

Modifications to the Spiny Lobster Gear Requirments and Cooperative Management Procedures



Photo credit Ben Gutzler

Draft Options Amendment 13 to the Fishery Management Plan for Spiny Lobster in the Gulf of Mexico and the South Atlantic

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

January 2018



This is a publication of the Gulf of Mexico Fishery Management Council Pursuant to National Oceanic and Atmospheric Administration Award No. NA15NMF4410011.

This page intentionally left blank

ENVIRONMENTAL ASSESSMENT COVER SHEET

Type of Action

Administrative
 Draft

Legislative
 Final

Responsible Agencies:

National Marine Fisheries Service
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701
727-824-5305
727-824-5308 (fax)
<http://sero.nmfs.noaa.gov>
Contact: Kelli O'Donnell
kelli.odonnell@noaa.gov
Contact: Nikhil Mehta
Nikhil.Mehta@noaa.gov

Gulf of Mexico Fishery Management
Council
2203 North Lois Avenue, Suite 1100
Tampa, Florida 33607
813-348-1630
813-348-1711 (fax)
<http://www.gulfcouncil.org>
Contact: Morgan Kilgour
morgan.kilgour@gulfcouncil.org

South Atlantic Fishery Management Council
4055 Faber Place Dr., Suite 201
North Charleston, SC 29405
843-571-4366
www.safmc.net
Contact: Christina Wiegand
Christina.Wiegand@safmc.net

ABBREVIATIONS USED IN THIS DOCUMENT

ABC	acceptable biological catch
ACL	annual catch limit
ACT	annual catch target
AM	accountability measure
ASMFC	Atlantic States Marine Fisheries Commission
BiOp	biological opinion
CFR	code of federal regulations
Councils	Gulf of Mexico and South Atlantic Fishery Management Councils
DPS	distinct population segments
EA	environmental assessment
EEZ	exclusive economic zone
EFH	essential fish habitat
EIS	environmental impact statement
ESA	Endangered Species Act
FAC	Florida Administrative Code
FMP	fishery management plan
FWC	Florida Fish and Wildlife Conservation Commission
GMFMC	Gulf of Mexico Fishery Management Council
GSMFC	Gulf States Marine Fisheries Commission
Gulf	Gulf of Mexico
Gulf Council	Gulf of Mexico Fishery Management Council
HAPC	Habitat Area of Particular Concern
IPCC	Intergovernmental Panel on Climate Change
Magnuson-Stevens Act	Magnuson-Stevens Fishery Conservation and Management Act
MMPA	Marine Mammal Protection Act
MSY	maximum sustainable yield
NARW	North Atlantic right whales
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Agency
OFL	overfishing limit
RA	Regional Administrator
SAFMC	South Atlantic Fishery Management Council
Secretary	Secretary of Commerce
SERO	Southeast Regional Office
Spiny Lobster FMP	Fishery Management Plan for the Spiny Lobster Fishery of the Gulf of Mexico and South Atlantic
South Atlantic Council	South Atlantic Fishery Management Council
SSC	Scientific and Statistical Committee
tpy	tons per year
USCG	United States Coast Guard
USFWS	United States Fish and Wildlife Service

TABLE OF CONTENTS

Environmental Assessment Cover Sheet	i
Abbreviations Used in this Document	ii
Table of Contents	iii
List of Tables	iv
List of Figures	v
Chapter 1. Introduction	1
1.1 Background	1
1.2 Purpose and Need	4
1.3 History of Management	4
Chapter 2. Management Alternatives	7
2.1. Action 1 – Establish an endorsement, marking requirements, and gear prohibitions for bully net gear in the exclusive economic zone (EEZ) off Florida.....	7
2.2. Action 2: Commercial spiny lobster bully net and dive gear trip limits in the EEZ off Florida	9
2.3. Action 3: Specification of degradable panels in spiny lobster traps in the EEZ off Florida	11
2.4. Action 4: Harvesting restrictions near artificial habitat in the EEZ off Florida	13
2.5. Action 5: Establish an enhanced cooperative management procedure for federal and Florida state agencies for the management of spiny lobster	15
Chapter 3. Affected Environment	18
3.1 Description of the Fishery	18
3.2 Description of the Physical Environment.....	21
3.3 Description of the Biological/Ecological Environment	25
3.4 Description of the Administrative Environment	30
3.4.1 Federal Fishery Management.....	30
3.4.2 State Fishery Management.....	31
Chapter 4. List of Agencies, Organizations, and Persons Consulted.....	33
Chapter 5. References	35
Appendix A. Florida Administrative Code on Spiny Lobster	40
Appendix B. Inconsistencies between state and Federal Regulations	54
Appendix C. Exiting Cooperative Management Protocol Between the Councils and Florida....	60

LIST OF TABLES

Table 3.1.1. Florida landings of spiny lobster, by sector, gear and recreational license type (million pounds, whole weight (ww)).....	20
Table 3.3.1. Total Gulf greenhouse gas 2014 emissions estimates.....	25
Table 3.4.2.1. Gulf and South Atlantic state marine resource agencies and web pages.	32

LIST OF FIGURES

Figure 1.1.1. Proportion of commercial lobster landings by gear type.....	2
Figure 1.1.2. Number of commercial bully net participants by fishing season.	2
Figure 3.2.1. Mean annual sea surface temperature derived from the Advanced Very High Resolution Radiometer Pathfinder Version 5 sea surface temperature data set.	22

CHAPTER 1. INTRODUCTION

1.1 Background

Bully Netting in Federal Waters

A bully net is a type of gear for harvesting spiny lobster that generally consists of a mesh net with a long handle (Figure 1.1.1). This type of gear is typically used in shallow waters at night when spiny lobster move away from structure. The bully net gear type pre-dates the use of spiny lobster traps and currently comprises 3% of spiny lobster landings (Figure 1.1.2); participation has steadily increased in recent years (Figure 1.1.2 and Figure 1.1.3) with landings using this gear type increasing from 1% to 3.4% of total landings in one year. Additionally, bully net harvest of spiny lobster peaks early in the season and accounts for a larger portion of the catch during this time. Currently there is little information indicating bully net harvest landings occur in federal waters. The proposed actions in this document would simplify the regulations for both anglers and law enforcement by maintaining consistency in all waters off Florida.

- *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.

Constituents expressed concerns to Florida Fish and Wildlife Conservation Commission (FWC) about increased participation in the open-access bully net component of the spiny lobster fishery along with growing conflicts between recreational bully netters, commercial bully netters, and other members of the public such as waterfront homeowners. Participants in the commercial bully net fishery requested that FWC develop and implement an endorsement program and all stakeholders requested other regulatory measures to address the additional concerns. Options discussed by FWC included: 1) Commercial bully net license requirements, 2) commercial bully net harvest limits, and 3) other potential management measures such as limiting multiple gear types to be on board when bully netting.

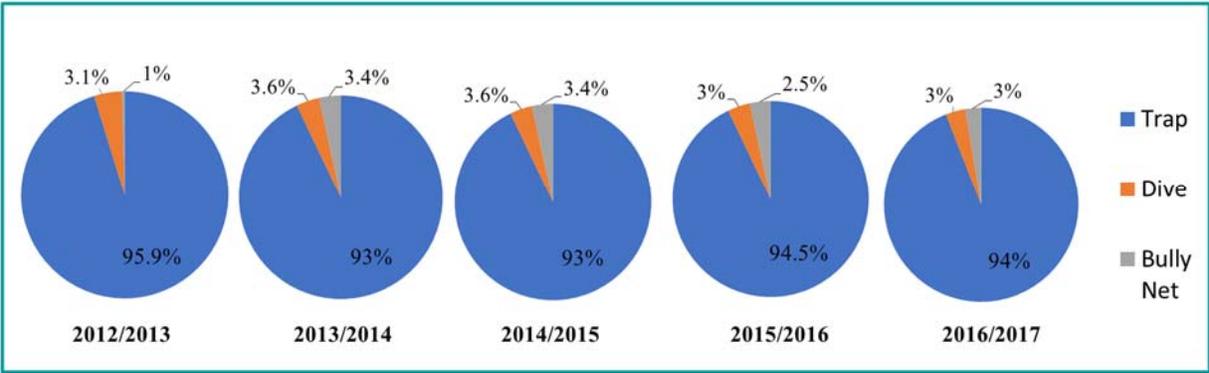


Figure 1.1.1. Proportion of commercial lobster landings by gear type.

Source: Florida Trip Ticket records; October 2, 2017.

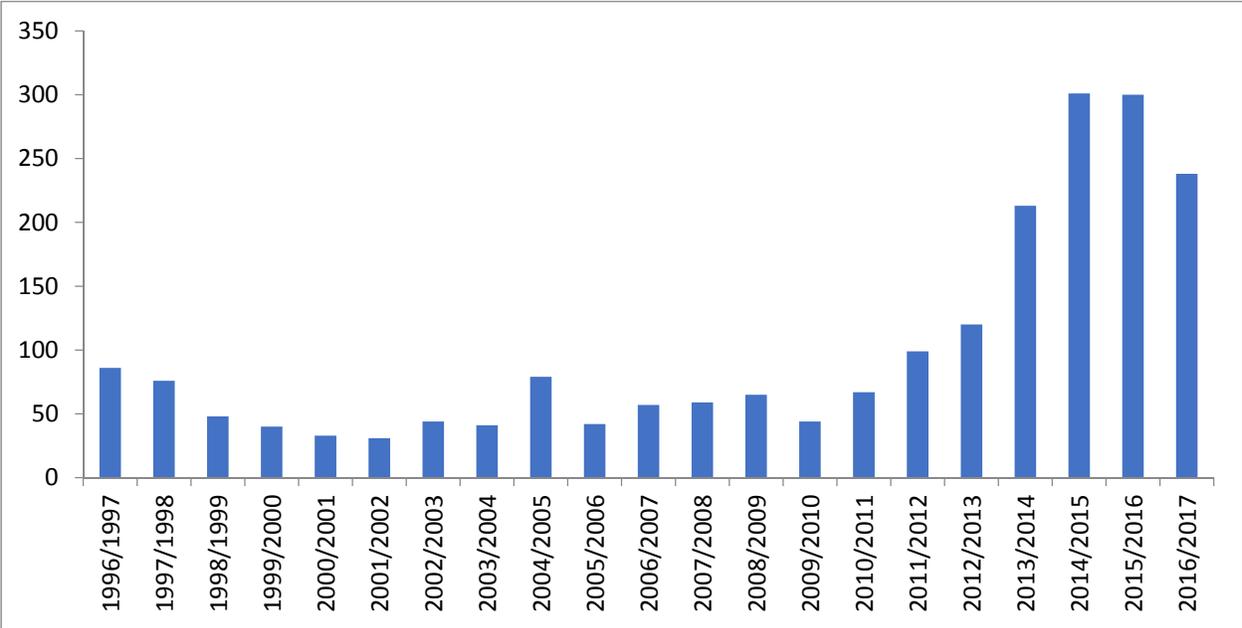


Figure 1.1.2. Number of commercial bully net participants by fishing season.

Source: Florida Trip Ticket records; October 2, 2017.

FWC held public workshops, public commission meetings, and statewide marine fisheries workshops beginning in 2014 to work with stakeholders on changes to regulations concerning bully netting of spiny lobster. FWC, based on input from these workshops and from its staff, proposed options that would allow FWC to better quantify participation in the commercial bully net fishery, while continuing to allow entry into the fishery, and address other industry and stakeholder concerns. Public hearings were held and the following new regulations were approved by FWC:

1. Update the definition of “commercial harvester” as used in Chapter 68B-24, FAC, to include harvesters with a commercial bully net endorsement.

2. Create an open-access bully net endorsement that would be required in conjunction with the harvester's saltwater products license and restricted species and crawfish endorsements for commercial harvest of spiny lobster with a bully net.
3. Require any vessel used for commercial harvest of spiny lobster with a commercial bully net to be marked with the harvester's bully net endorsement number in reflective paint and prohibit trap pullers aboard commercial bully net vessels.
4. Prohibit the simultaneous possession of a bully net and any underwater breathing apparatus, as defined in 68B-4.002, FAC, aboard a vessel being used to harvest or transport spiny lobster for commercial purposes.

The rule implementing these regulations was approved by FWC in February 2017 and took effect May 1, 2017.

In the spring of 2017, FWC submitted these rules and associated administrative record to National Marine Fisheries Service (NMFS) and the Gulf of Mexico (Gulf) and South Atlantic Fishery Management Councils (Councils) for implementation under the framework procedure put in place with Amendment 2 to the Fishery Management Plan (FMP) for the Spiny Lobster Fishery of the Gulf of Mexico and South Atlantic (Spiny Lobster FMP) (GMFMC and SAFMC 1989). Under that procedure, NMFS had authority to implement the state proposed rules in the exclusive economic zone (EEZ) off Florida provided they were consistent with the protocol and procedure and the Councils did not object. However, in Spiny Lobster Amendment 10 (GMFMC and SAFMC 2011), the framework protocol was updated and the procedure which would allow FWC to directly submit regulations to NMFS was removed. This, in effect, does not allow FWC to propose rules directly to NMFS, but, instead, any changes proposed by FWC for federal regulations must go through the Council process of either a framework or full amendment (depending on the action needed).

Spiny Lobster Protocol and Procedure for an Enhanced Cooperative Management System

The original Spiny Lobster FMP, implemented in July 1982 (GMFMC and SAFMC 1982), largely complemented Florida's management regime and provided protection for the fishery throughout its range. The Spiny Lobster FMP provided management authority only for that part of the fishery operating in the EEZ; the fishery within state waters remained under Florida's authority. To achieve its conservation and management objectives and to effectively coordinate management with Florida, the Spiny Lobster FMP adopted many of the management measures employed by Florida. However, certain Florida lobster regulations were not initially adopted by the Councils. These incompatibilities occurred primarily because Florida's system could adjust management measures more quickly than the federal system.

Concern over the difficulties experienced in implementing compatible regulations prompted the Councils to pursue an alternative state/federal management structure that would optimize the use of limited state and federal resources, prevent duplication of effort, and make maximum use of the existing Florida regulations. In 1992, Amendment 2 was implemented (GMFMC and SAFMC 1989) which allowed FWC to propose Florida regulations for implementation in the exclusive economic zone (EEZ) through NMFS by the procedure. This procedure was based on the premise that more timely regulatory mechanisms were needed at the federal level and that a

more formal mechanism was needed for state and federal coordination. Any regulations proposed under the procedure were required to be consistent with the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), objectives of the Spiny Lobster FMP, and other applicable federal law.

In 2017, FWC contacted the NMFS Southeast Regional Office (SERO) requesting that federal regulations be aligned with Florida regulations for commercial harvest of spiny lobster using bully nets. However, NMFS determined that the previous cooperative management procedure for the spiny lobster protocol established in Amendment 2 was inadvertently removed in 2012 with Spiny Lobster Amendment 10; therefore, FWC could not propose rules directly to NMFS for implementation. The protocol still exists but there currently is not a way to implement Florida proposed regulations without Council action.

This amendment addresses the bully netting regulations proposed by Florida, and addresses reinstating the procedure, which would allow Florida to directly submit proposed regulations to NMFS.

1.2 Purpose and Need

The purpose of this action is to align federal regulations for spiny lobster that apply to the exclusive economic zone off Florida with Florida state regulations, re-establish the procedure for the protocol for an enhanced cooperative management system, and update management measures to aid law enforcement. The need for this action is to effectively manage and enforce the harvest of spiny lobster to prevent overfishing while achieving optimum yield.

1.3 History of Management

The Spiny Lobster FMP largely extended Florida's regulations for the fishery to the EEZ throughout the range of the fishery, i.e., North Carolina to Texas. The original Spiny Lobster FMP regulations were effective on July 2, 1982.

Amendment 1/Environmental Assessment (EA) (1987) updated the Spiny Lobster FMP rules to be more compatible with those 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 2-day recreational season before the 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, established a tail separation permit, and prohibited possession of egg-bearing slipper lobster.

Amendment 2/EA (1989) modified the issues and objectives of the Spiny Lobster FMP, modified the optimum yield, established a regulatory amendment procedure for instituting future compatible state and federal rules, and added vessel safety and habitat standards to the Spiny Lobster 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 spiny lobster 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 South Atlantic Council).

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 South Atlantic Council).

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

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 the Gulf Council).

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

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 one 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/EIS (2009) provided spatial information for EFH and habitat area of particular concern (HAPC) designations for species in the Spiny Lobster FMP in the South Atlantic (developed by the South Atlantic Council as the generic Comprehensive Ecosystem-Based Amendment 1).

Amendment 10/EIS (2012) established the acceptable biological catch (ABC), annual catch limit (ACL), annual catch target (ACT) and accountability measures (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 maximum sustainable yield (MSY), overfished, and overfishing thresholds; updated the protocol for enhanced cooperative management and the framework procedure; 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/supplemental EIS (2012) implemented areas closed to trapping in the Florida Keys to protect threatened and endangered coral species compliant with the 2009 biological opinion on the spiny lobster fishery.

Generic Amendment Dealer Reporting Requirements/EA (Amendment 12) (2014) consolidated the existing South Atlantic and Gulf 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.

Regulatory Amendment 4 (not yet implemented) updates the overfishing limit (OFL), ACL, and ACT to incorporate a longer time series of landings. This amendment prohibits the use of traps for recreational harvest of spiny lobster in the EEZ off Georgia, South Carolina, and North Carolina.

CHAPTER 2. MANAGEMENT ALTERNATIVES

2.1. Action 1 – Establish an endorsement, marking requirements, and gear prohibitions for bully net gear in the exclusive economic zone (EEZ) off Florida

Alternative 1: No Action. Do not establish an endorsement for bully net gear or regulations related to bully nets for spiny lobster commercial harvesters in the EEZ off Florida in the Gulf of Mexico (Gulf) and the South Atlantic.

