 9					
10 to 14	3	1	1	3	8
15 to 19	2		1		3
20+	1			1	2
Grand Total	7	1	2	4	14

Month: February | Zone: G | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	4	1	1		6
2	13	2	1	1	17
3	1	4	1		6
4	1				1
8 to 9					
10 to 14					
15 to 19		1			1
20+					
Grand Total	19	8	3	1	31

Month: February | Zone: G | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	10	4	3		17
3	2				2
4					
8 to 9					
10 to 14	1	1			2
15 to 19				1	1
20+	1				1
Grand Total	14	5	3	1	23

Month: February | Zone: G | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1	1		1	3
2	10	3		1	14
3	2		3		5
4					
8 to 9					
10 to 14	3	1	2	1	7
15 to 19	1	3	1	1	6
20+	1	2	1	1	5
Grand Total	18	10	7	5	40

FEBRUARY
PERCENTAGE OF RESPONDENTS

Month: February | Zone: A | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	11%	11%	0%	0%	22%
2	33%	11%	0%	0%	44%
3	11%	0%	0%	0%	11%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	11%	0%	0%	0%	11%
15 to 19	0%	11%	0%	0%	11%
20+	0%	0%	0%	0%	0%
Grand Total	67%	33%	0%	0%	100%

Month: February | Zone: A | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	29%	5%	0%	0%	33%
3	5%	10%	0%	0%	14%
4	5%	5%	0%	0%	10%
8 to 9	0%	5%	5%	0%	10%
10 to 14	19%	0%	0%	0%	19%
15 to 19	5%	0%	0%	0%	5%
20+	10%	0%	0%	0%	10%
Grand Total	71%	24%	5%	0%	100%

Month: February | Zone: A | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	1%	1%	3%	1%	7%
3	0%	4%	1%	9%	15%
4	1%	13%	0%	7%	22%
8 to 9	0%	0%	0%	0%	0%
10 to 14	6%	1%	15%	4%	27%
15 to 19	0%	1%	3%	6%	10%
20+	0%	3%	1%	13%	18%
Grand Total	9%	25%	24%	42%	100%

Month: February | Zone: B | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	12%	0%	0%	12%
2	71%	18%	0%	0%	88%
3	0%	0%	0%	0%	0%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	71%	29%	0%	0%	100%

Month: February | Zone: B | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	4%	0%	0%	0%	4%
2	50%	31%	4%	0%	85%
3	8%	4%	0%	0%	12%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	62%	35%	4%	0%	100%

Month: February | Zone: B | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	21%	15%	13%	0%	49%
3	0%	17%	6%	6%	28%
4	2%	6%	0%	0%	8%
8 to 9	0%	2%	0%	0%	2%
10 to 14	2%	2%	0%	4%	8%
15 to 19	0%	0%	0%	0%	0%
20+	0%	2%	4%	0%	6%
Grand Total	25%	43%	23%	9%	100%

Month: February | Zone: C | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	4%	9%	0%	0%	13%
2	30%	35%	9%	9%	83%
3	0%	0%	0%	4%	4%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	35%	43%	9%	13%	100%

Month: February | Zone: C | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	27%	50%	10%	3%	90%
3	3%	7%	0%	0%	10%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	30%	57%	10%	3%	100%

Month: February | Zone: C | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	9%	16%	0%	3%	28%
3	0%	3%	6%	13%	22%
4	3%	3%	0%	3%	9%
8 to 9	0%	0%	0%	0%	0%
10 to 14	3%	0%	6%	13%	22%
15 to 19	0%	3%	0%	16%	19%
20+	0%	0%	0%	0%	0%
Grand Total	16%	25%	13%	47%	100%

Month: February | Zone: D | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	25%	19%	0%	0%	44%
2	25%	13%	6%	13%	56%
3	0%	0%	0%	0%	0%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	50%	31%	6%	13%	100%

Month: February | Zone: D | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	53%	32%	0%	0%	84%
3	5%	11%	0%	0%	16%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	58%	42%	0%	0%	100%

Month: February | Zone: D | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	8%	12%	4%	10%	35%
3	4%	16%	20%	14%	55%
4	2%	0%	0%	2%	4%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	2%	0%	0%	2%
15 to 19	0%	0%	0%	2%	2%
20+	0%	0%	0%	2%	2%
Grand Total	14%	31%	24%	31%	100%

Month: February | Zone: E | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	23%	0%	9%	0%	32%
2	27%	18%	5%	0%	50%
3	9%	0%	9%	0%	18%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	59%	18%	23%	0%	100%

Month: February | Zone: E | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	13%	7%	0%	0%	20%
2	53%	0%	0%	0%	53%
3	7%	7%	0%	0%	13%
4	7%	0%	0%	0%	7%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	7%	0%	0%	0%	7%
20+	0%	0%	0%	0%	0%
Grand Total	87%	13%	0%	0%	100%

Month: February | Zone: E | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	17%	11%	14%	0%	43%
3	0%	14%	26%	0%	40%
4	0%	3%	3%	0%	6%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	6%	6%	0%	11%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	17%	34%	49%	0%	100%

Month: February | Zone: F | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	4%	0%	0%	0%	4%
2	4%	0%	0%	0%	4%
3	13%	13%	4%	4%	35%
4	9%	13%	0%	0%	22%
8 to 9	0%	4%	0%	0%	4%
10 to 14	9%	9%	4%	0%	22%
15 to 19	4%	4%	0%	0%	9%
20+	0%	0%	0%	0%	0%
Grand Total	43%	43%	9%	4%	100%

Month: February | Zone: F | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3	13%	13%	13%	38%	75%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	13%	13%
20+	0%	13%	0%	0%	13%
Grand Total	13%	25%	13%	50%	100%

Month: February | Zone: F | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3	0%	0%	0%	0%	0%
4	7%	0%	0%	0%	7%
8 to 9	0%	0%	0%	0%	0%
10 to 14	21%	7%	7%	21%	57%
15 to 19	14%	0%	7%	0%	21%
20+	7%	0%	0%	7%	14%
Grand Total	50%	7%	14%	29%	100%

Month: February | Zone: G | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	13%	3%	3%	0%	19%
2	42%	6%	3%	3%	55%
3	3%	13%	3%	0%	19%
4	3%	0%	0%	0%	3%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	3%	0%	0%	3%
20+	0%	0%	0%	0%	0%
Grand Total	61%	26%	10%	3%	100%

Month: February | Zone: G | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	43%	17%	13%	0%	74%
3	9%	0%	0%	0%	9%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	4%	4%	0%	0%	9%
15 to 19	0%	0%	0%	4%	4%
20+	4%	0%	0%	0%	4%
Grand Total	61%	22%	13%	4%	100%

Month: February | Zone: G | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	3%	3%	0%	3%	8%
2	25%	8%	0%	3%	35%
3	5%	0%	8%	0%	13%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	8%	3%	5%	3%	18%
15 to 19	3%	8%	3%	3%	15%
20+	3%	5%	3%	3%	13%
Grand Total	45%	25%	18%	13%	100%

MARCH

NUMBER OF RESPONDENTS

Month March
Zone A
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	5	1	1		7
2	9	3	1		13
3	1				1
4					
8 to 9					
10 to 14	1			1	2
15 to 19		1			1
20+		1			1
Grand Total	16	6	2	1	25

Month March
Zone A
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	7	2		1	10
3	1	4			5
4	1	1			2
8 to 9		1	1		2
10 to 14	5				5
15 to 19	1				1
20+	1				1
Grand Total	16	8	1	1	26

Month March
Zone A
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	1	4	2	1	8
3		3	1	6	10
4	2	10		4	16
8 to 9		1			1
10 to 14	3		10	4	17
15 to 19		2	2	4	8
20+		3	1	8	12
Grand Total	6	23	16	27	72

Month March
Zone B
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1	2	1		4
2	19	4	2		25
3					
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	20	6	3		29

Month March
Zone B
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	2				2
2	19	7	2		28
3	2	1			3
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	23	8	2		33

Month March
Zone B
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	16	6	8		30
3		10	1	3	14
4	1	1			2
8 to 9					
10 to 14		1		2	3
15 to 19					
20+		1	2		3
Grand Total	17	19	11	5	52

Month March
Zone C
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	2	2			4
2	12	8	3	3	26
3				1	1
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	14	10	3	4	31

Month March
Zone C
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	13	16	3	1	33
3		1			1
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	13	17	3	1	34

Month March
Zone C
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	3	6		2	11
3		3	1	4	8
4	1				1
8 to 9					
10 to 14		1	1	3	5
15 to 19		2		4	6
20+		2			2
Grand Total	4	14	2	13	33

Month March
Zone D
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	10	3		1	14
2	4	4	2	1	11
3					
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	14	7	2	2	25

Month March
Zone D
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	12	8	1	1	22
3	1	2			3
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	13	10	1	1	25

Month March
Zone D
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	5	7	3	6	21
3	3	7	7	7	24
4	1				1
8 to 9					
10 to 14		1			1
15 to 19				1	1
20+				1	1
Grand Total	9	15	10	15	49

Month March
Zone E
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	4		3		7
2	6	4	1		11
3	2		2		4
4					
8 to 9					
10 to 14		1			1
15 to 19					
20+					
Grand Total	12	5	6		23

Month March
Zone E
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	3				3
2	7				7
3	1	1			2
4	2				2
8 to 9					
10 to 14					
15 to 19	1				1
20+					
Grand Total	14	1			15

Month March
Zone E
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	5	4	4		13
3		8	6		14
4		1	1		2
8 to 9					
10 to 14		1	1		2
15 to 19					
20+					
Grand Total	5	14	12		31

Month March
Zone F
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	2				2
2	2				2
3	5	3	1	1	10
4	2	2			4
8 to 9		1			1
10 to 14	1	3	1		5
15 to 19	1				1
20+	1				1
Grand Total	14	9	2	1	26

Month March
Zone F
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2					
3	1	1	1	3	6
4					
8 to 9					
10 to 14					
15 to 19				1	1
20+		1			1
Grand Total	1	2	1	4	8

Month March
Zone F
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2					
3					
4	1				1
8 to 9					
10 to 14	2	2	1	2	7
15 to 19	1		1		2
20+	1			1	2
Grand Total	5	2	2	3	12

Month March
Zone G
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	3	1	1		5
2	14	3	1	2	20
3		3	1		4
4	2				2
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	19	7	3	2	31

Month March
Zone G
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	8	5	3		16
3	2				2
4					
8 to 9					
10 to 14	1				1
15 to 19					
20+	1				1
Grand Total	12	5	3		20

Month March
Zone G
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1	1		1	3
2	8	3	1		12
3	2	1	2		5
4					
8 to 9					
10 to 14	4	2		2	8
15 to 19		2		1	3
20+	1	2	1	1	5
Grand Total	16	11	4	5	36

MARCH

PERCENTAGE OF RESPONDENTS

Month March | Zone A | Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	20%	4%	4%	0%	28%
2	36%	12%	4%	0%	52%
3	4%	0%	0%	0%	4%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	4%	0%	0%	4%	8%
15 to 19	0%	4%	0%	0%	4%
20+	0%	4%	0%	0%	4%
Grand Total	64%	24%	8%	4%	100%

Month March | Zone A | Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	27%	8%	0%	4%	38%
3	4%	15%	0%	0%	19%
4	4%	4%	0%	0%	8%
8 to 9	0%	4%	4%	0%	8%
10 to 14	19%	0%	0%	0%	19%
15 to 19	4%	0%	0%	0%	4%
20+	4%	0%	0%	0%	4%
Grand Total	62%	31%	4%	4%	100%

Month March | Zone A | Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	1%	6%	3%	1%	11%
3	0%	4%	1%	8%	14%
4	3%	14%	0%	6%	22%
8 to 9	0%	1%	0%	0%	1%
10 to 14	4%	0%	14%	6%	24%
15 to 19	0%	3%	3%	6%	11%
20+	0%	4%	1%	11%	17%
Grand Total	8%	32%	22%	38%	100%

Month March | Zone B | Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	3%	7%	3%	0%	14%
2	66%	14%	7%	0%	86%
3	0%	0%	0%	0%	0%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	69%	21%	10%	0%	100%

Month March | Zone B | Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	6%	0%	0%	0%	6%
2	58%	21%	6%	0%	85%
3	6%	3%	0%	0%	9%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	70%	24%	6%	0%	100%

Month March | Zone B | Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	31%	12%	15%	0%	58%
3	0%	19%	2%	6%	27%
4	2%	2%	0%	0%	4%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	2%	0%	4%	6%
15 to 19	0%	0%	0%	0%	0%
20+	0%	2%	4%	0%	6%
Grand Total	33%	37%	21%	10%	100%

Month March | Zone C | Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	6%	6%	0%	0%	13%
2	39%	26%	10%	10%	84%
3	0%	0%	0%	3%	3%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	45%	32%	10%	13%	100%

Month March | Zone C | Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	38%	47%	9%	3%	97%
3	0%	3%	0%	0%	3%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	38%	50%	9%	3%	100%

Month March | Zone C | Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	9%	18%	0%	6%	33%
3	0%	9%	3%	12%	24%
4	3%	0%	0%	0%	3%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	3%	3%	9%	15%
15 to 19	0%	6%	0%	12%	18%
20+	0%	6%	0%	0%	6%
Grand Total	12%	42%	6%	39%	100%

Month March | Zone D | Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	40%	12%	0%	4%	56%
2	16%	16%	8%	4%	44%
3	0%	0%	0%	0%	0%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	56%	28%	8%	8%	100%

Month March | Zone D | Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	48%	32%	4%	4%	88%
3	4%	8%	0%	0%	12%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	52%	40%	4%	4%	100%

Month March | Zone D | Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	10%	14%	6%	12%	43%
3	6%	14%	14%	14%	49%
4	2%	0%	0%	0%	2%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	2%	0%	0%	2%
15 to 19	0%	0%	0%	2%	2%
20+	0%	0%	0%	2%	2%
Grand Total	18%	31%	20%	31%	100%

Month March | Zone E | Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	17%	0%	13%	0%	30%
2	26%	17%	4%	0%	48%
3	9%	0%	9%	0%	17%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	4%	0%	0%	4%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	52%	22%	26%	0%	100%

Month March | Zone E | Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	20%	0%	0%	0%	20%
2	47%	0%	0%	0%	47%
3	7%	7%	0%	0%	13%
4	13%	0%	0%	0%	13%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	7%	0%	0%	0%	7%
20+	0%	0%	0%	0%	0%
Grand Total	93%	7%	0%	0%	100%

Month March | Zone E | Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	16%	13%	13%	0%	42%
3	0%	26%	19%	0%	45%
4	0%	3%	3%	0%	6%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	3%	3%	0%	6%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	16%	45%	39%	0%	100%

Month March | Zone F | Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	8%	0%	0%	0%	8%
2	8%	0%	0%	0%	8%
3	19%	12%	4%	4%	38%
4	8%	8%	0%	0%	15%
8 to 9	0%	4%	0%	0%	4%
10 to 14	4%	12%	4%	0%	19%
15 to 19	4%	0%	0%	0%	4%
20+	4%	0%	0%	0%	4%
Grand Total	54%	35%	8%	4%	100%

Month March | Zone F | Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3	13%	13%	13%	38%	75%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	13%	13%
20+	0%	13%	0%	0%	13%
Grand Total	13%	25%	13%	50%	100%

Month March | Zone F | Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3	0%	0%	0%	0%	0%
4	8%	0%	0%	0%	8%
8 to 9	0%	0%	0%	0%	0%
10 to 14	17%	17%	8%	17%	58%
15 to 19	8%	0%	8%	0%	17%
20+	8%	0%	0%	8%	17%
Grand Total	42%	17%	17%	25%	100%

Month March | Zone G | Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	10%	3%	3%	0%	16%
2	45%	10%	3%	6%	65%
3	0%	10%	3%	0%	13%
4	6%	0%	0%	0%	6%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	61%	23%	10%	6%	100%

Month March | Zone G | Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	40%	25%	15%	0%	80%
3	10%	0%	0%	0%	10%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	5%	0%	0%	0%	5%
15 to 19	0%	0%	0%	0%	0%
20+	5%	0%	0%	0%	5%
Grand Total	60%	25%	15%	0%	100%

Month March | Zone G | Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	3%	3%	0%	3%	8%
2	22%	8%	3%	0%	33%
3	6%	3%	6%	0%	14%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	11%	6%	0%	6%	22%
15 to 19	0%	6%	0%	3%	8%
20+	3%	6%	3%	3%	14%
Grand Total	44%	31%	11%	14%	100%

APRIL

NUMBER OF RESPONDENTS

Month April
Zone A
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	10	7	2	2	21
2	27	30	5	3	65
3	1	1			2
4					
8 to 9	1				1
10 to 14	2			1	3
15 to 19		1			1
20+		1			1
Grand Total	41	40	7	6	94

Month April
Zone A
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	4	1			5
2	18	15	2	1	36
3	4	5			9
4	3	2	1		6
8 to 9		1	1		2
10 to 14	4	1		1	6
15 to 19	2	1			3
20+	1	3			4
Grand Total	36	29	4	2	71

Month April
Zone A
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1	1			2
2	8	9	2	1	20
3	3	6	2	4	15
4	3	12		3	18
8 to 9				1	1
10 to 14	5	4	7	6	22
15 to 19	1	2	2	7	12
20+		3	2	7	12
Grand Total	21	37	15	29	102

Month April
Zone B
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	10	4	2	1	17
2	34	24	10	4	72
3					
4					
8 to 9					
10 to 14					
15 to 19					
20+	1				1
Grand Total	45	28	12	5	90

Month April
Zone B
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	3				3
2	26	15	4		45
3	1	2			3
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	30	17	4		51

Month April
Zone B
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	20	12	2		34
3	1	4	2	2	9
4			1		1
8 to 9					
10 to 14		1		1	2
15 to 19					
20+		1	2		3
Grand Total	21	18	7	3	49

Month April
Zone C
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	7	6	1		14
2	29	30	10	16	85
3	2	1		1	4
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	38	37	11	17	103

Month April
Zone C
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	16	18	8	11	53
3		1			1
4			1		1
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	16	19	9	11	55

Month April
Zone C
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	7	5	3	1	16
3	1	3	2	2	8
4	1				1
8 to 9					
10 to 14		2	1	2	5
15 to 19		1		3	4
20+		1			1
Grand Total	9	12	6	8	35

Month April
Zone D
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	22	10	3	4	39
2	11	14	3	6	34
3				1	1
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	33	24	6	11	74

Month April
Zone D
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1		1	1	2	4
2	23	18	12	6	59
3	1	2			3
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	24	21	13	8	66

Month April
Zone D
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	11	9	6	4	30
3	2	6	8	3	19
4	1	1			2
8 to 9					
10 to 14		2			2
15 to 19				1	1
20+				1	1
Grand Total	14	18	14	9	55

Month April
Zone E
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	13	3	3		19
2	12	7	3		22
3	3	1	1		5
4					
8 to 9					
10 to 14	2	1			3
15 to 19					
20+					
Grand Total	30	12	7		49

Month April
Zone E
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	3	2			5
2	6	2			8
3	2	2			4
4	1				1
8 to 9					
10 to 14	1				1
15 to 19					
20+					
Grand Total	13	6			19

Month April
Zone E
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	2	7	2		11
3	2	3	3		8
4		1	1		2
8 to 9					
10 to 14		1	1		2
15 to 19					
20+					
Grand Total	4	12	7		23

Month April
Zone F
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	2				2
2	3				3
3	5	4	1	1	11
4	1	2			3
8 to 9	1	1			2
10 to 14	3	2	2		7
15 to 19		2			2
20+	1			1	2
Grand Total	16	11	3	2	32

Month April
Zone F
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	3				3
2	1	1			2
3	1	1	1	3	6
4	1				1
8 to 9					
10 to 14		1			1
15 to 19				1	1
20+		1			1
Grand Total	6	4	1	4	15

Month April
Zone F
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2					
3					
4					
8 to 9					
10 to 14	1	2	1	1	5
15 to 19	1				1
20+	1			1	2
Grand Total	3	2	1	2	8

Month April
Zone G
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	17	4	2		23
2	14	14	4	2	34
3	3	3			6
4		1			1
8 to 9	1				1
10 to 14					
15 to 19					
20+					
Grand Total	35	22	6	2	65

Month April
Zone G
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	2				2
2	11	5	2		18
3	2	1		1	4
4		1			1
8 to 9					
10 to 14	1			2	3
15 to 19					
20+	1				1
Grand Total	17	7	2	3	29

Month April
Zone G
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1	1		1	3
2	10	1	1		12
3	2	3			5
4					
8 to 9					
10 to 14	2	2			4
15 to 19		1			1
20+		2	1		3
Grand Total	15	10	2	1	28

APRIL
PERCENTAGE OF RESPONDENTS

Month April
Zone A
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	11%	7%	2%	2%	22%
2	29%	32%	5%	3%	69%
3	1%	1%	0%	0%	2%
4	0%	0%	0%	0%	0%
8 to 9	1%	0%	0%	0%	1%
10 to 14	2%	0%	0%	1%	3%
15 to 19	0%	1%	0%	0%	1%
20+	0%	1%	0%	0%	1%
Grand Total	44%	43%	7%	6%	100%

Month April
Zone A
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	6%	1%	0%	0%	7%
2	25%	21%	3%	1%	51%
3	6%	7%	0%	0%	13%
4	4%	3%	1%	0%	8%
8 to 9	0%	1%	1%	0%	3%
10 to 14	6%	1%	0%	1%	8%
15 to 19	3%	1%	0%	0%	4%
20+	1%	4%	0%	0%	6%
Grand Total	51%	41%	6%	3%	100%

Month April
Zone A
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1%	1%	0%	0%	2%
2	8%	9%	2%	1%	20%
3	3%	6%	2%	4%	15%
4	3%	12%	0%	3%	18%
8 to 9	0%	0%	0%	1%	1%
10 to 14	5%	4%	7%	6%	22%
15 to 19	1%	2%	2%	7%	12%
20+	0%	3%	2%	7%	12%
Grand Total	21%	36%	15%	28%	100%

Month April
Zone B
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	11%	4%	2%	1%	19%
2	38%	27%	11%	4%	80%
3	0%	0%	0%	0%	0%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	1%	0%	0%	0%	1%
Grand Total	50%	31%	13%	6%	100%

Month April
Zone B
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	6%	0%	0%	0%	6%
2	51%	29%	8%	0%	88%
3	2%	4%	0%	0%	6%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	59%	33%	8%	0%	100%

Month April
Zone B
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	41%	24%	4%	0%	69%
3	2%	8%	4%	4%	18%
4	0%	0%	2%	0%	2%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	2%	0%	2%	4%
15 to 19	0%	0%	0%	0%	0%
20+	0%	2%	4%	0%	6%
Grand Total	43%	37%	14%	6%	100%

Month April
Zone C
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	7%	6%	1%	0%	14%
2	28%	29%	10%	16%	83%
3	2%	1%	0%	1%	4%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	37%	36%	11%	17%	100%

Month April
Zone C
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	29%	33%	15%	20%	96%
3	0%	2%	0%	0%	2%
4	0%	0%	2%	0%	2%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	29%	35%	16%	20%	100%

Month April
Zone C
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	20%	14%	9%	3%	46%
3	3%	9%	6%	6%	23%
4	3%	0%	0%	0%	3%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	6%	3%	6%	14%
15 to 19	0%	3%	0%	9%	11%
20+	0%	3%	0%	0%	3%
Grand Total	26%	34%	17%	23%	100%

Month April
Zone D
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	30%	14%	4%	5%	53%
2	15%	19%	4%	8%	46%
3	0%	0%	0%	1%	1%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	45%	32%	8%	15%	100%

Month April
Zone D
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	2%	2%	3%	6%
2	35%	27%	18%	9%	89%
3	2%	3%	0%	0%	5%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	36%	32%	20%	12%	100%

Month April
Zone D
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	20%	16%	11%	7%	55%
3	4%	11%	15%	5%	35%
4	2%	2%	0%	0%	4%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	4%	0%	0%	4%
15 to 19	0%	0%	0%	2%	2%
20+	0%	0%	0%	2%	2%
Grand Total	25%	33%	25%	16%	100%

Month April
Zone E
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	27%	6%	6%	0%	39%
2	24%	14%	6%	0%	45%
3	6%	2%	2%	0%	10%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	4%	2%	0%	0%	6%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	61%	24%	14%	0%	100%

Month April
Zone E
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	16%	11%	0%	0%	26%
2	32%	11%	0%	0%	42%
3	11%	11%	0%	0%	21%
4	5%	0%	0%	0%	5%
8 to 9	0%	0%	0%	0%	0%
10 to 14	5%	0%	0%	0%	5%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	68%	32%	0%	0%	100%

Month April
Zone E
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	9%	30%	9%	0%	48%
3	9%	13%	13%	0%	35%
4	0%	4%	4%	0%	9%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	4%	4%	0%	9%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	17%	52%	30%	0%	100%

Month April
Zone F
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	6%	0%	0%	0%	6%
2	9%	0%	0%	0%	9%
3	16%	13%	3%	3%	34%
4	3%	6%	0%	0%	9%
8 to 9	3%	3%	0%	0%	6%
10 to 14	9%	6%	6%	0%	22%
15 to 19	0%	6%	0%	0%	6%
20+	3%	0%	0%	3%	6%
Grand Total	50%	34%	9%	6%	100%

Month April
Zone F
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	20%	0%	0%	0%	20%
2	7%	7%	0%	0%	13%
3	7%	7%	7%	20%	40%
4	7%	0%	0%	0%	7%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	7%	0%	0%	7%
15 to 19	0%	0%	0%	7%	7%
20+	0%	7%	0%	0%	7%
Grand Total	40%	27%	7%	27%	100%

Month April
Zone F
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3	0%	0%	0%	0%	0%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	13%	25%	13%	13%	63%
15 to 19	13%	0%	0%	0%	13%
20+	13%	0%	0%	13%	25%
Grand Total	38%	25%	13%	25%	100%

Month April
Zone G
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	26%	6%	3%	0%	35%
2	22%	22%	6%	3%	52%
3	5%	5%	0%	0%	9%
4	0%	2%	0%	0%	2%
8 to 9	2%	0%	0%	0%	2%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	54%	34%	9%	3%	100%

Month April
Zone G
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	7%	0%	0%	0%	7%
2	38%	17%	7%	0%	62%
3	7%	3%	0%	3%	14%
4	0%	3%	0%	0%	3%
8 to 9	0%	0%	0%	0%	0%
10 to 14	3%	0%	0%	7%	10%
15 to 19	0%	0%	0%	0%	0%
20+	3%	0%	0%	0%	3%
Grand Total	59%	24%	7%	10%	100%

Month April
Zone G
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	4%	4%	0%	4%	11%
2	36%	4%	4%	0%	43%
3	7%	11%	0%	0%	18%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	7%	7%	0%	0%	14%
15 to 19	0%	4%	0%	0%	4%
20+	0%	7%	4%	0%	11%
Grand Total	54%	36%	7%	4%	100%

MAY

NUMBER OF RESPONDENTS

Month May
Zone A
Area Exempt ate

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	29	20	10	4	63
2	27	41	10	5	83
3	2	4	1	1	8
4	1		2		3
8 to 9	1				1
10 to 14	2	2	1	1	6
15 to 19		2			2
20+	1	3			4
Grand To	63	72	24	11	170

Month May
Zone A
Area Non-exe t State

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	2	2			4
2	27	18	1	2	48
3	5	6		1	12
4	3	3	1		7
8 to 9					
10 to 14	5	2		1	8
15 to 19	2	1			3
20+		3	1		4
Grand To	44	35	3	4	86

Month May
Zone A
Area Federal

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	1	1			2
2	12	8	4		24
3	3	9	1	3	16
4	4	10	1	2	17
8 to 9				1	1
10 to 14	5	5	5	7	22
15 to 19	1	1	2	6	10
20+		6	6	8	20
Grand To	26	40	19	27	112

Month May
Zone B
Area Exempt ate

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	18	10	2	3	33
2	37	41	23	5	106
3	1				1
4					
8 to 9					
10 to 14					
15 to 19					
20+	1				1
Grand To	57	51	25	8	141

Month May
Zone B
Area Non-exe t State

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	3				3
2	22	20	2		44
3	1	1			2
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand To	26	21	2		49

Month May
Zone B
Area Federal

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1					
2	20	8	2		30
3	1	3	1	2	7
4					
8 to 9				1	1
10 to 14		1			1
15 to 19					
20+		1			1
Grand To	21	13	3	3	40

Month May
Zone C
Area Exempt ate

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	23	11	6	2	42
2	26	44	26	29	125
3		2	1	1	4
4					
8 to 9					
10 to 14					
15 to 19					
20+			1		1
Grand To	49	57	34	32	172

Month May
Zone C
Area Non-exe t State

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	1	1		2	4
2	15	13	14	22	64
3					
4					
8 to 9				1	1
10 to 14					
15 to 19					
20+					
Grand To	16	14	14	25	69

Month May
Zone C
Area Federal

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1					
2	6	4	1	2	13
3	3	2		1	6
4					
8 to 9					
10 to 14	1	2			3
15 to 19		1		1	2
20+		1			1
Grand To	10	10	1	4	25

Month May
Zone D
Area Exempt ate

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	47	16	10	9	82
2	15	23	7	15	60
3		1			1
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand To	62	40	17	24	143

Month May
Zone D
Area Non-exe t State

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	1	5	2	5	13
2	23	19	14	16	72
3	1	2			3
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand To	25	26	16	21	88

Month May
Zone D
Area Federal

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1					
2	12	11	4	3	30
3	1	6	7	3	17
4	1	1			2
8 to 9					
10 to 14		1			1
15 to 19				1	1
20+				1	1
Grand To	14	19	11	8	52

Month May
Zone E
Area Exempt ate

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	19	6	6		31
2	13	17	8		38
3	3	4	1		8
4					
8 to 9					
10 to 14	1	2	1		4
15 to 19					
20+					
Grand To	36	29	16		81

Month May
Zone E
Area Non-exe t State

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	4	5	1		10
2	7	3			10
3		3			3
4	2				2
8 to 9					
10 to 14	1				1
15 to 19					
20+					
Grand To	14	11	1		26

Month May
Zone E
Area Federal

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1					
2	5	3	1		9
3	3	2	1		6
4		1	1		2
8 to 9					
10 to 14					
15 to 19					
20+					
Grand To	8	6	3		17

Month May
Zone F
Area Exempt ate

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	10	1	1		12
2	5		2	1	8
3	10	7	1	3	21
4	2	2	1	1	6
8 to 9		1			1
10 to 14	3	1	2	2	8
15 to 19	1	1	1		3
20+	2			1	3
Grand To	33	13	8	8	62

Month May
Zone F
Area Non-exe t State

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	5				5
2	1	2	1		4
3	3	4		3	10
4	2				2
8 to 9					
10 to 14		2		1	3
15 to 19				1	1
20+					
Grand To	11	8	1	5	25

Month May
Zone F
Area Federal

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1					
2					
3	1				1
4					
8 to 9					
10 to 14	2	3	1		6
15 to 19					
20+	1		1		2
Grand To	4	3	2		9

Month May
Zone G
Area Exempt ate

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	19	12	5		36
2	15	18	11	5	49
3	5	4	3	1	13
4	1				1
8 to 9					
10 to 14	1				1
15 to 19					
20+					
Grand To	41	34	19	6	100

Month May
Zone G
Area Non-exe t State

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	4				4
2	10	6	2		18
3	3	1	1	2	7
4		2			2
8 to 9	1				1
10 to 14	1		1	4	6
15 to 19					
20+	2				2
Grand To	21	9	4	6	40

Month May
Zone G
Area Federal

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	1	1	1		3
2	8	2			10
3	1	2			3
4					
8 to 9					
10 to 14	1	1			2
15 to 19					
20+		2		1	3
Grand To	11	8	1	1	21

MAY

PERCENTAGE OF RESPONDENTS

Month May
Zone A
Area Exempt ate

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	17%	12%	6%	2%	37%
2	16%	24%	6%	3%	49%
3	1%	2%	1%	1%	5%
4	1%	0%	1%	0%	2%
8 to 9	1%	0%	0%	0%	1%
10 to 14	1%	1%	1%	1%	4%
15 to 19	0%	1%	0%	0%	1%
20+	1%	2%	0%	0%	2%
Grand To	37%	42%	14%	6%	100%

Month May
Zone A
Area Non-exe t State

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	2%	2%	0%	0%	5%
2	31%	21%	1%	2%	56%
3	6%	7%	0%	1%	14%
4	3%	3%	1%	0%	8%
8 to 9	0%	0%	0%	0%	0%
10 to 14	6%	2%	0%	1%	9%
15 to 19	2%	1%	0%	0%	3%
20+	0%	3%	1%	0%	5%
Grand To	51%	41%	3%	5%	100%

Month May
Zone A
Area Federal

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	1%	1%	0%	0%	2%
2	11%	7%	4%	0%	21%
3	3%	8%	1%	3%	14%
4	4%	9%	1%	2%	15%
8 to 9	0%	0%	0%	1%	1%
10 to 14	4%	4%	4%	6%	20%
15 to 19	1%	1%	2%	5%	9%
20+	0%	5%	5%	7%	18%
Grand To	23%	36%	17%	24%	100%

Month May
Zone B
Area Exempt ate

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	13%	7%	1%	2%	23%
2	26%	29%	16%	4%	75%
3	1%	0%	0%	0%	1%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	1%	0%	0%	0%	1%
Grand To	40%	36%	18%	6%	100%

Month May
Zone B
Area Non-exe t State

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	6%	0%	0%	0%	6%
2	45%	41%	4%	0%	90%
3	2%	2%	0%	0%	4%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand To	53%	43%	4%	0%	100%

Month May
Zone B
Area Federal

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	0%	0%	0%	0%	0%
2	50%	20%	5%	0%	75%
3	3%	8%	3%	5%	18%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	3%	3%
10 to 14	0%	3%	0%	0%	3%
15 to 19	0%	0%	0%	0%	0%
20+	0%	3%	0%	0%	3%
Grand To	53%	33%	8%	8%	100%

Month May
Zone C
Area Exempt ate

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	13%	6%	3%	1%	24%
2	15%	26%	15%	17%	73%
3	0%	1%	1%	1%	2%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	1%	0%	1%
Grand To	28%	33%	20%	19%	100%

Month May
Zone C
Area Non-exe t State

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	1%	1%	0%	3%	6%
2	22%	19%	20%	32%	93%
3	0%	0%	0%	0%	0%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	1%	1%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand To	23%	20%	20%	36%	100%

Month May
Zone C
Area Federal

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	0%	0%	0%	0%	0%
2	24%	16%	4%	8%	52%
3	12%	8%	0%	4%	24%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	4%	8%	0%	0%	12%
15 to 19	0%	4%	0%	4%	8%
20+	0%	4%	0%	0%	4%
Grand To	40%	40%	4%	16%	100%

Month May
Zone D
Area Exempt ate

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	33%	11%	7%	6%	57%
2	10%	16%	5%	10%	42%
3	0%	1%	0%	0%	1%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand To	43%	28%	12%	17%	100%

Month May
Zone D
Area Non-exe t State

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	1%	6%	2%	6%	15%
2	26%	22%	16%	18%	82%
3	1%	2%	0%	0%	3%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand To	28%	30%	18%	24%	100%

Month May
Zone D
Area Federal

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	0%	0%	0%	0%	0%
2	23%	21%	8%	6%	58%
3	2%	12%	13%	6%	33%
4	2%	2%	0%	0%	4%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	2%	0%	0%	2%
15 to 19	0%	0%	0%	2%	2%
20+	0%	0%	0%	2%	2%
Grand To	27%	37%	21%	15%	100%

Month May
Zone E
Area Exempt ate

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	23%	7%	7%	0%	38%
2	16%	21%	10%	0%	47%
3	4%	5%	1%	0%	10%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	1%	2%	1%	0%	5%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand To	44%	36%	20%	0%	100%

Month May
Zone E
Area Non-exe t State

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	15%	19%	4%	0%	38%
2	27%	12%	0%	0%	38%
3	0%	12%	0%	0%	12%
4	8%	0%	0%	0%	8%
8 to 9	0%	0%	0%	0%	0%
10 to 14	4%	0%	0%	0%	4%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand To	54%	42%	4%	0%	100%

Month May
Zone E
Area Federal

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	0%	0%	0%	0%	0%
2	29%	18%	6%	0%	53%
3	18%	12%	6%	0%	35%
4	0%	6%	6%	0%	12%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand To	47%	35%	18%	0%	100%

Month May
Zone F
Area Exempt ate

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	16%	2%	2%	0%	19%
2	8%	0%	3%	2%	13%
3	16%	11%	2%	5%	34%
4	3%	3%	2%	2%	10%
8 to 9	0%	2%	0%	0%	2%
10 to 14	5%	2%	3%	3%	13%
15 to 19	2%	2%	2%	0%	5%
20+	3%	0%	0%	2%	5%
Grand To	53%	21%	13%	13%	100%

Month May
Zone F
Area Non-exe t State

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	20%	0%	0%	0%	20%
2	4%	8%	4%	0%	16%
3	12%	16%	0%	12%	40%
4	8%	0%	0%	0%	8%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	8%	0%	4%	12%
15 to 19	0%	0%	0%	4%	4%
20+	0%	0%	0%	0%	0%
Grand To	44%	32%	4%	20%	100%

Month May
Zone F
Area Federal

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3	11%	0%	0%	0%	11%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	22%	33%	11%	0%	67%
15 to 19	0%	0%	0%	0%	0%
20+	11%	0%	11%	0%	22%
Grand To	44%	33%	22%	0%	100%

Month May
Zone G
Area Exempt ate

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	19%	12%	5%	0%	36%
2	15%	18%	11%	5%	49%
3	5%	4%	3%	1%	13%
4	1%	0%	0%	0%	1%
8 to 9	0%	0%	0%	0%	0%
10 to 14	1%	0%	0%	0%	1%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand To	41%	34%	19%	6%	100%

Month May
Zone G
Area Non-exe t State

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	10%	0%	0%	0%	10%
2	25%	15%	5%	0%	45%
3	8%	3%	3%	5%	18%
4	0%	5%	0%	0%	5%
8 to 9	3%	0%	0%	0%	3%
10 to 14	3%	0%	3%	10%	15%
15 to 19	0%	0%	0%	0%	0%
20+	5%	0%	0%	0%	5%
Grand To	53%	23%	10%	15%	100%

Month May
Zone G
Area Federal

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	5%	5%	5%	0%	14%
2	38%	10%	0%	0%	48%
3	5%	10%	0%	0%	14%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	5%	5%	0%	0%	10%
15 to 19	0%	0%	0%	0%	0%
20+	0%	10%	0%	5%	14%
Grand To	52%	38%	5%	5%	100%

JUNE

NUMBER OF RESPONDENTS

Month June
Zone A
Area Exempt ate

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	68	31	17	25	141
2	34	42	27	19	122
3	1	4		3	8
4	2	2	4		8
8 to 9	1			1	2
10 to 14	1	2	1	1	5
15 to 19		3			3
20+	2	2			4
Grand To	109	86	49	49	293

Month June
Zone A
Area Non-exe t State

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	4	4			8
2	29	21	2	2	54
3	7	7			14
4	3	6			9
8 to 9					
10 to 14	5	2	1	1	9
15 to 19	2	1			3
20+	2	3	1		6
Grand To	52	44	4	3	103

Month June
Zone A
Area Federal

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	1	1			2
2	14	9	2		25
3	3	6	1	2	12
4	4	8		1	13
8 to 9				1	1
10 to 14	4	6	4	7	21
15 to 19	1	1	3	4	9
20+		6	5	5	16
Grand To	27	37	15	20	99

Month June
Zone B
Area Exempt ate

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	51	16	11	5	83
2	23	58	31	13	125
3					
4				2	2
8 to 9					
10 to 14					
15 to 19					
20+	1	1			2
Grand To	75	75	42	20	212

Month June
Zone B
Area Non-exe t State

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	4				4
2	23	16			39
3					
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand To	27	16			43

Month June
Zone B
Area Federal

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1					
2	10	5	2		17
3	1	1		1	3
4			1		1
8 to 9					
10 to 14			1		1
15 to 19					
20+		1			1
Grand To	11	7	4	1	23

Month June
Zone C
Area Exempt ate

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	56	22	9	9	96
2	20	54	35	56	165
3		2	1	2	5
4					
8 to 9					
10 to 14					
15 to 19					
20+	1		2		3
Grand To	77	78	47	67	269

Month June
Zone C
Area Non-exe t State

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	7	1		2	10
2	9	9	9	29	56
3			1		1
4					
8 to 9				1	1
10 to 14					
15 to 19					
20+					
Grand To	16	10	10	32	68

Month June
Zone C
Area Federal

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1					
2	1	4	1	1	7
3		2			2
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand To	1	6	1	1	9

Month June
Zone D
Area Exempt ate

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	67	44	30	26	167
2	13	28	16	19	76
3	1	1		2	4
4					
8 to 9			1		1
10 to 14					
15 to 19					
20+					
Grand To	81	73	47	47	248

Month June
Zone D
Area Non-exe t State

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	6	4	3	8	21
2	19	20	9	17	65
3	1	2			3
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand To	26	26	12	25	89

Month June
Zone D
Area Federal

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1					
2	9	5	1	1	16
3		5	4		9
4	1				1
8 to 9					
10 to 14		1			1
15 to 19				1	1
20+				1	1
Grand To	10	11	5	3	29

Month June
Zone E
Area Exempt ate

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	33	16	27		76
2	11	20	17		48
3	1	3	5		9
4		1			1
8 to 9					
10 to 14	1		3		4
15 to 19					
20+					
Grand To	46	40	52		138

Month June
Zone E
Area Non-exe t State

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	2	3	3		8
2	6	1			7
3	2	2			4
4	2				2
8 to 9					
10 to 14	1	1			2
15 to 19					
20+					
Grand To	13	7	3		23

Month June
Zone E
Area Federal

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1					
2	2	1			3
3	1	1	1		3
4		1	1		2
8 to 9					
10 to 14					
15 to 19					
20+					
Grand To	3	3	2		8

Month June
Zone F
Area Exempt ate

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	40	2		2	44
2	11	5	4	5	25
3	9	8	4	13	34
4	1	3		21	25
8 to 9		2	1	2	5
10 to 14	3	9	2	9	23
15 to 19	1	2	1	1	5
20+		1		2	3
Grand To	65	32	12	55	164

Month June
Zone F
Area Non-exe t State

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	8	2			10
2		2	1		3
3	3	3	2	3	11
4	2			2	4
8 to 9					
10 to 14		3		2	5
15 to 19				1	1
20+		1	1		2
Grand To	13	11	4	8	36

Month June
Zone F
Area Federal

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1					
2					
3					
4					
8 to 9					
10 to 14	3		1		4
15 to 19					
20+	1				1
Grand To	4		1		5

Month June
Zone G
Area Exempt ate

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	23	15	7	7	52
2	10	17	15	8	50
3	4	3	4	1	12
4				1	1
8 to 9		1			1
10 to 14	1	2		1	4
15 to 19					
20+					
Grand To	38	38	26	18	120

Month June
Zone G
Area Non-exe t State

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	9				9
2	8	7		1	16
3	2	2	2	1	7
4		1			1
8 to 9	1				1
10 to 14	1	1		4	6
15 to 19					
20+	2				2
Grand To	23	11	2	6	42

Month June
Zone G
Area Federal

Traps per Trawl	1 to 200	201 to 40	401 to 60	601+	Grand Total
1	1	1			2
2	8		1		9
3	1				1
4	1	1			2
8 to 9					
10 to 14					
15 to 19					
20+		2			2
Grand To	11	4	1		16

JUNE
PERCENTAGE OF RESPONDENTS

Month June | Zone A | Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	23%	11%	6%	9%	48%
2	12%	14%	9%	6%	42%
3	0%	1%	0%	1%	3%
4	1%	1%	1%	0%	3%
8 to 9	0%	0%	0%	0%	1%
10 to 14	0%	1%	0%	0%	2%
15 to 19	0%	1%	0%	0%	1%
20+	1%	1%	0%	0%	1%
Grand Total	37%	29%	17%	17%	100%

Month June | Zone A | Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	4%	4%	0%	0%	8%
2	28%	20%	2%	2%	52%
3	7%	7%	0%	0%	14%
4	3%	6%	0%	0%	9%
8 to 9	0%	0%	0%	0%	0%
10 to 14	5%	2%	1%	1%	9%
15 to 19	2%	1%	0%	0%	3%
20+	2%	3%	1%	0%	6%
Grand Total	50%	43%	4%	3%	100%

Month June | Zone A | Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1%	1%	0%	0%	2%
2	14%	9%	2%	0%	25%
3	3%	6%	1%	2%	12%
4	4%	8%	0%	1%	13%
8 to 9	0%	0%	0%	1%	1%
10 to 14	4%	6%	4%	7%	21%
15 to 19	1%	1%	3%	4%	9%
20+	0%	6%	5%	5%	16%
Grand Total	27%	37%	15%	20%	100%

Month June | Zone B | Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	24%	8%	5%	2%	39%
2	11%	27%	15%	6%	59%
3	0%	0%	0%	0%	0%
4	0%	0%	0%	1%	1%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	1%
Grand Total	35%	35%	20%	9%	100%

Month June | Zone B | Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	9%	0%	0%	0%	9%
2	53%	37%	0%	0%	91%
3	0%	0%	0%	0%	0%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	63%	37%	0%	0%	100%

Month June | Zone B | Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	43%	22%	9%	0%	74%
3	4%	4%	0%	4%	13%
4	0%	0%	4%	0%	4%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	4%	0%	4%
15 to 19	0%	0%	0%	0%	0%
20+	0%	4%	0%	0%	4%
Grand Total	48%	30%	17%	4%	100%

Month June | Zone C | Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	21%	8%	3%	3%	36%
2	7%	20%	13%	21%	61%
3	0%	1%	0%	1%	2%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	1%	0%	1%
Grand Total	29%	29%	17%	25%	100%

Month June | Zone C | Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	10%	1%	0%	3%	15%
2	13%	13%	13%	43%	82%
3	0%	0%	1%	0%	1%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	1%	1%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	24%	15%	15%	47%	100%

Month June | Zone C | Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	11%	44%	11%	11%	78%
3	0%	22%	0%	0%	22%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	11%	67%	11%	11%	100%

Month June | Zone D | Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	27%	18%	12%	10%	67%
2	5%	11%	6%	8%	31%
3	0%	0%	0%	1%	2%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	33%	29%	19%	19%	100%

