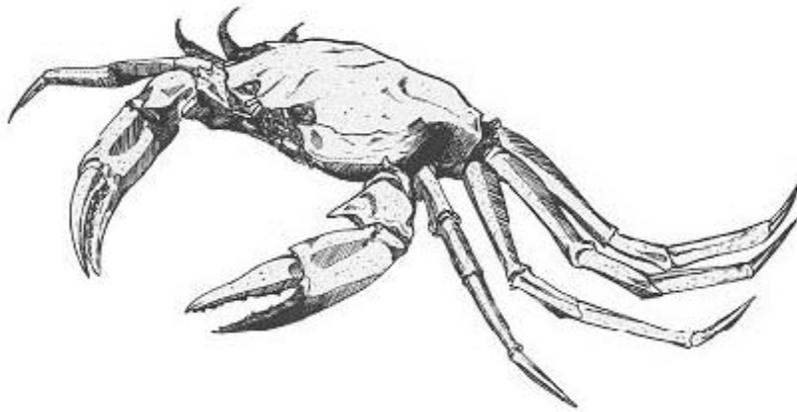


Atlantic Deep-Sea Red Crab  
Fishing Years 2014-2016 Specifications,  
Including a  
Regulatory Flexibility Analysis



Prepared by the New England Fisheries Management Council

In consultation with:

United States Department of Commerce

National Oceanic and Atmospheric Administration

National Marine Fisheries Service

Northeast Region

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## List of Acronyms

ABC	Allowable Biological Catch
ACL	Annual Catch Limit
ALWTRP	Atlantic Large Whale Take Reduction Plan
AM	Accountability Measure
BRP	Biological Reference Point
DAS	Days-at-Sea
DCAC	Depletion-Corrected Average Catch
DPSWG	Data Poor Stocks Working Group
EA	Environmental Assessment
EFH	Essential Fish Habitat
ESA	Endangered Species Act of 1973
FMP	Fishery Management Plan
FY	Fishing Year
ITS	Incidental Take Statement
LPUE	Landings per Unit Effort
MMPA	Marine Mammal Protection Act
MSA	Magnuson-Stevens Fishery Conservation and Management Act
MSY	Maximum Sustainable Yield
NAO	NOAA Administrative Order
NEFMC	New England Fishery Management Council
NEFSC	Northeast Fisheries Science Center
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NS	National Standard
OFL	Overfishing Limit
OY	Optimum Yield
PDT	Plan Development Team
PRA	Paperwork Reduction Act
RFA	Regulatory Flexibility Act
RIR	Regulatory Impact Review
RPM	Reasonable and Prudent Measures
SAFE	Stock Assessment and Fishery Evaluation
SSC	Science and Statistical Committee
TAC	Total Allowable Catch
TAL	Total Allowable Landings
VTR	Vessel Trip Reports

## 1.0 Executive Summary

The proposed action, as described in Section 4.0, would establish specifications for the 2014-2016 fishing years for the Atlantic deep-sea red crab fishery. The action is needed to put new specifications in place for the start of fishing year 2014, on March 1, 2014. Under this action the New England Fishery Management Council (Council) is proposing a total allowable landings (TAL) limit for the red crab fleet that is the same as levels currently in effect under Amendment 3 to the Fishery Management Plan (FMP). The Council based its decision on the results of the most recent peer-reviewed assessment of the red crab resource carried out by the Data Poor Stocks Working Group (DPSWG) in 2009, and recommendations from the Science and Statistical Committee (SSC). The Council believes the TAL is safely below an undetermined overfishing threshold and adequately accounts for scientific uncertainty. The Council has also determined that Amendment 3 analyses remain valid for this action. A review of new information (Section 5.0) and new circumstances (Section 6.0) did not change the conclusions or impacts described in Amendment 3.

The proposed action is summarized in Table 1.

Table 1. Red crab specifications for fishing years 2014-2016

	Proposed Action
Maximum Sustainable Yield (MSY)	Undetermined
Overfishing Limit (OFL)	Undetermined
Optimum Yield (OY)	Undetermined
Acceptable Biological Catch (ABC)	1,775 mt
Annual Catch Limit (ACL)	1,775 mt
Total Allowable Landings (TAL)	1,775 mt

## 2.0 Background

Deep-sea red crab is a data poor stock. In the absence of better scientific information, the Council's SSC recommended setting the ABC equal to the long-term average landings of the directed red crab fishery (1,775 mt) for fishing years 2011-2013. Recent landings, landings per unit of effort (LPUE), port samples, discard information, and economic data suggest there has been no change in the size of the red crab stock since Amendment 3 was implemented in 2011. There has not been an update to the red crab assessment and the MSY and the OFL remain unknown.

On August 21, 2013, the SSC recommended the status quo ABC for fishing years 2014-2016 of 1,775 mt for the directed fishery.

### 2.1 Original Atlantic Deep-Sea Red Crab Fishery Management Plan and Modifications

The Atlantic Deep-Sea Red Crab Fishery Management Plan (FMP) was implemented in 2002. The FMP originally included a target total allowable catch (TAC) limit, limited access permits and trip limits based on historical participation, days-at-sea (DAS) allocations for the limited

access fleet, a prohibition on retaining more than 100 lb of female red crab, as well as other gear requirements and restrictions. Framework Adjustment 1 to the FMP modified the annual review process to allow specifications to be set for up to three years. Amendment 1 incorporated the Standardized Bycatch Reporting Methodology, and Amendment 2 is reserved for the Council's Essential Fish Habitat Omnibus Amendment that is currently under development. Amendment 3 to the FMP ensured consistency with the annual catch limit (ACL) and accountability measure (AM) requirements of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), removed the trip limit restriction, and replaced the target TAC and DAS allocation with a TAL.

The specifications in Amendment 3 to the FMP had positive or negligible impacts on the red crab stock, bycatch, protected resources, and habitat because the landings level was the same as the landings limit that was in place for the 2010 fishing year specifications. The long-term average landings were determined to be sustainable by the DPSWG and were recommended as the ABC for red crab by the SSC. Amendment 3 also included measures to eliminate DAS, eliminate trip limits, and modify the trap limit regulatory language. The amendment had positive impacts on human communities by maintaining a sustainable red crab resource and by making it possible for the red crab fleet to increase efficiency and safety by not being pressured to maximize the productivity of each DAS.

## **2.2 Data-Poor Stocks Working Group and Fishing Years 2011-2013 Specifications**

The management unit specified in the Red Crab FMP includes red crab (*Chaceon quinquegens*) in U.S. waters of the Atlantic Ocean from 35° 15.3' N. lat. (the approximate latitude of Cape Hatteras Light, North Carolina) northward to the U.S./Canada border. The most recent peer-reviewed scientific advice that is applicable to the red crab fishery was produced by the DPSWG and the associated Peer Review Panel, which met in December 2008 and issued its report on January 20, 2009. The DPSWG was tasked with recommending biological reference points (BRPs), measurable BRPs and MSY proxies for several species, as well as advising on the scientific uncertainty and risks for the SSC to consider when recommending catch limits.

The methods used by the DPSWG are explained in a working paper that is available at <http://www.nefsc.noaa.gov/publications/crd/crd0902>. The DPSWG produced estimates of sustainable yield that approximated recent and long-term average annual landings, leading the DPSWG to "recommend a catch limit that mimics both recent and long term mean annual landings." The Council's Red Crab Plan Development Team (PDT) further analyzed the methodology employed by the DPSWG and determined that estimates of sustainable yield from the Depletion Corrected Average Catch (DCAC) model are likely to be less than MSY. The SSC, therefore, concluded that "the information available for red crab is insufficient to estimate MSY or OFL." In lieu of an estimate of OFL, the SSC recommended an ABC based on the long-term average landings of male red crab. The SSC noted that the two survey estimates of abundance and their variance do not provide evidence of significant depletion of currently market-sized males from 1974 to 2003-2005. Further, the SSC determined that there is insufficient data to determine the historic level of discards and discard mortality that accompanied the historic landings that were used to establish the ABC. However, the SSC concluded that the historical landings of male red crab and historical discarding practices appear

to be sustainable and that an interim ABC based on long-term average landings (1,775 mt) is safely below an undetermined overfishing threshold and adequately accounts for scientific uncertainty. The TAL for fishing years 2011-2013 was set at 1,775 mt in Amendment 3 (76 FR 60379; September 29, 2011). All of the specification values assume a male-only directed fishery.

### **3.0 Purpose**

The purpose of this action is to establish specifications for the Atlantic deep-sea red crab fishery for fishing years 2014-2016.

### **4.0 The Proposed Action**

On August 21, 2013, the SSC recommended an ABC for fishing years 2014-2016 of 1,775 mt. The proposed specifications for fishing years 2014-2016 do not constitute a change from the 2011-2013 specifications. The fishing years 2011-2013 ABC, ACL, and TAL were based on average long-term (1974-2008) landings of the directed red crab fishery. Red crab was last assessed by the DPSWG in 2009, and there have been no updates to the assessment method or the specifications methods.

The Red Crab PDT reviewed all of the relevant data since the implementation of Amendment 3. This new information is summarized below.