Alternative 2: Establish an endorsement for bully nets and align federal regulations to be consistent with Florida regulations for spiny lobster commercial harvesters *using bully net gear* by implementing the following:

- Require commercial bully net vessels in the EEZ off Florida to have a bully net endorsement from Florida
- Require that the vessel be marked with the harvester’s Florida bully net endorsement number using reflective paint or other reflective material
- Prohibit commercial bully net vessels from having trap pullers onboard
- Prohibit the simultaneous possession of a bully net and any underwater breathing apparatus (not including dive masks or snorkels) onboard a vessel used to harvest or transport spiny lobster for commercial purposes.

Note: For details on specific language related to items above, the reader is referred to Appendix A and Table 1 of Appendix B.

Discussion:

The National Marine Fisheries Service (NMFS) acknowledges there are two alternatives for this action. Section 1502.14(a) of the National Environmental Policy Act (NEPA) states that “agencies shall: rigorously explore and objectively evaluate all reasonable alternatives...” NMFS and the Gulf of Mexico Fishery Management Council and South Atlantic Fishery Management Council (Councils) have identified two reasonable alternatives for this action, including the no action alternative.

In federal waters, no regulations impose prohibitions on the use of bully net gear. Permits and vessel markings are not required, nor are additional gear types prohibited on bully net vessels.¹

Alternative 2 would make regulations in the EEZ off Florida in the Gulf of Mexico and South Atlantic consistent with the changes made by the State of Florida in its regulations (Table 1 in Appendix B).

Effective May 1, 2017, Florida implemented the following changes based on the noted rationale:

¹ Current regulations under **Alternative 1** (No Action) for the harvest and management of spiny lobster in the state waters of Florida are at <http://www.myfwc.com/fishing/saltwater/commercial/spiny-lobster/> (Appendix A).

- Created an open-access commercial bully net lobster endorsement available to commercial fishers who hold a crawfish endorsement. This will help provide better data on this sector.
- Required commercial bully net vessels be marked with the commercial bully net permit number displayed and be permanently affixed vertically to both the starboard and port sides of the vessel using opaque retroreflective paint or other opaque retroreflective material in numerals no smaller than 4 inches in height. This will make the vessels readily identifiable as participants in the commercial bully net fishery.
- Prohibited trap pullers on commercial bully net vessels. Trap pullers are any mechanical devices used to retrieve or capable of retrieving a trap used to harvest marine life. An anchor winch at or near the bow of a vessel is not considered a trap puller. This will prevent fishers from using the bully net fishery as a cover for illegal activity.
- Prohibited the simultaneous possession of a bully net and any underwater breathing apparatus (not including dive masks or snorkels) aboard a vessel used to harvest or transport lobster for commercial purposes. “Underwater breathing apparatus” means any apparatus, whether self-contained or connected to a distant source of air or other gas, whereby a person wholly or partially submerged in water is able to obtain or reuse air or any other gas or gasses for breathing without returning to the surface of the water. This will address user conflicts among the recreational and commercial sectors, and other members of the public.
- Updated the definition of “commercial harvester” to include the bully net endorsement. This will address user conflicts among the recreational and commercial sectors, and other members of the public.

In addition to the rationale discussed above, consistency between federal and Florida state regulations under **Alternative 2** will improve enforcement. Public testimony includes statements such as possible illegal use of commercial gear and trap robbing from federal waters at night by bully net fishers. The measures under **Alternative 2** such as reflective paint would aid law enforcement to identify the perpetrators at night and curb illegal use of commercial gear. Additionally, consistency in regulations between federal and state waters reduces confusion among the fishers and can be expected to aid in compliance with regulations.

NMFS would still continue to require the state permit (Appendix A). **Alternative 2** would also require the bully net endorsement from the state of Florida.

2.2. Action 2: Commercial spiny lobster bully net and dive gear trip limits in the EEZ off Florida

Alternative 1. No Action. Do not establish a commercial daily vessel harvest and possession limit for spiny lobster harvested by bully net or dive gear in the EEZ off Florida.

Alternative 2. Establish a commercial daily vessel harvest and possession limit of 250 per day/vessel for spiny lobsters harvested by bully net in or from the entire EEZ off Florida.

Alternative 3. Establish a commercial daily vessel harvest and possession limit of 250 per day/vessel for spiny lobsters harvested by diving in or from only the EEZ off Broward, Dade, Monroe, Collier, and Lee Counties, Florida.

Note: In Action 2, both Alternative 2 and Alternative 3 could be selected as preferred.

Discussion:

Commercial spiny lobster harvested by dive gear is currently restricted by a daily vessel harvest and possession limit of 250 per day in state waters off Broward, Dade, Monroe, Collier, and Lee Counties, Florida. There is not a daily vessel harvest and possession limit for dive harvest off other counties in Florida. Commercial spiny lobster harvested by bully net is further restricted by having a daily vessel harvest and possession limit of 250 per day in all Florida state waters. Currently there is not a commercial daily vessel harvest and possession limit for spiny lobster harvested by bully net or dive gear in the EEZ (**Alternative 1**). However, Florida commercial spiny lobster bully net and dive fishermen are restricted to the limit regardless of what waters the spiny lobster are harvested in as a condition of their state permit and license requirements.

The range of alternatives in this action are based on retaining inconsistent commercial daily vessel harvest and possession limits for spiny lobster or adopting a commercial daily vessel harvest and possession limit to be consistent with Florida's commercial bully net (**Alternative 2**) and commercial dive gear harvest regulations (**Alternative 3**).

Alternative 1 would not modify the federal regulations to establish a commercial daily vessel harvest and possession limit for spiny lobster harvested by bully net or dive gear in the EEZ off Florida. There is little information available on how much, if any, bully net harvest is conducted in federal waters. Landings records indicate dive harvest is regularly conducted in state and federal waters. Florida spiny lobster bully net and dive permits restrict the fishermen to the harvest and possession limit regardless of whether they are caught fishing in state or federal waters. This alternative would continue the inconsistency between state and federal water regulations off Florida even though fishermen would still have to abide by the limit.

Alternative 2 would modify federal regulations and establish a commercial daily vessel harvest and possession limit of 250 per day for spiny lobsters harvested by bully net in or from the EEZ off Florida. While little information exists indicating bully net harvest landings occur in federal

waters, this alternative would simplify the harvest regulations for both anglers and law enforcement by maintaining consistency in all waters off Florida.

Alternative 3 would modify federal regulations and establish a commercial daily vessel harvest and possession limit of 250 per day for spiny lobsters harvested by diving in or from the EEZ off Broward, Dade, Monroe, Collier, and Lee Counties, Florida, only. Similar to **Alternative 2**, **Alternative 3** would ease understanding of regulations and enforcement issues by aligning state and federal regulations.

2.3. Action 3: Specification of degradable panels in spiny lobster traps in the EEZ off Florida

Alternative 1. No Action. In the EEZ off Florida, a spiny lobster trap constructed of material other than wood must have a panel constructed of wood, cotton, or other material that will degrade at the same rate as a wooden trap. Such panel must be located in the upper half of the sides or on top of the trap, so that, when removed, there will be an opening in the trap no smaller than the diameter found at the throat or entrance of the trap.

Alternative 2. In the EEZ off Florida, a spiny lobster trap constructed of material other than wood is required to have a degradable panel no smaller than 6 inches by 4 inches or no smaller than the dimensions of the throat or entrance of the trap, whichever is larger, and shall be constructed of cypress or untreated pine slats no thicker than $\frac{3}{4}$ in (0.6 cm). This degradable panel must be located on the top horizontal section of the trap.

Discussion:

Degradable panel requirements in Florida state waters are more specific than those in federal waters and there are several inconsistencies between the two sets of regulations. In federal waters, degradable panels may be constructed of any material that will degrade at the same rate as wood. In Florida state waters degradable panels must be constructed of cypress or untreated pine slats that are no thicker than $\frac{3}{4}$ inch. In federal waters, degradable panels, when removed, must create an opening in the trap no smaller than the diameter found at the throat or entrance of the trap. In Florida state waters, degradable panels, when removed, must create an opening no smaller than 6 inches by 4 inches or no smaller than the dimensions of the throat or entrance of the trap, whichever is larger. Finally, in federal waters degradable panels may be located in the upper half of the sides or on top of the trap. In Florida state waters, the degradable panel must be located on the top horizontal section of the trap. Spiny lobster traps are primarily utilized in the EEZ off Florida, though are occasionally utilized elsewhere in the South Atlantic and Gulf EEZ.

Alternative 1 would not update regulations for degradable panels in spiny lobster traps in federal waters off Florida and would continue the inconsistency between state and federal requirements for degradable panels in spiny lobster traps.

Alternative 2 would modify federal regulations for degradable panels in spiny lobster traps and update the panel material, size and location requirements to match those in Florida state waters. While wooden spiny lobster traps are most common, traps constructed of material other than wood are occasionally utilized, particularly in deeper waters where trap stability and lifespan are important. While there is little information on degradable panel construction in spiny lobster traps specifically, **Alternative 2** would create consistency in trap construction requirements related to degradable panels in spiny lobster traps constructed of materials other than wood.

Alternative 2 would apply to spiny lobster traps only, other pot and trap fisheries operating in the EEZ off Florida would not be affected. Trapping for stone crab and blue crab also occurs in Florida. Stone crab and blue crab traps have different requirements for degradable panels (see

FAC 68B-13.008 for stone crab and 68B-45.004 for blue crab). All three types of traps are required to have buoys marked with their respective endorsement number (crawfish (C#), stone crab (X#), blue crab (V#)), allowing law enforcement to easily distinguish between the three types of traps.

2.4. Action 4: Harvesting restrictions near artificial habitat in the EEZ off Florida

Alternative 1. No Action. Federal regulations have no formal definition developed for artificial habitat and there are no restrictions for harvest and possession of spiny lobster in the EEZ off an artificial habitat as defined by Florida Administrative Code (FAC).

Alternative 2. No person shall harvest any spiny lobster from artificial habitat. The harvest and possession in the water of spiny lobster in excess of the recreational bag limit is hereby prohibited within 10 yards of artificial habitat as is consistent with FAC. For spiny lobster, “artificial habitat” means any material placed in the waters of the state that is reasonably suited to providing cover and habitat for spiny lobster. Such material may be constructed of, but is not limited to, wood, metal, fiberglass, concrete, or plastic, or any combination thereof, and may be fabricated for this specific purpose or for some other purpose. The term does not include fishing gear allowed by rule of the Florida Fish and Wildlife Conservation Commission (FWC), legally permitted structures, or artificial reef sites constructed pursuant to permits issued by the United States Army Corps of Engineers or by the state regulatory agency.

Discussion:

Florida has defined artificial habitat in FAC 68B-24.002 as: (1) “ ‘Artificial habitat’ means any material placed in the waters of the state that is reasonably suited to providing cover and habitat for spiny lobster. Such material may be constructed of, but is not limited to, wood, metal, fiberglass, concrete, or plastic, or any combination thereof, and may be fabricated for this specific purpose or for some other purpose. The term does not include fishing gear allowed by rule of the Commission, legally permitted structures, or artificial reef sites constructed pursuant to permits issued by the United States Army Corps of Engineers or by the Florida Department of Environmental Protection.” For purposes of consistency, the artificial habitat designation and harvest prohibition outlined in **Alternative 2** are specific to spiny lobster and do not convey to other species.

In the 1990s, there were user conflicts between the dive and trap fishery for spiny lobster. The illegal use of artificial habitat contributed to a growing commercial dive harvest. This expansion of harvest, along with a decline in the overall fishery, prompted managers to develop the commercial diving endorsement program and to prohibit harvest from artificial habitat (FAC 68B-24.006 (12)). Artificial habitat for lobsters, commonly referred to as ‘casitas,’ are structures placed on the seafloor by dive fishermen to aggregate lobsters. Though placement of artificial habitat is considered illegal dumping, approximately 1,000-1,500 artificial habitats were placed in the lower keys during the late 1990’s and early 2000s. Around this time, FWC noticed a shift in the harvest in the commercial sector from trap fishermen to commercial diving, and sought management measures to maintain the historical makeup of the fishery. The presence of artificial habitats also changes the natural habitat/benthic structure and ecosystem surrounding the structure. Legal placement of artificial habitats, such as casitas, would require multiple agencies to provide input as multiple jurisdictions may be affected. Several issues have been

identified with legalizing casita placement, and use, but the jurisdictional hurdles in developing an artificial habitat specific component of the spiny lobster fishery.

Alternative 1 would not allow the placement of artificial habitat for spiny lobsters. However, it would also not prohibit harvest from existing artificial structures in federal waters. This alternative creates an inconsistency between the federal and state regulations, which is directly contradictory to the objectives established in the Spiny Lobster FMP. Choosing **Alternative 1** would maintain the existing differences between state and federal regulations which is somewhat cumbersome for law enforcement.

Specifically prohibiting harvest from within 10 yards of artificial habitat (**Alternative 2**) maintains consistency with Florida's regulations, and eases the burden on law enforcement in federal waters off Florida. **Alternative 2** would establish a prohibition on harvesting spiny lobster from artificial habitats as defined in the Florida Administrative Code in EEZ waters off Florida. **Alternative 2** would maintain consistency with Florida's regulations, but would not impose those regulations on other states, which may or may not have regulations regarding harvest from artificial habitat.

2.5. Action 5: Establish an enhanced cooperative management procedure for federal and Florida state agencies for the management of spiny lobster

Alternative 1: No Action. Do not establish an enhanced cooperative management procedure for the management of spiny lobster. The Councils must develop an amendment to the Fishery Management Plan for the Spiny Lobster Fishery of the Gulf of Mexico and South Atlantic (Spiny Lobster FMP) to establish new federal regulations consistent with new Florida regulations.

Alternative 2. Establish an enhanced cooperative management procedure that allows Florida to request changes to the spiny lobster federal regulations through NMFS rulemaking. Following is the proposed language (adapted from Amendment 2 to the Spiny Lobster FMP) for the procedure to be added to the existing protocol (established in Amendment 10 to the Spiny Lobster FMP):

Proposed Language for Enhanced Cooperative Management Procedure

Joint Fishery Management Plan for the Spiny Lobster Fishery of the Gulf of Mexico (Gulf and South Atlantic Procedure for Enhanced Cooperative Management:

1. This procedure will function under and be governed by the protocols for cooperative management agreed upon by the Florida Fish and Wildlife Conservation Commission (FWC), the Gulf of Mexico and South Atlantic Fishery Management Councils (Councils), and the National Marine Fisheries Service (NMFS).
2. Based on the best available scientific information, FWC will develop alternative proposed rules and analyses on the effects of these alternatives, hold public hearings (as required by Florida's Administrative Procedure Act), and at a final hearing select each preferred alternative rule for implementation. After approval of the rule or rules by the Commissioners, FWC will advise the Councils and NMFS Southeast Regional Administrator (RA) of the recommended rule(s) and proposed implementation date and will provide to the RA and to the Councils the analyses of the effects and impacts of the recommended and alternative rules and summaries of public comment. For rules to be implemented by the start of the fishing season (currently August 6), FWC must complete these actions on or before February 1. The Councils will submit the rule and supporting analyses to the Scientific and Statistical Committees (SSC) who will advise the RA, through the Councils, of the scientific validity of the analyses. The Councils will also submit the rule and supporting analyses to the advisory panels for comment.
3. The RA will review the recommended rule, analyses, and public record, and if the RA preliminarily determines that the rule is consistent with the objectives of the Spiny Lobster FMP, the National Standards, and other applicable law, the RA will notify the Councils and FWC of his intent to implement the rule in federal waters. If in the

judgment of the RA, the rule or its supporting record are not consistent with these statutory criteria or the Spiny Lobster FMP objectives, the RA will immediately notify the Councils and FWC of the deficiencies in the rule or supporting record. FWC may submit additional information or analyses to correct the deficiencies in the record.

4. When, in the judgment of either of the Councils, the FWC rule is not consistent with the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) or the objectives of the FMP, they will inform the RA and FWC. In this case, the RA will not proceed with implementation of the rule until this issue has been resolved.
5. When the RA has preliminarily concluded the rule is acceptable, the RA will draft and publish a proposed rule for implementation. Based on Florida state analyses of impacts, the Councils' or NMFS' staffs, with assistance from FWC, will prepare the supporting documentation (environmental assessment, regulatory impact review, etc.) that accompany the proposed rule.

After reviewing public comment on the proposed rule, if the RA has concluded the rule is not consistent with the Spiny Lobster FMP objectives, the national standards, other applicable law, or the provisions of this procedure, the RA will notify the Councils and FWC of that fact and/or the need for proceeding with implementation by Spiny Lobster FMP amendment. If the supporting record is still deficient, the RA will delay taking action until the record has been supplemented by FWC and/or Councils' staffs. If the RA has concluded the rule is consistent, the RA will publish the final rule in the Federal Register. The effective date of rules promulgated under this procedure will be the starting date of the next fishing season following publication of the final rule, unless otherwise agreed upon by FWC, the Councils, and the RA.

6. PART A (GEAR RESTRICTIONS) Appropriate rules or regulatory changes that can be implemented under this part include:
 - a. Limiting the number of traps that may be fished by each vessel.
 - b. Describing the construction characteristics of traps, including requiring escape gaps and their specifications/measurements.
 - c. Specification of gear and vessel identification requirements including placement and materials to be used.
 - d. Specification of gear that may be utilized or prohibited in directed fishery and specification of bycatch levels that may be taken as incidental catch in non-directed fisheries.
 - e. Changes to soak or removal periods and requirements for traps.

PART B (HARVEST RESTRICTIONS) Appropriate rules or regulatory changes that can be implemented under this part include:

- a. Recreational bag and possession limits.

- b. Changes in fishing seasons.
- c. Limitations on use, possession, and handling of undersized lobsters.
- d. Changes in minimum legal size.
- e. Changes to permit requirements.

***Note:** For reference, the existing protocol for federal and State of Florida roles is provided in Appendix C.

Discussion:

NMFS acknowledges there are two alternatives for this action. Section 1502.14(a) of the NEPA states that “agencies shall: rigorously explore and objectively evaluate all reasonable alternatives...” NMFS and the Councils have identified two reasonable alternatives for this action, including the no action alternative.