Month June | Zone D | Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	7%	4%	3%	9%	24%
2	21%	22%	10%	19%	73%
3	1%	2%	0%	0%	3%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	29%	29%	13%	28%	100%

Month June | Zone D | Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	31%	17%	3%	3%	55%
3	0%	17%	14%	0%	31%
4	3%	0%	0%	0%	3%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	3%	0%	0%	3%
15 to 19	0%	0%	0%	3%	3%
20+	0%	0%	0%	3%	3%
Grand Total	34%	38%	17%	10%	100%

Month June | Zone E | Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	24%	12%	20%	0%	55%
2	8%	14%	12%	0%	35%
3	1%	2%	4%	0%	7%
4	0%	1%	0%	0%	1%
8 to 9	0%	0%	0%	0%	0%
10 to 14	1%	0%	2%	0%	3%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	33%	29%	38%	0%	100%

Month June | Zone E | Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	9%	13%	13%	0%	35%
2	26%	4%	0%	0%	30%
3	9%	9%	0%	0%	17%
4	9%	0%	0%	0%	9%
8 to 9	0%	0%	0%	0%	0%
10 to 14	4%	4%	0%	0%	9%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	57%	30%	13%	0%	100%

Month June | Zone E | Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	25%	13%	0%	0%	38%
3	13%	13%	13%	0%	38%
4	0%	13%	13%	0%	25%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	38%	38%	25%	0%	100%

Month June | Zone F | Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	24%	1%	0%	1%	27%
2	7%	3%	2%	3%	15%
3	5%	5%	2%	8%	21%
4	1%	2%	0%	13%	15%
8 to 9	0%	1%	1%	1%	3%
10 to 14	2%	5%	1%	5%	14%
15 to 19	1%	1%	1%	1%	3%
20+	0%	1%	0%	1%	2%
Grand Total	40%	20%	7%	34%	100%

Month June | Zone F | Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	22%	6%	0%	0%	28%
2	0%	6%	3%	0%	8%
3	8%	8%	6%	8%	31%
4	6%	0%	0%	6%	11%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	8%	0%	6%	14%
15 to 19	0%	0%	0%	3%	3%
20+	0%	3%	3%	0%	6%
Grand Total	36%	31%	11%	22%	100%

Month June | Zone F | Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3	0%	0%	0%	0%	0%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	60%	0%	20%	0%	80%
15 to 19	0%	0%	0%	0%	0%
20+	20%	0%	0%	0%	20%
Grand Total	80%	0%	20%	0%	100%

Month June | Zone G | Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	19%	13%	6%	6%	43%
2	8%	14%	13%	7%	42%
3	3%	3%	3%	1%	10%
4	0%	0%	0%	1%	1%
8 to 9	0%	1%	0%	0%	1%
10 to 14	1%	2%	0%	1%	3%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	32%	32%	22%	15%	100%

Month June | Zone G | Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	21%	0%	0%	0%	21%
2	19%	17%	0%	2%	38%
3	5%	5%	5%	2%	17%
4	0%	2%	0%	0%	2%
8 to 9	2%	0%	0%	0%	2%
10 to 14	2%	2%	0%	10%	14%
15 to 19	0%	0%	0%	0%	0%
20+	5%	0%	0%	0%	5%
Grand Total	55%	26%	5%	14%	100%

Month June | Zone G | Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	6%	6%	0%	0%	13%
2	50%	0%	6%	0%	56%
3	6%	0%	0%	0%	6%
4	6%	6%	0%	0%	13%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	13%	0%	0%	13%
Grand Total	69%	25%	6%	0%	100%

JULY

NUMBER OF RESPONDENTS

Month July
Zone A
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	86	48	29	52	215
2	21	38	30	45	134
3	2	3	1	6	12
4		2	4	1	7
8 to 9	1	3			4
10 to 14		3	3	1	7
15 to 19		1	1		2
20+	3	2	1		6
Grand Total	113	100	69	105	387

Month July
Zone A
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	4	3	1	2	10
2	22	24	3	2	51
3	9	7			16
4	6	4			10
8 to 9					
10 to 14	4	4	1	1	10
15 to 19	2	1			3
20+	2	3		1	6
Grand Total	49	46	5	6	106

Month July
Zone A
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	13	8	1		22
3	1	6	1		8
4	3	5			8
8 to 9				1	1
10 to 14	6	3	4	5	18
15 to 19	1	1	2	2	6
20+		7	6	2	15
Grand Total	24	30	14	10	78

Month July
Zone B
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	57	23	20	13	113
2	20	44	41	23	128
3			1	1	2
4				2	2
8 to 9					
10 to 14					
15 to 19					
20+		1			1
Grand Total	77	68	62	39	246

Month July
Zone B
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	3	2			5
2	26	9			35
3					
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	29	11			40

Month July
Zone B
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	7	2	2		11
3	1	1			2
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	8	3	2		13

Month July
Zone C
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	67	25	14	12	118
2	21	37	39	111	208
3				4	4
4			1		1
8 to 9					
10 to 14					
15 to 19					
20+	1		2		3
Grand Total	89	62	56	127	334

Month July
Zone C
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	9	1		2	12
2	4	8	5	26	43
3					
4					
8 to 9				1	1
10 to 14					
15 to 19					
20+					
Grand Total	13	9	5	29	56

Month July
Zone C
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	2	1	1	1	5
3					
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	2	1	1	1	5

Month July
Zone D
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	56	44	43	80	223
2	9	22	12	44	87
3	1	1		2	4
4					
8 to 9			1		1
10 to 14		1			1
15 to 19					
20+					
Grand Total	66	68	56	126	316

Month July
Zone D
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	7	4	1	10	22
2	20	15	6	10	51
3		1			1
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	27	20	7	20	74

Month July
Zone D
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1		1		1	2
2	1	2		1	4
3		2			2
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	1	5		2	8

Month July
Zone E
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	32	22	38	1	93
2	6	11	35		52
3	1	2	7		10
4	1		1		2
8 to 9					
10 to 14		1	3		4
15 to 19					
20+					
Grand Total	40	36	84	1	161

Month July
Zone E
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	2	2	3		7
2	3	3	1		7
3	1	2			3
4	2		1		3
8 to 9					
10 to 14	1	1			2
15 to 19					
20+					
Grand Total	9	8	5		22

Month July
Zone E
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2					
3					
4	1	1			2
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	1	1			2

Month July
Zone F
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	46	4		2	52
2	16	10	3	6	35
3	4	8	3	20	35
4	1	2		26	29
8 to 9		1	1	4	6
10 to 14	4	8	2	21	35
15 to 19	1	1		3	5
20+		3		2	5
Grand Total	72	37	9	84	202

Month July
Zone F
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	8	1		1	10
2		1	3		4
3	4	6	1	4	15
4	3	4		2	9
8 to 9					
10 to 14		1		3	4
15 to 19				1	1
20+				2	2
Grand Total	15	13	4	13	45

Month July
Zone F
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2					
3					
4	1				1
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	1				1

Month July
Zone G
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	29	15	10	10	64
2	12	14	19	10	55
3	1	5	4	3	13
4				1	1
8 to 9					
10 to 14		4		1	5
15 to 19					
20+	1	1			2
Grand Total	43	39	33	25	140

Month July
Zone G
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	9	1			10
2	9	7		2	18
3	1	2	1	1	5
4		1	1		2
8 to 9	1				1
10 to 14	1	1		4	6
15 to 19					
20+	1				1
Grand Total	22	12	2	7	43

Month July
Zone G
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1	1			2
2	9				9
3	1				1
4		1			1
8 to 9					
10 to 14					
15 to 19					
20+	1	2			3
Grand Total	12	4			16

JULY

PERCENTAGE OF RESPONDENTS

Month: July | Zone: A | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	22%	12%	7%	13%	56%
2	5%	10%	8%	12%	35%
3	1%	1%	0%	2%	3%
4	0%	1%	1%	0%	2%
8 to 9	0%	1%	0%	0%	1%
10 to 14	0%	1%	1%	0%	2%
15 to 19	0%	0%	0%	0%	1%
20+	1%	1%	0%	0%	2%
Grand Total	29%	26%	18%	27%	100%

Month: July | Zone: A | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	4%	3%	1%	2%	9%
2	21%	23%	3%	2%	48%
3	8%	7%	0%	0%	15%
4	6%	4%	0%	0%	9%
8 to 9	0%	0%	0%	0%	0%
10 to 14	4%	4%	1%	1%	9%
15 to 19	2%	1%	0%	0%	3%
20+	2%	3%	0%	1%	6%
Grand Total	46%	43%	5%	6%	100%

Month: July | Zone: A | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	17%	10%	1%	0%	28%
3	1%	8%	1%	0%	10%
4	4%	6%	0%	0%	10%
8 to 9	0%	0%	0%	1%	1%
10 to 14	8%	4%	5%	6%	23%
15 to 19	1%	1%	3%	3%	8%
20+	0%	9%	8%	3%	19%
Grand Total	31%	38%	18%	13%	100%

Month: July | Zone: B | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	23%	9%	8%	5%	46%
2	8%	18%	17%	9%	52%
3	0%	0%	0%	0%	1%
4	0%	0%	0%	1%	1%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	31%	28%	25%	16%	100%

Month: July | Zone: B | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	8%	5%	0%	0%	13%
2	65%	23%	0%	0%	88%
3	0%	0%	0%	0%	0%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	73%	28%	0%	0%	100%

Month: July | Zone: B | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	54%	15%	15%	0%	85%
3	8%	8%	0%	0%	15%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	62%	23%	15%	0%	100%

Month: July | Zone: C | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	20%	7%	4%	4%	35%
2	6%	11%	12%	33%	62%
3	0%	0%	0%	1%	1%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	1%	0%	1%
Grand Total	27%	19%	17%	38%	100%

Month: July | Zone: C | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	16%	2%	0%	4%	21%
2	7%	14%	9%	46%	77%
3	0%	0%	0%	0%	0%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	2%	2%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	23%	16%	9%	52%	100%

Month: July | Zone: C | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	40%	20%	20%	20%	100%
3	0%	0%	0%	0%	0%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	40%	20%	20%	20%	100%

Month: July | Zone: D | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	18%	14%	14%	25%	71%
2	3%	7%	4%	14%	28%
3	0%	0%	0%	1%	1%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	21%	22%	18%	40%	100%

Month: July | Zone: D | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	9%	5%	1%	14%	30%
2	27%	20%	8%	14%	69%
3	0%	1%	0%	0%	1%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	36%	27%	9%	27%	100%

Month: July | Zone: D | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	13%	0%	13%	25%
2	13%	25%	0%	13%	50%
3	0%	25%	0%	0%	25%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	13%	63%	0%	25%	100%

Month: July | Zone: E | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	20%	14%	24%	1%	58%
2	4%	7%	22%	0%	32%
3	1%	1%	4%	0%	6%
4	1%	0%	1%	0%	1%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	1%	2%	0%	2%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	25%	22%	52%	1%	100%

Month: July | Zone: E | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	9%	9%	14%	0%	32%
2	14%	14%	5%	0%	32%
3	5%	9%	0%	0%	14%
4	9%	0%	5%	0%	14%
8 to 9	0%	0%	0%	0%	0%
10 to 14	5%	5%	0%	0%	9%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	41%	36%	23%	0%	100%

Month: July | Zone: E | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3	0%	0%	0%	0%	0%
4	50%	50%	0%	0%	100%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	50%	50%	0%	0%	100%

Month: July | Zone: F | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	23%	2%	0%	1%	26%
2	8%	5%	1%	3%	17%
3	2%	4%	1%	10%	17%
4	0%	1%	0%	13%	14%
8 to 9	0%	0%	0%	2%	3%
10 to 14	2%	4%	1%	10%	17%
15 to 19	0%	0%	0%	1%	2%
20+	0%	1%	0%	1%	2%
Grand Total	36%	18%	4%	42%	100%

Month: July | Zone: F | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	18%	2%	0%	2%	22%
2	0%	2%	7%	0%	9%
3	9%	13%	2%	9%	33%
4	7%	9%	0%	4%	20%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	2%	0%	7%	9%
15 to 19	0%	0%	0%	2%	2%
20+	0%	0%	0%	4%	4%
Grand Total	33%	29%	9%	29%	100%

Month: July | Zone: F | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3	0%	0%	0%	0%	0%
4	100%	0%	0%	0%	100%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	100%	0%	0%	0%	100%

Month: July | Zone: G | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	21%	11%	7%	7%	46%
2	9%	10%	14%	7%	39%
3	1%	4%	3%	2%	9%
4	0%	0%	0%	1%	1%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	3%	0%	1%	4%
15 to 19	0%	0%	0%	0%	0%
20+	1%	1%	0%	0%	1%
Grand Total	31%	28%	24%	18%	100%

Month: July | Zone: G | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	21%	2%	0%	0%	23%
2	21%	16%	0%	5%	42%
3	2%	5%	2%	2%	12%
4	0%	2%	2%	0%	5%
8 to 9	2%	0%	0%	0%	2%
10 to 14	2%	2%	0%	9%	14%
15 to 19	0%	0%	0%	0%	0%
20+	2%	0%	0%	0%	2%
Grand Total	51%	28%	5%	16%	100%

Month: July | Zone: G | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	6%	6%	0%	0%	13%
2	56%	0%	0%	0%	56%
3	6%	0%	0%	0%	6%
4	0%	6%	0%	0%	6%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	6%	13%	0%	0%	19%
Grand Total	75%	25%	0%	0%	100%

AUGUST
NUMBER OF RESPONDENTS

Month: August | Zone: A | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	83	54	29	56	222
2	20	32	30	52	134
3	2	3	3	6	14
4		2	1	3	6
8 to 9	1		1		2
10 to 14		2	4	1	7
15 to 19		2	1	1	4
20+	3	2			5
Grand Total	109	97	69	119	394

Month: August | Zone: A | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	4	3		2	9
2	29	19	3	5	56
3	9	9			18
4	7	5			12
8 to 9					
10 to 14	3	5	1	1	10
15 to 19	2	1			3
20+	2	2		1	5
Grand Total	56	44	4	9	113

Month: August | Zone: A | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	15	8	1		24
3	2	5	1	1	9
4	3	6			9
8 to 9			1	1	2
10 to 14	6	1	4	5	16
15 to 19	2	2	3	2	9
20+		5	5		10
Grand Total	28	27	15	9	79

Month: August | Zone: B | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	56	21	20	14	111
2	14	41	48	33	136
3			1	1	2
4				2	2
8 to 9					
10 to 14					
15 to 19					
20+			1		1
Grand Total	70	62	70	50	252

Month: August | Zone: B | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	3	1		1	5
2	27	12			39
3					
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	30	13		1	44

Month: August | Zone: B | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	10	5	1		16
3	2				2
4					
8 to 9					
10 to 14					
15 to 19	1				1
20+					
Grand Total	13	5	1		19

Month: August | Zone: C | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	70	26	14	13	123
2	19	43	36	113	211
3			1	2	3
4			1		1
8 to 9					
10 to 14					
15 to 19					
20+	1		2		3
Grand Total	90	69	54	128	341

Month: August | Zone: C | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	10	1		2	13
2	9	10	6	26	51
3				1	1
4					
8 to 9				1	1
10 to 14					
15 to 19					
20+					
Grand Total	19	11	6	30	66

Month: August | Zone: C | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	3	2	1	1	7
3	1				1
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	4	2	1	1	8

Month: August | Zone: D | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	58	41	40	83	222
2	9	26	13	49	97
3	1	1		3	5
4					
8 to 9			1		1
10 to 14					
15 to 19					
20+			1		1
Grand Total	68	68	55	135	326

Month: August | Zone: D | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	10	3		8	21
2	24	16	10	15	65
3	1				1
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	35	19	10	23	87

Month: August | Zone: D | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1		1			1
2	1	3		1	5
3		1			1
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	1	5		1	7

Month: August | Zone: E | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	37	23	34	1	95
2	6	9	36		51
3	1	3	7		11
4	1		1		2
8 to 9					
10 to 14			4		4
15 to 19					
20+					
Grand Total	45	35	82	1	163

Month: August | Zone: E | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	7	1	4		12
2	4	2	1		7
3	2	1			3
4	1		1		2
8 to 9					
10 to 14	2				2
15 to 19					
20+					
Grand Total	16	4	6		26

Month: August | Zone: E | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	3				3
3		1			1
4	1		1		2
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	4	1	1		6

Month: August | Zone: F | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	47	5		2	54
2	16	10	6	6	38
3	4	9	4	20	37
4	2	3	1	24	30
8 to 9			1	4	5
10 to 14	4	9	3	21	37
15 to 19	1	1		3	5
20+		2	1	2	5
Grand Total	74	39	16	82	211

Month: August | Zone: F | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	7	2		1	10
2		1	3		4
3	3	3	1	5	12
4	3	5		2	10
8 to 9					
10 to 14		1		3	4
15 to 19				1	1
20+				2	2
Grand Total	13	12	4	14	43

Month: August | Zone: F | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2					
3		2			2
4	3				3
8 to 9					
10 to 14	1				1
15 to 19					
20+					
Grand Total	4	2			6

Month: August | Zone: G | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	30	13	11	10	64
2	11	14	17	12	54
3		7	4	3	14
4				1	1
8 to 9					
10 to 14		4		1	5
15 to 19					
20+		1			1
Grand Total	41	39	32	27	139

Month: August | Zone: G | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	10	1			11
2	10	7		2	19
3	2	2	1	1	6
4		2			2
8 to 9	1				1
10 to 14	1		1	4	6
15 to 19					
20+		1			1
Grand Total	24	13	2	7	46

Month: August | Zone: G | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1	1			2
2	8	2			10
3	1				1
4		1			1
8 to 9					
10 to 14	1				1
15 to 19					
20+	1	1		1	3
Grand Total	12	5		1	18

AUGUST
PERCENTAGE OF RESPONDENTS

Month August
Zone A
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	21%	14%	7%	14%	56%
2	5%	8%	8%	13%	34%
3	1%	1%	1%	2%	4%
4	0%	1%	0%	1%	2%
8 to 9	0%	0%	0%	0%	1%
10 to 14	0%	1%	1%	0%	2%
15 to 19	0%	1%	0%	0%	1%
20+	1%	1%	0%	0%	1%
Grand Total	28%	25%	18%	30%	100%

Month August
Zone A
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	4%	3%	0%	2%	8%
2	26%	17%	3%	4%	50%
3	8%	8%	0%	0%	16%
4	6%	4%	0%	0%	11%
8 to 9	0%	0%	0%	0%	0%
10 to 14	3%	4%	1%	1%	9%
15 to 19	2%	1%	0%	0%	3%
20+	2%	2%	0%	1%	4%
Grand Total	50%	39%	4%	8%	100%

Month August
Zone A
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	19%	10%	1%	0%	30%
3	3%	6%	1%	1%	11%
4	4%	8%	0%	0%	11%
8 to 9	0%	0%	1%	1%	3%
10 to 14	8%	1%	5%	6%	20%
15 to 19	3%	3%	4%	3%	11%
20+	0%	6%	6%	0%	13%
Grand Total	35%	34%	19%	11%	100%

Month August
Zone B
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	22%	8%	8%	6%	44%
2	6%	16%	19%	13%	54%
3	0%	0%	0%	0%	1%
4	0%	0%	0%	1%	1%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	28%	25%	28%	20%	100%

Month August
Zone B
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	7%	2%	0%	2%	11%
2	61%	27%	0%	0%	89%
3	0%	0%	0%	0%	0%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	68%	30%	0%	2%	100%

Month August
Zone B
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	53%	26%	5%	0%	84%
3	11%	0%	0%	0%	11%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	5%	0%	0%	0%	5%
20+	0%	0%	0%	0%	0%
Grand Total	68%	26%	5%	0%	100%

Month August
Zone C
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	21%	8%	4%	4%	36%
2	6%	13%	11%	33%	62%
3	0%	0%	0%	1%	1%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	1%	0%	1%
Grand Total	26%	20%	16%	38%	100%

Month August
Zone C
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	15%	2%	0%	3%	20%
2	14%	15%	9%	39%	77%
3	0%	0%	0%	2%	2%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	2%	2%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	29%	17%	9%	45%	100%

Month August
Zone C
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	38%	25%	13%	13%	88%
3	13%	0%	0%	0%	13%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	50%	25%	13%	13%	100%

Month August
Zone D
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	18%	13%	12%	25%	68%
2	3%	8%	4%	15%	30%
3	0%	0%	0%	1%	2%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	21%	21%	17%	41%	100%

Month August
Zone D
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	11%	3%	0%	9%	24%
2	28%	18%	11%	17%	75%
3	1%	0%	0%	0%	1%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	40%	22%	11%	26%	100%

Month August
Zone D
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	14%	0%	0%	14%
2	14%	43%	0%	14%	71%
3	0%	14%	0%	0%	14%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	14%	71%	0%	14%	100%

Month August
Zone E
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	23%	14%	21%	1%	58%
2	4%	6%	22%	0%	31%
3	1%	2%	4%	0%	7%
4	1%	0%	1%	0%	1%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	2%	0%	2%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	28%	21%	50%	1%	100%

Month August
Zone E
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	27%	4%	15%	0%	46%
2	15%	8%	4%	0%	27%
3	8%	4%	0%	0%	12%
4	4%	0%	4%	0%	8%
8 to 9	0%	0%	0%	0%	0%
10 to 14	8%	0%	0%	0%	8%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	62%	15%	23%	0%	100%

Month August
Zone E
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	50%	0%	0%	0%	50%
3	0%	17%	0%	0%	17%
4	17%	0%	17%	0%	33%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	67%	17%	17%	0%	100%

Month August
Zone F
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	22%	2%	0%	1%	26%
2	8%	5%	3%	3%	18%
3	2%	4%	2%	9%	18%
4	1%	1%	0%	11%	14%
8 to 9	0%	0%	0%	2%	2%
10 to 14	2%	4%	1%	10%	18%
15 to 19	0%	0%	0%	1%	2%
20+	0%	1%	0%	1%	2%
Grand Total	35%	18%	8%	39%	100%

Month August
Zone F
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	16%	5%	0%	2%	23%
2	0%	2%	7%	0%	9%
3	7%	7%	2%	12%	28%
4	7%	12%	0%	5%	23%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	2%	0%	7%	9%
15 to 19	0%	0%	0%	2%	2%
20+	0%	0%	0%	5%	5%
Grand Total	30%	28%	9%	33%	100%

Month August
Zone F
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3	0%	33%	0%	0%	33%
4	50%	0%	0%	0%	50%
8 to 9	0%	0%	0%	0%	0%
10 to 14	17%	0%	0%	0%	17%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	67%	33%	0%	0%	100%

Month August
Zone G
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	22%	9%	8%	7%	46%
2	8%	10%	12%	9%	39%
3	0%	5%	3%	2%	10%
4	0%	0%	0%	1%	1%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	3%	0%	1%	4%
15 to 19	0%	0%	0%	0%	0%
20+	0%	1%	0%	0%	1%
Grand Total	29%	28%	23%	19%	100%

Month August
Zone G
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	22%	2%	0%	0%	24%
2	22%	15%	0%	4%	41%
3	4%	4%	2%	2%	13%
4	0%	4%	0%	0%	4%
8 to 9	2%	0%	0%	0%	2%
10 to 14	2%	0%	2%	9%	13%
15 to 19	0%	0%	0%	0%	0%
20+	0%	2%	0%	0%	2%
Grand Total	52%	28%	4%	15%	100%

Month August
Zone G
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	6%	6%	0%	0%	11%
2	44%	11%	0%	0%	56%
3	6%	0%	0%	0%	6%
4	0%	6%	0%	0%	6%
8 to 9	0%	0%	0%	0%	0%
10 to 14	6%	0%	0%	0%	6%
15 to 19	0%	0%	0%	0%	0%
20+	6%	6%	0%	6%	17%
Grand Total	67%	28%	0%	6%	100%

SEPTEMBER

NUMBER OF RESPONDENTS

Month: September | Zone: A | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	82	51	26	42	201
2	23	35	25	54	137
3	2	3	2	5	12
4		2	1	3	6
8 to 9	2				2
10 to 14	1	2	5	3	11
15 to 19	1	2	1		4
20+	3	2			5
Grand Total	114	97	60	107	378

Month: September | Zone: A | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	5	3		1	9
2	29	22	4	9	64
3	11	9			20
4	7	4			11
8 to 9	1	2			3
10 to 14	4	4	2	1	11
15 to 19	2	1			3
20+	4	2		1	7
Grand Total	63	47	6	12	128

Month: September | Zone: A | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	15	8	4	3	30
3	1	7	1	1	10
4	8	7	1		16
8 to 9			1	1	2
10 to 14	4	5	4	6	19
15 to 19	1	3	2	3	9
20+	1	5	5	1	12
Grand Total	30	35	18	15	98

Month: September | Zone: B | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	47	17	10	10	84
2	17	52	46	35	150
3				2	2
4					
8 to 9					
10 to 14					
15 to 19					
20+			1		1
Grand Total	64	69	57	47	237

Month: September | Zone: B | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	3	1		1	5
2	34	16	1		51
3	2				2
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	39	17	1	1	58

Month: September | Zone: B | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1				1
2	21	6	2		29
3	3		1		4
4				1	1
8 to 9					
10 to 14				1	1
15 to 19					
20+				2	2
Grand Total	25	6	3	4	38

Month: September | Zone: C | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	60	21	14	12	107
2	18	49	44	94	205
3		1	1	1	3
4			1		1
8 to 9					
10 to 14					
15 to 19					
20+			2	1	3
Grand Total	78	71	62	108	319

Month: September | Zone: C | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	8	1		1	10
2	17	16	5	26	64
3				2	2
4					
8 to 9				1	1
10 to 14					
15 to 19					
20+					
Grand Total	25	17	5	30	77

Month: September | Zone: C | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	7	3	2	1	13
3	1	1			2
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	8	4	2	1	15

Month: September | Zone: D | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	57	42	35	63	197
2	19	25	14	54	112
3	1	2		3	6
4					
8 to 9			1		1
10 to 14					
15 to 19					
20+			1		1
Grand Total	77	69	51	120	317

Month: September | Zone: D | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	11	3		6	20
2	25	24	19	21	89
3		1	1		2
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	36	28	20	27	111

Month: September | Zone: D | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1		1			1
2	5	4	2	2	13
3	1	2	1		4
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	6	7	3	2	18

Month: September | Zone: E | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	39	27	20		86
2	6	15	33		54
3	2	4	4		10
4	1	1			2
8 to 9					
10 to 14		1	3		4
15 to 19					
20+					
Grand Total	48	48	60		156

Month: September | Zone: E | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	10	1	4		15
2	6	9	2		17
3	3	4			7
4	2		1		3
8 to 9					
10 to 14	1	1			2
15 to 19					
20+					
Grand Total	22	15	7		44

Month: September | Zone: E | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	9	2			11
3	3	2			5
4	1	1	1		3
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	13	5	1		19

Month: September | Zone: F | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	44	4		2	50
2	15	10	6	6	37
3	4	9	4	19	36
4	3	3	2	22	30
8 to 9			1	4	5
10 to 14	5	7	4	20	36
15 to 19		2		3	5
20+		4	1	1	6
Grand Total	71	39	18	77	205

Month: September | Zone: F | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	5	2		1	8
2		2	3		5
3	5	1	3	4	13
4	3	4	1	2	10
8 to 9					
10 to 14		1		3	4
15 to 19				1	1
20+				2	2
Grand Total	13	10	7	13	43

Month: September | Zone: F | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2					
3	1	2			3
4	3				3
8 to 9					
10 to 14	2	1			3
15 to 19					
20+					
Grand Total	6	3			9

Month: September | Zone: G | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	29	18	6	10	63
2	16	16	13	9	54
3	1	8	4	2	15
4		1		1	2
8 to 9					
10 to 14	1	4		1	6
15 to 19					
20+		1			1
Grand Total	47	48	23	23	141

Month: September | Zone: G | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	8	1			9
2	8	10	1	3	22
3	1	4	1	1	7
4		2			2
8 to 9	1				1
10 to 14		1	2	3	6
15 to 19					
20+			1		1
Grand Total	18	18	5	7	48

Month: September | Zone: G | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1	1			2
2	8	4	2		14
3	2				2
4		1			1
8 to 9					
10 to 14	3				3
15 to 19					
20+	1	2		1	4
Grand Total	15	8	2	1	26

SEPTEMBER
PERCENTAGE OF RESPONDENTS

Month: September | Zone: A | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	22%	13%	7%	11%	53%
2	6%	9%	7%	14%	36%
3	1%	1%	1%	1%	3%
4	0%	1%	0%	1%	2%
8 to 9	1%	0%	0%	0%	1%
10 to 14	0%	1%	1%	1%	3%
15 to 19	0%	1%	0%	0%	1%
20+	1%	1%	0%	0%	1%
Grand Total	30%	26%	16%	28%	100%

Month: September | Zone: A | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	4%	2%	0%	1%	7%
2	23%	17%	3%	7%	50%
3	9%	7%	0%	0%	16%
4	5%	3%	0%	0%	9%
8 to 9	1%	2%	0%	0%	2%
10 to 14	3%	3%	2%	1%	9%
15 to 19	2%	1%	0%	0%	2%
20+	3%	2%	0%	1%	5%
Grand Total	49%	37%	5%	9%	100%

Month: September | Zone: A | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	15%	8%	4%	3%	31%
3	1%	7%	1%	1%	10%
4	8%	7%	1%	0%	16%
8 to 9	0%	0%	1%	1%	2%
10 to 14	4%	5%	4%	6%	19%
15 to 19	1%	3%	2%	3%	9%
20+	1%	5%	5%	1%	12%
Grand Total	31%	36%	18%	15%	100%

Month: September | Zone: B | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	20%	7%	4%	4%	35%
2	7%	22%	19%	15%	63%
3	0%	0%	0%	1%	1%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	27%	29%	24%	20%	100%

Month: September | Zone: B | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	5%	2%	0%	2%	9%
2	59%	28%	2%	0%	88%
3	3%	0%	0%	0%	3%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	67%	29%	2%	2%	100%

Month: September | Zone: B | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	3%	0%	0%	0%	3%
2	55%	16%	5%	0%	76%
3	8%	0%	3%	0%	11%
4	0%	0%	0%	3%	3%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	3%	3%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	5%	5%
Grand Total	66%	16%	8%	11%	100%

Month: September | Zone: C | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	19%	7%	4%	4%	34%
2	6%	15%	14%	29%	64%
3	0%	0%	0%	0%	1%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	1%	0%	1%
Grand Total	24%	22%	19%	34%	100%

Month: September | Zone: C | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	10%	1%	0%	1%	13%
2	22%	21%	6%	34%	83%
3	0%	0%	0%	3%	3%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	1%	1%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	32%	22%	6%	39%	100%

Month: September | Zone: C | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	47%	20%	13%	7%	87%
3	7%	7%	0%	0%	13%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	53%	27%	13%	7%	100%

Month: September | Zone: D | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	18%	13%	11%	20%	62%
2	6%	8%	4%	17%	35%
3	0%	1%	0%	1%	2%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	24%	22%	16%	38%	100%

Month: September | Zone: D | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	10%	3%	0%	5%	18%
2	23%	22%	17%	19%	80%
3	0%	1%	1%	0%	2%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	32%	25%	18%	24%	100%

Month: September | Zone: D | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	6%	0%	0%	6%
2	28%	22%	11%	11%	72%
3	6%	11%	6%	0%	22%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	33%	39%	17%	11%	100%

Month: September | Zone: E | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	25%	17%	13%	0%	55%
2	4%	10%	21%	0%	35%
3	1%	3%	3%	0%	6%
4	1%	1%	0%	0%	1%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	1%	2%	0%	3%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	31%	31%	38%	0%	100%

Month: September | Zone: E | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	23%	2%	9%	0%	34%
2	14%	20%	5%	0%	39%
3	7%	9%	0%	0%	16%
4	5%	0%	2%	0%	7%
8 to 9	0%	0%	0%	0%	0%
10 to 14	2%	2%	0%	0%	5%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	50%	34%	16%	0%	100%

Month: September | Zone: E | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	47%	11%	0%	0%	58%
3	16%	11%	0%	0%	26%
4	5%	5%	5%	0%	16%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	68%	26%	5%	0%	100%

Month: September | Zone: F | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	21%	2%	0%	1%	24%
2	7%	5%	3%	3%	18%
3	2%	4%	2%	9%	18%
4	1%	1%	1%	11%	15%
8 to 9	0%	0%	0%	2%	2%
10 to 14	2%	3%	2%	10%	18%
15 to 19	0%	1%	0%	1%	2%
20+	0%	2%	0%	0%	3%
Grand Total	35%	19%	9%	38%	100%

Month: September | Zone: F | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	12%	5%	0%	2%	19%
2	0%	5%	7%	0%	12%
3	12%	2%	7%	9%	30%
4	7%	9%	2%	5%	23%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	2%	0%	7%	9%
15 to 19	0%	0%	0%	2%	2%
20+	0%	0%	0%	5%	5%
Grand Total	30%	23%	16%	30%	100%

Month: September | Zone: F | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3	11%	22%	0%	0%	33%
4	33%	0%	0%	0%	33%
8 to 9	0%	0%	0%	0%	0%
10 to 14	22%	11%	0%	0%	33%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	67%	33%	0%	0%	100%

Month: September | Zone: G | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	21%	13%	4%	7%	45%
2	11%	11%	9%	6%	38%
3	1%	6%	3%	1%	11%
4	0%	1%	0%	1%	1%
8 to 9	0%	0%	0%	0%	0%
10 to 14	1%	3%	0%	1%	4%
15 to 19	0%	0%	0%	0%	0%
20+	0%	1%	0%	0%	1%
Grand Total	33%	34%	16%	16%	100%

Month: September | Zone: G | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	17%	2%	0%	0%	19%
2	17%	21%	2%	6%	46%
3	2%	8%	2%	2%	15%
4	0%	4%	0%	0%	4%
8 to 9	2%	0%	0%	0%	2%
10 to 14	0%	2%	4%	6%	13%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	2%	0%	2%
Grand Total	38%	38%	10%	15%	100%

Month: September | Zone: G | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	4%	4%	0%	0%	8%
2	31%	15%	8%	0%	54%
3	8%	0%	0%	0%	8%
4	0%	4%	0%	0%	4%
8 to 9	0%	0%	0%	0%	0%
10 to 14	12%	0%	0%	0%	12%
15 to 19	0%	0%	0%	0%	0%
20+	4%	8%	0%	4%	15%
Grand Total	58%	31%	8%	4%	100%

OCTOBER

NUMBER OF RESPONDENTS

Month October
Zone A
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	59	42	22	24	147
2	28	35	24	43	130
3	2	4	4	4	14
4		3	2	2	7
8 to 9					
10 to 14	1	2	2	2	7
15 to 19		2	1		3
20+	3	2			5
Grand Total	93	90	55	75	313

Month October
Zone A
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	3	2	1		6
2	26	29	3	7	65
3	10	8	1		19
4	4	8	2		14
8 to 9		1	1		2
10 to 14	7	4	3	1	15
15 to 19	2	1			3
20+	3	3		1	7
Grand Total	55	56	11	9	131

Month October
Zone A
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1				1
2	5	12	5	5	27
3	3	7	3	2	15
4	2	10	2	4	18
8 to 9		1		3	4
10 to 14	5	12	7	10	34
15 to 19	1	1	2	8	12
20+		4	5	3	12
Grand Total	17	47	24	35	123

Month October
Zone B
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	34	16	2	8	60
2	33	55	38	18	144
3				2	2
4	1			1	2
8 to 9					
10 to 14					
15 to 19					
20+			2		2
Grand Total	68	71	42	29	210

Month October
Zone B
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	3	2			5
2	40	21	4	1	66
3	2				2
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	45	23	4	1	73

Month October
Zone B
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1	1			2
2	25	14	4	4	47
3	2	6	1	1	10
4	1	1			2
8 to 9					
10 to 14	2	1		1	4
15 to 19					
20+	1	1		2	4
Grand Total	32	24	5	8	69

Month October
Zone C
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	35	19	10	8	72
2	27	61	44	62	194
3	1	1		1	3
4			1		1
8 to 9					
10 to 14					
15 to 19					
20+		1	2		3
Grand Total	63	82	57	71	273

Month October
Zone C
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	4	1			5
2	24	21	13	27	85
3	1	1	1	3	6
4					
8 to 9		1			1
10 to 14					
15 to 19					
20+					
Grand Total	29	24	14	30	97

Month October
Zone C
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	14	5	1	2	22
3	1	5		1	7
4					
8 to 9			1		1
10 to 14	3		2	3	8
15 to 19		1			1
20+	1				1
Grand Total	19	11	4	6	40

Month October
Zone D
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	54	32	26	37	149
2	21	23	15	53	112
3		2		4	6
4					
8 to 9					
10 to 14					
15 to 19					
20+		1		1	2
Grand Total	75	58	41	95	269

Month October
Zone D
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	9	3		3	15
2	34	25	20	36	115
3		1		1	2
4					
8 to 9					
10 to 14				1	1
15 to 19					
20+					
Grand Total	43	29	20	41	133

Month October
Zone D
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	12	8	5	6	31
3	3	7	3	1	14
4					
8 to 9					
10 to 14					
15 to 19				1	1
20+					
Grand Total	15	15	8	8	46

Month October
Zone E
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	34	22	16		72
2	9	13	28		50
3	2	3	4		9
4	1	1			2
8 to 9					
10 to 14	1		2		3
15 to 19					
20+		1			1
Grand Total	47	40	50		137

Month October
Zone E
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	6	3	4		13
2	8	9	2		19
3	4	3			7
4	1	1	1		3
8 to 9					
10 to 14	1	1			2
15 to 19					
20+					
Grand Total	20	17	7		44

Month October
Zone E
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	12	4	3		19
3	4	7			11
4	1		1		2
8 to 9					
10 to 14		1			1
15 to 19					
20+					
Grand Total	17	12	4		33

Month October
Zone F
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	33	4		1	38
2	15	9	5	6	35
3	4	7	2	18	31
4	4	5	1	17	27
8 to 9		2		4	6
10 to 14	3	9	3	19	34
15 to 19		1	2	3	6
20+	1	4	2		7
Grand Total	60	41	15	68	184

Month October
Zone F
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	5	2		1	8
2		3	2		5
3	7	2	2	4	15
4	3	4		2	9
8 to 9			1		1
10 to 14		1		3	4
15 to 19				1	1
20+			1	1	2
Grand Total	15	12	6	12	45

Month October
Zone F
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2					
3	3	1	1		5
4	4				4
8 to 9					
10 to 14	3	3	1		7
15 to 19	1	1			2
20+	1				1
Grand Total	12	5	2		19

Month October
Zone G
Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	30	12	5	3	50
2	22	14	11	7	54
3	2	5	4	3	14
4		1		1	2
8 to 9		2			2
10 to 14		5	1	1	7
15 to 19					
20+		1			1
Grand Total	54	40	21	15	130

Month October
Zone G
Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	5	1		1	7
2	8	11	5	3	27
3	2	3	2	2	9
4		2			2
8 to 9	1				1
10 to 14		1	2	3	6
15 to 19					
20+	1			1	2
Grand Total	17	18	9	10	54

Month October
Zone G
Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1	1			2
2	7	6	3	1	17
3	3	1			4
4					
8 to 9			1		1
10 to 14	7	2			9
15 to 19	1	1		1	3
20+	1	2	1	2	6
Grand Total	20	13	5	4	42

OCTOBER

PERCENTAGE OF RESPONDENTS

Month: October | Zone: A | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	19%	13%	7%	8%	47%
2	9%	11%	8%	14%	42%
3	1%	1%	1%	1%	4%
4	0%	1%	1%	1%	2%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	1%	1%	1%	2%
15 to 19	0%	1%	0%	0%	1%
20+	1%	1%	0%	0%	2%
Grand Total	30%	29%	18%	24%	100%

Month: October | Zone: A | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	2%	2%	1%	0%	5%
2	20%	22%	2%	5%	50%
3	8%	6%	1%	0%	15%
4	3%	6%	2%	0%	11%
8 to 9	0%	1%	1%	0%	2%
10 to 14	5%	3%	2%	1%	11%
15 to 19	2%	1%	0%	0%	2%
20+	2%	2%	0%	1%	5%
Grand Total	42%	43%	8%	7%	100%

Month: October | Zone: A | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1%	0%	0%	0%	1%
2	4%	10%	4%	4%	22%
3	2%	6%	2%	2%	12%
4	2%	8%	2%	3%	15%
8 to 9	0%	1%	0%	2%	3%
10 to 14	4%	10%	6%	8%	28%
15 to 19	1%	1%	2%	7%	10%
20+	0%	3%	4%	2%	10%
Grand Total	14%	38%	20%	28%	100%

Month: October | Zone: B | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	16%	8%	1%	4%	29%
2	16%	26%	18%	9%	69%
3	0%	0%	0%	1%	1%
4	0%	0%	0%	0%	1%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	1%	0%	1%
Grand Total	32%	34%	20%	14%	100%

Month: October | Zone: B | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	4%	3%	0%	0%	7%
2	55%	29%	5%	1%	90%
3	3%	0%	0%	0%	3%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	62%	32%	5%	1%	100%

Month: October | Zone: B | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1%	1%	0%	0%	3%
2	36%	20%	6%	6%	68%
3	3%	9%	1%	1%	14%
4	1%	1%	0%	0%	3%
8 to 9	0%	0%	0%	0%	0%
10 to 14	3%	1%	0%	1%	6%
15 to 19	0%	0%	0%	0%	0%
20+	1%	1%	0%	3%	6%
Grand Total	46%	35%	7%	12%	100%

Month: October | Zone: C | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	13%	7%	4%	3%	26%
2	10%	22%	16%	23%	71%
3	0%	0%	0%	0%	1%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	1%	0%	1%
Grand Total	23%	30%	21%	26%	100%

Month: October | Zone: C | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	4%	1%	0%	0%	5%
2	25%	22%	13%	28%	88%
3	1%	1%	1%	3%	6%
4	0%	0%	0%	0%	0%
8 to 9	0%	1%	0%	0%	1%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	30%	25%	14%	31%	100%

Month: October | Zone: C | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	35%	13%	3%	5%	55%
3	3%	13%	0%	3%	18%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	3%	0%	3%
10 to 14	8%	0%	5%	8%	20%
15 to 19	0%	3%	0%	0%	3%
20+	3%	0%	0%	0%	3%
Grand Total	48%	28%	10%	15%	100%

Month: October | Zone: D | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	20%	12%	10%	14%	55%
2	8%	9%	6%	20%	42%
3	0%	1%	0%	1%	2%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	1%
Grand Total	28%	22%	15%	35%	100%

Month: October | Zone: D | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	7%	2%	0%	2%	11%
2	26%	19%	15%	27%	86%
3	0%	1%	0%	1%	2%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	1%	1%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	32%	22%	15%	31%	100%

Month: October | Zone: D | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	26%	17%	11%	13%	67%
3	7%	15%	7%	2%	30%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	2%	2%
20+	0%	0%	0%	0%	0%
Grand Total	33%	33%	17%	17%	100%

Month: October | Zone: E | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	25%	16%	12%	0%	53%
2	7%	9%	20%	0%	36%
3	1%	2%	3%	0%	7%
4	1%	1%	0%	0%	1%
8 to 9	0%	0%	0%	0%	0%
10 to 14	1%	0%	1%	0%	2%
15 to 19	0%	0%	0%	0%	0%
20+	0%	1%	0%	0%	1%
Grand Total	34%	29%	36%	0%	100%

Month: October | Zone: E | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	14%	7%	9%	0%	30%
2	18%	20%	5%	0%	43%
3	9%	7%	0%	0%	16%
4	2%	2%	2%	0%	7%
8 to 9	0%	0%	0%	0%	0%
10 to 14	2%	2%	0%	0%	5%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	45%	39%	16%	0%	100%

Month: October | Zone: E | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	36%	12%	9%	0%	58%
3	12%	21%	0%	0%	33%
4	3%	0%	3%	0%	6%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	3%	0%	0%	3%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	52%	36%	12%	0%	100%

Month: October | Zone: F | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	18%	2%	0%	1%	21%
2	8%	5%	3%	3%	19%
3	2%	4%	1%	10%	17%
4	2%	3%	1%	9%	15%
8 to 9	0%	1%	0%	2%	3%
10 to 14	2%	5%	2%	10%	18%
15 to 19	0%	1%	1%	2%	3%
20+	1%	2%	1%	0%	4%
Grand Total	33%	22%	8%	37%	100%

Month: October | Zone: F | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	11%	4%	0%	2%	18%
2	0%	7%	4%	0%	11%
3	16%	4%	4%	9%	33%
4	7%	9%	0%	4%	20%
8 to 9	0%	0%	2%	0%	2%
10 to 14	0%	2%	0%	7%	9%
15 to 19	0%	0%	0%	2%	2%
20+	0%	0%	2%	2%	4%
Grand Total	33%	27%	13%	27%	100%

Month: October | Zone: F | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3	16%	5%	5%	0%	26%
4	21%	0%	0%	0%	21%
8 to 9	0%	0%	0%	0%	0%
10 to 14	16%	16%	5%	0%	37%
15 to 19	5%	5%	0%	0%	11%
20+	5%	0%	0%	0%	5%
Grand Total	63%	26%	11%	0%	100%

Month: October | Zone: G | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	23%	9%	4%	2%	38%
2	17%	11%	8%	5%	42%
3	2%	4%	3%	2%	11%
4	0%	1%	0%	1%	2%
8 to 9	0%	2%	0%	0%	2%
10 to 14	0%	4%	1%	1%	5%
15 to 19	0%	0%	0%	0%	0%
20+	0%	1%	0%	0%	1%
Grand Total	42%	31%	16%	12%	100%

Month: October | Zone: G | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	9%	2%	0%	2%	13%
2	15%	20%	9%	6%	50%
3	4%	6%	4%	4%	17%
4	0%	4%	0%	0%	4%
8 to 9	2%	0%	0%	0%	2%
10 to 14	0%	2%	4%	6%	11%
15 to 19	0%	0%	0%	0%	0%
20+	2%	0%	0%	2%	4%
Grand Total	31%	33%	17%	19%	100%

Month: October | Zone: G | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	2%	2%	0%	0%	5%
2	17%	14%	7%	2%	40%
3	7%	2%	0%	0%	10%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	2%	0%	2%
10 to 14	17%	5%	0%	0%	21%
15 to 19	2%	2%	0%	2%	7%
20+	2%	5%	2%	5%	14%
Grand Total	48%	31%	12%	10%	100%