### **5.0 New Information**

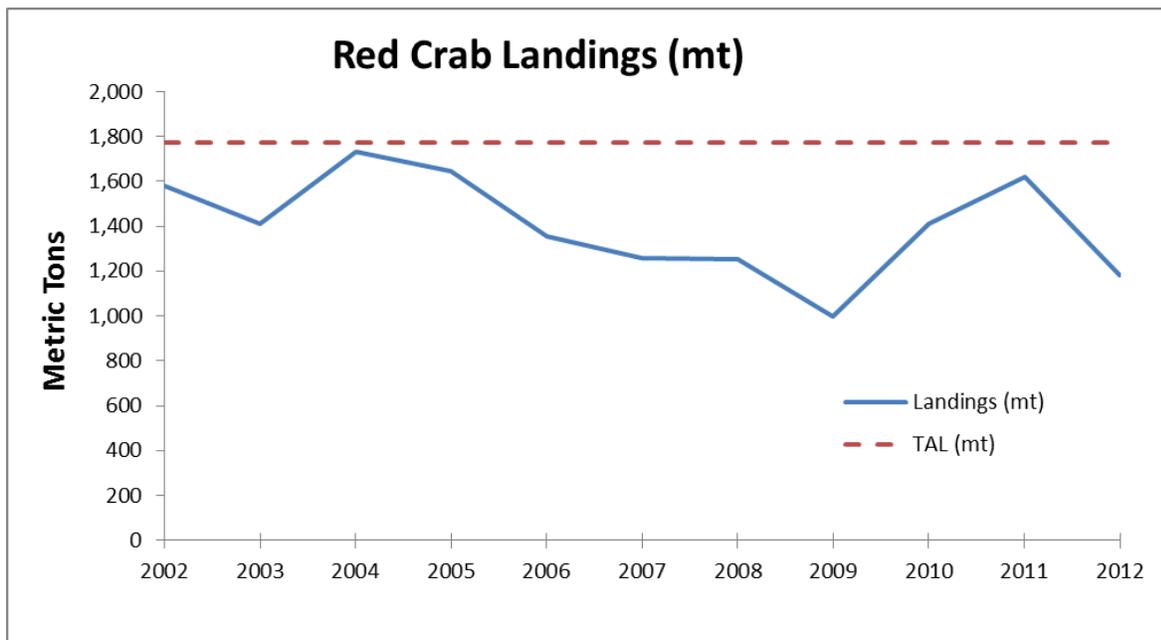
The sources of new information directly related to the action and its impacts are the 2010-2012 red crab landings, LPUE, port samples, discard information, and economic impact analyses. Other components, including incidental landings and bycatch, the Canadian red crab fishery, essential fish habitat, and protected resources are also considered.

#### **5.1 Red Crab Landings, LPUE and Port Samples**

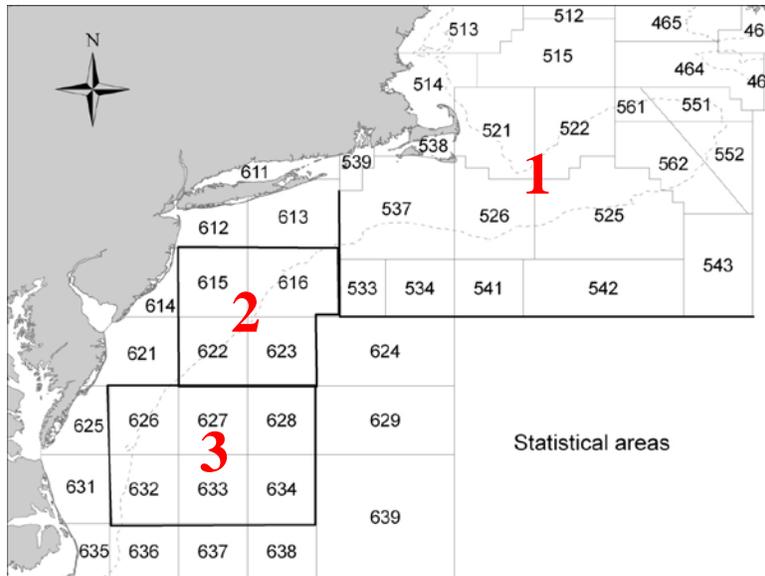
The Red Crab PDT reviewed red crab fishery information compiled by the Northeast Fisheries Science Center (NEFSC), including updated landings, LPUE and port sampling data. The updated information indicated that 2010-2012 landings were lower than the TAL, and appeared to be consistent with average landings since 2002 (Figure 1). Landings were grouped by three fishing regions based on VTR-reported statistical area fished (Figure 2), and landings by region indicated that the fishery has been operating nearly equally in all regions in recent years (Figure 3). LPUE appeared stable between 2010 and 2012 and showed an increasing trend since 2007 (Figure 4). There are some caveats with LPUE data due to interpretation of VTR reports; however, the method to interpret LPUE data is consistent with the method applied in Amendment 3. Port sampling data indicated that the 2010-2012 mean size of landed males was consistent with average landed size since 2001 (Figure 5). There were differences in landed size

frequency distributions among the three fished areas (Figure 6), with the largest landed sizes from area 3. Updated landings, LPUE and port samples did not indicate any decline in overall stock size.

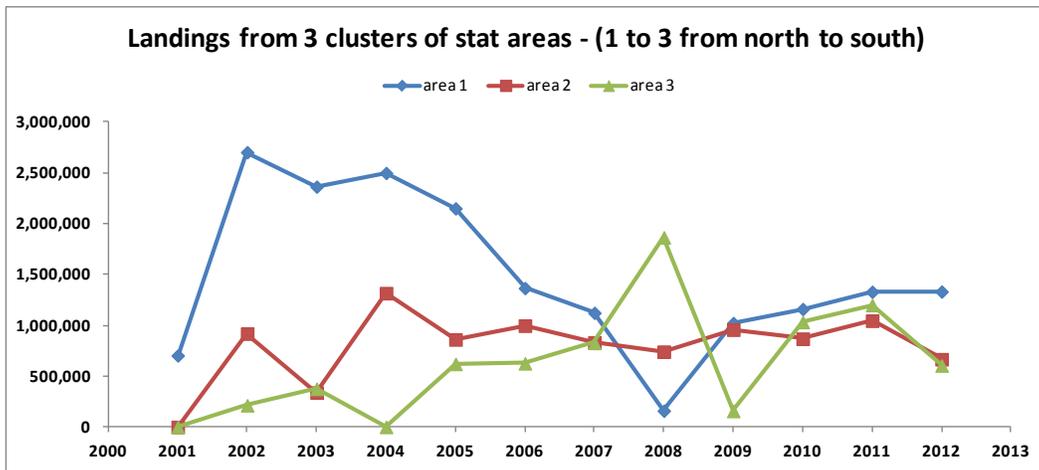
The red crab fishery is a small, market-driven fishery, and landings are very closely tied to market demand, which explains why the landings have been lower than the TAL recently. Permit holder, Jon Williams, confirmed that the market for red crabs decreased in 2010-2012, despite high landings per unit of effort. In area 3 (Figure 2), vessels are targeting larger crabs to meet the market demand (Figure 4). There may be discarding of smaller crabs in area 3 to meet the demand for larger crabs in the southern region. A comparison of sea sampling conducted by Dr. Richard Wahle of the University of Maine from 2010 to sampling in 2012-2013 has shown a size distribution shift to larger crabs. This research has shown an increase in the landed size distribution in area 3 in 2012. The PDT reviewed where landings were occurring, and noted that landings were distributed all along the coast compared with early years in the fishery when most of the landings were concentrated in the northern region of the fishery. However, this change may also be directly related to market demand, as the industry is reportedly trying to further develop a live red crab market in the mid-Atlantic region. Based on the landings, LPUE, and port sampling information from recent fishing years, setting the TAL at 1,775 mt for fishing years 2014-2016 would not result in stock decline and would allow flexibility to the fishing industry.



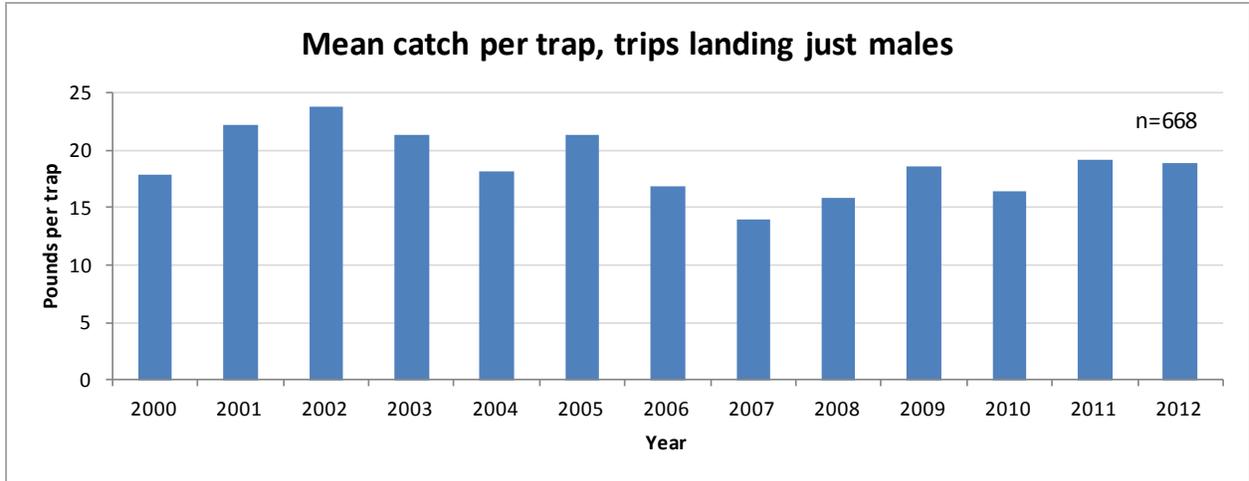
**Figure 1:** Red crab landings 2002-2012. The red dashed line represents the TAL of 1,775 mt; the blue line is red crab permitted vessel landings. Landings other than the red crab directed fishery account for less than one percent in most years, and are, therefore, not considered.