Florida has recently developed new regulations that will affect commercial harvest of spiny lobster. For spiny lobster, the State of Florida has been historically allowed to recommend regulations directly to NMFS; however, the procedure governing this process was removed from the Spiny Lobster FMP when the cooperative protocol was updated in Amendment 10. Therefore, these regulations cannot be implemented for the federal segment of the fishery without Council action. When Florida proposed a change in regulations to NMFS, it was brought to the Councils’ attention that there would need to be Council action through a framework or plan amendment because there was no procedure in place to allow Florida to recommend regulations directly to NMFS. **Alternative 1** would keep the current process, which requires that any changes for federal spiny lobster regulations be developed through Council action.

Alternative 2 would re-establish a procedure allowing Florida to propose federal regulations directly to NMFS under the existing cooperative protocol. The recommended regulations and corresponding analyses must be based on the best available science and be consistent with Spiny Lobster FMP objectives, the national standards, and any other applicable law. **Alternative 2** is expected to help expedite making federal regulations consistent with Florida regulations for the EEZ off Florida.

CHAPTER 3. AFFECTED ENVIRONMENT

3.1 Description of the Fishery

A more complete description of the affected environment can be found in Chapter 3 of Amendment 10 to the Fishery Management Plan (FMP) for Spiny Lobster in the Gulf of Mexico and South Atlantic (Spiny Lobster FMP); (GMFMC and SAFMC 2011). That description is summarized in the following sections and incorporated herein by reference.

The spiny lobster in the U.S. Exclusive Economic Zone (EEZ) of the Atlantic Ocean and Gulf of Mexico (Gulf) is jointly managed by the Gulf and South Atlantic Fishery Management Councils (Councils) through the Spiny Lobster FMP. In the U.S. EEZ off the Caribbean Sea surrounding Puerto Rico and the U.S. Virgin Islands, the resource is managed by the Caribbean Fishery Management Council through a separate FMP. In the Gulf and South Atlantic, the commercial fishery, and most of the recreational fishery, occurs off South Florida, primarily in the Florida Keys.

In the EEZ off Florida, a commercial vessel must have all required Florida licenses, permits, endorsements, and certificates, except for the commercial bully net endorsement, to harvest spiny lobster. Anyone who sells, trades, or barter or attempts to sell, trade, or barter spiny lobster must have the appropriate licenses, permit, and certificates specified to be a “commercial harvester,” as defined in the Florida Administrative Code (FAC). The FAC defines “commercial harvester” as “a person who holds a valid crawfish license or trap number, lobster trap certificates if traps are used to harvest spiny lobster, or a valid commercial dive permit if harvest is by diving, or a valid bully net permit if harvest is by bully net, and a valid saltwater products license with a restricted species endorsement issued by the Fish and Wildlife Conservation Commission.” Similarly, any person who sells, trades, or barter or attempts to sell, trade, or barter a spiny lobster harvested in the EEZ other than off Florida must have a federal vessel permit (GMFMC and SAFMC 1987).

Any vessel that harvests spiny lobster in the EEZ under the federal spiny lobster permit must land the species whole (GMFMC and SAFMC 1982). Any vessel that separates the spiny lobster tail caught in the EEZ must have a federal tailing permit on board in addition to all required Florida licenses or the federal permit (GMFMC and SAFMC 1987). Lobster tailing permits are only for vessels that are on trips for 48 hours or more in federal waters. Permitting prerequisites for the tail-separation permit are either a valid federal vessel permit for spiny lobster or all required valid Florida licenses. Vessels with a tailing permit must land lobsters all whole or all tailed. Both the spiny lobster and spiny lobster tailing permits are open access permits. The annual cost of one or both federal permits is no more than \$25 for the first permit and \$10 for the second.

The commercial and recreational fishing season for spiny lobster in the EEZ off Florida and the Gulf states other than Florida, begins on August 6 and ends March 31 (GMFMC and SAFMC

1987). South Atlantic states, other than Florida, have year-round spiny lobster fishing for both commercial and recreational fishers with a two-lobster per person trip limit (GMFMC and SAFMC 1994). Lobster traps may be worked during daylight hours only and no spiny lobster can be harvested in excess of the bag limit by diving at night (GMFMC and SAFMC 1993). Specifications for commercial requirements, traps and buoys, identification requirements, and prohibitions are detailed in sections within the Code of Federal Regulations (CFR), which incorporates by reference the FAC. The Florida recreational spiny lobster fishing season has two parts: a two-day sport season that occurs before commercial spiny lobster fishermen place their traps in the water, and a regular season that coincides with the commercial fishing season. No person can harvest, attempt to harvest, or have in his possession, regardless of where taken, any spiny lobster during the closed season of April 1 through August 5 of each year, except during the two-day sport season. During the two-day sport season, no person can harvest spiny lobster by any means other than by diving or with the use of a bully net or hoop net. Further restrictions are in effect for Monroe County, Florida, during the sport season (GMFMC 1993).

In the 2016/2017 fishing season, Florida issued 1,567 commercial spiny lobster restricted species endorsements, 276 commercial dive permits and 189 commercial bully net endorsements; it should be noted that the bully net endorsement was not available to buy nor was it required until nearly the end of the fishing season. In FY17/18, Florida issued 1490 commercial spiny lobster restricted species endorsements, 264 commercial dive permits and 368 commercial bully net endorsements; this fiscal year is still ongoing and is incomplete and subject to change. As of December 7, 2017, the National Marine Fisheries Service (NMFS) listed 194 valid federal spiny lobster permits and 214 federal tail-separation permits. Florida has a variety of licenses that allow recreational fishermen to take spiny lobster. From March 2016 to March 2017, Florida issued 122,674 resident annual or five-year spiny lobster stamps; in addition, they issued 61,350 other fishing licenses, such as Military Gold Sportsman's or Saltwater Lifetime license, that also allow holders to take spiny lobster. Non-residents were issued 26,668 annual spiny lobster stamps. NMFS does not require a permit for recreational fishing of spiny lobster in the EEZ.

The most recent five-year overall landings have averaged around seven million pounds (Table 3.1.1). Landings began to decrease in the early 2000s with an increasing trend starting in the late 2000s. Most commercial landings are from trapping; other regularly used gear include diving and bully nets. There has been a slow increase in bullynet harvest since the 1991/1992 season with landings increasing significantly since the 2013/2014 season. Bully net harvest has accounted for approximately 3% of the overall landings since 2013/2014 averaging 172,951 lbs per year. The proportion of landings from recreational fishing has remained fairly constant at around 20-25%.

Table 3.1.1. Florida landings of spiny lobster, by sector, gear and recreational license type (million pounds, whole weight (ww)).

Fishing Year	Commercial								Recreational					Overall total
	Traps	Diving	Bullynet	Other	Mixed	Unknown	Total	% of total	Special	Regular	SRL	% of total	Total	
91/92	3,368,835	91,968	3,180	6,335	1,238	3,364,507	6,836,063	79.01	459,848	1,355,943		20.99	1,815,791	8,651,854
92/93	3,931,991	147,879	1,905	6,216	4,389	1,276,719	5,369,099	79.88	543,785	808,658		20.12	1,352,443	6,721,542
93/94	4,978,674	168,025	6,134	9,583	4,898	143,230	5,310,544	73.82	356,987	1,526,128		26.18	1,883,114	7,193,658
94/95	6,843,718	252,028	20,305	4,674	1,238	95,614	7,217,577	79.11	394,395	1,436,710	74,890	20.89	1,905,995	9,123,572
95/96	6,639,750	307,251	19,464	3,581	422	50,579	7,021,047	78.43	249,394	1,614,178	67,145	21.57	1,930,718	8,951,765
96/97	7,319,956	337,388	29,815	2,620	160	56,017	7,745,956	80.11	382,535	1,485,450	54,612	19.89	1,922,596	9,668,552
97/98	7,143,583	395,122	28,129	12,143	4,733	56,581	7,640,291	76.83	497,297	1,756,794	50,096	23.17	2,304,186	9,944,477
98/99	5,036,341	351,145	12,143	3,369	2,026	42,718	5,447,746	80.70	289,299	963,885	49,493	19.30	1,302,677	6,750,423
99/00	6,994,124	588,105	17,459	7,499	1,766	59,313	7,668,265	75.70	567,643	1,832,888	61,449	24.30	2,461,981	10,130,245
00/01	4,862,624	634,574	12,193	3,756	318	55,843	5,569,306	74.08	398,618	1,512,348	38,096	25.92	1,949,062	7,518,368
01/02	2,621,748	446,691	8,561	797	1,323	0	3,079,121	71.11	282,861	935,929	32,291	28.89	1,251,081	4,330,201
02/03	3,988,822	560,739	19,854	1,298	602	333	4,572,648	75.86	355,184	1,055,648	44,466	24.14	1,455,298	6,027,946
03/04	3,726,732	406,588	21,743	1,003	2,632	0	4,158,698	74.66	375,119	997,408	38,981	25.34	1,411,509	5,570,206
04/05	5,104,913	310,394	34,111	1,577	395	0	5,451,391	99.38	**	**	34,136	0.62	34,136	5,485,527
05/06	2,686,701	266,115	14,760	1,450	94	0	2,969,121	72.42	331,388	773,199	26,427	27.58	1,131,014	4,100,135
06/07	4,541,462	251,319	29,764	813	754	0	4,824,111	78.71	320,474	957,062	26,974	21.29	1,304,511	6,128,622
07/08	3,467,858	292,531	29,776	2,875	27	0	3,793,068	75.74	354,669	839,471	20,929	24.26	1,215,068	5,008,136
08/09	3,007,289	246,089	29,873	639	67	922	3,284,879	72.22	422,311	824,585	16,612	27.78	1,263,508	4,548,387
09/10	4,181,282	156,154	54,833	517	137	1,047	4,393,970	77.64	419,795	835,054	10,727	22.36	1,265,576	5,659,545
10/11	5,739,252	166,160	58,206	3,607	930	1,797	5,969,950	80.82	437,575	971,920	6,971	19.18	1,416,466	7,386,416
11/12	5,580,904	201,517	67,167	2,983	1,065	538	5,854,173	82.63	324,221	902,523	3,665	17.37	1,230,408	7,084,582
12/13	3,899,828	128,539	47,997	284	0	1,546	4,064,217	72.28	384,466	1,174,529		27.72	1,558,995	5,623,212
13/14	5,938,766	214,810	216,060	1,406	1,728	235	6,373,005	79.91	328,422	1,274,232		20.09	1,602,654	7,975,659
14/15	5,062,422	200,467	187,969	1,655	271	482	5,436,140	77.03	328,136	1,293,046		22.97	1,621,182	7,057,322
15/16	5,730,261	178,599	146,731	2,497	197	2,124	6,060,409	80.25	371,946	1,119,542		19.75	1,491,487	7,551,896
16/17	5,043,775	175,783	141,045	1,928	487	351	5,363,369	78.47	434,532	1,091,642		22.33	1,526,174	6,889,543
5-yr avg	5,135,010	179,640	147,960	1,554	537	948	5,459,428	78	369,500	1,190,598		23	1,560,098	7,019,526

Note: Five year average is for 12/13-16/17. This table updates and replaces Table 3.1.1 in Regulatory Amendment 4. SRL (Special Recreational License) was available from 1994/95 through the 2011/12 season. **Data Unavailable—Recreational Surveys were not conducted due to hurricanes. Sources: Commercial landings, FTT, as of 02Oct17. Recreational landings are estimated using surveys of recreational lobster permit holders and represent landings during the special 2-day sport season (“Special”) and from opening day of the regular season (Aug. 6) through Labor Day (“Regular”). Grand total excludes estimated fishing mortality for bait.

3.2 Description of the Physical Environment

Detailed descriptions of the physical environments related to the spiny lobster fishery are provided in the Gulf of Mexico Fishery Management Council (Gulf Council)'s Generic Essential Fish Habitat (EFH) Amendment (GMFMC 2004) and in the South Atlantic Fishery Management Council's (South Atlantic Council) Fishery Ecosystem Plan (SAFMC 2009), and are incorporated by reference herein.

The Gulf is approximately 600,000 square miles (1.5 million km²), including state waters (Gore 1992). It is a semi-enclosed, oceanic basin connected to the Atlantic Ocean by the Straits of Florida and to the Caribbean Sea by the Yucatan Channel. Oceanic conditions are primarily affected by the Loop Current (Figure 3.2.1), the discharge of freshwater into the Northern Gulf, and a semi-permanent, anti-cyclonic gyre in the western Gulf.

The Gulf is both a warm temperate and a tropical body of water (McEachran and Fechhelm 2005). Based on satellite derived measurements from 1982 through 2009, mean annual sea surface temperature ranged from 73 through 83° F (23-28° C) including bays and bayous (Figure 3.2.1). In general, mean sea surface temperature increases from north to south depending on time of year with large seasonal variations in shallow waters.² In general, mean sea surface temperature increases from north to south with large seasonal variations in shallow waters.

² <http://accession.nodc.noaa.gov/0072888>

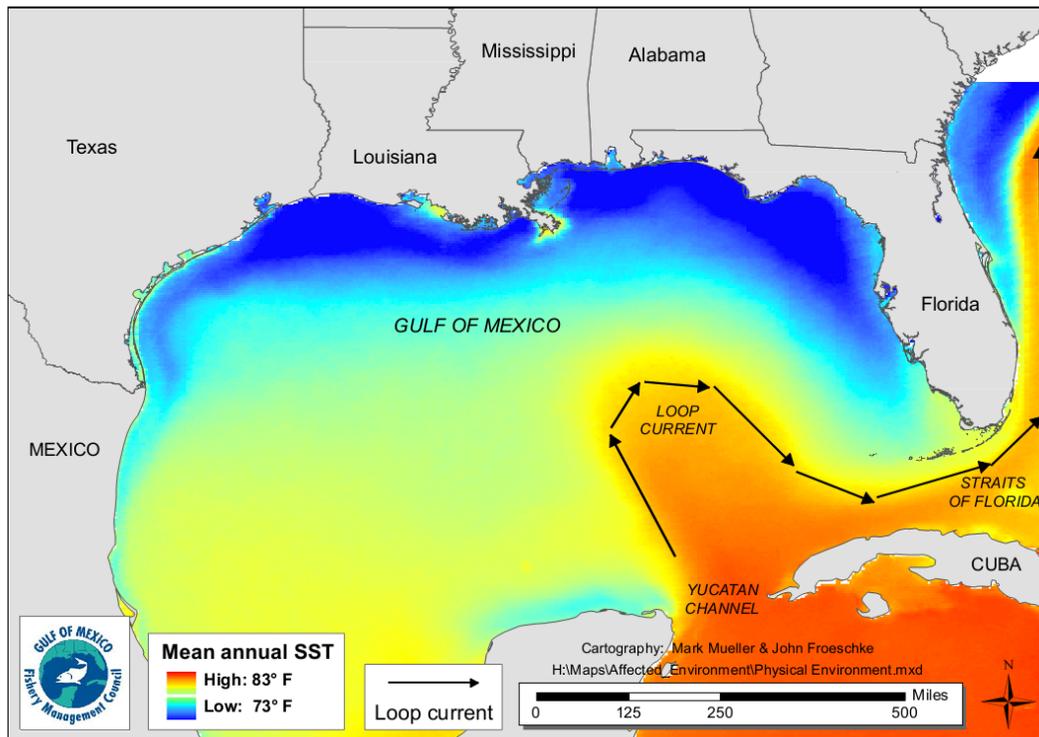


Figure 3.2.1. Mean annual sea surface temperature derived from the Advanced Very High Resolution Radiometer Pathfinder Version 5 sea surface temperature data set.
 Source: <http://pathfinder.nodc.noaa.gov>

The South Atlantic continental shelf off the southeastern U.S., extending from the Dry Tortugas to Cape Hatteras, North Carolina, encompasses an area in excess of 100,000 km² (Menzel 1993). Based on physical oceanography and geomorphology, this environment can be divided into two regions: Dry Tortugas to Cape Canaveral, Florida, and Cape Canaveral to Cape Hatteras. The break between these two regions is not precise and ranges from West Palm Beach, Florida, to the Florida-Georgia border, depending on the specific data considered. The shelf from the Dry Tortugas to Miami, Florida, is approximately 25 km wide and narrows to approximately 5 km off Palm Beach. The shelf then broadens to approximately 120 km off Georgia and South Carolina before narrowing to 30 km off Cape Hatteras. The Florida Current/Gulf Stream flows along the shelf edge throughout the region. In the southern region, this boundary current dominates the physics of the entire shelf (Lee et al. 1994). Spatial and temporal variation in the position of the western boundary current has dramatic effects on water column habitats. Variation in the path of the Florida Current near the Dry Tortugas induces formation of the Tortugas Gyre (Lee et al. 1994). This cyclonic eddy has horizontal dimensions on the order of 100 km and may persist in the vicinity of the Florida Keys for several months. The Pourtales Gyre, which has been found to the east, is formed when the Tortugas Gyres moves eastward along the shelf. Upwelling

occurs in the center of these gyres, thereby adding nutrients to the near surface (less than 100 m) water column.

Given the large to near total dependence on larval recruitment from the Caribbean, it is appropriate to include the Caribbean area in the description of the physical environment. A detailed description of the physical environment in the Caribbean related to the spiny lobster fishery is provided in Amendment 8 to the Spiny Lobster FMP (CFMC et al. 2008) and is incorporated herein by reference. The Caribbean Sea is an interior sea formed by a series of basins lying to the east of Central America and separated from the North American Basin of the Atlantic by an island arc 2,500 nm long, which joins the Florida Peninsula to the north coast of Venezuela. This arc is demarcated by the Greater Antilles (Cuba, Jamaica, Hispaniola, and Puerto Rico) and the Lesser Antilles (the Virgin Islands, Guadeloupe, Martinique, St. Lucia, Barbados, and Trinidad). As a seismic and volcanic region, the Caribbean has a complex topography and has numerous openings into the North American Basin. The Jamaican Ridge, running from Cape Gracias a Dios to Jamaica and Hispaniola, divides the Caribbean into two sections: one in the northwest, the other southeast, communicating across a 1500 m sill which is 20 nm wide at 100 m depth. The northwest basin is itself divided in two by the Cayman Ridge, which from the southwest point of Cuba runs toward, without reaching it, the Gulf of Honduras. Between the Gulf and the Cayman Ridge lies the Yucatan Basin, of which the central part is 4,700 m deep. At its western extremity, it communicates freely at depth of more than 5,000 m with the second basin, the Cayman Basin. In the eastern part of the Cayman Basin, between the southwest point of Cuba and against the Cayman Ridge lies a narrow trench 7,680 m deep. The Caribbean Basin is entirely in the tropical Atlantic. The mean annual temperature is near 25° C and seasonal variations are small. The winds, the eastern sector predominating, are tied to the trade wind system of the Northern Hemisphere.