NOVEMBER

NUMBER OF RESPONDENTS

Month: November | Zone: A | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	20	15	11	11	57
2	29	31	17	17	94
3	2	2	4	2	10
4	1	3	1	1	6
8 to 9					
10 to 14	3	3		1	7
15 to 19		1			1
20+	3	2			5
Grand Total	58	57	33	32	180

Month: November | Zone: A | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	2	2			4
2	21	20	3	3	47
3	8	8		1	17
4	5	6	2		13
8 to 9	1	1	1		3
10 to 14	7	2	3	1	13
15 to 19	2	1			3
20+	3	3		1	7
Grand Total	49	43	9	6	107

Month: November | Zone: A | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	4	9	4	4	21
3	3	9	3	3	18
4	2	7	5	6	20
8 to 9			1	2	3
10 to 14	5	7	9	13	34
15 to 19	1	1	2	8	12
20+		4	4	8	16
Grand Total	15	37	28	44	124

Month: November | Zone: B | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	11	9	2	3	25
2	43	40	22	9	114
3			1	1	2
4	1			1	2
8 to 9					
10 to 14					
15 to 19					
20+		1			1
Grand Total	55	50	25	14	144

Month: November | Zone: B | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	2	2			4
2	45	19	3	1	68
3	2				2
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	49	21	3	1	74

Month: November | Zone: B | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	4		2		6
2	22	9	12	5	48
3	1	9	3	4	17
4	1	2	2		5
8 to 9		1			1
10 to 14	1			1	2
15 to 19					
20+	1			2	3
Grand Total	30	21	19	12	82

Month: November | Zone: C | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	20	10	6	1	37
2	37	43	23	32	135
3		1		1	2
4			1		1
8 to 9					
10 to 14					
15 to 19					
20+			1		1
Grand Total	57	54	31	34	176

Month: November | Zone: C | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	2				2
2	22	14	17	18	71
3	2	1	1	2	6
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	26	15	18	20	79

Month: November | Zone: C | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1		1			1
2	11	6	3	3	23
3		4		4	8
4				1	1
8 to 9					
10 to 14		3	1	4	8
15 to 19		1		2	3
20+	1			1	2
Grand Total	12	15	4	15	46

Month: November | Zone: D | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	32	27	19	14	92
2	22	22	17	32	93
3		1		3	4
4					
8 to 9					
10 to 14					
15 to 19					
20+			1	1	2
Grand Total	54	50	37	50	191

Month: November | Zone: D | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	3	1		1	5
2	29	29	19	29	106
3	1	6	2		9
4					
8 to 9					
10 to 14				1	1
15 to 19					
20+					
Grand Total	33	36	21	31	121

Month: November | Zone: D | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	11	18	7	6	42
3	3	10	6	5	24
4					
8 to 9			1		1
10 to 14		1			1
15 to 19			1	1	2
20+				1	1
Grand Total	14	29	15	13	71

Month: November | Zone: E | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	18	17	8		43
2	7	16	17		40
3	2	2	1		5
4					
8 to 9					
10 to 14	2				2
15 to 19					
20+					
Grand Total	29	35	26		90

Month: November | Zone: E | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	3	2	3		8
2	10	8	1		19
3	4	2	1		7
4	2		1		3
8 to 9					
10 to 14	2	1			3
15 to 19					
20+					
Grand Total	21	13	6		40

Month: November | Zone: E | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	6	11	5		22
3	3	5	6		14
4		1	1		2
8 to 9	1				1
10 to 14			2		2
15 to 19					
20+					
Grand Total	10	17	14		41

Month: November | Zone: F | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	10	2			12
2	7	5	2	4	18
3	10	4	4	11	29
4	2	6	3	10	21
8 to 9	1	1	3		5
10 to 14	4	6	3	11	24
15 to 19	1	2	1	2	6
20+	1	1	1		3
Grand Total	36	27	17	38	118

Month: November | Zone: F | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1	2	1		4
2	3	1	1		5
3	9		2	3	14
4	2	1		1	4
8 to 9				1	1
10 to 14	1	1		3	5
15 to 19	1			1	2
20+		1		1	2
Grand Total	17	6	4	10	37

Month: November | Zone: F | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2					
3	2	2	1		5
4	3	1	1		5
8 to 9	1				1
10 to 14	4	2	4	2	12
15 to 19		1			1
20+	1	2		2	5
Grand Total	11	8	6	4	29

Month: November | Zone: G | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	14	7	2	2	25
2	20	10	5	6	41
3	6	4	5		15
4		1		1	2
8 to 9	1	1			2
10 to 14	2		1		3
15 to 19					
20+		3			3
Grand Total	43	26	13	9	91

Month: November | Zone: G | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1		1		1	2
2	12	6	7	1	26
3	3	2	3	2	10
4		1			1
8 to 9					
10 to 14		2	3	1	6
15 to 19					
20+		1		1	2
Grand Total	15	13	13	6	47

Month: November | Zone: G | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1	1			2
2	4	9	2	3	18
3	3	1			4
4			1	1	2
8 to 9					
10 to 14	3	3	1	1	8
15 to 19		2		2	4
20+		2		4	6
Grand Total	11	18	4	11	44

NOVEMBER
PERCENTAGE OF RESPONDENTS

Month: November | Zone: A | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	11%	8%	6%	6%	32%
2	16%	17%	9%	9%	52%
3	1%	1%	2%	1%	6%
4	1%	2%	1%	1%	3%
8 to 9	0%	0%	0%	0%	0%
10 to 14	2%	2%	0%	1%	4%
15 to 19	0%	1%	0%	0%	1%
20+	2%	1%	0%	0%	3%
Grand Total	32%	32%	18%	18%	100%

Month: November | Zone: A | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	2%	2%	0%	0%	4%
2	20%	19%	3%	3%	44%
3	7%	7%	0%	1%	16%
4	5%	6%	2%	0%	12%
8 to 9	1%	1%	1%	0%	3%
10 to 14	7%	2%	3%	1%	12%
15 to 19	2%	1%	0%	0%	3%
20+	3%	3%	0%	1%	7%
Grand Total	46%	40%	8%	6%	100%

Month: November | Zone: A | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	3%	7%	3%	3%	17%
3	2%	7%	2%	2%	15%
4	2%	6%	4%	5%	16%
8 to 9	0%	0%	1%	2%	2%
10 to 14	4%	6%	7%	10%	27%
15 to 19	1%	1%	2%	6%	10%
20+	0%	3%	3%	6%	13%
Grand Total	12%	30%	23%	35%	100%

Month: November | Zone: B | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	8%	6%	1%	2%	17%
2	30%	28%	15%	6%	79%
3	0%	0%	1%	1%	1%
4	1%	0%	0%	1%	1%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	1%	0%	0%	1%
Grand Total	38%	35%	17%	10%	100%

Month: November | Zone: B | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	3%	3%	0%	0%	5%
2	61%	26%	4%	1%	92%
3	3%	0%	0%	0%	3%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	66%	28%	4%	1%	100%

Month: November | Zone: B | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	5%	0%	2%	0%	7%
2	27%	11%	15%	6%	59%
3	1%	11%	4%	5%	21%
4	1%	2%	2%	0%	6%
8 to 9	0%	1%	0%	0%	1%
10 to 14	1%	0%	0%	1%	2%
15 to 19	0%	0%	0%	0%	0%
20+	1%	0%	0%	2%	4%
Grand Total	37%	26%	23%	15%	100%

Month: November | Zone: C | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	11%	6%	3%	1%	21%
2	21%	24%	13%	18%	77%
3	0%	1%	0%	1%	1%
4	0%	0%	1%	0%	1%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	1%	0%	1%
Grand Total	32%	31%	18%	19%	100%

Month: November | Zone: C | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	3%	0%	0%	0%	3%
2	28%	18%	22%	23%	90%
3	3%	1%	1%	3%	8%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	33%	19%	23%	25%	100%

Month: November | Zone: C | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	2%	0%	0%	2%
2	24%	13%	7%	7%	50%
3	0%	9%	0%	9%	17%
4	0%	0%	0%	2%	2%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	7%	2%	9%	17%
15 to 19	0%	2%	0%	4%	7%
20+	2%	0%	0%	2%	4%
Grand Total	26%	33%	9%	33%	100%

Month: November | Zone: D | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	17%	14%	10%	7%	48%
2	12%	12%	9%	17%	49%
3	0%	1%	0%	2%	2%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	1%	1%	1%
Grand Total	28%	26%	19%	26%	100%

Month: November | Zone: D | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	2%	1%	0%	1%	4%
2	24%	24%	16%	24%	88%
3	1%	5%	2%	0%	7%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	1%	1%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	27%	30%	17%	26%	100%

Month: November | Zone: D | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	15%	25%	10%	8%	59%
3	4%	14%	8%	7%	34%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	1%	0%	1%
10 to 14	0%	1%	0%	0%	1%
15 to 19	0%	0%	1%	1%	3%
20+	0%	0%	0%	1%	1%
Grand Total	20%	41%	21%	18%	100%

Month: November | Zone: E | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	20%	19%	9%	0%	48%
2	8%	18%	19%	0%	44%
3	2%	2%	1%	0%	6%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	2%	0%	0%	0%	2%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	32%	39%	29%	0%	100%

Month: November | Zone: E | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	8%	5%	8%	0%	20%
2	25%	20%	3%	0%	48%
3	10%	5%	3%	0%	18%
4	5%	0%	3%	0%	8%
8 to 9	0%	0%	0%	0%	0%
10 to 14	5%	3%	0%	0%	8%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	53%	33%	15%	0%	100%

Month: November | Zone: E | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	15%	27%	12%	0%	54%
3	7%	12%	15%	0%	34%
4	0%	2%	2%	0%	5%
8 to 9	2%	0%	0%	0%	2%
10 to 14	0%	0%	5%	0%	5%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	24%	41%	34%	0%	100%

Month: November | Zone: F | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	8%	2%	0%	0%	10%
2	6%	4%	2%	3%	15%
3	8%	3%	3%	9%	25%
4	2%	5%	3%	8%	18%
8 to 9	1%	1%	3%	0%	4%
10 to 14	3%	5%	3%	9%	20%
15 to 19	1%	2%	1%	2%	5%
20+	1%	1%	1%	0%	3%
Grand Total	31%	23%	14%	32%	100%

Month: November | Zone: F | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	3%	5%	3%	0%	11%
2	8%	3%	3%	0%	14%
3	24%	0%	5%	8%	38%
4	5%	3%	0%	3%	11%
8 to 9	0%	0%	0%	3%	3%
10 to 14	3%	3%	0%	8%	14%
15 to 19	3%	0%	0%	3%	5%
20+	0%	3%	0%	3%	5%
Grand Total	46%	16%	11%	27%	100%

Month: November | Zone: F | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3	7%	7%	3%	0%	17%
4	10%	3%	3%	0%	17%
8 to 9	3%	0%	0%	0%	3%
10 to 14	14%	7%	14%	7%	41%
15 to 19	0%	3%	0%	0%	3%
20+	3%	7%	0%	7%	17%
Grand Total	38%	28%	21%	14%	100%

Month: November | Zone: G | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	15%	8%	2%	2%	27%
2	22%	11%	5%	7%	45%
3	7%	4%	5%	0%	16%
4	0%	1%	0%	1%	2%
8 to 9	1%	1%	0%	0%	2%
10 to 14	2%	0%	1%	0%	3%
15 to 19	0%	0%	0%	0%	0%
20+	0%	3%	0%	0%	3%
Grand Total	47%	29%	14%	10%	100%

Month: November | Zone: G | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	2%	0%	2%	4%
2	26%	13%	15%	2%	55%
3	6%	4%	6%	4%	21%
4	0%	2%	0%	0%	2%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	4%	6%	2%	13%
15 to 19	0%	0%	0%	0%	0%
20+	0%	2%	0%	2%	4%
Grand Total	32%	28%	28%	13%	100%

Month: November | Zone: G | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	2%	2%	0%	0%	5%
2	9%	20%	5%	7%	41%
3	7%	2%	0%	0%	9%
4	0%	0%	2%	2%	5%
8 to 9	0%	0%	0%	0%	0%
10 to 14	7%	7%	2%	2%	18%
15 to 19	0%	5%	0%	5%	9%
20+	0%	5%	0%	9%	14%
Grand Total	25%	41%	9%	25%	100%

DECEMBER

NUMBER OF RESPONDENTS

Month: December | Zone: A | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	7	3	1		11
2	9	13	3	3	28
3	2	1	2		5
4	2	2			4
8 to 9					
10 to 14		1		1	2
15 to 19		1			1
20+	2	2			4
Grand Total	22	23	6	4	55

Month: December | Zone: A | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	2				2
2	11	15	3	1	30
3	6	6			12
4	3	2		1	6
8 to 9	1	1	1		3
10 to 14	4	1	2	1	8
15 to 19	2	1			3
20+	2	2	1		5
Grand Total	31	28	7	3	69

Month: December | Zone: A | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	4	5	3	4	16
3	1	10	2	3	16
4	1	9	4	8	22
8 to 9				1	1
10 to 14	4	4	5	12	25
15 to 19		1	2	6	9
20+		5	4	9	18
Grand Total	10	34	20	43	107

Month: December | Zone: B | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	3	2		1	6
2	29	17	7	1	54
3		1			1
4	1				1
8 to 9					
10 to 14					
15 to 19					
20+	1				1
Grand Total	34	20	7	2	63

Month: December | Zone: B | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	3	1			4
2	36	8	4		48
3	2	1			3
4					
8 to 9					
10 to 14		1			1
15 to 19					
20+					
Grand Total	41	11	4		56

Month: December | Zone: B | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1	1		1	3
2	16	13	6	6	41
3	1	9	2	6	18
4		4	2		6
8 to 9		1			1
10 to 14		1	1	1	3
15 to 19		1			1
20+		1		2	3
Grand Total	18	31	11	16	76

Month: December | Zone: C | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1	6	1		8
2	21	19	5	13	58
3	1	1			2
4					
8 to 9					
10 to 14					
15 to 19					
20+	1				1
Grand Total	24	26	6	13	69

Month: December | Zone: C | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1				1
2	19	16	11	6	52
3	1	2	2	1	6
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	21	18	13	7	59

Month: December | Zone: C | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	11	1	4	2	18
3		3	2	4	9
4		2			2
8 to 9					
10 to 14		1	2	4	7
15 to 19		2		3	5
20+					
Grand Total	11	9	8	13	41

Month: December | Zone: D | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	12	9	7	3	31
2	12	13	9	11	45
3					
4					
8 to 9					
10 to 14					
15 to 19					
20+		1			1
Grand Total	24	23	16	14	77

Month: December | Zone: D | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1	1	1		3
2	22	23	11	17	73
3		3	3		6
4					
8 to 9					
10 to 14				1	1
15 to 19					
20+					
Grand Total	23	27	15	18	83

Month: December | Zone: D | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	8	15	9	6	38
3	2	8	10	8	28
4		1			1
8 to 9					
10 to 14		2			2
15 to 19				1	1
20+				1	1
Grand Total	10	26	19	16	71

Month: December | Zone: E | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	15	6	3		24
2	7	6	10		23
3	1	3			4
4					
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	23	15	13		51

Month: December | Zone: E | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	2	4			6
2	8	7	1		16
3	2	3			5
4	1		1		2
8 to 9					
10 to 14					
15 to 19					
20+					
Grand Total	13	14	2		29

Month: December | Zone: E | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	5	9	5		19
3	2	4	8		14
4	1				1
8 to 9	1				1
10 to 14			2		2
15 to 19					
20+					
Grand Total	9	13	15		37

Month: December | Zone: F | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	4				4
2		1	2	1	4
3	8	4	1	6	19
4		5	2	5	12
8 to 9	2	1	1		4
10 to 14	3	5	2	5	15
15 to 19	1	1	1		3
20+	1				1
Grand Total	19	17	9	17	62

Month: December | Zone: F | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	2				2
3	3	1	2	3	9
4	2	1			3
8 to 9					
10 to 14	1			2	3
15 to 19		1		1	2
20+		1	1		2
Grand Total	8	4	3	6	21

Month: December | Zone: F | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2					
3	1	2	1		4
4	2	3	1		6
8 to 9	1				1
10 to 14	2	4	2	3	11
15 to 19	1				1
20+	1	2		2	5
Grand Total	8	11	4	5	28

Month: December | Zone: G | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	5	2	2	1	10
2	19	7	1	2	29
3	3	3	1		7
4		2		1	3
8 to 9	2				2
10 to 14	1		1		2
15 to 19		1			1
20+	1				1
Grand Total	31	15	5	4	55

Month: December | Zone: G | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	3			1	4
2	10	6	4	1	21
3	2	1	2	1	6
4					
8 to 9					
10 to 14	1	3	1		5
15 to 19					
20+		1		1	2
Grand Total	16	11	7	4	38

Month: December | Zone: G | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1	1			2
2	5	7	2	2	16
3	3	1			4
4			1	1	2
8 to 9					
10 to 14		4	1	1	6
15 to 19	1			1	2
20+		1		4	5
Grand Total	10	14	4	9	37

DECEMBER

PERCENTAGE OF RESPONDENTS

Month: December | Zone: A | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	13%	5%	2%	0%	20%
2	16%	24%	5%	5%	51%
3	4%	2%	4%	0%	9%
4	4%	4%	0%	0%	7%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	2%	0%	2%	4%
15 to 19	0%	2%	0%	0%	2%
20+	4%	4%	0%	0%	7%
Grand Total	40%	42%	11%	7%	100%

Month: December | Zone: A | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	3%	0%	0%	0%	3%
2	16%	22%	4%	1%	43%
3	9%	9%	0%	0%	17%
4	4%	3%	0%	1%	9%
8 to 9	1%	1%	1%	0%	4%
10 to 14	6%	1%	3%	1%	12%
15 to 19	3%	1%	0%	0%	4%
20+	3%	3%	1%	0%	7%
Grand Total	45%	41%	10%	4%	100%

Month: December | Zone: A | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	4%	5%	3%	4%	15%
3	1%	9%	2%	3%	15%
4	1%	8%	4%	7%	21%
8 to 9	0%	0%	0%	1%	1%
10 to 14	4%	4%	5%	11%	23%
15 to 19	0%	1%	2%	6%	8%
20+	0%	5%	4%	8%	17%
Grand Total	9%	32%	19%	40%	100%

Month: December | Zone: B | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	5%	3%	0%	2%	10%
2	46%	27%	11%	2%	86%
3	0%	2%	0%	0%	2%
4	2%	0%	0%	0%	2%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	2%	0%	0%	0%	2%
Grand Total	54%	32%	11%	3%	100%

Month: December | Zone: B | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	5%	2%	0%	0%	7%
2	64%	14%	7%	0%	86%
3	4%	2%	0%	0%	5%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	2%	0%	0%	2%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	73%	20%	7%	0%	100%

Month: December | Zone: B | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1%	1%	0%	1%	4%
2	21%	17%	8%	8%	54%
3	1%	12%	3%	8%	24%
4	0%	5%	3%	0%	8%
8 to 9	0%	1%	0%	0%	1%
10 to 14	0%	1%	1%	1%	4%
15 to 19	0%	1%	0%	0%	1%
20+	0%	1%	0%	3%	4%
Grand Total	24%	41%	14%	21%	100%

Month: December | Zone: C | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1%	9%	1%	0%	12%
2	30%	28%	7%	19%	84%
3	1%	1%	0%	0%	3%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	1%	0%	0%	0%	1%
Grand Total	35%	38%	9%	19%	100%

Month: December | Zone: C | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	2%	0%	0%	0%	2%
2	32%	27%	19%	10%	88%
3	2%	3%	3%	2%	10%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	36%	31%	22%	12%	100%

Month: December | Zone: C | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	27%	2%	10%	5%	44%
3	0%	7%	5%	10%	22%
4	0%	5%	0%	0%	5%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	2%	5%	10%	17%
15 to 19	0%	5%	0%	7%	12%
20+	0%	0%	0%	0%	0%
Grand Total	27%	22%	20%	32%	100%

Month: December | Zone: D | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	16%	12%	9%	4%	40%
2	16%	17%	12%	14%	58%
3	0%	0%	0%	0%	0%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	1%	0%	0%	1%
Grand Total	31%	30%	21%	18%	100%

Month: December | Zone: D | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1%	1%	1%	0%	4%
2	27%	28%	13%	20%	88%
3	0%	4%	4%	0%	7%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	1%	1%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	28%	33%	18%	22%	100%

Month: December | Zone: D | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	11%	21%	13%	8%	54%
3	3%	11%	14%	11%	39%
4	0%	1%	0%	0%	1%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	3%	0%	0%	3%
15 to 19	0%	0%	0%	1%	1%
20+	0%	0%	0%	1%	1%
Grand Total	14%	37%	27%	23%	100%

Month: December | Zone: E | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	29%	12%	6%	0%	47%
2	14%	12%	20%	0%	45%
3	2%	6%	0%	0%	8%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	45%	29%	25%	0%	100%

Month: December | Zone: E | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	7%	14%	0%	0%	21%
2	28%	24%	3%	0%	55%
3	7%	10%	0%	0%	17%
4	3%	0%	3%	0%	7%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	45%	48%	7%	0%	100%

Month: December | Zone: E | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	14%	24%	14%	0%	51%
3	5%	11%	22%	0%	38%
4	3%	0%	0%	0%	3%
8 to 9	3%	0%	0%	0%	3%
10 to 14	0%	0%	5%	0%	5%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	24%	35%	41%	0%	100%

Month: December | Zone: F | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	6%	0%	0%	0%	6%
2	0%	2%	3%	2%	6%
3	13%	6%	2%	10%	31%
4	0%	8%	3%	8%	19%
8 to 9	3%	2%	2%	0%	6%
10 to 14	5%	8%	3%	8%	24%
15 to 19	2%	2%	2%	0%	5%
20+	2%	0%	0%	0%	2%
Grand Total	31%	27%	15%	27%	100%

Month: December | Zone: F | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	10%	0%	0%	0%	10%
3	14%	5%	10%	14%	43%
4	10%	5%	0%	0%	14%
8 to 9	0%	0%	0%	0%	0%
10 to 14	5%	0%	0%	10%	14%
15 to 19	0%	5%	0%	5%	10%
20+	0%	5%	5%	0%	10%
Grand Total	38%	19%	14%	29%	100%

Month: December | Zone: F | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3	4%	7%	4%	0%	14%
4	7%	11%	4%	0%	21%
8 to 9	4%	0%	0%	0%	4%
10 to 14	7%	14%	7%	11%	39%
15 to 19	4%	0%	0%	0%	4%
20+	4%	7%	0%	7%	18%
Grand Total	29%	39%	14%	18%	100%

Month: December | Zone: G | Area: Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	9%	4%	4%	2%	18%
2	35%	13%	2%	4%	53%
3	5%	5%	2%	0%	13%
4	0%	4%	0%	2%	5%
8 to 9	4%	0%	0%	0%	4%
10 to 14	2%	0%	2%	0%	4%
15 to 19	0%	2%	0%	0%	2%
20+	2%	0%	0%	0%	2%
Grand Total	56%	27%	9%	7%	100%

Month: December | Zone: G | Area: Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	8%	0%	0%	3%	11%
2	26%	16%	11%	3%	55%
3	5%	3%	5%	3%	16%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	3%	8%	3%	0%	13%
15 to 19	0%	0%	0%	0%	0%
20+	0%	3%	0%	3%	5%
Grand Total	42%	29%	18%	11%	100%

Month: December | Zone: G | Area: Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	3%	3%	0%	0%	5%
2	14%	19%	5%	5%	43%
3	8%	3%	0%	0%	11%
4	0%	0%	3%	3%	5%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	11%	3%	3%	16%
15 to 19	3%	0%	0%	3%	5%
20+	0%	3%	0%	11%	14%
Grand Total	27%	38%	11%	24%	100%

ALL MONTHS
NUMBER OF RESPONDENTS

Month (All) | Zone A | Area Exempt State

Traps per Trawl	Traps per Trawl 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	450	274	148	216	1,088
2	234	303	172	241	950
3	19	25	17	27	88
4	6	16	15	10	47
8 to 9	7	3	1	1	12
10 to 14	13	17	16	13	59
15 to 19	1	18	4	1	24
20+	20	19	1		40
Grand Total	**750**	**675**	**374**	**509**	**2,308**

Month (All) | Zone A | Area Non-exempt State

Traps per Trawl	Traps per Trawl 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	31	20	2	5	58
2	231	188	24	33	476
3	72	73	1	2	148
4	46	43	6	1	96
8 to 9	3	9	7		19
10 to 14	56	25	13	9	103
15 to 19	21	9			30
20+	23	24	3	5	55
Grand Total	**483**	**391**	**56**	**55**	**985**

Month (All) | Zone A | Area Federal

Traps per Trawl	Traps per Trawl 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	4	3			7
2	94	85	31	21	231
3	20	75	18	35	148
4	34	102	13	38	187
8 to 9		3	3	12	18
10 to 14	55	50	78	83	266
15 to 19	9	18	26	58	111
20+	1	51	45	69	166
Grand Total	**217**	**387**	**214**	**316**	**1,134**

Month (All) | Zone B | Area Exempt State

Traps per Trawl	Traps per Trawl 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	288	125	70	58	541
2	295	383	268	141	1,087
3	1	1	3	7	12
4	3			8	11
8 to 9					
10 to 14					
15 to 19					
20+	4	3	4		11
Grand Total	**591**	**512**	**345**	**214**	**1,662**

Month (All) | Zone B | Area Non-exempt State

Traps per Trawl	Traps per Trawl 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	31	9		2	42
2	327	159	22	2	510
3	16	7			23
4					
8 to 9					
10 to 14		1			1
15 to 19					
20+					
Grand Total	**374**	**176**	**22**	**4**	**576**

Month (All) | Zone B | Area Federal

Traps per Trawl	Traps per Trawl 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	7	2	3	1	13
2	190	97	53	17	357
3	13	63	16	26	118
4	4	14	6	1	25
8 to 9		4		1	5
10 to 14	4	7	2	11	24
15 to 19	1	1			2
20+	2	8	8	8	26
Grand Total	**221**	**196**	**88**	**65**	**570**

Month (All) | Zone C | Area Exempt State

Traps per Trawl	Traps per Trawl 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	343	152	75	57	627
2	244	406	271	533	1,454
3	4	9	4	16	33
4			5		5
8 to 9					
10 to 14					
15 to 19					
20+	4	1	12	1	18
Grand Total	**595**	**568**	**367**	**607**	**2,137**

Month (All) | Zone C | Area Non-exempt State

Traps per Trawl	Traps per Trawl 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	42	6		9	57
2	165	173	100	194	632
3	6	10	6	9	31
4			1		1
8 to 9		1		5	6
10 to 14					
15 to 19					
20+					
Grand Total	**213**	**190**	**107**	**217**	**727**

Month (All) | Zone C | Area Federal

Traps per Trawl	Traps per Trawl 1 to 200	201 to 400	401 to 600	601+	Grand Total
1		1			1
2	74	47	18	18	157
3	7	27	10	24	68
4	4	5		3	12
8 to 9			1		1
10 to 14	5	9	11	24	49
15 to 19		10		23	33
20+	2	4		1	7
Grand Total	**92**	**103**	**40**	**93**	**328**

Month (All) | Zone D | Area Exempt State

Traps per Trawl	Traps per Trawl 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	423	273	214	320	1,230
2	143	205	110	287	745
3	4	9		18	31
4					
8 to 9			4		4
10 to 14		1			1
15 to 19					
20+		2	3	2	7
Grand Total	**570**	**490**	**331**	**627**	**2,018**

Month (All) | Zone D | Area Non-exempt State

Traps per Trawl	Traps per Trawl 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	48	25	8	43	124
2	253	211	122	170	756
3	8	24	6	1	39
4					
8 to 9					
10 to 14				3	3
15 to 19					
20+					
Grand Total	**309**	**260**	**136**	**217**	**922**

Month (All) | Zone D | Area Federal

Traps per Trawl	Traps per Trawl 1 to 200	201 to 400	401 to 600	601+	Grand Total
1		3		1	4
2	87	98	42	46	273
3	19	69	63	41	192
4	5	3		2	10
8 to 9			1		1
10 to 14		11			11
15 to 19		1	1	9	11
20+				8	8
Grand Total	**111**	**185**	**107**	**107**	**510**

Month (All) | Zone E | Area Exempt State

Traps per Trawl	Traps per Trawl 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	255	142	161	2	560
2	97	124	193		414
3	22	25	36		83
4	4	3	2		9
8 to 9					
10 to 14	7	6	16		29
15 to 19					
20+		1			1
Grand Total	**385**	**301**	**408**	**2**	**1,096**

Month (All) | Zone E | Area Non-exempt State

Traps per Trawl	Traps per Trawl 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	47	25	22		94
2	81	46	8		135
3	23	25	1		49
4	18	1	6		25
8 to 9					
10 to 14	10	5			15
15 to 19	3				3
20+					
Grand Total	**182**	**102**	**37**		**321**

Month (All) | Zone E | Area Federal

Traps per Trawl	Traps per Trawl 1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2	61	50	31		142
3	19	42	44		105
4	5	9	10		24
8 to 9	2				2
10 to 14		7	10		17
15 to 19					
20+			1		1
Grand Total	**87**	**108**	**96**		**291**

Month (All) | Zone F | Area Exempt State

Traps per Trawl	Traps per Trawl 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	240	22	1	9	272
2	92	50	30	35	207
3	71	68	27	114	280
4	21	39	10	126	196
8 to 9	4	12	8	18	42
10 to 14	36	63	27	108	234
15 to 19	9	16	6	15	46
20+	7	15	5	9	36
Grand Total	**480**	**285**	**114**	**434**	**1,313**

Month (All) | Zone F | Area Non-exempt State

Traps per Trawl	Traps per Trawl 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	42	11	1	4	58
2	7	13	14		34
3	41	24	17	41	123
4	22	19	1	11	53
8 to 9			1	1	2
10 to 14	2	11		20	33
15 to 19	1	1		12	14
20+		7	3	8	18
Grand Total	**115**	**86**	**37**	**97**	**335**

Month (All) | Zone F | Area Federal

Traps per Trawl	Traps per Trawl 1 to 200	201 to 400	401 to 600	601+	Grand Total
1					
2					
3	8	10	3		21
4	18	5	2		25
8 to 9	2		1		3
10 to 14	25	20	13	14	72
15 to 19	8	2	3		13
20+	9	4	1	8	22
Grand Total	**70**	**41**	**23**	**22**	**156**

Month (All) | Zone G | Area Exempt State

Traps per Trawl	Traps per Trawl 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	207	102	53	43	405
2	181	132	99	65	477
3	27	52	32	13	124
4	5	6		7	18
8 to 9	4	4			8
10 to 14	6	19	3	5	33
15 to 19		3			3
20+	2	7			9
Grand Total	**432**	**325**	**187**	**133**	**1,077**

Month (All) | Zone G | Area Non-exempt State

Traps per Trawl	Traps per Trawl 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	50	5		3	58
2	114	78	32	13	237
3	23	18	13	12	66
4		12	1		13
8 to 9	6				6
10 to 14	8	13	10	25	56
15 to 19				3	3
20+	10	3	1	3	17
Grand Total	**211**	**129**	**57**	**59**	**456**

Month (All) | Zone G | Area Federal

Traps per Trawl	Traps per Trawl 1 to 200	201 to 400	401 to 600	601+	Grand Total
1	12	12	1	4	29
2	94	43	12	8	157
3	23	9	7	1	40
4	1	4	3	2	10
8 to 9			1		1
10 to 14	27	20	5	6	58
15 to 19	5	12	2	7	26
20+	6	22	4	17	49
Grand Total	**168**	**122**	**35**	**45**	**370**

ALL MONTHS
PERCENTAGE OF RESPONDENTS

Month (All) | Zone A | Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	19%	12%	6%	9%	47%
2	10%	13%	7%	10%	41%
3	1%	1%	1%	1%	4%
4	0%	1%	1%	0%	2%
8 to 9	0%	0%	0%	0%	1%
10 to 14	1%	1%	1%	1%	3%
15 to 19	0%	1%	0%	0%	1%
20+	1%	1%	0%	0%	2%
Grand Total	32%	29%	16%	22%	100%

Month (All) | Zone A | Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	3%	2%	0%	1%	6%
2	23%	19%	2%	3%	48%
3	7%	7%	0%	0%	15%
4	5%	4%	1%	0%	10%
8 to 9	0%	1%	1%	0%	2%
10 to 14	6%	3%	1%	1%	10%
15 to 19	2%	1%	0%	0%	3%
20+	2%	2%	0%	1%	6%
Grand Total	49%	40%	6%	6%	100%

Month (All) | Zone A | Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	1%
2	8%	7%	3%	2%	20%
3	2%	7%	2%	3%	13%
4	3%	9%	1%	3%	16%
8 to 9	0%	0%	0%	1%	2%
10 to 14	5%	4%	7%	7%	23%
15 to 19	1%	2%	2%	5%	10%
20+	0%	4%	4%	6%	15%
Grand Total	19%	34%	19%	28%	100%

Month (All) | Zone B | Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	17%	8%	4%	3%	33%
2	18%	23%	16%	8%	65%
3	0%	0%	0%	0%	1%
4	0%	0%	0%	0%	1%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	1%
Grand Total	36%	31%	21%	13%	100%

Month (All) | Zone B | Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	5%	2%	0%	0%	7%
2	57%	28%	4%	0%	89%
3	3%	1%	0%	0%	4%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	65%	31%	4%	1%	100%

Month (All) | Zone B | Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	1%	0%	1%	0%	2%
2	33%	17%	9%	3%	63%
3	2%	11%	3%	5%	21%
4	1%	2%	1%	0%	4%
8 to 9	0%	1%	0%	0%	1%
10 to 14	1%	1%	0%	2%	4%
15 to 19	0%	0%	0%	0%	0%
20+	0%	1%	1%	1%	5%
Grand Total	39%	34%	15%	11%	100%

Month (All) | Zone C | Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	16%	7%	4%	3%	29%
2	11%	19%	13%	25%	68%
3	0%	0%	0%	1%	2%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	1%	0%	1%
Grand Total	28%	27%	17%	28%	100%

Month (All) | Zone C | Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	6%	1%	0%	1%	8%
2	23%	24%	14%	27%	87%
3	1%	1%	1%	1%	4%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	1%	1%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	29%	26%	15%	30%	100%

Month (All) | Zone C | Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	23%	14%	5%	5%	48%
3	2%	8%	3%	7%	21%
4	1%	2%	0%	1%	4%
8 to 9	0%	0%	0%	0%	0%
10 to 14	2%	3%	3%	7%	15%
15 to 19	0%	3%	0%	7%	10%
20+	1%	1%	0%	0%	2%
Grand Total	28%	31%	12%	28%	100%

Month (All) | Zone D | Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	21%	14%	11%	16%	61%
2	7%	10%	5%	14%	37%
3	0%	0%	0%	1%	2%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	28%	24%	16%	31%	100%

Month (All) | Zone D | Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	5%	3%	1%	5%	13%
2	27%	23%	13%	18%	82%
3	1%	3%	1%	0%	4%
4	0%	0%	0%	0%	0%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	34%	28%	15%	24%	100%

Month (All) | Zone D | Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	1%	0%	0%	1%
2	17%	19%	8%	9%	54%
3	4%	14%	12%	8%	38%
4	1%	1%	0%	0%	2%
8 to 9	0%	0%	0%	0%	0%
10 to 14	0%	2%	0%	0%	2%
15 to 19	0%	0%	0%	2%	2%
20+	0%	0%	0%	2%	2%
Grand Total	22%	36%	21%	21%	100%

Month (All) | Zone E | Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	23%	13%	15%	0%	51%
2	9%	11%	18%	0%	38%
3	2%	2%	3%	0%	8%
4	0%	0%	0%	0%	1%
8 to 9	0%	0%	0%	0%	0%
10 to 14	1%	1%	1%	0%	3%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	35%	27%	37%	0%	100%

Month (All) | Zone E | Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	15%	8%	7%	0%	29%
2	25%	14%	2%	0%	42%
3	7%	8%	0%	0%	15%
4	6%	0%	2%	0%	8%
8 to 9	0%	0%	0%	0%	0%
10 to 14	3%	2%	0%	0%	5%
15 to 19	1%	0%	0%	0%	1%
20+	0%	0%	0%	0%	0%
Grand Total	57%	32%	12%	0%	100%

Month (All) | Zone E | Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	21%	17%	11%	0%	49%
3	7%	14%	15%	0%	36%
4	2%	3%	3%	0%	8%
8 to 9	1%	0%	0%	0%	1%
10 to 14	0%	2%	3%	0%	6%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
Grand Total	30%	37%	33%	0%	100%

Month (All) | Zone F | Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	18%	2%	0%	1%	21%
2	7%	4%	2%	3%	16%
3	5%	5%	2%	9%	21%
4	2%	3%	1%	10%	15%
8 to 9	0%	1%	1%	1%	3%
10 to 14	3%	5%	2%	8%	18%
15 to 19	1%	1%	0%	1%	4%
20+	1%	1%	0%	1%	3%
Grand Total	37%	22%	9%	33%	100%

Month (All) | Zone F | Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	13%	3%	0%	1%	17%
2	2%	4%	4%	0%	10%
3	12%	7%	5%	12%	37%
4	7%	6%	0%	3%	16%
8 to 9	0%	0%	0%	0%	1%
10 to 14	1%	3%	0%	6%	10%
15 to 19	0%	0%	0%	4%	4%
20+	0%	2%	1%	2%	5%
Grand Total	34%	26%	11%	29%	100%

Month (All) | Zone F | Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3	5%	6%	2%	0%	13%
4	12%	3%	1%	0%	16%
8 to 9	1%	0%	1%	0%	2%
10 to 14	16%	13%	8%	9%	46%
15 to 19	5%	1%	2%	0%	8%
20+	6%	3%	1%	5%	14%
Grand Total	45%	26%	15%	14%	100%

Month (All) | Zone G | Area Exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	19%	9%	5%	4%	38%
2	17%	12%	9%	6%	44%
3	3%	5%	3%	1%	12%
4	0%	1%	0%	1%	2%
8 to 9	0%	0%	0%	0%	1%
10 to 14	1%	2%	0%	0%	3%
15 to 19	0%	0%	0%	0%	0%
20+	0%	1%	0%	0%	1%
Grand Total	40%	30%	17%	12%	100%

Month (All) | Zone G | Area Non-exempt State

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	11%	1%	0%	1%	13%
2	25%	17%	7%	3%	52%
3	5%	4%	3%	3%	14%
4	0%	3%	0%	0%	3%
8 to 9	1%	0%	0%	0%	1%
10 to 14	2%	3%	2%	5%	12%
15 to 19	0%	0%	0%	1%	1%
20+	2%	1%	0%	1%	4%
Grand Total	46%	28%	13%	13%	100%

Month (All) | Zone G | Area Federal

Traps per Trawl	1 to 200	201 to 400	401 to 600	601+	Grand Total
1	3%	3%	0%	1%	8%
2	25%	12%	3%	2%	42%
3	6%	2%	2%	0%	11%
4	0%	1%	1%	1%	3%
8 to 9	0%	0%	0%	0%	0%
10 to 14	7%	5%	1%	2%	16%
15 to 19	1%	3%	1%	2%	7%
20+	2%	6%	1%	5%	13%
Grand Total	45%	33%	9%	12%	100%

NEW HAMPSHIRE

The discussion below explains the model's characterization of the activity and gear associated with lobster and gillnet vessels fishing exclusively in New Hampshire state waters.[24]

NUMBER OF ACTIVE VESSELS

Lobster

- **Number of State-Licensed Vessels in NH State Waters:** The New Hampshire Fish and Game Department (FGD) requires that fishermen who land up to 1,000 pounds report using the Annual Lobster Harvester Report, which includes a monthly summary of fishing activity. Fishermen who land over 1,000 pounds use the Lobster Fisherman and Dealer Reporting Form, which includes trip-level data. To avoid double-counting activity captured in Federal datasets, we remove records for fishermen who also held a Federal permit for a given year, identifying fishermen that held only a state license in each year.
- **Number of Vessels Operating in Exempt and Non-Exempt Waters:** We assign the activity of state-licensed vessels to exempt or non-exempt waters based on the location of activity reported by each vessel. The state reporting areas subject to the ALWTRP include the Isle of Shoals, Seabrook, Gulf of Maine, Rye, and Hampton; all other fishing areas are located landward of the ALWTRP exemption line. Vessels that fish more than one sub-area in exempt or non-exempt waters are counted only once to provide a more accurate count of vessels in each of the two major areas.[25] Table NH-1 presents the resulting data on the number of vessels active in NH waters in each month of 2011.

Gillnet

- **Number of Vessels in NH State Waters:** NH FGD provided its Coastal Harvester Reporting Form data for 2010 (see Table NH-1). The data include trip-level information from all state-permitted gillnet fishermen. The information available is insufficient to differentiate between fishermen who held only a state permit and those who also held a Federal permit; in the absence of this information, our estimate of gillnet activity in NH state waters includes all activity reported via the Coastal Harvester Reporting Form. While this may lead to some double-counting of activity that is also captured in Federal datasets, the gillnet fishery in NH waters is relatively small, and the

[24] The NH Fish and Game Department (NH FGD) indicates that OTP activity within NH waters is relatively minor. NH FGD does not maintain a separate reporting system for the OTP fishery. Instead, OTP fishermen use the forms developed for the lobster fishery. The NH data do not differentiate between lobster and OTP activity; therefore, any OTP activity is subsumed within estimates of activity for the lobster fishery.

[25] The data indicate that in some months, a small subset of vessels (five of approximately 175 in 2011) operate in both exempt and non-exempt waters. For simplicity, the analysis does not attempt to prorate the activity of these vessels between the two areas; instead, the count of active vessels includes them in both exempt and non-exempt waters. As a result, for some months, the analysis may slightly overstate the quantity of gear fished.

impact on estimates of the total amount of gear deployed is likely to be minor. As with the lobster fishery, we use the fishing areas specified in state reports to allocate state gillnet activity to exempt and non-exempt waters.

GEAR CONFIGURATIONS FOR MODEL VESSELS

Lobster

- **Distributional Approach**: As with other northeast states, the vertical line model applies a distributional approach to characterize gear configurations used by New Hampshire lobster vessels. Rather than estimate the concentration of vertical line based on a single model vessel designed to represent the average or typical configuration of gear, the model specifies multiple model vessels – representing the full range of gear configurations currently in use – and specifies the percentage of active vessels to which each configuration applies. We develop separate distributions for New Hampshire state waters that are exempt from ALWTRP requirements and state waters that are subject to ALWTRP requirements.
- **Non-Exempt Waters**: The specification of each model vessel includes the total number of traps that the vessel fishes and the number of traps fished per trawl. NH FGD provided a specialized data set for vessels fishing in non-exempt state waters in 2010. This data set merges FGD's Annual Lobster Harvester data and the more detailed trip-level data. In particular, it distributes each vessel's gear to sub-areas of non-exempt waters (in cases where a vessel fishes more than one sub-area) and specifies an average trawl length for each sub-area. These data allow us to cross-tabulate traps per vessel and traps per trawl, estimating the percentage of vessels that fish different configurations. We develop a separate gear distribution for each month. As a result, for example, the data suggest that about four percent of all vessels fishing in non-exempt waters in May fish 300 to 500 traps in trawls of 6 to 9 traps. Attachment NH-A provides the full set of gear distribution matrices for vessels fishing in non-exempt state waters of New Hampshire.[26]
- **Exempt Waters**: The approach used for New Hampshire exempt waters is a simplified version of the approach applied in non-exempt waters. Using data from the 2011 Annual Lobster Harvester reports and the trip-level data, we estimate the average number of traps fished and average traps per trawl for each vessel in each month. Vessels in exempt waters tend to fish fewer traps than those in non-exempt waters, and tend to fish singles or short trawls, with little seasonal variation. Given the lack of seasonal variation, we develop a single gear distribution matrix that applies year-round to vessels fishing in exempt waters. This distribution is shown in Table NH-2.

[26] In some cases, a vessel may report fishing different configurations of gear in different sub-areas during the same month. The distributions described above reflect, for these vessels, the monthly average number of traps per trawl across all sub-areas.

- **Point Estimates**: To calculate the number of vertical lines deployed, the model must apply specific numerical values to parameters specified with ranges. For example, for the traps per trawl variable, we need to assign numerical values to the "4 to 5" range, the "6 to 9" range, etc. To do so, we calculate the average traps per trawl for all responses in the range, across all months. We do the same for the number of traps fished, calculating an average number of traps for each of the ranges. Table NH-3 summarizes the resulting values.
- **Endlines per Trawl**: The number of endlines per trawl is based on expert input from NH FGD staff. Specifically, we assume one endline for singles and doubles, and two endlines for trawls of three or more traps.
- **Anchor Lines**: We assume anchor lines are not used.

Gillnet

- **Total Nets and Strings Fished**: The typical number of strings fished in each month is based on an analysis of harvester data provided by NH FGD for gillnetting activity (see Table NH-4). The model applies separate gear configuration estimates for vessels fishing in exempt and non-exempt waters. NH FGD collects information on the number of nets fished per vessel. The model assumes that gillnetters fish one net per string; hence, the number of strings fished is equal to the number of nets fished. Given limited data and the narrow season for gillnetting activity, the model assumes no seasonal variation in the quantity of gear fished.
- **Panel Dimensions**: The net panel dimensions are based on averages calculated from harvester data provided by NH FGD.
- **Other**: The model assumes two surface lines and two 10-foot anchor lines for each gillnet string.

