

Modifications to Annual Catch Limit and a Trigger Mechanism for Review



REGULATORY AMENDMENT 4 TO THE FISHERY MANAGEMENT PLAN FOR SPINY LOBSTER IN THE GULF OF MEXICO AND SOUTH ATLANTIC REGIONS

INCLUDING ENVIRONMENTAL ASSESSMENT,
REGULATORY IMPACT REVIEW,
AND REGULATORY FLEXIBILITY ACT ANALYSIS

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ENVIRONMENTAL ASSESSMENT COVER SHEET

Including Environmental Assessment, Regulatory Impact Review, and Regulatory Flexibility Act Analysis

Type of Action

Administrative

Draft

Legislative

Final

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ABBREVIATIONS USED IN THIS DOCUMENT

ABC	acceptable biological catch
ACL	annual catch limit
ACT	annual catch target
AM	accountability measure
AP	advisory panel
Councils	Gulf of Mexico and South Atlantic Fishery Management Councils
EA	environmental assessment
EEZ	exclusive economic zone
EIS	environmental impact statement
FMP	fishery management plan
F _{MSY}	fishing mortality rate at maximum sustainable yield
GMFMC	Gulf of Mexico Fishery Management Council
Gulf	Gulf of Mexico
Gulf Council	Gulf of Mexico Fishery Management Council
MFMT	maximum fishing mortality threshold
mp	million pounds
MSY	maximum sustainable yield
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Agency
OFL	overfishing limit
SAFMC	South Atlantic Fishery Management Council
Secretary	Secretary of Commerce
SEDAR	Southeast Data, Assessment, and Review
South Atlantic Council	South Atlantic Fishery Management Council
SPR	spawning potential ratio
SSC	Scientific and Statistical Committee
ww	whole weight

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CHAPTER 1. INTRODUCTION

- *Gulf of Mexico and South Atlantic Fishery Management Councils* – Develop the range of actions and alternatives and select preferred alternatives that are submitted to the National Marine Fisheries Service.
- *National Marine Fisheries Service* and *Council staff* – Assist in the development of alternatives based on guidance from the Council, and analyze the environmental impacts of those alternatives.
- *Secretary of Commerce* – Approves, disapproves, or partially approves the amendment as recommended by the Council.

1.1 Background

The current overfishing limit (OFL), acceptable biological catch (ABC), and annual catch limit (ACL) for spiny lobster were established through Spiny Lobster Amendment 10 (GMFMC/SAFMC 2011). When the Gulf and South Atlantic Scientific and Statistical Committee (SSCs) reviewed the status of the spiny lobster fishery to make recommendations to the Councils for the OFL and ABC for Amendment 10, the maximum sustainable yield (MSY) was unknown. The Gulf Council proposed using the Gulf SSC's OFL and ABC recommendations in Amendment 10, which were derived using Tier 3a of the Gulf ABC Control Rule. The Gulf SSC recommended the OFL be set as the mean of the most recent ten years of landings (i.e., fishing years 2000/01 through 2009/10) plus two standard deviations, and the ABC be set at the mean of the same time period plus 1.5 standard deviations. These years were selected because they represented a period of at least ten years that reflected the most recent conditions of the fishery and were also relatively stable.

Both Councils accepted the OFL and ABC recommended by the Gulf SSC and set the ACL equal to the ABC (7.32 million pounds (mp)) in Amendment 10. The Councils also established the accountability measure as the annual catch target (ACT), which was set at 90% of the ACL. The measure also stated that if landings exceeded the ACT, a panel would be convened to assess whether corrective action was necessary to prevent landings from exceeding the ACL.

The ACL (7.32 mp) and ACT (6.9 mp) for spiny lobster went into effect on January 3, 2012. Table 1.1.1 shows landings from 1991/92 through 2015/16. In the 2013/14 fishing year, landings exceeded the ACT, ACL, and OFL. In 2014/15, landings exceeded the ACT, and in the 2015/16 fishing year the ACT and ACL were exceeded.