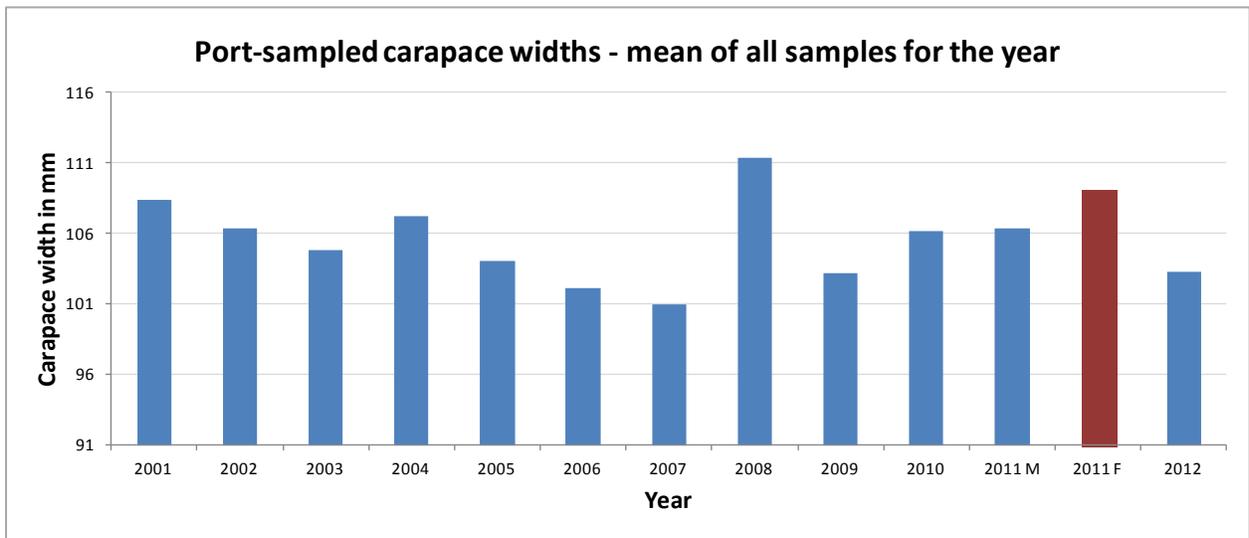
**Figure 2:** Statistical area groups of red crab fishing effort; area 1 in the north, area 2 off of New Jersey, and area 3 in the south.



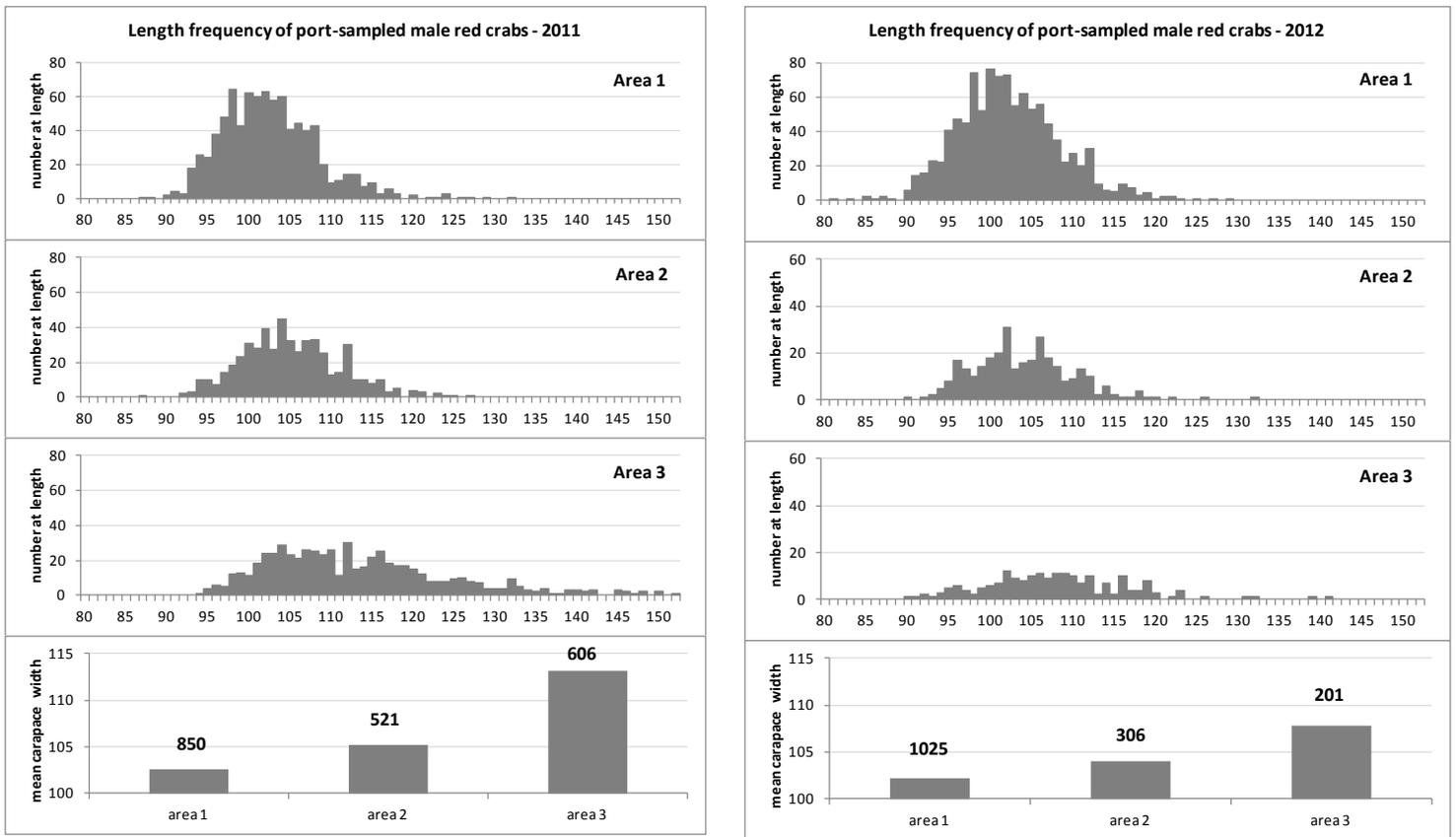
**Figure 3:** Red crab landings from the three fishing regions (Figure 2).



**Figure 4:** Red crab landings per unit effort (LPUE) excluding trips that landed females in 2010 and 2011 interpreted from the VTR-reported data, following methods develop by A. Applegate in 2006.



**Figure 5:** Mean of male red crab carapace widths from port samples, including sampled females in 2011 (red bar).



**Figure 6:** Length frequencies of port-sampled male red crabs from 2011 (left) and 2012 (right), divided into three fishing regions (Figure 2). The numbers above the columns in the bottom panel are the number of crabs measured per area.

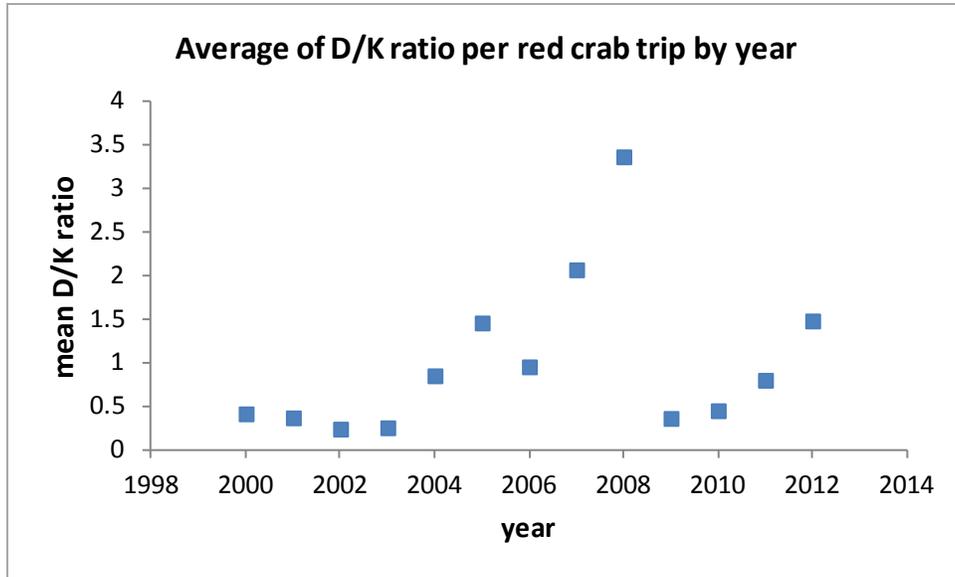
## 5.2 Red Crab Discards

The PDT reviewed data related to current discard rates and whether or not there are any changes in the discard rates in recent years from the past. There are minimal data from at-sea monitoring to determine the total amount of discards in the red crab fishery, and the SSC previously concluded that the available monitoring data on discards and research on discard mortality were inadequate to reliably estimate dead discards. The SSC concluded that the best scientific information available for deriving ABC in 2010 was the time series of landings.