TABLE NH-1. ESTIMATED NUMBER OF VESSELS ACTIVE IN NEW HAMPSHIRE STATE WATERS

FISHERY	YEAR	WATERS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Lobster	2011	Non-Exempt	6	5	8	18	42	89	123	117	100	71	50	30
		Exempt	2	1	1	5	17	38	42	45	44	34	19	4
Gillnet	2010	Non-Exempt	0	0	0	0	0	0	4	3	0	0	0	0
		Exempt	0	0	0	1	6	2	0	1	1	1	0	0

TABLE NH-2. GEAR CONFIGURATION DISTRIBUTION FOR LOBSTER VESSELS FISHING IN EXEMPT STATE WATERS (2010)

TRAPS PER TRAWL	TRAPS PER VESSEL				
	1 TO 100 TRAPS	101 TO 300 TRAPS	301 TO 500 TRAPS	MORE THAN 500 TRAPS	GRAND TOTAL
Singles	51.3%	1.9%	0.0%	0.0%	53.2 %
Doubles	4.5%	1.6%	0.0%	0.0%	6.1%
Triples	3.2%	0.3%	0.0%	0.0%	3.5%
4 to 5	10.2%	0.6%	0.0%	0.0%	10.8%
6 to 9	1.0%	9.2%	0.0%	0.0%	10.2%
10 or more	1.9%	10.5%	3.2%	0.6%	16.2%
Grand Total	72.1%	24.1%	3.2%	0.6%	100.0%

TABLE NH-3. POINT ESTIMATES APPLIED FOR LOBSTER GEAR CONFIGURATIONS

VARIABLE	RANGE	NON-EXEMPT WATERS	EXEMPT WATERS
Traps per Trawl	4 to 5	4.8	4.6
	6 to 9	7.7	8.2
	10 or more	10.3	10.0
Number of Traps Fished per Vessel	1 to 100 Traps	42	33
	101 to 300 Traps	219	209
	301 to 500 Traps	400	390
	500+ Traps	856	580

TABLE NH-4. GEAR CONFIGURATION ASSUMPTIONS FOR GILLNET VESSELS FISHING IN NEW HAMPSHIRE STATE WATERS (2010)

AREA	TOTAL NUMBER OF STRINGS FISHED	NET PANELS PER STRING	ENDLINES PER STRING	ANCHOR LINES PER STRING	NET PANEL LENGTH (FEET)	NET PANEL HEIGHT (FEET)
Non-Exempt Waters	14	1	2	2 (10 feet each)	296	16
Exempt Waters	1	1	2	2 (10 feet each)	64	5

ATTACHMENT NH-A

DISTRIBUTION OF GEAR CONFIGURATIONS BY MONTH FOR LOBSTER VESSELS FISHING IN NON-EXEMPT STATE WATERS

	NUMBER OF VESSELS							PERCENTAGE OF VESSELS					
January													
		Traps per Vessel							Traps per Vessel				
	Traps per Trawl	1 to 100	101 to 300	301 to 500	501+	Grand Total		Traps per Trawl	1 to 100	101 to 300	301 to 500	501+	Grand Total
	1							1	0.0%	0.0%	0.0%	0.0%	0.0%
	2							2	0.0%	0.0%	0.0%	0.0%	0.0%
	3							3	0.0%	0.0%	0.0%	0.0%	0.0%
	4 to 5		3			3		4 to 5	0.0%	11.5%	0.0%	0.0%	11.5%
	6 to 9		6	2	1	9		6 to 9	0.0%	23.1%	7.7%	3.8%	34.6%
	10+		3	3	8	14		10+	0.0%	11.5%	11.5%	30.8%	53.8%
	Grand Total		12	5	9	26		Grand Total	0.0%	46.2%	19.2%	34.6%	100.0%
February													
		Traps per Vessel							Traps per Vessel				
	Traps per Trawl	1 to 100	101 to 300	301 to 500	501+	Grand Total		Traps per Trawl	1 to 100	101 to 300	301 to 500	501+	Grand Total
	1							1	0.0%	0.0%	0.0%	0.0%	0.0%
	2							2	0.0%	0.0%	0.0%	0.0%	0.0%
	3		1			1		3	0.0%	5.0%	0.0%	0.0%	5.0%
	4 to 5		2			2		4 to 5	0.0%	10.0%	0.0%	0.0%	10.0%
	6 to 9	1	3		1	5		6 to 9	5.0%	15.0%	0.0%	5.0%	25.0%
	10+		6	2	4	12		10+	0.0%	30.0%	10.0%	20.0%	60.0%
	Grand Total	1	12	2	5	20		Grand Total	5.0%	60.0%	10.0%	25.0%	100.0%
March													
		Traps per Vessel							Traps per Vessel				
	Traps per Trawl	1 to 100	101 to 300	301 to 500	501+	Grand Total		Traps per Trawl	1 to 100	101 to 300	301 to 500	501+	Grand Total
	1							1	0.0%	0.0%	0.0%	0.0%	0.0%
	2							2	0.0%	0.0%	0.0%	0.0%	0.0%
	3							3	0.0%	0.0%	0.0%	0.0%	0.0%
	4 to 5		1			1		4 to 5	0.0%	5.6%	0.0%	0.0%	5.6%
	6 to 9		6			6		6 to 9	0.0%	33.3%	0.0%	0.0%	33.3%
	10+		7	3	1	11		10+	0.0%	38.9%	16.7%	5.6%	61.1%
	Grand Total		14	3	1	18		Grand Total	0.0%	77.8%	16.7%	5.6%	100.0%
April													
		Traps per Vessel							Traps per Vessel				
	Traps per Trawl	1 to 100	101 to 300	301 to 500	501+	Grand Total		Traps per Trawl	1 to 100	101 to 300	301 to 500	501+	Grand Total
	1	7				7		1	22.6%	0.0%	0.0%	0.0%	22.6%
	2		1			1		2	0.0%	3.2%	0.0%	0.0%	3.2%
	3							3	0.0%	0.0%	0.0%	0.0%	0.0%
	4 to 5		3			3		4 to 5	0.0%	9.7%	0.0%	0.0%	9.7%
	6 to 9		4	1	2	7		6 to 9	0.0%	12.9%	3.2%	6.5%	22.6%
	10+	1	5	3	4	13		10+	3.2%	16.1%	9.7%	12.9%	41.9%
	Grand Total	8	13	4	6	31		Grand Total	25.8%	41.9%	12.9%	19.4%	100.0%
May													
		Traps per Vessel							Traps per Vessel				
	Traps per Trawl	1 to 100	101 to 300	301 to 500	501+	Grand Total		Traps per Trawl	1 to 100	101 to 300	301 to 500	501+	Grand Total
	1	36				36		1	42.4%	0.0%	0.0%	0.0%	42.4%
	2			1		1		2	0.0%	0.0%	1.2%	0.0%	1.2%
	3	3				3		3	3.5%	0.0%	0.0%	0.0%	3.5%
	4 to 5	7	2		2	11		4 to 5	8.2%	2.4%	0.0%	2.4%	12.9%
	6 to 9	2	6	4	3	15		6 to 9	2.4%	7.1%	4.7%	3.5%	17.6%
	10+	1	3	3	12	19		10+	1.2%	3.5%	3.5%	14.1%	22.4%
	Grand Total	49	11	8	17	85		Grand Total	57.6%	12.9%	9.4%	20.0%	100.0%
June													
		Traps per Vessel							Traps per Vessel				
	Traps per Trawl	1 to 100	101 to 300	301 to 500	501+	Grand Total		Traps per Trawl	1 to 100	101 to 300	301 to 500	501+	Grand Total
	1	60	1			61		1	43.2%	0.7%	0.0%	0.0%	43.9%
	2	6	1			7		2	4.3%	0.7%	0.0%	0.0%	5.0%
	3	5	1			6		3	3.6%	0.7%	0.0%	0.0%	4.3%
	4 to 5	9	3	1	2	15		4 to 5	6.5%	2.2%	0.7%	1.4%	10.8%
	6 to 9	4	9	3	4	20		6 to 9	2.9%	6.5%	2.2%	2.9%	14.4%
	10+	1	5	4	20	30		10+	0.7%	3.6%	2.9%	14.4%	21.6%
	Grand Total	85	20	8	26	139		Grand Total	61.2%	14.4%	5.8%	18.7%	100.0%
July													
		Traps per Vessel							Traps per Vessel				
	Traps per Trawl	1 to 100	101 to 300	301 to 500	501+	Grand Total		Traps per Trawl	1 to 100	101 to 300	301 to 500	501+	Grand Total
	1	74	1			75		1	42.0%	0.6%	0.0%	0.0%	42.6%
	2	10	2			12		2	5.7%	1.1%	0.0%	0.0%	6.8%
	3	7	1			8		3	4.0%	0.6%	0.0%	0.0%	4.5%
	4 to 5	14	5	1	2	22		4 to 5	8.0%	2.8%	0.6%	1.1%	12.5%
	6 to 9	9	6	4	7	26		6 to 9	5.1%	3.4%	2.3%	4.0%	14.8%
	10+		3	5	25	33		10+	0.0%	1.7%	2.8%	14.2%	18.8%
	Grand Total	114	18	10	34	176		Grand Total	64.8%	10.2%	5.7%	19.3%	100.0%
August													
		Traps per Vessel							Traps per Vessel				
	Traps per Trawl	1 to 100	101 to 300	301 to 500	501+	Grand Total		Traps per Trawl	1 to 100	101 to 300	301 to 500	501+	Grand Total
	1	73	1			74		1	42.2%	0.6%	0.0%	0.0%	42.8%
	2	8	3			11		2	4.6%	1.7%	0.0%	0.0%	6.4%
	3	7	1			8		3	4.0%	0.6%	0.0%	0.0%	4.6%
	4 to 5	12	5	1	2	20		4 to 5	6.9%	2.9%	0.6%	1.2%	11.6%
	6 to 9	9	5	4	8	26		6 to 9	5.2%	2.9%	2.3%	4.6%	15.0%
	10+		3	5	26	34		10+	0.0%	1.7%	2.9%	15.0%	19.7%
	Grand Total	109	18	10	36	173		Grand Total	63.0%	10.4%	5.8%	20.8%	100.0%

	NUMBER OF VESSELS							PERCENTAGE OF VESSELS					
September													
		Traps per Vessel							Traps per Vessel				
	Traps per Trawl	1 to 100	101 to 300	301 to 500	501+	Grand Total		Traps per Trawl	1 to 100	101 to 300	301 to 500	501+	Grand Total
	1	55	1			56		1	35.9%	0.7%	0.0%	0.0%	36.6%
	2	6	3			9		2	3.9%	2.0%	0.0%	0.0%	5.9%
	3	7	1			8		3	4.6%	0.7%	0.0%	0.0%	5.2%
	4 to 5	12	5		3	20		4 to 5	7.8%	3.3%	0.0%	2.0%	13.1%
	6 to 9	8	4	5	8	25		6 to 9	5.2%	2.6%	3.3%	5.2%	16.3%
	10+	2	3	3	27	35		10+	1.3%	2.0%	2.0%	17.6%	22.9%
	Grand Total	90	17	8	38	153		Grand Total	58.8%	11.1%	5.2%	24.8%	100.0%
October													
		Traps per Vessel							Traps per Vessel				
	Traps per Trawl	1 to 100	101 to 300	301 to 500	501+	Grand Total		Traps per Trawl	1 to 100	101 to 300	301 to 500	501+	Grand Total
	1	28	1			29		1	25.2%	0.9%	0.0%	0.0%	26.1%
	2	4	2			6		2	3.6%	1.8%	0.0%	0.0%	5.4%
	3	4	1			5		3	3.6%	0.9%	0.0%	0.0%	4.5%
	4 to 5	6	3		2	11		4 to 5	5.4%	2.7%	0.0%	1.8%	9.9%
	6 to 9	8	6	3	8	25		6 to 9	7.2%	5.4%	2.7%	7.2%	22.5%
	10+	2	5	2	26	35		10+	1.8%	4.5%	1.8%	23.4%	31.5%
	Grand Total	52	18	5	36	111		Grand Total	46.8%	16.2%	4.5%	32.4%	100.0%
November													
		Traps per Vessel							Traps per Vessel				
	Traps per Trawl	1 to 100	101 to 300	301 to 500	501+	Grand Total		Traps per Trawl	1 to 100	101 to 300	301 to 500	501+	Grand Total
	1	8	1			9		1	11.1%	1.4%	0.0%	0.0%	12.5%
	2	3				3		2	4.2%	0.0%	0.0%	0.0%	4.2%
	3	2				2		3	2.8%	0.0%	0.0%	0.0%	2.8%
	4 to 5	3	2	1	1	7		4 to 5	4.2%	2.8%	1.4%	1.4%	9.7%
	6 to 9	5	4	2	9	20		6 to 9	6.9%	5.6%	2.8%	12.5%	27.8%
	10+	2	3	3	23	31		10+	2.8%	4.2%	4.2%	31.9%	43.1%
	Grand Total	23	10	6	33	72		Grand Total	31.9%	13.9%	8.3%	45.8%	100.0%
December													
		Traps per Vessel							Traps per Vessel				
	Traps per Trawl	1 to 100	101 to 300	301 to 500	501+	Grand Total		Traps per Trawl	1 to 100	101 to 300	301 to 500	501+	Grand Total
	1	2				2		1	4.3%	0.0%	0.0%	0.0%	4.3%
	2							2	0.0%	0.0%	0.0%	0.0%	0.0%
	3							3	0.0%	0.0%	0.0%	0.0%	0.0%
	4 to 5	1	4			5		4 to 5	2.2%	8.7%	0.0%	0.0%	10.9%
	6 to 9	3	5	1	4	13		6 to 9	6.5%	10.9%	2.2%	8.7%	28.3%
	10+	3	1	7	15	26		10+	6.5%	2.2%	15.2%	32.6%	56.5%
	Grand Total	9	10	8	19	46		Grand Total	19.6%	21.7%	17.4%	41.3%	100.0%

MASSACHUSETTS

The discussion below explains the model's characterization of the activity and gear associated with lobster, gillnet, and other trap/pot vessels fishing in Massachusetts waters.

DATA OVERVIEW

The Massachusetts Division of Marine Fisheries (DMF) provided detailed vessel-level data to support development of the vertical line model. Merging information from the trip-level and annual reporting components of its Catch Report data, DMF provided a comprehensive database of activity and gear configurations for all fixed-gear fisheries (lobster, gillnet, and other trap/pot).[27] The data cover the years 2008 through 2009, providing monthly, vessel-level information on quantity of gear fished, number of endlines, and fishing location as indicated by Massachusetts statistical reporting area (SRA). Figure MA-1 provides a map of the Massachusetts SRAs.

DMF provided additional vessel-level data on gear use and fishing location for 2010. These additional data allow estimation of active vessels (see below). However, changes in Massachusetts vessel reporting requirements in 2010 precluded comprehensive analysis of gear configurations; hence, our characterization of gear configurations is based on 2009 data, the year for which the most complete set of information is available.

NUMBER OF ACTIVE VESSELS

The model uses the 2010 DMF data to calculate the number of vessels active in state waters (i.e., inshore SRAs 1 through 14). To avoid double-counting federally permitted vessels, we remove all vessels fishing in the Offshore Reporting Areas (SRAs 15 through 25) and all other vessels that report to the Northeast Vessel Trip Report (VTR) system. The model assumes that the activity of each of the remaining vessels is evenly distributed throughout the area(s) is which the activity is reported. Since the data show activity for all vessels on a monthly basis, no seasonal adjustment is necessary. Table MA-1 presents the number of active vessels in 2010 by month and area for each of the three major fisheries (lobster, gillnet, OTP).[28]

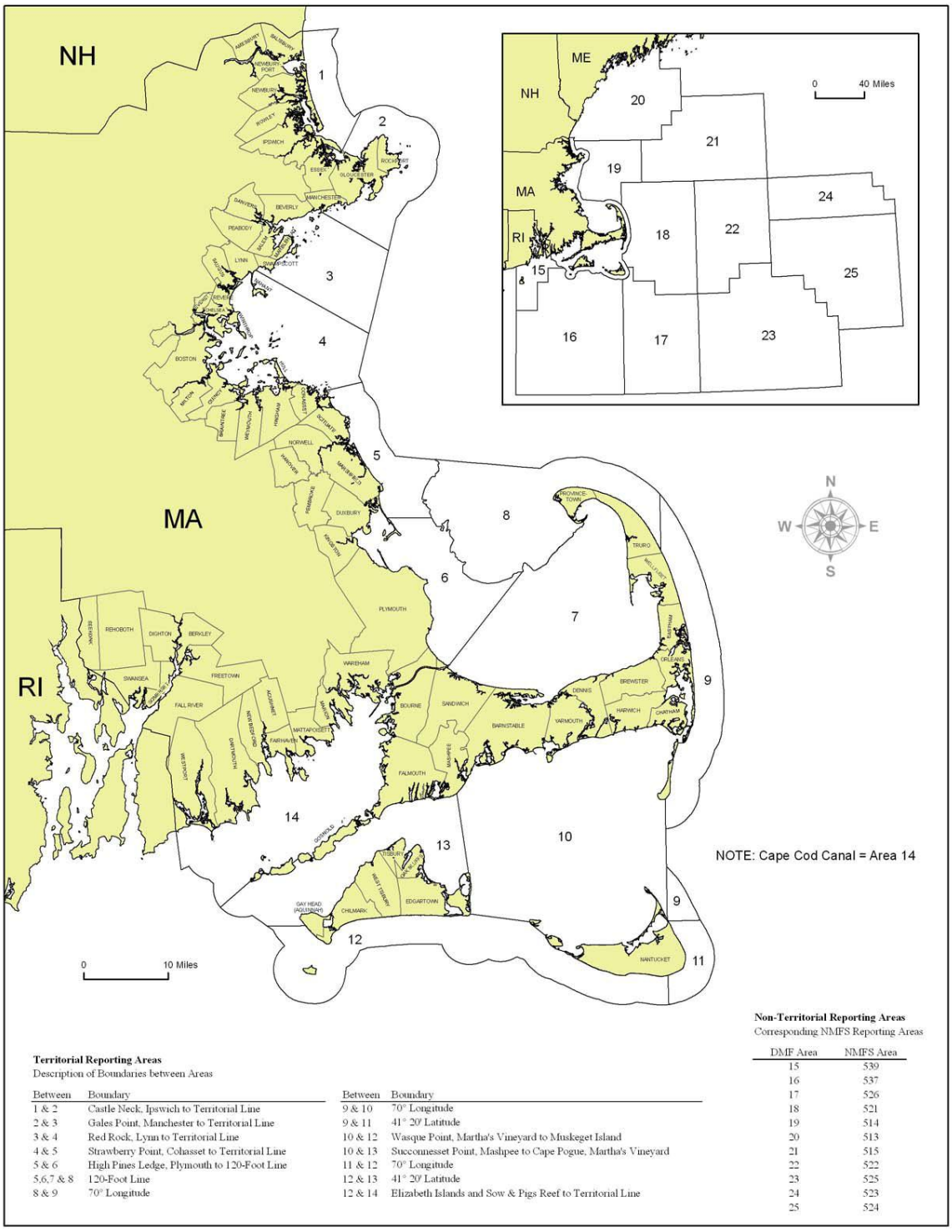
GEAR CONFIGURATIONS FOR LOBSTER VESSELS

In many state waters, the model estimates the concentration of vertical line based on average gear configuration parameters for a given area. The size and complexity of the Massachusetts lobster fishery calls for a more detailed approach. Rather than estimate the concentration of vertical line based on a single model vessel designed to represent the average or typical configuration of gear within a particular area, the model incorporates multiple model vessels for each area – representing the full range of gear configurations currently in use – and specifies the percentage of active vessels within the area to which each configuration applies. The discussion below describes the analysis in greater detail.

[27] DMF removed all confidential information on vessel identity and assigned each vessel a generic identification number.

[28] The table excludes SRAs in which the vessels of interest reported no activity.

FIGURE MA-1. MASSACHUSETTS STATISTICAL REPORTING AREAS



Territorial Reporting Areas
Description of Boundaries between Areas

Between	Boundary
1 & 2	Castle Neck, Ipswich to Territorial Line
2 & 3	Gales Point, Manchester to Territorial Line
3 & 4	Red Rock, Lynn to Territorial Line
4 & 5	Strawberry Point, Cohasset to Territorial Line
5 & 6	High Pines Ledge, Plymouth to 120-Foot Line
5,6,7 & 8	120-Foot Line
8 & 9	70° Longitude
9 & 10	70° Longitude
9 & 11	41° 20' Latitude
10 & 12	Wasque Point, Martha's Vineyard to Muskeget Island
10 & 13	Succonnesset Point, Mashpee to Cape Pogue, Martha's Vineyard
11 & 12	70° Longitude
12 & 13	41° 20' Latitude
12 & 14	Elizabeth Islands and Sow & Pigs Reef to Territorial Line

Non-Territorial Reporting Areas
Corresponding NMFS Reporting Areas

DMF Area	NMFS Area
15	539
16	537
17	526
18	521
19	514
20	513
21	515
22	522
23	525
24	523
25	524

TABLE MA-1. ESTIMATED NUMBER OF ACTIVE VESSELS HOLDING ONLY A STATE PERMIT (2010)

FISHERY	AREA	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Lobster Trap	SRA 1	3	3		4	9	22	22	25	24	16	7	6
	SRA 2	52	27	25	40	72	99	127	132	122	107	95	75
	SRA 3	37	18	20	29	52	73	99	98	106	99	89	65
	SRA 4	31	19	16	41	63	99	116	127	121	110	91	62
	SRA 5	17	8	12	35	50	57	65	70	68	63	51	40
	SRA 6	11	5	8	30	37	54	65	69	66	57	45	32
	SRA 7	3	2	2	3	20	48	60	62	58	47	30	11
	SRA 8	4	1	2	2	9	14	18	19	20	22	19	13
	SRA 9				3	19	29	33	35	29	27	21	8
	SRA 10				1	2	3	4	3	3	2	2	1
	SRA 12	1	1	1	4	5	5	6	6	5	3	3	2
	SRA 13	1	1	2	8	12	16	20	16	7	2	3	3
	SRA 14	9	4	14	17	18	20	25	19	5	5	6	7
Gillnet	SRA 2	2	2	2			1	3	3	2	1	4	3
	SRA 3		1				7	5	4	3	1	2	2
	SRA 4	1	2	1			7	5	5	4		3	6
	SRA 5	2	1	1			1	1	1				1
	SRA 6						1	1					
	SRA 8					1	1	1	2				
	SRA 9		1	1	1	1	1	1	1	1	1	1	1
	SRA 12	1					1	1		1	1	1	
	SRA 14							1					
OTP	SRA 1							1					
	SRA 2							1				1	2
	SRA 3											1	1
	SRA 7								1				
	SRA 10	1			1	28	20	21	25	22	22	18	7
	SRA 12								4	2	1	1	1
	SRA 13					1	6	6	8	10	9	5	2
	SRA 14				3	38	17	12	26	26	22	20	9

Distributional Approach

The two parameters of primary interest in specifying model vessels for the Massachusetts lobster fishery are the number of traps fished per vessel and the number of traps fished per trawl. We analyze the 2009 Catch Report data with respect to these two factors. For purposes of this analysis, we calculate the annual average for each vessel and examine the resulting distribution of values.

Massachusetts lobstermen do not explicitly report traps per trawl; in 2009, however, a significant proportion of them were required to report not only the number of traps they fished, but also the number of vertical lines they employed. We combine this information to estimate traps per trawl. We first divide the number of pots fished by the number of lines fished to calculate the number of traps per line. Consistent with DMF guidance, we then assume that if the traps-per-line figure is less than two, the vessel fishes with one endline per trawl. If the traps per line figure is two or greater, we assume two endlines are used. The traps per trawl estimates are derived by multiplying the number of traps per line by the assumed lines per trawl. For instance, if the traps-per-line figure is seven, we assume two endlines, and the vessel is assumed to fish 14 traps per trawl. We calculate traps per trawl individually for each record in the database.[29]

Figure MA-2 shows the resulting distribution of the average number of traps per trawl fished by vessels operating in SRAs 1 through 14.[30] Based on the analysis described above, the exhibit indicates that lobstermen in Massachusetts waters make frequent use of singles, ten-trap trawls, and 20-trap trawls. Based on this distribution, we establish the following categories for the specification of model vessels: 1, 2, 3-4, 5-9, 10-14, 15-19, and 20+ traps per trawl. Relatively few vessels currently fish trawls in the four to nine range; likewise, as noted, our method of calculating traps per trawl yields very few vessels whose annual average rounds to three traps per trawl.

Figure MA-3 shows the distribution of the average number of traps fished by vessels active in the 14 inshore SRAs. The distribution is arrayed using increments of 50. As the exhibit indicates, the distribution is skewed to the left; i.e., more vessels fish smaller numbers of traps. This result is partially attributable to the structure of the data received from DMF. Vessels that fish more than one SRA have their gear divided between areas based on percentages specified by each fisherman in his/her reporting form. Hence, the distribution actually represents the average traps fished per vessel in a given SRA. This is appropriate given that the model accounts for the total number of vessels active in each SRA.

[29] Note that this method necessarily leads to a "gap" in the estimate of traps per trawl; specifically, it yields no individual records where a vessel fishes three traps per trawl. Limited instances of three traps per trawl occur in the frequency distribution because of averaging performed across months for each vessel.

[30] Twenty percent of active lobster vessels were not required to report buoy line information to the Catch Report system in 2009. Therefore, the total number of vessels in the traps-per-trawl frequency distribution is less than that discussed below for traps per vessel.

FIGURE MA-2. DISTRIBUTION OF AVERAGE TRAPS PER TRAWL FOR LOBSTER VESSELS IN MASSACHUSETTS INSHORE SRAS

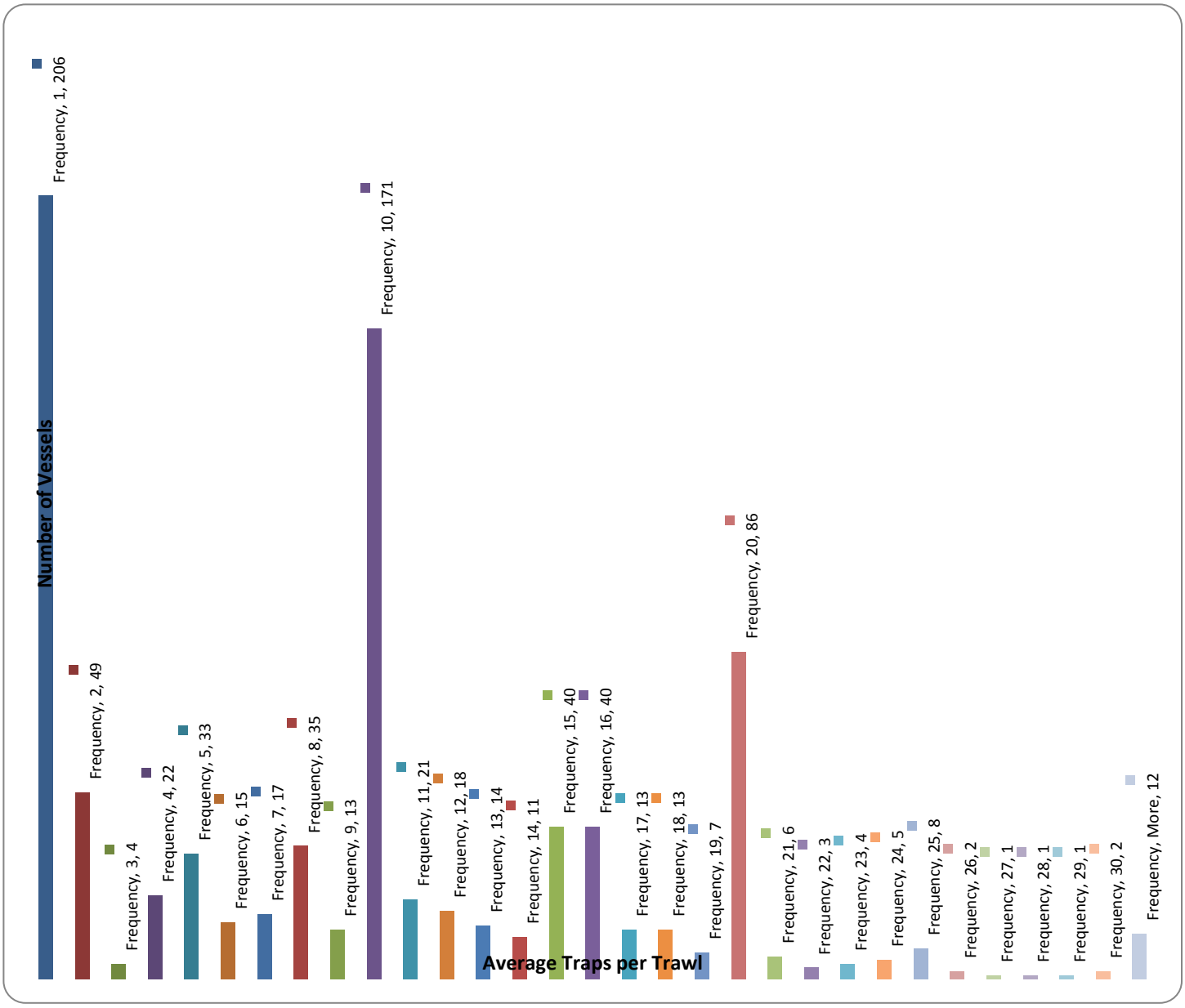
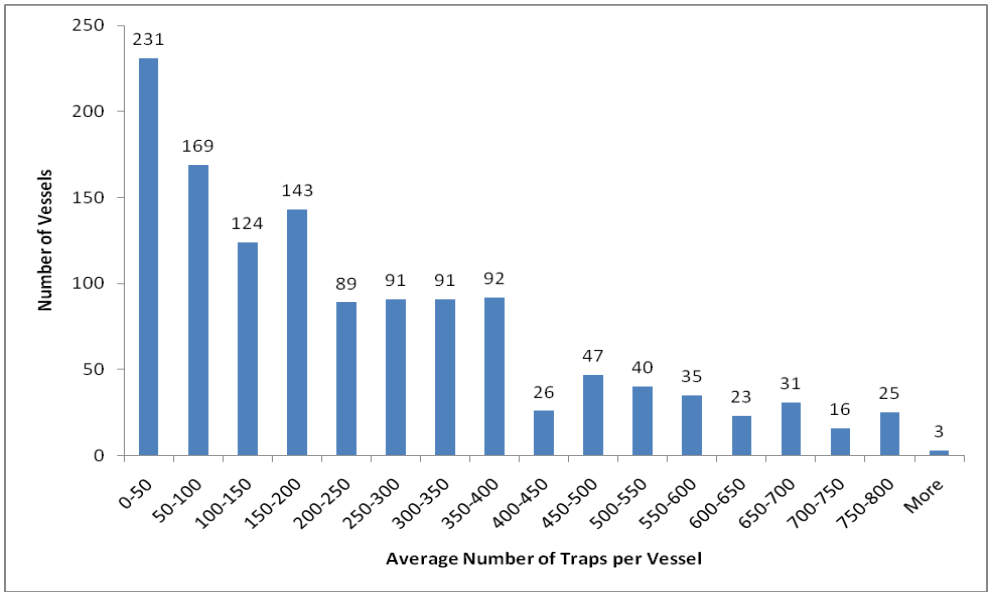


FIGURE MA-3. DISTRIBUTION OF AVERAGE NUMBER OF TRAPS PER LOBSTER VESSEL IN MASSACHUSETTS INSHORE SRAS



To characterize traps per vessel, we use the following categories for the specification of model vessels: 1-100, 101-200, 201-400, and more than 400 traps.

Table MA-2 incorporates the categories specified above to illustrate the application of the gear characterization approach. The table shows, for a hypothetical area and month, the percentage of vessels that fish a given combination of traps and traps per trawl. In this case, for instance, 20 percent of vessels fish 101 to 200 traps, configured as singles. The model employs matrices like this to characterize the baseline distribution of gear use in Massachusetts inshore lobster areas. The distribution for each area varies on a monthly basis, reflecting the monthly variation in gear configurations reported in the data.

TABLE MA-2. DISTRIBUTION OF LOBSTER VESSELS FISHING A GIVEN CONFIGURATION OF GEAR FOR A HYPOTHETICAL AREA AND MONTH

TRAPS PER TRAWL	TRAPS PER VESSEL				
	1-100 TRAPS	101-200 TRAPS	201-400 TRAPS	MORE THAN 400 TRAPS	TOTAL
1	10%	20%	10%		40%
2		5%	10%		15%
3 to 4			5%		5%
5 to 9			5%		5%
10 to 14			10%	5%	15%
15 to 19			10%	5%	15%
20+				5%	5%
Total	10%	25%	50%	15%	100%

Model Vessel Areas

The model must specify the areas to which a given distribution of gear configurations applies. Some consolidation of the 14 inshore SRAs is warranted given the small number of vessels active in certain areas and months. Table MA-3 presents the number of active vessels (state and Federal) in each month in each of the 14 inshore SRAs, based on the 2009 data. The shading indicates the areas that the model consolidates. As shown, we maintain SRAs 1 through 9 and 14, but consolidate the SRAs due south of Cape Cod (10 through 13) into a single area, where activity is relatively light.[31]

The model also takes advantage of the Massachusetts data to develop distributions that characterize the current configuration of lobster gear in several areas beyond state waters: SRAs 16, 18, and 19. As Table MA-3 indicates, the state dataset captures a fair amount of vessel activity in these waters. In the absence of similarly detailed information from Federal sources or from other states, the Massachusetts data provide the best available source of information on the configuration of lobster gear in these areas.

[31] No lobster vessels are active in SRA 11.

TABLE MA-3. AREA CONSOLIDATION BASED ON DISTRIBUTION OF ACTIVE LOBSTER VESSELS (2009)

REGION	SRA*	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	FINAL AREA
Inshore	1	6	6	7	8	13	27	33	33	34	25	17	12	Unchanged
	2	72	62	55	65	92	163	189	205	200	178	145	122	Unchanged
	3	40	33	32	34	56	97	130	144	147	137	123	98	Unchanged
	4	29	29	27	43	64	113	149	151	153	137	114	88	Unchanged
	5	22	21	20	45	75	92	106	106	104	91	82	54	Unchanged
	6	11	9	12	27	42	56	74	75	71	65	52	36	Unchanged
	7	5	2	1	9	26	46	57	64	70	57	39	20	Unchanged
	8	12	7	5	8	20	25	33	39	50	52	46	39	Unchanged
	9	1		1	5	30	50	53	52	52	34	24	10	Unchanged
	10				1	2	4	4	3	2	1			Merge (Southern Cape Inshore)
	12	1		6	15	17	19	22	24	16	7	3	2	
	13	4	2	11	20	19	22	23	24	14	6	6	5	
	14	10	8	19	23	24	31	32	26	17	7	13	16	Unchanged
Nearshore	16	16	16	14	16	21	26	28	30	28	26	23	17	Unchanged
	18	6	2	2	4	12	16	14	12	17	17	17	15	Unchanged
	19	78	68	64	58	47	34	32	41	70	104	113	107	Unchanged

* No lobster vessels are active in SRA 11.

Model Vessels for Lobster Fishery

Attachment MA-A presents the distribution of gear configurations for all 14 model vessel areas in all 12 months. In each case, separate tables show the distribution in both absolute (i.e., number of vessels) and percentage terms. The total sample size ("N") for each crosstab (i.e., the number of vessels reporting gear use in that area and month) is generally sufficient (30 or more) to be considered statistically representative, particularly in months of peak activity. However, relatively small samples exist in some winter months in some areas. This is especially true in areas 1, 7, and 9, and in the Southern Cape Inshore area. It is noteworthy, however, that because we are working with a near-complete set of data (i.e., only vessels that did not report buoy line information are absent from the crosstabs), the months with limited data are also the months with little or no lobstering activity.

To estimate vertical line use in a given area and month, the model applies the specified distribution of gear configurations to the number of vessels reported to be active at that place and time. For instance, if the estimate of active vessels fishing in SRA 2 in September is 122, the model applies the mix of gear configurations in the September Area 2 crosstab to these 122 active vessels.[32]

To calculate the number of vertical lines deployed, the model must apply specific numerical values to parameters specified with ranges. For example, for the traps-per-trawl variable, we need to assign numerical values to the "3 to 4" range, the "5 to 9" range, etc.[33] To do so, we calculate the average traps per trawl for all responses in the range, across all months. We do the same for the number of traps fished, calculating an average number of traps for each of the ranges.

Table MA-4 summarizes the resulting values and the number of records on which the averages are based.[34] For the inshore SRAs, we compared the variation in averages between areas and between months, and found the variation to be limited. Hence, we apply these values to all months and all areas. It is essential to keep in mind that these are averages *within* each range. The model recognizes that gear configurations vary seasonally and by area, and captures this variation by employing a different distribution of gear configurations (i.e., different combinations of traps and traps-per-trawl) for each area and month.

[32] No data were reported for SRA 9 in January and February, and SRA 7 in March. The model fills these gaps with the gear distribution from December for SRA 9, and the gear distribution from April for SRA 7. Very few vessels are active in these areas and months.

[33] The model assigns one endline to trawls of four or fewer traps, and two endlines to trawls of five or more traps.

[34] Note that the averages for traps per vessel exclude three records with extreme outlier values (greater than 4,000) that appeared to be miscoded.

TABLE MA-4. POINT ESTIMATES APPLIED FOR GEAR CONFIGURATION RANGES

VARIABLE	RANGE	INSHORE		SRA 16 (NEARSHORE)		SRA 18 (NEARSHORE)		SRA 19 (NEARSHORE)	
		VALUE APPLIED IN MODEL	SAMPLE SIZE (N)	VALUE APPLIED IN MODEL	SAMPLE SIZE (N)	VALUE APPLIED IN MODEL	SAMPLE SIZE (N)	VALUE APPLIED IN MODEL	SAMPLE SIZE (N)
Traps per Trawl	3 to 4	4.0	135	4.0	6	4.0*	1	4.0	2
	5 to 9	7.0	713	8.0	7	7.4	7	7.2	40
	10 to 14	10.3	1,699	10.3	35	11.1	10	10.5	211
	15 to 19	15.7	707	15.5	42	16.2	38	15.7	140
	20+	25.2	783	34.1	159	37.0	44	22.3	321
Number of Traps Fished	1-100 Traps	59	1,631	60	22	73	10	68	100
	101-200 Traps	166	1,342	155	17	153	24	176	144
	201-400 Traps	325	2,211	307	57	316	32	346	257
	401+ Traps	654	1,686	979	165	645	68	706	315

* The decision rules used in the data analysis assign data records according to the rounded value of the calculated traps per trawl. When a category has very few data points, it can be dominated by records that have trap-per-trawl figures outside of the range. This leads to an average that is also outside the stated boundaries of the category. The single instance involving a vessel fishing 3 to 4 traps in SRA 18 actually had an average of 4.3 traps per trawl. We limited this value to 4.0 in the model.

In addition to the inshore figures, we develop separate gear configuration parameters for the three nearshore areas (SRAs 16, 18, and 19). The averages in the "20+ Traps per Trawl" category for these three areas are notably different, as are the averages for the "401+ Traps per Vessel" category. To capture this potentially important variation in gear configurations, the model employs different assumptions for vessels in each of the three nearshore areas.

MODEL VESSELS FOR GILLNET AND OTP FISHERIES

In addition to the lobster fishery, the ALWTRP also covers two other fisheries active in Massachusetts waters: the gillnet fishery and the other trap/pot (OTP) fishery. Relative to the lobster fishery, these fisheries involve few active vessels. We characterize model vessel gear configurations for these fisheries as described below.

Gillnet

The key gear configuration parameter for gillnet vessels is the number of strings per vessel. Since the vessel-level data include the number of buoy lines per vessel, we can estimate the number of strings per vessel by dividing the buoy line figure by two (i.e., by assuming two vertical lines per string). We develop monthly averages to account for seasonal variation in the number of strings fished. Table MA-5 summarizes the resulting estimates using the 2009 Catch Report data. The estimates include vessels fishing in both inshore and nearshore waters; the data suggest no significant difference in average strings per vessel between these two areas.

TABLE MA-5. ESTIMATED NUMBER OF GILLNET STRINGS PER VESSEL

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Number of Strings per Gillnet Vessel	3.2	3.2	4.0	5.2	4.7	4.1	4.2	4.1	3.7	4.5	4.8	3.4
N	32	31	25	10	11	54	53	50	46	27	30	41

In addition, the model assumes the following:

- **Nets per String**: The model assumes that gillnetters fish eight net panels per string. The number of nets per string is based on regulatory limits summarized in the gillnet fishery profile provided by MA DMF.
- **Panel Dimensions**: The assumed net panel dimensions (300 feet x 9.7 feet) are based on survey data summarized in the gillnet fishery profile provided by MA DMF.
- **Length of Anchor Line**: The assumed length of anchor lines (60 feet) is based on expert input from MA DMF staff.

Other Trap/Pot

The model characterizes gear use in the OTP sector based on data for the three major OTP fisheries in Massachusetts: black sea bass, conch, and scup. Using 2009 data, we calculate the number of traps per vessel and traps per trawl for these three fisheries.[35] Seeing limited seasonal or regional variation in these figures, the model applies simple year-round averages for the key gear parameters. These estimates are presented in Table MA-6.

TABLE MA-6. GEAR CONFIGURATION PARAMETERS FOR OTP FISHERIES

FISHERY	NUMBER OF TRAPS PER VESSEL	TRAPS PER TRAWL	NUMBER OF ENDLINES PER TRAWL
Black Sea Bass	131	6	2
Conch	136	1	1
Scup	33	1	1

The model applies these gear configuration parameters to all vessels that report some form of OTP activity, based on an estimate of the seasonal distribution of activity across the three fisheries. This distribution is shown in Table MA-7.[36] For instance, in April, the model assumes that 29 percent of all OTP vessels fish the black sea bass configuration; 71 percent fish the conch configuration; and none fish the scup configuration.

TABLE MA-7. DISTRIBUTION OF OTP GEAR CONFIGURATIONS, BY MONTH

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Black Sea Bass	N.A.	0%	100%	29%	36%	0%	0%	0%	3%	0%	0%	0%
Conch	N.A.	100%	0%	71%	37%	95%	95%	58%	93%	100%	100%	100%
Scup	N.A.	0%	0%	0%	27%	5%	5%	42%	4%	0%	0%	0%

[35] We calculate traps per trawl using the method described above for the lobster fishery.

[36] This distribution is based on an analysis of OTP activity in 2009.