Deepwater Horizon MC252 Oil Spill

The *Deepwater Horizon MC252* oil spill in 2010 affected at least one-third of the Gulf area from western Louisiana east to the Florida Panhandle and south to the Campeche Bank in Mexico. The impacts of the *Deepwater Horizon MC252* oil spill on the physical environment are expected to be significant and may be long-term. Oil was dispersed on the surface, and because of the heavy use of dispersants (both at the surface and at the wellhead), oil was also documented as being suspended within the water column, some even deeper than the location of the broken well head. Floating and suspended oil washed onto shore in several areas of the Gulf as were non-floating tar balls. Whereas suspended and floating oil degrades over time, tar balls are persistent in the environment and can be transported hundreds of miles. Oil on the surface of the water could restrict the normal process of atmospheric oxygen mixing into and replenishing oxygen concentrations in the water column. In addition, microbes in the water that break down oil and dispersant also consume oxygen; this could lead to further oxygen depletion. It is also possible that zooplankton that feed on algae could be negatively impacted, thus allowing more of the hypoxia-fueling algae to grow.

Climate change

Climate change projections predict increases in sea-surface temperature and sea level; decreases in sea-ice cover; and changes in salinity, wave climate, and ocean circulation (Intergovernmental Panel on Climate Change [IPCC]).³ Decreases in surface ocean pH due to absorption of anthropogenic CO² emissions may impact a wide range of organisms and ecosystems, particularly organism that absorb calcium from surface waters, such as corals and crustaceans (IPCC 2007, and references therein). These changes are likely to affect plankton biomass and invertebrate larvae abundance that could adversely impact fish, marine mammals, seabirds, and ocean biodiversity. Global climate change: affects temperature changes in coastal and marine ecosystems; influences organism metabolism altering ecological processes such as productivity and species interactions; changes precipitation patterns causing a rise in sea level which could change the water balance of coastal ecosystems; alters patterns of wind and water circulation in the ocean environment; and influences the productivity of critical coastal ecosystems such as wetlands, estuaries, and coral reefs (Kennedy et al., 2002; Osgood 2008). The National Oceanic and Atmospheric Association (NOAA) Climate Change Web Portal⁴ predicts the average sea surface temperature in the Gulf will increase by 1-3°C for 2010-2070 compared to the average over the years 1950-2010. These increases are a little less for the South Atlantic with only a 0.6-2.1°C change predicted over the same time period. For lobsters, including spiny lobster, warming water temperatures have resulted in life history changes such as: movements toward deeper water; changes in growth rates; differences in sizes at maturity; changes in timing of reproductive processes; changes in duration of larval development; and changes in the timing and levels of settlement (Phillips et al. 2017).

Global climate change could have significant effects on Gulf and South Atlantic fisheries; however, the extent of these effects cannot be quantified at this time.

Greenhouse gases

Greenhouse gas emissions are one of the most important drivers of recent changes in climate (IPCC).⁵ The sources of greenhouse gases in the Gulf have been determined to be associated with oil platforms and those associated with other activities such as fishing (Wilson et al. 2014). A summary of the results from fishing related emissions are shown in Table 3.3.1. Commercial and recreational fishing vessels make up a small percentage of the total estimated greenhouse gas emissions from the Gulf (2.04% and 1.67%, respectively).

³ <http://www.ipcc.ch/>

⁴ <https://www.esrl.noaa.gov/psd/ipcc/>

⁵ <http://www.ipcc.ch/>

Table 3.3.1. Total Gulf greenhouse gas 2014 emissions estimates (tons per year [tpr]) from oil platform and non-oil platform sources, commercial fishing, and percent greenhouse gas emissions from commercial fishing vessels of the total emissions*.

Emission source	CO ₂	Greenhouse CH ₄	Gas N ₂ O	Total CO _{2e} *
Oil platform	5,940,330 tpr	225,667 tpr	98 tpr	11,611,272 tpr
Non-platform	14,017,962 tpr	1,999 tpr	2,646 tpr	14,856,307 tpr
Total	19,958,292 tpr	227,665 tpr	2,743 tpr	26,467,578 tpr
Commercial fishing	531,190 tpr	3 tpr	25 tpr	538,842 tpr
Recreational fishing	435,327 tpr	3 tpr	21 tpr	441,559 tpr
Percent commercial fishing	2.66%	>0.01%	0.91%	2.04%
Percent recreational fishing	2.18%	>0.01%	0.77%	1.67%

*Compiled from Tables 6-11, 6-12, and 6-13 in Wilson et al. (2017).

**The CO₂ equivalent (CO_{2e}) emission estimates represent the number of tons of CO₂ emissions with the same global warming potential as one ton of another greenhouse gas (e.g., CH₄ and N₂O). Conversion factors to CO_{2e} are 21 for CH₄ and 310 for N₂O.

3.3 Description of the Biological/Ecological Environment

The spiny lobster (*Panulirus argus*) is widely distributed throughout the western Atlantic Ocean as far north as North Carolina to as far south as Brazil including Bermuda, the Bahamas, Caribbean, and Central America (Herrkind 1980). Analyses of DNA indicate a single stock structure for spiny lobster throughout its range (Lipcius and Cobb 1994; Silberman et al. 1994; Hunt et al. 2009). More recent genetic studies have shown almost all recruits in U.S. waters are from elsewhere in the Caribbean. Spiny lobster is known to have the longest larval duration of any oceanic marine animal. However, other studies have shown that the wind effects or the presence of local gyres or loop currents in certain locations could influence the retention of locally spawned larvae in some years more than others (Johnson 1960; Phillips 1989; Yeung and McGowan 1991; Yeung 1996; Yeung et al. 2001). A more recent study has shown retention of local larvae in Florida ranges between 10-40 percent (Kough et al. 2013). While recruitment is considered stable, it is not thought to be linked to production.

This species typically inhabits shallow waters, occasionally as deep as 295 ft (90 m). Spiny lobster can be found among rocks, on reefs, in seagrass beds, or in any habitat, that provides protection. This species is gregarious and migratory. Maximum total body length recorded is 18 in (45 cm), but the average total body length for this species is 8 in (20 cm; FAO Fisheries Synopsis 1991).

Distribution and dispersal of spiny lobster is determined by the long planktonic larval phase, called the puerulus, during which time the larval lobsters are carried by the currents until they become large enough to settle to the bottom (Acosta et al. 1997; Davis and Dodrill 1989). As the lobsters begin metamorphosis from puerulus to the juvenile form, the ability to swim increases and they move into shallow nearshore environments to grow and develop.

Young benthic stages of spiny lobster typically inhabit branched clumps of red algae (*Laurencia* sp.), mangrove roots, seagrass banks, or sponges; they feed on invertebrates found within these habitats. In contrast to the social behavior of their older counterparts, juvenile lobsters are solitary and aggressive to ensure they remain solitary. Two to four year olds are nomadic, emigrating out of the shallows and moving to deeper offshore reef environments. Adult spiny lobsters tend to aggregate in enclosed shelters such as natural holes in a reef or rocky outcrops, or artificially created environments (Lipcius and Cobb 1994).

Mass migrations of 2-60 spiny lobsters occur annually throughout the geographic range of the species and are dependent on latitude and climactic factors. Observed locations for the migration include Bermuda in October, the Bahamas and Florida in late October and early November, and the Yucatan and Belize in December (Herrnkind 1985). The first autumn storm in the tropics usually drops the water temperature by about 5°C and brings large sea swells. The shallow regions that the lobsters exploit during the summer months become turbid and cold, initiating the diurnal migration of thousands of lobsters to evade these conditions. The spiny lobster is highly susceptible to severe winter cooling and will exhibit reduced feeding and locomotion at temperatures 54-57 °F (12-14 °C); molting individuals usually perish under these conditions. According to Herrnkind (1985), the behavioral changes observed in spiny lobster as well as the known biological information about the species lends credence to the idea that individuals migrate to evade the stresses of the cold and turbidity in the winter. Biologically, the queuing behavior is an important hydrodynamic drag-reduction technique for the migration of individuals over long distances (Bill and Herrnkind 1976). Studies done by tagging individuals found that during the migration, individuals tended to move distances of 19-31 statute miles (30- 50 km; Herrnkind 1985).

Status of the Stock

Currently, only Caribbean spiny lobster is managed under the Spiny Lobster FMP. With the majority of spiny lobster larvae coming from outside sources, reliable estimation of management reference points was not possible during the most recent stock assessment (SEDAR 8 Update 2010). Currently, there is an inability to perform a Caribbean-wide stock assessment because not all countries report landings. The US stock cannot be assessed in isolation and is not the appropriate geographical and biological scale needed to capture population-wide dynamics. The most recent stock assessment was not considered sufficient to inform the Scientific and Statistical Committees (SSC). Due to these uncertainties, there is a lack of confidence in the reliance on recruitment from other populations in the Caribbean. It was concluded that the stock status of spiny lobster in the southeast US is essentially unknown. Therefore, the most recent

stock assessment was rejected and other management methods were determined to be needed. Rejection of the most recent stock assessment results in an unknown status as to if this species is overfished. While spiny lobster are not considered to be undergoing overfishing, the annual catch target (ACT) has been exceeded four times, the annual catch limit (ACL) has been exceeded twice, and the overfishing limit (OFL) has been exceeded once since 2013. Spiny Lobster Regulatory Amendment 4 (GMFMC and SAFMC 2017) will increase the OFL, ACL, and ACT with its implementation.

Bycatch

Details of bycatch in the spiny lobster fishery can be found in Appendix D, Bycatch Practicability Analysis, of Amendment 10 to the Spiny Lobster FMP (GMFMC and SAFMC 2011), and is hereby incorporated by reference.

In summary, studies have documented low bycatch and bycatch mortality of finfish by the commercial trap fishery for both wooden and plastic traps (Matthews et al. 1994, Matthews and Donahue 1997). Most of the finfish caught in commercial spiny lobster traps are juveniles and all escape within 48 hours (Matthews and Donahue 1997). Stone crabs were the most dominant species caught in two studies of lobster traps (Matthews et al. 1994, Matthews and Donahue 1997). Bully net gear is considered highly selective for spiny lobster so bycatch of non-target species is not anticipated. Because the gear types used by SCUBA divers and snorkelers targeting spiny lobster are also considered highly selective for spiny lobster, very little bycatch of non-target species is expected. Overall, in the recreational fishery, bycatch primarily consists of undersized spiny lobsters. Spiny lobsters are mainly harvested by SCUBA divers and snorkelers in the recreational fishery so very little bycatch is expected. The total discard rate of finfish and invertebrates for the spiny lobster fisheries is generally between 8-15% and it is unlikely any one species comprises more than 5% of the catch (Seafood Watch 2015). Mortality of commercially and recreationally important finfish is negligible (Matthews and Donahue 1997). Little is known about the status of many finfish (e.g., grunts, cowfish, porgies) and invertebrate (e.g., spider crabs, urchins) species that are bycatch in lobster traps in the greatest numbers. None of these species have undergone (or are likely to undergo) formal stock assessments, because most are not targeted in commercial or recreational fisheries. This amendment's management measures are not expected to affect spiny lobster discard mortality.

Protected Species

The Marine Mammal Protection Act (MMPA) and Endangered Species Act (ESA) provide special protections to some species that occur in the Gulf and South Atlantic. A very brief summary of these two laws and more information is available on National Marine Fisheries Service (NMFS) Office of Protected Resources website.⁶ These species include marine mammals, sea turtles, fish, and corals. Additionally, the MMPA protects dolphins that are potentially affected by the fishery. Aside from the aforementioned protected species, portions of

⁶ <http://www.nmfs.noaa.gov/pr/laws/>

designated critical habitat for *Acropora* corals, Northwest Atlantic loggerhead sea turtles, smalltooth sawfish, and North Atlantic right whales (NARW) also occur within areas encompassed by the spiny lobster fishery.

The most recent biological opinion (BiOp) on the Spiny Lobster FMP was completed on August 27, 2009 (NMFS 2009). The BiOp determined the continued authorization of the Gulf and South Atlantic spiny lobster fishery managed under the Spiny Lobster FMP is not likely to adversely affect ESA-listed marine mammals, Gulf sturgeon, NARW, or *Acropora* critical habitat, and is likely adversely affect sea turtles (loggerhead, Kemp's ridley, green, hawksbill, and leatherback), smalltooth sawfish and *Acropora* corals, but is not likely to jeopardize their continued existence. An incidental take statement was issued. On September 22, 2011, NMFS and the U.S. Fish and Wildlife Service determined the loggerhead sea turtle population consists of nine distinct population segments (DPS) (76 FR 58868). Previously, loggerhead sea turtles were listed as a threatened species throughout their global range. On February 15, 2012, NMFS determined that the 2009 BiOp's findings for loggerhead sea turtles remains valid for the Northwest Atlantic DPS of loggerhead sea turtle.

On July 27, 2012, NMFS published a final rule (77 FR 44168), effective August 27, 2012, that limited spiny lobster trap fishing in certain areas in the EEZ off the Florida Keys to protect threatened species of corals and addresses the requirements of the 2009 biological opinion. A correction to coordinates in this rule was published on August 22, 2012 (77 FR 50642). The final rule prohibited spiny lobster trap fishing in 60 closed areas that were chosen due to their high benthic conservation value and areas of high coral density. On August 11, 2014, NMFS published a final rule (79 FR 39856) that designated 38 marine areas within the Atlantic Ocean and Gulf which contained physical or biological features essential for the conservation of the loggerhead sea turtle. On September 16, 2014, NMFS determined that the continued authorization of the Gulf and South Atlantic spiny lobster fishery was not likely to jeopardize the critical habitat for the Northwest Atlantic ocean loggerhead sea turtle DPS. On September 10, 2014, NMFS published a final rule to list 22 coral species under the ESA (79 FR 53851). Five of the 22 species (*Mycetophyllia ferox*, *Dendrogyra cylindrus*, *Orbicella annularis*, *O. faveolata*, and *O. franksi*) occur in the Gulf and South Atlantic.

On April 6, 2016, NMFS and the U.S. Fish and Wildlife Service published a final rule (81 FR 20057) removing the range-wide and breeding population ESA-listings of the green sea turtle and listing 11 DPSs as threatened and three DPSs as endangered, effective May 6, 2016. Two of the green sea turtle DPSs, the North Atlantic DPS and the South Atlantic DPS, occur in the Gulf and South Atlantic and are listed as threatened. In addition, on June 29, 2016, NMFS published a final rule (81 FR 42268) listing Nassau grouper as threatened under the ESA. Nassau grouper may be affected by the spiny lobster fishery off southern Florida where the species overlaps with the fishery. The new listing triggered re-initiation of consultation under Section 7 of the ESA. On January 8, 2018, NMFS determined that allowing fishing under the Gulf and South Atlantic spiny lobster fishery to continue during the reinitiation period is not likely to jeopardize the continued existence of the 2014 listed coral species, the North Atlantic and South Atlantic DPSs of green sea turtles, or Nassau grouper.

The MMPA requires that each commercial fishery be classified by the number of marine mammals they seriously injure or kill. NMFS's List of Fisheries classifies U.S. commercial fisheries into three categories based on the number of incidental mortality or serious injury they cause to marine mammals. More information can be found on the website for the List of Fisheries and the classification process.⁷

The Florida spiny lobster trap/pot fishery is classified in the proposed 2018 MMPA List of Fisheries as a Category III fishery (82 FR 47424), i.e. there is a remote likelihood of incidental mortality or serious injury to marine mammals.

⁷ <http://www.nmfs.noaa.gov/pr/interactions/fisheries/lof.html>

3.4 Description of the Administrative Environment

3.4.1 Federal Fishery Management

Federal fishery management is conducted under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), originally enacted in 1976. The Magnuson-Stevens Act claims sovereign rights and exclusive fishery management authority over most fishery resources within the EEZ, an area extending 200 nautical miles from the seaward boundary of each of the coastal states, and authority over US anadromous species and continental shelf resources that occur beyond the EEZ.

Responsibility for federal fishery management decision-making is divided between the U.S. Secretary of Commerce (Secretary) and eight regional fishery management councils that represent the expertise and interests of constituent states. Regional councils are responsible for preparing, monitoring, and revising management plans for fisheries needing management within their jurisdiction. The Secretary is responsible for collecting and providing the data necessary for the councils to prepare fishery management plans, and for promulgating regulations to implement proposed plans and amendments after ensuring that management measures are consistent with the Magnuson-Stevens Act and with other applicable laws. In most cases, the Secretary has delegated this authority to NMFS.

The Gulf Council is responsible for fishery resources in federal waters of the Gulf. These waters extend to 200 nautical miles offshore from the seaward boundaries of Alabama, west Florida to Key West, Louisiana, Mississippi, and Texas, and those boundaries have been defined by law. The Gulf Council consists of 17 voting members: 11 public members appointed by the Secretary; one each from the fishery agencies of Texas, Louisiana, Mississippi, Alabama, and Florida; and one from NMFS. Non-voting members include representatives of the U.S. Fish and Wildlife Service (USFWS), U.S. Coast Guard (USCG), and Gulf States Marine Fisheries Commission (GSMFC).

The South Atlantic Council is responsible for conservation and management of fishery resources in federal waters of the U.S. South Atlantic. These waters extend from 3 to 200 miles offshore from the seaward boundary of the states of North Carolina, South Carolina, Georgia, and east Florida to Key West. The South Atlantic Council has 13 voting members: one from NMFS; one each from the state fishery agencies of North Carolina, South Carolina, Georgia, and Florida; and eight public members appointed by the Secretary. Non-voting members include representatives of the USFWS, USCG, and Atlantic States Marine Fisheries Commission (ASMFC).