The PDT examined VTR reports from 2000-2012 and noted that there is a high level of uncertainty in the amount of reported discards (Table 2; Figure 7). The VTR-reported increase in discards in 2010-2012 may be a result of increased accuracy of reporting and compliance to VTR reporting regulations, rather than an actual increase in discarded crabs. The discard rates reported on the VTR logs were generally lower than those estimated by the Northeast Fisheries Observer Program. The SSC reviewed the updated discard data on August 21, 2013, and again concluded that the time series of landings was the best scientific information available for deriving the ABC. Based on the discard information from recent fishing years, setting the TAL at 1,775 mt for fishing years 2014-2016 would not result in stock decline, as this maintains the current level of fishing and is not expected to change the discarding practices of the fishery.

**Table 2:** The percentage of annual trips where the VTR log included both landings and discard estimates.

year	percentage of VTR logs with both landings and estimated discards
2000	100
2001	44
2002	28
2003	29
2004	56
2005	44
2006	49
2007	36
2008	27
2009	60
2010	96
2011	89
2012	100
mean	58



**Figure 7:** Discard to kept (D:K) ratios for all trips with both landings and discards on the VTR log.

### 5.3 Economic Description of the Red Crab Fishery and Socio-Economic Impacts

Section 6.3 of Amendment 3 to the FMP contains a detailed economic description of the red crab fishery, including a community profile of New Bedford, MA, where all red crab vessels are docked and crabs are regularly landed and processed. Updated information related to prices and revenue is included in Table 3 and Figure 8.

The recommended TAL for fishing years 2014-2016 is the same as the current TAL (1,775 mt); therefore, no short-term economic impacts are expected. The proposed TAL is not expected to change the current supply of red crab to the market or the ex-vessel price of red crab and wholesale or retail prices. Consequently, the proposed TAL is not expected to measurably or predictably change consumer surplus. Additionally, the few boats with limited access permits in the red crab fishery have overlapping ownership and operate as a voluntary cooperative. The cooperative relationship fosters a strong incentive to harvest red crab in a way that maximizes profits for the fleet as a whole. As a result, the vessels are not expected to compete to harvest the largest possible amounts of red crab per vessel as quickly as possible before the TAL is reached. In addition, the current market conditions, not the landings limit, constrain the catch of red crab, so there is no incentive for boats to land as much as they can before the TAL would be reached. A TAL of 1,775 mt is not expected to have any impacts on employment or on the income of crew members, or any other social impacts. As described in the Amendment 3 Environmental Assessment (EA), the short-term impacts of a TAL of 1,775 mt are positive for the human community.

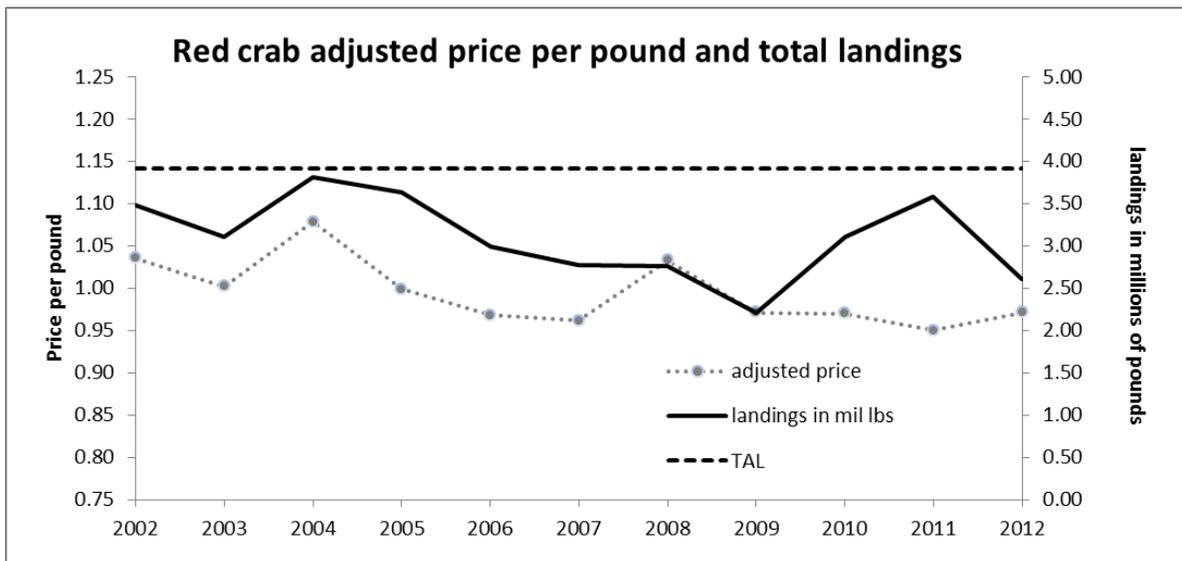
**Table 3.** Fishing years 2002-2012 red crab price per pound, inflation adjusted price (based on 2010 dollars), Vessel Trip Report (VTR) landings in pounds and estimated revenue.

Fishing year	Price per Pound	* Inflation Adjusted Price	** VTR Reported Landings	*** Revenue
2002	\$0.86	\$1.04	3,484,283	\$3,623,654
2003	\$0.85	\$1.00	3,111,953	\$3,111,953
2004	\$0.94	\$1.08	3,815,415	\$4,120,648
2005	\$0.90	\$1.00	3,631,754	\$3,631,754
2006	\$0.90	\$0.97	2,984,084	\$2,894,561
2007	\$0.92	\$0.96	2,777,723	\$2,666,614
2008	\$1.01	\$1.03	2,763,519	\$2,846,425
2009	\$0.96	\$0.97	2,202,021	\$2,135,960
2010	\$0.97	\$0.97	3,111,892	\$3,018,535
2011	\$0.97	\$0.95	3,575,278	\$3,396,514
2012	\$1.00	\$0.97	2,602,352	\$2,524,281
Average	\$0.93	\$0.99	3,096,389	\$3,065,425

\* The consumer price index (CPI) used to convert nominal dollars to 2010 equivalent dollars is from the Bureau of Economic Analysis Table 1.1.9 ([www.bea.gov/iTable/iTable.cfm?ReqID=9&step=1](http://www.bea.gov/iTable/iTable.cfm?ReqID=9&step=1)).

\*\* Landings data is from VTRs, which do not exactly match dealer data.

\*\*\* Revenue is estimated based on VTR reported landings and prices calculated from dealer data.



**Figure 8.** Inflation adjusted red crab price per pound (dashed gray line) plotted with total landings in millions of pounds (black solid line) and the TAL in millions of pounds (black dashed line).

## 5.4 Ecological Impacts on Other Species and Communities

### 5.4.1. Incidental Landings and Bycatch

Red crab inhabit water depths of 400-800 meters. This depth range is beyond that in which most fishing activity with the potential for red crab bycatch takes place. The incidental catch permit landings in recent years were examined in Section 6.1.2.1 of Amendment 3 to the FMP to determine whether they were significant in relation to the TAL. There has been no change to the number of incidental permits and the proposed TAL is not expected to change incidental landings and bycatch.

### 5.4.2. Bycatch of Red Crab in Other Fisheries

Bycatch of red crab in other fisheries is detailed in Section 6.1.2.2 of Amendment 3 to the FMP. The proposed TAL is not expected to change bycatch or discarding of red crab in other fisheries.

### 5.4.3. Bycatch of Other Species in the Red Crab Fishery

Section 6.1.2.3 of Amendment 3 to the FMP noted that there is very little bycatch of other species in the red crab fishery, and in general, the red crab fishery has little interaction with non-target species. The proposed TAL will not change the bycatch of other species since there will be no increase in effort, change in gear, or change in distribution of fishing effort.

#### **5.4.4. Canadian Red Crab Fishery**

Section 6.1.3 of Amendment 3 to the FMP indicates that the Canadian red crab fishery has not been active in recent years. There has been no evidence that the Canadian red crab fishery has become active since Amendment 3 was implemented.

#### **5.5. Impacts to Essential Fish Habitat**

Section 3.7.4 of the FMP and Section 6.2.1.1 of Amendment 3 to the FMP describe the EFH for red crab. The EFH designation has not changed since implementation of the FMP; however the designations are being evaluated as part of the Omnibus Habitat Amendment, and there are additional recommendations that will be incorporated for red crab. The proposed TAL does not impact EFH for red crab or other Northeast Region species since there will be no increase in effort, change in gear, or change in distribution of fishing effort.

#### **5.6. Impacts to Protected Resources**

Section 8.7 of the FMP and section 6.2.2 of the Amendment 3 EA provide a complete and comprehensive identification and description of all marine mammals and other protected species that may be found in the environment utilized by the red crab fishery. The most recent analysis of the protected species and marine mammals that may be found in the environment utilized by the red crab fishery is provided by the 2002 Biological Opinion on the Red Crab FMP (available at [http://www.nero.noaa.gov/prot\\_res/section7/NMFS-signedBOs/RedCrab2002signedBO.pdf](http://www.nero.noaa.gov/prot_res/section7/NMFS-signedBOs/RedCrab2002signedBO.pdf)). There are numerous species that inhabit the environment within the red crab management unit and are afforded protection under the Endangered Species Act of 1973 (ESA; i.e., for those designated as threatened or endangered) and/or the Marine Mammal Protection Act of 1972 (MMPA). Fifteen are classified as endangered or threatened under the ESA, while the others are protected by the provisions of the MMPA.