ATTACHMENT MA-A

DISTRIBUTION OF LOBSTER GEAR CONFIGURATIONS BY MONTH AND AREA

IEc

JANUARY

Number of Respondents

Area 1

Traps per Trawl	Number of Traps per Vessel: 1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	1	1	0	2
10 to 14	1	0	0	0	1
15 to 19	0	0	0	0	0
20+	0	0	1	0	1
TOTAL	1	1	2	0	4

Area 2

Traps per Trawl	Number of Traps per Vessel: 1 to 100	101 to 200	201 to 400	401+	TOTAL
1	1	0	0	0	1
2	1	0	0	0	1
3 to 4	2	0	1	0	3
5 to 9	1	4	6	1	12
10 to 14	4	6	7	8	25
15 to 19	0	1	4	0	5
20+	3	3	3	0	9
TOTAL	12	14	21	9	56

Area 3

Traps per Trawl	Number of Traps per Vessel: 1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	1	1	0	2
2	0	0	0	0	0
3 to 4	1	0	0	0	1
5 to 9	2	0	1	0	3
10 to 14	3	4	3	0	10
15 to 19	0	2	5	1	8
20+	2	0	3	2	7
TOTAL	8	7	13	3	31

Area 4

Traps per Trawl	Number of Traps per Vessel: 1 to 100	101 to 200	201 to 400	401+	TOTAL
1	1	0	0	0	1
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	1	0	0	1
10 to 14	0	1	3	0	4
15 to 19	2	0	4	1	7
20+	0	1	3	4	8
TOTAL	3	3	10	5	21

Area 5

Traps per Trawl	Number of Traps per Vessel: 1 to 100	101 to 200	201 to 400	401+	TOTAL
1	1	0	0	0	1
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	1	0	0	1
10 to 14	3	5	2	0	10
15 to 19	0	2	1	0	3
20+	1	2	0	0	3
TOTAL	5	10	3	0	18

Area 6

Traps per Trawl	Number of Traps per Vessel: 1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	0	4	1	1	6
15 to 19	0	2	0	0	2
20+	1	0	0	0	1
TOTAL	1	6	1	1	9

Area 7

Traps per Trawl	Number of Traps per Vessel: 1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	0	2	0	0	2
15 to 19	0	0	0	0	0
20+	1	0	0	0	1
TOTAL	1	2	0	0	3

Area 8

Traps per Trawl	Number of Traps per Vessel: 1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	1	0	1
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	1	0	1	0	2
15 to 19	0	0	1	0	1
20+	2	0	3	2	7
TOTAL	3	0	6	2	11

Area 9

Traps per Trawl	Number of Traps per Vessel: 1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	0	0	0	0	0
15 to 19	0	0	0	0	0
20+	0	0	0	0	0
TOTAL	0	0	0	0	0

Southern Cape Inshore

Traps per Trawl	Number of Traps per Vessel: 1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	1	0	0	1
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	1	0	0	0	1
15 to 19	0	0	0	0	0
20+	0	0	0	0	0
TOTAL	1	1	0	0	2

Area 14

Traps per Trawl	Number of Traps per Vessel: 1 to 100	101 to 200	201 to 400	401+	TOTAL
1	1	1	0	0	2
2	0	0	0	0	0
3 to 4	1	0	0	0	1
5 to 9	0	1	0	0	1
10 to 14	0	2	1	0	3
15 to 19	0	0	0	0	0
20+	0	0	0	0	0
TOTAL	2	4	1	0	7

Area 16

Traps per Trawl	Number of Traps per Vessel: 1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	1	0	0	0	1
15 to 19	0	1	1	0	2
20+	1	0	1	11	13
TOTAL	2	1	2	11	16

Area 18

Traps per Trawl	Number of Traps per Vessel: 1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	0	0	0	0	0
15 to 19	0	1	1	0	2
20+	0	0	1	2	3
TOTAL	0	1	2	2	5

Area 19

Traps per Trawl	Number of Traps per Vessel: 1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	1	1
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	1	1	1	3
10 to 14	4	4	5	5	18
15 to 19	0	2	2	10	14
20+	0	4	5	24	33
TOTAL	4	11	13	41	69

JANUARY

Percentage of Respondents

Area 1					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	25%	25%	0%	50%
10 to 14	25%	0%	0%	0%	25%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	25%	0%	25%
TOTAL	25%	25%	50%	0%	100%

Area 2					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	2%	0%	0%	0%	2%
2	2%	0%	0%	0%	2%
3 to 4	4%	0%	2%	0%	5%
5 to 9	2%	7%	11%	2%	21%
10 to 14	7%	11%	13%	14%	45%
15 to 19	0%	2%	7%	0%	9%
20+	5%	5%	5%	0%	16%
TOTAL	21%	25%	38%	16%	100%

Area 3					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	3%	3%	0%	6%
2	0%	0%	0%	0%	0%
3 to 4	3%	0%	0%	0%	3%
5 to 9	6%	0%	3%	0%	10%
10 to 14	10%	13%	10%	0%	32%
15 to 19	0%	6%	16%	3%	26%
20+	6%	0%	10%	6%	23%
TOTAL	26%	23%	42%	10%	100%

Area 4					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	5%	0%	0%	0%	5%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	5%	0%	0%	5%
10 to 14	0%	5%	14%	0%	19%
15 to 19	10%	0%	19%	5%	33%
20+	0%	5%	14%	19%	38%
TOTAL	14%	14%	48%	24%	100%

Area 5					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	6%	0%	0%	0%	6%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	6%	0%	0%	6%
10 to 14	17%	28%	11%	0%	56%
15 to 19	0%	11%	6%	0%	17%
20+	6%	11%	0%	0%	17%
TOTAL	28%	56%	17%	0%	100%

Area 6					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	0%	44%	11%	11%	67%
15 to 19	0%	22%	0%	0%	22%
20+	11%	0%	0%	0%	11%
TOTAL	11%	67%	11%	11%	100%

Area 7					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	0%	67%	0%	0%	67%
15 to 19	0%	0%	0%	0%	0%
20+	33%	0%	0%	0%	33%
TOTAL	33%	67%	0%	0%	100%

Area 8					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	9%	0%	9%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	9%	0%	9%	0%	18%
15 to 19	0%	0%	9%	0%	9%
20+	18%	0%	27%	18%	64%
TOTAL	27%	0%	55%	18%	100%

Area 9					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
3 to 4	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
5 to 9	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
10 to 14	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
15 to 19	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
20+	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
TOTAL	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Southern Cape Inshore					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	50%	0%	0%	50%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	50%	0%	0%	0%	50%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
TOTAL	50%	50%	0%	0%	100%

Area 14					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	14%	14%	0%	0%	29%
2	0%	0%	0%	0%	0%
3 to 4	14%	0%	0%	0%	14%
5 to 9	0%	14%	0%	0%	14%
10 to 14	0%	29%	14%	0%	43%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
TOTAL	29%	57%	14%	0%	100%

Area 16					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	6%	0%	0%	0%	6%
15 to 19	0%	6%	6%	0%	13%
20+	6%	0%	6%	69%	81%
TOTAL	13%	6%	13%	69%	100%

Area 18					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	20%	20%	0%	40%
20+	0%	0%	20%	40%	60%
TOTAL	0%	20%	40%	40%	100%

Area 19					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	1%	1%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	1%	1%	1%	4%
10 to 14	6%	6%	7%	7%	26%
15 to 19	0%	3%	3%	14%	20%
20+	0%	6%	7%	35%	48%
TOTAL	6%	16%	19%	59%	100%

FEBRUARY

Number of Respondents

Area 1

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	0	0	0	0
3 to 4	0	0	1	0	1
5 to 9	0	1	0	0	1
10 to 14	1	0	0	0	1
15 to 19	0	0	0	0	0
20+	0	0	1	0	1
TOTAL	1	1	2	0	4

Area 2

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	1	0	0	0	1
2	0	0	0	0	0
3 to 4	2	0	1	0	3
5 to 9	1	5	3	1	10
10 to 14	6	7	4	5	22
15 to 19	1	2	3	0	6
20+	2	2	2	1	7
TOTAL	13	16	13	7	49

Area 3

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	1	0	0	0	1
2	0	0	0	0	0
3 to 4	1	0	0	0	1
5 to 9	2	0	0	0	2
10 to 14	3	5	0	0	8
15 to 19	0	2	5	1	8
20+	3	0	2	1	6
TOTAL	10	7	7	2	26

Area 4

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	0	0	0	0
3 to 4	0	1	0	0	1
5 to 9	0	1	0	0	1
10 to 14	0	2	2	0	4
15 to 19	1	0	2	1	4
20+	0	0	4	4	8
TOTAL	1	4	8	5	18

Area 5

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	1	0	0	1
10 to 14	1	4	3	0	8
15 to 19	0	2	0	0	2
20+	3	1	1	1	6
TOTAL	4	8	4	1	17

Area 6

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	0	4	1	0	5
15 to 19	0	1	0	0	1
20+	1	0	0	0	1
TOTAL	1	5	1	0	7

Area 7

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	1	0	0	0	1
15 to 19	0	0	0	0	0
20+	0	0	0	0	0
TOTAL	1	0	0	0	1

Area 8

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	0	0	0	0	0
15 to 19	0	0	1	0	1
20+	2	2	2	0	6
TOTAL	2	2	3	0	7

Area 9

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	0	0	0	0	0
15 to 19	0	0	0	0	0
20+	0	0	0	0	0
TOTAL	0	0	0	0	0

Southern Cape Inshore

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	1	0	0	1
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	1	0	0	0	1
15 to 19	0	0	0	0	0
20+	0	0	0	0	0
TOTAL	1	1	0	0	2

Area 14

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	1	1	0	0	2
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	0	1	2	0	3
15 to 19	0	0	0	0	0
20+	0	0	0	0	0
TOTAL	1	2	2	0	5

Area 16

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	1	0	0	0	1
10 to 14	0	0	0	0	0
15 to 19	0	0	1	1	2
20+	0	0	1	12	13
TOTAL	1	0	2	13	16

Area 18

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	0	0	0	0	0
15 to 19	0	0	0	0	0
20+	0	0	0	2	2
TOTAL	0	0	0	2	2

Area 19

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	1	1
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	1	1	1	3
10 to 14	2	4	4	5	15
15 to 19	0	2	3	9	14
20+	1	6	3	18	28
TOTAL	3	13	11	34	61

FEBRUARY

Percentage of Respondents

Area 1					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	25%	0%	25%
5 to 9	0%	25%	0%	0%	25%
10 to 14	25%	0%	0%	0%	25%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	25%	0%	25%
TOTAL	25%	25%	50%	0%	100%

Area 2					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	2%	0%	0%	0%	2%
2	0%	0%	0%	0%	0%
3 to 4	4%	0%	2%	0%	6%
5 to 9	2%	10%	6%	2%	20%
10 to 14	12%	14%	8%	10%	45%
15 to 19	2%	4%	6%	0%	12%
20+	4%	4%	4%	2%	14%
TOTAL	27%	33%	27%	14%	100%

Area 3					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	4%	0%	0%	0%	4%
2	0%	0%	0%	0%	0%
3 to 4	4%	0%	0%	0%	4%
5 to 9	8%	0%	0%	0%	8%
10 to 14	12%	19%	0%	0%	31%
15 to 19	0%	8%	19%	4%	31%
20+	12%	0%	8%	4%	23%
TOTAL	38%	27%	27%	8%	100%

Area 4					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3 to 4	0%	6%	0%	0%	6%
5 to 9	0%	6%	0%	0%	6%
10 to 14	0%	11%	11%	0%	22%
15 to 19	6%	0%	11%	6%	22%
20+	0%	0%	22%	22%	44%
TOTAL	6%	22%	44%	28%	100%

Area 5					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	6%	0%	0%	6%
10 to 14	6%	24%	18%	0%	47%
15 to 19	0%	12%	0%	0%	12%
20+	18%	6%	6%	6%	35%
TOTAL	24%	47%	24%	6%	100%

Area 6					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	0%	57%	14%	0%	71%
15 to 19	0%	14%	0%	0%	14%
20+	14%	0%	0%	0%	14%
TOTAL	14%	71%	14%	0%	100%

Area 7					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	100%	0%	0%	0%	100%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
TOTAL	100%	0%	0%	0%	100%

Area 8					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	14%	0%	14%
20+	29%	29%	29%	0%	86%
TOTAL	29%	29%	43%	0%	100%

Area 9					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
3 to 4	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
5 to 9	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
10 to 14	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
15 to 19	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
20+	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
TOTAL	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Southern Cape Inshore					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	50%	0%	0%	50%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	50%	0%	0%	0%	50%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
TOTAL	50%	50%	0%	0%	100%

Area 14					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	20%	20%	0%	0%	40%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	0%	20%	40%	0%	60%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
TOTAL	20%	40%	40%	0%	100%

Area 16					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	6%	0%	0%	0%	6%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	6%	6%	13%
20+	0%	0%	6%	75%	81%
TOTAL	6%	0%	13%	81%	100%

Area 18					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	100%	100%
TOTAL	0%	0%	0%	100%	100%

Area 19					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	2%	2%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	2%	2%	2%	5%
10 to 14	3%	7%	7%	8%	25%
15 to 19	0%	3%	5%	15%	23%
20+	2%	10%	5%	30%	46%
TOTAL	5%	21%	18%	56%	100%

MARCH

Number of Respondents

Area 1					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	0	0	0	0
3 to 4	0	0	1	0	1
5 to 9	0	1	0	0	1
10 to 14	1	0	0	0	1
15 to 19	0	0	0	0	0
20+	0	1	0	0	1
TOTAL	1	2	1	0	4

Area 2					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	1	0	0	0	1
2	0	0	0	0	0
3 to 4	2	0	1	0	3
5 to 9	2	4	3	1	10
10 to 14	6	5	3	4	18
15 to 19	0	1	2	0	3
20+	1	5	2	0	8
TOTAL	12	15	11	5	43

Area 3					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	1	1	0	2
2	0	0	0	0	0
3 to 4	1	0	0	0	1
5 to 9	2	1	1	0	4
10 to 14	6	3	1	0	10
15 to 19	0	0	4	2	6
20+	4	0	2	0	6
TOTAL	13	5	9	2	29

Area 4					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	0	0	0	0
3 to 4	0	1	0	0	1
5 to 9	0	1	0	0	1
10 to 14	0	2	3	0	5
15 to 19	1	0	2	2	5
20+	0	0	3	3	6
TOTAL	1	4	8	5	18

Area 5					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	1	0	0	1
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	1	0	0	1
10 to 14	0	2	4	0	6
15 to 19	0	2	2	0	4
20+	2	1	0	0	3
TOTAL	2	7	6	0	15

Area 6					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	0	2	2	1	5
15 to 19	0	2	0	0	2
20+	0	0	0	1	1
TOTAL	0	4	2	2	8

Area 7					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	0	0	0	0	0
15 to 19	0	0	0	0	0
20+	0	0	0	0	0
TOTAL	0	0	0	0	0

Area 8					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	0	1	0	0	1
15 to 19	0	1	0	0	1
20+	1	1	0	1	3
TOTAL	1	3	0	1	5

Area 9					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	1	0	0	0	1
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	0	0	0	0	0
15 to 19	0	0	0	0	0
20+	0	0	0	0	0
TOTAL	1	0	0	0	1

Southern Cape Inshore					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	1	1	0	2
2	0	1	0	0	1
3 to 4	0	0	0	0	0
5 to 9	2	0	1	0	3
10 to 14	4	1	0	0	5
15 to 19	0	0	2	0	2
20+	0	0	0	0	0
TOTAL	6	3	4	0	13

Area 14					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	4	4	0	1	9
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	0	2	3	0	5
15 to 19	0	0	1	0	1
20+	0	0	0	0	0
TOTAL	4	6	4	1	15

Area 16					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	1	0	0	0	1
15 to 19	0	0	1	0	1
20+	0	0	2	10	12
TOTAL	1	0	3	10	14

Area 18					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	0	0	0	0	0
15 to 19	0	0	0	0	0
20+	0	0	0	2	2
TOTAL	0	0	0	2	2

Area 19					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	1	1
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	1	1	1	3
10 to 14	4	6	4	3	17
15 to 19	0	1	3	6	10
20+	1	2	6	17	26
TOTAL	5	10	14	28	57

MARCH

Percentage of Respondents

Area 1					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	25%	0%	25%
5 to 9	0%	25%	0%	0%	25%
10 to 14	25%	0%	0%	0%	25%
15 to 19	0%	0%	0%	0%	0%
20+	0%	25%	0%	0%	25%
TOTAL	25%	50%	25%	0%	100%

Area 2					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	2%	0%	0%	0%	2%
2	0%	0%	0%	0%	0%
3 to 4	5%	0%	2%	0%	7%
5 to 9	5%	9%	7%	2%	23%
10 to 14	14%	12%	7%	9%	42%
15 to 19	0%	2%	5%	0%	7%
20+	2%	12%	5%	0%	19%
TOTAL	28%	35%	26%	12%	100%

Area 3					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	3%	3%	0%	7%
2	0%	0%	0%	0%	0%
3 to 4	3%	0%	0%	0%	3%
5 to 9	7%	3%	3%	0%	14%
10 to 14	21%	10%	3%	0%	34%
15 to 19	0%	0%	14%	7%	21%
20+	14%	0%	7%	0%	21%
TOTAL	45%	17%	31%	7%	100%

Area 4					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3 to 4	0%	6%	0%	0%	6%
5 to 9	0%	6%	0%	0%	6%
10 to 14	0%	11%	17%	0%	28%
15 to 19	6%	0%	11%	11%	28%
20+	0%	0%	17%	17%	33%
TOTAL	6%	22%	44%	28%	100%

Area 5					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	7%	0%	0%	7%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	7%	0%	0%	7%
10 to 14	0%	13%	27%	0%	40%
15 to 19	0%	13%	13%	0%	27%
20+	13%	7%	0%	0%	20%
TOTAL	13%	47%	40%	0%	100%

Area 6					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	0%	25%	25%	13%	63%
15 to 19	0%	25%	0%	0%	25%
20+	0%	0%	0%	13%	13%
TOTAL	0%	50%	25%	25%	100%

Area 7					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
2	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
3 to 4	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
5 to 9	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
10 to 14	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
15 to 19	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
20+	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!
TOTAL	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

Area 8					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	0%	20%	0%	0%	20%
15 to 19	0%	20%	0%	0%	20%
20+	20%	20%	0%	20%	60%
TOTAL	20%	60%	0%	20%	100%

Area 9					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	100%	0%	0%	0%	100%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
TOTAL	100%	0%	0%	0%	100%

Southern Cape Inshore					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	8%	8%	0%	15%
2	0%	8%	0%	0%	8%
3 to 4	0%	0%	0%	0%	0%
5 to 9	15%	0%	8%	0%	23%
10 to 14	31%	8%	0%	0%	38%
15 to 19	0%	0%	15%	0%	15%
20+	0%	0%	0%	0%	0%
TOTAL	46%	23%	31%	0%	100%

Area 14					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	27%	27%	0%	7%	60%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	0%	13%	20%	0%	33%
15 to 19	0%	0%	7%	0%	7%
20+	0%	0%	0%	0%	0%
TOTAL	27%	40%	27%	7%	100%

Area 16					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	7%	0%	0%	0%	7%
15 to 19	0%	0%	7%	0%	7%
20+	0%	0%	14%	71%	86%
TOTAL	7%	0%	21%	71%	100%

Area 18					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	100%	100%
TOTAL	0%	0%	0%	100%	100%

Area 19					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	2%	2%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	2%	2%	2%	5%
10 to 14	7%	11%	7%	5%	30%
15 to 19	0%	2%	5%	11%	18%
20+	2%	4%	11%	30%	46%
TOTAL	9%	18%	25%	49%	100%

APRIL

Number of Respondents

Area 1

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	0	0	0	0
3 to 4	0	0	1	0	1
5 to 9	0	0	1	0	1
10 to 14	0	0	1	0	1
15 to 19	0	0	0	0	0
20+	0	0	0	0	0
TOTAL	0	0	3	0	3

Area 2

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	1	0	0	0	1
2	0	1	0	0	1
3 to 4	0	0	1	0	1
5 to 9	2	8	4	2	16
10 to 14	1	6	6	8	21
15 to 19	1	0	3	0	4
20+	1	3	2	2	8
TOTAL	6	18	16	12	52

Area 3

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	1	0	0	1
2	0	0	0	0	0
3 to 4	1	0	0	0	1
5 to 9	2	1	2	1	6
10 to 14	1	3	2	0	6
15 to 19	1	1	6	1	9
20+	2	2	1	0	5
TOTAL	7	8	11	2	28

Area 4

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	3	0	0	0	3
2	0	0	0	0	0
3 to 4	0	1	0	0	1
5 to 9	0	0	1	0	1
10 to 14	1	2	4	1	8
15 to 19	1	0	5	2	8
20+	0	0	6	4	10
TOTAL	5	3	16	7	31

Area 5

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	1	0	1	0	2
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	1	0	1	0	2
10 to 14	2	3	6	3	14
15 to 19	1	3	1	1	6
20+	2	2	3	0	7
TOTAL	7	8	12	4	31

Area 6

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	1	0	0	0	1
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	1	0	1	0	2
10 to 14	0	4	3	2	9
15 to 19	1	1	2	0	4
20+	1	0	0	0	1
TOTAL	4	5	6	2	17

Area 7

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	2	0	0	0	2
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	0	1	2	0	3
15 to 19	0	0	0	0	0
20+	0	0	0	0	0
TOTAL	2	1	2	0	5

Area 8

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	1	0	0	0	1
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	0	0	1	0	1
15 to 19	0	0	1	0	1
20+	2	1	1	1	5
TOTAL	3	1	3	1	8

Area 9

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	3	0	1	0	4
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	0	0	0	0	0
15 to 19	0	0	0	0	0
20+	0	0	1	0	1
TOTAL	3	0	2	0	5

Southern Cape Inshore

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	4	2	2	0	8
2	0	1	0	0	1
3 to 4	0	0	0	0	0
5 to 9	1	1	0	1	3
10 to 14	6	7	1	0	14
15 to 19	0	2	3	0	5
20+	0	0	0	0	0
TOTAL	11	13	6	1	31

Area 14

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	7	4	0	1	12
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	0	2	3	0	5
15 to 19	0	0	1	0	1
20+	0	0	0	0	0
TOTAL	7	6	4	1	18

Area 16

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	0	0	0	0
3 to 4	0	0	1	0	1
5 to 9	0	0	0	0	0
10 to 14	2	0	0	0	2
15 to 19	1	0	1	1	3
20+	0	0	1	9	10
TOTAL	3	0	3	10	16

Area 18

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	0	1	0	0	1
15 to 19	0	0	0	0	0
20+	0	0	1	2	3
TOTAL	0	1	1	2	4

Area 19

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	1	0	1
2	0	0	0	0	0
3 to 4	0	0	0	1	1
5 to 9	2	0	2	0	4
10 to 14	6	3	4	3	16
15 to 19	0	2	3	4	9
20+	1	1	4	17	23
TOTAL	9	6	14	25	54

APRIL

Percentage of Respondents

Area 1					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	33%	0%	33%
5 to 9	0%	0%	33%	0%	33%
10 to 14	0%	0%	33%	0%	33%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
TOTAL	0%	0%	100%	0%	100%

Area 2					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	2%	0%	0%	0%	2%
2	0%	2%	0%	0%	2%
3 to 4	0%	0%	2%	0%	2%
5 to 9	4%	15%	8%	4%	31%
10 to 14	2%	12%	12%	15%	40%
15 to 19	2%	0%	6%	0%	8%
20+	2%	6%	4%	4%	15%
TOTAL	12%	35%	31%	23%	100%

Area 3					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	4%	0%	0%	4%
2	0%	0%	0%	0%	0%
3 to 4	4%	0%	0%	0%	4%
5 to 9	7%	4%	7%	4%	21%
10 to 14	4%	11%	7%	0%	21%
15 to 19	4%	4%	21%	4%	32%
20+	7%	7%	4%	0%	18%
TOTAL	25%	29%	39%	7%	100%

Area 4					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	10%	0%	0%	0%	10%
2	0%	0%	0%	0%	0%
3 to 4	0%	3%	0%	0%	3%
5 to 9	0%	0%	3%	0%	3%
10 to 14	3%	6%	13%	3%	26%
15 to 19	3%	0%	16%	6%	26%
20+	0%	0%	19%	13%	32%
TOTAL	16%	10%	52%	23%	100%

Area 5					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	3%	0%	3%	0%	6%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	3%	0%	3%	0%	6%
10 to 14	6%	10%	19%	10%	45%
15 to 19	3%	10%	3%	3%	19%
20+	6%	6%	10%	0%	23%
TOTAL	23%	26%	39%	13%	100%

Area 6					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	6%	0%	0%	0%	6%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	6%	0%	6%	0%	12%
10 to 14	0%	24%	18%	12%	53%
15 to 19	6%	6%	12%	0%	24%
20+	6%	0%	0%	0%	6%
TOTAL	24%	29%	35%	12%	100%

Area 7					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	40%	0%	0%	0%	40%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	0%	20%	40%	0%	60%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
TOTAL	40%	20%	40%	0%	100%

Area 8					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	13%	0%	0%	0%	13%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	13%	0%	13%
15 to 19	0%	0%	13%	0%	13%
20+	25%	13%	13%	13%	63%
TOTAL	38%	13%	38%	13%	100%

Area 9					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	60%	0%	20%	0%	80%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	20%	0%	20%
TOTAL	60%	0%	40%	0%	100%

Southern Cape Inshore					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	13%	6%	6%	0%	26%
2	0%	3%	0%	0%	3%
3 to 4	0%	0%	0%	0%	0%
5 to 9	3%	3%	0%	3%	10%
10 to 14	19%	23%	3%	0%	45%
15 to 19	0%	6%	10%	0%	16%
20+	0%	0%	0%	0%	0%
TOTAL	35%	42%	19%	3%	100%

Area 14					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	39%	22%	0%	6%	67%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	0%	11%	17%	0%	28%
15 to 19	0%	0%	6%	0%	6%
20+	0%	0%	0%	0%	0%
TOTAL	39%	33%	22%	6%	100%

Area 16					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	6%	0%	6%
5 to 9	0%	0%	0%	0%	0%
10 to 14	13%	0%	0%	0%	13%
15 to 19	6%	0%	6%	6%	19%
20+	0%	0%	6%	56%	63%
TOTAL	19%	0%	19%	63%	100%

Area 18					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	0%	25%	0%	0%	25%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	25%	50%	75%
TOTAL	0%	25%	25%	50%	100%

Area 19					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	2%	0%	2%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	2%	2%
5 to 9	4%	0%	4%	0%	7%
10 to 14	11%	6%	7%	6%	30%
15 to 19	0%	4%	6%	7%	17%
20+	2%	2%	7%	31%	43%
TOTAL	17%	11%	26%	46%	100%

MAY

Number of Respondents

Area 1

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	1	0	0	1
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	1	1	2
10 to 14	0	1	3	0	4
15 to 19	0	0	1	0	1
20+	0	0	0	0	0
TOTAL	0	2	5	1	8

Area 2

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	3	0	0	0	3
2	0	0	1	0	1
3 to 4	0	1	2	1	4
5 to 9	3	8	7	3	21
10 to 14	4	6	13	10	33
15 to 19	1	3	3	0	7
20+	1	2	2	3	8
TOTAL	12	20	28	17	77

Area 3

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	1	0	2	0	3
2	0	0	0	0	0
3 to 4	1	1	1	0	3
5 to 9	4	0	1	3	8
10 to 14	3	7	3	1	14
15 to 19	1	1	4	4	10
20+	1	2	3	1	7
TOTAL	11	11	14	9	45

Area 4

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	3	0	0	1	4
2	1	0	0	0	1
3 to 4	0	1	0	0	1
5 to 9	1	0	2	0	3
10 to 14	1	4	3	5	13
15 to 19	1	0	7	3	11
20+	0	1	5	7	13
TOTAL	7	6	17	16	46

Area 5

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	1	0	1	0	2
2	1	0	0	0	1
3 to 4	0	0	0	0	0
5 to 9	1	0	1	0	2
10 to 14	9	7	9	6	31
15 to 19	1	3	4	2	10
20+	0	3	1	3	7
TOTAL	13	13	16	11	53

Area 6

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	5	0	0	0	5
2	1	0	0	0	1
3 to 4	0	0	0	0	0
5 to 9	1	2	2	2	7
10 to 14	1	2	7	2	12
15 to 19	1	1	1	0	3
20+	2	0	0	0	2
TOTAL	11	5	10	4	30

Area 7

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	5	3	6	14
2	1	0	0	0	1
3 to 4	0	0	0	0	0
5 to 9	1	0	0	0	1
10 to 14	0	1	2	0	3
15 to 19	0	0	0	0	0
20+	0	0	1	0	1
TOTAL	2	6	6	6	20

Area 8

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	3	1	4	2	10
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	1	0	0	0	1
10 to 14	0	1	1	0	2
15 to 19	0	0	1	0	1
20+	1	1	0	1	3
TOTAL	5	3	6	3	17

Area 9

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	5	7	8	0	20
2	0	1	0	0	1
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	1	0	0	0	1
15 to 19	0	1	3	0	4
20+	0	0	0	0	0
TOTAL	6	9	11	0	26

Southern Cape Inshore

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	4	2	0	1	7
2	0	1	0	0	1
3 to 4	1	0	0	0	1
5 to 9	1	0	1	1	3
10 to 14	4	6	3	0	13
15 to 19	0	3	3	0	6
20+	0	0	1	0	1
TOTAL	10	12	8	2	32

Area 14

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	9	4	1	1	15
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	0	0	3	0	3
15 to 19	0	0	1	0	1
20+	0	0	0	0	0
TOTAL	9	4	5	1	19

Area 16

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	0	0	0	0
3 to 4	0	0	0	1	1
5 to 9	1	0	0	0	1
10 to 14	1	1	1	0	3
15 to 19	0	0	0	2	2
20+	0	1	3	10	14
TOTAL	2	2	4	13	21

Area 18

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	1	0	0	0	1
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	0	0	1	0	1
15 to 19	1	2	1	0	4
20+	0	0	1	2	3
TOTAL	2	2	3	2	9

Area 19

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	1	0	1
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	1	0	1
10 to 14	4	5	5	2	16
15 to 19	0	2	3	4	9
20+	2	0	5	9	16
TOTAL	6	7	15	15	43

MAY

Percentage of Respondents

Area 1					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	13%	0%	0%	13%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	13%	13%	25%
10 to 14	0%	13%	38%	0%	50%
15 to 19	0%	0%	13%	0%	13%
20+	0%	0%	0%	0%	0%
TOTAL	0%	25%	63%	13%	100%

Area 2					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	4%	0%	0%	0%	4%
2	0%	0%	1%	0%	1%
3 to 4	0%	1%	3%	1%	5%
5 to 9	4%	10%	9%	4%	27%
10 to 14	5%	8%	17%	13%	43%
15 to 19	1%	4%	4%	0%	9%
20+	1%	3%	3%	4%	10%
TOTAL	16%	26%	36%	22%	100%

Area 3					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	2%	0%	4%	0%	7%
2	0%	0%	0%	0%	0%
3 to 4	2%	2%	2%	0%	7%
5 to 9	9%	0%	2%	7%	18%
10 to 14	7%	16%	7%	2%	31%
15 to 19	2%	2%	9%	9%	22%
20+	2%	4%	7%	2%	16%
TOTAL	24%	24%	31%	20%	100%

Area 4					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	7%	0%	0%	2%	9%
2	2%	0%	0%	0%	2%
3 to 4	0%	2%	0%	0%	2%
5 to 9	2%	0%	4%	0%	7%
10 to 14	2%	9%	7%	11%	28%
15 to 19	2%	0%	15%	7%	24%
20+	0%	2%	11%	15%	28%
TOTAL	15%	13%	37%	35%	100%

Area 5					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	2%	0%	2%	0%	4%
2	2%	0%	0%	0%	2%
3 to 4	0%	0%	0%	0%	0%
5 to 9	2%	0%	2%	0%	4%
10 to 14	17%	13%	17%	11%	58%
15 to 19	2%	6%	8%	4%	19%
20+	0%	6%	2%	6%	13%
TOTAL	25%	25%	30%	21%	100%

Area 6					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	17%	0%	0%	0%	17%
2	3%	0%	0%	0%	3%
3 to 4	0%	0%	0%	0%	0%
5 to 9	3%	7%	7%	7%	23%
10 to 14	3%	7%	23%	7%	40%
15 to 19	3%	3%	3%	0%	10%
20+	7%	0%	0%	0%	7%
TOTAL	37%	17%	33%	13%	100%

Area 7					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	25%	15%	30%	70%
2	5%	0%	0%	0%	5%
3 to 4	0%	0%	0%	0%	0%
5 to 9	5%	0%	0%	0%	5%
10 to 14	0%	5%	10%	0%	15%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	5%	0%	5%
TOTAL	10%	30%	30%	30%	100%

Area 8					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	18%	6%	24%	12%	59%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	6%	0%	0%	0%	6%
10 to 14	0%	6%	6%	0%	12%
15 to 19	0%	0%	6%	0%	6%
20+	6%	6%	0%	6%	18%
TOTAL	29%	18%	35%	18%	100%

Area 9					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	19%	27%	31%	0%	77%
2	0%	4%	0%	0%	4%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	4%	0%	0%	0%	4%
15 to 19	0%	4%	12%	0%	15%
20+	0%	0%	0%	0%	0%
TOTAL	23%	35%	42%	0%	100%

Southern Cape Inshore					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	13%	6%	0%	3%	22%
2	0%	3%	0%	0%	3%
3 to 4	3%	0%	0%	0%	3%
5 to 9	3%	0%	3%	3%	9%
10 to 14	13%	19%	9%	0%	41%
15 to 19	0%	9%	9%	0%	19%
20+	0%	0%	3%	0%	3%
TOTAL	31%	38%	25%	6%	100%

Area 14					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	47%	21%	5%	5%	79%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	16%	0%	16%
15 to 19	0%	0%	5%	0%	5%
20+	0%	0%	0%	0%	0%
TOTAL	47%	21%	26%	5%	100%

Area 16					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	5%	5%
5 to 9	5%	0%	0%	0%	5%
10 to 14	5%	5%	5%	0%	14%
15 to 19	0%	0%	0%	10%	10%
20+	0%	5%	14%	48%	67%
TOTAL	10%	10%	19%	62%	100%

Area 18					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	11%	0%	0%	0%	11%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	11%	0%	11%
15 to 19	11%	22%	11%	0%	44%
20+	0%	0%	11%	22%	33%
TOTAL	22%	22%	33%	22%	100%

Area 19					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	2%	0%	2%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	2%	0%	2%
10 to 14	9%	12%	12%	5%	37%
15 to 19	0%	5%	7%	9%	21%
20+	5%	0%	12%	21%	37%
TOTAL	14%	16%	35%	35%	100%

JUNE

Number of Respondents

Area 1					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	4	0	0	0	4
2	2	0	0	0	2
3 to 4	2	0	0	0	2
5 to 9	1	1	0	2	4
10 to 14	2	1	4	2	9
15 to 19	0	0	0	0	0
20+	0	0	0	0	0
TOTAL	11	2	4	4	21

Area 2					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	22	0	0	0	22
2	2	1	0	0	3
3 to 4	5	2	0	1	8
5 to 9	9	11	6	7	33
10 to 14	6	6	14	23	49
15 to 19	1	3	5	0	9
20+	0	2	4	3	9
TOTAL	45	25	29	34	133

Area 3					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	5	0	1	1	7
2	1	1	0	0	2
3 to 4	1	1	1	0	3
5 to 9	2	5	3	4	14
10 to 14	4	3	11	4	22
15 to 19	1	1	8	5	15
20+	1	2	4	2	9
TOTAL	15	13	28	16	72

Area 4					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	11	0	0	0	11
2	1	0	1	0	2
3 to 4	0	1	0	0	1
5 to 9	1	2	1	0	4
10 to 14	3	2	7	8	20
15 to 19	0	0	13	8	21
20+	0	0	7	15	22
TOTAL	16	5	29	31	81

Area 5					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	6	0	0	1	7
2	0	1	0	0	1
3 to 4	0	0	0	0	0
5 to 9	3	1	1	0	5
10 to 14	6	7	14	10	37
15 to 19	0	3	2	4	9
20+	1	3	0	5	9
TOTAL	16	15	17	20	68

Area 6					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	10	1	0	0	11
2	0	1	0	0	1
3 to 4	0	0	0	0	0
5 to 9	1	1	0	4	6
10 to 14	0	4	8	4	16
15 to 19	0	2	1	2	5
20+	0	1	0	0	1
TOTAL	11	10	9	10	40

Area 7					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	8	5	1	8	22
2	2	0	1	2	5
3 to 4	0	0	0	0	0
5 to 9	0	1	0	0	1
10 to 14	0	2	2	1	5
15 to 19	0	0	0	0	0
20+	1	0	1	0	2
TOTAL	11	8	5	11	35

Area 8					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	4	2	4	2	12
2	0	0	1	0	1
3 to 4	0	0	0	0	0
5 to 9	1	0	1	0	2
10 to 14	1	1	1	0	3
15 to 19	0	0	0	0	0
20+	1	0	1	1	3
TOTAL	7	3	8	3	21

Area 9					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	9	4	14	3	30
2	0	0	1	0	1
3 to 4	0	0	0	0	0
5 to 9	0	0	1	2	3
10 to 14	1	0	0	1	2
15 to 19	0	0	2	3	5
20+	0	0	1	0	1
TOTAL	10	4	19	9	42

Southern Cape Inshore					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	9	3	1	1	14
2	0	0	0	0	0
3 to 4	1	0	0	0	1
5 to 9	1	0	1	1	3
10 to 14	3	6	2	1	12
15 to 19	1	3	1	0	5
20+	0	0	2	0	2
TOTAL	15	12	7	3	37

Area 14					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	12	3	1	1	17
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	1	1	2	0	4
15 to 19	0	1	0	0	1
20+	0	0	0	0	0
TOTAL	13	5	3	1	22

Area 16					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	0	0	0	0
3 to 4	0	0	0	1	1
5 to 9	1	0	0	0	1
10 to 14	2	2	1	0	5
15 to 19	0	1	0	4	5
20+	0	1	2	11	14
TOTAL	3	4	3	16	26

Area 18					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	1	0	0	0	1
2	0	0	1	0	1
3 to 4	0	0	0	0	0
5 to 9	0	1	0	0	1
10 to 14	0	1	0	1	2
15 to 19	0	2	2	0	4
20+	0	0	0	3	3
TOTAL	1	4	3	4	12

Area 19					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	1	0	0	1
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	1	1	0	0	2
10 to 14	1	7	4	1	13
15 to 19	2	0	1	0	3
20+	2	2	4	4	12
TOTAL	6	11	9	5	31

JUNE

Percentage of Respondents

Area 1					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	19%	0%	0%	0%	19%
2	10%	0%	0%	0%	10%
3 to 4	10%	0%	0%	0%	10%
5 to 9	5%	5%	0%	10%	19%
10 to 14	10%	5%	19%	10%	43%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
TOTAL	52%	10%	19%	19%	100%

Area 2					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	17%	0%	0%	0%	17%
2	2%	1%	0%	0%	2%
3 to 4	4%	2%	0%	1%	6%
5 to 9	7%	8%	5%	5%	25%
10 to 14	5%	5%	11%	17%	37%
15 to 19	1%	2%	4%	0%	7%
20+	0%	2%	3%	2%	7%
TOTAL	34%	19%	22%	26%	100%

Area 3					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	7%	0%	1%	1%	10%
2	1%	1%	0%	0%	3%
3 to 4	1%	1%	1%	0%	4%
5 to 9	3%	7%	4%	6%	19%
10 to 14	6%	4%	15%	6%	31%
15 to 19	1%	1%	11%	7%	21%
20+	1%	3%	6%	3%	13%
TOTAL	21%	18%	39%	22%	100%

Area 4					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	14%	0%	0%	0%	14%
2	1%	0%	1%	0%	2%
3 to 4	0%	1%	0%	0%	1%
5 to 9	1%	2%	1%	0%	5%
10 to 14	4%	2%	9%	10%	25%
15 to 19	0%	0%	16%	10%	26%
20+	0%	0%	9%	19%	27%
TOTAL	20%	6%	36%	38%	100%

Area 5					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	9%	0%	0%	1%	10%
2	0%	1%	0%	0%	1%
3 to 4	0%	0%	0%	0%	0%
5 to 9	4%	1%	1%	0%	7%
10 to 14	9%	10%	21%	15%	54%
15 to 19	0%	4%	3%	6%	13%
20+	1%	4%	0%	7%	13%
TOTAL	24%	22%	25%	29%	100%

Area 6					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	25%	3%	0%	0%	28%
2	0%	3%	0%	0%	3%
3 to 4	0%	0%	0%	0%	0%
5 to 9	3%	3%	0%	10%	15%
10 to 14	0%	10%	20%	10%	40%
15 to 19	0%	5%	3%	5%	13%
20+	0%	3%	0%	0%	3%
TOTAL	28%	25%	23%	25%	100%

Area 7					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	23%	14%	3%	23%	63%
2	6%	0%	3%	6%	14%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	3%	0%	0%	3%
10 to 14	0%	6%	6%	3%	14%
15 to 19	0%	0%	0%	0%	0%
20+	3%	0%	3%	0%	6%
TOTAL	31%	23%	14%	31%	100%

Area 8					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	19%	10%	19%	10%	57%
2	0%	0%	5%	0%	5%
3 to 4	0%	0%	0%	0%	0%
5 to 9	5%	0%	5%	0%	10%
10 to 14	5%	5%	5%	0%	14%
15 to 19	0%	0%	0%	0%	0%
20+	5%	0%	5%	5%	14%
TOTAL	33%	14%	38%	14%	100%

Area 9					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	21%	10%	33%	7%	71%
2	0%	0%	2%	0%	2%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	2%	5%	7%
10 to 14	2%	0%	0%	2%	5%
15 to 19	0%	0%	5%	7%	12%
20+	0%	0%	2%	0%	2%
TOTAL	24%	10%	45%	21%	100%

Southern Cape Inshore					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	24%	8%	3%	3%	38%
2	0%	0%	0%	0%	0%
3 to 4	3%	0%	0%	0%	3%
5 to 9	3%	0%	3%	3%	8%
10 to 14	8%	16%	5%	3%	32%
15 to 19	3%	8%	3%	0%	14%
20+	0%	0%	5%	0%	5%
TOTAL	41%	32%	19%	8%	100%

Area 14					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	55%	14%	5%	5%	77%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	5%	5%	9%	0%	18%
15 to 19	0%	5%	0%	0%	5%
20+	0%	0%	0%	0%	0%
TOTAL	59%	23%	14%	5%	100%

Area 16					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	4%	4%
5 to 9	4%	0%	0%	0%	4%
10 to 14	8%	8%	4%	0%	19%
15 to 19	0%	4%	0%	15%	19%
20+	0%	4%	8%	42%	54%
TOTAL	12%	15%	12%	62%	100%

Area 18					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	8%	0%	0%	0%	8%
2	0%	0%	8%	0%	8%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	8%	0%	0%	8%
10 to 14	0%	8%	0%	8%	17%
15 to 19	0%	17%	17%	0%	33%
20+	0%	0%	0%	25%	25%
TOTAL	8%	33%	25%	33%	100%

Area 19					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	3%	0%	0%	3%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	3%	3%	0%	0%	6%
10 to 14	3%	23%	13%	3%	42%
15 to 19	6%	0%	3%	0%	10%
20+	6%	6%	13%	13%	39%
TOTAL	19%	35%	29%	16%	100%

JULY

Number of Respondents

Area 1					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	6	0	0	0	6
2	2	0	0	0	2
3 to 4	2	2	0	0	4
5 to 9	1	1	0	1	3
10 to 14	0	3	4	4	11
15 to 19	0	0	0	0	0
20+	0	0	0	0	0
TOTAL	11	6	4	5	26

Area 2					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	22	2	0	0	24
2	3	2	0	0	5
3 to 4	6	3	1	1	11
5 to 9	7	13	8	7	35
10 to 14	4	6	13	30	53
15 to 19	1	2	5	0	8
20+	0	2	5	7	14
TOTAL	43	30	32	45	150

Area 3					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	11	0	0	2	13
2	1	0	1	0	2
3 to 4	1	1	0	0	2
5 to 9	3	3	6	5	17
10 to 14	5	5	10	8	28
15 to 19	1	6	7	6	20
20+	1	3	5	5	14
TOTAL	23	18	29	26	96

Area 4					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	14	1	0	0	15
2	2	0	1	0	3
3 to 4	0	1	0	0	1
5 to 9	1	3	2	0	6
10 to 14	4	3	8	8	23
15 to 19	0	0	8	17	25
20+	1	3	7	20	31
TOTAL	22	11	26	45	104

Area 5					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	9	0	0	1	10
2	0	1	0	0	1
3 to 4	0	0	0	0	0
5 to 9	3	0	2	0	5
10 to 14	4	10	11	18	43
15 to 19	0	2	3	2	7
20+	1	1	4	5	11
TOTAL	17	14	20	26	77

Area 6					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	13	1	2	0	16
2	0	0	1	0	1
3 to 4	0	0	0	0	0
5 to 9	1	2	1	3	7
10 to 14	1	2	8	7	18
15 to 19	0	1	1	3	5
20+	0	2	1	1	4
TOTAL	15	8	14	14	51

Area 7					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	9	8	4	8	29
2	2	0	1	1	4
3 to 4	0	0	0	0	0
5 to 9	0	1	1	0	2
10 to 14	0	1	3	2	6
15 to 19	0	0	0	0	0
20+	0	1	0	2	3
TOTAL	11	11	9	13	44

Area 8					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	5	1	6	2	14
2	0	0	1	0	1
3 to 4	0	0	0	0	0
5 to 9	1	0	1	2	4
10 to 14	1	1	2	0	4
15 to 19	0	0	1	0	1
20+	1	0	2	1	4
TOTAL	8	2	13	5	28

Area 9					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	10	2	15	6	33
2	0	0	0	1	1
3 to 4	0	0	0	0	0
5 to 9	0	0	2	2	4
10 to 14	0	1	0	1	2
15 to 19	0	0	1	3	4
20+	0	0	1	0	1
TOTAL	10	3	19	13	45

Southern Cape Inshore					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	10	2	4	0	16
2	0	1	3	1	5
3 to 4	1	0	0	0	1
5 to 9	1	1	0	1	3
10 to 14	3	3	4	1	11
15 to 19	2	1	2	0	5
20+	0	0	1	0	1
TOTAL	17	8	14	3	42

Area 14					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	12	2	2	1	17
2	0	0	2	0	2
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	0	2	1	0	3
15 to 19	0	1	0	0	1
20+	0	0	0	0	0
TOTAL	12	5	5	1	23

Area 16					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	0	0	0	0
3 to 4	0	0	0	1	1
5 to 9	0	1	0	0	1
10 to 14	1	1	3	0	5
15 to 19	0	1	1	5	7
20+	0	1	2	11	14
TOTAL	1	4	6	17	28

Area 18					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	1	0	0	0	1
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	1	0	1	0	2
10 to 14	0	1	0	1	2
15 to 19	0	2	1	0	3
20+	0	0	0	3	3
TOTAL	2	3	2	4	11

Area 19					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	1	0	0	1
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	1	1	0	0	2
10 to 14	2	5	2	1	10
15 to 19	1	0	3	0	4
20+	3	2	4	1	10
TOTAL	7	9	9	2	27

JULY

Percentage of Respondents

Area 1					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	23%	0%	0%	0%	23%
2	8%	0%	0%	0%	8%
3 to 4	8%	8%	0%	0%	15%
5 to 9	4%	4%	0%	4%	12%
10 to 14	0%	12%	15%	15%	42%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
TOTAL	42%	23%	15%	19%	100%

Area 2					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	15%	1%	0%	0%	16%
2	2%	1%	0%	0%	3%
3 to 4	4%	2%	1%	1%	7%
5 to 9	5%	9%	5%	5%	23%
10 to 14	3%	4%	9%	20%	35%
15 to 19	1%	1%	3%	0%	5%
20+	0%	1%	3%	5%	9%
TOTAL	29%	20%	21%	30%	100%

Area 3					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	11%	0%	0%	2%	14%
2	1%	0%	1%	0%	2%
3 to 4	1%	1%	0%	0%	2%
5 to 9	3%	3%	6%	5%	18%
10 to 14	5%	5%	10%	8%	29%
15 to 19	1%	6%	7%	6%	21%
20+	1%	3%	5%	5%	15%
TOTAL	24%	19%	30%	27%	100%

Area 4					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	13%	1%	0%	0%	14%
2	2%	0%	1%	0%	3%
3 to 4	0%	1%	0%	0%	1%
5 to 9	1%	3%	2%	0%	6%
10 to 14	4%	3%	8%	8%	22%
15 to 19	0%	0%	8%	16%	24%
20+	1%	3%	7%	19%	30%
TOTAL	21%	11%	25%	43%	100%

Area 5					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	12%	0%	0%	1%	13%
2	0%	1%	0%	0%	1%
3 to 4	0%	0%	0%	0%	0%
5 to 9	4%	0%	3%	0%	6%
10 to 14	5%	13%	14%	23%	56%
15 to 19	0%	3%	4%	3%	9%
20+	1%	1%	5%	6%	14%
TOTAL	22%	18%	26%	34%	100%

Area 6					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	25%	2%	4%	0%	31%
2	0%	0%	2%	0%	2%
3 to 4	0%	0%	0%	0%	0%
5 to 9	2%	4%	2%	6%	14%
10 to 14	2%	4%	16%	14%	35%
15 to 19	0%	2%	2%	6%	10%
20+	0%	4%	2%	2%	8%
TOTAL	29%	16%	27%	27%	100%

Area 7					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	20%	18%	9%	18%	66%
2	5%	0%	2%	2%	9%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	2%	2%	0%	5%
10 to 14	0%	2%	7%	5%	14%
15 to 19	0%	0%	0%	0%	0%
20+	0%	2%	0%	5%	7%
TOTAL	25%	25%	20%	30%	100%

Area 8					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	18%	4%	21%	7%	50%
2	0%	0%	4%	0%	4%
3 to 4	0%	0%	0%	0%	0%
5 to 9	4%	0%	4%	7%	14%
10 to 14	4%	4%	7%	0%	14%
15 to 19	0%	0%	4%	0%	4%
20+	4%	0%	7%	4%	14%
TOTAL	29%	7%	46%	18%	100%

Area 9					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	22%	4%	33%	13%	73%
2	0%	0%	0%	2%	2%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	4%	4%	9%
10 to 14	0%	2%	0%	2%	4%
15 to 19	0%	0%	2%	7%	9%
20+	0%	0%	2%	0%	2%
TOTAL	22%	7%	42%	29%	100%

