

# Modifications to the Spiny Lobster Gear Requirements and Cooperative Management Procedures



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## Final 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

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# ENVIRONMENTAL ASSESSMENT COVER SHEET

## Name of Action

Final Amendment 13 to the Fishery Management Plan for Spiny Lobster in the Gulf of Mexico and the South Atlantic: Modifications to the Spiny Lobster Gear Requirements and Cooperative Management Procedures including Environmental Assessment, Fishery Impact Statement, Regulatory Impact Review, and Regulatory Flexibility Act Analysis

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## Type of Action

Administrative  
 Draft

Legislative  
 Final

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## ABBREVIATIONS USED IN THIS DOCUMENT

ABC	acceptable biological catch
ACCSP	Atlantic Coastal Cooperatives Statistics Program
ACL	annual catch limit
ACT	annual catch target
AM	accountability measure
AP	advisory panel
ASMFC	Atlantic States Marine Fisheries Commission
BEA	US Bureau of Economic Analysis
BiOp	biological opinion
C	crawfish license
CD	commercial dive permit
CFR	Code of Federal Regulations
CN	bully net permit
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
E.O.	Executive Order
EJ	Environmental Justice
ESA	Endangered Species Act
F	fishing mortality
FAC	Florida Administrative Code
FIS	fishery impact statement
FMP	fishery management plan
FWC	Florida Fish and Wildlife Conservation Commission
FWRI	Florida Fish and Wildlife Research Institute
GDP	gross domestic product
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
mp	million pounds
MRIP	Marine Recreational Information Program
MSY	maximum sustainable yield
NARW	North Atlantic right whales
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
OFL	overfishing limit

PDARP	Programmatic Damage Assessment and Restoration Plan
pw	product weight
RA	Regional Administrator
RS	restricted species endorsement
RQ	regional quotient
rw	round weight
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 the South Atlantic
South Atlantic Council	South Atlantic Fishery Management Council
SPL	Saltwater Products License
SSC	Scientific and Statistical Committee
tpy	tons per year
USCG	United States Coast Guard
USFWS	United States Fish and Wildlife Service
ww	whole weight

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## FISHERY IMPACT STATEMENT

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) requires that a fishery impact statement (FIS) be prepared for all amendments to fishery management plans. The FIS contains: 1) an assessment of the likely biological/conservation, economic, and social effects of the conservation and management measures on fishery participants and their communities; 2) an assessment of any effects on participants in the fisheries conducted in adjacent areas under the authority of another Fishery Management Council; and 3) the safety of human life at sea. Detailed discussion of the expected effects for all alternatives considered is provided in Chapter 4. The FIS provides a summary of these effects.

The Fishery Management Plan for Spiny Lobster in the Gulf of Mexico and the South Atlantic (Spiny Lobster FMP) consists of three management actions developed jointly by the Gulf of Mexico Fishery Management Council and the South Atlantic Fishery Management Council (Councils). The first action requires persons using bully net gear in the exclusive economic zone (EEZ) off Florida to have a Florida state bully net permit, and comply with state marking requirements and gear prohibitions. The second action establishes daily vessel harvest and possession limits in the EEZ off Florida for commercial harvest of spiny lobster by bully net and diving, consistent with the limits in state waters. Diving limits are only applicable to the waters off Broward, Dade, Monroe, Collier and Lee counties. Aligning federal regulations applicable in the EEZ off Florida with these Florida regulations is expected to streamline management and reduce potential confusion for law enforcement and anglers. The third action establishes an enhanced cooperative management procedure to allow Florida to request changes to federal spiny lobster regulations applicable to the EEZ off Florida and combines that procedure with the existing protocol as specified in Amendment 10 to the Spiny Lobster FMP. The establishment of the cooperative management procedure could allow for faster implementation of consistent regulations for Florida state waters and the EEZ off Florida. Actions proposed in this amendment are not expected to result in significant impacts on fishery participants.

Table. Summary of Actions and preferred alternatives.

	<b>Preferred Alternative Summary</b>
<b>Action 1</b>	Makes federal regulations for commercial harvest of spiny lobster by bully net gear in the EEZ off Florida consistent with those in Florida state waters.
<b>Action 2</b>	Establishes a daily vessel limit for the commercial harvest of spiny lobster by bully net in the EEZ off Florida, and establishes a daily vessel limit for commercial harvest of spiny lobster by diving in the EEZ off Broward, Dade, Monroe, Collier, and Lee Counties
<b>Action 3</b>	Establishes an enhanced management protocol and procedure that allows Florida to recommend federal regulations for spiny lobster in the EEZ off Florida directly to the National Marine Fisheries Service (NMFS).

### Biological/Physical Effects

Action 1, **Preferred Alternative 2** makes the regulations applicable to commercial harvest of spiny lobster by bully net gear in the EEZ off Florida consistent with those regulations applicable to harvest in Florida state waters. Adverse direct effects to the physical environment are not expected from bully net gear, indirect adverse effects could occur if the boat ran aground in shallow waters and/or damage caused to the bottom from the propeller. However, any adverse indirect effects to the physical environment are not expected by this action as explained below in the effects to the biological environment. Currently there is limited information indicating that spiny lobster are harvested in federal waters off Florida using bully net gear; bully net gear is not practical to use in the depths typically found in the EEZ. The level of effort in federal waters is not expected to increase as a result of this action and direct and indirect biological effects from bully net gear for commercial harvest are not expected.

Currently, there is little indication that spiny lobster are harvested in federal waters off Florida using bully net gear. The EEZ off Florida extends from three to 200 nautical miles offshore on the Atlantic side and nine to 200 nautical miles offshore on the Gulf side; bully net gear is not practical to use in the depths typically found in the EEZ off Florida. Therefore, the level of effort in federal waters is not expected to increase as a result of this action and direct and indirect biological effects to the spiny lobster stock using bully net gear for commercial harvest are not expected.

For Action 2, the direct biological and physical effects under **Alternative 1** are expected to be the same as **Preferred Alternatives 2** and **3**. There is limited fishing by bully net in federal waters and people fishing with dive gear in federal waters are already required to comply with Florida's possession limits. Therefore, Action 2 is not expected to change how the current spiny lobster is prosecuted. However, implementing federal regulations for commercial daily vessel harvest and possession limit for spiny lobster harvested by bully net or diving in the EEZ off Florida could result in indirect beneficial biological effects to the extent it reduces any confusion about the applicable harvest limits and results in better compliance.

In Action 3, neither alternative would have any direct effect on the physical or biological environments. This action is administrative in nature in that it establishes a procedure for Florida to directly recommend regulations to NMFS and combines the procedure with the existing protocol. **Preferred Alternative 2** streamlines the process, and may have indirect positive effects on the physical or biological environments, should these regulatory recommendations be based on efforts to mitigate harm.

### Social Effects

Direct social effects to fishing communities from Action 1, **Preferred Alternative 2** are expected to be minimal. Due to water depth, harvest of spiny lobster using bully net gear is unlikely to be occurring in the EEZ off Florida. The indirect effects on fishing communities are expected to be positive and associated with consistency between federal and Florida state regulations. Consistency is expected to prevent bully nets from being used as a cover for illegal activity, reduce confusion among spiny lobster fishermen, and aid in compliance. As a result, Action 1 is expected to reduce user conflict, resulting in positive indirect social effects.

Direct social effects to fishing communities from Action 2, **Preferred Alternative 2** and **Preferred Alternative 3**, are expected to be minimal. As noted above, there is limited fishing by bully net in federal waters and people fishing with dive gear in federal waters are already required to comply with Florida's possession limits. The indirect effects on fishing communities are expected to be positive and associated with consistency between federal and state regulations. Consistency will reduce any confusion about the applicable harvest limits.

The enhanced cooperative management procedure for federal and Florida state agencies for the management of spiny lobster could allow managers to react quickly to changes in the fishery, ensuring that long-term positive social impacts are realized by fishing communities. Direct social effects to fishing communities from Action 3, **Preferred Alternative 2** are expected to be minimal, as the action does not directly affect harvest of spiny lobster. Indirect effects on fishing communities are expected to be positive and associated with timelier management.

### Economic Effects

In Action 1, **Preferred Alternative 2** would align federal regulations with Florida's regulations for bully net gear. These regulations are not expected to affect commercial spiny lobster harvests. However, these requirements could result in additional costs on bully net fishery participants who acquire the gear for use in federal waters. Because participants in the spiny lobster fishery typically already possess the gear to fish in state waters, the potential additional cost burden is expected to be negligible. Furthermore, fishermen are not likely to use bully net gear to harvest spiny lobster in the EEZ due to depth. However, **Preferred Alternative 2** would be expected to result in indirect economic benefits by improving compliance with and enforcement of these regulations.