Table 1.1.1. Spiny lobster landings (lbs whole weight (ww)) from 1991/92 through 2015/16. The 2012/13 fishing year was the first season after implementation of the ACL (7.32 mp) and ACT (6.9 mp).

Year	Commercial	Recreational	Total
1991/92	6,836,063	1,815,791	8,651,854
1992/93	5,369,099	1,352,443	6,721,542
1993/94	5,310,544	1,883,114	7,193,658
1994/95	7,217,577	1,905,995	9,123,572
1995/96	7,021,047	1,930,718	8,951,765
1996/97	7,745,956	1,922,596	9,668,552
1997/98	7,640,291	2,304,186	9,944,477
1998/99	5,447,746	1,302,677	6,750,423
1999/00	7,668,265	2,461,981	10,130,246
2000/01	5,569,306	1,949,062	7,518,368
2001/02	3,079,121	1,251,081	4,330,202
2002/03	4,572,648	1,455,298	6,027,946
2003/04	4,158,698	1,411,509	5,570,207
2004/05	5,451,391	**	**
2005/06	2,969,121	1,131,014	4,100,135
2006/07	4,824,111	1,304,511	6,128,622
2007/08	3,793,068	1,215,068	5,008,136
2008/09	3,284,879	1,263,508	4,548,387
2009/10	4,393,970	1,265,576	5,659,546
2010/11	5,969,950	1,416,466	7,386,416
2011/12	5,854,173	1,230,408	7,084,581
ACL (7.32 mp) and ACT (6.9 mp) implemented January 2012			
2012/13	4,064,217	1,558,995	5,623,212
2013/14	6,373,005	1,602,654	7,975,659
2014/15	5,436,140	1,621,182	7,057,322
2015/16	6,051,903	1,491,487	7,543,390

** Recreational surveys were not conducted during the 2004/05 fishing year due to the active hurricane season. The fishing year is August 6 through March 31.

Data source: Florida Fish and Wildlife Conservation Commission, Fish and Wildlife Research Institute (FWRI)

After the Councils were notified of the 2013/2014 landings, the Spiny Lobster Review Panel was convened in February 2015 in compliance with the accountability measure established in Amendment 10. The 2015 Panel received multiple presentations on spiny lobster landings, biological information about the species, environmental factors that affect harvest, and economic characteristics of the fishery. Fishermen who attended the meeting pointed out that there was a new live market based on demand from China, and the harvest at the beginning of the calendar year allow them to supply the live market. The 2015 Review Panel did not make any recommendations to revise the OFL, ABC/ACL and ACT but did conclude that ACL/ACT management is not suitable for spiny lobster. In response, the Councils requested that NMFS

(National Marine Fisheries Service) consider an exemption for spiny lobster. However, under the current federal mandates, an exemption was not permitted.

The landings in 2014/2015 also exceeded the ACT, and the Councils reconvened the Review Panel via webinar in January 2016. The 2016 Review Panel reviewed landings and other factors that may affect spiny lobster catch, and viewed possible catch limits based on different time periods using a tool developed by Gulf Council staff. The 2016 Review Panel approved a motion (not unanimously) to recommend using the longer time period, starting in 1991, which better captures the dynamics of the fishery that are influenced by factors beyond spiny lobster biology and harvest. Recent studies suggest that there is internal recruitment, possibly more than previously assumed, and this was taken into consideration. It is also possible that the level of internal recruitment varies every year depending on environmental factors. The fishery is heavily regulated, including a cap on the number of traps, and a control on output (ACL) is likely not the most effective way to manage the fishery, relative to the input controls in place. Therefore the majority of the Review Panel approved the motion because the longer time period would include landings data from periods of low, medium and high levels. This time period would result in an ACL at a higher level than the current ACL, but also incorporates periods of low landings to establish a more precautionary catch limit than if the OFL/ABC/ACL was based on an (updated) most recent ten years (2006/07 through 2015/16).

In April 2016, the South Atlantic and Gulf Spiny Lobster Advisory Panels met jointly and also recommended using the time period of 1991 through 2015/2016 to determine the catch limits. The APs felt that the spiny lobster fishery was healthy and that the recent efforts to reduce ghost traps had helped to reduce mortality. Additionally, AP members pointed out that recent changes to vessels and fishing practices in order to supply lobsters to the live market have also helped to reduce mortality for undersized lobsters that are used as attractants.