However, since the red crab fishery is limited to the narrow shelf edge of the continental shelf and only a few vessels currently participate in the fishery, the extent of interactions between the fishery and protected species is not expected to be significant. NMFS's 2002 Biological Opinion concludes that the operation of the fishery under the Red Crab FMP may adversely affect, but is not likely to jeopardize, the continued existence of right whales, humpback whales, fin whales, sei whales, sperm whales, or loggerhead and leatherback turtles. An Incidental Take Statement (ITS) along with non-discretionary Reasonable and Prudent Measures (RPMs) to minimize the impacts of incidental take of sea turtles was provided in the Opinion, which exempted the incidental take of up to one loggerhead and/or one leatherback sea turtle annually in the fishery due to entanglement in pot/trap gear. In regard to other protected species, NMFS has determined that the red crab fishery is not expected to affect roseate terns, piping plovers, blue whales, green, Kemp's ridley, and hawksbill sea turtles, shortnose sturgeon, or Atlantic salmon, nor will it destroy or adversely modify designated critical habitat for right whales.

The Atlantic Large Whale Take Reduction Plan (ALWTRP) is a program to reduce the risk of serious injury to or mortality of large whales due to incidental entanglement in U.S. commercial fishing gear. The plan is required by the MMPA and has been developed by NMFS. The ALWTRP focuses on the critically endangered North Atlantic right whale, but is also intended to

reduce entanglements of endangered humpback and fin whales and to benefit non-endangered minke whales. For the purposes of ALWTRP, the red crab fishery is considered part of the Atlantic Mixed Species Trap/Pot fishery, and takes place primarily in the Offshore Trap/Pot Area. Regulations pertaining to this area, in addition to the universal requirements, include gear marking and weak links, which are designed to reduce injury should an interaction occur. The red crab fishery is considered a Category II fishery under the MMPA, which means occasional incidental interactions and serious injury may occur, however, given the small scale of the fleet and the management measures that restrict the number of traps a vessel may use, interaction with protected species is rare.

NMFS recently excluded the red crab fishery from the May 2013 Biological Opinion for Continued Implementation of Management Measures for the Northeast Multispecies, Monkfish, Spiny Dogfish, Atlantic Bluefish, Northeast Skate Complex, Mackerel/Squid/Butterfish, and Summer Flounder/Scup/Black Sea Bass Fisheries because there were either no or negligible recorded interactions with Atlantic sturgeon. This Biological Opinion (available at [https://static.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/519adee0e4b09ffb7ee2aac8/1369104096102/Draft\\_Batch.pdf](https://static.squarespace.com/static/511cdc7fe4b00307a2628ac6/t/519adee0e4b09ffb7ee2aac8/1369104096102/Draft_Batch.pdf)) reviewed the impacts of the red crab fishery and determined that the exemption to the sinking goundline requirement for gear that is fished at depths greater than 280 fathoms is unlikely to have an adverse impact on entanglement risks for right, humpback, fin and sei whales.

## **6.0 New Circumstances**

For this proposed action, the Council considered the following actions to determine if they, or others, did occur, and whether the actions implemented since Amendment 3 would change the analysis of impacts from the red crab specifications on the human environment contained in the Amendment 3 EA.

The actions were grouped into the following five categories: red crab, non-target/bycatch species, habitat/EFH, protected resources, and social/economic impacts on human communities.

### **6.1 Red Crab**

As described in Section 7.8.2.1 of Amendment 3, management actions on the red crab resource and fishery have been positive by reducing red crab fishing effort and reducing red crab bycatch in other fisheries. The proposed action would maintain red crab effort at sustainable levels based on the best available science. Additionally, no future actions have been identified that would change the Amendment 3 determination. Therefore, this review found that the Amendment 3 determination remains valid with respect to the red crab stock.

### **6.2 Non-Target/Bycatch Species**

The FMP explains that initial reports from industry members indicate that there is very little, if any, bycatch of other species in the directed red crab fishery. According to the 2004 SAFE report, the only species reported to the VTR database as bycatch by the limited access red crab

fleet are red crab, and on rare occasion, lobster and blue crab. Tallack (2007) provides a more quantitative, if still limited, assessment of bycatch in the red crab fishery.

The proposed action is expected to have the same impacts on non-target species as Amendment 3 as it would use the same effort controls and limits. Since the catch of non-target and bycatch species is already very low in the red crab fishery, other actions have likely had positive but minimal impact on other species. Additionally, recent management actions under the Lobster FMP that have constrained fishing effort have had a positive impact on the lobster resource. This review found that no actions have changed the Amendment 3 determination.

### **6.3 Habitat**

Amendment 3 determined that no red crab fishing action has had or is expected to have an adverse impact on red crab habitat. In terms of other fishery management actions, Tilefish Amendment 1 prohibited mobile gear fishing in certain tilefish EFH, which overlaps with red crab habitat. Also effort reduction under the Monkfish FMP, particularly in offshore areas fished with mobile gear, probably has, and may continue to limit, possible adverse impacts on red crab habitat. Additionally, the Council's EFH Omnibus Amendment 2 is expected to update, identify, and delineate information on EFH for red crab. Both the Mid-Atlantic and New England Fishery Management Councils are developing management measures to protect deep-sea corals. Development of the New England Council's deep-sea coral amendment has been postponed until the EFH Omnibus Amendment is completed. The Mid-Atlantic Council's Deep-Sea Coral Amendment is scheduled for implementation in 2015. Both amendments are considering alternatives that would prohibit bottom tending gear, including red crab pots, deeper than 300, 400, or 500 m. The amendments are also considering exempting red crab pots from that restriction because the fishery is limited in size and the impacts on corals from the fishery are likely to be minimal. Because there is relatively little geographical overlap between red crab and these other fisheries and because red crab traps have only minimal impacts on habitat, the combined effect of these actions is positive but minimal for red crab habitat. The proposed action is not expected to change or shift effort because the proposed quota is the same as was implemented in Amendment 3. Therefore, this review found that no actions have changed the Amendment 3 determination.

### **6.4 Protected Resources**

Amendment 3 determined that management actions have had negligible to slightly positive impacts on protected resources. NMFS recently excluded the red crab fishery from the May 2013 Biological Opinion for Continued Implementation of Management Measures for the Northeast Multispecies, Monkfish, Spiny Dogfish, Atlantic Bluefish, Northeast Skate Complex, Mackerel/Squid/Butterfish, and Summer Flounder/Scup/Black Sea Bass Fisheries because there were either no or negligible recorded interactions with Atlantic sturgeon. This Biological Opinion reviewed the impacts of the red crab fishery and determined that the exemption to the sinking goundline requirement for gear that is fished at depths greater than 280 fathoms is unlikely to have an adverse impact on entanglement risks for right, humpback, fin and sei whales. The proposed action will not increase fishing effort for red crab because it will not increase the ABC or TAL from previous management actions. Also it would not substantially

change the way the fishery currently operates. As such, interactions between the red crab fishery and protected resources are not expected to change. Therefore, this review found that no actions have changed the Amendment 3 determination.

## **6.5 Social/Economic Impacts on Human Communities**

Amendment 3 determined that actions implemented under the red crab fishery all have had or are expected to have a positive impact on human communities through the maintenance of a sustainable red crab fishery. Other Federal fishery management actions that affected human communities that depend on red crab are lobster management measures implemented under the Lobster FMP. Recent lobster actions have helped to ensure the sustainability of the lobster resource which also is economically important to some of the participants in the red crab fishery. Actions under the Lobster FMP, therefore, have and are expected to continue to have positive impacts on the human communities that depend on the red crab resource. The proposed action maintains the same quota level as was implemented in Amendment 3. Therefore, this review found that no actions have changed the Amendment 3 determination.

## **7.0 Public Participation**

The Red Crab PDT held two conference calls on July 23 and August 27, 2013, which were announced on the Council's website and included participation from red crab industry members or representatives. The SSC met to recommend an ABC for red crab fishing years 2014-2016 in Boston, MA on August 21, 2013. The Council reviewed updated information about red crab landings, LPUE port samples, discards, economic impacts, and other valued ecosystem components during the September 2013 meeting in Hyannis, MA.

## **8.0 Conclusion**

Amendment 3 determined there are no significant impacts of fishery actions on the red crab resource, non-target/bycatch species, habitat/EFH, protected resources, or human communities that have occurred since the FMP was implemented, or are expected in the reasonably foreseeable future. The proposed specifications for fishing years 2014-2016 would have negligible to positive impacts on the physical and biological environment, and on human communities. The sum of the effects from implementation of the proposed specifications on the red crab stock, non-target/bycatch species, habitat/EFH, protected resources and human communities is expected to be negligible in the short-term and positive in the long-term.

The Council has determined that the analyses conducted for Amendment 3 remain valid for this action. A review of new information (Section 5.0) and new circumstances (Section 6.0) did not change the conclusions or impacts described in Amendment 3 and its accompanying EA. The proposed action is the same as the preferred alternative from Amendment 3, and because the conclusions reached in the Amendment 3 EA are determined to remain valid, those analyses apply to these specifications.

## **9.0 Compliance with Applicable Laws**

### **9.1 Magnuson-Stevens Fishery Conservation and Management Act**

#### ***9.1.1 Consistency with National Standards***

Section 301 of the Magnuson-Stevens Fishery Conservation and Management Act requires that regulations implementing any fishery management plan or amendment be consistent with the ten national standards listed below.