For fishermen harvesting spiny lobster in the EEZ, Action 2, **Preferred Alternative 2** aligns the commercial daily harvest and possession limit with the current limit set by the state of Florida for fishermen using bully net gear in its state waters. **Preferred Alternative 2** is not expected to result in significant direct economic effects because there is limited fishing using bully net gear in federal waters. Action 2, **Preferred Alternative 3** would align the commercial daily harvest and possession limit of spiny lobster in the EEZ off Broward, Dade, Monroe, Collier, and Lee Counties with the current limits for spiny lobster harvested using dive gear in Florida state waters. Because Florida commercial dive permit holders are already restricted to the state harvest and possession limit for spiny lobster, regardless of where they fish, potential negative economic effects that may result from Preferred Alternative 3 are expected to be negligible. However, by aligning state and federal regulations, **Preferred Alternatives 2** and **3** may result in indirect positive economic effects by reducing potential confusion and increasing compliance with these regulations.

Action 3, **Preferred Alternative 2** streamlines the regulatory process by re-establishing the enhanced cooperative management procedure for spiny lobster and combining the procedure with the existing protocol. **Preferred Alternative 2** would not be expected to result in direct economic effects because it is not expected to affect spiny lobster harvests. **Preferred Alternative 2** could benefit the spiny lobster fishery and result in indirect economic benefits by fostering a timely implementation of regulatory changes requested by the state of Florida.

## Administrative Effects

In Action 1, **Preferred Alternative 2** administrative effects would not be expected to rise to the level of significance. Florida has already implemented regulations in state waters requiring a commercial bully net permit, and fishermen are already required to abide by all the measures mentioned under **Preferred Alternative 2** (Appendix A) if landing spiny lobster in Florida. The only added burden to the federal administrative environment under **Preferred Alternative 2** would be in the form of incorporating the new language in the federal regulations.

In Action 2, **Preferred Alternatives 2** and **3** would reduce the administrative burden if these alternatives lessen confusion about the possession limits that apply in the EEZ off Florida and the identified counties.

In Action 3, **Preferred Alternative 2** would be more beneficial for the administrative environment because it would allow for a direct mechanism for regulations to be provided for implementation from Florida to NMFS. **Preferred Alternative 2** establishes the procedure necessary for Florida to be able to provide these regulatory recommendations with the appropriate analyses to NMFS. NMFS's involvement in the protocol and procedure would be no more of a burden than the current amendment process.

## Safety at Sea

None of the actions in this amendment are anticipated to force vessels to participate in the fishery under adverse weather or oceanic conditions. Therefore, no additional safety-at-sea issues would be created.

# CHAPTER 1. INTRODUCTION

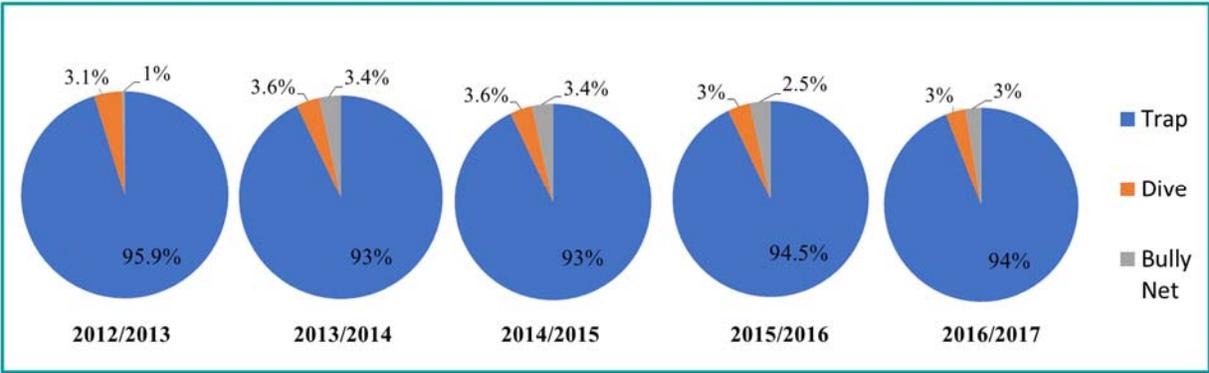
## 1.1 Background

### 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. This type of gear is typically used in shallow waters at night when spiny lobster move away from structure. Bully net gear pre-dates the use of spiny lobster traps and currently comprises 3% of spiny lobster landings (Figure 1.1.1). Participation has steadily increased in recent years (Figure 1.1.1 and Figure 1.1.2) with landings using bully nets 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 occurs in federal waters. The proposed actions in this document would simplify the regulations for both anglers and law enforcement by making them consistent in all waters off Florida.

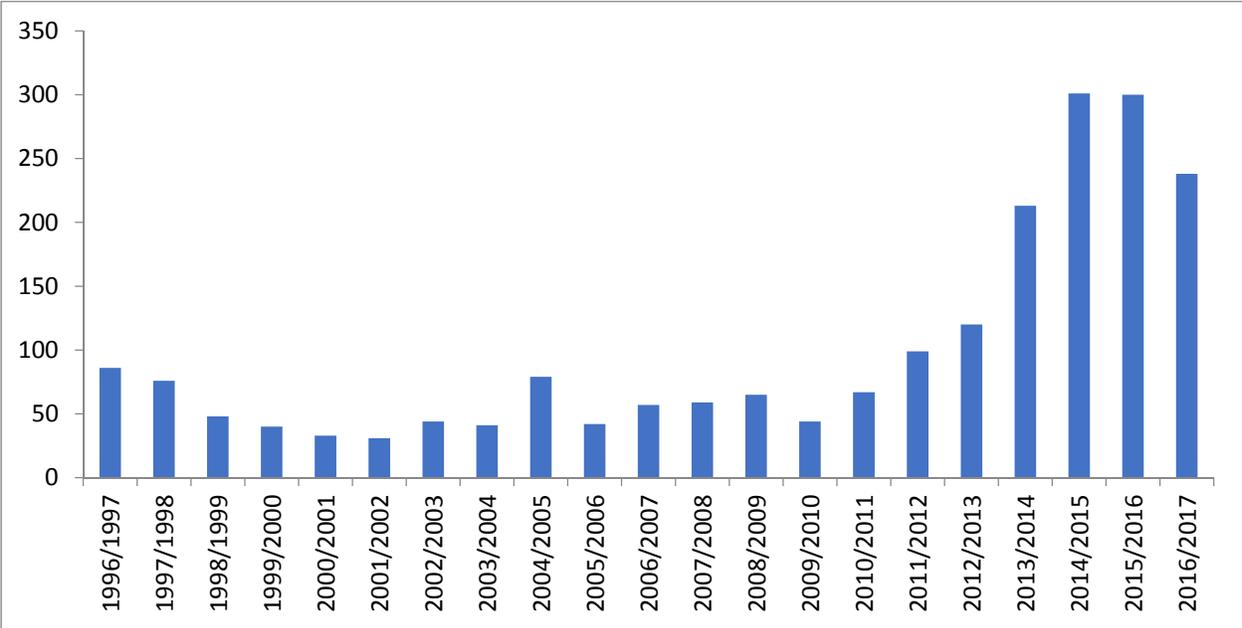
- *Gulf of Mexico and South Atlantic Fishery Management Councils* – Develop the range of actions and alternatives and select preferred alternatives that are submitted to the National Marine Fisheries Service.
- *National Marine Fisheries Service and Council staff* – Assist in the development of alternatives 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 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 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, Florida Administrative Code (FAC), to include harvesters with a commercial bully net permit.

2. Create an open-access bully net permit that would be required in conjunction with the harvester's saltwater products license and restricted species endorsement and crawfish license 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 permit 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.

### **Commercial Bully Net and Diving Trip Limits**

Since the beginning of the 2004/2005 spiny lobster season, Florida has required spiny lobster harvested commercially by diving off Broward, Dade, Monroe, Collier, and Lee Counties, Florida to be restricted to 250 vessel possession limit per day regardless of the number of commercial harvesters on board the vessel. A commercial harvester is defined 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, and a valid saltwater products license with a restricted species endorsement issued by the Fish and Wildlife Conservation Commission. This definition was updated in May 2017 to include a person who holds a valid bully net permit issued by the Fish and Wildlife Conservation Commission. Florida required spiny lobsters harvested commercially by bully net off all counties in Florida to be restricted to 250 vessel possession limit per day regardless of the number of commercial harvesters on board the vessel.