The Gulf Council's Spiny Lobster SSC met in June 2016 and recommended using Tier 3a of the Gulf ABC Control Rule but use a longer time series of 1991-2015/2016 to re-specify the OFL and ABC for Spiny Lobster. The meeting summary is available here: http://gulfcouncil.org/council_meetings/BriefingMaterials/BB-06-2016/SSCmeetingsummary06-2016.pdf

In June 2016, the NMFS Southeast Regional Administrator sent a letter notifying the Councils that 2015/2016 spiny lobster landings had exceeded the ACT for the third year in a row. The letter outlined the recommendations from the Review Panel, Joint Advisory Panels, and the Gulf Spiny Lobster SSC, and specified that if the South Atlantic SSC concurred with those recommendations, then the Councils could revise the ACL for spiny lobster.

The South Atlantic SSC met in October 2016 and reviewed the recommendations from the Review Panel and the Gulf SSC. However, the South Atlantic SSC felt that there was not enough information provided and not enough time to fully review the available data to make an informed recommendation on catch levels for spiny lobster. The South Atlantic SSC met via webinar on November 21, 2016, and concurred with the Gulf SSC's OFL and ABC recommendations.

The Councils are also considering a prohibition on traps for recreational harvest of spiny lobster in the South Atlantic EEZ due to concerns about the number of traps used per individual (no limit); lack of effectiveness of traps to catch spiny lobster north of Florida; concern about negative effects on South Atlantic habitat without the benefits of effective gear; and concern about vertical lines that may interact with protected species.

1.2 Purpose and Need

The purpose of this amendment is to modify management benchmarks and measures for the Spiny Lobster FMP to prevent overfishing and to consider the restrictions on recreational traps.

The need for the action is to maintain the spiny lobster stock at a level that will produce optimum yield while preventing overfishing. Optimum yield is the level of sustainable harvest that provides the greatest economic, social, and ecological benefit to the nation.

1.3 History of Management

The Fishery Management Plan for Spiny Lobster in the Gulf of Mexico and the South Atlantic largely extended Florida's rules regulating the fishery to the exclusive economic zone (EEZ) throughout the range of the fishery, i.e., North Carolina to Texas. The FMP regulations were effective on July 2, 1982 (47 FR 29203).

Amendment 1/Environmental Assessment (EA) (1987) updated the FMP rules to be more compatible with that of Florida and made the following management measures: limited live undersized attractants to 100 per vessel, required live wells, required a commercial vessel permit, provided for a recreational permit, limited recreational possession to six lobsters, modified the special two-day recreational season before commercial season, modified the duration of the closed commercial season, provided a 10-day trap retrieval period, prohibited possession of egg-bearing spiny lobster, specified the minimum size limit for tails, provided for a tail separation permit, and prohibited possession of egg-bearing slipper lobster.

Amendment 2/EA (1989) modified the issues and objectives of the FMP, modified the optimum yield statement, established a regulatory amendment procedure for instituting future compatible state and federal rules without amending the FMP, and added vessel safety and habitat standards to the FMP.

Amendment 3/EA (1991) added a scientifically measurable definition of overfishing, outlined an action plan to prevent overfishing, and added the requirement for collection of fees for the administrative cost of issuing permits.

Regulatory Amendment 1/EA (1992) extended the Florida spiny lobster trap certificate system for reducing the number of traps in the commercial fishery to the EEZ off Florida; revised the FMP commercial permitting requirements; limited the number of live undersized lobster that could be used as attractants; specified allowable gear for commercial fishing in the EEZ off Florida, specified the possession limit of spiny lobsters by persons diving at night; required that lobsters harvested by divers be measured without removing from the water; and specified uniform trap and buoy numbers for the EEZ off Florida.

Regulatory Amendment 2/EA (1993) changed the days for the special recreational season in the EEZ off Florida; prohibited night-time harvest off Monroe County, Florida, during that season; specified allowable gear during that season; and created different bag limits during that season off the Florida Keys and the EEZ off other areas of Florida.