##### ***9.1.1.1 National Standard 1***

*Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery for the United States fishing industry.*

The proposed action is compliant with MSA National Standard 1 requirements for an acceptable biological catch (ABC) and interim ABC control rule, and ACL, and accountability measures (AMs). The proposed specifications for fishing years 2014-2016 are consistent with the ABC set through this process and will ensure that overfishing will not take place in the red crab fishery and the red crab resource will not become overfished.

##### ***9.1.1.2 National Standard 2***

*Conservation and management measures shall be based on the best scientific information available.*

The measures in this action are based on the best and most recent scientific information available including the Red Crab stock assessment from the Northeast Regional Data Poor Stock Assessment Workshop in 2008, which includes an independent peer review, and recommendations from the Council's Science and Statistical Committee for setting an interim red crab ABC.

##### ***9.1.1.3 National Standard 3***

*To the extent practicable, an individual stock of fish shall be managed as a unit throughout its range, and interrelated stocks of fish shall be managed as a unit or in close coordination.*

The red crab resource is managed as a single unit throughout its range in the US EEZ.

##### ***9.1.1.4 National Standard 4***

*Conservation and management measures shall not discriminate between residents of different states. If it becomes necessary to allocate or assign fishing privileges among various United States fishermen, such allocation shall be: (A) fair and equitable to all such fishermen; (B) reasonably calculated to promote conservation; and (C) carried out in such a manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges.*

The proposed measures are the same for all vessels in the red crab fishery regardless of the state of residence of the owner or operator of the vessels. Although any fishing mortality control (including possession limits and quotas) result in the allocation of fishery resources, the

measures in the proposed action are reasonably expected to promote conservation by continuing to prevent overfishing and rebuild overfished stocks.

*9.1.1.5 National Standard 5*

*Conservation and management measures shall, where practicable, consider efficiency in the utilization of fishery resources; except that no such measure shall have economic allocation as its sole purpose.*

The proposed action maintains the efficiency of vessel operations under the TAL. The TAL allows flexibility for business planning, operational safety and capability of the fleet to catch the ACL/TAL without exceeding it. None of the measures in this action directly allocates red crab and, therefore, none has economic allocation as its sole purpose.

*9.1.1.6 National Standard 6*

*Conservation and management measures shall take into account and allow for variations among, and contingencies in, fisheries, fishery resources, and catches.*

The proposed action, developed with input of red crab fishermen and processors, accounts for the market-driven nature of the fishery by maintaining the TAL and allowing flexibility to reach the TAL without exceeding it.

*9.1.1.7 National Standard 7*

*Conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication.*

The proposed action would simplify management regulations by maintaining the TAL value for fishing years 2014-2016. The proposed action does not duplicate other fishing regulations or fishery management measures. The Red Crab FMP is the only management plan that sets harvest limits and fishing regulations for Atlantic deep-sea red crab.

*9.1.1.8 National Standard 8*

*Conservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse impacts on such communities.*

The proposed action was developed with the input of red crab vessel owners and processors that supported the measures because the TAL would assist them economically by making harvesting operations efficient. The TAL allows for flexibility to make fewer, longer fishing trips, particularly because the fishing grounds for red crab are distant. This flexibility would keep the red crab fishery economically viable and sustainable. Due to the small size of the red crab fishery, there are a limited number of participants, and consequently a limited number of communities. This action is not expected to change the individuals or communities affected by this fishery.

#### *9.1.1.9 National Standard 9*

*Conservation and management measures shall, to the extent practicable, (A) minimize bycatch and (B) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch.*

The proposed action is not expected to have any impact on bycatch of red crab or other species (Section 5.4).

#### *9.1.1.10 National Standard 10*

*Conservation and management measures shall, to the extent practicable, promote safety of human life at sea.*

The proposed action allows flexibility for vessels to harvest when conditions are optimal, reducing exposure to safety hazards at sea. This management action does not change any of the measures designed to promote the safety of human life at sea, and no measure in the proposed action reduces the flexibility of vessel operators to respond to hazardous conditions at sea.

### **9.1.2 *Magnuson-Stevens Act FMP Requirements***

Section 303 (a) of FCMA contains 15 required provisions for FMPs that are listed below. The requirement applies to the FMP, and in some cases, the FMP as amended, and not the submission document for the proposed action.

- (1) contain the conservation and management measures, applicable to foreign fishing and fishing by vessels of the United States;*

Foreign fishing is not allowed under this management plan or this action, so specific measures are not included to specify and control allowable foreign catch.

- (2) contain a description of the fishery;*

An updated description of the fishery is included in Section 5.0 of this document.

- (3) assess and specify the present and probable future condition of, and the maximum sustainable yield and optimum yield from, the fishery, and include a summary of the information utilized in making such specification;*

The Council's Science and Statistical Committee determined that "the information available for red crab is insufficient to estimate MSY and OY" (Sections 1.0 and 2.2).

- (4) assess and specify – (A) the capacity and the extent to which fishing vessels of the United States, on an annual basis, will harvest the optimum yield specified under paragraph (3); (B) the portion of such optimum yield which, on an annual basis, will not be harvested by fishing vessels of the United States and can be made available for foreign fishing; and (C) the capacity and extent to which United States fish processors, on an annual basis, will process that portion of such optimum yield that will be harvested by fishing vessels of the United States;*

Due to the lack of scientific data, MSY and long-term OY have not been defined for the red crab fishery. However, US fishing vessels are capable of, and expected to, harvest 100 percent of the ABC from this fishery, as specified in Section 4.0. US processors are also expected to process all landings from US fishing vessels. Therefore, there is no portion of the ABC from this fishery that can be made available to foreign fishing.

- (5) *specify the pertinent data which shall be submitted to the Secretary with respect to commercial, recreational, and charter fishing in the fishery, including, but not limited to, information regarding the type and quantity of fishing gear used;*

Red Crab vessels currently must submit Vessel Trip Reports (VTRs) for each fishing trip. Dealers are also required to submit reports on the purchases of red crab from permitted vessels. Current reporting requirements are detailed in 50 CFR 648.7.

- (6) *consider and provide for temporary adjustments, after consultation with the Coast Guard and persons utilizing the fishery, regarding access to the fishery for vessels otherwise prevented from harvesting because of weather or other ocean conditions affecting the safe conduct of the fishery;*

The proposed action does not contain any measures that would penalize vessels that were prevented from harvesting red crab because of weather or other ocean conditions. The proposed action will maintain vessels' flexibility to respond to adverse ocean conditions by enabling them to extend the length of their trips and fish fewer trips when they choose.

- (7) *describe and identify essential fish habitat for the fishery based on the guidelines established by the Secretary under section 305 (b)(1)(A), minimize to the extent practicable adverse effects on such habitat caused by fishing, and identify other actions to encourage the conservation and enhancement of such habitat;*

Essential fish habitat for red crab was defined in the Red Crab FMP, which was implemented in 2002. This action does not change the essential fish habitat designations. The Council currently is updating EFH designations for all NEFMC-managed species, including red crab, in an omnibus amendment that is expected to be implemented in 2015.

- (8) *in the case of a fishery management plan that, after January 1, 1991, is submitted to the Secretary for review under section 304(a) (including any plan for which an amendment is submitted to the Secretary for such review) or is prepared by the Secretary, assess and specify the nature and extent of scientific data which is needed for effective implementation of the plan;*

Scientific needs are continuously reviewed and revised by the Council's Research Steering Committee and the Northeast Stock Assessment Workshop, which consult with NMFS, the Council and its Plan Development Teams, Science and Statistical Committee and species oversight committees about scientific data needs.

- (9) *include a fishery impact statement for the plan or amendment (in the case of a plan or amendment thereto submitted to or prepared by the Secretary after October 1, 1990) which shall assess, specify, and describe the likely effects, if any, of the conservation and management measures on – (A) participants in the fisheries and fishing communities affected by the plan or amendment; and (B) participants in the fisheries conducted in adjacent areas under the authority of another Council, after consultation with such Council and representatives of those participants;*

Impacts on fishing communities affected by this action can be found in Section 5.3, Economic Description of the Red Crab Fishery and Socio-Economic Impacts, and Section 6.5, Social/Economic Impacts on Human Communities.

- (10) *specify objective and measureable criteria for identifying when the fishery to which the plan applies is overfished (with an analysis of how the criteria were determined and the relationship of the criteria to the reproductive potential of stocks of fish in that fishery) and, in the case of a fishery which the Council or the Secretary has determined is approaching an overfished condition or is overfished, contain conservation and management measures to prevent overfishing or end overfishing and rebuild the fishery;*

The Red Crab FMP/EIS established criteria to determine whether the red crab stock was either in an overfished condition, subject to overfishing, or both. The previously approved overfishing and overfished definitions are as follows:

*Definition of Overfishing:* Overfishing is defined as any rate of exploitation such that the ratio of current exploitation to an idealized exploitation under MSY conditions exceeds a value of 1.0. The actual measures of exploitation used will be determined by the availability of suitable data (CPUE data, landings, etc.).

*Definitions of Overfished:* The red crab stock will be considered to be in an overfished condition if one of the following three conditions is met:

Condition 1 – The current biomass of red crab is below  $\frac{1}{2} B_{MSY}$  in the New England Council's management area.