The Gulf and South Atlantic Councils use their SSC to review data and science used in assessments and fishery management plans/amendments. Regulations contained within FMPs are enforced through actions of the NMFS' Office for Law Enforcement, the USCG, and various state authorities. To better coordinate enforcement activities, federal and state enforcement agencies have developed cooperative agreements to enforce the Magnuson-Stevens Act.

The public is also involved in the fishery management process through participation on advisory panels and through council meetings that, with few exceptions for discussing personnel matters and litigation, are open to the public. The regulatory process is also in accordance with the Administrative Procedure Act, in the form of “notice and comment” rulemaking, which provides extensive opportunity for public scrutiny and comment, and requires consideration of and response to those comments.

3.4.2 State Fishery Management

The purpose of state representation at the Council level is to ensure state participation in federal fishery management decision-making and to promote the development of compatible regulations in state and federal waters. The state governments have the authority to manage their respective state fisheries. Each of the states exercises legislative and regulatory authority over their state’s natural resources through discrete administrative units. Although each agency is the primary administrative body with respect to the states’ natural resources, all states cooperate with numerous state and federal regulatory agencies when managing marine resources. A more detailed description of each state’s primary regulatory agency for marine resources is provided on their respective web pages (Table 3.6.2.1).

The states are also involved through the GSMFC and ASMFC in management of marine fisheries. These commissions were created to coordinate state regulations and develop management plans for interstate fisheries. NMFS’ State-Federal Fisheries Division is responsible for building cooperative partnerships to strengthen marine fisheries management and conservation at the state, inter-regional, and national levels. This division implements and oversees the distribution of grants for two national (Inter-jurisdictional Fisheries Act and Anadromous Fish Conservation Act) and two regional (Atlantic Coastal Fisheries Cooperative Management Act and Atlantic Striped Bass Conservation Act) programs. Additionally, it works with the GSMFC and ASMFC to develop and implement cooperative State-Federal fisheries regulations.

Table 3.4.2.1. Gulf and South Atlantic state marine resource agencies and web pages.

State Marine Resource Agency	Web Page
Alabama Marine Resources Division	http://www.outdooralabama.com/
Florida Fish and Wildlife Conservation Commission	http://myfwc.com/
Louisiana Department of Wildlife and Fisheries	http://www.wlf.louisiana.gov/
Mississippi Department of Marine Resources	http://www.dmr.ms.gov/
Texas Parks and Wildlife Department	http://tpwd.texas.gov/
Georgia Department of Natural Resources, Coastal Resources Division	http://crd.dnr.state.ga.us/
South Carolina Department of Natural Resources	http://www.dnr.sc.gov/
North Carolina Department of Environmental and Natural Resources	http://portal.ncdenr.org/web/guest/

CHAPTER 4. LIST OF AGENCIES, ORGANIZATIONS, AND PERSONS CONSULTED

Preparers:

Name	Expertise	Responsibility	Agency
Morgan Kilgour	Fishery Biologist	Co-Team Lead – amendment development, analyses	GMFMC
Christina Wiegand	Fishery Social Scientist	Co-Team Lead – amendment development, analyses	SAFMC
Nikhil Mehta	Fishery Biologist	Co-Team Lead – amendment development, analyses, NEPA review	SERO
Kelli O’Donnell	Fishery Biologist	Co-Team Lead – amendment development, analyses, NEPA review	SERO
Assane Diagne	Economist	Economic analyses	GMFMC
Matt Freeman	Economist	Economic analyses	GMFMC
John Hadley	Economist	Economic analyses	SAFMC
David Records	Economist	Economic analyses	SERO
Christina Package-Ward	Anthropologist	Social environment and environmental justice	SERO
Jeff Radonski	Law Enforcement	Reviewer	SERO
David Dale	Fishery Biologist	Habitat review	SERO
Rick Devictor	Fishery Biologist	Reviewer	SERO
Susan Gerhart	Fishery Biologist	Reviewer	SERO
Joelle Godwin	Technical writer	Regulatory writer	SERO
Derke Snodgrass		Reviewer	SEFSC
Mara Levy	Attorney	Legal review	NOAA GC
Monica Smit-Brunello	Attorney	Legal review	NOAA GC
Mary Wunderlich	Protected Resources Specialist	Protected resource reviewer	SERO
Scott Sandorf	Technical writer	Regulatory writer	SERO
Carrie Simmons	Fishery Biologist	Reviewer	GMFMC

GMFMC = Gulf of Mexico Fishery Management Council, SAFMC = South Atlantic Fishery Management Council, NMFS = National Marine Fisheries Service, SF = Sustainable Fisheries Division, PR = Protected Resources Division, HC = Habitat Conservation Division, GC = General Counsel

The following have been or will be consulted:

National Marine Fisheries Service

- Southeast Fisheries Science Center
- Southeast Regional Office
 - o Protected Resources
 - o Habitat Conservation
 - o Sustainable Fisheries

NOAA General Counsel

Environmental Protection Agency

United States Coast Guard

Texas Parks and Wildlife Department

Alabama Department of Conservation and Natural Resources/Marine Resources Division

Louisiana Department of Wildlife and Fisheries

Mississippi Department of Marine Resources

Florida Fish and Wildlife Conservation Commission

Georgia Department of Natural Resources

South Carolina Department of Natural Resources

North Carolina Division of Marine Fisheries

CHAPTER 5. REFERENCES

Acosta, C., T., Matthews, and M. Butler IV. 1997. Temporal patterns and transport processes in recruitment of spiny lobster (*Panulirus argus*) postlarvae to south Florida. *Marine Biology* 129:79--85.

Bill, R., and W. Herrnkind. 1976. Drag reduction by formation movement in spiny lobster. *Science* 193:1146-1148

CFMC, GMFMC, SAFMC. 2008. Final Amendment 4 to the Fishery Management Plan for the Spiny Lobster Fishery of Puerto Rico and the U.S. Virgin Islands and Amendment 8 to the Joint Spiny Lobster Fishery Management Plan of the Gulf of Mexico and South Atlantic. Gulf of Mexico Fishery Management Council, Tampa, Florida. 155 pp.

<http://archive.gulfcouncil.org/Beta//GMFMCWeb/downloads/FINALSpinyLobsterImportFEIS.pdf>

Davis, G. E. and J. W. Dodrill. 1989. Recreational fishery and population dynamics of spiny lobsters, *Panulirus argus*, in Florida Bay, Everglades National Park, 1977-1980. *Bulletin of Marine Science* 44(1):78--88.

FAO Fisheries Synopsis. 1991. Marine lobsters of the world. An annotated and illustrated catalogue of species of interest to fisheries known to date. Rome: FAO Species Catalogue No. 125 Vol 13.

GMFMC. 2004. Final Environmental Impact Statement for the Generic Essential Fish Habitat Amendment to the following fishery management plans of the Gulf of Mexico (GOM): Shrimp Fishery of the Gulf of Mexico, Red Drum Fishery of the Gulf of Mexico, Reef Fish Fishery of the Gulf of Mexico, Stone Crab Fishery of the Gulf of Mexico, Coral And Coral Reef Fishery of the Gulf Of Mexico, Spiny Lobster Fishery of the Gulf of Mexico and South Atlantic, and the Coastal Migratory Pelagic Resources of the Gulf of Mexico And South Atlantic. Gulf of Mexico Fishery Management Council, Tampa, Florida, 682 pp.

<http://gulfcouncil.org/Beta/GMFMCWeb/downloads/Final%20EFH%20EIS.pdf>

GMFMC and SAFMC. 1982. Fishery Management Plan, Environmental Impact Statement, and Regulatory Impact Review for Spiny Lobster in the Gulf of Mexico and South Atlantic. Gulf of Mexico Fishery Management Council, Lincoln Center, Suite 331, 5401 West Kennedy Boulevard, Tampa, Florida 33609. South Atlantic Council, Southpark Building, Suite 306, 1 Southpark Circle, Charleston, South Carolina 29407-4699. 247 pp.

<http://archive.gulfcouncil.org/Beta//GMFMCWeb/downloads/spiny%20lobster%20fmp/SPL%20FMP%20Final%201982-03.pdf>

GMFMC and SAFMC. 1987. Amendment 1 to the Spiny Lobster Fishery Management Plan for the Gulf of Mexico and South Atlantic. Including Environmental Assessment, Supplemental Regulatory Impact Review and Initial Regulatory Flexibility Analysis. Gulf of Mexico Fishery

Management Council, Lincoln Center, Suite 331, 5401 West Kennedy Boulevard, Tampa, Florida 33609. South Atlantic Council, Southpark Building, Suite 306, 1 Southpark Circle, Charleston, South Carolina 29407-4699. 92 pp.

<http://archive.gulfcouncil.org/Beta//GMFMCWeb/downloads/SpinyLobAmend1.pdf>

GMFMC and SAFMC. 1989. Amendment 2 to the Fishery Management Plan for Spiny Lobster in the Gulf of Mexico and South Atlantic. Including Environmental Assessment and Regulatory Impact Review. July. Gulf of Mexico Fishery Management Council, Lincoln Center, Suite 331, 5401 West Kennedy Boulevard, Tampa, Florida 33609. South Atlantic Council, Southpark Building, Suite 306, 1 Southpark Circle, Charleston, South Carolina 29407-4699. 49 pp.

<http://archive.gulfcouncil.org/Beta//GMFMCWeb/downloads/spiny%20lobster%20fmp/SPL%20Amend-02%20Final%2007.pdf>

GMFMC and SAFMC. 1993. Regulatory Amendment 2 to the Spiny Lobster Fishery Management Plan for the Gulf of Mexico and South Atlantic Includes Environmental Assessment and Regulatory Impact Review. Gulf of Mexico Fishery Management Council, Lincoln Center, Suite 331, 5401 West Kennedy Boulevard, Tampa, Florida 33609. South Atlantic Council, Southpark Building, Suite 306, 1 Southpark Circle, Charleston, South Carolina 29407-4699. 33 pp.

http://archive.gulfcouncil.org/Beta//GMFMCWeb/downloads/SpineyRA_March93.pdf

GMFMC and SAFMC. 1994. Amendment 4 to the Fishery Management Plan for Spiny Lobster in the Gulf of Mexico and South Atlantic Including the Regulatory Impact Review and Environmental Assessment. Gulf of Mexico Fishery Management Council, Lincoln Center, Suite 331, 5401 West Kennedy Boulevard, Tampa, Florida 33609. South Atlantic Council, Southpark Building, Suite 306, 1 Southpark Circle, Charleston, South Carolina 29407-4699. 90 pp.

<http://archive.gulfcouncil.org/Beta//GMFMCWeb/downloads/spiny%20lobster%20fmp/SPL%20Amend-04%20Final%2009.pdf>

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. 586 pp.

http://archive.gulfcouncil.org/docs//amendments/Final%20Final_Spiny_Lobster_Amendment_10_August_11.pdf

Gore, R. H. 1992. *The Gulf of Mexico: A treasury of resources in the American Mediterranean*. Pineapple Press. Sarasota, Florida.

Herrnkind, W. F. 1980. Spiny lobsters: patterns of movement. Pages 349-407 in J.S. Cob and B .F. Phillips, editors. *The biology and management of lobsters*. Vol. 1, J., Academic Press, New York.

Herrnkind, W. F. 1985. Evolution and mechanisms of mass single-file migration in spiny lobster: Synopsis. *Contributions in Marine Science*. 1985.

Hunt, J. H., W. Sharp, M. D. Tringali, R. D. Bertelsen, and S. Schmitt. 2009. Using microsatellite DNA analysis to identify sources of recruitment for Florida's spiny lobster (*Panulirus argus*) stock. Final Report to the NOAA Fisheries Service Marine Fisheries Initiative (MARFIN) Program, Grant No. NA05NMF4331076 from the Florida Fish & Wildlife Conservation Commission, Fish and Wildlife Research Institute, FWC/FWRI File Code: F2539-05-08-F.

Intergovernmental Panel on Climate Change (IPCC). 2007. Climate Change 2007: The physical science basis. Contribution of working group I to the fourth assessment report of the Intergovernmental Panel on Climate Change. S. Solomon, D. Qin, M. Manning, Z. Chen, M. Marquis, K. B. Averyt, M. Tignor and H. L. Miller, editors. Cambridge University Press, Cambridge, United Kingdom and New York, New York, USA.

Johnson, M. W. 1960. The offshore drift of larvae of the California spiny lobster, *Panulirus interruptus*. California Cooperative Oceanic Fisheries Investigations Report 7:147-161.

Kennedy, V. S., R. R. Twilley, J. A. Kleypas, J. H. Cowan, Jr., S. R. Hare. 2002. Coastal and marine ecosystems and global climate change. Pew Center on Global Climate Change, Arlington, VA. 52 pp.

Kough, A. S., Paris, C. B., and M. J. Butler. 2013. Larval connectivity and the international management of fisheries. PloS One 8(6)e64970.

Lee, T. N., M. E. Clarke, E. Williams, A. F. Szmant, and T. Berger. 1994. Evolution of the Tortugas gyre and its influence on recruitment in the Florida Keys. Bulletin of Marine Science 54:621-646.

Lipcius, R. N., and J. S. Cobb. 1994. Introduction: Ecology and fishery biology of spiny lobsters. Pages 1-30 in B. F. Phillips, J. S. Cobb, and J.K. Kittaka, editors. Spiny lobster management. Blackwell Scientific Publications, Oxford.

Matthews, T.R., and S. Donahue. 1997. Bycatch abundance, mortality, and escape rates in wire and wooden spiny lobster traps. Proceedings of the 49th Gulf and Caribbean Fisheries Institute 49:280-298.

Matthews, T. R., C. Cox, and D. Eaken. 1994. Bycatch in Florida's spiny lobster trap fishery. Proceedings of 47th Gulf and Caribbean Fisheries Institute 47:66-78.

McEachran, J.D. and J.D. Fechhelm. 2005. Fishes of the Gulf of Mexico, Vol. 2. Scorpaeniformes to Tetraodontiformes. University of Texas Press. Austin, Texas.

Menzel, D. W., editor. 1993. Ocean processes: U.S. southeast continental shelf. DOE/OSTI -- 11674. U.S. Department of Energy.

NMFS. 2009. Endangered Species Act – Section 7 Consultation on the continued authorization of fishing under the Fishery Management Plan (FMP) for Spiny Lobster in the South Atlantic and Gulf of Mexico. Biological Opinion, August 2009.

Osgood, K. E. (editor). 2008. Climate Impacts on U.S. Living Marine Resources: National Marine Fisheries Service Concerns, Activities and Needs. U.S. Dep. Commerce, NOAA Tech. Memo. NMFSF/SPO-89, 118 pp.

Phillips, B. F. 1989. Phyllosoma larvae and the ocean currents off the Hawaiian Islands. *Pacific Science* 43:352-361.

Phillips, B. F., M. Perez-Ramirez, and S. De Lestang. 2017. Lobsters in a Changing Climate. Pages 815-849 in B. F. Phillips and M. Perez-Ramirez, editors. *Climate Change Impacts on Fisheries and Aquaculture: A Global Analysis*. John Wiley & Sons, Ltd, Chichester, UK.

SAFMC.2009. Fishery Ecosystem Plan for the South Atlantic Region, Volumes I-V. South Atlantic Fishery Management Council, 4055 Faber Place Drive, Suite 201, North Charleston, SC 29405. 3,000 p. <http://safmc.net/fishery-management-plans-amendments/ecosystem-based-management/>

Seafood Watch. 2015. http://www.seafoodwatch.org/-/m/sfw/pdf/reports/l/mba_seafoodwatch_caribbeanspinylobster_florida_report.pdf

Silberman, J. D., S. K. Sarver, and P. J. Walsh. 1994. Mitochondrial DNA variation and population structure in the spiny lobster *Panulirus argus*. *Marine Biology* 120:601-608.

SEDAR 8 Update. 2010. Update stock assessment report of SEDAR 8 Southeast U.S. Spiny Lobster. Southeast Data, Assessment, and Review. Key West, Florida. <http://sedarweb.org/2010-update-sedar-08-southeast-us-spiny-lobster>.

Wilson, D., R. Billings, R. Chang, S. Enoch, B. Do, H. Perez, and J. Sellers. 2017. Year 2014 Gulf wide emissions inventory study. US Dept. of the Interior, Bureau of Ocean Energy Management, Gulf of Mexico OCS Region, New Orleans, LA. OCS Study BOEM 2017-044, 275 pp.

Yeung, C. 1996. Transport and Retention of Lobster Phyllosoma Larvae in the Florida Keys. PhD dissertation, Coral Gables, FL, USA: University of Miami, 217 pp.

Yeung, C. and M. F. McGowan. 1991. Differences in inshore-offshore and vertical distribution of Phyllosoma larvae of *Panulirus*, *scyllarus* and *scyllarides* in the Florida Keys in May-June, 1989. *Bulletin of Marine Science* 49(3):699-714.

Yeung, C., Jones, D. L., Criales, M. M., Jackson, T. L., and W. J. Richards. 2001. Influence of coastal eddies and counter-currents on the influx of spiny lobster, *Panulirus argus*, postlarvae into Florida Bay. *Marine and Freshwater Research* 52:1217-1232.

APPENDIX A. FLORIDA ADMINISTRATIVE CODE ON SPINY LOBSTER

CHAPTER 68B-24

SPINY LOBSTER (CRAWFISH) AND SLIPPER LOBSTER

68B-24.001	Purpose and Intent
68B-24.002	Definitions
68B-24.003	Minimum Size Limits
68B-24.0035	Special Recreational Crawfish License
68B-24.004	Bag Limit
68B-24.0045	Importation of Spiny Lobster; Documentation and Other Requirements
68B-24.005	Seasons
68B-24.0055	Commercial Requirements
68B-24.006	Gear: Traps, Buoys, Identification Requirements, Prohibited Devices
68B-24.0065	Special Provisions for John Pennekamp Coral Reef State Park in Monroe County: Closure During Two-day Sport Season; Closure of Coral Formation Protection Zones
68B-24.007	Other Prohibitions
68B-24.008	Slipper Lobster; Prohibitions Relating to Eggbearing Slipper Lobster (Repealed)
68B-24.009	Trap Reduction Schedule

68B-24.001 Purpose and Intent.