Amendment 4/EA (1995) allowed harvest year-round for any person limited to a daily bag and possession limit of two lobsters per person in the EEZ off North Carolina, South Carolina, and Georgia.

Amendments 5/EA (1998) identified essential fish habitat (EFH) and habitat areas of particular concern (HAPC) for spiny lobster in the South Atlantic (developed by the SAFMC).

Amendment 6/EA (1998) determined that the overfishing level for spiny lobster was a fishing mortality rate (F) in excess of F at 20% of the spawning potential ratio (developed by the SAFMC).

Generic Amendment EFH/EA(1999) identified EFH for spiny lobster in the Gulf (developed by the GMFMC).

Generic Amendment Sustainable Fisheries Act/EA (1999) updated the description of the spiny lobster fisheries and provided community assessment information for Monroe County (developed by GMFMC).

Amendment 7/Environmental Impact Statement (EIS) (2002) established the Tortugas Marine Reserves (developed by GMFMC).

Regulatory Amendment 3/EA (2002) specified that the holder of a valid crawfish license or trap number, lobster trap certificate, and state saltwater products license issued by Florida may harvest and possess, while in the EEZ off Florida, undersized lobster. However, possession may not exceed 50 in number per boat, and there may be no more than 1 trap aboard each boat if used exclusively for luring, decoying, or otherwise attracting non-captive lobster to traps.

Amendment 8/EIS (2008) restricted imports of spiny lobster into the U.S. to minimum conservation standards in an effort to achieve an increase in the spawning biomass of the stock and increase long-term yields from the fishery.

Amendment 9 (2009) provided spatial information for EFH and HAPC designations for species in the FMP in the South Atlantic (developed by the SAFMC).

Amendment 10/EIS (2012) established the ACL, ABC, ACT and AM for Caribbean spiny lobster; removed smoothtail spiny lobster, spotted spiny lobster, Spanish slipper lobster and ridged slipper lobster from the fishery management unit; defined MSY, overfished, and overfishing thresholds; updated the protocol for enhanced cooperative management; modified the regulations regarding the use of undersized lobster as bait and tailing permit requirements; and addressed the removal of abandoned traps in Florida waters.

Amendment 11/EIS (2012) implemented areas closed to trapping in the Florida Keys measures to protect threatened and endangered coral species compliant with the 2009 biological opinion on the spiny lobster fishery.

Amendment 12/EA (2014) consolidated the existing South Atlantic and Gulf of Mexico federal dealer permits; required permits for dealers and increased the frequency of federal dealer reporting from monthly to weekly; and established requirements to maintain a federal dealer permit.

CHAPTER 2. MANAGEMENT ALTERNATIVES

2.1. Action 1: Modify the Current Definitions of Management Benchmarks for Maximum Sustainable Yield, Overfishing Threshold, Overfished Threshold, Annual Catch Limit and Annual Catch Target for Caribbean Spiny Lobster

2.1 Action 1-1: Maximum Sustainable Yield (MSY) and Overfishing Threshold (Maximum Fishing Mortality Threshold [MFMT])

Alternative 1: No Action - The MSY proxy and MFMT are equal to the previous overfishing limit (OFL) as set by the Gulf and South Atlantic SSCs using the mean landings from the years 2001/2002-2009/2010 plus two standard deviations.

Alternative 2: The MSY proxy and MFMT will be equal to the revised OFL as recommended by the Gulf and South Atlantic SSCs using the mean landings from the years 1991/1992-2015/2016 plus two standard deviations.

Discussion:

This action considers the biological reference points for MSY and MFMT. MSY is defined as the largest long-term average catch or yield that can be taken from a stock or stock complex under prevailing ecological and environmental conditions. MFMT is the level or rate of fishing mortality that if exceeded, constitutes overfishing because it jeopardizes the capacity of a stock or stock complex to produce MSY on a continuing basis.