Federal regulations have incorporated by reference Florida's regulations defining a commercial harvester since July 2008. Since Florida's regulations limit a commercial harvester to be restricted to the possession limits stated above, regardless of what waters the spiny lobsters are harvested in, commercial fishermen are already restricted to these possession limits in the EEZ off Florida. However, current federal regulations do not explicitly state the commercial possession limit for spiny lobster harvested by bully net or diving, only point the reader to other sections, which incorporate by reference Florida's regulations. This has led to some confusion on whether the possession limit applies to federal waters off Florida or not.

### **Spiny Lobster Protocol and Procedure for an Enhanced Cooperative Management System**

The original Fishery Management Plan for Spiny Lobster in the Gulf of Mexico and the South Atlantic (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 exclusive economic zone (EEZ); the fishery within state waters remained under Florida's authority. The Spiny Lobster FMP adopted many of the management measures employed by Florida to achieve its conservation and management objectives and effectively

coordinate management with Florida. However, the Councils did not initially adopt certain Florida lobster regulations. 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 EEZ through the National Marine Fisheries Service (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 removed in 2012 with the implementation of Spiny Lobster Amendment 10; therefore, FWC could not propose rules directly to NMFS for implementation. The protocol still exists, but there is no procedure to implement Florida proposed regulations without a Council framework action or plan amendment.

This amendment addresses the bully netting regulations proposed by Florida, other incompatibilities between federal and Florida states laws, and addresses reinstating the cooperative management 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 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 nighttime 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 undersized lobster for each 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 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** (2018) updated the overfishing limit (OFL), ACL, and ACT to incorporate a longer time series of landings. This regulatory amendment prohibited 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: Florida state bully net permit, marking requirements, and gear prohibitions for bully net gear in the exclusive economic zone (EEZ) off Florida

**Alternative 1:** No Action. A Florida state commercial bully net permit is not required 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.

**Preferred Alternative 2:** 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 permit from Florida
- Require that the vessel be marked with the harvester's Florida bully net permit 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 specific regulatory language related to items above, the reader is referred to (Appendix A and Appendix B).

#### **Discussion:**

The National Marine Fisheries Service (NMFS) and the Gulf of Mexico and South Atlantic Fishery Management Councils (Councils) have identified two reasonable alternatives for this action, including the no action alternative.

Under **Alternative 1** (No Action), a Florida state commercial bully net permit is not required for bully net gear and there are no regulations specific to bully nets for spiny lobster harvesters in the EEZ off Florida in the Gulf and the South Atlantic. Permits and vessel markings specific to fishing with a bully net are not required, nor are additional gear types prohibited on bully net vessels.

**Preferred Alternative 2** would make regulations in the EEZ off Florida in the Gulf and South Atlantic consistent with the changes made by Florida in its regulations<sup>1</sup> (Appendix B). Because NMFS incorporates Florida regulations by reference, no new federal permit would be created under **Preferred Alternative 2**. Currently in the federal regulations, for a person to commercially harvest spiny lobster in the EEZ off Florida, that person must have the licenses and

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<sup>1</sup> Current regulations for the harvest and management of spiny lobster in the state waters of Florida are at <https://www.flrules.org/gateway/ChapterHome.asp?Chapter=68B-24> (Appendix A).

certificates specified to be a “commercial harvester,” as defined in 68B-24.002, of the Florida Administrative Code, in effect as of July 1, 2008 (50 C.F.R. § 622.400(a)). The 2008 version of “commercial harvester” included a person holding the appropriate licenses and certificates for traps and dive gear. Under **Preferred Alternative 2**, NMFS would update the incorporation by reference to refer to Florida’s 2017 version of the definition of commercial harvester, which also includes the bully net permit. NMFS would also require compliance with the other Florida bully net regulations when harvesting spiny lobster in the EEZ off Florida (see below).

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

- Created an open-access commercial bully net lobster permit available to commercial fishers who hold a crawfish endorsement. 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 Commission Form DMF-SL2420a (02-17).<sup>2</sup> Therefore, a Florida commercial bully netter that possesses, sells, trades, or barter or attempts to sell, trade, or barter spiny lobster needs a Florida SPL license, a restricted species (RS) endorsement, commercial (C) license, and a bully net permit (CN) permit to harvest spiny lobster in state or federal waters. This addresses concerns about the recent increase in participation in the commercial portion of the bully net fishery, obtain additional information about the fishery, and maintain the viability of this traditional method of commercial harvest.
- 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 prevents 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 prevents the use of the bully net fishery as a cover for illegal commercial harvest while diving without a commercial dive permit; and addresses 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 permit. This ensures the definition continues to be comprehensive and requires that bully net permit

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<sup>2</sup> Saltwater Products License (SPL) Application with CN for Individuals, found online at: <http://www.flrules.org/Gateway/reference.asp?No=Ref-08028>, or Commission Form DMF-SL2420b (02-17) SPL Application with CN for Businesses, found online at: <http://www.flrules.org/Gateway/reference.asp?No=Ref-08027>.

holders abide by all subsequent commercial lobster harvest requirements as provided in Florida's lobster regulations.

In addition to the rationale discussed above, consistency and clarity between federal and Florida regulations under **Preferred Alternative 2** is expected to improve enforcement. Public testimony included statements such as possible illegal diving for lobster without a commercial dive permit, illegal trap robbing/working traps without trap certificates/trap tags, or illegally working traps at night. The measures under **Preferred Alternative 2** such as vessel markings with reflective paint would aid law enforcement in identifying the permitted bully netters at night and would help reduce the potential for individuals to use the bully net fishery as cover for illegal lobster harvest at night. Additionally, consistency in regulations between federal and state waters reduces confusion among the fishers and is expected to aid in compliance with regulations.

## 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.

**Preferred 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.

**Preferred 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 the EEZ only 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:**

There is little information available on how much, if any, bully net harvest occurs in federal waters. Commercial spiny lobster harvested by bully net is restricted by a daily vessel harvest and possession limit of 250 per day in all Florida state waters. Florida regulations define diving as swimming at or below the surface of the water. Landings records indicate dive harvest is regularly conducted in state waters with limited harvest in federal waters. Commercial spiny lobster harvested by dive gear is currently restricted in state waters by a daily vessel harvest and possession limit of 250 per day off Broward, Dade, Monroe, Collier, and Lee Counties, Florida. There is no daily vessel harvest and possession limit for commercial harvest by diving off other counties in Florida.

Currently, there is not a commercial daily vessel harvest and possession limit for spiny lobster harvested by bully net or diving in the EEZ listed in federal regulations (**Alternative 1**). However, current federal regulation require commercial spiny lobster harvesters in the EEZ off Florida to have the licenses and certificates specified to be a “commercial harvester,” as defined in Florida’s regulations as of 2008. The 2008 version of “commercial harvester” included a person holding the appropriate licenses and certificates for traps and dive gear. **Alternative 2** in Action 1 would incorporate the most recent Florida regulations, which define a commercial harvester as a person who holds a valid saltwater products license with a restricted species endorsement issued by the Florida Fish and Wildlife Conservation Commission (FWC) and 1) a valid crawfish license or trap number and lobster trap certificates, if traps are used to harvest spiny lobster; 2) a valid commercial dive permit if harvest is by diving; or 3) a valid bully net permit if harvest is by bully net. Furthermore, Florida’s regulations state that commercial harvesters are restricted to the commercial harvest limits when bully net gear or dive gear is used. Therefore, bully net and dive fishermen are restricted to the state bag limit regardless of what waters the spiny lobster are harvested in.

**Preferred Alternative 2** would modify federal regulations and list 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. Although NMFS and FWC have little data indicating bully net harvest occurs in federal waters, this alternative would simplify the regulations for both anglers and law enforcement by explicitly stating that the possession limit applies to the EEZ off Florida.

**Preferred Alternative 3** would modify federal regulations and list 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 **Preferred Alternative 2**, **Preferred Alternative 3** would make regulations more clear and lessen potential enforcement issues.

## **2.3. Action 3: Establish an enhanced cooperative management procedure for federal and Florida state agencies for the management of spiny lobster for the EEZ off Florida**

**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.

**Preferred Alternative 2.** Establish an enhanced cooperative management procedure that allows Florida to request changes to the spiny lobster federal regulations through NMFS rulemaking and combine the procedure with the existing protocol as specified in Amendment 10 to the Spiny Lobster FMP. Following is the proposed language (adapted from Amendment 2 to the Spiny Lobster FMP) for the combined procedure and protocol:

### **Proposed Language for Enhanced Cooperative Management Protocol and Procedure Joint Fishery Management Plan for the Spiny Lobster Fishery of the Gulf of Mexico (Gulf and South Atlantic Procedure for Enhanced Cooperative Management of the EEZ off Florida:**

1. The Gulf of Mexico and South Atlantic Fishery Management Councils (Councils) and the National Marine Fisheries Service (NMFS) acknowledge that the spiny lobster fishery is largely a 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 Spiny Lobster in the Gulf of Mexico and the South Atlantic (Spiny Lobster FMP).
2. The Councils and NMFS acknowledge that the State, through the FWC, which has exclusive authority established by the Florida Constitution to regulate the state's marine life, 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 FWC's due process procedures and rule implementation procedures provide ample and fair opportunity for all persons to participate in the rulemaking process.
3. The FWC acknowledges that regulations 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 (Magnuson-Stevens Act) including the national standards, and all other applicable law. Federal rules will be implemented in accordance with the federal Administrative Procedure Act.