(1) The primary purpose and intent of this chapter are to protect and conserve Florida's spiny lobster resources, assure the continuing health and abundance of those resources, and to provide for optimum sustained benefits and use from the resources for all the people of the state.

(2) It is the intent of this chapter to repeal and replace Chapter 29299, Special Acts of Florida, 1953, a special act relating to gear authorized to be used in the waters of Monroe County.

(3) It is also the intent of this chapter to prohibit the molestation of any eggbearing lobster.

(4) Spiny lobster is designated as a restricted species pursuant to Section 379.101(32), F.S.

(5) It is the goal of the Commission to substantially reduce the mortality of undersize spiny lobster in the fishery, by reducing the number of traps used in the fishery to the lowest number which will maintain or increase overall catch levels, promote economic efficiency in the fishery, and conserve natural resources.

Rulemaking Authority Art. IV, Sec. 9, Fla. Const., Chapter 83-134, Laws of Fla., as amended by Chapter 84-121, and Chapter 85-163, Laws of Fla. Law Implemented Art. IV, Sec. 9, Fla. Const., Chapter 83-134, Laws of Fla., as amended by Chapter 84-121, and Chapter 85-163, Laws of Fla. History—New 7-2-87, Amended 7-2-90, 3-1-92, 6-1-94, 10-4-95, Formerly 46-24.001, Amended 7-1-08.

68B-24.002 Definitions.

As used in this rule chapter:

(1) "Artificial habitat" means any material placed in the waters of the state that is reasonably suited to providing cover and habitat for spiny lobster. Such material may be constructed of, but

is not limited to, wood, metal, fiberglass, concrete, or plastic, or any combination thereof, and may be fabricated for this specific purpose or for some other purpose. The term does not include fishing gear allowed by rule of the Commission, legally permitted structures, or artificial reef sites constructed pursuant to permits issued by the United States Army Corps of Engineers or by the Florida Department of Environmental Protection.

(2) “Biscayne National Park” means all state waters lying within the boundaries of Biscayne National Park, a legal description of which can be found in Rule 68B-2.001, F.A.C.

(3) “Bully net” means a circular frame attached at right angles to the end of a pole and supporting a conical bag of webbing. The webbing is usually held up by means of a cord which is released when the net is dropped over a lobster.

(4) “Commercial harvester” means a person who holds a valid crawfish license or trap number, lobster trap certificates if traps are used to harvest spiny lobster, or a valid commercial dive permit if harvest is by diving, or a valid bully net permit if harvest is by bully net, and a valid saltwater products license with a restricted species endorsement issued by the Fish and Wildlife Conservation Commission.

(5) “Diving” means swimming at or below the surface of the water.

(6) “Harvest” means the catching or taking of spiny lobster by any means whatsoever, followed by a reduction of such spiny lobster to possession. Spiny lobster that are caught but immediately returned to the water free, alive and unharmed are not harvested. In addition, temporary possession of a spiny lobster for the purpose of measuring it to determine compliance with the minimum size requirements of this chapter shall not constitute harvesting such lobster, provided that it is measured immediately after taking, and immediately returned to the water free, alive and unharmed if undersized.

(7) “Hoop net” means a frame, circular or otherwise, supporting a shallow bag of webbing and suspended by a line and bridles. The net is baited and lowered to the ocean bottom, to be raised rapidly at a later time to prevent the escape of lobster.

(8) “Immediate family” refers to a commercial harvester’s mother, father, sister, brother, spouse, son, daughter, step-father, step-mother, step-son, step-daughter, half-sister, half-brother, son-in-law, or daughter-in-law.

(9) “Land,” when used in connection with the harvest of a spiny lobster, means the physical act of bringing the harvested lobster ashore.

(10) “Lobster trap certificates” means those certificates allotted by the Fish and Wildlife Conservation Commission pursuant to Section 379.3671(2), F.S.

(11) “Person” means any natural person, firm, entity, or corporation.

(12) “Recreational harvester” means any person other than a commercial harvester.

(13) “Spiny lobster” or “crawfish” means any crustacean of the species *Panulirus argus*, or any part thereof.

(14) “Untreated pine” means raw pine wood that has not been treated with any preservative or pine wood that has been pressure treated with no more than 0.40 pounds of chromated copper arsenate (CCA) compounds per cubic foot of wood.

Rulemaking Authority Art. IV, Sec. 9, Fla. Const. Law Implemented Art. IV, Sec. 9, Fla. Const., 379.361 History—New 7-2-87, Amended 7-2-90, 3-1-92, 6-1-94, 10-4-95, Formerly 46-24.002, Amended 7-7-03, 4-1-04, 7-1-08, 7-1-15, 5-1-17.

68B-24.003 Minimum Size Limits.

(1) No person shall harvest or possess any spiny lobster with a carapace measurement of 3 inches or less or, if the tail is separated from the body, a tail measurement less than 5 1/2 inches not including any protruding muscle tissue, except as may be provided in subsection (3), of this rule.

(2) The carapace (head, body, or front section) measurement shall be determined by beginning at the anteriormost edge (front) of the groove between the horns directly above the eyes, then proceeding along the middorsal line (middle of the back) to the rear edge of the top part of the carapace, excluding any translucent membrane. The tail (segmented portion) shall be measured lengthwise along the top middorsal line (middle of the back) of the entire tail until the rearmost extremity is reached; provided, the tail measurement shall be conducted with the tail in a flat straight position with the tip of the tail closed.

(3) The holder of a valid crawfish license or trap number, lobster trap certificates, and a valid saltwater products license issued by the Fish and Wildlife Conservation Commission may harvest and possess, while on the water, undersized spiny lobster not exceeding 50 per boat and 1 per trap aboard each boat if used exclusively for luring, decoying, or otherwise attracting noncaptive spiny lobster into traps. Such undersized spiny lobster shall be kept alive, while in possession, in a shaded continuously circulating live well with pump capacity to totally replace the water at least every 8 minutes and large enough to provide at least 3/4 gallon of seawater per lobster. All undersized lobster so maintained shall be released to the water alive and unharmed immediately upon leaving the trap lines and prior to 1 hour after official sunset.

(4) Spiny lobster harvested in Florida waters shall remain in a whole condition at all times while on or below the waters of the state and the practice of wringing or separating the tail (segmented portion) from the body (carapace and head) section is prohibited on state waters. Possession of spiny lobster tails that have been wrung or separated, on or below the waters of the state, is prohibited, unless the spiny lobster are being imported pursuant to Rule 68B-24.0045, F.A.C., or were harvested outside the waters of the state and the wringing or separation was pursuant to a federal permit allowing such wringing or separation. In the latter case, the federal permit shall be present and accompany any wrung or separated spiny lobster tails while possessed on or below the waters of the state.

(5) No person shall harvest or attempt to harvest spiny lobster by diving unless he possesses, while in the water, a measuring device capable of being used to perform the carapace measurement described in subsection (2). Each measurement performed by such a person shall occur in the water.

Rulemaking Authority Art. IV, Sec. 9, Fla. Const. Law Implemented Art. IV, Sec. 9, Fla. Const. History—New 7-2-87, Amended 7-2-90, 3-1-92, 6-1-94, Formerly 46-24.003, Amended 7-9-02.

68B-24.0035 Special Recreational Crawfish License.

(1) A special recreational crawfish license is required to harvest spiny lobster from state waters in excess of the bag limit established for recreational harvesters in subsection (1), of Rule 68B-24.004, F.A.C., but not in excess of the special bag limit established in subsection (3), of that rule.

(2) A special recreational crawfish license will be issued and renewed pursuant to the following criteria:

(a) Each person applying for a license shall submit a completed form (Form DMF-SL2400 (3-

05), incorporated herein by reference) provided by the Commission, together with the fee required by Section 379.355, F.S.

(b) No license will be issued to a person who did not possess a crawfish trap number (crawfish endorsement) and a saltwater products license during the 1993-1994 license year.

(c) A license will not be issued to a person who has a crawfish endorsement at the time of application.

(d) A special recreational crawfish license is not valid unless the holder also possesses a valid recreational crawfish permit required by Section 379.354(8)(d), F.S.

(e) Each applicant must agree to file quarterly reports with the Commission detailing the amount of spiny lobster harvested by the licenseholder in the previous quarter together with the amount harvested by other recreational harvesters aboard the licenseholder's vessel. The Commission will not renew the special recreational crawfish license of any licenseholder who has not complied with this reporting requirement.

(f) Each license issued must be renewed by June 30 of that license year for the following license year. Licenses that are not so renewed shall expire, and may be reissued by the Commission to new applicants otherwise qualified under this rule. A special recreational crawfish license is not transferable.

(g) The number of licenses issued in any license year shall not exceed the number issued for the 1994-1995 license year (520 licenses). Beginning with the 2012-2013 license year and every year thereafter, no special recreational crawfish license will be issued or renewed by the Commission.

(3) No person issued a special recreational crawfish license may also possess a crawfish endorsement.

Rulemaking Authority Art. IV, Sec. 9, Fla. Const. Law Implemented Art. IV, Sec. 9, Fla. Const. History—New 3-1-05.

68B-24.004 Bag Limit.

(1) Except as provided in subsections (2), (3), and (4), the harvest from state waters, or possession while on or below such water, of more than 6 spiny lobster per recreational harvester per day, is prohibited.

(2)(a) Except in Monroe County and in Biscayne National Park, during the first day of the two-day sport season specified in Rule 68B-24.005, F.A.C., no recreational harvester shall harvest more than 12 spiny lobster, or possess more than 12 spiny lobster, whether on or off the waters of the state. During the second day of the two-day sport season, no recreational harvester shall harvest or possess while in or on state waters more than 12 spiny lobster, or possess more than 24 spiny lobster once such harvester has landed and departed the state waters.

(b) In Monroe County and in Biscayne National Park, during the first day of the two-day sport season specified in Rule 68B-24.005, F.A.C., no recreational harvester shall harvest more than 6 spiny lobster, or possess more than 6 spiny lobster, whether on or off the waters of the state. During the second day of the two-day sport season, no recreational harvester shall harvest or possess while in or on the waters of Monroe County or Biscayne National Park more than 6 spiny lobster, or possess more than 12 spiny lobster in said county or in said park once such harvester has landed and departed those waters. Pursuant to Rule 68B-24.0065, F.A.C., John Pennekamp Coral Reef State Park in Monroe County is closed to spiny lobster harvest during the two-day sport season.

(3) Special Recreational Crawfish (Spiny Lobster) Bag Limit – No person who possesses a valid special recreational crawfish license issued by the Fish and Wildlife Conservation Commission pursuant to Rule 68B-24.0035, F.A.C., shall harvest in any one day during the regular season specified in subsection 68B-24.005(1), F.A.C., more spiny lobster than the amounts specified below for the respective fishing seasons; provided, however, when one or more persons possessing a valid special recreational crawfish license are aboard a single vessel in or on state waters, together with any number of regular recreational harvesters, no more than the specified amount of spiny lobster for the applicable fishing season shall be possessed aboard such vessel. The specified bag limit is not applicable during the 2-day sport season established in subsection (2).

- (a) 2003-2004 – 50.
- (b) 2004-2005 – 45.
- (c) 2005-2006 – 40.
- (d) 2006-2007 – 35.
- (e) 2007-2008 – 30.
- (f) 2008-2009 – 25.
- (g) 2009-2010 – 20.
- (h) 2010-2011 – 15.
- (i) 2011-2012 – 10.

(j) Beginning with the 2012-2013 season and for each season thereafter, all recreational harvesters shall be subject to the bag limit specified in subsection (1).

(4) No person shall harvest or possess, while on or below the water, more spiny lobster than the limit established in subsection (1), unless such person:

- (a) Is engaged in the lawful importation of spiny lobster pursuant to Rule 68B-24.0045, F.A.C.;
- (b) Is a commercial harvester as defined in subsection 68B-24.002(4), F.A.C.;
- (c) Until March 31, 2012, possesses a current valid special recreational crawfish license issued by the Fish and Wildlife Conservation Commission pursuant to Section 379.355, F.S.

Rulemaking Authority Art. IV, Sec. 9, Fla. Const. Law Implemented Art. IV, Sec. 9, Fla. Const. History—New 7-2-87, Amended 7-2-90, 7-1-92, 6-1-94, 10-4-95, Formerly 46-24.004, Amended 7-9-02, 7-7-03, 3-1-05.

68B-24.0045 Importation of Spiny Lobster; Documentation and Other Requirements.

(1) Documentation Requirements During Open Season – During the open season specified in subsection 68B-24.005(1), F.A.C., a person may possess wrung spiny lobster tails or possess spiny lobster in excess of the bag limit specified in subsection 68B-24.004(1), F.A.C., while on state waters, if such person is also in possession of appropriate receipt(s), bill(s) of sale, or bill(s) of lading to show that the spiny lobster were purchased in a foreign country and are entering the state in international commerce. Failure to maintain such documentation or to promptly produce same at the request of any duly authorized law enforcement officer shall constitute violation of this rule.

(2) Sale of Imported Spiny Lobster During the Closed Season, Documentation – Notwithstanding the provisions of Sections 379.367, F.S., spiny lobster tails that have been imported into Florida from a foreign country may be sold during the closed harvesting season of April 1 through August 5 of each year, if such spiny lobster tails are accompanied with the appropriate receipts(s), bill(s) of sale, or bill(s) of lading to show that the spiny lobster were

harvested and purchased in a foreign country and are entering the state in international commerce. Such documentation shall accompany the lobster through retail or restaurant sale. Failure to maintain such documentation or to promptly produce same at the request of any duly authorized law enforcement officer shall constitute violation of this rule.

(3) Each spiny lobster imported pursuant to this rule shall comply with the minimum size requirements specified in subsection 68B-24.003(1), F.A.C., and the prohibitions relating to eggbearing spiny lobster specified in subsection 68B-24.007(1), F.A.C.

Rulemaking Authority Art. IV, Sec. 9, Fla. Const. Law Implemented Art. IV, Sec. 9, Fla. Const. History—New 7-2-90, Amended 10-4-95, Formerly 46-24.0045, Amended 6-2-02.

68B-24.005 Seasons.

(1) Except as provided in subsection (2), of this rule, the season for harvest of spiny lobster in state waters shall be August 6 of each year through March 31 of the following year. No person shall harvest, attempt to harvest, or have in his possession, regardless of where taken, any spiny lobster during the closed season of April 1 through August 5 of each year, except pursuant to subsection (2), for storage and distribution of lawfully possessed inventory stocks as provided by special permit issued by the Commission pursuant to Section 379.367, F.S.

(2) There shall be a sport season for recreational harvesters of spiny lobster, which season shall occur during the last Wednesday and successive Thursday of July each year. During this sport season, the following special restrictions shall apply:

(a) No person shall harvest spiny lobster by any means other than by diving or with the use of a bully net or hoop net.

(b) In Monroe County only, no person shall harvest spiny lobster:

1. By diving at night (from 1 hour after official sunset until 1 hour before official sunrise).

2. In or from the waters of John Pennekamp Coral Reef State Park, pursuant to Rule 68B-24.0065, F.A.C.

(3) Harvesters of spiny lobster using traps may bait and place their traps in the water beginning on August 1 of each year. Harvest or sale of spiny lobster from such traps during the “soak” period prior to the beginning of the season is prohibited.

(4) All traps used for harvest of spiny lobster shall be removed from state waters by April 5 of each year. All spiny lobster taken from traps after the close of a season on March 31 shall be returned to the water free, alive, and unharmed. The Division of Law Enforcement of the Fish and Wildlife Conservation Commission shall grant an extension for the retrieval of traps up to a maximum of 10 days after the expiration of the 5-day retrieval period, or a total of up to 15 days after the close of the spiny lobster season, upon the following conditions:

(a) A harvester or his lawfully designated agent shall request, in writing, permission for an extension of the period for retrieval of traps. The request shall specify the harvester’s name and the appropriate license or trap number, the approximate number of traps and their location, the identity of the boat to be used for trap retrieval, the boat owner’s name, the period of additional time needed for trap retrieval, and the reasons for the request.

(b) On the day that trap removal begins, and on each subsequent day that it continues, the Commission’s Division of Law Enforcement shall be advised in person or by telephone of the remaining trap locations and landing site.

(c) Reasons for granting an extension shall be limited to hazardous weather (small craft

warnings, at a minimum), medical emergencies that make it impossible for the harvester to operate a boat, or equipment breakdown.

(d) Nothing in this subsection shall authorize the harvest, landing, or sale of any spiny lobster during the closed season.

(5) Except as provided in subsections (3) and (4), of this rule, for trap soaking and retrieval periods, no person shall transport on the water, fish with, set, or place any spiny lobster trap or part thereof during the closed season. Any such trap remaining in the water or abandoned during the closed season (following any extension for retrieval as provided in subsection (4), and prior to the soak period authorized in subsection (3), is declared to be a public nuisance and shall be disposed of in the manner approved by the Commission's Division of Law Enforcement. This provision shall be in addition to any penalty imposed by law.

Rulemaking Authority Art. IV, Sec. 9, Fla. Const. Law Implemented Art. IV, Sec. 9, Fla. Const. History—New 7-2-87, Amended 7-2-90, 3-1-92, 7-1-92, 6-1-94, Formerly 46-24.005.

68B-24.0055 Commercial Requirements.

(1) Section 379.367, F.S., requires each person using traps to harvest spiny lobster or taking spiny lobster in commercial quantities to purchase and possess a trap number, also known as a crawfish endorsement or crawfish license. A crawfish endorsement is hereby required to harvest spiny lobster for commercial purposes, and shall only be issued to a person, firm, or corporation that possesses a valid saltwater products license with a restricted species endorsement. "Harvest for commercial purposes" means the taking or harvesting of spiny lobster for purposes of sale or with intent to sell or in excess of established bag limits.

(2) A commercial dive permit is required to harvest spiny lobster in commercial quantities by diving. This permit will be in the form of the letter D added to the crawfish number.

(a) Effective January 1, 2005, no new commercial dive permits will be issued and no commercial dive permit will be renewed except those that have remained active since the 2004-2005 fishing season.