Southern Cape Inshore					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	24%	5%	10%	0%	38%
2	0%	2%	7%	2%	12%
3 to 4	2%	0%	0%	0%	2%
5 to 9	2%	2%	0%	2%	7%
10 to 14	7%	7%	10%	2%	26%
15 to 19	5%	2%	5%	0%	12%
20+	0%	0%	2%	0%	2%
TOTAL	40%	19%	33%	7%	100%

Area 14					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	52%	9%	9%	4%	74%
2	0%	0%	9%	0%	9%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	0%	9%	4%	0%	13%
15 to 19	0%	4%	0%	0%	4%
20+	0%	0%	0%	0%	0%
TOTAL	52%	22%	22%	4%	100%

Area 16					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	4%	4%
5 to 9	0%	4%	0%	0%	4%
10 to 14	4%	4%	11%	0%	18%
15 to 19	0%	4%	4%	18%	25%
20+	0%	4%	7%	39%	50%
TOTAL	4%	14%	21%	61%	100%

Area 18					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	9%	0%	0%	0%	9%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	9%	0%	9%	0%	18%
10 to 14	0%	9%	0%	9%	18%
15 to 19	0%	18%	9%	0%	27%
20+	0%	0%	0%	27%	27%
TOTAL	18%	27%	18%	36%	100%

Area 19					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	4%	0%	0%	4%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	4%	4%	0%	0%	7%
10 to 14	7%	19%	7%	4%	37%
15 to 19	4%	0%	11%	0%	15%
20+	11%	7%	15%	4%	37%
TOTAL	26%	33%	33%	7%	100%

AUGUST

Number of Respondents

Area 1

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	4	0	0	0	4
2	2	0	0	0	2
3 to 4	2	2	0	0	4
5 to 9	1	1	0	1	3
10 to 14	0	3	4	4	11
15 to 19	1	0	0	0	1
20+	0	0	0	0	0
TOTAL	10	6	4	5	25

Area 2

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	22	2	0	0	24
2	3	2	0	0	5
3 to 4	5	3	1	1	10
5 to 9	8	13	11	7	39
10 to 14	5	7	16	32	60
15 to 19	1	1	7	1	10
20+	1	2	5	8	16
TOTAL	45	30	40	49	164

Area 3

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	10	1	0	2	13
2	0	1	1	0	2
3 to 4	1	1	0	0	2
5 to 9	2	6	6	7	21
10 to 14	4	7	14	8	33
15 to 19	1	5	12	5	23
20+	2	1	7	4	14
TOTAL	20	22	40	26	108

Area 4

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	15	1	0	0	16
2	2	0	1	0	3
3 to 4	0	1	0	0	1
5 to 9	2	2	3	1	8
10 to 14	4	2	10	7	23
15 to 19	0	0	10	17	27
20+	0	2	8	19	29
TOTAL	23	8	32	44	107

Area 5

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	10	0	0	1	11
2	0	1	0	0	1
3 to 4	0	0	0	0	0
5 to 9	4	0	1	0	5
10 to 14	3	11	12	17	43
15 to 19	0	0	6	3	9
20+	0	2	3	5	10
TOTAL	17	14	22	26	79

Area 6

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	12	2	2	0	16
2	0	0	1	0	1
3 to 4	0	0	0	0	0
5 to 9	2	1	2	5	10
10 to 14	1	1	8	7	17
15 to 19	0	0	2	2	4
20+	1	0	1	2	4
TOTAL	16	4	16	16	52

Area 7

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	8	12	5	8	33
2	1	0	2	1	4
3 to 4	0	0	0	0	0
5 to 9	0	1	0	0	1
10 to 14	0	0	4	2	6
15 to 19	0	0	1	0	1
20+	0	1	0	2	3
TOTAL	9	14	12	13	48

Area 8

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	5	1	6	2	14
2	0	0	1	1	2
3 to 4	0	0	0	0	0
5 to 9	1	0	1	0	2
10 to 14	1	3	3	1	8
15 to 19	0	0	0	0	0
20+	0	1	3	3	7
TOTAL	7	5	14	7	33

Area 9

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	11	1	15	6	33
2	0	0	0	1	1
3 to 4	0	0	0	0	0
5 to 9	0	0	1	1	2
10 to 14	1	1	1	0	3
15 to 19	0	0	2	3	5
20+	0	0	0	1	1
TOTAL	12	2	19	12	45

Southern Cape Inshore

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	11	4	4	0	19
2	0	1	4	1	6
3 to 4	1	0	0	0	1
5 to 9	2	0	0	1	3
10 to 14	5	1	4	1	11
15 to 19	2	1	2	0	5
20+	0	0	1	0	1
TOTAL	21	7	15	3	46

Area 14

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	11	2	0	0	13
2	0	0	1	0	1
3 to 4	1	0	0	0	1
5 to 9	0	0	0	0	0
10 to 14	2	0	1	0	3
15 to 19	0	0	0	0	0
20+	0	0	0	0	0
TOTAL	14	2	2	0	18

Area 16

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	1	0	0	0	1
2	0	0	1	0	1
3 to 4	0	0	0	1	1
5 to 9	0	0	1	0	1
10 to 14	1	0	4	0	5
15 to 19	0	0	2	5	7
20+	0	0	3	11	14
TOTAL	2	0	11	17	30

Area 18

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	1	0	0	0	1
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	0	0	0	2	2
15 to 19	0	1	2	0	3
20+	0	1	0	3	4
TOTAL	1	2	2	5	10

Area 19

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	1	0	0	1
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	1	0	0	1
10 to 14	4	5	4	2	15
15 to 19	2	0	2	0	4
20+	3	4	6	2	15
TOTAL	9	11	12	4	36

AUGUST

Percentage of Respondents

Area 1					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	16%	0%	0%	0%	16%
2	8%	0%	0%	0%	8%
3 to 4	8%	8%	0%	0%	16%
5 to 9	4%	4%	0%	4%	12%
10 to 14	0%	12%	16%	16%	44%
15 to 19	4%	0%	0%	0%	4%
20+	0%	0%	0%	0%	0%
TOTAL	40%	24%	16%	20%	100%

Area 2					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	13%	1%	0%	0%	15%
2	2%	1%	0%	0%	3%
3 to 4	3%	2%	1%	1%	6%
5 to 9	5%	8%	7%	4%	24%
10 to 14	3%	4%	10%	20%	37%
15 to 19	1%	1%	4%	1%	6%
20+	1%	1%	3%	5%	10%
TOTAL	27%	18%	24%	30%	100%

Area 3					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	9%	1%	0%	2%	12%
2	0%	1%	1%	0%	2%
3 to 4	1%	1%	0%	0%	2%
5 to 9	2%	6%	6%	6%	19%
10 to 14	4%	6%	13%	7%	31%
15 to 19	1%	5%	11%	5%	21%
20+	2%	1%	6%	4%	13%
TOTAL	19%	20%	37%	24%	100%

Area 4					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	14%	1%	0%	0%	15%
2	2%	0%	1%	0%	3%
3 to 4	0%	1%	0%	0%	1%
5 to 9	2%	2%	3%	1%	7%
10 to 14	4%	2%	9%	7%	21%
15 to 19	0%	0%	9%	16%	25%
20+	0%	2%	7%	18%	27%
TOTAL	21%	7%	30%	41%	100%

Area 5					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	13%	0%	0%	1%	14%
2	0%	1%	0%	0%	1%
3 to 4	0%	0%	0%	0%	0%
5 to 9	5%	0%	1%	0%	6%
10 to 14	4%	14%	15%	22%	54%
15 to 19	0%	0%	8%	4%	11%
20+	0%	3%	4%	6%	13%
TOTAL	22%	18%	28%	33%	100%

Area 6					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	23%	4%	4%	0%	31%
2	0%	0%	2%	0%	2%
3 to 4	0%	0%	0%	0%	0%
5 to 9	4%	2%	4%	10%	19%
10 to 14	2%	2%	15%	13%	33%
15 to 19	0%	0%	4%	4%	8%
20+	2%	0%	2%	4%	8%
TOTAL	31%	8%	31%	31%	100%

Area 7					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	17%	25%	10%	17%	69%
2	2%	0%	4%	2%	8%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	2%	0%	0%	2%
10 to 14	0%	0%	8%	4%	13%
15 to 19	0%	0%	2%	0%	2%
20+	0%	2%	0%	4%	6%
TOTAL	19%	29%	25%	27%	100%

Area 8					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	15%	3%	18%	6%	42%
2	0%	0%	3%	3%	6%
3 to 4	0%	0%	0%	0%	0%
5 to 9	3%	0%	3%	0%	6%
10 to 14	3%	9%	9%	3%	24%
15 to 19	0%	0%	0%	0%	0%
20+	0%	3%	9%	9%	21%
TOTAL	21%	15%	42%	21%	100%

Area 9					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	24%	2%	33%	13%	73%
2	0%	0%	0%	2%	2%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	2%	2%	4%
10 to 14	2%	2%	2%	0%	7%
15 to 19	0%	0%	4%	7%	11%
20+	0%	0%	0%	2%	2%
TOTAL	27%	4%	42%	27%	100%

Southern Cape Inshore					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	24%	9%	9%	0%	41%
2	0%	2%	9%	2%	13%
3 to 4	2%	0%	0%	0%	2%
5 to 9	4%	0%	0%	2%	7%
10 to 14	11%	2%	9%	2%	24%
15 to 19	4%	2%	4%	0%	11%
20+	0%	0%	2%	0%	2%
TOTAL	46%	15%	33%	7%	100%

Area 14					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	61%	11%	0%	0%	72%
2	0%	0%	6%	0%	6%
3 to 4	6%	0%	0%	0%	6%
5 to 9	0%	0%	0%	0%	0%
10 to 14	11%	0%	6%	0%	17%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
TOTAL	78%	11%	11%	0%	100%

Area 16					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	3%	0%	0%	0%	3%
2	0%	0%	3%	0%	3%
3 to 4	0%	0%	0%	3%	3%
5 to 9	0%	0%	3%	0%	3%
10 to 14	3%	0%	13%	0%	17%
15 to 19	0%	0%	7%	17%	23%
20+	0%	0%	10%	37%	47%
TOTAL	7%	0%	37%	57%	100%

Area 18					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	10%	0%	0%	0%	10%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	0%	0%	0%	20%	20%
15 to 19	0%	10%	20%	0%	30%
20+	0%	10%	0%	30%	40%
TOTAL	10%	20%	20%	50%	100%

Area 19					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	3%	0%	0%	3%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	3%	0%	0%	3%
10 to 14	11%	14%	11%	6%	42%
15 to 19	6%	0%	6%	0%	11%
20+	8%	11%	17%	6%	42%
TOTAL	25%	31%	33%	11%	100%

SEPTEMBER

Number of Respondents

Area 1					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	5	0	0	0	5
2	2	0	0	0	2
3 to 4	3	2	0	0	5
5 to 9	1	1	1	1	4
10 to 14	0	2	5	4	11
15 to 19	0	0	0	0	0
20+	0	0	0	0	0
TOTAL	11	5	6	5	27

Area 2					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	18	1	1	0	20
2	2	2	0	0	4
3 to 4	4	4	1	1	10
5 to 9	9	11	15	7	42
10 to 14	3	6	16	28	53
15 to 19	2	3	9	1	15
20+	2	4	8	5	19
TOTAL	40	31	50	42	163

Area 3					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	7	0	0	2	9
2	1	1	1	0	3
3 to 4	3	1	0	0	4
5 to 9	3	6	6	7	22
10 to 14	3	9	12	7	31
15 to 19	1	4	14	8	27
20+	3	1	7	4	15
TOTAL	21	22	40	28	111

Area 4					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	15	1	0	0	16
2	2	0	2	0	4
3 to 4	0	1	0	0	1
5 to 9	2	3	3	0	8
10 to 14	2	4	9	8	23
15 to 19	0	0	14	13	27
20+	0	2	9	20	31
TOTAL	21	11	37	41	110

Area 5					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	6	1	0	0	7
2	1	0	0	0	1
3 to 4	0	0	0	0	0
5 to 9	4	0	1	0	5
10 to 14	1	13	13	14	41
15 to 19	0	2	5	3	10
20+	0	4	5	3	12
TOTAL	12	20	24	20	76

Area 6					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	11	2	2	0	15
2	0	0	1	0	1
3 to 4	0	0	0	0	0
5 to 9	2	0	3	5	10
10 to 14	1	4	7	6	18
15 to 19	0	0	2	2	4
20+	1	0	0	2	3
TOTAL	15	6	15	15	51

Area 7					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	10	14	6	8	38
2	0	1	1	1	3
3 to 4	0	0	0	0	0
5 to 9	1	0	0	0	1
10 to 14	0	1	6	1	8
15 to 19	0	0	1	0	1
20+	0	0	1	2	3
TOTAL	11	16	15	12	54

Area 8					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	6	1	7	1	15
2	0	0	0	2	2
3 to 4	0	0	0	0	0
5 to 9	1	1	1	1	4
10 to 14	0	5	5	2	12
15 to 19	0	0	0	0	0
20+	0	1	3	7	11
TOTAL	7	8	16	13	44

Area 9					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	12	5	13	3	33
2	0	0	0	1	1
3 to 4	0	0	0	0	0
5 to 9	0	0	1	1	2
10 to 14	0	1	0	0	1
15 to 19	0	2	2	1	5
20+	0	0	0	1	1
TOTAL	12	8	16	7	43

Southern Cape Inshore					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	5	3	3	0	11
2	0	0	4	0	4
3 to 4	0	0	0	0	0
5 to 9	1	0	0	0	1
10 to 14	4	1	4	0	9
15 to 19	0	1	0	0	1
20+	0	0	1	0	1
TOTAL	10	5	12	0	27

Area 14					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	3	2	0	0	5
2	0	0	2	0	2
3 to 4	1	0	0	0	1
5 to 9	0	0	0	0	0
10 to 14	1	1	0	0	2
15 to 19	0	0	0	0	0
20+	0	0	0	0	0
TOTAL	5	3	2	0	10

Area 16					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	1	0	0	0	1
2	0	0	1	0	1
3 to 4	0	0	0	1	1
5 to 9	0	0	1	0	1
10 to 14	1	0	3	1	5
15 to 19	0	0	0	4	4
20+	0	0	3	12	15
TOTAL	2	0	8	18	28

Area 18					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	1	0	0	1
3 to 4	0	0	0	0	0
5 to 9	0	0	1	0	1
10 to 14	0	0	0	0	0
15 to 19	0	0	2	4	6
20+	0	1	0	4	5
TOTAL	0	2	3	8	13

Area 19					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	1	0	0	1	2
2	1	0	0	0	1
3 to 4	0	0	0	0	0
5 to 9	2	1	1	0	4
10 to 14	5	9	8	1	23
15 to 19	2	2	2	0	6
20+	1	7	13	6	27
TOTAL	12	19	24	8	63

SEPTEMBER

Percentage of Respondents

Area 1					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	19%	0%	0%	0%	19%
2	7%	0%	0%	0%	7%
3 to 4	11%	7%	0%	0%	19%
5 to 9	4%	4%	4%	4%	15%
10 to 14	0%	7%	19%	15%	41%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
TOTAL	41%	19%	22%	19%	100%

Area 2					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	11%	1%	1%	0%	12%
2	1%	1%	0%	0%	2%
3 to 4	2%	2%	1%	1%	6%
5 to 9	6%	7%	9%	4%	26%
10 to 14	2%	4%	10%	17%	33%
15 to 19	1%	2%	6%	1%	9%
20+	1%	2%	5%	3%	12%
TOTAL	25%	19%	31%	26%	100%

Area 3					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	6%	0%	0%	2%	8%
2	1%	1%	1%	0%	3%
3 to 4	3%	1%	0%	0%	4%
5 to 9	3%	5%	5%	6%	20%
10 to 14	3%	8%	11%	6%	28%
15 to 19	1%	4%	13%	7%	24%
20+	3%	1%	6%	4%	14%
TOTAL	19%	20%	36%	25%	100%

Area 4					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	14%	1%	0%	0%	15%
2	2%	0%	2%	0%	4%
3 to 4	0%	1%	0%	0%	1%
5 to 9	2%	3%	3%	0%	7%
10 to 14	2%	4%	8%	7%	21%
15 to 19	0%	0%	13%	12%	25%
20+	0%	2%	8%	18%	28%
TOTAL	19%	10%	34%	37%	100%

Area 5					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	8%	1%	0%	0%	9%
2	1%	0%	0%	0%	1%
3 to 4	0%	0%	0%	0%	0%
5 to 9	5%	0%	1%	0%	7%
10 to 14	1%	17%	17%	18%	54%
15 to 19	0%	3%	7%	4%	13%
20+	0%	5%	7%	4%	16%
TOTAL	16%	26%	32%	26%	100%

Area 6					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	22%	4%	4%	0%	29%
2	0%	0%	2%	0%	2%
3 to 4	0%	0%	0%	0%	0%
5 to 9	4%	0%	6%	10%	20%
10 to 14	2%	8%	14%	12%	35%
15 to 19	0%	0%	4%	4%	8%
20+	2%	0%	0%	4%	6%
TOTAL	29%	12%	29%	29%	100%

Area 7					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	19%	26%	11%	15%	70%
2	0%	2%	2%	2%	6%
3 to 4	0%	0%	0%	0%	0%
5 to 9	2%	0%	0%	0%	2%
10 to 14	0%	2%	11%	2%	15%
15 to 19	0%	0%	2%	0%	2%
20+	0%	0%	2%	4%	6%
TOTAL	20%	30%	28%	22%	100%

Area 8					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	14%	2%	16%	2%	34%
2	0%	0%	0%	5%	5%
3 to 4	0%	0%	0%	0%	0%
5 to 9	2%	2%	2%	2%	9%
10 to 14	0%	11%	11%	5%	27%
15 to 19	0%	0%	0%	0%	0%
20+	0%	2%	7%	16%	25%
TOTAL	16%	18%	36%	30%	100%

Area 9					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	28%	12%	30%	7%	77%
2	0%	0%	0%	2%	2%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	2%	2%	5%
10 to 14	0%	2%	0%	0%	2%
15 to 19	0%	5%	5%	2%	12%
20+	0%	0%	0%	2%	2%
TOTAL	28%	19%	37%	16%	100%

Southern Cape Inshore					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	19%	11%	11%	0%	41%
2	0%	0%	15%	0%	15%
3 to 4	0%	0%	0%	0%	0%
5 to 9	4%	0%	0%	0%	4%
10 to 14	15%	4%	15%	0%	33%
15 to 19	0%	4%	0%	0%	4%
20+	0%	0%	4%	0%	4%
TOTAL	37%	19%	44%	0%	100%

Area 14					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	30%	20%	0%	0%	50%
2	0%	0%	20%	0%	20%
3 to 4	10%	0%	0%	0%	10%
5 to 9	0%	0%	0%	0%	0%
10 to 14	10%	10%	0%	0%	20%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
TOTAL	50%	30%	20%	0%	100%

Area 16					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	4%	0%	0%	0%	4%
2	0%	0%	4%	0%	4%
3 to 4	0%	0%	0%	4%	4%
5 to 9	0%	0%	4%	0%	4%
10 to 14	4%	0%	11%	4%	18%
15 to 19	0%	0%	0%	14%	14%
20+	0%	0%	11%	43%	54%
TOTAL	7%	0%	29%	64%	100%

Area 18					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	8%	0%	0%	8%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	8%	0%	8%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	15%	31%	46%
20+	0%	8%	0%	31%	38%
TOTAL	0%	15%	23%	62%	100%

Area 19					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	2%	0%	0%	2%	3%
2	2%	0%	0%	0%	2%
3 to 4	0%	0%	0%	0%	0%
5 to 9	3%	2%	2%	0%	6%
10 to 14	8%	14%	13%	2%	37%
15 to 19	3%	3%	3%	0%	10%
20+	2%	11%	21%	10%	43%
TOTAL	19%	30%	38%	13%	100%

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Number of Respondents

Area 1					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	3	0	0	0	3
2	1	0	0	0	1
3 to 4	0	1	0	0	1
5 to 9	0	1	2	0	3
10 to 14	1	1	2	3	7
15 to 19	0	0	0	0	0
20+	0	1	2	0	3
TOTAL	5	4	6	3	18

Area 2					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	8	1	1	0	10
2	1	1	1	0	3
3 to 4	3	1	1	1	6
5 to 9	4	14	14	4	36
10 to 14	4	8	18	20	50
15 to 19	2	4	7	1	14
20+	2	4	11	5	22
TOTAL	24	33	53	31	141

Area 3					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	4	0	1	1	6
2	1	2	1	0	4
3 to 4	3	1	0	0	4
5 to 9	5	3	8	5	21
10 to 14	4	10	10	6	30
15 to 19	0	6	11	8	25
20+	3	4	4	4	15
TOTAL	20	26	35	24	105

Area 4					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	5	1	0	0	6
2	2	0	1	0	3
3 to 4	0	1	0	0	1
5 to 9	3	1	4	0	8
10 to 14	2	6	8	7	23
15 to 19	0	5	11	11	27
20+	0	4	11	15	30
TOTAL	12	18	35	33	98

Area 5					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	4	0	0	0	4
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	1	0	2	0	3
10 to 14	4	10	13	12	39
15 to 19	0	4	4	2	10
20+	1	5	5	1	12
TOTAL	10	19	24	15	68

Area 6					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	9	1	1	0	11
2	0	0	0	0	0
3 to 4	0	0	1	0	1
5 to 9	1	0	4	4	9
10 to 14	2	2	7	4	15
15 to 19	0	1	2	1	4
20+	1	0	1	1	3
TOTAL	13	4	16	10	43

Area 7					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	3	9	10	5	27
2	0	0	0	1	1
3 to 4	0	0	0	0	0
5 to 9	0	1	0	0	1
10 to 14	0	1	5	2	8
15 to 19	1	0	1	0	2
20+	0	0	2	1	3
TOTAL	4	11	18	9	42

Area 8					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	3	4	3	0	10
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	1	0	2	2	5
10 to 14	0	3	6	3	12
15 to 19	0	1	3	0	4
20+	0	2	4	8	14
TOTAL	4	10	18	13	45

Area 9					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	6	4	12	0	22
2	0	0	1	0	1
3 to 4	0	0	0	0	0
5 to 9	0	1	0	0	1
10 to 14	0	1	0	0	1
15 to 19	0	0	1	0	1
20+	0	0	0	1	1
TOTAL	6	6	14	1	27

Southern Cape Inshore					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	1	2	0	0	3
2	0	2	0	0	2
3 to 4	0	0	0	0	0
5 to 9	1	0	0	0	1
10 to 14	3	2	0	0	5
15 to 19	0	0	1	0	1
20+	0	0	0	0	0
TOTAL	5	6	1	0	12

Area 14					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	1	1	0	0	2
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	0	1	0	0	1
15 to 19	0	0	0	0	0
20+	0	0	0	0	0
TOTAL	1	2	0	0	3

Area 16					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	0	1	1	2
3 to 4	0	0	0	0	0
5 to 9	0	1	0	0	1
10 to 14	1	1	2	0	4
15 to 19	1	0	1	2	4
20+	0	0	2	12	14
TOTAL	2	2	6	15	25

Area 18					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	0	0	0	0
3 to 4	0	0	0	1	1
5 to 9	0	0	0	1	1
10 to 14	0	0	0	0	0
15 to 19	0	0	0	6	6
20+	0	1	0	4	5
TOTAL	0	1	0	12	13

Area 19					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	1	1
2	1	0	0	0	1
3 to 4	0	0	0	0	0
5 to 9	3	1	1	0	5
10 to 14	4	6	12	4	26
15 to 19	2	5	9	4	20
20+	1	6	18	14	39
TOTAL	11	18	40	23	92

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Percentage of Respondents

Area 1					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	17%	0%	0%	0%	17%
2	6%	0%	0%	0%	6%
3 to 4	0%	6%	0%	0%	6%
5 to 9	0%	6%	11%	0%	17%
10 to 14	6%	6%	11%	17%	39%
15 to 19	0%	0%	0%	0%	0%
20+	0%	6%	11%	0%	17%
TOTAL	28%	22%	33%	17%	100%

Area 2					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	6%	1%	1%	0%	7%
2	1%	1%	1%	0%	2%
3 to 4	2%	1%	1%	1%	4%
5 to 9	3%	10%	10%	3%	26%
10 to 14	3%	6%	13%	14%	35%
15 to 19	1%	3%	5%	1%	10%
20+	1%	3%	8%	4%	16%
TOTAL	17%	23%	38%	22%	100%

Area 3					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	4%	0%	1%	1%	6%
2	1%	2%	1%	0%	4%
3 to 4	3%	1%	0%	0%	4%
5 to 9	5%	3%	8%	5%	20%
10 to 14	4%	10%	10%	6%	29%
15 to 19	0%	6%	10%	8%	24%
20+	3%	4%	4%	4%	14%
TOTAL	19%	25%	33%	23%	100%

Area 4					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	5%	1%	0%	0%	6%
2	2%	0%	1%	0%	3%
3 to 4	0%	1%	0%	0%	1%
5 to 9	3%	1%	4%	0%	8%
10 to 14	2%	6%	8%	7%	23%
15 to 19	0%	5%	11%	11%	28%
20+	0%	4%	11%	15%	31%
TOTAL	12%	18%	36%	34%	100%

Area 5					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	6%	0%	0%	0%	6%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	1%	0%	3%	0%	4%
10 to 14	6%	15%	19%	18%	57%
15 to 19	0%	6%	6%	3%	15%
20+	1%	7%	7%	1%	18%
TOTAL	15%	28%	35%	22%	100%

Area 6					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	21%	2%	2%	0%	26%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	2%	0%	2%
5 to 9	2%	0%	9%	9%	21%
10 to 14	5%	5%	16%	9%	35%
15 to 19	0%	2%	5%	2%	9%
20+	2%	0%	2%	2%	7%
TOTAL	30%	9%	37%	23%	100%

Area 7					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	7%	21%	24%	12%	64%
2	0%	0%	0%	2%	2%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	2%	0%	0%	2%
10 to 14	0%	2%	12%	5%	19%
15 to 19	2%	0%	2%	0%	5%
20+	0%	0%	5%	2%	7%
TOTAL	10%	26%	43%	21%	100%

Area 8					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	7%	9%	7%	0%	22%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	2%	0%	4%	4%	11%
10 to 14	0%	7%	13%	7%	27%
15 to 19	0%	2%	7%	0%	9%
20+	0%	4%	9%	18%	31%
TOTAL	9%	22%	40%	29%	100%

Area 9					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	22%	15%	44%	0%	81%
2	0%	0%	4%	0%	4%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	4%	0%	0%	4%
10 to 14	0%	4%	0%	0%	4%
15 to 19	0%	0%	4%	0%	4%
20+	0%	0%	0%	4%	4%
TOTAL	22%	22%	52%	4%	100%

Southern Cape Inshore					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	8%	17%	0%	0%	25%
2	0%	17%	0%	0%	17%
3 to 4	0%	0%	0%	0%	0%
5 to 9	8%	0%	0%	0%	8%
10 to 14	25%	17%	0%	0%	42%
15 to 19	0%	0%	8%	0%	8%
20+	0%	0%	0%	0%	0%
TOTAL	42%	50%	8%	0%	100%

Area 14					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	33%	33%	0%	0%	67%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	0%	33%	0%	0%	33%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
TOTAL	33%	67%	0%	0%	100%

Area 16					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	0%	4%	4%	8%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	4%	0%	0%	4%
10 to 14	4%	4%	8%	0%	16%
15 to 19	4%	0%	4%	8%	16%
20+	0%	0%	8%	48%	56%
TOTAL	8%	8%	24%	60%	100%

Area 18					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	8%	8%
5 to 9	0%	0%	0%	8%	8%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	0%	0%	46%	46%
20+	0%	8%	0%	31%	38%
TOTAL	0%	8%	0%	92%	100%

Area 19					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	1%	1%
2	1%	0%	0%	0%	1%
3 to 4	0%	0%	0%	0%	0%
5 to 9	3%	1%	1%	0%	5%
10 to 14	4%	7%	13%	4%	28%
15 to 19	2%	5%	10%	4%	22%
20+	1%	7%	20%	15%	42%
TOTAL	12%	20%	43%	25%	100%

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Number of Respondents

Area 1					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	2	0	0	0	2
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	1	1	0	2
10 to 14	2	0	2	2	6
15 to 19	0	0	0	0	0
20+	0	0	2	0	2
TOTAL	4	1	5	2	12

Area 2					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	4	1	1	0	6
2	1	1	0	0	2
3 to 4	3	0	1	1	5
5 to 9	4	14	10	5	33
10 to 14	4	7	17	16	44
15 to 19	0	5	4	1	10
20+	2	6	7	2	17
TOTAL	18	34	40	25	117

Area 3					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	1	1	2
2	0	0	1	0	1
3 to 4	2	1	0	0	3
5 to 9	7	2	8	3	20
10 to 14	4	7	11	8	30
15 to 19	0	4	11	5	20
20+	2	2	5	4	13
TOTAL	15	16	37	21	89

Area 4					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	2	1	0	0	3
2	1	0	0	0	1
3 to 4	0	1	0	0	1
5 to 9	2	3	4	0	9
10 to 14	3	4	5	7	19
15 to 19	1	3	10	7	21
20+	1	1	13	13	28
TOTAL	10	13	32	27	82

Area 5					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	2	0	0	0	2
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	1	1	3	0	5
10 to 14	7	5	15	6	33
15 to 19	3	1	4	1	9
20+	1	4	6	1	12
TOTAL	14	11	28	8	61

Area 6					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	4	1	1	0	6
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	1	1	2	2	6
10 to 14	2	1	7	5	15
15 to 19	1	0	3	0	4
20+	1	1	0	1	3
TOTAL	9	4	13	8	34

Area 7					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	3	4	4	2	13
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	1	0	0	0	1
10 to 14	2	1	4	2	9
15 to 19	1	0	1	0	2
20+	0	0	2	1	3
TOTAL	7	5	11	5	28

Area 8					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	2	3	0	0	5
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	1	1	2
10 to 14	2	1	7	4	14
15 to 19	0	1	2	1	4
20+	1	1	3	10	15
TOTAL	5	6	13	16	40

Area 9					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	9	7	0	0	16
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	1	0	1
10 to 14	0	0	0	0	0
15 to 19	0	1	0	0	1
20+	0	0	0	1	1
TOTAL	9	8	1	1	19

Southern Cape Inshore					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	1	0	0	1
2	0	3	0	0	3
3 to 4	1	0	0	0	1
5 to 9	1	0	0	0	1
10 to 14	2	1	0	0	3
15 to 19	0	0	0	0	0
20+	0	0	0	0	0
TOTAL	4	5	0	0	9

Area 14					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	4	1	0	1	6
2	0	0	0	0	0
3 to 4	1	0	0	0	1
5 to 9	0	0	0	0	0
10 to 14	0	1	0	0	1
15 to 19	0	0	0	0	0
20+	0	0	0	0	0
TOTAL	5	2	0	1	8

Area 16					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	1	0	1
2	0	0	1	0	1
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	2	1	0	0	3
15 to 19	0	0	2	1	3
20+	0	0	2	12	14
TOTAL	2	1	6	13	22

Area 18					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	1	0	1
10 to 14	0	1	0	1	2
15 to 19	0	0	0	5	5
20+	0	1	0	4	5
TOTAL	0	2	1	10	13

Area 19					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	1	1
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	4	2	0	0	6
10 to 14	1	3	10	8	22
15 to 19	1	5	11	7	24
20+	3	4	14	26	47
TOTAL	9	14	35	42	100

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Percentage of Respondents

Area 1					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	17%	0%	0%	0%	17%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	8%	8%	0%	17%
10 to 14	17%	0%	17%	17%	50%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	17%	0%	17%
TOTAL	33%	8%	42%	17%	100%

Area 2					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	3%	1%	1%	0%	5%
2	1%	1%	0%	0%	2%
3 to 4	3%	0%	1%	1%	4%
5 to 9	3%	12%	9%	4%	28%
10 to 14	3%	6%	15%	14%	38%
15 to 19	0%	4%	3%	1%	9%
20+	2%	5%	6%	2%	15%
TOTAL	15%	29%	34%	21%	100%

Area 3					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	1%	1%	2%
2	0%	0%	1%	0%	1%
3 to 4	2%	1%	0%	0%	3%
5 to 9	8%	2%	9%	3%	22%
10 to 14	4%	8%	12%	9%	34%
15 to 19	0%	4%	12%	6%	22%
20+	2%	2%	6%	4%	15%
TOTAL	17%	18%	42%	24%	100%

Area 4					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	2%	1%	0%	0%	4%
2	1%	0%	0%	0%	1%
3 to 4	0%	1%	0%	0%	1%
5 to 9	2%	4%	5%	0%	11%
10 to 14	4%	5%	6%	9%	23%
15 to 19	1%	4%	12%	9%	26%
20+	1%	1%	16%	16%	34%
TOTAL	12%	16%	39%	33%	100%

Area 5					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	3%	0%	0%	0%	3%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	2%	2%	5%	0%	8%
10 to 14	11%	8%	25%	10%	54%
15 to 19	5%	2%	7%	2%	15%
20+	2%	7%	10%	2%	20%
TOTAL	23%	18%	46%	13%	100%

Area 6					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	12%	3%	3%	0%	18%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	3%	3%	6%	6%	18%
10 to 14	6%	3%	21%	15%	44%
15 to 19	3%	0%	9%	0%	12%
20+	3%	3%	0%	3%	9%
TOTAL	26%	12%	38%	24%	100%

Area 7					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	11%	14%	14%	7%	46%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	4%	0%	0%	0%	4%
10 to 14	7%	4%	14%	7%	32%
15 to 19	4%	0%	4%	0%	7%
20+	0%	0%	7%	4%	11%
TOTAL	25%	18%	39%	18%	100%

Area 8					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	5%	8%	0%	0%	13%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	3%	3%	5%
10 to 14	5%	3%	18%	10%	35%
15 to 19	0%	3%	5%	3%	10%
20+	3%	3%	8%	25%	38%
TOTAL	13%	15%	33%	40%	100%

Area 9					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	47%	37%	0%	0%	84%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	5%	0%	5%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	5%	0%	0%	5%
20+	0%	0%	0%	5%	5%
TOTAL	47%	42%	5%	5%	100%

Southern Cape Inshore					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	11%	0%	0%	11%
2	0%	33%	0%	0%	33%
3 to 4	11%	0%	0%	0%	11%
5 to 9	11%	0%	0%	0%	11%
10 to 14	22%	11%	0%	0%	33%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
TOTAL	44%	56%	0%	0%	100%

Area 14					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	50%	13%	0%	13%	75%
2	0%	0%	0%	0%	0%
3 to 4	13%	0%	0%	0%	13%
5 to 9	0%	0%	0%	0%	0%
10 to 14	0%	13%	0%	0%	13%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
TOTAL	63%	25%	0%	13%	100%

Area 16					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	5%	0%	5%
2	0%	0%	5%	0%	5%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	9%	5%	0%	0%	14%
15 to 19	0%	0%	9%	5%	14%
20+	0%	0%	9%	55%	64%
TOTAL	9%	5%	27%	59%	100%

Area 18					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	8%	0%	8%
10 to 14	0%	8%	0%	8%	15%
15 to 19	0%	0%	0%	38%	38%
20+	0%	8%	0%	31%	38%
TOTAL	0%	15%	8%	77%	100%

Area 19					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	1%	1%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	4%	2%	0%	0%	6%
10 to 14	1%	3%	10%	8%	22%
15 to 19	1%	5%	11%	7%	24%
20+	3%	4%	14%	26%	47%
TOTAL	9%	14%	35%	42%	100%

DECEMBER

Number of Respondents

Area 1

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	1	0	0	0	1
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	1	0	0	1
10 to 14	1	0	1	1	3
15 to 19	0	0	1	0	1
20+	0	0	1	0	1
TOTAL	2	1	3	1	7

Area 2

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	3	0	1	0	4
2	0	1	0	0	1
3 to 4	1	0	0	1	2
5 to 9	5	11	9	3	28
10 to 14	4	6	14	14	38
15 to 19	1	1	8	0	10
20+	3	6	5	2	16
TOTAL	17	25	37	20	99

Area 3

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	1	1	2
2	0	0	0	0	0
3 to 4	2	0	1	0	3
5 to 9	1	2	7	1	11
10 to 14	5	5	10	7	27
15 to 19	0	4	8	3	15
20+	4	3	8	2	17
TOTAL	12	14	35	14	75

Area 4

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	2	0	0	0	2
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	2	1	2	1	6
10 to 14	4	5	1	4	14
15 to 19	3	3	5	4	15
20+	3	1	13	11	28
TOTAL	14	10	21	20	65

Area 5

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	1	0	0	0	1
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	1	2	0	3
10 to 14	7	5	8	4	24
15 to 19	3	3	3	1	10
20+	2	1	2	0	5
TOTAL	13	10	15	5	43

Area 6

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	2	0	0	0	2
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	1	3	0	4
10 to 14	4	1	6	2	13
15 to 19	1	1	3	0	5
20+	1	1	0	0	2
TOTAL	8	4	12	2	26

Area 7

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	1	1	1	1	4
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	1	1	3	2	7
15 to 19	0	1	0	0	1
20+	0	0	1	1	2
TOTAL	2	3	5	4	14

Area 8

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	2	2	0	0	4
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	2	0	1	3
10 to 14	2	1	6	2	11
15 to 19	1	1	2	1	5
20+	1	0	5	7	13
TOTAL	6	6	13	11	36

Area 9

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	7	0	0	0	7
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	1	0	0	0	1
15 to 19	0	0	0	0	0
20+	0	0	0	1	1
TOTAL	8	0	0	1	9

Southern Cape Inshore

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	1	0	0	1
3 to 4	1	0	0	0	1
5 to 9	1	0	0	0	1
10 to 14	1	0	1	0	2
15 to 19	1	0	0	0	1
20+	0	0	0	0	0
TOTAL	4	1	1	0	6

Area 14

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	5	1	0	1	7
2	0	0	0	0	0
3 to 4	1	0	0	0	1
5 to 9	0	0	0	0	0
10 to 14	0	1	1	0	2
15 to 19	0	0	0	0	0
20+	0	0	0	0	0
TOTAL	6	2	1	1	10

Area 16

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	0	0	0
10 to 14	1	0	0	0	1
15 to 19	0	1	0	1	2
20+	0	0	1	11	12
TOTAL	1	1	1	12	15

Area 18

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	0	0
2	0	0	0	0	0
3 to 4	0	0	0	0	0
5 to 9	0	0	1	0	1
10 to 14	0	0	0	0	0
15 to 19	0	2	2	1	5
20+	0	1	1	4	6
TOTAL	0	3	4	5	12

Area 19

	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0	0	0	1	1
2	0	0	0	0	0
3 to 4	0	0	1	0	1
5 to 9	2	2	1	1	6
10 to 14	3	2	6	9	20
15 to 19	1	4	8	10	23
20+	2	3	12	28	45
TOTAL	8	11	28	49	96

DECEMBER

Percentage of Respondents

Area 1					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	14%	0%	0%	0%	14%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	14%	0%	0%	14%
10 to 14	14%	0%	14%	14%	43%
15 to 19	0%	0%	14%	0%	14%
20+	0%	0%	14%	0%	14%
TOTAL	29%	14%	43%	14%	100%

Area 2					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	3%	0%	1%	0%	4%
2	0%	1%	0%	0%	1%
3 to 4	1%	0%	0%	1%	2%
5 to 9	5%	11%	9%	3%	28%
10 to 14	4%	6%	14%	14%	38%
15 to 19	1%	1%	8%	0%	10%
20+	3%	6%	5%	2%	16%
TOTAL	17%	25%	37%	20%	100%

Area 3					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	1%	1%	3%
2	0%	0%	0%	0%	0%
3 to 4	3%	0%	1%	0%	4%
5 to 9	1%	3%	9%	1%	15%
10 to 14	7%	7%	13%	9%	36%
15 to 19	0%	5%	11%	4%	20%
20+	5%	4%	11%	3%	23%
TOTAL	16%	19%	47%	19%	100%

Area 4					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	3%	0%	0%	0%	3%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	3%	2%	3%	2%	9%
10 to 14	6%	8%	2%	6%	22%
15 to 19	5%	5%	8%	6%	23%
20+	5%	2%	20%	17%	43%
TOTAL	22%	15%	32%	31%	100%

Area 5					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	2%	0%	0%	0%	2%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	2%	5%	0%	7%
10 to 14	16%	12%	19%	9%	56%
15 to 19	7%	7%	7%	2%	23%
20+	5%	2%	5%	0%	12%
TOTAL	30%	23%	35%	12%	100%

Area 6					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	8%	0%	0%	0%	8%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	4%	12%	0%	15%
10 to 14	15%	4%	23%	8%	50%
15 to 19	4%	4%	12%	0%	19%
20+	4%	4%	0%	0%	8%
TOTAL	31%	15%	46%	8%	100%

Area 7					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	7%	7%	7%	7%	29%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	7%	7%	21%	14%	50%
15 to 19	0%	7%	0%	0%	7%
20+	0%	0%	7%	7%	14%
TOTAL	14%	21%	36%	29%	100%

Area 8					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	6%	6%	0%	0%	11%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	6%	0%	3%	8%
10 to 14	6%	3%	17%	6%	31%
15 to 19	3%	3%	6%	3%	14%
20+	3%	0%	14%	19%	36%
TOTAL	17%	17%	36%	31%	100%

Area 9					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	78%	0%	0%	0%	78%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	11%	0%	0%	0%	11%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	11%	11%
TOTAL	89%	0%	0%	11%	100%

Southern Cape Inshore					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	17%	0%	0%	17%
3 to 4	17%	0%	0%	0%	17%
5 to 9	17%	0%	0%	0%	17%
10 to 14	17%	0%	17%	0%	33%
15 to 19	17%	0%	0%	0%	17%
20+	0%	0%	0%	0%	0%
TOTAL	67%	17%	17%	0%	100%

Area 14					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	50%	10%	0%	10%	70%
2	0%	0%	0%	0%	0%
3 to 4	10%	0%	0%	0%	10%
5 to 9	0%	0%	0%	0%	0%
10 to 14	0%	10%	10%	0%	20%
15 to 19	0%	0%	0%	0%	0%
20+	0%	0%	0%	0%	0%
TOTAL	60%	20%	10%	10%	100%

Area 16					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	0%	0%	0%
10 to 14	7%	0%	0%	0%	7%
15 to 19	0%	7%	0%	7%	13%
20+	0%	0%	7%	73%	80%
TOTAL	7%	7%	7%	80%	100%

Area 18					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	0%	0%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	8%	0%	8%
10 to 14	0%	0%	0%	0%	0%
15 to 19	0%	17%	17%	8%	42%
20+	0%	8%	8%	33%	50%
TOTAL	0%	25%	33%	42%	100%

Area 19					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	1%	1%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	1%	0%	1%
5 to 9	2%	2%	1%	1%	6%
10 to 14	3%	2%	6%	9%	21%
15 to 19	1%	4%	8%	10%	24%
20+	2%	3%	13%	29%	47%
TOTAL	8%	11%	29%	51%	100%

ALL MONTHS

Number of Respondents

Area 1					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	25	1	0	0	26
2	9	0	0	0	9
3 to 4	9	7	3	0	19
5 to 9	4	10	7	6	27
10 to 14	9	11	26	20	66
15 to 19	1	0	2	0	3
20+	0	2	7	0	9
TOTAL	57	31	45	26	159

Area 2					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	106	7	4	0	117
2	13	11	2	0	26
3 to 4	33	14	11	8	66
5 to 9	55	116	96	48	315
10 to 14	51	76	141	198	466
15 to 19	11	26	60	4	101
20+	18	41	56	38	153
TOTAL	287	291	370	296	1244

Area 3					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	39	4	8	10	61
2	4	5	5	0	14
3 to 4	18	7	3	0	28
5 to 9	35	29	49	36	149
10 to 14	45	68	87	49	249
15 to 19	6	36	95	49	186
20+	28	20	51	29	128
TOTAL	175	169	298	173	815

Area 4					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	71	5	0	1	77
2	11	0	6	0	17
3 to 4	0	10	0	0	10
5 to 9	14	18	22	2	56
10 to 14	24	37	63	55	179
15 to 19	10	11	91	86	198
20+	5	15	89	135	244
TOTAL	135	96	271	279	781

Area 5					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	41	2	2	3	48
2	2	3	0	0	5
3 to 4	0	0	0	0	0
5 to 9	18	6	14	0	38
10 to 14	47	82	110	90	329
15 to 19	8	27	35	19	89
20+	14	29	30	24	97
TOTAL	130	149	191	136	606

Area 6					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	67	8	8	0	83
2	1	1	3	0	5
3 to 4	0	0	1	0	1
5 to 9	10	8	18	25	61
10 to 14	12	31	65	41	149
15 to 19	4	12	17	10	43
20+	10	5	3	8	26
TOTAL	104	65	115	84	368

Area 7					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	44	58	34	46	182
2	6	1	5	6	18
3 to 4	0	0	0	0	0
5 to 9	3	4	1	0	8
10 to 14	4	11	31	12	58
15 to 19	2	1	4	0	7
20+	2	2	8	9	21
TOTAL	61	77	83	73	294

Area 8					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	31	15	31	9	86
2	0	0	3	3	6
3 to 4	0	0	0	0	0
5 to 9	6	3	7	7	23
10 to 14	8	17	33	12	70
15 to 19	1	4	12	2	19
20+	12	10	27	42	91
TOTAL	58	49	113	75	295

Area 9					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	73	30	78	18	199
2	0	1	2	3	6
3 to 4	0	0	0	0	0
5 to 9	0	1	6	6	13
10 to 14	4	4	1	2	11
15 to 19	0	4	11	10	25
20+	0	0	3	5	8
TOTAL	77	40	101	44	262

Southern Cape Inshore					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	44	20	15	2	81
2	0	13	11	2	26
3 to 4	6	0	0	0	6
5 to 9	12	2	3	5	22
10 to 14	37	28	19	3	87
15 to 19	6	11	14	0	31
20+	0	0	6	0	6
TOTAL	105	74	68	12	259

Area 14					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	70	26	4	7	107
2	0	0	5	0	5
3 to 4	5	0	0	0	5
5 to 9	0	1	0	0	1
10 to 14	4	14	17	0	35
15 to 19	0	2	3	0	5
20+	0	0	0	0	0
TOTAL	79	43	29	7	158

Area 16					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	2	0	1	0	3
2	0	0	4	1	5
3 to 4	0	0	1	5	6
5 to 9	3	2	2	0	7
10 to 14	14	6	14	1	35
15 to 19	2	4	10	26	42
20+	1	3	23	132	159
TOTAL	22	15	55	165	257

Area 18					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	4	0	0	0	4
2	0	1	1	0	2
3 to 4	0	0	0	1	1
5 to 9	1	1	4	1	7
10 to 14	0	4	1	5	10
15 to 19	1	10	11	16	38
20+	0	5	4	35	44
TOTAL	6	21	21	58	106

Area 19					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	1	3	2	7	13
2	2	0	0	0	2
3 to 4	0	0	1	1	2
5 to 9	15	12	9	4	40
10 to 14	40	59	68	44	211
15 to 19	11	25	50	54	140
20+	20	41	94	166	321
TOTAL	89	140	224	276	729

ALL MONTHS

Percentage of Respondents

Area 1					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	16%	1%	0%	0%	16%
2	6%	0%	0%	0%	6%
3 to 4	6%	4%	2%	0%	12%
5 to 9	3%	6%	4%	4%	17%
10 to 14	6%	7%	16%	13%	42%
15 to 19	1%	0%	1%	0%	2%
20+	0%	1%	4%	0%	6%
TOTAL	36%	19%	28%	16%	100%

Area 2					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	9%	1%	0%	0%	9%
2	1%	1%	0%	0%	2%
3 to 4	3%	1%	1%	1%	5%
5 to 9	4%	9%	8%	4%	25%
10 to 14	4%	6%	11%	16%	37%
15 to 19	1%	2%	5%	0%	8%
20+	1%	3%	5%	3%	12%
TOTAL	23%	23%	30%	24%	100%

Area 3					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	5%	0%	1%	1%	7%
2	0%	1%	1%	0%	2%
3 to 4	2%	1%	0%	0%	3%
5 to 9	4%	4%	6%	4%	18%
10 to 14	6%	8%	11%	6%	31%
15 to 19	1%	4%	12%	6%	23%
20+	3%	2%	6%	4%	16%
TOTAL	21%	21%	37%	21%	100%

Area 4					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	9%	1%	0%	0%	10%
2	1%	0%	1%	0%	2%
3 to 4	0%	1%	0%	0%	1%
5 to 9	2%	2%	3%	0%	7%
10 to 14	3%	5%	8%	7%	23%
15 to 19	1%	1%	12%	11%	25%
20+	1%	2%	11%	17%	31%
TOTAL	17%	12%	35%	36%	100%

Area 5					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	7%	0%	0%	0%	8%
2	0%	0%	0%	0%	1%
3 to 4	0%	0%	0%	0%	0%
5 to 9	3%	1%	2%	0%	6%
10 to 14	8%	14%	18%	15%	54%
15 to 19	1%	4%	6%	3%	15%
20+	2%	5%	5%	4%	16%
TOTAL	21%	25%	32%	22%	100%

Area 6					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	18%	2%	2%	0%	23%
2	0%	0%	1%	0%	1%
3 to 4	0%	0%	0%	0%	0%
5 to 9	3%	2%	5%	7%	17%
10 to 14	3%	8%	18%	11%	40%
15 to 19	1%	3%	5%	3%	12%
20+	3%	1%	1%	2%	7%
TOTAL	28%	18%	31%	23%	100%

Area 7					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	15%	20%	12%	16%	62%
2	2%	0%	2%	2%	6%
3 to 4	0%	0%	0%	0%	0%
5 to 9	1%	1%	0%	0%	3%
10 to 14	1%	4%	11%	4%	20%
15 to 19	1%	0%	1%	0%	2%
20+	1%	1%	3%	3%	7%
TOTAL	21%	26%	28%	25%	100%

Area 8					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	11%	5%	11%	3%	29%
2	0%	0%	1%	1%	2%
3 to 4	0%	0%	0%	0%	0%
5 to 9	2%	1%	2%	2%	8%
10 to 14	3%	6%	11%	4%	24%
15 to 19	0%	1%	4%	1%	6%
20+	4%	3%	9%	14%	31%
TOTAL	20%	17%	38%	25%	100%

Area 9					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	28%	11%	30%	7%	76%
2	0%	0%	1%	1%	2%
3 to 4	0%	0%	0%	0%	0%
5 to 9	0%	0%	2%	2%	5%
10 to 14	2%	2%	0%	1%	4%
15 to 19	0%	2%	4%	4%	10%
20+	0%	0%	1%	2%	3%
TOTAL	29%	15%	39%	17%	100%

Southern Cape Inshore					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	17%	8%	6%	1%	31%
2	0%	5%	4%	1%	10%
3 to 4	2%	0%	0%	0%	2%
5 to 9	5%	1%	1%	2%	8%
10 to 14	14%	11%	7%	1%	34%
15 to 19	2%	4%	5%	0%	12%
20+	0%	0%	2%	0%	2%
TOTAL	41%	29%	26%	5%	100%

Area 14					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	44%	16%	3%	4%	68%
2	0%	0%	3%	0%	3%
3 to 4	3%	0%	0%	0%	3%
5 to 9	0%	1%	0%	0%	1%
10 to 14	3%	9%	11%	0%	22%
15 to 19	0%	1%	2%	0%	3%
20+	0%	0%	0%	0%	0%
TOTAL	50%	27%	18%	4%	100%

Area 16					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	1%	0%	0%	0%	1%
2	0%	0%	2%	0%	2%
3 to 4	0%	0%	0%	2%	2%
5 to 9	1%	1%	1%	0%	3%
10 to 14	5%	2%	5%	0%	14%
15 to 19	1%	2%	4%	10%	16%
20+	0%	1%	9%	51%	62%
TOTAL	9%	6%	21%	64%	100%

Area 18					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	4%	0%	0%	0%	4%
2	0%	1%	1%	0%	2%
3 to 4	0%	0%	0%	1%	1%
5 to 9	1%	1%	4%	1%	7%
10 to 14	0%	4%	1%	5%	9%
15 to 19	1%	9%	10%	15%	36%
20+	0%	5%	4%	33%	42%
TOTAL	6%	20%	20%	55%	100%

Area 19					
	Number of Traps per Vessel				
Traps per Trawl	1 to 100	101 to 200	201 to 400	401+	TOTAL
1	0%	0%	0%	1%	2%
2	0%	0%	0%	0%	0%
3 to 4	0%	0%	0%	0%	0%
5 to 9	2%	2%	1%	1%	5%
10 to 14	5%	8%	9%	6%	29%
15 to 19	2%	3%	7%	7%	19%
20+	3%	6%	13%	23%	44%
TOTAL	12%	19%	31%	38%	100%

RHODE ISLAND

The discussion below explains the model's characterization of the activity and gear associated with vessels fishing in Rhode Island state waters.