Condition 2 – The annual fleet average CPUE, measured as marketable crabs landed per trap haul, continues to decline below a baseline level ( $\frac{1}{2} CPUE_0$ ) for three or more consecutive years.

Condition 3 – The annual fleet average CPUE, measured as marketable crabs landed per trap haul, falls below a minimum threshold level ( $\frac{1}{4} CPUE_0$ ) in any single year.

- (11) *establish a standardized reporting methodology to assess the amount and type of bycatch occurring in the fishery, and include conservation and management measures that, to the extent practicable and in the following priority – (A) minimize bycatch; and (B) minimize the mortality of bycatch which cannot be avoided;*

This action does not include changes to the current Standardized Bycatch Reporting Methodology implemented under the Standardized Bycatch Reporting Methodology Omnibus Amendment (Amendment 1 to the Red Crab FMP) implemented in February

2008. This methodology is expected to assess the amount and type of bycatch in the red crab fishery and help identify ways the fishery can minimize bycatch and mortality of bycatch which cannot be avoided.

*(12) assess the type and amount of fish caught and released alive during recreational fishing under catch and release fishery management programs and the mortality of such fish, and include conservation and management measures that, to the extent practicable, minimize mortality and ensure the extended survival of such fish;*

There is no recreational fishing for Atlantic deep-sea red crab.

*(13) include a description of the commercial, recreational, and charter fishing sectors which participate in the fishery and, to the extent practicable, quantify trends in landings of the managed fishery resource by the commercial, recreational, and charter fishing sectors;*

Section 5.3 provides a description of the commercial red crab fishery. There is no recreational or charter fishing for Atlantic deep-sea red crab.

*(14) to the extent that rebuilding plans or other conservation and management measures which reduce the overall harvest in a fishery are necessary, allocate any harvest restrictions or recovery benefits fairly and equitably among the commercial, recreational, and charter fishing sectors in the fishery;*

The proposed action does not reduce the overall harvest to fishery participants.

*(15) establish a mechanism for specifying annual catch limits in the plan (including a multiyear plan), implementing regulations or annual specifications, at a level such that overfishing does not occur in the fishery, including measures to ensure accountability;*

The proposed action maintains an ABC, annual catch limit, total allowable landings and accountability measures that would prevent overfishing and ensure accountability.

## **9.2 National Environmental Policy Act (NEPA)**

The Council has determined that the Red Crab Amendment 3 EA remains valid for this action. Thus, there is no need to supplement the Amendment 3 EA and Finding of No Significant Impact.

A review of new information (Section 5.0) and new circumstances (Section 6.0) did not change the conclusions or impacts described in the Amendment 3 EA. The proposed action is the same as the preferred alternative from the previous action, and because the conclusions reached in the Amendment 3 EA were determined to remain valid, those analyses apply to these specifications.

If NMFS concurs with the Council's determination, a Supplemental Information Report (SIR) will be prepared. The SIR would document NMFS' rationale for determining if new

information, changed circumstances, or changes to the action would require additional NEPA analysis.

If NMFS does not concur, the Council will prepare and submit a new NEPA document which would include a more in-depth review of the proposed action and its impacts.

### **9.3 Marine Mammal Protection Act (MMPA)**

None of the specifications proposed in this document are expected to alter fishing methods or activities. Therefore, this action is not expected to affect marine mammals or critical habitat in any manner not considered in previous consultations on the fisheries.

For further information on the potential impacts of the fishery and the proposed management action on marine mammals, see Sections 5.6 and 6.4 of this document.

### **9.4 Endangered Species Act (ESA)**

Section 7 of the Endangered Species Act requires Federal agencies conducting, authorizing, or funding activities that affect threatened or endangered species to ensure that those effects do not jeopardize the continued existence of listed species. The proposed action will not increase fishing effort for red crab because it will not increase the ABC or total allowable landings from previous management actions. Also, it would not substantially change the way the fishery currently operates. Based on the information available at this time (Sections 5.6 and 6.4), the Council believes that NMFS will concur that the action proposed for the red crab fishery would not be likely to jeopardize any ESA-listed species or alter or modify any critical habitat.

### **9.5 Coastal Zone Management Act (CZMA)**

Section 307(c)(1) of the Coastal Zone Management Act (CZMA) of 1972, as amended, requires that all Federal activities that directly affect the coastal zone be consistent with approved state coastal zone management programs to the maximum extent practicable. The CZMA provides measures for ensuring stability of productive fishery habitat while striving to balance development pressures with social, economic, cultural, and other impacts on the coastal zone. It is recognized that responsible management of both coastal zones and fish stocks must involve mutually supportive goals. The Council has developed this specification package and will submit it to NMFS; NMFS must determine whether this action is consistent to the maximum extent practicable with the CZM programs for each state (Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, and North Carolina). Letters documenting NMFS' determination will be sent to the coastal zone management program offices of each state.

### **9.6 Administrative Procedure Act (APA)**

Section 553 of the APA establishes procedural requirements applicable to informal rulemaking by Federal agencies. The purpose of these requirements is to ensure public access to the Federal

rulemaking process, and to give the public adequate notice and opportunity for comment. At this time, the NEFMC is not requesting any abridgement of the rulemaking process for this action.

## **9.7 Information Quality Act (IQA)**

### ***Utility of Information Product***

The information presented in this document is helpful to the intended users (the affected public) by presenting a clear description of the purpose and need of the proposed action, the measures proposed, and the impacts of those measures. A discussion of the reasons for selecting the proposed action is included so that intended users may have a full understanding of the proposed action and its implications. The intended users of the information contained in this document include individuals involved in the red crab fishery, (e.g., fishing vessels, crab processors, fishery managers), and other individuals interested in the management of the red crab fishery. The information contained in this document will be helpful and beneficial to owners of vessels holding limited access red crab permits since it will notify these individuals of the measures contained in this specification package. This information will enable these individuals to adjust their management practices and make appropriate business decisions. Until a proposed rule is prepared and published, this document is the principal means by which the information contained herein is available to the public. The information provided in this document is based on the most recent available information from the relevant data sources. The information contained in this document includes detailed and relatively recent information on the red crab resource and, therefore, represents an improvement over previously available information. This document will be subject to public comment through proposed rulemaking, as required under the Administrative Procedure Act and, therefore, may be improved based on comments received. This document is available in several formats, including printed publication, and online through the NEFMC's web page ([www.nefmc.org](http://www.nefmc.org)). The Federal Register notice that announces the proposed rule and the final rule and implementing regulations will be made available in printed publication, on the website for the Northeast Regional Office ([www.nero.noaa.gov](http://www.nero.noaa.gov)), and through the Regulations.gov website. The Federal Register documents will provide metric conversions for all measurements.

### ***Integrity of Information Product***

The information product meets the standards for integrity under the following types of documents:

Other/Discussion (e.g., Confidentiality of Statistics of the Magnuson-Stevens Fishery Conservation and Management Act; NOAA Administrative Order 216-100, Protection of Confidential Fisheries Statistics; 50 CFR 229.11, Confidentiality of information collected under the Marine Mammal Protection Act.)

Prior to dissemination, information associated with this action, independent of the specific intended distribution mechanism, is safeguarded from improper access, modification, or destruction, to a degree commensurate with the risk and magnitude of harm that could result from the loss, misuse, or unauthorized access to or modification of such information. All electronic information disseminated by NMFS adheres to the standards set out in Appendix III, "Security of Automated Information Resources," of OMB Circular A-130; the Computer Security Act; and the Government Information Security Act. All confidential information (e.g.,

dealer purchase reports) is safeguarded pursuant to the Privacy Act; Titles 13, 15, and 22 of the U.S. Code (confidentiality of census, business, and financial information); the Confidentiality of Statistics provisions of the Magnuson-Stevens Act; and NOAA Administrative Order 216-100, Protection of Confidential Fisheries Statistics.

### ***Objectivity of Information Product***

For purposes of the Pre-Dissemination Review, this document is considered to be a “Natural Resource Plan.” Accordingly, the document adheres to the published standards of the Magnuson-Stevens Act; the Operational Guidelines, Fishery Management Plan Process; the Essential Fish Habitat Guidelines; the National Standard Guidelines; and NOAA Administrative Order 216-6, Environmental Review Procedures for Implementing the National Environmental Policy Act. This information product uses information of known quality from sources acceptable to the relevant scientific and technical communities. Several sources of data were used in the development of the specification package. These data sources included, but were not limited to, historical and current landings data from the Commercial Dealer database, vessel trip report (VTR) data, and fisheries independent data collected through the NMFS bottom trawl surveys. The analyses contained in this document were prepared using data from accepted sources. These analyses have been reviewed by members of the Red Crab Plan Development Team and by the SSC where appropriate.