(b) A commercial dive permit may be issued only on a vessel saltwater products license.

(c) Each unique commercial dive permit number may only be issued on one of the holder's vessel saltwater products licenses at any time.

(d) Failure to renew the commercial dive permit by September 30 of each year will result in forfeiture of the endorsement.

(3) Transferability. A commercial dive permit is transferable upon approval of the Commission under the following conditions:

(a) The buyer must hold a saltwater products license with a valid restricted species endorsement.

(b) A person who wishes to transfer a permit number shall submit a notarized Spiny Lobster Commercial Dive Permit Transfer Form within 72 hours of the final notarized signature, that has been signed by both parties to the transaction, hand delivered, or sent by United States Postal Service certified mail, return receipt requested, to the Commission between May 1 and the end of February. Requests received by the Commission before May 1 or postmarked after the end of February of the current license year will not be processed. The Spiny Lobster Commercial Dive Permit Transfer Form (Form DMF-SL2410 (02-15), found online at <http://www.flrules.org/Gateway/reference.asp?No=Ref-05474>, incorporated herein by reference),

shall include the following information:

1. The name, address, and SPL number of seller,
2. The name, address, and SPL number of buyer; and,
3. The selling price.

(c) A commercial dive permit shall not be transferred or renewed until all license fees, surcharges, and any other outstanding fees, fines, or penalties owed to the Commission by either party to the transaction have been paid in full.

(d) Commercial dive permits will not be transferred to or renewed for applicants who own one or more lobster trap certificates. An applicant who is otherwise eligible to receive a commercial dive permit but holds lobster trap certificates may receive a commercial dive permit if the applicant notifies the commission in writing that that he/she is surrendering his/her trap certificates to the Commission. During any period of trap reduction, any certificates surrendered to the Commission shall become permanently unavailable and be considered in that amount to be reduced during the next license-year period.

(e) In the event of the death or permanent disability of a person holding a commercial dive permit, the permit may be transferred by the license holder or the executor of the estate to a member of his or her immediate family within 12 months of the date of death or disability and upon payment of all outstanding fees, fines, or penalties to the Commission in full.

(4) A commercial bully net permit is required to harvest spiny lobster for commercial purposes with a bully net. This permit will be in the form of the letter N added to the harvester's crawfish endorsement number. Application for a commercial bully net permit may be made using either Commission Form DMF-SL2420a (02-17) (Saltwater Products License (SPL) Application with CN for Individuals, found online at: <http://www.flrules.org/Gateway/reference.asp?No=Ref-08028>, and incorporated herein by reference), or Commission Form DMF-SL2420b (02-17) (Saltwater Products License (SPL) Application with CN for Businesses, found online at: <http://www.flrules.org/Gateway/reference.asp?No=Ref-08027>, and incorporated herein by reference).

(5) Commercial harvest limits:

(a) Persons harvesting lobster commercially by diving in Broward, Dade, Monroe, Collier, and Lee Counties or adjacent federal EEZ waters shall be subject to a daily vessel harvest and possession limit of 250 spiny lobsters per day. For purposes of this paragraph, persons shall be considered to be harvesting lobster by diving if they are harvesting pursuant to a saltwater products license with a restricted species endorsement and crawfish license with a commercial dive permit and are simultaneously in possession of any artificial underwater breathing apparatus or gear.

(b) No more than 250 spiny lobsters shall be possessed aboard or landed from any vessel within these counties regardless of the number of commercial harvesters on board harvesting pursuant to paragraph (a).

(c) Persons harvesting lobster commercially by use of a bully net shall be subject to a daily harvest and possession limit of 250 spiny lobsters per day. No more than 250 spiny lobsters shall be possessed aboard or landed from any vessel which has been used for such commercial harvest, regardless of the number of such commercial harvesters on board the vessel.

Rulemaking Authority Art IV, Sec. 9, Fla. Const. Law Implemented Art IV, Sec. 9, Fla. Const., 379.361 FS. History—New 7-1-01, Amended 7-7-03, 4-1-04, 7-15-04, 3-21-10, 7-1-15, 5-1-17.

68B-24.006 Gear: Traps, Buoys, Identification Requirements, Prohibited Devices.

(1) No commercial harvester shall harvest lobster by any means other than by diving, by the use of a bully net or hoop net, or by the use of traps as specified in this subsection.

(2) No person shall, in state waters, fish with, set, place, or cause to be fished with, set, or placed, any trap except a wood trap or plastic trap meeting the following specifications:

(a) Wood slat traps shall be no larger in dimension than 3 feet, by 2 feet, by 2 feet, or the volume equivalent. Such traps may be reinforced with wire mesh no heavier than 9 gauge, which shall only be affixed to the wood slats constituting the vertical surfaces of such traps. Beginning August 1, 2003, wire-reinforced wooden slat traps shall be constructed with wood slats that are a minimum of 1 1/4 inches wide, with a maximum spacing between slats of 2 1/4 inches.

(b) Plastic traps shall be no larger in dimension than 3 feet, by 2 feet, by 2 feet, or the volume equivalent, and shall have a degradable panel no smaller than 6 inches in length and 4 inches in width located on the top horizontal section of the trap. The panel shall only be considered degradable if it is constructed of cypress or untreated pine slats no thicker than 3/4 inch.

(c) The throats or entrances to all traps used to harvest spiny lobster shall be located on the top horizontal section of the trap, and shall be measured using the inside dimensions of the throat. If the throat is longer in one dimension, the throat size in the longer dimension shall not be smaller than 6 inches and in the shorter dimension shall not be smaller than 3 1/2 inches. If the throat is round or square, the throat size shall not be smaller than 5 1/2 inches in diameter or per side, respectively.

(3) All traps shall have a buoy or a time release buoy attached to each spiny lobster trap or at each end of a weighted trap trotline which shall be a minimum of six inches in diameter and constructed of styrofoam, cork, molded polyvinyl chloride, or molded polystyrene, and shall be of sufficient strength and buoyancy to float and of such color, hue, and brilliancy as to be easily distinguished, seen, and located. Landward of the Territorial Sea Line, no more than 15 feet of any buoy line attached to a buoy used to mark spiny lobster trap or trotline shall float on the surface of the water.

(4) Each trap and buoy used to harvest spiny lobster shall have the commercial harvester's current crawfish license or trap number permanently affixed in legible figures. Each such trap shall also have firmly affixed thereto a current trap tag issued annually by the Commission. Traps with tags that are not firmly affixed by nails, staples, or otherwise securely fastened as may be provided by the Commission, shall be considered untagged for enforcement purposes. On each buoy, the affixed crawfish license or trap number shall be at least 2 inches high. The buoy color and license or trap number shall also be permanently and conspicuously displayed on any vessel used by a commercial harvester for setting traps and buoys, so as to be readily identifiable from the air and water, in the following manner:

(a) From the Air – The buoy design approved by the Commission shall be displayed and be permanently affixed to the uppermost structural portion of the vessel and displayed horizontally with the painted design up. The display shall exhibit the harvester's approved buoy design, unobstructed, on a circle 20 inches in diameter, outlined in a contrasting color, together with the permit numbers permanently affixed beneath the circle in numerals no smaller than 10 inches in height.

(b) From the Water – The buoy design approved by the Commission shall be displayed and be permanently affixed vertically to both the starboard and port sides of the vessel near amidship. The display shall exhibit the harvester's approved buoy design, unobstructed, on a circle 8 inches in

diameter, outlined in a contrasting color, together with the permit numbers permanently affixed beneath the circle in numerals no smaller than 4 inches in height.

(5) Except as provided herein, no numbers shall be used to identify traps or buoys other than the commercial harvester's current crawfish license or trap numbers or numbers designating federal permits. Ownership of spiny lobster traps used by any commercial harvester may be transferred to other persons, so long as the following conditions are met:

(a) The person acquiring ownership of such traps shall notify the Division of Law Enforcement within five days of acquiring ownership as to the number of traps purchased, the vendor, and the license or trap number currently displayed on the traps, and shall request issuance of a crawfish license or trap number if the person does not possess same.

(b) Buoys shall be renumbered and recolored at the first pulling of traps.

(c) The new license or trap number shall be permanently attached to the traps prior to their being set at the beginning of the next open season.

(d) The new owner shall retain a valid bill of sale.

(6) Each commercial harvester who harvests spiny lobster by diving shall permanently and conspicuously display on the boat used in such diving a "divers-down flag" symbol on an identification placard, which symbol shall have dimensions no less than 16 inches by 20 inches. The term "divers-down flag" shall have the meaning ascribed in Section 861.065(3), F.S. The commercial harvester's current crawfish license shall be permanently affixed to the diagonal stripe on the placard in legible figures to provide ready identification from the air and water. In addition to the "divers-down flag" symbol, the commercial diver permit number shall also be permanently and conspicuously displayed on any vessel used by a commercial diver to harvest spiny lobster, so as to be readily identifiable from the air and water, in the following manner:

(a) From the Air – The commercial dive permit number shall be displayed and be permanently affixed to the uppermost structural portion of the vessel in numerals no smaller than 10 inches in height. If the vessel is an open design, in lieu of a separate display, one seat shall be painted with the permit numbers unobstructed and no smaller than 10 inches in height.

(b) From the Water – The commercial dive permit number shall be displayed and be permanently affixed vertically to both the starboard and port sides of the vessel in numerals no smaller than 4 inches in height.

(7) Each person who harvests spiny lobster for commercial purposes with a bully net shall permanently and conspicuously display on the vessel used in such bully netting the harvester's commercial bully net permit number in legible figures to provide ready identification. The commercial bully net permit number shall be displayed and be permanently affixed vertically to both the starboard and port sides of the vessel using opaque retroreflective paint or other opaque retroreflective material in numerals no smaller than 4 inches in height.

(8) No person shall operate any vessel that is required to be marked with a bully net permit number pursuant to subsection (7), in Florida Waters with a trap puller aboard.

(9) During any time of the year when it is legal to transport spiny lobster traps, a harvester shall obtain permission from the Division of Law Enforcement to allow another person to transport, deploy, pull, or retrieve his or her traps.

(a) Permission shall be granted upon receipt of a written statement signed by both the commercial harvester seeking to have his or her traps pulled and the person designated to pull the traps.

1. Such written statement shall contain the following:

- a. The reason the harvester needs to have his or her traps pulled,
 - b. The numbers of the saltwater products license and crawfish endorsement of both, the harvester seeking to have the traps pulled and the person who will be pulling the traps,
 - c. The buoy colors of the harvester seeking such permission,
 - d. The name and number of the vessel to be used by the person who will be pulling the traps,
 - e. The general locations of the pulling activity of the vessel to be engaged in pulling the traps;
- and,

- f. The dates the other person will be transporting, deploying, pulling or retrieving the traps.

2. Permission to pull traps in this manner shall be obtained daily by telephone from the Division of Law Enforcement for a maximum of 5 days without renewal or extension of the request.

(b) Permission to have traps pulled by another person for a longer period of time, must be based on extraordinary circumstances such as severe personal or family illness or accident or major equipment problem, and shall be obtained through petition to the Division of Law Enforcement on Commission Form DMF-SL5030 (02-13) (Spiny Lobster Trap Pulling Petition) found online at <http://www.flrules.org/Gateway/reference.asp?No=Ref-02668>, herein incorporated by reference, and shall be granted upon such conditions as the division deems appropriate for the protection of the resource.

1. It shall be the responsibility of the commercial harvester, or a member of the harvester's immediate family, to petition the division.

2. The petition shall include:

- a. A complete description of the extraordinary circumstances with corroborating documentation,

- b. The amount of additional time requested,

- c. The number of traps to be pulled; and,

- d. A notarized statement from the other person, attesting to his/her willingness and ability to pull these traps during this time period as well as an awareness of all rules governing the spiny lobster fishery.

(c) The person designated to pull the petitioner's traps is required to establish a float plan with Division of Law Enforcement Dispatch for each day traps will be pulled prior to pulling traps.

(d) If the person designated to pull the petitioner's traps does not possess a saltwater products license with restricted species and a crawfish endorsement, the petitioner, as the license holder of record must possess a vessel saltwater products license and shall be held accountable for the designee's compliance with all regulations governing the spiny lobster fishery.

(e) Permission to pull another's traps shall not be granted to a person holding a commercial dive permit.

(10) No person shall harvest or attempt to harvest spiny lobster using any device which will or could puncture, penetrate, or crush the exoskeleton (shell) or the flesh of the lobster, and the use of such devices as part of, or in conjunction with, any trap is also prohibited.

(11) No person shall harvest or attempt to harvest spiny lobster using or with the aid of bleach or any other chemical solution. The simultaneous possession of spiny lobster and any plastic or other container capable of ejecting liquid, by any person engaged in diving, is prohibited.

(12) No person shall harvest any spiny lobster from artificial habitat. The harvest and possession in the water of spiny lobster in excess of the recreational bag limit is hereby prohibited within 10 yards of artificial habitat.

(13) Except as provided in subsection (9), of this rule, no more than two spiny lobster (trap)

endorsement numbers (C-numbers) shall be used on a single vessel.

Rulemaking Authority Art. IV, Sec. 9, Fla. Const. Law Implemented Art. IV, Sec. 9, Fla. Const. History—New 7-2-87, Amended 7-2-90, 3-1-92, 7-1-92, 6-1-94, 10-4-95, 9-30-96, 6-1-99, Formerly 46-24.006, Amended 7-1-01, 7-9-02, 7-7-03, 4-1-04, 7-1-08, 6-19-13, 5-1-17.

68B-24.0065 Special Provisions for John Pennekamp Coral Reef State Park in Monroe County: Closure During Two-day Sport Season; Closure of Coral Formation Protection Zones.

(1) During the two-day sport season established in subsection 68B-24.005(2), F.A.C., there shall be no harvest of spiny lobster in John Pennekamp Coral Reef State Park. Except for persons transiting park waters in a vessel, no person shall possess any spiny lobster in or on the waters of the park during this period. Possession of spiny lobster during this period aboard any vessel from which a person is diving, within the boundaries of the park, is prohibited.

(2) The Fish and Wildlife Conservation Commission finds that lobster harvest in the coral formation areas of John Pennekamp Coral Reef State Park is inconsistent with maintenance of the valuable marine resources contained in and supported by such formations and with the purposes of the park.

(a) During the regular spiny lobster season established in subsection 68B-24.005(1), F.A.C., no person shall harvest or attempt to harvest any species of the Genera *Panulirus* or *Scyllarides*, or deploy any trap, in the following described areas of John Pennekamp Coral Reef State Park, each of which is a polygon bounded by the lines connecting the coordinates as expressed by latitude and longitude:

			North	West
	Name of Area	Plot Corner	Latitude	Longitude
1	Turtle Rocks	North	25° 18.6'	80° 13.35'
		East	25° 18.05'	80° 12.8'
		South	25° 16.49'	80° 13.95'
		West	25° 16.95'	80° 14.55'
2	Basin Hill N.	North	25° 14.6'	80° 16.0'
		East	25° 14.42'	80° 15.72'
		South	25° 14.00'	80° 16.00'
		West	25° 14.25'	80° 16.3'
3	Basin Hill E.	North	25° 14.34'	80° 15.58'
		East	25° 14.1'	80° 15.35'
		South	25° 13.62'	80° 15.58'
		West	25° 13.82'	80° 16.08'
4	Basin Hill S.	North	25° 13.95'	80° 16.6'
		East	25° 13.42'	80° 16.1'
		South	25° 12.4'	80° 17.08'
		West	25° 12.75'	80° 17.65'
5	Higdon's Reef	North	25° 08.6'	80° 18.74'
		East	25° 08.4'	80° 18.55'
		South	25° 07.8'	80° 19.2'
		West	25° 08.0'	80° 19.36'
6	Cannon Patch	North	25° 06.95'	80° 20.5'
		East	25° 06.6'	80° 20.15'
		South	25° 05.95'	80° 20.7'
		West	25° 06.05'	80° 21.75'

7	Mosquito Bank N.	North	25° 04.85'	80° 23.00'
		East	25° 04.7'	80° 22.2'
		South	25° 03.6'	80° 23.05'
		West	25° 04.21'	80° 23.40'
8	Mosquito Bank S.E.	North	25° 04.15'	80° 22.3'
		East	25° 04.15'	80° 22.1'
		South	25° 03.3'	80° 22.9'
		West	25° 03.3'	80° 23.1'
9	Three Sisters N.	North	25° 02.75'	80° 23.75'
		East	25° 02.55'	80° 23.3'
		South	25° 01.09'	80° 24.05'
10	Three Sisters S.	North	25° 01.75'	80° 23.78'
		South	25° 01.42'	80° 24.1'
		West	25° 01.67'	80° 24.4'

(b) Within the areas described in paragraph (a), no person shall possess while in or on the water or aboard any vessel, any species of the Genera *Panulirus* or *Scyllarides*.

(c) Within John Pennekamp Coral Reef State Park, no person shall harvest any species of the Genera *Panulirus* or *Scyllarides*, or deploy any trap, from or within any patch reef. The term “patch reef” means any coral formation, consisting of a roughly circular area of hard corals, soft corals, and a mixture of other benthic invertebrates.

(d) The term “trap” for purposes of this subsection means any trap used to harvest or attempt to harvest spiny lobster as allowed by Rule 68B-24.006, F.A.C., stone crabs as allowed by subsection 68B-13.002(2), F.A.C., or blue crab trap as allowed by subsection 68B-45.004(1), F.A.C.

Rulemaking Authority Art. IV, Sec. 9, Fla. Const. Law Implemented Art. IV, Sec. 9, Fla. Const. History—New 6-1-94, Amended 10-4-95, Formerly 46-24.0065.

68B-24.007 Other Prohibitions.

(1) The harvest or possession of eggbearing spiny lobster, or any other species of lobster belonging to the families Palinuridae (spiny lobsters), Scyllaridae (slipper lobsters), or Synaxidae (furry lobsters) is prohibited. Eggbearing spiny lobster, or any other species of lobster in the families listed in this subsection, found in traps shall be immediately returned to the water free, alive, and unharmed. The practice of stripping or otherwise molesting eggbearing spiny lobster, or any other species of lobster in the families listed in this subsection, in order to remove the eggs is prohibited and the possession of spiny lobster or spiny lobster tails from which eggs, swimmerettes, or pleopods have been removed or stripped is prohibited.