In Spiny Lobster Amendment 10 (GMFMC/SAFMC 2011), the MSY proxy was designated as the OFL recommended by the Gulf Council's Scientific and Statistical Committee (SSC). The OFL was determined by applying Tier 3a of the Gulf acceptable biological catch (ABC) Control Rule (Table 2.1.1) and using the mean of the most recent 10 years' landings (i.e., fishing years 2000/2001-2009/2010) plus two standard deviations from the mean.

The ABC control rule developed by the Gulf Council's SSC to set ABC for spiny lobster (Table 2.1.1) determines the appropriate level of risk and/or buffer to set between the OFL and ABC based on the amount of information for a given stock. Stocks with less information have greater scientific uncertainty, and therefore, the buffer between the OFL and ABC should be greater. Tier 3a was determined to be appropriate for spiny lobster because the assessment review panel rejected the SEDAR (Southeast Data, Assessment, and Review) update assessment, but landings data are available. Under this tier, the Gulf Council's SSC determined that it was appropriate to set OFL using the mean landings over the most recent 10 years plus two standard deviations. Based on population genetics and physical transport data presented, juvenile spiny lobster that settle in south Florida have a high probability of recruiting from several spawning populations throughout the greater Caribbean and are not locally self-recruited. Therefore, landings in south

Florida are unlikely to have a substantial effect on future recruitment. Since nearly all recruitment comes from outside the U.S., the stock is not at risk of undergoing overfishing.

Table 2.1.1. Gulf Council Acceptable Biological Catch Control Rule (GMFMC/SAFMC 2011).

Tier 1 Acceptable Biological Catch Control Rule	
Condition for Use	A quantitative assessment provides both an estimate of overfishing limit based on MSY or its proxy and a probability density function of overfishing limit that reflects scientific uncertainty. Specific components of scientific uncertainty can be evaluated through a risk determination table.
OFL	OFL = yield resulting from applying F_{MSY} or its proxy to estimated biomass.
ABC	The Council with advice from the SSC will set an appropriate level of risk (P^*) using a risk determination table that calculates a P^* based on the level of information and uncertainty in the stock assessment. ABC = yield at P^* .
Tier 2 Acceptable Biological Catch Control Rule	
Condition for Use*	An assessment exists but does not provide an estimate of MSY or its proxy. Instead, the assessment provides a measure of overfishing limit based on alternative methodology. Additionally, a probability density function can be calculated to estimate scientific uncertainty in the model-derived overfishing limit measure. This density function can be used to approximate the probability of exceeding the overfishing limit, thus providing a buffer between the overfishing limit and acceptable biological catch.
OFL	An overfishing limit measure is available from alternative methodology.
ABC	Calculate a probability density function around the overfishing limit measure that accounts for scientific uncertainty. The buffer between the overfishing limit and acceptable biological catch will be based on that probability density function and the level of risk of exceeding the overfishing limit selected by the Council. Risk of exceeding OFL = 50% Risk of exceeding OFL = 40% Risk of exceeding OFL = 30% (default) Set ABC = OFL – buffer at risk of exceeding OFL
Tier 3a Acceptable Biological Catch Control Rule	
Condition for Use*	No assessment is available, but landings data exist. The probability of exceeding the overfishing limit in a given year can be approximated from the variance about the mean of recent landings to produce a buffer between the overfishing limit and acceptable biological catch. Based on expert evaluation of the best scientific information available, recent historical landings are without trend, landings are small relative to stock biomass, or the stock is unlikely to undergo overfishing if future landings are equal to or moderately higher than the mean of recent landings. For stock complexes, the determination of whether a stock complex is in Tier 3a or 3b will be made using all the information available, including stock specific catch trends.