4. The Councils and NMFS agree that the State may propose the following regulatory changes directly for the EEZ off Florida to NMFS:

**A. GEAR RESTRICTIONS:**

- a. Limits on the number of traps that may be fished by each vessel.
- b. Requirements for 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 the 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.

**B. HARVEST RESTRICTIONS:**

- a. Changes to 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.

5. The State will have the responsibility for collecting and developing the information upon which to base the fishing regulations, with assistance as needed by NMFS, and will cooperatively share the responsibility for enforcement with federal agencies.
6. FWC will develop alternative proposed regulations 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 regulations by the FWC Commissioners, FWC will advise the Councils and NMFS' Southeast Regional Administrator (RA) of the recommended regulations 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 regulations and summaries of public comment. The Councils may submit the proposed regulations and supporting analyses to the Scientific and Statistical Committees (SSC) for review of the scientific analyses. The Councils may also submit the proposed regulations and supporting analyses to the advisory panels for comment.
7. The RA will review the proposed regulations, analyses, and public record, and will notify the Councils and FWC if the RA preliminarily determines that the regulations are consistent with this Protocol and Procedure, the objectives of the Spiny Lobster FMP, the Magnuson-Stevens Act and other applicable law. If the Councils agree with the RA's preliminary determination, the Councils will deem the proposed regulations as necessary and appropriate, and the RA will proceed with implementation of the proposed regulations as specified in Paragraph 8. If the Councils do not agree with the RA's preliminary determination, the RA will not proceed with implementation of the proposed regulations until this issue has been resolved. If in the judgment of the RA, the proposed

regulations or the supporting record are not consistent with this Protocol and Procedure or the Spiny Lobster FMP objectives or the applicable law, the RA will immediately notify the Councils and FWC of the deficiencies in the regulations or supporting record. FWC may submit, for the RA's review, additional information or analyses to correct the deficiencies in the record.

8. When the RA has preliminarily concluded the proposed regulations are acceptable and the Councils have deemed the proposed regulations as necessary and appropriate, the RA will draft and publish a proposed rule for public comment. After reviewing the public comments, the RA may, in consultation with the Councils, make appropriate revisions to the proposed regulations prior to publishing a final rule. 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.
9. NMFS and the Councils agree that their staffs will prepare the proposed and final rules and, based on Florida's analyses of any impacts, the associated National Environmental Policy Act documentation, and other documents required to support the rule.

### **Discussion:**

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 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, 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 could not be implemented for the federal segment of the fishery without a Council framework action or plan amendment. **Alternative 1** would keep the current process, which requires that any changes for federal spiny lobster regulations be developed through Council action.

**Preferred Alternative 2** would re-establish a procedure allowing Florida to propose federal regulations directly to NMFS and combine the procedure under the existing cooperative protocol to remove redundancies. The recommended regulations and corresponding analyses must be based on the best scientific information available and be consistent with Spiny Lobster FMP objectives, the Magnuson-Stevens Act, and any other applicable law. **Preferred 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, or for spiny lobster harvested in the EEZ other than off Florida and landed from a fishing vessel in Florida, anyone who possesses, 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 (C) or trap number, lobster trap certificates if traps are used to harvest spiny lobster, or a valid commercial dive permit (CD) if harvest is by diving, or a valid bully net permit (CN) if harvest is by bully net, and a valid saltwater products license (SPL) with a restricted species (RS) endorsement issued by the Fish and Wildlife Conservation Commission.” The Florida SPL license is open access with an annual cost of \$50 for individual Florida residents and \$100 for a Florida resident vessel. The Florida RS endorsement is free but income requirements apply to qualify. The C license for fishermen not using traps, divers and bully netters, has an annual cost of \$100. A CN permit does not have an additional cost but a C license must be purchased. The CN permit is not under a moratorium or reduction program. A CD permit does not have an additional cost, but a C license must be purchased. The CD permit is currently under a moratorium and can only be acquired by purchasing it from another fisherman.

The Florida crawfish license for fishermen using traps has an annual cost of \$125. The Florida crawfish trap certificate has an annual cost of one dollar per trap tag issued or replaced. Florida is currently under a spiny lobster trap reduction program. Therefore, no new trap certificates are being sold. Commercial fishermen in Florida must purchase spiny lobster certificates from other fishermen and then purchase the associated tags for the certificates. Transferred or sold certificates are subject to a 10% trap reduction percentage and a trap certificate surcharge if transferred outside of the immediate family. Failure to pay certificate fees and other charges will also result in a 10% reduction of an individual’s trap certificate numbers. This trap reduction program is expected to continue until only 400,000 trap certificates remain, at which time there

would be no further reduction in the number of lobster trap certificates issued each year, except those forfeited. For the 2016/2017 fishing year, there were 470,244 trap certificates available of which 466,168 were issued.

A Florida commercial bully netter that possesses, sells, trades, or barter or attempts to sell, trade, or barter spiny lobster must have a Florida SPL license, a RS endorsement, a C license, and a CN permit to harvest spiny lobster, whether in Florida state or federal waters. A Florida commercial diver that possesses, sells, trades, or barter or attempts to sell, trade, or barter spiny lobster must have a Florida SPL license, a RS endorsement, a C license, and a CD permit whether in Florida state or federal waters. A Florida commercial spiny lobster trap fishermen that possesses, sells, trades, or barter or attempts to sell, trade, or barter spiny lobster must have a Florida SPL license, a RS endorsement, a C license, and a trap certificate and tag for each trap whether in Florida state or federal waters.

Any person who possesses, 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). A federal vessel permit does not authorize a commercial vessel to sell, trade, or barter or attempt to sell, trade, or barter a spiny lobster harvested in the EEZ off Florida. Any vessel that harvests spiny lobster in the EEZ under the federal spiny lobster permit or Florida permits must land the species whole (GMFMC and SAFMC 1982) unless they have a federal tailing permit on board in addition to any other permits (GMFMC and SAFMC 1987). Lobster tailing permits are only for vessels that are on trips for 48 hours or more in federal waters and those vessels must land lobsters all whole or all tailed on a trip. Both the federal spiny lobster and spiny lobster tailing permits are open access permits, although the federal spiny lobster permit has an income requirement to obtain. The annual cost of federal permits is \$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 for certain requirements. 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). Recently Florida issued an executive order that extends the allowable

soak time of traps before the 2018/2019 season start of August 6, and extends the retrieval time of traps when the season ends March 31; these changes are expected to be incorporated into Florida regulations in late 2018. This amendment, if implemented, would update the incorporation by reference date so this increased pre-soak and retrieval time will be applicable in federal waters as well.

In the 2016/2017 fishing season, Florida issued 1,567 commercial crawfish licenses, 276 commercial dive permits and 189 commercial bully net permits; the bully net permit was not available to buy, nor was it required, until nearly the end of the fishing season. In the 2017/2018 fishing season, Florida issued 1,500 commercial crawfish licenses, 265 commercial dive permits, and 380 commercial bully net permits<sup>3</sup>. As of December 7, 2017, the National Marine Fisheries Service (NMFS) listed 194 valid federal spiny lobster permits for the EEZ other than off Florida and 214 federal tail-separation permits for all EEZ waters. 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 5-year spiny lobster stamps; in addition, it 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 5-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 includes diving and bully nets. There has been a slow increase in bully net harvest since the 1991/1992 season with landings increasing 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%.

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<sup>3</sup> Data is preliminary.