(2) Spiny lobster traps may be worked during daylight hours only, and the pulling of traps from 1 hour after official sunset until 1 hour before official sunrise is prohibited.

(3) No spiny lobster traps shall be set, placed, or caused to be set or placed at, on, or below the waters of the state within 100 feet of the intracoastal waterway or within 100 feet of any bridge or sea wall.

(4) No person shall harvest spiny lobster by diving at night (from 1 hour after official sunset until 1 hour before official sunrise) in excess of the bag limit prescribed in Rule 68B-24.004, F.A.C.

(5) A bully net and any underwater breathing apparatus, as defined in Rule 68B-4.002, F.A.C.,

may not be simultaneously possessed on Florida Waters aboard a vessel used in the harvest of spiny lobster for commercial purposes or aboard a vessel transporting spiny lobster for commercial purposes while on Florida Waters. For the purposes of this subsection, a snorkel shall not be considered an underwater breathing apparatus.

(6) The directed harvest of spiny lobster by the use of any net or trawl, other than a landing or dip net, bully net with a diameter no larger than 3 feet, or hoop net with a diameter no larger than 10 feet, is prohibited. Spiny lobster harvested by the use of any net or trawl as an incidental bycatch of other target species lawfully harvested shall not be deemed to be unlawfully harvested in violation of this subsection if the combined whole weight of all spiny lobster so harvested does not exceed 5% of the total whole weight of all species lawfully in possession of the harvester at any time. For purposes of this subsection, the term “net or trawl” shall not include any hand-held net.

Rulemaking Authority Art. IV, Sec. 9, Fla. Const. Law Implemented Art. IV, Sec. 9, Fla. Const. History—New 7-2-87, Amended 7-2-90, 10-4-95, Formerly 46-24.007, Amended 7-1-08, 5-1-17.

68B-24.008 Slipper Lobster; Prohibitions Relating to Eggbearing Slipper Lobster.

Rulemaking Authority Art. IV, Sec. 9, Fla. Const. Law Implemented Art. IV, Sec. 9, Fla. Const. History—New 7-2-87, Amended 7-2-90, Formerly 46-24.008, Repealed 7-1-08.

68B-24.009 Trap Reduction Schedule.

Upon the sale or transfer of lobster trap certificates outside the immediate family of the certificate holder, the number of certificates received by the purchaser shall be reduced by 10 percent. Once the number of lobster trap certificates is reduced through this mechanism to 400,000, there shall be no further reduction in the number of lobster trap certificates issued each year except those forfeited pursuant to Section 379.3671(2)(c)3. or 379.3671(2)(c)7., F.S.

Rulemaking Authority Art. IV, Sec. 9, Fla. Const. Law Implemented Art. IV, Sec. 9, Fla. Const. History—New 3-1-92, Amended 6-1-94, 6-3-96, 3-5-97, Formerly 46-24.009, Amended 6-29-00, 7-1-01, 4-1-04, 1-9-07, 7-1-08, 7-1-09.

APPENDIX B. INCONSISTENCIES BETWEEN STATE AND FEDERAL REGULATIONS

FWC'S SUGGESTED CHANGES TO FEDERAL SPINY LOBSTER RULE (50 CFR PART 662 SUBPART R)

Table 1. Recommended changes related to creation of the FWC commercial Bully Net permit

Federal Rule Number	State Rule Number or Florida Statute	Issue and/or Concern	Proposed Change
622.400(a)(1)(i)	68B-24.002(4), F.A.C.	The F.A.C. definition of “commercial harvester” is incorporated into the CFR by reference with an effective date of July 1, 2008. As of May 1, 2017, FWC expanded the F.A.C. definition of “commercial harvester” to include persons who hold a valid bully net permit. FWC recommends CFR be updated to include harvesters who possess a valid bully net permit.	Update the incorporated by reference with an F.A.C. effective date of May 1, 2017.
622.402(a)	68B-24.006(7), F.A.C.	CFR requires commercial harvesters using traps or diving in federal waters off Florida to abide by the vessel and gear identification requirements in F.A.C. as of July 1, 2008. As of May 1, 2017, F.A.C. includes vessel identification requirements for commercial bully net harvesters. FWC requests the vessel identification requirements for commercial bully net harvesters be included in CFR.	Add the following rule language to 622.402(a): <i>An owner or operator of a vessel that is used to harvest spiny lobsters by bully net in the EEZ off Florida must comply with the vessel identification requirements applicable to the harvesting of spiny lobsters by bully net in Florida’s waters in Rule 68B-24.006(7), Florida Administrative Code, in effect as of May 1, 2017 (incorporated by reference, see §622.413).</i>
622.404	68B-24.006(8), F.A.C.	As of May 1, 2017, F.A.C. prohibits traps pullers from being aboard vessels that are, or are required to be, marked with a bully net permit number. FWC requests this prohibition be included in CFR.	Add the following rule language to 622.404: <i>In the EEZ off Florida, no person shall operate any vessel that is required to be marked with a bully net permit number with a trap puller aboard, pursuant to 68B-24.006(8), Florida Administrative Code, in effect as of May 1, 2017 (incorporated by reference, see §622.413).</i>
622.404	68B-24.007(5), F.A.C.	As of May 1, 2017, F.A.C. prohibits both a bully net and any underwater breathing apparatus from being simultaneously possessed aboard a vessel used in the harvest of spiny lobster for commercial purposes or aboard a vessel	Add the following rule language to 622.404 (Prohibited gear and methods): <i>In the EEZ off Florida, a bully net and any underwater breathing apparatus, as defined in Rule 68B-4.002, Florida</i>

Federal Rule Number	State Rule Number or Florida Statute	Issue and/or Concern	Proposed Change
		transporting spiny lobster for commercial purposes. FWC requests this prohibition be included in CFR.	<i>Administrative Code, in effect as of May 1, 2017 (incorporated by reference, see §622.413), may not be simultaneously possessed aboard a vessel used in the harvest of spiny lobster for commercial purposes or aboard a vessel transporting spiny lobster for commercial purposes. A snorkel shall not be considered an underwater breathing apparatus.</i>
622.408(b)	64B-24.0055(4) and (5), F.A.C.	CFR exempts all commercial harvesters from the recreational bag limit during the commercial and recreational fishing season. FWC has implemented vessel trip limits for commercial divers and bully netters. F.A.C. limits commercial divers harvesting in state waters and the adjacent EEZ off Broward, Miami-Dade, Monroe, Collier, and Lee counties to a daily harvest and possession limit of 250 lobsters per day. It also limits commercial bully netters in all state waters to a daily harvest and possession limit of 250 lobsters per day. FWC requests inclusion of commercial trip limit for divers and bully netters to ease compliance and enforcement.	Add rule language to 622.408 (Bag/vessel limits) that: (1) Incorporates by reference the state daily vessel harvest and possession limits for commercial divers and commercial bully netters in the EEZ off Florida. - OR - (2) Creates federal daily vessel harvest and possession limits of 250 lobsters for commercial divers in federal waters off Broward, Miami-Dade, Monroe, Collier, and Lee counties and for commercial bully netters in federal waters off Florida.

Table 2. Recommended changes to promote consistency between state and federal regulations that are not related to creation of the FWC commercial Bully Net permit.

Federal Rule Number	State Rule Number or Florida Statute	Issue and/or Concern	Proposed Change
622.405(a)	68B-24.006(2), F.A.C.	<p>Both the CFR and the F.A.C. include specifications for trap construction; however, the F.A.C. has more specifications than CFR and there are additional discrepancies between the two rules.</p> <p>One discrepancy in the rules relates to the degradable panel construction and placement. CFR and F.A.C. require/allow the degradable panel to be constructed from different materials.</p> <p>FWC requests the CFR be changed for consistency in trap construction requirements related to degradable panels in traps constructed of materials other than wood.</p>	<p>(1) Revise 622.405(a) (Construction specifications) to read: <i>Construction specifications. In the EEZ, a spiny lobster trap may be no larger in dimension than 3 feet by 2 feet by 2 feet (91.4 cm by 61.0 cm by 61.0 cm), or the volume equivalent. A trap constructed of material other than wood must have a degradable panel no smaller than 6 inches (15.2 cm) in length and 4 inches (10.2 cm) in width constructed of cypress or untreated pine slats no thicker than ¾ inch (0.6 cm) wood, cotton, or other material that will degrade at the same rate as a wooden trap. Such panel must be located in the upper half of the sides or on the top horizontal section of the trap, so that, when removed, there will be an opening in the trap no smaller than the diameter of the trap's mouth.</i></p>
622.408(b)(4)	68B-24.007(6), F.A.C.	<p>CFR establishes incidental bycatch limits for spiny lobster harvested by net or trawl. The bycatch limits are a proportion of the total catch of “all fish lawfully in possession on board such vessel.” While the bycatch limits in CFR are very similar to the bycatch limits established in F.A.C., the limits in F.A.C. are a percentage of the total weight of all <i>species</i> lawfully in possession.</p> <p>There is no definition in CFR for the term “fish,” thus FWC recommends the term <i>fish</i> be changed to <i>species</i> to clarify that the bycatch limit applicable to lobster harvested by net or trawl fisheries also includes net or trawl fisheries that target invertebrates.</p>	<p>Revise 622.408(b)(4) to read: <i>Harvest by net or trawl... aboard a vessel with the required licenses, certificates, or permits specified in §622.400(a)(1) that harvests spiny lobster by net or trawl or has on board a net or trawl, the possession of spiny lobster in or from the EEZ off Florida and off the Gulf states, other than Florida, may not exceed at any time 5 percent, whole weight, of the total whole weight of all species fish lawfully in possession on board such vessel. If such vessel lawfully possesses a separated spiny lobster tail, the possession of spiny lobster in or from the EEZ may not exceed at any time 1.6 percent, by weight of the spiny lobster or parts thereof, of the total whole weight of all species fish lawfully in possession on board such vessel....</i></p>

Federal Rule Number	State Rule Number or Florida Statute	Issue and/or Concern	Proposed Change
622.402(c)	68B-55.004, F.A.C.	<p>CFR rule language authorizing the removal of derelict traps is more restrictive than F.A.C. CFR only allows removal of unmarked traps during times other than the authorized fishing season. Additionally, F.A.C. allows the removal of derelict traps and trap debris during the open season under specific conditions.</p> <p>This was an issue several years back. A dive charter operator from Jupiter, FL, located an unmarked trawl-line of lobster traps in federal waters. The unmarked traps could not be removed until after the season ended.</p> <p>FWC requests CFR be modified to allow removal of unmarked traps during the open or closed spiny lobster season.</p>	<p>Revise rule language in 622.402 (Vessel and gear identification) to authorize the removal of unmarked traps or buoys from the water at any time, including during the authorized fishing season. Revise the rule language in 622.402(c)(1) to read:</p> <p><i>(1) EEZ off Florida. Such trap or buoy, and any connecting lines, during times other than the authorized fishing season, will be considered derelict and may be disposed of in accordance with Rules 68B-55.002 and 68B-55.004 of the Florida Administrative Code, in effect as of October 15, 2007 (incorporated by reference, see §622.413). An owner of such trap or buoy remains subject to appropriate civil penalties.</i></p>
622.405(b)(2)	379.367(4)(a) and 379.3671(2)(c)3., F.S.	<p>Unlike F.S., CFR does not expressly prohibit the willful molestation of the taking possession of another harvesters' traps, lines or buoys, or removal of the contents of another harvesters' trap. In Florida state waters, these actions are considered trap theft.</p> <p>FWC requests the CFR specifically prohibit these actions.</p>	<p>Revise 622.405(b)(2) (Trap construction specifications and tending restrictions) to state something to the effect of:</p> <p><i>In the EEZ off Florida, a person may not willfully molest or take possession of another harvester's spiny lobster traps, lines or buoys, or remove the contents of another harvester's spiny lobster trap without the express written consent of the trap owner available for immediate inspection. Unauthorized possession of another harvester's trap gear or removal of another harvester's trap contents constitutes theft. Permission to pull or work traps belonging to another person may be granted--...</i></p>

<p>622.408(b)</p>	<p>64B-24.0055(5), F.A.C.</p>	<p>CFR exempts all commercial harvesters from the recreational bag limit during the commercial and recreational fishing season. As far back as August 2004 (could be earlier), FWC implemented vessel trip limits for commercial divers and bully netters. F.A.C. limits commercial divers harvesting in state waters and the adjacent EEZ off Broward, Miami-Dade, Monroe, Collier, and Lee counties to a daily harvest and possession limit of 250 lobsters per day. It also limits commercial bully netters in all state waters to a daily harvest and possession limit of 250 lobsters per day. FWC requests inclusion of commercial trip limit for divers and bully netters to ease compliance and enforcement.</p>	<p>Add rule language to 622.408 (Bag/vessel limits) that: (1) Incorporates by reference the state daily vessel harvest and possession limits for commercial divers and commercial bully netters. - OR - (2) Creates federal daily vessel harvest and possession limits of 250 lobsters for commercial divers in federal waters off Broward, Miami-Dade, Monroe, Collier, and Lee counties and for commercial bully netters in federal waters off Florida.</p>
--------------------------	-----------------------------------	--	---

Table 3. Recommended changes to incorporations by reference and other technical changes.

Federal Rule Number	State Rule Number or Florida Statute	Issue and/or Concern	Proposed Change
622.405(b)(2)(i)	68B-24.006(9), F.A.C.	F.A.C. granting permission to have someone other than the trap owner work traps was incorporated by reference into CFR with an effective date of July 1, 2008. F.A.C. was amended on June 19, 2013 to change the form and requirements to obtain this permission. Also, renumbering of F.A.C. on May 1, 2017 affects this incorporation by reference. FWC requests correction of this incorporation by reference.	Update the “incorporated by reference” in 622.405(b)(2)(i)(Tending restrictions) to be Rule 68B-24.006(9), Florida Administrative Code, in effect as of May 1, 2017.
622.413(b)(2)	68B-24.002, F.A.C.	The F.A.C. definitions in rule for spiny lobster were incorporated by reference into CFR with an effective date of July 1, 2008. The F.A.C.’s definitions were amended on July 1, 2015 and May 1, 2017.	Update the “incorporated by reference” in 622.413(b)(2)(Incorporation by reference) to include the effective date
622.413(b)(4)	68B-24.006, F.A.C.	68B-24.006 (Gear: Traps, Buoys, Identification Requirements, Prohibited Devices), F.A.C., was incorporated by reference into CFR with an effective date of July 1,	Update the “incorporated by reference” in 622.413(b)(4)(Incorporation by reference) to include the effective date
622.413(b)	N/A	CFR includes an outdated phone number for the Division of Marine Fisheries	Update the phone number to (850) 487-0554, and update the
622.413(c)	N/A	CFR includes an outdated phone number for the Division of Marine Fisheries	Update the phone number to (850) 487-0554.
622.408(b)(4)	N/A	The last sentence in 622.408(b)(4) (Harvest by net or trawl) reads: “...the term net	The word <i>loading</i> should be corrected to <i>landing</i> .
622.415(a)	N/A	In 622.415(a) (Limited exemption regarding harvest in waters of a foreign nation),	The word <i>foeign</i> should be corrected to <i>foreign</i> .

APPENDIX C. EXITING COOPERATIVE MANAGEMENT PROTOCOL BETWEEN THE COUNCILS AND FLORIDA

Existing Protocol for Roles of Federal and State of Florida Agencies for the Management of Gulf and South Atlantic Spiny Lobster

- 1.** The Gulf of Mexico and South Atlantic Fishery Management Councils (Councils) and NOAA Fisheries Service acknowledge that the fishery is largely a State of Florida (State) fishery, which extends into the exclusive economic zone (EEZ), in terms of current participants in the directed fishery, major nursery, fishing, landing areas, and historical regulation of the fishery. As such, this fishery requires cooperative state/federal efforts for effective management through the Fishery Management Plan for the Spiny Lobster Fishery of the Gulf of Mexico and South Atlantic (Spiny Lobster FMP).
- 2.** The Councils and NOAA Fisheries Service acknowledge that the State is managing and will continue to manage the resource to protect and increase the long-term yields and prevent depletion of lobster stocks and that the State Administrative Procedure Act and rule implementation procedures, including final approval of the rules by Governor and Cabinet, provide ample and fair opportunity for all persons to participate in the rulemaking procedure.
- 3.** The Florida Fish and Wildlife Conservation Commission (FWC) acknowledges that rules proposed for implementation under any fishery management plan amendment, regulatory or otherwise, must be consistent with the management objectives of the Spiny Lobster FMP, the National Standards, the Magnuson-Stevens Fishery Conservation and Management Act, and other applicable law. Federal rules will be implemented in accordance with the Administrative Procedure Act.
- 4.** The Councils and NOAA Fisheries Service agree that, for any rules defined within an amendment to the Spiny Lobster FMP, the State may propose the rule directly to NOAA Fisheries Service, concurrently informing the Councils of the nature of the rule, and that NOAA Fisheries Service will implement the rule within the EEZ provided it is consistent under paragraph three. If either of the Councils informs NOAA Fisheries Service of their concern over the rule's inconsistency with paragraph three, NOAA Fisheries Service will not implement the rule until the Councils, FWC, and NOAA Fisheries Service resolve the issue.
- 5.** The State will have the responsibility for collecting and developing the information upon which to base the fishing rules, with assistance as needed by NOAA Fisheries Service, and cooperatively share the responsibility for enforcement with federal agencies.
- 6.** Florida FWC will provide to NOAA Fisheries Service and the Councils written explanations of its decisions related to each of the rules; summaries of public comments; biological, economic and social analysis of the impacts of the proposed rule and alternatives; and such other relevant information.
- 7.** The rules will apply to the EEZ for the management area of North Carolina through Texas, unless the Regional Administrator (RA) determines those rules may adversely impact other state and federal fisheries. In that event, the RA may limit the application of the rule, as necessary, to address the problem.

8. NOAA Fisheries Service and the Councils agree that their staffs will prepare the proposed and final rules and the associated National Environmental Policy Act documentation and other documents required to support the rule.