OFL	Set the overfishing limit equal to the mean of recent landings plus two standard deviations. A time series of at least ten years is recommended to compute the mean of recent landings, but a different number of years may be used to attain a representative level of variance in the landings.
ABC	Set acceptable biological catch using a buffer from the overfishing limit that represents an acceptable level of risk due to scientific uncertainty. The buffer will be predetermined for each stock or stock complex by the Council with advice from the SSC as:
	ABC = mean of the landings plus 1.5 * standard deviation (risk of exceeding OFL = 31%) ABC = mean of the landings plus 1.0 * standard deviation (default)(risk of exceeding OFL = 16%) ABC = mean of the landings plus 0.5 * standard deviation (risk of exceeding OFL = 7%) ABC = mean of the landings (risk of exceeding OFL = 2.3%)
Tier 3b Acceptable Biological Catch Control Rule	
Condition for Use*	No assessment is available, but landings data exist. Based on expert evaluation of the best scientific information available, recent landings may be unsustainable.
OFL	Set the overfishing limit equal to the mean of landings. A time series of at least ten years is recommended to compute the mean of recent landings, but a different number of years may be used to attain a representative level of variance in the landings.
ABC	Set acceptable biological catch using a buffer from the overfishing limit that represents an acceptable level of risk due to scientific uncertainty. The buffer will be predetermined for each stock or stock complex by the Council with advice from its SSC as: ABC = 100% of OFL ABC = 85% of OFL ABC = 75% of OFL (default) ABC = 65% of OFL

Note 1: Changes in the trend of a stock's landings or a stock complex's landings in three consecutive years shall trigger a reevaluation of their acceptable biological catch control rule determination under Tiers 2, 3a, or 3b.

Note 2: There may be situations in which reliable landings estimates do not exist for a given data-poor stock. The approach and methodology for setting OFL and ABC will be determined on a case-by-case basis, based on expert opinion and the best scientific information available.

Established in Spiny Lobster Amendment 10 (GMFMC/SAFMC 2011), this time series represented a period of at least ten years that reflected the most recent conditions of the fishery, and were also relatively stable. The landings from 2010-2016 provide additional time series data to consider for setting the OFL (Table 1.1). As discussed in section 1.1, the landings exceeded the ACT in 2013/2014, 2014/2015, and 2015/2016, and exceeded the ACL in 2013/2014 and 2015/2016. Based on the established accountability measures (AMs), a review panel was convened to discuss the exceedances. The Gulf and South Atlantic SSCs reviewed the status and

information on spiny lobster, and recommended expanding the time series for the calculation of the OFL to use the time period of 1991 through 2015/2016.

Due to biomass estimates for spiny lobster being unreliable based on the assessment update and resultant Council SSC determinations, both the MSY level and MFMT are unknown. However, the benchmarks are described for the SEDAR 8 (2005) and the update assessment (2010) in Table 2.1.2. For Spiny Lobster Amendment 10 (GMFMC/SAFMC 2011), the Gulf Council requested, and the South Atlantic SSC concurred that the MFMT be defined by the recommended OFL at 7.90 mp. The proxy of F20%SPR for F_{MSY} was used to estimate this value in both the update and benchmark assessments (Table 2.1.2). The value estimated from the update assessment for MFMT was 0.45 per year which is very close to the estimate calculated from the benchmark assessment at 0.49 per year. These estimates are based on a fishing mortality rate at MSY, or in the case of spiny lobster, a proxy for F_{MSY} defined as F20%SPR. The Councils concluded that the landings-based estimate was more appropriate for the MFMT rather than using the fishing mortality proxy. Since the MSY proxy was the OFL=7.90 mp, specifying the overfishing threshold at a rate that exceeds 7.90 mp was appropriate.

Table 2.1.2. Management benchmarks for Spiny lobster in the southeastern United States.

Criterion	Description	Definition	Unaccepted Values 2010 Update Assessment	Accepted Values from SEDAR 8 2005
MSY	Maximum Sustainable Yield	Yield@F20%SPR	7.95 mp	Not estimated
MFMT	Maximum Fishing Mortality Threshold	$F_{MSY} = F20\%SPR$	0.45 per year	0.49 per year

Source: Update Assessment Review Workshop Report 2010 (unaccepted assessment values) and SEDAR 8 Benchmark Assessment 2005.

Alternative 1 would retain the current MSY proxy and MFMT, which were set equal to the OFL (7.9 mp) based on the applying the Tier 3a Gulf ABC Control Rule and the mean landings from the years 2001/02-2009/10 plus two standard deviations.