**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	Bully net	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
<b>5-yr avg</b>	<b>5,135,010</b>	<b>179,640</b>	<b>147,960</b>	<b>1,554</b>	<b>537</b>	<b>948</b>	<b>5,459,428</b>	<b>78</b>	<b>369,500</b>	<b>1,190,598</b>		<b>23</b>	<b>1,560,098</b>	<b>7,019,526</b>

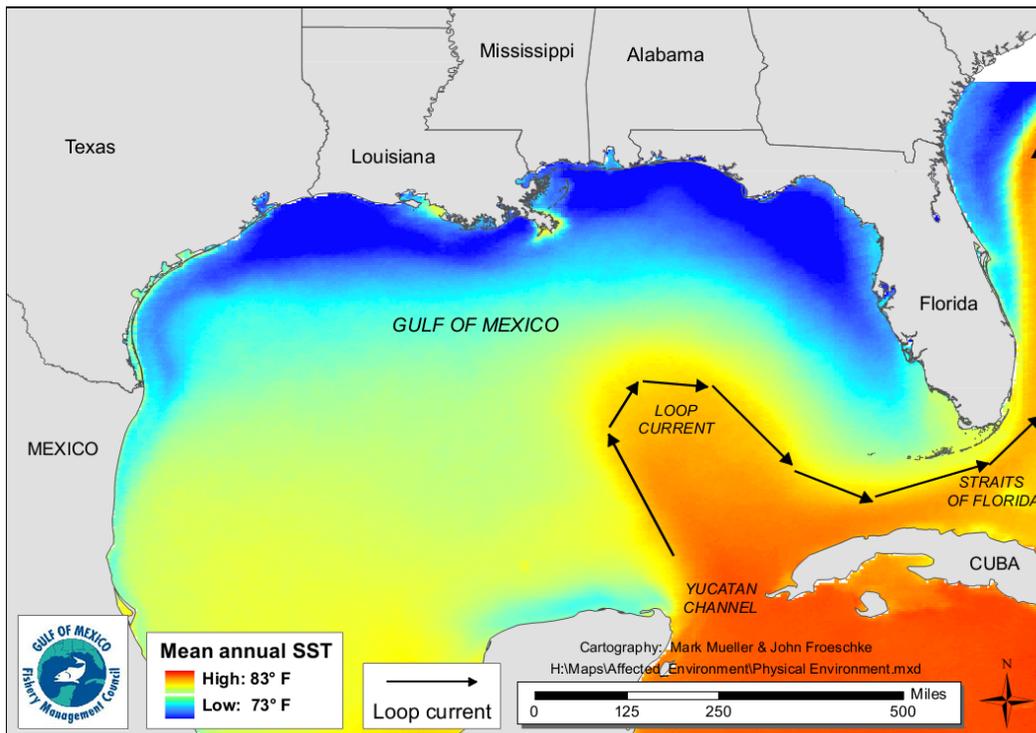
Note: Five year average is for 12/13-16/17. This table updates and replaces Table 3.1.1 in Regulatory Amendment 4. SRL (Special Recreational License) was available from 1994/95 through the 2011/12 season. \*\*Data Unavailable—Recreational Surveys were not conducted due to hurricanes. Sources: Commercial 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 km<sup>2</sup>), 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.<sup>4</sup>



<sup>4</sup> <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 km<sup>2</sup> (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 a 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 did 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]).<sup>5</sup> Decreases in surface ocean pH due to absorption of anthropogenic CO<sub>2</sub> emissions may impact a wide range of organisms and ecosystems, particularly organisms that absorb calcium from surface waters, such as corals and crustaceans (IPCC 2007, and references therein). These changes are also 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; Link 2015). The National Oceanic and Atmospheric Administration (NOAA) 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 (NOAA Climate Change Web Portal<sup>6</sup>). 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.

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<sup>5</sup> <http://www.ipcc.ch/>

<sup>6</sup> <https://www.esrl.noaa.gov/psd/ipcc/>

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. The distribution of native and exotic species, the prevalence of disease in keystone animals such as corals, and the occurrence and intensity of toxic algae blooms may also change with increased water temperature.

### *Greenhouse gases*

Greenhouse gas emissions are one of the most important drivers of recent changes in climate (IPCC).<sup>7</sup> 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. 2017). A summary of the results from fishing related emissions and total emissions is 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).

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

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

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

\*\*The CO<sub>2</sub> equivalent (CO<sub>2e</sub>) emission estimates represent the number of tons of CO<sub>2</sub> emissions with the same global warming potential as one ton of another greenhouse gas (e.g., CH<sub>4</sub> and N<sub>2</sub>O). Conversion factors to CO<sub>2e</sub> are 21 for CH<sub>4</sub> and 310 for N<sub>2</sub>O.

## **3.3 Description of the Biological/Ecological Environment**

<sup>7</sup> <http://www.ipcc.ch/>

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 (Herrnkind 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 and 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).

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). Integrating the potential effects of climate change into the fisheries assessment for marine fisheries and dependent communities is currently difficult due to the time scale differences (Hollowed et al. 2013). The fisheries stock assessments rarely project through a time span that would include detectable climate change effects.

### **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). Presently, 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 as it 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). 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. While spiny lobsters 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), implemented in July 2018, increased the OFL, ACL, and ACT using a longer time series of data because it was thought that the longer time series incorporates more environmental variability which influences the stock. A new spiny lobster SEDAR assessment is scheduled for 2019.

### **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), which 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 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, and therefore bycatch of non-target species is rare. Because the gear types used by SCUBA divers and snorkelers targeting spiny lobster are also considered highly selective for spiny lobster, there is very little bycatch of non-target species. In the recreational fishery, spiny lobsters are mainly harvested by SCUBA divers and snorkelers, so there is very little bycatch. 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, but this bycatch is primarily in the trap portion of the fishery (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 which are the 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. The management measures in this amendment 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 the NMFS Office of Protected Resources website.<sup>8</sup> The species protected by these two Acts 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 designated critical habitat for *Acropora* spp. corals, Northwest Atlantic loggerhead sea turtles, smalltooth sawfish, and North Atlantic right whales (NARW) also occur within areas used 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* spp. critical habitat, and is likely to adversely affect sea turtles (loggerhead, Kemp's ridley, green, hawksbill, and leatherback), smalltooth sawfish and *Acropora* spp. 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 remain valid for the Northwest Atlantic DPS of loggerhead sea turtle.

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<sup>8</sup> <http://www.nmfs.noaa.gov/pr/laws/>

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 BiOp. 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 because of 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 adversely affect 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 which results in seven species of coral listed as threatened when added to the already listed species *Acropora cervicornis*, *A. palmata*. 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. The new listings triggered reinitiation of consultation under Section 7 of the ESA. On January 9, 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.

Since the initial reinitiation request, NMFS published a final rule on January 22, 2018 (83 FR 2916), listing the giant manta ray as threatened under the ESA, effective February 21, 2018. Giant mantas may be affected by the spiny lobster fishery off southern Florida where the species migration path overlaps with the fishery. On April 12, 2018, NMFS determined that the continued authorization of the Gulf and South Atlantic spiny lobster fishery is not likely to adversely affect giant manta rays. On January 30, 2018 (83 FR 4153), NMFS listed the oceanic whitetip shark as threatened under the ESA, effective March 1, 2018. On March 19, 2018, NMFS determined that allowing fishing under the Gulf and South Atlantic spiny lobster fishery would have no effect on oceanic whitetip sharks.

The Florida spiny lobster trap/pot fishery is classified in the 2018 MMPA List of Fisheries as a Category III fishery (83 FR 5349), i.e. there is a remote likelihood of incidental mortality or serious injury to marine mammals. More information can be found on the website for the List of Fisheries and the classification process.<sup>9</sup>

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<sup>9</sup> <http://www.nmfs.noaa.gov/pr/interactions/fisheries/lof.html>

## **3.4 Description of the Economic Environment**

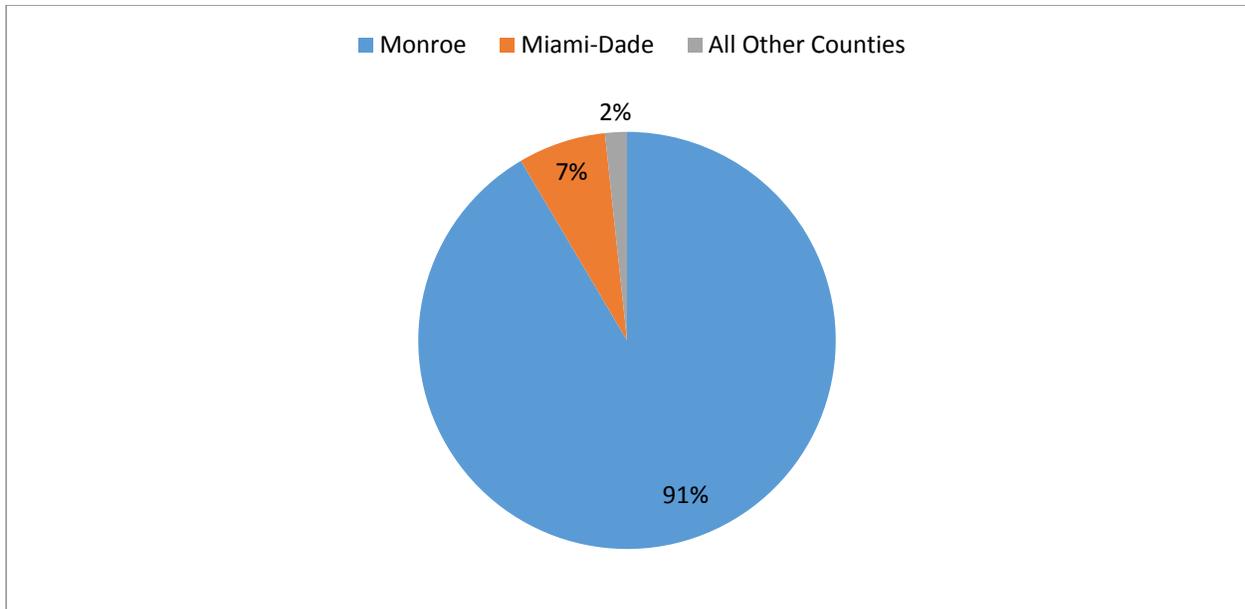
A description of the spiny lobster fishery in the Gulf and South Atlantic, including landings and permit information, is provided in Section 3.1. An economic description of the commercial sector for spiny lobster is contained in Vondruska (2010a) and Vondruska (2010b) and is incorporated herein by reference. Additional economic information pertaining to the spiny lobster fishery is included in Regulatory Amendment 4 to the Fishery Management Plan for spiny lobster in the Gulf and South Atlantic (GMFMC and SAFMC 2017). The following section contains select updates to the aforementioned information.