Despite current data limitations, the conservation and management measures considered for this action were selected based upon the best scientific information available. The analyses important to this decision used information from the most recent complete calendar years, generally through 2012. The data used in the analyses provide the best available information on the number of permits, both active and inactive, in the fishery, the catch (including landings and discards) by those vessels, the landings per unit of effort (LPUE), and the revenue produced by the sale of those landings to dealers. Specialists (including professional members of plan development teams, technical teams, committees, and Council staff) who worked with these data are familiar with the most current analytical techniques and with the available data and information relevant to the red crab fishery. The policy choice is clearly articulated in Section 4.0 of this document, that being the management alternative considered in this action. The supporting science and analyses, upon which the policy choice was based, are summarized and described in sections 5.0 and 6.0 of this document, and in the Amendment 3 Environmental Assessment. All supporting materials, information, data, and analyses within this document have been, to the maximum extent practicable, properly referenced according to commonly accepted standards for scientific literature to ensure transparency. The review process used in preparation of this document involves the responsible Council, the Northeast Fisheries Science Center, the Northeast Regional Office, and NOAA Fisheries Service Headquarters. The Center’s technical review is conducted by senior level scientists with specialties in population dynamics, stock assessment methods, population biology, and the social sciences. The Council review process involves public meetings at which affected stakeholders have opportunity to provide comments on the document. Review by staff at the Regional Office is conducted by those with expertise in fisheries management and policy, habitat conservation, protected species, and compliance with the applicable law. Final approval of the action proposed in this document and clearance of any rules prepared to implement resulting regulations is conducted by staff at NOAA Fisheries Service Headquarters, the Department of Commerce, and the U.S. Office of Management and

Budget. In preparing this action for the Red Crab FMP, NMFS must comply with the requirements of the Magnuson-Stevens Act, the National Environmental Policy Act, the Administrative Procedure Act, the Paperwork Reduction Act, the Coastal Zone Management Act, the Endangered Species Act, the Marine Mammal Protection Act, the Information Quality Act, and Executive Orders 12630 (Property Rights), 12866 (Regulatory Planning), 13132 (Federalism), and 13158 (Marine Protected Areas). The Council has determined that the proposed action is consistent with the National Standards of the Magnuson-Stevens Act and all other applicable laws.

## **9.8 Paperwork Reduction Act (PRA)**

The Paperwork Reduction Act (PRA) concerns the collection of information. The intent of the PRA is to minimize the Federal paperwork burden for individuals, small businesses, state and local governments, and other persons, as well as to maximize the usefulness of information collected by the Federal government. There are no changes to the existing reporting requirements previously approved under this FMP for vessel permits, dealer reporting, or vessel logbooks. This action does not contain a collection-of-information requirement for purposes of PRA.

## **9.9 Regulatory Flexibility Act (RFA)**

The objective of the Regulatory Flexibility Act (RFA) is to require consideration of the capacity of regulated small entities affected by regulations to bear the direct and indirect costs of regulation. If an action might have a significant impact on a substantial number of small entities, an Initial Regulatory Flexibility Analysis (IRFA) must be prepared. This would identify the need for action, alternatives, potential costs and benefits of the action, the distribution of these impacts, and a determination of whether the proposed action would have a significant economic impact on a substantial number of small entities. Depending on the nature of the proposed regulations, assessment of the economic impacts on small businesses, small organizations, and small governmental jurisdictions may be required. If an action is determined to affect a substantial number of small entities, the analysis must include:

- 1) A description and estimate of the number of regulated small entities and total number of entities in a particular affected sector, and the total number of small entities affected; and
- 2) Analysis of the economic impact on regulated small entities, including the direct and indirect compliance costs of completing paperwork or recordkeeping requirements, effect on the competitive position of small entities, effect on the small entity's cash flow and liquidity, and ability of small entities to remain in the market.

If it is clear that an action would not have a significant economic impact on a substantial number of small regulated entities, the RFA allows Federal agencies to certify the proposed action to that effect to the Small Business Administration (SBA). The decision on whether or not to certify is generally made after the final decision on the preferred alternatives for the action and may be documented at either the proposed rule or the final rule stage.

Based on the information and analyses provided in earlier sections of this specifications document, it is clear that this action would not have a significant economic impact on a substantial number of small entities, and that certification under the RFA is warranted. The remainder of this section establishes the factual basis for this determination, as recommended by the Office of Advocacy at the SBA.

***Description and Number of Small Entities to which the Rule Applies***

The RFA recognizes three kinds of small entities: small businesses, small organizations, and small governmental jurisdictions. The proposed action would only affect small businesses engaged in the harvesting of red crab. The recently updated small business size standard for shellfish fishing is \$5 million annually, while the finfish fishing standard increased to \$19.0 million of gross revenue. Because the business entities regulated by this action had revenue from shellfish fishing that was far greater than the revenue from finfish fishing; these entities would be defined as shellfish businesses and subject to the \$5 million small business standard.

New information about vessel ownership has been made available for all federal permit holders (since 2010), which allows for the identification of business entities that comprise multiple fishing vessels. Under this rule, there are two business entities and four vessels to which the rule applies. The new vessel ownership data, which has been added to the permit database, identifies all the individual people who own fishing vessels. With this information, vessels can be grouped together according to common owners. The resulting groupings can then be treated as a fishing business, for purposes of RFA analyses. Revenues summed across all vessels in the group and the activities that generate those revenues form the basis for determining whether the entity is a large or small business. There are only two business entities, the degree of ownership is not known, and data is confidential.

For RFA purposes, we must look at the total revenue of the business, which, in this case, includes the value of other shellfish and some finfish. The additional revenue obtained from other shellfish (lobsters and Jonah crab) and finfish (hagfish) are relatively minor amounts. The comparison of red crab versus all revenue is shown in Table 4. According to SBA’s regulations (CFR 121.104(c)), gross revenue from the most recent three years should be used for classifying marine fishing activity. The total value of landings from all sources over the last three years averaged \$3.46 million, so it is safe to assume that all business entities in the harvesting sector can be categorized as small businesses for purpose of the RFA.

**Table 4.** Value of all landings and value of red crab landings, from red crab permitted vessels, 2010-2012

	<b>Value of all landings (million \$)</b>	<b>Value of red crab landings (million \$)</b>
2010	3.114	3.052
2011	3.697	3.485
2012	3.573	2.624

The proposed action will affect all business entities and four vessels in the directed red crab fishery, but it is not expected to have any impact on the gross or average revenues for the fishery because it does not change the total allowable landings level, which is 3.913 million lb (1,775 mt). In addition, this level is substantially higher than landings in recent years (fishing years

2010 – 2012 landings averaged 3.097 million lb; Table 3). As a result, the proposed action is not expected to constrain landings markets for red crab substantially. Since revenues per business entity are confidential, Table 5 shows the average value per vessel over the most recent three years for all landings.

**Table 5.** Average revenue per vessel from all species landed, 2010-2012

Number of Vessels	4
Average revenue from all species, 2010-2012	\$ 3,461,088
Average revenue/vessel from all species	\$ 865,272

(Source: NMFS Annual Commercial Landings Statistics)

As discussed above (Section 5.1), landings were low due to market conditions and were not constrained by the total allowable landings limit during fishing years 2010-2012. Because the proposed action will have no impact on gross revenues per vessel, it is not necessary to analyze impacts according to the dependence of each vessel in the red crab fishery.

**9.9.1 Criteria Used to Evaluate the Action**

**9.9.1.1 Significant Economic Impacts**

The RFA requires Federal agencies to consider two criteria to determine the significance of regulatory impacts: disproportionality and profitability. If either criterion is met for a substantial number of small entities, then the action should not be certified.

**9.9.1.1.1 Disproportionality**

Since all limited access red crab vessel owners were determined to be small entities (above) the disproportionality standard does not apply.

**9.9.1.1.2 Profitability**

As noted above, none of the elements of this proposed action are associated with economic impacts on small entities. This is the case for small regulated entities engaged in commercial red crab fishing. Since the proposed action would have no economic impact on small entities, there would be no change in expected profitability.

**9.9.1.2 Substantial Number of Small Entities**

While the action would apply to all of the limited access red crab vessels, no entity is expected to incur any economic impacts as a result of this action.

**9.9.1.3 Description of and Explanation of, the Basis for All Assumptions Used**

Because the proposed action maintains the existing overall catch levels, which are based on the best available scientific information, there are no direct economic impacts associated with this action. No assumptions are necessary to conduct the analyses in support of this conclusion.

## **10.0 Preparers and Persons Consulted**

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### Persons consulted:

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## 11.0 References

- New England Fishery Management Council (NEFMC). 2002. Fishery Management Plan for Deep-Sea Red Crab (*Chaceon quinque-dens*) Including an Environmental Impact Statement, an Initial Regulatory Flexibility Act Analysis, and a Regulatory Impact Review. Newburyport, MA.
- New England Fishery Management Council (NEFMC). 2005. Framework Adjustment 1 to the Atlantic Deep-Sea Red Crab Fishery Management Plan Including the Environmental Assessment (EA), Regulatory Impact Review (RIR), and Initial Regulatory Flexibility Analysis (IRFA). Newburyport, MA.
- New England Fishery Management Council (NEFMC). 2010. Deep-Sea Red Crab 2010 Fishing Year Specifications (March 1, 2010 – February 28, 2011) and Stock Assessment and Fishery Evaluation (SAFE) Report including the Environmental Assessment (EA), Regulatory Impact Review (RIR), and Initial Regulatory Flexibility Analysis (IRFA). Newburyport, MA.
- New England Fishery Management Council (NEFMC). 2011. Amendment 3 to the Fishery Management Plan for Deep-Sea Red Crab Incorporating Specifications for Fishing Years 2011 through 2013 (March 1, 2011 – February 28, 2014) and Including the Environmental Assessment (EA), Regulatory Impact Review (RIR), and Initial Regulatory Flexibility Analysis (IRFA). Newburyport, MA.
- Tallack, S. 2007. Escape ring selectivity, bycatch and discard survivability in the New England fishery for deep-water red crab *Chaceon quinque-dens*. ICES Journal of Marine Science 64(8): 1579-1586.