Alternative 2 would integrate the extended time series information from the mean landings of the years 1991/1992- 2015/2016 plus two standard deviations to calculate the OFL (10.46 mp), as recommended by the Gulf and South Atlantic SSCs in 2016 and also adhering to the Tier 3a Gulf ABC Control Rule. The MSY proxy and MFMT would be set equal to the OFL, which is consistent with the method used to set these biological reference points in Spiny Lobster Amendment 10 (GMFMC/SAFMC 2011). Extending the mean landings time series to include 1991/1992 through 2015/2016 increases the OFL by 2.56 mp (to 10.46 mp). Incorporating the longer time period and also including the most recent four years, the MSY proxy and MFMT are expected to better capture the dynamics of the fishery, which are based on factors beyond biology and harvest.

2.2 Action 1.2: Modify the Annual Catch Limit (ACL) and Annual Catch Target (ACT) for Spiny Lobster

Alternative 1: No Action – The current ACL is equal to the ABC recommended by the Gulf and South Atlantic SSCs using the mean landings from the years 2001/02-2009/10 plus 1.5 standard deviations (7.32 mp). The ACT is 90% of the ACL (6.59 mp).

Alternative 2: The ACL is equal to the ABC as recommended by the Gulf and South Atlantic SSCs using the mean landings from the years 1991/92-2015/16 plus 1.5 standard deviations (9.6 mp). The ACT is 90% of the new ACL (8.64 mp).

Discussion:

In Spiny Lobster Amendment 10 (GMFMC/SAFMC 2011), the Gulf and South Atlantic Councils set the spiny lobster ABC as the mean landings from the years 2001/02-2009/10 plus 1.5 standard deviations. The amendment also set the spiny lobster ACL equal to the ABC and the ACT equal to 90% of the ACL. There has not been an approved stock assessment for spiny lobster since 2005. In 2010, the Review Panel rejected the assessment update of SEDAR 8 because the Panel had no confidence in the reference points. Caribbean-wide spiny lobster stock and spawning biomass cannot be determined.

Since implementation of the OFL, ACL, and ACT in 2012, the ACT has been exceeded three times (2013/14, 2014/15, and 2015/16), the ACL has been exceeded twice (2013/14 and 2015/16), the OFL has been exceeded once (2013/14) (Table 1.1.1). The AM for spiny lobster is to convene a review panel if the ACT is exceeded; if the ACL is exceeded twice in a four-year period, then the ACL needs to be reevaluated (Amendment 10; GMFMC/SAFMC 2011). Thus, a Review Panel was convened in February 2015 and reconvened in March 2016. Both the SAFMC and the GMFMC's SSCs reviewed the 2015 and 2016 summaries from the Review Panel.

The Review Panel was provided with the available biological and economic information for the species. The discussion included the rationale previously used for setting the time period at the historic low level of landings that were documented for the species (i.e. it was thought that biological conditions had changed and that spiny lobster populations were at a new low normal). Since landings have been much higher than anticipated, the Review Panel reevaluated this rationale and determined that conditions for spiny lobster are likely better than they were during the 10 year period of low landings. The 2015 Review Panel did not recommend a new stock assessment and did not recommend changes to the calculation method for the OFL, ABC, and ACL. The 2016 Review Panel recommended that the entire time series of landings (1991/92 through the most recent landings) be used to calculate management metrics as the entire time series accounts for all variability in the fishery.

A joint meeting of the South Atlantic and Spiny Lobster advisory panels (APs) was held in Key Largo, Florida on April 25, 2016. The APs concurred that the entire time series of landings should be used to calculate the ACL and thus, the ACT. However, the APs also noted that much of the information that is used to evaluate spiny lobster is based on old monitoring programs and urged the Councils to consider making spiny lobster a priority species for size monitoring. The

AP also expressed that the Councils should monitor the stock for any underages, as this would be a clearer indication of an issue with the fishery. At this meeting, the APs expressed concern that the Review Panel would only catch overages, but that an under-harvest for more than two consecutive years would be a clearer indication of a problem in the fishery. Therefore, the APs recommended a review panel will be convened if the landings are below the average of the three low landings years 2001/02, 2002/03, and 2003/04 (5.3 mp) for two consecutive years to make recommendations on whether or not the fishery management metrics need reevaluation.