### **3.4.1 Commercial Sector**

The major source of data summarized in this description is the Atlantic Coastal Cooperatives Statistics Program (ACCSP) data warehouse. Inflation adjusted revenues and prices are reported in 2017 dollars using the annual, non-seasonally adjusted Gross Domestic Product (GDP) implicit price deflator provided by the U.S. Bureau of Economic Analysis (BEA). This section presents calendar year estimates of fishing activity for vessels that harvested spiny lobster, and therefore, may differ from other sections of this document that present fishing year estimates.

#### **Landings, Value, and Effort**

A breakdown of landings by gear for spiny lobster is provided in Table 3.1.1. Spiny lobster was predominantly harvested via traps from 2012 through 2016. On average (2012 through 2016), diving and bully nets each accounted for only 3% of annual spiny lobster landings (Table 3.1.1). The vast majority of spiny lobster landings were from Monroe County and Miami-Dade County (Figure 3.4.1.1).



**Figure 3.4.1.1.** Average annual percent of total spiny lobster landings in Florida (2012 through 2016).

Source: 2018 ACCSP data warehouse (J. Myers, ACCSP, pers. comm.)

The number of trips that reported harvest of spiny lobster in Florida increased steadily from approximately 18,000 in 2012 to a peak of 24,000 in 2014 and then decreased back to approximately 21,000 by 2016 (Table 3.4.1.1). During this time, spiny lobster landings ranged from approximately 4.1 million pounds (mp) whole weight (ww) to 6.1 mp ww per year. On average (2012 through 2016), vessels earned approximately \$2,240 per spiny lobster trip with only a small percentage of that revenue (approximately 4%) attributed to the harvest of other species (Table 3.4.1.1). Average dockside price per pound (lb) (2017 dollars) ranged from \$6.34 per lb ww to \$10.93 per lb ww.

**Table 3.4.1.1.** Landings, ex-vessel revenue, and average price by year (2017 dollars) for spiny lobster trips in Florida.

Year	# of trips that caught spiny lobster	spiny lobster landings (lbs ww)	Other species' landings jointly caught w/ spiny lobster (lbs ww)	Dockside revenue from spiny lobster	Dockside revenue from 'other species' jointly caught w/ spiny lobster	Average dockside price per pound for spiny lobster
2012	17,695	4,108,405	282,480	\$26,030,196	\$1,573,785	\$6.34
2013	22,888	6,130,845	640,166	\$53,635,660	\$2,464,340	\$8.75
2014	24,000	5,582,375	323,703	\$61,035,028	\$2,013,411	\$10.93
2015	22,080	5,931,282	346,989	\$49,274,392	\$1,716,238	\$8.31

2016	20,669	5,407,054	220,258	\$45,111,620	\$1,580,638	\$8.34
Average	21,466	5,431,992	362,719	\$47,017,379	\$1,869,682	\$8.66

Source: 2018 ACCSP data warehouse (J. Myers, ACCSP, pers. comm.)

Because of missing values in available state dealer data, not all Florida spiny lobster landings could be tied to individual vessels. On average (2012-2016), approximately 14% of spiny lobster landings and 20% of spiny lobster trips could not be assigned to individual vessels. Table 3.4.1.2 provides revenue profiles for those vessels which could be identified. From 2012 through 2016, the number of identified commercial vessels with spiny lobster landings increased steadily from 622 in 2012 to 912 in 2015 and then decreased to 835 in 2016 (Table 3.4.1.2).<sup>10</sup> On average (2012 through 2016), these vessels derived approximately 68% of their total dockside revenue from spiny lobster. Although not shown in the table, these vessels also landed spiny lobster on approximately 63% of their trips, on average, during this time period.

**Table 3.4.1.2.** Ex-vessel revenue for identified vessels\* that harvested spiny lobster in Florida (2017 dollars).

Year	# of vessels that landed spiny lobster (> 0 lbs gw)	Dockside revenue from spiny lobster	Dockside revenue from 'other species' jointly caught w/ spiny lobster	Dockside revenue from 'other species' caught on trips w/o spiny lobster**	Total dockside revenue	Average total dockside revenue per vessel
2012	622	\$18,580,578	\$1,339,175	\$10,178,807	\$30,098,560	\$48,390
2013	759	\$46,048,372	\$2,071,820	\$15,290,018	\$63,410,210	\$83,544
2014	812	\$52,945,448	\$1,815,648	\$17,714,442	\$72,475,538	\$89,256
2015	912	\$45,770,752	\$1,557,867	\$20,566,058	\$67,894,677	\$74,446
2016	835	\$42,527,084	\$1,406,138	\$19,826,656	\$63,759,878	\$76,359
Average	788	\$41,174,447	\$1,638,130	\$16,715,196	\$59,527,773	\$74,399

Source: 2018 ACCSP data warehouse (J. Myers, ACCSP, pers. comm.)

\*Not all spiny lobster dealer reports contain a vessel ID. On average (2012-2016), approximately 14% of spiny lobster landings and 20% of spiny lobster trips could not be assigned to an individual vessel.

<sup>10</sup> It is uncertain how many additional vessels may have participated in the fishery during this time.

\*\*Other species landings values include all reported landings (state and federal) from the South Atlantic and Greater Atlantic regions. Landings data from Gulf states other than FL are not currently available.

## Imports and Exports

Imports of seafood products compete in the domestic seafood market and have dominated many segments of the seafood market. Imports aid in determining the price for domestic seafood products and tend to set the price in the market segments in which they dominate. Seafood imports have downstream effects on the local fish market. At the harvest level for lobster, and spiny lobster in particular, imports affect the returns to fishermen through the ex-vessel prices they receive for their landings. As substitutes to domestic production of lobster, including spiny lobster, imports tend to cushion the adverse economic effects on consumers resulting from a reduction in domestic landings.

Ninety-nine percent of rock (including spiny) lobster imports<sup>11</sup>, on average (2012 through 2016), were comprised of frozen lobster (mostly shell-on tails); the remaining 1% were unspecified and could be live, fresh, dried, salted, or brined. Imports of rock lobster decreased from 19.7 million pounds (mp) product weight (pw) in 2012 to 17.1 mp pw in 2016, with moderate fluctuations in between. Estimates of spiny lobster imports<sup>12</sup> converted to round weight (rw), which is equivalent to whole weight, are presented in the Fisheries of the United States 2016 report (NMFS 2017b). On average (2012 through 2016), annual imports of spiny lobster were estimated to be 58.7 mp rw; approximately 11 times more than the average domestic landings presented in Table 3.4.1.1 (NMFS 2017b). Total revenue from rock lobster imports ranged from \$188.9 million (2017 dollars) to \$243.1 million during this time period. Imports of rock lobster primarily originated in Nicaragua, Honduras, the Bahamas, Brazil, China, and to a lesser extent, South Africa. These imports primarily entered the U.S. through the ports of New York, Miami, Tampa, and Los Angeles. Rock lobster imports were highest on average (2012 through 2016) during the months of August through October, and December.

Ex-vessel prices for U.S. seafood, and spiny lobster in particular, are also influenced by global seafood market forces. A substantial portion of spiny lobster landings in the U.S. are exported to foreign nations. Although spiny lobster is not typically sold live to consumers in the U.S., in recent years there has been a high demand for live spiny lobster in Asia, especially China (FAO 2017). This niche export market has likely asserted upward pressure on ex-vessel prices, despite the large amount of frozen rock (including spiny) lobster that's imported into the U.S.