NUMBER OF ACTIVE VESSELS

The Rhode Island DEM Division of Fish and Wildlife provided 2010 vessel-level data from its Commercial Harvester Catch and Effort Logbook database. Fishermen submitting these trip-level logbook reports primarily hold state permits, although the data include some Federal lobster permit holders that do not report under the VTR program. We use these data to calculate the number of lobster, gillnet, and other trap pot (OTP) vessels fishing in the state-waters portion of NMFS statistical areas 539 (Narragansett Bay and RI coastal waters) and 611 (RI coastal waters). Figure RI-1 shows the location of these areas, while Table RI-1 summarizes the activity data for 2010.[37]

The OTP fishery includes vessels harvesting black sea bass, scup, eel, and conch. A single OTP fisherman may harvest multiple species; therefore, the logbook data do not allow disaggregation of these segments of the OTP fishery. However, DEM's Marine Fisheries staff indicates that the scup fishery is open year-round and has a large quota; therefore, fishermen primarily target scup. Black sea bass are also harvested, but this activity is limited by a small quota and frequent closures.

GEAR CONFIGURATIONS FOR MODEL VESSELS

Lobster

- **Distributional Approach**: As with other northeast states, the vertical line model applies a distributional approach to characterize gear configurations used by RI lobster vessels. Rather than estimate the concentration of vertical line based on a single model vessel designed to represent the average or typical configuration of gear, the model specifies multiple model vessels – representing the full range of gear configurations currently in use – and specifies the percentage of active lobster vessels to which each configuration applies.
- **Gear Configuration Parameters**: The specification of each model vessel includes the total number of traps that the vessel fishes and the number of traps fished per trawl. The RI logbook data allow us to characterize the average number of traps that lobster vessels fish over the course of the year, but do not include specific information on traps per trawl. RI fisheries experts suggest that vessels with a large trap allocation tend to fish longer trawls, while vessels with small allocations fish singles. We use trap allocation as a proxy for trawl configuration, applying the following assumptions recommended by RI DEM: vessels allocated 50 or fewer traps are likely to fish singles; vessels allocated 51 to 100 traps are likely to fish five-trap trawls; vessels allocated 101 to 200 traps are likely to fish 10-trap trawls; and vessels allocated 201 or more traps are likely to fish 15-trap trawls.

[37] Note that no gillnet vessels were active in area 611 in 2010.

- **Gear Distributions**: We cross-tabulate traps per vessel and traps per trawl, estimating the percentage of vessels that fish different configurations.[38] We develop a separate gear distribution for each season: Winter (January through March); spring (April and May); summer (June through August); and fall (September through December). As a result, for example, the data suggest that 26 percent of all vessels active in the spring fish 500 to 800 traps in 15-trap trawls. Attachment RI-A provides the full set of gear distribution matrices for vessels fishing in statistical areas 539 and 611.[39]
- **Point Estimates**: To calculate the number of vertical lines deployed, the model must apply specific numerical values to parameters specified with ranges. For traps fished per vessel, we calculate the following point estimates for each category: vessels in the 1 to 100 category fish 38 traps; vessels in the 101 to 500 category fish 274 traps; vessels in the 501 to 800 category fish 731 traps; and vessels in the 801 or more category fish 927 traps. These point estimates represent the average traps fished for all responses in the range, across all months.
- **Endlines per Trawl**: The model assumes that trawls of 5, 10, or 15 traps use two endlines.
- **Anchor Lines**: Consistent with findings for surrounding states, we assume that anchor lines are not used.

Gillnet

- **Total Strings Fished**: The characterization of the Rhode Island gillnet fishery is based on a single model vessel that represents gillnet operations in area 539. The specifications for this vessel include the number of gillnet strings fished. RI DEM guidance suggests that vessels in state waters fish single strings, an assumption consistent with neighboring Connecticut. As shown in Table RI-2, the number of nets fished per string varies across months, ranging from four to six.
- **Panel Dimensions**: The model assumes a net size of 300 feet by 9.7 feet.
- **Other**: The model assumes two surface lines and two 10-foot anchor lines for each gillnet string.

[38] The analysis pools data for vessels fishing in NMFS statistical areas 539 and 611.

[39] Note that the matrices reflect the average number of traps that each vessel reports fishing during each season, while assumptions about the configuration of traps are based on the overall trap allocation reported for each vessel (i.e., the maximum number of traps the vessel is permitted to fish at any one time). Thus, for example, vessels allocated more than 200 traps are assumed to fish 15-trap trawls year-round, even though they may average fewer than 100 traps in the water during any particular season.

Other Trap/Pot

- **Total Traps Fished**: The characterization of the Rhode Island OTP fishery includes two model vessels, one for each of the NMFS statistical areas. The specification of each model vessel includes the total number of traps that the vessel fishes. We use the 2010 logbook data to calculate the average number of pots fished by vessels in each month and area; the model incorporates these data. The figures are shown in Table RI-3.
- **Traps per Trawl**: No Rhode Island-specific data are currently available to characterize the number of pots fished per trawl in the OTP fishery. However, RI DEM indicates that the fishery primarily targets scup, which typically are harvested using single traps. Therefore, we assume single traps for all vessels active in the OTP fishery. As noted, fishermen also use trap gear to harvest black sea bass in limited quantities. These traps are typically fished in trawls; as a result, the model may slightly overstate the number of vertical lines associated with the Rhode Island OTP fishery.

FIGURE RI-1. NMFS NORTHEAST STATISTICAL AREAS

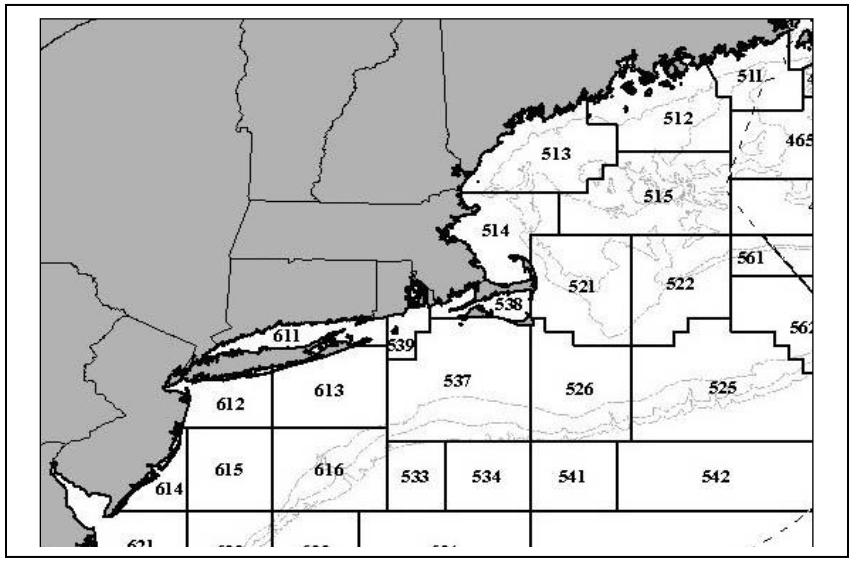

TABLE RI-1. VESSELS ACTIVE IN RHODE ISLAND STATE WATERS, BY MONTH (2010)

FISHERY	AREA	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Lobster	Area 539	25	16	13	26	57	94	104	101	50	36	28	27
	Area 611	1	1	2	3	7	9	11	11	5	2	1	2
	Total	26	17	15	29	64	103	115	112	55	38	29	29
Gillnet	Area 539	1	0	0	19	32	34	25	20	11	9	4	1
OTP	Area 539	0	0	2	7	38	66	97	88	54	36	26	2
	Area 611	0	0				1	5	3	3	2	1	
	Total	0	0	2	7	38	67	102	91	57	38	27	2

TABLE RI-2. NUMBER OF NETS AND STRINGS FISHED PER GILLNET VESSEL, BY MONTH (2010)

	NETS	STRINGS
January	4	1.0
February	N.A.	N.A.
March	N.A.	N.A.
April	6	1.0
May	6	1.0
June	5	1.0
July	4	1.0
August	5	1.0
September	5	1.0
October	6	1.0
November	5	1.0
December	4	1.0

TABLE RI-3. AVERAGE NUMBER OF POTS FISHED PER OTP VESSEL, BY MONTH (2010)

	AREA 539	AREA 611
January	N.A.	N.A.
February	N.A.	N.A.
March	4	N.A.
April	24	N.A.
May	52	N.A.
June	31	29
July	26	19
August	21	14
September	22	13
October	20	14
November	20	40
December	25	N.A.

ATTACHMENT RI-A

DISTRIBUTION OF GEAR CONFIGURATIONS BY MONTH FOR LOBSTER VESSELS FISHING IN NMFS STATISTICAL AREAS 539 AND 611

NUMBER OF VESSELS

Winter (Jan-Mar)

	Traps per Vessel				
Traps per Trawl	1 to 100	101 to 500	501 to 800	801+	Grand Total
1	9				9
5	5				5
10	5				5
15	9	23	33		65
Grand Total	28	23	33		84

Spring (Apr-May)

	Traps per Vessel				
Traps per Trawl	1 to 100	101 to 500	501 to 800	801+	Grand Total
1	26				26
5	12				12
10	12	6			18
15	11	22	32	1	66
Grand Total	61	28	32	1	122

Summer (June-Aug)

	Traps per Vessel				
Traps per Trawl	1 to 100	101 to 500	501 to 800	801+	Grand Total
1	113				113
5	37	3			40
10	36	28			64
15	22	59	93	3	177
Grand Total	208	90	93	3	394

Fall (Sep-Dec)

	Traps per Vessel				
Traps per Trawl	1 to 100	101 to 500	501 to 800	801+	Grand Total
1	37				37
5	14				14
10	10	5			15
15	21	40	80	5	146
Grand Total	82	45	80	5	212

PERCENTAGE OF VESSELS

Winter (Jan-Mar)

	Traps per Vessel				
Traps per Trawl	1 to 100	101 to 500	501 to 800	801+	Grand Total
1	10.7%	0.0%	0.0%	0.0%	10.7%
5	6.0%	0.0%	0.0%	0.0%	6.0%
10	6.0%	0.0%	0.0%	0.0%	6.0%
15	10.7%	27.4%	39.3%	0.0%	77.4%
Grand Total	33.3%	27.4%	39.3%	0.0%	100.0%

Spring (Apr-May)

	Traps per Vessel				
Traps per Trawl	1 to 100	101 to 500	501 to 800	801+	Grand Total
1	21.3%	0.0%	0.0%	0.0%	21.3%
5	9.8%	0.0%	0.0%	0.0%	9.8%
10	9.8%	4.9%	0.0%	0.0%	14.8%
15	9.0%	18.0%	26.2%	0.8%	54.1%
Grand Total	50.0%	23.0%	26.2%	0.8%	100.0%

Summer (June-Aug)

	Traps per Vessel				
Traps per Trawl	1 to 100	101 to 500	501 to 800	801+	Grand Total
1	28.7%	0.0%	0.0%	0.0%	28.7%
5	9.4%	0.8%	0.0%	0.0%	10.2%
10	9.1%	7.1%	0.0%	0.0%	16.2%
15	5.6%	15.0%	23.6%	0.8%	44.9%
Grand Total	52.8%	22.8%	23.6%	0.8%	100.0%

Fall (Sep-Dec)

	Traps per Vessel				
Traps per Trawl	1 to 100	101 to 500	501 to 800	801+	Grand Total
1	17.5%	0.0%	0.0%	0.0%	17.5%
5	6.6%	0.0%	0.0%	0.0%	6.6%
10	4.7%	2.4%	0.0%	0.0%	7.1%
15	9.9%	18.9%	37.7%	2.4%	68.9%
Grand Total	38.7%	21.2%	37.7%	2.4%	100.0%

CONNECTICUT

The discussion below explains the model's characterization of the activity and gear associated with lobster, gillnet, and other trap/pot vessels fishing exclusively in Connecticut state waters.

NUMBER OF ACTIVE VESSELS

Lobster

- The Connecticut Department of Environmental Protection (CT DEP) analyzed catch report data to identify the number of lobster vessels active in Connecticut waters. The data provided cover the years 2000 through 2011 and are organized by year, month, and geographic area. Table CT-1 summarizes the data for 2011. The geographic areas are defined in Figure CT-1.[40]

Gillnet

- Table CT-2 summarizes the number of gillnet vessels that fished in Connecticut state waters in 2011, organized by month and geographic area. These figures are based on CT DEP analysis of catch report data. Note that when only one or two vessels report activity, the data are withheld due to confidentiality restrictions. The model assumes 1.5 active vessels in these instances.
- The gear modification requirements specified under the Atlantic Large Whale Take Reduction Plan extend only to anchored gillnets; they do not apply to other types of nets, such as staked gillnets. Likewise, the vertical line model focuses on vessels that fish with anchored gillnets. The CT catch report data, however, do not differentiate between staked and anchored gillnets, both of which are used in Long Island Sound. As a result, the estimate of the number of anchored gillnet vessels operating in CT state waters is likely overstated, although the degree of error is unknown.

Other Trap Pot

- A small fish pot fishery operates in Long Island Sound, focusing on scup, tautog, and black sea bass. Table CT-3 summarizes activity in this fishery in 2011, based on catch report data provided by CT DEP. As above, when only one or two vessels report activity, the data are withheld. The model assumes 1.5 active vessels in these instances.

[40] Figure CT-1 uses LIS area names consistent with those used in New York State – Western LIS, Eastern LIS, and Eastern End LIS. CT DEP typically uses the terms Western LIS, Central Basin, and Eastern Basin, respectively, for these same areas.

GEAR CONFIGURATIONS FOR MODEL VESSELS

Lobster

- **Total Traps Fished**: The specification of each model vessel includes the total number of traps that the vessel fishes. CT DEP analyzed catch report data from 2010 to calculate the total number of lobster pots fished each month in each of the three areas that comprise the state's waters.[41] To estimate the mean number of traps per vessel, we divide the total number of traps in each month/area by the number of active vessels in each month/area, as reported for 2010. The model vessels for Connecticut incorporate the resulting figures, as shown in Table CT-4.
- **Traps per Trawl**: Each model vessel incorporates an estimate of the number of traps per trawl. CT DEP reports that lobster vessels in state waters may fish singles or trawls of up to 12 traps. Consistent with CT DEP recommendations, the model vessels for all three state water areas assume the use of six-trap trawls.
- **Endlines per Trawl**: Based on input from CT DEP, we assume two endlines per trawl.
- **Anchor Lines**: Consistent with CT DEP recommendations, we assume that anchor lines are not used.

Gillnet

- **Strings Fished per Vessel**: Based on input from CT DEP, the model assumes that gillnet vessels fish one net (and therefore one string). This assumption is consistent with available data on total nets fished in each area and month.
- **Other**: Based on input from CT DEP, the model assumes that gillnet vessels fish 300-foot-wide panels. The model also assumes two endlines per string.

Other Trap/Pot

- **Pots Fished per Vessel**: CT DEP analyzed 2011 catch report data to calculate the total number of fish pots fished by month and geographic area. To estimate the typical number of traps per model vessel, we divide this total by the number of active vessels in each month/area. The data suggest that fish pot vessels fish an average of 33 pots per vessel.
- **Other**: Consistent with CT DEP guidance, we assume that all pots are fished as singles, with one endline.

[41] Catch report data on the number of traps fished in 2011 were not available.

TABLE CT-1. NUMBER OF LOBSTER VESSELS ACTIVE IN CONNECTICUT STATE WATERS (2011)

MONTH	EASTERN END LIS	EASTERN LIS	WESTERN LIS
January	14	3	2
February	13	3	0
March	14	3	3
April	10	8	5
May	20	17	4
June	31	19	6
July	40	22	8
August	35	13	8
September	14	4	4
October	5	3	3
November	11	4	4
December	12	5	4

TABLE CT-2. NUMBER OF GILLNET VESSELS ACTIVE IN CONNECTICUT STATE WATERS (2011)

MONTH	EASTERN END LIS	EASTERN LIS	WESTERN LIS
January			
February			
March			
April			
May	3	1.5	
June	1.5	1.5	
July	1.5	1.5	
August	1.5	1.5	
September		1.5	
October		1.5	
November	1.5		
December			

TABLE CT-3. NUMBER OF FISH POT VESSELS ACTIVE IN CONNECTICUT STATE WATERS (2011)

MONTH	EASTERN END LIS	EASTERN LIS	WESTERN LIS
January	1.5		
February			
March			
April			
May		1.5	
June	8	3	1.5
July	17	1.5	1.5
August	13	1.5	
September	8		
October	7		
November	4	1.5	
December			

FIGURE CT-1. FISHING AREAS IN CONNECTICUT STATE WATERS

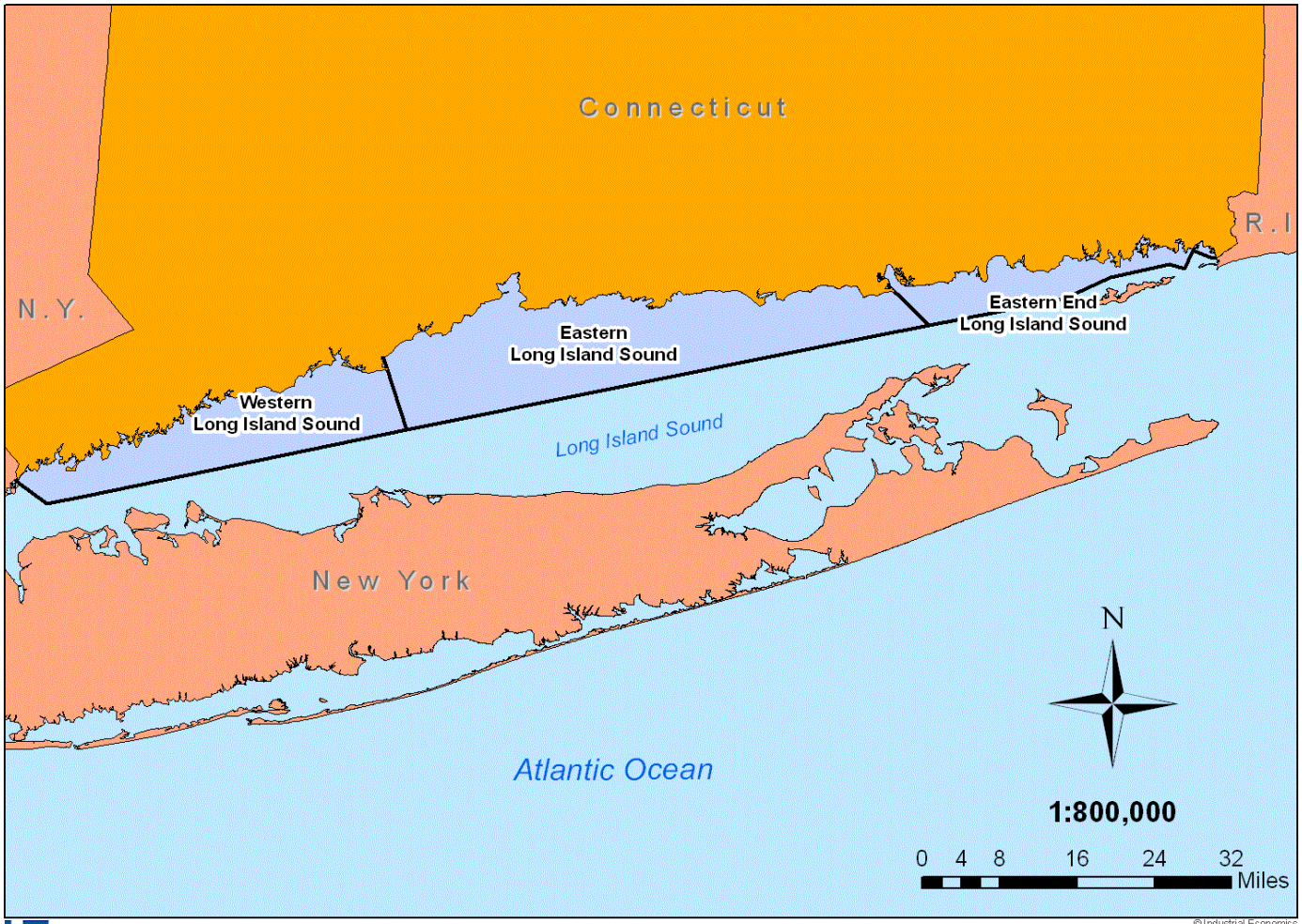

TABLE CT-4. NUMBER OF TRAPS FISHED PER LOBSTER VESSEL IN CONNECTICUT STATE WATERS (2010)

MONTH	EASTERN END LIS	EASTERN LIS	WESTERN LIS
January	299	227	648
February	271	228	1224
March	273	158	929
April	233	195	696
May	146	199	562
June	234	382	668
July	241	361	654
August	200	277	578
September	158	95	303
October	95	60	189
November	252	118	498
December	280	168	491

NEW YORK

The discussion below explains the model's characterization of the activity and gear associated with lobster and gillnet vessels fishing exclusively in New York state waters.[42]

NUMBER OF ACTIVE VESSELS

Lobster

- The New York Department of Environmental Conservation (NY DEC) requires that lobster fishermen holding state licenses submit information to DEC's State Recall Survey database on an annual basis. In accordance with state reporting requirements, fishermen identify the general area(s) in which they fished: Western Long Island Sound (LIS), Eastern LIS, the Eastern End of Long Island, and/or the South Shore of Long Island. Figure NY-1 shows the location of these areas.[43] To estimate the number of vessels active in each of the four areas, we begin with the total number of lobster permits (resident and non-resident) that were actively fished in a given year. We distribute the vessels associated with these permits to the four areas in proportion to the number of gear reports received for each area. Table NY-1 shows the estimated number of vessels active in each of the four areas during the last three years.
- The model allows seasonal variation in the number of vessels that are active (i.e., that have gear in the water in a given month). The Recall Survey data do not allow direct monthly tracking of active lobster vessels in state waters. Therefore, we rely on a limited set of VTR data analyzed by NY DEC, which reflect federally-permitted vessels active in state waters; DEC biologists suggest that the broader set of vessels active in state waters are likely to follow a similar seasonal pattern. Table NY-2 indicates the number of active vessels in the VTR dataset and the associated seasonal scaling factor. Multiplying the total number of vessels operating in each area by this scalar provides a monthly estimate of active vessels in each segment of state waters.

Gillnet

- NY DEC also provided a limited set of available data on gillnet vessels fishing in New York state waters. An analysis performed on 2007 state vessel trip report data identified the number of trips taken by gillnet vessels holding only a state permit. The analysis compiled the trips for each of the four areas specified for lobster vessels. The analysis also calculated the number of active vessels in each month. We distribute the active vessels to the four areas in proportion to

[42] Information on the activity of other trap/pot vessels licensed to fish exclusively in New York waters is not currently available. NY DEC indicates that while other species (e.g., tautog, black sea bass, scup) are harvested with traps, these species are essentially by-catch harvested by lobster vessels.

[43] Western Long Island Sound encompasses areas 141 and 142; Eastern Long Island Sound encompasses areas 143 and 144; the Eastern End encompasses areas 145, 146, 147, 148, and 149; and the South Shore encompasses areas 158, 162, 164, 166, and 167.

the number of trips in each area. The resulting estimate of active gillnet vessels in each area and month is provided in Table NY-3; the model applies the same estimate of vessel activity in all years analyzed.

GEAR CONFIGURATIONS FOR MODEL VESSELS

Lobster

- **Total Traps Fished**: The specification of each model vessel includes the total number of traps that the vessel fishes. We use data from the Recall Survey to estimate the average traps fished per vessel in each of the four state-designated areas. The results are shown in Table NY-1. We assume that all traps are fished year-round, making no seasonal adjustment to the number of traps fished.
- **Traps per Trawl**: Each model vessel incorporates an estimate of the number of traps per trawl. NY DEC reports that lobster vessels in state waters typically fish trawls of five to ten traps. Therefore, the model vessels for all four state water areas assume 7.5 traps per trawl.
- **Endlines per Trawl**: Based on input from NY DEC, we assume two endlines per trawl.
- **Anchor Lines**: We assume that anchor lines are not used.

Gillnet

- Systematic data on gear configurations used by gillnet vessels in New York state waters are not available. The model assumes that New York gillnetters use configurations similar to vessels fishing in the Connecticut portions of Long Island Sound. Specifically, gillnet vessels are assumed to fish a single string with two endlines. Available VTR data suggest that most vessels in New York state waters fish four or fewer net panels, supporting the assumption of a single string.

TABLE NY-1. ASSUMPTIONS FOR MODEL VESSELS IN NEW YORK STATE WATERS: LOBSTER FISHERY

YEAR	VESSEL DISTRIBUTION (MAXIMUM NUMBER OF ACTIVE VESSELS IN YEAR)				AVERAGE TRAPS FISHED PER VESSEL				TRAPS PER TRAWL
	WESTERN LIS	EASTERN LIS	EASTERN END	SOUTH SHORE	WESTERN LIS	EASTERN LIS	EASTERN END	SOUTH SHORE	
2008	32	33	80	29	443	825	278	206	7.5
2009	32	33	41	51	469	641	243	249	7.5
2010	21	18	62	33	618	552	249	309	7.5

FIGURE NY-1. REGULATORY AREAS FOR NEW YORK STATE WATERS AND SURROUNDING FEDERAL WATERS

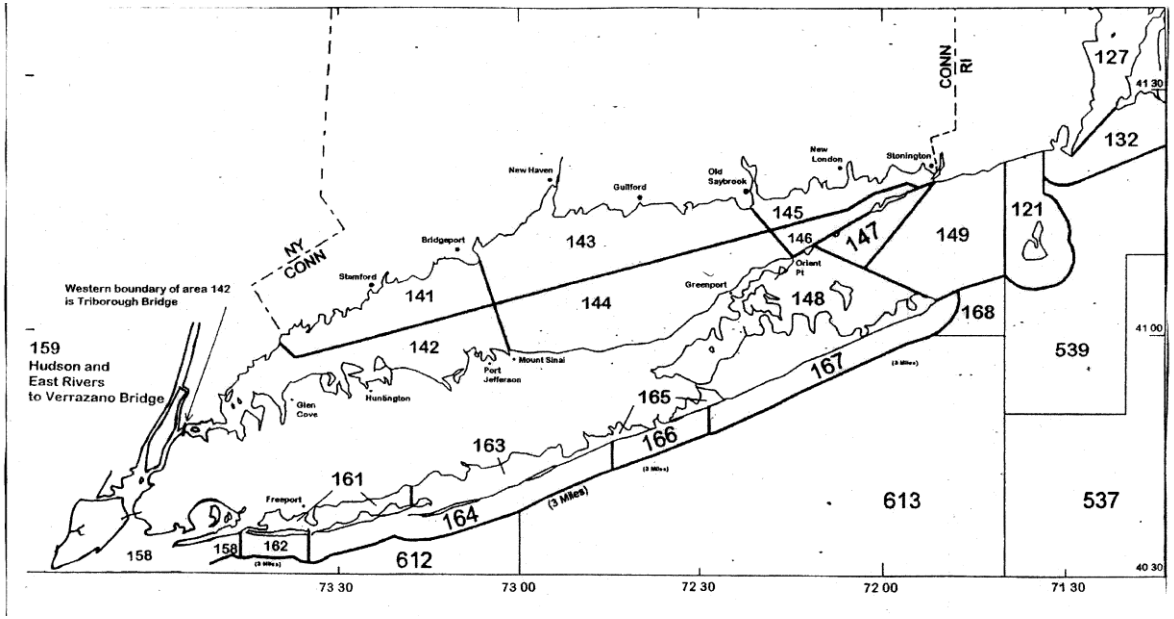

TABLE NY-2. LOBSTER VESSELS ACTIVE IN NEW YORK STATE WATERS

			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2009	Active Vessels Based on VTR Data		5	5	7	14	19	21	27	21	14	10	10	12
	Scaling Factor		0.19	0.19	0.26	0.52	0.70	0.78	1.00	0.78	0.52	0.37	0.37	0.44
	Estimated Number of Vessels Active in State Waters	Western LIS	6	6	8	16	22	25	32	25	16	12	12	14
		Eastern LIS	6	6	9	17	23	26	33	26	17	12	12	15
		Eastern End	8	8	11	21	29	32	41	32	21	15	15	18
		South Shore	10	10	13	27	36	40	51	40	27	19	19	23
2010	Active Vessels Based on VTR Data		11	4	11	18	22	18	24	22	13	7	7	5
	Scaling Factor		0.46	0.17	0.46	0.75	0.92	0.75	1.00	0.92	0.54	0.29	0.29	0.21
	Estimated Number of Vessels Active in State Waters	Western LIS	10	4	10	16	19	16	21	19	11	6	6	4
		Eastern LIS	8	3	8	13	16	13	18	16	10	5	5	4
		Eastern End	29	10	29	47	57	47	62	57	34	18	18	13
		South Shore	15	5	15	25	30	25	33	30	18	10	10	7

TABLE NY-3. NUMBER OF GILLNET VESSELS ACTIVE IN NY STATE WATERS (2007)

	WESTERN LIS	EASTERN LIS	EASTERN END	SOUTH SHORE
January	-	0.2	0.5	3.3
February	-	-	1.0	-
March	-	-	1.3	0.7
April	-	-	4.8	7.2
May	-	-	9.8	9.2
June	-	-	6.0	11.0
July	-	-	5.7	15.3
August	-	-	2.3	9.7
September	0.1	-	3.4	19.5
October	0.6	-	7.5	14.0
November	0.4	-	11.3	19.3
December	-	-	0.5	13.5

NEW JERSEY

The discussion below explains the model's characterization of the activity and gear associated with New Jersey-permitted lobster vessels.[44]

NUMBER OF ACTIVE VESSELS

- Fishery managers with the New Jersey Department of Environmental Protection (NJDEP) indicate that approximately 30 vessels with New Jersey permits actively harvested lobster in 2010. Table NJ-1 reports the number of active vessels by month.
- NJDEP indicates that these vessels fish primarily in Federal waters, with a few vessels operating in both Federal and state waters. Officials indicate that while roughly three vessels may fish exclusively in state waters, no data on activity, landings, or gear use by these vessels are collected.[45] The vertical line model characterizes activity in federal waters using data from NMFS' Vessel Trip Report (VTR) database. Therefore, the NJDEP data on active vessels will be used only for comparative purposes.
- While an active gillnet fishery exists in New Jersey, fishery experts believe that the majority of the activity occurs in Federal waters.[46]

GEAR CONFIGURATIONS FOR MODEL VESSELS

- **Total Traps Fished**: The specification of each model vessel includes the total number of traps that the vessel fishes. Officials with NJDEP estimate that vessels each fish an average of approximately 875 traps. We assume that this value is constant year-round and make no seasonal adjustment to the number of traps that active vessels fish.
- **Traps per Trawl**: Officials with NJDEP suggest that lobster vessels fish approximately 20 traps per trawl, on average. This figure is consistent with a NJDEP report examining fish/lobster potters' use of constructed ocean reef sites.[47] This gear survey reported that the number of traps per trawl used in the study areas ranged from four to 70, with an average of 22 traps per trawl.
- **Endlines per Trawl**: The NJDEP reef study found that 97 percent of all surveyed lobstermen used a high flyer at each end of their trawls; therefore, we assume two endlines per trawl.
- **Anchor Lines**: Consistent with findings for neighboring states, we assume that anchor lines are not used.

[44] Information on the activity of gillnet or other trap/pot vessels licensed to fish exclusively in New Jersey waters is not currently available.

[45] Personal communication with Peter Clark, NJDEP, NJ ACCSP State Coordinator, September 30, 2011.

[46] Personal communication with Greg DiDomenico, Garden State Seafood Association, February 12, 2010.

[47] Carlson, Jeff, et al., *Pot Fishing Effort on Eight New Jersey Ocean Reef Sites*, October 2005.

TABLE NJ-1. NUMBER OF ACTIVE NEW JERSEY-PERMITTED LOBSTER VESSELS (2010)

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
17	17	15	19	23	23	23	23	25	22	21	16

TABLE NJ-2. GEAR CONFIGURATION ASSUMPTIONS FOR NEW JERSEY LOBSTER VESSELS

AVERAGE TRAPS FISHED PER VESSEL	TRAPS PER TRAWL	ENDLINES PER TRAWL
875	20	2

DELAWARE

The discussion below explains the model's characterization of the activity and gear associated with vessels fishing in Delaware state waters.

NUMBER OF ACTIVE VESSELS

Blue Crab and Other Trap/Pot

- **Fisheries**: Data provided by the Delaware Division of Fish and Wildlife (DFW) identify several trap/pot fisheries, including the blue crab fishery, the eel pot fishery, the fish pot (black sea bass) fishery, and the conch fishery. While lobster landings occur, they are largely by-catch from the black sea bass fishery.
- **Number of Active Participants**: DFW provided detailed logbook data on activity in each of the trap/pot fisheries, covering the period from 2009 through 2011. Table DE-1 presents the data for 2011 and reflects the number of active participants in each month. In the case of the blue crab fishery, multiple licenses can be fished from one vessel; therefore, the figures likely overstate the total number of active blue crab vessels, although the degree of overestimation is unknown. For other fisheries, the number of participants is equivalent to the number of active vessels. The data are subdivided by area (Delaware Bay, Inland Bays, Inshore Atlantic Ocean). These areas are labeled in the map presented in Figure DE-1. Note that all activity in Delaware Bay occurs on the Delaware side of the shipping channel. The model assumes that the activity reported for each of the three areas is evenly distributed throughout that area.

Gillnet

- **Number of Active Vessels**: DFW provided similar logbook data for gillnet vessels (see Table DE-1). As with trap/pot fisheries, all activity in Delaware Bay occurs on the Delaware side of the shipping channel. Again, the model assumes that the activity reported for each of the areas is evenly distributed throughout that area.

GEAR CONFIGURATIONS FOR MODEL VESSELS

Blue Crab and Other Trap/Pot

- **Total Traps/Pots Fished**: The specification of each model vessel includes the total number of traps/pots that the vessel typically fishes. DFW provided an analysis of logbook data estimating the average number of traps/pots fished, by fishery, month, and area. These data showed limited seasonal variation in the number of traps/pots; this is particularly true for the blue crab fishery, which accounts for the majority of fishing activity. Table DE-2 shows the model

vessel assumptions for the average number of traps/pots. These figures are based on gear configurations reported for 2011.

- **Traps per Trawl**: Logbook data suggest that most trap/pot vessels in Delaware waters fish singles. The model applies this assumption.
- **Endlines per Trawl**: The model assumes that traps/pots fished as singles have one endline.
- **Anchor Lines**: We assume that anchor lines are not used.

Gillnet

- **Nets per Vessel**: Using state logbook data, DFW provided an analysis of the average net feet fished by gillnet vessels, organized by month and area. Using DFW's estimate of a net's typical length (150 feet), we calculate the approximate number of nets fished per vessel, based on 2011 data. This parameter shows limited variation between areas or seasons; therefore, we estimated a single average number of nets per vessel (10).
- **Total Strings Fished**: DFW does not collect data on the typical number of nets fished per string. The model assumes that gillnets are fished singly, as is the case in neighboring Virginia. Therefore, the number of strings fished is equal to the number of nets per vessel.
- **Panel Dimensions**: As noted, DFW staff estimate that net panels are roughly 150 feet long; other information on panel dimensions is unavailable.
- **Other**: The model assumes two surface lines and two 10-foot anchor lines for each gillnet string.

TABLE DE-1. NUMBER OF ACTIVE PARTICIPANTS IN DELAWARE FISHERIES (2011)

FISHERY	AREA	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Blue Crab	Delaware Bay			1	33	82	76	103	107	90	28	2	
Eel Pot	Delaware Bay			1	7	8	2		4	10	11	3	
	Inland Bays					2				2	2	2	
Fish Pot[1]	Delaware Bay					1	2		1	1			
Conch	Atlantic Ocean, Inshore (<3 miles)					1	1				3	2	1
	Delaware Bay			1	1	2	1			1	5	8	2
	Inland Bays				1	1					1	1	1
Gillnet	Delaware Bay	3	7	15	39	3	2					2	2
	Inland Bays			3	1								

[1] DFW provided additional data on fish pot activity in ocean waters beyond three miles; however, the model uses Vessel Trip Report (VTR) data to characterize activity in these waters.

FIGURE DE-1. AREAS FOR DELAWARE FISHERIES

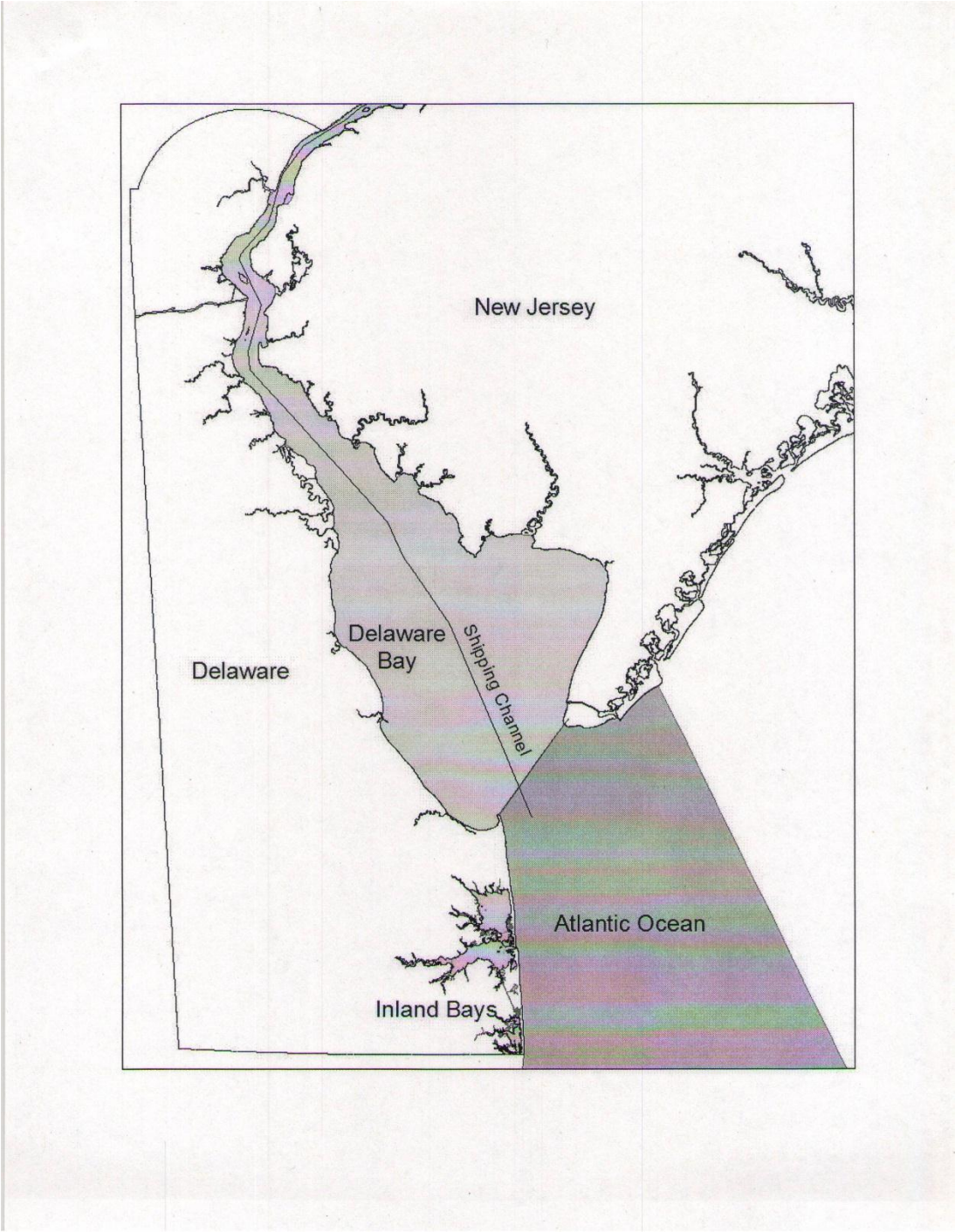

TABLE DE-2. GEAR CONFIGURATION ASSUMPTIONS FOR TRAP/POT FISHERIES IN DELAWARE STATE WATERS

FISHERY	AVERAGE POTS/TRAPS FISHED PER VESSEL	POTS PER TRAWL	NUMBER OF ENDLINES
Blue Crab	128	Singles	1
Eel Pot	89	Singles	1
Fish Pot, Inshore	29	Singles	1
Conch Pot/Trap	190	Singles	1

TABLE DE-3. GILLNET GEAR CONFIGURATION ASSUMPTIONS FOR DELAWARE STATE WATERS

AVERAGE NUMBER OF STRINGS FISHED	NET PANELS PER STRING	NET PANEL LENGTH (FEET)	NET PANEL HEIGHT (FEET)	ENDLINES PER STRING	ANCHOR LINES
10	1	150	N.A.	2	2 (10 feet each)

MARYLAND

The discussion below explains the model's characterization of the activity and gear associated with vessels fishing in Maryland state waters.