At its September 2016 meeting, the Gulf SSC reevaluated the ABC and changed the years used to calculate the ABC from 2001/02-2009/10 to 1991/92-2014/15. The South Atlantic SSC made the same recommendation at its meeting via webinar in November 2016. Thus, it is allowable for the ACL to be changed based on the ABC to use the years proposed by both the Review Panel and the Spiny Lobster APs.

2.3 Action 2: Prohibit the Use of Traps for Recreational Harvest of Spiny Lobster in the South Atlantic Exclusive Economic Zone (EEZ)

Alternative 1: No Action – Traps are prohibited gear for recreational harvest of spiny lobster in the EEZ off Florida waters, but are not prohibited for recreational harvest of the species in other parts of the South Atlantic EEZ. Traps must comply with requirements for vessel and gear identification, trap construction, and harvest limits as specified by [50 CFR Part 622](#).

Alternative 2: Prohibit the use of traps for recreational harvest of spiny lobster in the South Atlantic EEZ.

Discussion:

The South Atlantic Council is concerned about the use of traps for recreational harvest in the South Atlantic EEZ. Recreational traps are not permitted in Florida state waters or the EEZ off Florida, but are allowable gear for recreational harvest of spiny lobster in the EEZ off Georgia, South Carolina and North Carolina. In general, there has been little interest in harvesting spiny lobster north of Florida with traps. Individuals who want to use traps for recreational spiny lobster harvest outside of Florida must comply with federal regulations for gear and vessel identification, traps construction, and harvest limits in [50 CFR Part 622](#) (the same regulations apply to commercial harvest with traps in Florida waters). Table 2.3.1 provides a summary of the regulations.

In December 2016, the South Atlantic Council directed staff to recommend an action be included in Regulatory Amendment 4 to prohibit recreational traps for spiny lobster harvest throughout the South Atlantic EEZ. The South Atlantic Council is concerned about the number of traps used per individual (no limit); lack of effectiveness of traps to catch spiny lobster north of Florida in the South Atlantic EEZ; concern about negative effects on South Atlantic habitat without the benefits of effective gear; and concern about vertical lines that may interact with protected species.

Table 2.3.1. Summary of regulations that apply to recreational traps for spiny lobster harvest

<p>Vessel and Gear Identification</p> <ul style="list-style-type: none"> - Federal vessel permit number displayed and identifiable from air and water - Vessel's color code must be displayed above the vessel's federal permit number - A buoy must be attached to each trap or string of traps, with the vessel's color code and permit number - Abandoned traps or buoys are the owner's responsibility
<p>Prohibited Gears/Methods</p> <ul style="list-style-type: none"> - Spear, hook or similar device - Use of net or trawl in a directed fishery - Poisons or explosives
<p>Trap Construction and Tending</p> <ul style="list-style-type: none"> - No larger than 3ft x 2ft x 2ft or volume equivalent - If trap is not wood, it must have a panel made of wood or other material that degrades at the same rate and must allow an opening no smaller than the entrance of the trap when it is removed - Traps pulled or tended in daylight hours only by the trap owner (exception with permission of or RA)
<p>Harvest Regulations</p> <ul style="list-style-type: none"> - Minimum size limit 3" carapace length - Recreational traps are prohibited (other gear types limited to 6/person/day) - Commercial and recreational limit in other South Atlantic states is 2/person/day - Florida season is August 6 – March 31; other states harvest is year-round - Harvest of berried lobsters prohibited - Lobsters must be landed intact unless a vessel has a federal commercial tailing permit - Bag limit sales prohibited

CHAPTER 3. REFERENCES

GMFMC and SAFMC. 2011. Amendment 10 to the Fishery Management Plan for Spiny Lobster in the Gulf of Mexico and South Atlantic. Gulf of Mexico Fishery Management Council, 2203 North Lois Avenue, Suite 1100, Tampa, Florida 33607. South Atlantic Council, 4055 Faber Place, Suite 201, North Charleston, South Carolina 29405.