Approximately 60% of spiny lobster exports, on average (2012 through 2016), were comprised of frozen lobster and 40% were unspecified and could be live, fresh, dried, salted, or brined.

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<sup>11</sup> NOAA Fisheries Service purchases fisheries trade data from the Foreign Trade Division of the U.S. Census Bureau. Data are available for download at <http://www.st.nmfs.noaa.gov/st1/trade/index.html>. The imports and exports estimates presented in this section are for a general rock lobster and other sea crawfish category (*Palinurus* spp., *Panulirus* spp., *Jasus* spp.), including Caribbean spiny lobster (*Panulirus argus*).

<sup>12</sup> The Fisheries of the United States 2016 report refers to spiny lobster only; however, the underlying data is assumed to include all rock lobster species imports.

Exports increased drastically from 2.5 mp pw in 2012 to 4.6 mp pw in 2013 and then steadily declined to 1.9 mp pw in 2016. During this time total revenue from spiny lobster exports ranged from \$21.5 million (2017 dollars) to \$49.5 million (2017 dollars). Almost 95% of the unspecified (including live) spiny lobster exports were sent to China and Hong Kong. Approximately 89% of frozen spiny lobster exports were sent to China, Hong Kong, and Vietnam, with the remaining 11% going to Australia and France. Almost all of the unspecified (including live) spiny lobster exports were shipped from the ports of Miami and New York. Frozen spiny lobster were primarily exported from Miami, Los Angeles, Anchorage, and New York. Exports of both frozen and unspecified spiny lobster were highest on average (2012 through 2016) during the months of August through January, with a peak in September.

## **Business Activity**

The commercial harvest and subsequent sales and consumption of fish and shellfish generates business activity as fishermen expend funds to harvest the fish and shellfish and consumers spend money on downstream goods and services, such as lobster tails purchased at local fish markets or served during restaurant visits. These expenditures spur additional business activity in the region(s) where the harvest and purchases are made, such as jobs in local fish markets, grocers, restaurants, and fishing supply establishments. In the absence of the availability of a given species for purchase, consumers would spend their money on substitute goods, such as other shellfish or seafood products, and services, such as visits to different food service establishments. As a result, the analysis presented below represents a distributional analysis only; that is, it only shows how economic effects may be distributed through regional markets and should not be interpreted to represent the impacts if these species are not available for harvest or purchase.

Estimates of the U.S. average annual business activity associated with the commercial harvest of spiny lobster were derived using the model<sup>13</sup> developed for and applied in NMFS (2017a) and are provided in Table 3.4.1.3. This business activity is characterized as jobs (full- and part-time), income impacts (wages, salaries, and self-employed income), output impacts (gross business sales), and value-added impacts, which represent the contribution made to the U.S. GDP. These impacts should not be added together because this would result in double counting. It should be noted that the results provided should be interpreted with caution and demonstrate the limitations of these types of assessments. These results are based on average relationships developed through the analysis of many fishing operations that harvest many different species. Separate models to address individual species are not available. For example, the results provided here apply to an “all other shellfish” category rather than just spiny lobster, and a harvester job is “generated” for approximately every \$31,000 (2017 dollars) in ex-vessel revenue. These results contrast with the number of harvesters (vessels) with recorded landings of spiny lobster presented in Table 3.4.1.2.

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<sup>13</sup> A detailed description of the input/output model is provided in NMFS (2011).

**Table 3.4.1.3.** Average annual business activity (2012 through 2016) associated with the commercial harvest of spiny lobster in Florida, using national multipliers. All monetary estimates are in 2017 dollars.

Species	Average Ex-vessel Value (\$ thousands)	Total Jobs	Harvester Jobs	Output (Sales) Impacts (\$ thousands)	Income Impacts (\$ thousands)	Value Added (\$ thousands)
Spiny Lobster	\$47,017	6,235	1,531	\$466,483	\$173,164	\$244,297

Source: Calculated by NMFS SERO using the model developed for and applied in NMFS (2017a).

### 3.4.2 Recreational Sector

The Gulf and South Atlantic recreational sectors are comprised of the private and for-hire modes. The private mode includes anglers fishing from shore (all land-based structures) and private/rental boats. The for-hire mode is composed of charter boats and headboats (also called partyboats). Charter boats generally carry fewer passengers and charge a fee on an entire vessel basis, whereas headboats carry more passengers and payment is per person. The type of service, from a vessel- or passenger-size perspective, affects the flexibility to search different fishing locations during the course of a trip and target different species since larger concentrations of fish are required to satisfy larger groups of anglers.

The Marine Recreational Information Program (MRIP) is typically used to estimate national and regional recreational catch and effort, as well as economic impacts, but it focuses exclusively on finfish species. The Florida Wildlife Research Institute (FWRI) does, however, survey recreational spiny lobster permit holders annually. These surveys are used to estimate recreational spiny lobster landings and fishing effort statewide during Florida’s special 2-day sport season and from opening day of the regular season (August 6) through Labor Day. Recreational spiny lobster landings are provided in Table 3.1.1. Average annual recreational landings of spiny lobster for the past 5 fishing years (2012/2013 through 2016/2017) were estimated to be 1.6 million pounds ww (Table 3.1.1) and landings were mostly stable across years.

In Florida, an angler must possess both a recreational saltwater fishing license and a spiny lobster permit to harvest spiny lobster. For nonresidents in 2018, the cost is \$47 for an annual fishing license or \$17 for a 3-day fishing license, plus \$5 for a spiny lobster permit. For state residents, an annual fishing license is \$17; state residents must also purchase either an annual spiny lobster permit for \$5 or a 5-year lobster permit for \$25. For-hire vessels that take passengers spiny lobster fishing must purchase a charter lobster permit for \$5, in addition to their charter boat or

charter captain license. No federal permits are required to fish recreationally for spiny lobster in the EEZ.

## 3.5 Description of the Social Environment

This amendment affects commercial and recreational management of spiny lobster in the EEZ off Florida.

This section includes a description of the spiny lobster fishery off Florida including state and federal licenses, permits, certificates, and endorsements related to commercial and recreational spiny lobster fishing. Licenses, permits, certificates, and endorsements are presented by state in order to provide a geographic distribution of fishing involvement. Top communities based on the number of licenses, permits, certificates, and endorsements are presented.

In addition, descriptions of communities include information about the top communities based on a ‘regional quotient’ (RQ) of commercial landings and value for spiny lobster. The RQ is the proportion of landings and value out of the total landings and value of that species for that region, and is a relative measure. The RQ values are omitted to ensure that the confidential landings of communities with fewer than three participants in any participant category, such as dealers and fishermen, are not revealed. Top RQ communities would be most likely to experience the effects of the proposed actions that could change the spiny lobster fishery and impact participants, associated businesses, and communities within the region. If a community is identified as a spiny lobster community based on the RQ, this does not necessarily mean that the community would experience significant impacts due to changes in the fishery if a different species or number of species was also important to the local community and economy. Additional detailed information about communities with the highest RQs can be found on the Southeast Regional Office (SERO)’s Community Snapshots website.<sup>14</sup>

Community level data are presented in order to meet the requirements of National Standard 8 of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), which requires the consideration of the importance of fishery resources to human communities when changes to fishing regulations are considered. Lastly, social vulnerability data are presented to assess the potential for environmental justice concerns.