NUMBER OF ACTIVE VESSELS

Blue Crab and Other Trap/Pot

- **Fisheries**: As part of its annual determination of fisheries monitored for sea turtle interaction, the Maryland Department of Natural Resources (MDNR), Maryland Fisheries Service (MFS) identifies several trap/pot fisheries operating in state waters. Significant fisheries include the blue crab fishery, the eel pot fishery, and the fish pot (catfish, black sea bass, tautog, scup) fishery. Additional trap/pot fisheries exist, but are not included in the vertical line model. The conch fishery includes fewer than 10 active vessels while the trap-based snapping turtle fishery is small and exclusively prosecuted in river tributaries feeding Chesapeake Bay.
- **Number of Active Vessels**: MFS's sea turtle determination includes an approximate count of active vessels in each fishery and the approximate location of this activity (see Table MD-1). The fishing locations are defined in Figure MD-1. Using the sea turtle determination as a starting point, we worked with experts at Maryland DNR to establish approximate numbers of vessels fishing in each relevant location, by month.[48] For the Chesapeake Bay segment of the blue crab fishery, we assume that all 500 vessels are active during the season running from April through December. DNR's staff indicates that activity in the Coastal Bays area peaks at about 100 vessels, but is minimal in the November-December period. The Chesapeake Bay portion of the fish pot fishery generally targets catfish, and operates year-round. In contrast, fish pot vessels in Atlantic Ocean state waters target black sea bass, tautog, and scup, and are few in number.

Gillnet

- **Number of Active Vessels**: Data compiled for the sea turtle determination indicate that anchored gillnet vessels operate in Maryland's Coastal Bays and the state waters portion of the Atlantic.[49] These vessels generally target striped bass, croaker, spot, and spiny dogfish. Table MD-1 summarizes the number of active vessels and their approximate location.

[48] The assessment of fishing activity has been updated to approximate 2010 figures based on personal communication with Steve Early, Deputy Director of the NMFS/MDNR Cooperative Oxford Laboratory, October 12, 2011.

[49] Maryland prohibits anchored gillnets in Chesapeake Bay.

GEAR CONFIGURATIONS FOR MODEL VESSELS

Blue Crab

- **Total Pots Fished per Blue Crab Vessel**: Based on fishing activity reports, MDNR recommends assuming 400 traps fished per blue crab vessel active in Chesapeake Bay. Vessels fishing in Coastal Bays are required to fish fewer traps; data indicate that these vessels fished approximately 160 traps per vessel in 2010.
- **Traps per Trawl**: MDNR representatives indicate that most blue crab potting occurs south of the Chesapeake Bay Bridge and that in this area, 75 percent of fishermen fish single pots. The remaining 25 percent fish pots connected on long lines. Lacking information on the typical number of pots per long line, we assume 12. All vessels fishing in Coastal Bays are assumed to fish singles.
- **Vertical Lines**: When pots are fished in long lines, fishermen use two different configurations. One group uses two vertical lines, with a buoy line attached to each end of the long line. Another group uses four vertical lines, two at each end of the trawl: a buoy attached to the long line, and a second line extending from the buoy to a bottom anchor. We assume an equal distribution of these two configurations.

Other Trap/Pot Fisheries

- **Total Pots Fished**: MDNR does not maintain data on the number of pots fished per eel pot or fish pot vessel. The model vessels for these two fisheries incorporate data from neighboring Virginia. Specifically, the model assumes that eel pot vessels fish an average of 100 pots, while fish pot vessels fish an average of 50 pots.
- **Traps per Trawl**: We assume that fish and conch pots are fished as singles.
- **Endlines per Trawl**: The model assumes that traps/pots fished as singles have one vertical line.
- **Anchor Lines**: We assume that anchor lines are not used.

Gillnet

- **Strings Fished per Vessel**: MDNR representatives indicate that a licensee typically fishes two strings, each with a 900 foot net. Total net length is restricted to 1,800 feet per licensee. Consistent with MDNR recommendations, we assume that two licensees fish from each vessel; hence, the model assigns four strings to each vessel.
- **Panel Dimensions**: Based on information from MDNR, nets are assumed to be approximately 900 feet long and 6 to 10 feet high.

- **Other**: The model assumes two surface lines and two 10-foot anchor lines for each gillnet string.

TABLE MD-1. NUMBER OF ACTIVE VESSELS IN MARYLAND STATE WATERS

FISHERY	AREA	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Blue Crab	Chesapeake Bay				500	500	500	500	500	500	500	500	500
	Coastal Bays				100	100	100	100	100	100	100	5	5
Eel Pot	Chesapeake Bay		25	25	25	25	25	25	25	25	25	25	25
	Coastal Bays			5	5	5				5	5	5	
Fish Pot	Atlantic Ocean (0-3 miles)					5					5		
	Chesapeake Bay	40	40	40	40	40	40	40	40	40	40	40	40
Gillnet	Coastal Bays	5	5	5	5	5	5	5	5	5	5	5	5
	Atlantic Ocean (0-3 miles)	10		10	10							10	10

FIGURE MD-1. MARYLAND FISHING AREAS

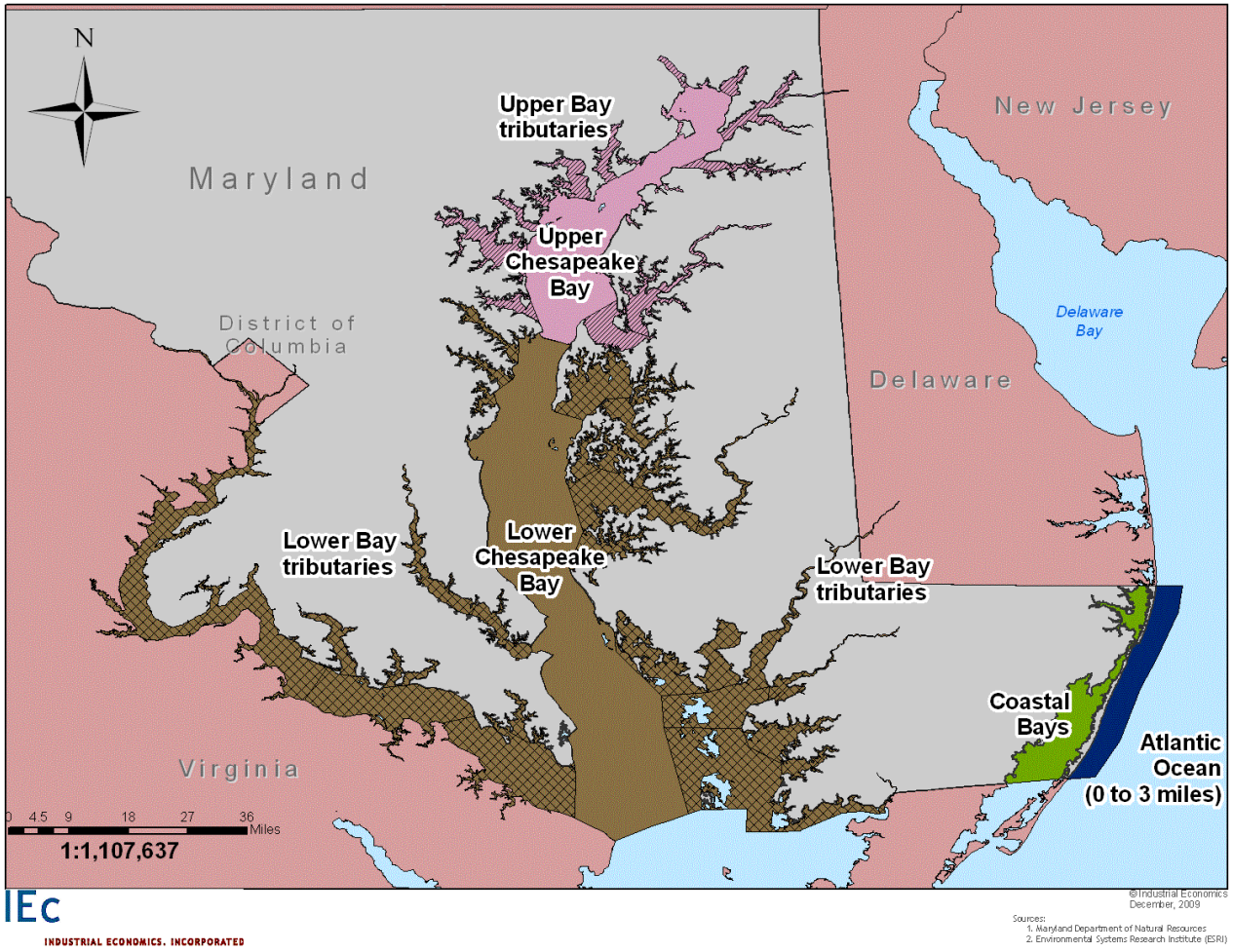

TABLE MD-2. GEAR CONFIGURATION ASSUMPTIONS FOR TRAP/POT FISHERIES IN MARYLAND STATE WATERS

FISHERY	AREA	PERCENT OF VESSELS	POTS PER LONG LINE	AVERAGE POTS/TRAPS FISHED PER VESSEL	NUMBER OF ENDLINES
Blue Crab	Chesapeake Bay	75%	Singles	400	1
	Chesapeake Bay	12.5%	12 pots per long line	400	2
	Chesapeake Bay	12.5%	12 pots per long line	400	4
	Coastal Bays	100%	Singles	160	1
Eel Pot	All	100%	Singles	100*	1
Fish Pot	All	100%	Singles	50*	1

TABLE MD-3. GILLNET GEAR CONFIGURATION ASSUMPTIONS FOR MARYLAND STATE WATERS

AVERAGE NUMBER OF STRINGS FISHED	NET PANELS PER STRING	NET PANEL LENGTH (FEET)	NET PANEL HEIGHT (FEET)	ENDLINES PER STRING	ANCHOR LINES
4	1	900	6 to 10	2	2 (10 feet each)

VIRGINIA

The discussion below explains the model's characterization of the activity and gear associated with vessels fishing in Virginia state waters.

NUMBER OF ACTIVE VESSELS

Other Trap/Pot

- **Fisheries**: The Virginia Marine Resources Commission (MRC) compiles commercial fishing data as part of its harvest reporting system. MRC identifies several trap/pot fisheries operating in state waters. Significant fisheries include the hard crab fishery, the peeler (soft) crab fishery, the conch pot fishery, the eel pot fishery, and the fish pot fishery.[50]
- **Number of Active Vessels**: Using harvest data, MRC identified individual active vessels in each fishery, organizing the data by month and fishing location. The data cover the period from 2006 to 2010. Table VA-1 summarizes the data for 2010. The fishing locations consist of nine "systems" and are defined in Figure VA-1.

Gillnet

- **Number of Active Vessels**: MRC also provided activity data for anchored gillnet vessels.[51] Table VA-1 summarizes these data by month and fishing location for 2010.

GEAR CONFIGURATIONS FOR MODEL VESSELS

Hard Crab

- **Total Pots Fished per Hard Crab Vessel**: The specification of each model vessel includes the total number of pots that the vessel typically fishes. MRC analyzed harvest data to estimate the average pots fished per hard crab vessel, by month and area, for the years 2008 through 2010. These data showed limited seasonal variation in the number of pots fished and limited variation from year to year. However, the number of pots fished varies according to fishing area. Therefore, the model specifies separate gear configurations for each fishing area, averaged across the period from 2009 through 2010 (see Table VA-2).
- **Pots per Trawl**: MRC representatives indicate that hard crab vessels typically fish single pots.

[50] A small minnow pot fishery also exists; this fishery is not included in the vertical line model.

[51] MRC also provided data for vessels using staked gillnets. However, the ALWTRP does not cover staked gillnet gear; therefore these vessels are not included in the vertical line model.

- **Endlines per Trawl**: The model assumes that pots fished as singles have one endline.

Other Trap/Pot Fisheries

- **Total Pots Fished**: Other pot fisheries show limited annual, seasonal, or spatial variation in the number of pots fished. Therefore, the model vessels for the peeler, conch, eel, and fish pot fisheries each incorporate a single estimate of pots fished (see Table VA-2). As with hard crab, the figure represents an average of the period from 2009 through 2010.
- **Traps per Trawl**: MRC representatives indicate that vessels in these fisheries typically fish single pots.

Gillnet

- **Strings Fished per Vessel**: MRC provided data on the number of strings fished per gillnet vessel, by month and area. This figure varies little by month, but varies significantly by fishing area. Therefore, the model specifies separate gear configurations for each fishing area, averaged across the period from 2009 through 2010 (see Table VA-3).
- **Nets per String**: MRC experts indicate that gillnet vessels typically fish one net per string.
- **Panel Dimensions**: MRC provided data on the average net feet fished by vessels in each area and month. Dividing net feet by the number of nets suggests that nets are typically 900 feet long. Based on estimates provided by the Maryland Fisheries Service, we assume that each net is approximately 6 to 10 feet high.
- **Other**: The model assumes two surface lines and two 10-foot anchor lines for each gillnet string.

TABLE VA-1. NUMBER OF ACTIVE VESSELS IN VIRGINIA STATE WATERS (2010)

FISHERY	SYSTEM/ AREA	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
Hard Crab (pot)	1			1	1		1						
	2			42	47	51	44	43	40	35	30	21	
	3			7	12	17	20	19	18	14	11	7	
	4			55	234	222	186	179	174	144	135	96	
	5			20	50	72	78	79	73	71	54	34	
	6			15	34	57	65	68	67	55	38	16	
	7			8	54	74	81	82	72	72	49	17	
	8			1	25	76	115	114	112	101	68	18	
	9			17	41	73	67	70	61	53	41	18	
Peeler (pot)	1					1							
	2				3	26	1	1	3	5	1		
	3												
	4			1	32	103	71	62	58	46	23		
	5				11	22	12	12	6	3			
	6				14	41	17	14	14	7			
	7				11	55	36	36	36	28	12		
	8					16	11	8	7	3			
	9				17	47	13	10	6	6	1		
Conch Pot	1	9	2		1	1					3	12	14
	2			1	4	2	2				2	5	2
	3												
	4			1	4	4		1			4	7	6
	5												
	6												
	7												
	8												
	9												
Eel Pot	1												
	2												
	3								1	1	1	1	
	4				1	1	1	1	1	1	1	4	
	5			1	3	2	3			4	3	1	
	6							1	1	2	2		
	7				2	1	3			3	3	1	
	8				1	5	5	2	2	2	1	1	
	9					1	1	1	1	2	2	2	
Fish Pot	1	1		1				1	2				1
	2	1	1	1	3	4	2	2	4	4	4	2	1
	3												
	4			3	1	6	4	5	8	16	18		
	5	1	3	3	5	6	6	7	4	5	5	3	3
	6				1					1	2		
	7				5	4	3	2	3	4	1	1	
	8			7	4	1					2	1	
	9			1	2	3	5	4	5	6	4		
Anchored Gillnet	1			23	34	17	12	4	7	8	15	29	30

FISHERY	SYSTEM/ AREA	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC
	2			4	7	4	5	2	6	4	5	2	1
	3			2								1	1
	4		21	83	53	44	35	43	47	91	101	58	42
	5	3	21	28	19	13	13	7	5	8	12	19	30
	6	1	6	40	32	19	10	5	5	11	9	7	6
	7	7	27	48	23	30	17	13	15	16	15	14	17
	8	1	13	24	16	16	3	4	2	3	3	7	6
	9	2	4	16	21	21	17	12	21	18	18	8	4

FIGURE VA-1. AREAS FOR VIRGINIA FISHERIES

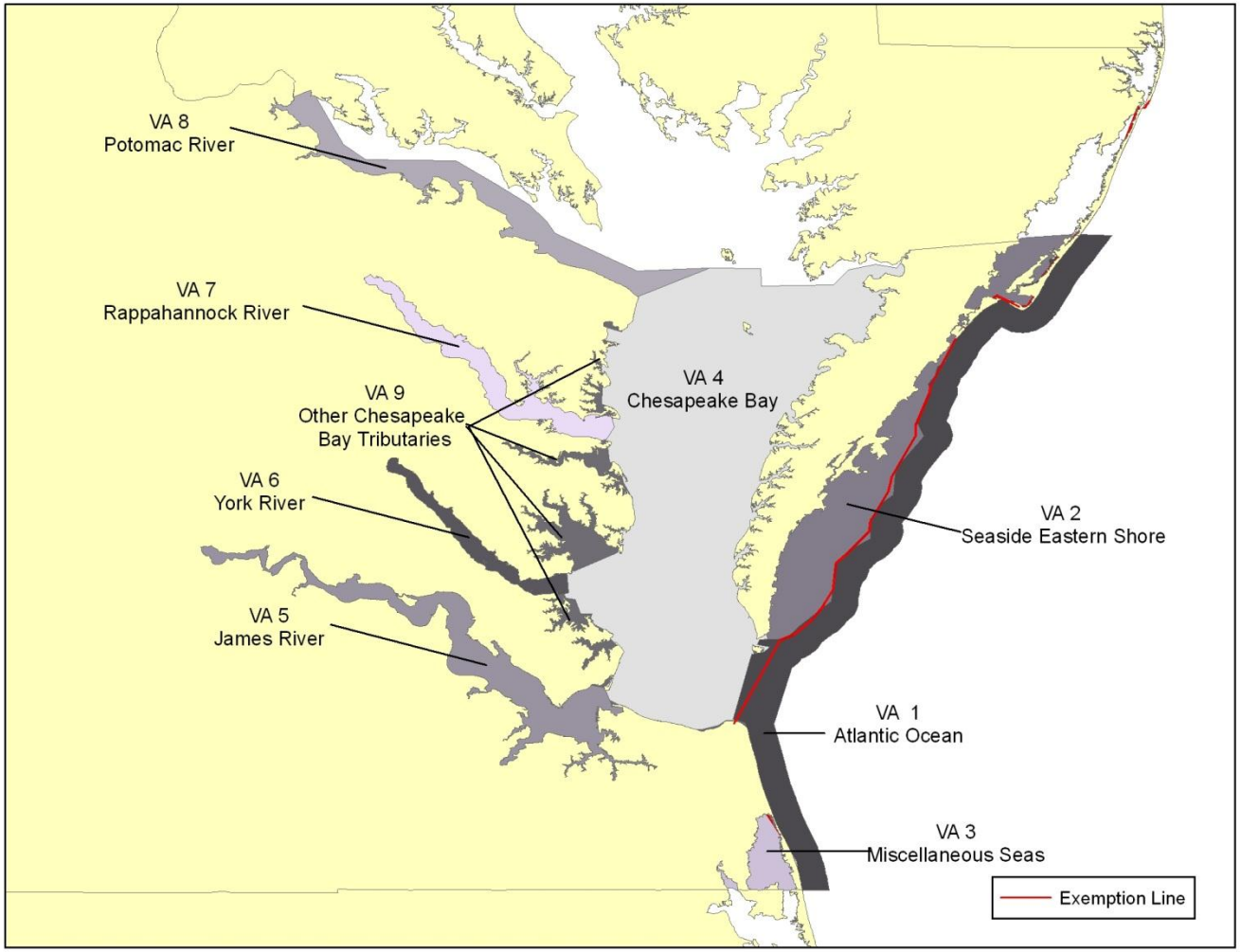

TABLE VA-2. GEAR CONFIGURATION ASSUMPTIONS FOR TRAP/POT FISHERIES IN VIRGINIA STATE WATERS

FISHERY	AREA/SYSTEM	POTS PER LONG LINE	AVERAGE POTS/TRAPS FISHED PER VESSEL	NUMBER OF ENDLINES
Hard Crab	1	Singles	120	1
	2	Singles	158	1
	3	Singles	206	1
	4	Singles	235	1
	5	Singles	202	1
	6	Singles	202	1
	7	Singles	142	1
	8	Singles	133	1
	9	Singles	151	1
Peeler Crab	All	Singles	168	1
Conch Pot	All	Singles	207	1
Eel Pot	All	Singles	79	1
Fish Pot	All	Singles	51	1

TABLE VA-3. ANCHORED GILLNET GEAR CONFIGURATION ASSUMPTIONS FOR VIRGINIA STATE WATERS

AREA/SYSTEM	AVERAGE NUMBER OF STRINGS FISHED	NET PANELS PER STRING	NET PANEL LENGTH (FEET)	NET PANEL HEIGHT (FEET)	ENDLINES PER STRING	ANCHOR LINES PER STRING
1	5	1	900	6 to 10	2	2 (10 feet each)
2	3	1	900	6 to 10	2	2 (10 feet each)
3	2	1	900	6 to 10	2	2 (10 feet each)
4	5	1	900	6 to 10	2	2 (10 feet each)
5	3	1	900	6 to 10	2	2 (10 feet each)
6	3	1	900	6 to 10	2	2 (10 feet each)
7	3	1	900	6 to 10	2	2 (10 feet each)
8	2	1	900	6 to 10	2	2 (10 feet each)
9	2	1	900	6 to 10	2	2 (10 feet each)

NORTH CAROLINA

The discussion below explains the model's characterization of the activity and gear associated with vessels fishing in North Carolina state waters.

NUMBER OF ACTIVE VESSELS

Other Trap/Pot

- **Number of Active Vessels and Trips**: The North Carolina Department of Environmental and Natural Resources (DENR) Division of Marine Fisheries (DMF) provided detailed trip ticket data on the activity of vessels in the state's black sea bass pot fishery from 2006 to 2011, specifying the number of vessels that were active in each year by month and area. Table NC-1 presents the data for 2011. As shown, the data characterize activity in four areas, including two in state waters (north and south of Cape Hatteras) and two in Federal waters (i.e., more than three miles off the coast, north and south of Cape Hatteras).
- The model directly incorporates the state data on fishing activity for the two areas within three miles of shore (i.e., state waters). In the absence of more precise data, the model assumes that the activity reported within each of these areas is evenly distributed throughout it. Fishing in Federal waters is handled separately in the model through analysis of Southeast logbook data; the data provided by DENR/DMF will be used to validate the NMFS logbook data.
- The data suggest that in 2010 and 2011, a single vessel fished for crab in North Carolina state waters. Because of the *de minimis* nature of this activity, it is not included in the model.

Gillnet

- **Number of Active Vessels**: DENR/DMF also provided trip ticket data for gillnet vessels. As with pot vessels, the data indicate the number of vessels that were active in each year by month and area of activity, using the same four geographic areas specified above (see Table NC-2). The model directly incorporates the data on fishing activity for the two areas within three miles of shore (i.e., state waters). As above, the model assumes that the activity reported within each of these areas is evenly distributed throughout it. Fishing in Federal waters is handled separately in the model through analysis of Southeast logbook data; the data provided by DENR/DMF will be used to validate the NMFS logbook data.

GEAR CONFIGURATIONS FOR MODEL VESSELS

Other Trap/Pot

- **Total Pots Fished**: The specification of each model vessel includes the total number of pots/traps that the vessel typically fishes. A 2009 article in *Marine Policy* analyzed data suggesting that black sea bass fishermen in northern North Carolina fish an average of 41 pots; the model adopts this estimate.[52] South of Cape Hatteras, the South Atlantic Fishery Management Council (SAFMC) recently instituted a limit of 35 sea bass pots per vessel, beginning in July 2012. To establish a baseline for analysis of the impacts of future management actions, the model adopts this limit as the default parameter for vessels fishing south of Cape Hatteras. The model employs these assumptions in all months; i.e., it makes no seasonal adjustment to the number of traps fished per vessel.
- **Traps per Trawl**: Each model vessel incorporates an estimate of the number of traps per trawl. The 2009 *Marine Policy* article estimated that vessels in northern North Carolina typically fish five pots per trawl, while those in southern North Carolina fish singles or two pots per trawl. Our model vessels assume five pots per trawl in the north and 1.5 pots per trawl in the south.
- **Endlines per Trawl**: For vessels fishing five-pot trawls (northern NC), the model assumes two endlines. For vessels fishing one to two pots per trawl, the model assumes one endline.

Gillnet

- The Fishery Liaison in NMFS' Southeast Regional Office provided detailed data on gear configurations used by various segments of the North Carolina gillnet fishery operating in state waters.[53] Table NC-4 summarizes the data provided while Table NC-5 presents the parameters applied in the model. The Table NC-5 parameters are applied to vessels fishing within three miles from shore (see above); vessels fishing in Federal waters are handled separately in the model.
- **Total Strings Fished and Seasonal Variation**: We estimate the number of strings fished based on data on the yards of net fished and string length. In addition, the model accounts for seasonal variation in the number of strings fished by considering typical gear configurations in the segments of the gillnet fishery that are active at different times of year. Specifically, the model assumes that gillnet vessels fishing from October through May include a mix of small mesh and spring Spanish mackerel vessels; hence, the assumption for the

[52] Levesque, Juan C., "Characterization of the southeastern US black sea bass (*Centropristis striata*) pot commercial fishery and implications for western North Atlantic right whale (*Eubalaena glacialis*) management and policy," *Marine Policy*, 33 (2009) 40-48.

[53] DENR/DMF representatives also collaborated on the development of the gear configuration profiles provided by NMFS-SERO.

number of strings fished during this period represents the average of the small mesh and spring Spanish mackerel parameters (6.8 strings per vessel). In contrast, vessels fishing from June through September include large mesh as well as summer Spanish mackerel vessels; the model assumes that half the active vessels in these months fish the large mesh configuration (8.6 strings per vessel), while half fish the summer mackerel configuration (one string per vessel).[54]

- **Panels per String**: The number of panels per string is derived by dividing the yards per string by 100 yards (the standard panel length). In all fisheries, strings are tied with as little space as possible between panels.
- **Panel Dimensions**: NMFS-SERO indicates that all panels are 300 feet long. As Table NC-5 indicates, the height of the panels varies by fishery, depending on mesh size and the depth at which the net is fished.
- **Buoy Lines**: The model assumes that all gillnet vessels fish strings with two buoy lines.
- **Anchor Lines**: NMFS-SERO indicates that all gillnet vessels fish strings with one anchor line used at the head of the net (i.e., based on the direction of the wind or current). Anchor line length varies by fishery.

[54] In addition to the fisheries noted above, there is a small fishery off the coast of North Carolina that targets spot during September and October. NMFS-SERO indicates that data on gear configurations used in this fishery are not readily available, but that vessels in this fishery typically employ fewer strings than other gillnet vessels. By ignoring this variation in gear use within the gillnet fleet, the model may slightly overstate the number of vertical lines deployed by gillnet vessels in September and October.

TABLE NC-1. NUMBER OF ACTIVE VESSELS IN NORTH CAROLINA FISH POT (BLACK SEA BASS) FISHERY

YEAR	AREA	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2011	Ocean >3 mi, N of Cape Hatteras		1	1	1								
	Ocean >3 mi, S of Cape Hatteras					1	19	13	1				
	Ocean 0-3 mi, N of Cape Hatteras												
	Ocean 0-3 mi, S of Cape Hatteras									1			

TABLE NC-2. NUMBER OF ACTIVE VESSELS IN NORTH CAROLINA GILLNET FISHERY

YEAR	AREA	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2011	Ocean >3 mi, N of Cape Hatteras	14	19	26	12	1	3	2	2	6	5	5	2
	Ocean >3 mi, S of Cape Hatteras	54	43	30	6	4	3	2	1	4	3	21	40
	Ocean 0-3 mi, N of Cape Hatteras	165	34	37	31	12	9	3	7	13	10	4	2
	Ocean 0-3 mi, S of Cape Hatteras	160	43	54	55	49	20	20	18	54	98	87	59

TABLE NC-3. BLACK SEA BASS GEAR CONFIGURATION ASSUMPTIONS

MODEL VESSEL AREA	POTS FISHED PER VESSEL	POTS PER TRAWL	NUMBER OF ENDLINES
Ocean >3 mi, N of Cape Hatteras	41	5	2
Ocean >3 mi, S of Cape Hatteras	35	1.5	1
Ocean 0-3 mi, N of Cape Hatteras	41	5	2
Ocean 0-3 mi, S of Cape Hatteras	35	1.5	1

TABLE NC-4. GILLNET GEAR CONFIGURATION DATA PROVIDED BY NMFS-SERO

FISHERY	PRIMARY SEASON	YARDS OF NET FISHED*	YARDS PER STRING*	ESTIMATED PANELS PER STRING	ESTIMATED NUMBER OF STRINGS FISHED	BUOY LINES PER STRING	ANCHOR LINES PER STRING	ANCHOR LINE LENGTH* (FEET)	NET PANEL LENGTH (FEET)	NET PANEL HEIGHT (FEET)
Fall/Winter/Spring Small Mesh	Oct-May	1,000	200	2.00	5.00	2	1	30.0	300	6.8
Spring Spanish Mackerel	May	1,300	150	1.50	8.67	2	1	37.5	300	8.6
Large Mesh	June-Oct	1,500	175	1.75	8.57	2	1	17.5	300	10.2
Summer Spanish Mackerel	June-Aug	1,250	1,250	12.50	1.00	2	1	45.0	300	12.1
* Figure represents the mid-point of range provided by NMFS-SERO Fishery Liaison.										

TABLE NC-5. MODEL VESSEL ASSUMPTIONS FOR GILLNET GEAR IN NORTH CAROLINA STATE WATERS

		YARDS OF NET FISHED	YARDS PER STRING	ESTIMATED PANELS PER STRING	ESTIMATED NUMBER OF STRINGS FISHED	BUOY LINES PER STRING	ANCHOR LINES PER STRING	ANCHOR LINE LENGTH (FEET)	NET PANEL LENGTH (FEET)	NET PANEL HEIGHT (FEET)
Model Vessel Parameters for All Gillnet Vessels Fishing October through May (average of small mesh and spring mackerel)		1,150	175	1.75	6.83	2	1	33.8	300	7.7
Model Vessel Parameters for Gillnet Vessels Fishing June through September	50% Large Mesh	1,500	175	1.75	8.57	2	1	17.5	300	10.2
	50% Summer Mackerel	1,250	1,250	12.50	1.00	2	1	45.0	300	12.1

SOUTH CAROLINA

The discussion below explains the model's characterization of the activity and gear associated with vessels fishing in South Carolina.

NUMBER OF ACTIVE VESSELS

- **Number of Active Blue Crab Vessels**: The South Carolina Department of Natural Resources Office of Fisheries Management (DNR/OFM) provided 2010 data on the number of active vessels in South Carolina's blue crab fishery. The fishery operates almost exclusively inshore, in rivers and estuarine waters landward of the COLREGS line that are exempt under the ALWTRP. Table SC-1 shows the number of active blue crab vessels by month and area. The model spreads the inshore activity evenly throughout South Carolina inshore waters.[55]
- **Other Fisheries**: Pot vessels also land black sea bass in South Carolina. DNR/OFM indicates, however, that all black sea bass pots are fished in Federal waters. The vertical line model characterizes activity in Federal waters using data from NMFS' Southeast Logbook database. Recent data (2009 and 2010) indicate that a single gillnet vessel targeted spot in state waters in isolated months. DNR/OFM experts indicate that trips and landings associated with this vessel were minimal. Because of the *de minimis* nature of gillnet activity, the model does not incorporate this effort.

GEAR CONFIGURATIONS FOR MODEL VESSELS

- **Total Pots Fished**: DNR/OFM data indicate that blue crab vessels fish an average of 83 pots per vessel. The data show little seasonal variation, and only limited variation between areas.
- **Traps per Trawl**: DNR/OFM requires that blue crab vessels fish pots as singles (not in trawls).

[55] Note that DNR/OFM collects inshore crabbing data at a finer geographic resolution, recording effort in 21 individual inshore areas. Given that inshore waters are exempt under the ALWTRP, the model does not segment vessel activity at this level of geographic precision.

TABLE SC-1. NUMBER OF ACTIVE BLUE CRAB VESSELS IN SOUTH CAROLINA STATE WATERS (2010)

WATERS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Inshore (Exempt) Waters	88	75	90	139	126	109	120	123	116	103	110	110
Non-Exempt State Waters												1

GEORGIA

This profile provides an overview of the data and assumptions used to characterize commercial fishing activity in Georgia state waters.

NUMBER OF ACTIVE VESSELS

Data Sources

- The Georgia Department of Natural Resources Wildlife Resources Division (DNR/WRD) provided data on fixed-gear fisheries operating in both state and Federal waters. These data are based on information gathered via mail and phone surveys conducted between December 2009 and February 2010. The state's research effort did not attempt to quantify inter-annual variability in effort, but focused on those who held licenses to fish for blue crab or black sea bass in 2009. DNR/WRD summarized the survey findings in a paper provided to NMFS.[56] Although the survey targeted conditions in 2009, DNR/WRD representatives verify that changes in the fisheries have been limited; thus, the survey results are reasonably reflective of 2010 conditions.[57]

Blue Crab

- **Number of Pots Fished**: The primary fixed-gear fishery targets blue crab. Georgia reports that 140 fishermen were licensed to harvest blue crab in December 2009. The majority of blue crab effort occurs inshore in rivers and sounds. DNR/WRD's research focused on the subset of the blue crab vessels that routinely fish in ocean waters. Using data gathered in surveys (adjusted to account for non-respondents), DNR/WRD estimated the total number of pots fished in each month, both in state ocean waters (zero to three miles off shore) and in Federal waters.[58] The results are summarized in Table GA-1. As shown, the majority of activity occurs from December through March.
- **Number of Active Vessels**: The number of active vessels in ocean waters can be estimated by dividing the total number of pots fished by the average pots per blue crab vessel. Survey findings indicate that vessels operating in Georgia state waters fish an average of 65 pots, while vessels in Federal waters fish an average of 22. In addition, however, information gathered by DNR/WRD suggests that a maximum of 25 blue crab vessels fish in ocean waters. To constrain the number of vessels fishing in state ocean waters to 25, we assume

[56] George, Clay, "Commercial Trap and Pot Fishing Effort in Georgia Ocean Waters: A Report to the Atlantic Large Whale Take Reduction Team," March 1, 2010.

[57] Personal communication with Clay George, Georgia DNR, September 20, 2011.

[58] The model directly incorporates the data on fishing activity in state waters. Fishing in Federal waters is handled separately in the model through analysis of Southeast logbook data; the data provided by DNR/WRD will be used to validate the logbook results.

an average of 83 pots for vessels in state waters. Table GA-1 presents the estimated number of blue crab vessels operating in each area.[59]

Other Fisheries

- DNR/WRD identified two vessels targeting black sea bass; however, both these vessels operate in Federal waters and will therefore be captured in the model's analysis of Southeast logbook data. DNR/WRD is not aware of any anchored gillnet vessels fishing in Georgia state waters.

GEAR CONFIGURATIONS FOR MODEL VESSELS

- **Pots Fished per Blue Crab Vessel**: The specification of each model vessel includes the total number of pots that the vessel typically fishes. As noted, survey responses indicate that vessels operating in Federal waters fish an average of 22 pots. For Georgia state waters, the model incorporates an average of 83 pots (see above). This figure is reasonably commensurate with survey findings which indicated an average of 90 pots per vessel in January and February, and an overall average of 65 pots per vessel across all months.
- **Traps per Trawl**: Pot trawls are prohibited in Georgia state waters; all pots are fished as singles.
- **Other**: The model assumes one endline per pot with no anchor lines.

[59] DNR fisheries experts note that the method employed may overstate active vessels given that fishermen may move their traps between state waters and offshore waters. As a result, the estimate of vessels in state waters should be considered an upper bound.

TABLE GA-1. TOTAL POTS FISHED AND NUMBER OF ACTIVE BLUE CRAB VESSELS IN GEORGIA

AREA		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Georgia State Waters (0-3 miles off shore)	Number of Pots Fished	2,034	2,072	1,224	91	76	-	-	-	-	-	-	570
	Estimated Number of Active Vessels (assumes 83 pots per vessel)	25	25	15	1	1	-	-	-	-	-	-	7
Federal Waters (3-6 miles off shore)	Number of Pots Fished	550	550	532	-	-	-	-	-	-	-	-	380
	Estimated Number of Active Vessels (assumes 22 pots per vessel)	25	25	24	-	-	-	-	-	-	-	-	17

TABLE GA-2. GEAR CONFIGURATION ASSUMPTIONS FOR GEORGIA BLUE CRAB FISHERY

AREA	POTS PER TRAWL	AVERAGE POTS/TRAPS FISHED PER VESSEL	NUMBER OF ENDLINES
Georgia State Waters	Singles	83	1
Federal Waters	Singles	22	1

FLORIDA

The discussion below explains the model's characterization of the activity and gear associated with vessels fishing in Florida state waters.

NUMBER OF ACTIVE VESSELS

Trap Fishery

- **Fisheries**: Representatives of Florida's Fish and Wildlife Conservation Commission (FWC) indicate that the trap fishery operating in state waters subject to the ALWTRP is primarily associated with the harvest of blue crab (over 90 percent). Some additional effort focuses on the harvest of stone crab. A small amount of residual effort associated with finfish exists, but is not included in our data analysis.
- **Number of Active Fishers**: FWC provided detailed trip ticket data on the number of fishers operating in Florida state waters, organizing the data by fishery, month, and area.[60] Five areas – 722, 728, 732, 736, and 741 – are located in ALWTRP waters; Figure FL-1 shows the boundaries of these areas.[61]
- **Inshore and Offshore Effort**: Much of the trap fishery is prosecuted in inshore waters (rivers, estuaries, etc.). These areas are located landward of the COLREGS line and are therefore exempt from the ALWTRP. We estimate the number of vessels active in inshore versus offshore waters using supplementary data provided by FWC. These data compile the monthly number of trips to subareas within each major area. For example, area 722 is divided into five subareas; two represent offshore waters while the remaining areas (the St. Marys River, Nassau River, and St. Johns River) represent inshore waters. We calculate the percent of trips in offshore and inshore areas for each area/month combination and apply this percentage to the total number of vessels active in the area/month.[62] Table FL-1 summarizes these calculations.

Other Fisheries

- Florida does not allow anchored gillnets in state waters.

[60] The FWC data characterize activity according to the number of "fishers". The model appropriately equates fishers with vessels, although a given fisher may operate more than one vessel under a given permit.

[61] FWC also provided data for area 717, Georgia state waters. In most months and years, however, no Florida vessels are active in this area.

[62] FWC also provided the number of active vessels (fishers) by subarea and month. However, these data appear to double-count vessels active in more than one subarea, and would likely lead to an overestimate of the total number of active vessels.

GEAR CONFIGURATIONS FOR MODEL VESSELS

- **Total Traps Fished**: The specification of each model vessel includes the total number of traps that the vessel typically fishes. Lacking specific data on the number of traps fished per vessel, FWC provided trip ticket data characterizing the number of traps hauled per licensee, organized by month and area. Translating the number of trap hauls to an estimate of the number of traps fished requires assumptions regarding the frequency with which traps are hauled. FWC suggests that it is reasonable to assume that each trap is hauled 10 times per month (i.e., every three days). Using this assumption, we estimate the average number of traps per licensee by area based on 2011 data (see Table FL-2).
- **Traps per Trawl**: FWC indicates that vessels fish traps singly, not in multi-trap trawls.
- **Endlines per Trawl**: For all fisheries, the model assumes one endline per trap.

FIGURE FL-1. FLORIDA FISHING AREAS

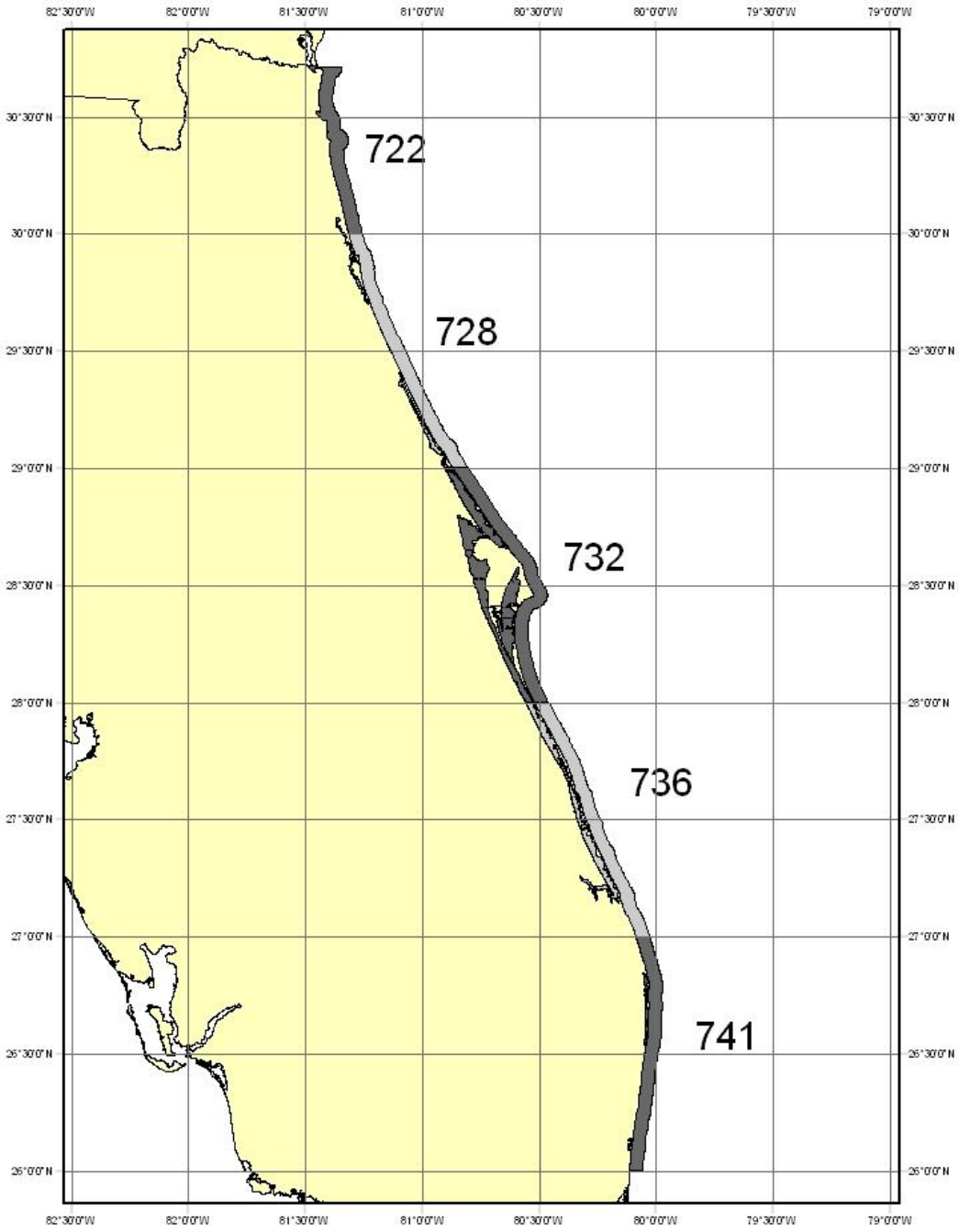

TABLE FL-1. NUMBER OF ACTIVE TRAP FISHERS IN FLORIDA STATE WATERS (2011)

	AREA	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Aggregate Number of Active Fishers	722	30	28	38	41	39	40	44	37	37	36	35	34
	728	41	47	57	67	74	72	63	60	56	54	54	48
	732	30	28	33	36	48	43	45	38	35	36	36	28
	736	6	7	8	6	9	10	9	9	10	8	6	8
	741	6	3	4	4	4	2	1	11	7	13	8	6
Percent of Trips to Offshore Areas	722	3.0%	0.0%	2.1%	3.2%	3.0%	0.5%	0.4%	4.2%	0.9%	0.8%	0.9%	0.0%
	728	13.9%	5.6%	16.6%	8.0%	6.8%	6.9%	7.9%	7.9%	6.8%	5.8%	5.6%	13.1%
	732	0.0%	1.0%	0.0%	0.0%	0.8%	3.4%	1.1%	2.8%	1.3%	0.9%	1.8%	1.7%
	736	5.3%	2.5%	10.7%	7.8%	3.0%	0.0%	0.0%	4.3%	1.8%	1.7%	0.0%	0.0%
	741	19.2%	23.1%	21.7%	13.0%	12.5%	0.0%	0.0%	0.0%	100.0%	56.3%	37.5%	9.5%
Number of Fishers Active in Offshore Waters	722	1	-	1	1	1	0	0	2	0	0	0	-
	728	6	3	9	5	5	5	5	5	4	3	3	6
	732	-	0	-	-	0	1	0	1	0	0	1	0
	736	0	0	1	0	0	-	-	0	0	0	-	-
	741	1	1	1	1	1	-	-	-	7	7	3	1
Number of Fishers Active in Inshore Waters	722	29	28	37	40	38	40	44	35	37	36	35	34
	728	35	44	48	62	69	67	58	55	52	51	51	42
	732	30	28	33	36	48	42	45	37	35	36	35	28
	736	6	7	7	6	9	10	9	9	10	8	6	8
	741	5	2	3	3	4	2	1	11	-	6	5	5

TABLE FL-2. GEAR CONFIGURATION ASSUMPTIONS FOR TRAP VESSELS FISHING IN FLORIDA STATE WATERS (2011)

MODEL VESSEL AREA	TRAPS FISHED PER LICENSE	TRAPS PER TRAWL	NUMBER OF ENDLINES
722	257	1	1
728	187	1	1
732	213	1	1
736	159	1	1
741	35	1	1