### 3.5.1 Fishing Communities

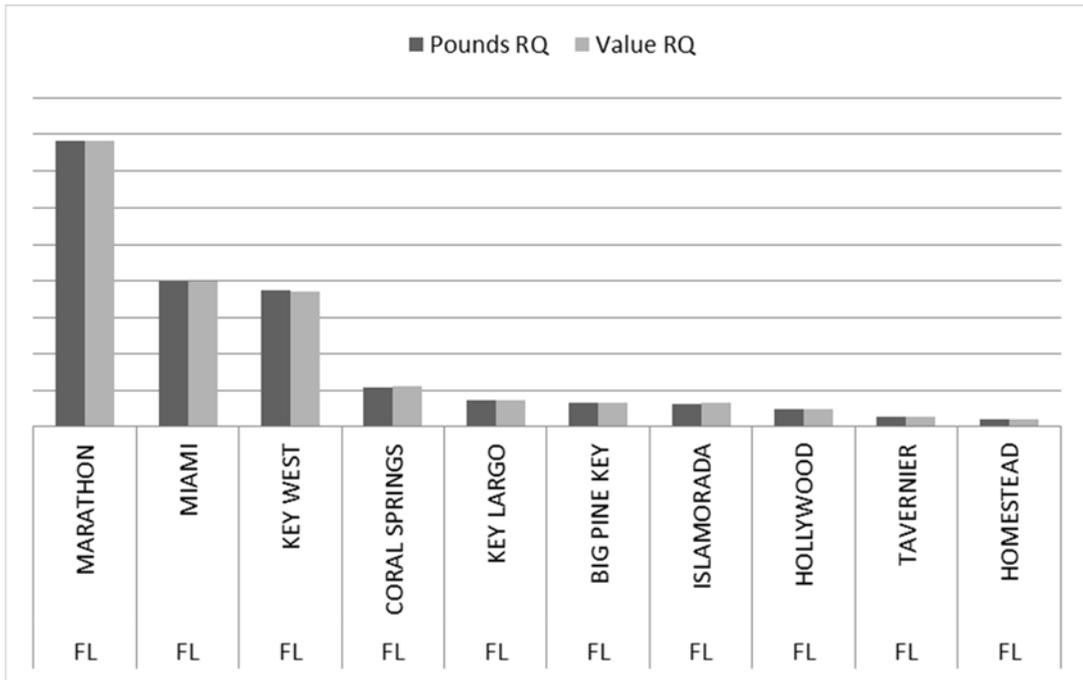
#### Commercial Communities

As described in Section 3.4.1, the vast majority of spiny lobster landings are from Monroe County and Miami-Dade County. About 39% of spiny lobster is landed in the top community of Marathon, representing about 39% of the Florida-wide ex-vessel value for the species (Figure 3.5.1.1). The second ranked community of Miami represents about 20% of landings and 20% of value. Additionally, several other Florida Keys communities (Key West, Key Largo, Big Pine

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<sup>14</sup> [http://sero.nmfs.noaa.gov/sustainable\\_fisheries/social/community\\_snapshot/](http://sero.nmfs.noaa.gov/sustainable_fisheries/social/community_snapshot/)

Key, Islamorada, and Tavernier) are included in the top communities and these communities represent about 30% of landings and 30% of value.



**Figure 3.5.1.1.** Top ten Florida communities ranked by pounds and value RQ of spiny lobster. The actual RQ values (y-axis) are omitted from the figure to maintain confidentiality. Source: SERO, Community ALS 2016.

As described in Section 3.1, in order to harvest spiny lobster in the EEZ off Florida or for spiny lobster harvested in the EEZ other than off Florida and landed from a fishing vessels in Florida, commercial harvesters must have the appropriate licenses, permit, and certificates.

During the 2017/2018 fishing season, 1,500 Florida crawfish licenses were issued; the majority of Florida crawfish licenses are issued to individuals in Florida (97.2% J. Torres, FWC, pers. comm. 2018). Residents of other states (Alabama, California, Georgia, Kansas, Maine, Mississippi, North Carolina, New Jersey, New York, Oklahoma, Pennsylvania, Texas, and Virginia) also hold Florida crawfish licenses, but these states represent a smaller percentage of the total number of issued licenses.

Florida crawfish licenses are held by individuals with mailing addresses in a total of 214 communities; communities with the most Florida crawfish licenses are located in Florida (Table 3.5.1.1). The communities with the most Florida crawfish licenses are Key West and Marathon (individuals in each community hold 12.3% of Florida crawfish licenses), followed by Miami (9.7%), and Big Pine Key (5.5%).

**Table 3.5.1.1.** Top communities by number of Florida commercial crawfish licenses.

State	Community	Commercial Crawfish Licenses (C)
FL	Key West	185
FL	Marathon	185
FL	Miami	145
FL	Big Pine Key	82
FL	Homestead	67
FL	Summerland Key	61
FL	Key Largo	42
FL	Tavernier	33
FL	Jupiter	27
FL	Fort Myers Beach	26
FL	Naples	26
FL	Hialeah	25
FL	Islamorada	25
FL	Fort Pierce	19
FL	Jacksonville	18

Source: FWC, 2017/2018 (J. Torres, FWC, pers. comm.).  
Note: 2017/2018 data are not final.

During the 2018 fiscal year, 464,342 Florida lobster trap certificates were issued to 514 individuals; all lobster trap certificates are issued to individuals in Florida (M. Shuler, FWC, pers. comm. 2018). Florida lobster trap certificates are held by individuals with mailing addresses in a total of 93 communities. The communities with the most Florida lobster trap certificates are Marathon (33.3%, Table 3.5.1.2), Key West (16.8%), and Miami (11%).

**Table 3.5.1.2.** Top communities by number of Florida commercial lobster trap certificates and certificate holders.

State	Community	Trap Certificates	Certificate Holders
FL	Marathon	154888	90
FL	Key West	78209	66
FL	Miami	50773	73
FL	Big Pine Key	27871	26
FL	Summerland Key	23970	26
FL	Islamorada	17913	13
FL	Key Largo	17032	24
FL	Tavernier	15394	21
FL	Palmetto Bay	13767	10

FL	Hialeah	13087	14
FL	Homestead	10023	20
FL	Southwest Ranches	5069	3
FL	Marathon Shores	4452	3
FL	Cudjoe Key	2986	4

During the 2017/2018 fishing year, a total of 265 commercial dive permits were issued; the majority of commercial dive permits are issued to individuals in Florida (approximately 99.6%, J. Torres, FWC, pers. comm. 2018). Residents of another state (Maine) also hold commercial dive permits, but this state represents a very small percentage of the total number of issued permits.

Commercial dive permits are held by individuals with mailing addresses in a total of 77 communities (J. Torres, FWC, pers. comm. 2018). Communities with the most commercial dive permits are located in Florida (Table 3.5.1.3). The communities with the most commercial dive permits are Key West (12.1% of commercial dive permits), followed by Big Pine Key (7.9%), and Summerland Key (7.2%).

During the 2017/2018 fishing year, a total of 380 commercial bully net permits were issued; the majority of commercial bully net permits are issued to individuals in Florida (approximately 98.2%, J. Torres, FWC, pers. comm. 2018). Residents of other states (Alabama, Kansas, Mississippi, Pennsylvania, Texas, and Virginia) also hold commercial bully net permits, but these states represent a small percentage of the total number of issued permits.

**Table 3.5.13.** Top communities by number of Florida commercial dive permits and commercial bully net permits.

State	Community	Commercial Dive Permits (CD)	State	Community	Commercial Bully Net Permits (CN)
FL	Key West	32	FL	Marathon	49
FL	Big Pine Key	21	FL	Miami	37
FL	Summerland Key	19	FL	Key West	32
FL	Marathon	18	FL	Big Pine Key	29
FL	Miami	18	FL	Homestead	29
FL	Jupiter	14	FL	Summerland Key	22
FL	Jacksonville	9	FL	Naples	15
FL	Merritt Island	9	FL	Key Largo	11
FL	Homestead	7	FL	Cudjoe Key	7
FL	Fort Pierce	6	FL	Islamorada	6

FL	Sugarloaf Key	5	FL	Fort Pierce	5
FL	Islamorada	4	FL	Merritt Island	5
FL	Rockledge	4			

Source: FWC, 2017/2018 (J. Torres, FWC, pers. comm.).

Note: 2017/2018 data are not final.

Commercial bully net permits are held by individuals with mailing addresses in a total of 102 communities (J. Torres, FWC, pers. comm. 2018). Communities with the most commercial bully net permits are located in Florida (Table 3.5.1.3). The communities with the most commercial bully net permits are Marathon (12.9% of commercial bully net permits), Miami (9.7%), and Key West (8.4%).

As of April 23, 2018, there were 184 federally-permitted spiny lobster vessels; the majority of spiny lobster permits are issued to individuals in Florida (approximately 67%, SERO permit office, April 23, 2018). Residents of other states (Alabama, Georgia, Louisiana, North Carolina, New Jersey, New York, South Carolina, Texas, and Virginia) also hold spiny lobster permits.

Spiny lobster permits are held by individuals with mailing addresses in a total of 93 communities (SERO permit office, April 23, 2018). Communities with the most spiny lobster permits are located in Florida, North Carolina, Alabama, Virginia, and South Carolina (Table 3.5.1.4). The communities with the most spiny lobster permits are Key West, Florida (11% of spiny lobster permits); Marathon, Florida (6%); and Oriental, North Carolina (4.9%).

**Table 3.5.1.4.** Top communities by number of federal spiny lobster permits and spiny lobster tailing permits.

State	Community	Spiny Lobster Permits (LC)	State	Community	Spiny Lobster Tailing Permits (LT)
FL	Key West	20	FL	Key West	27
FL	Marathon	11	FL	Fort Myers Beach	26
NC	Oriental	9	FL	Jacksonville	10
FL	Jacksonville	8	NC	Oriental	9
FL	Largo	5	FL	Summerland Key	8
AL	Irvington	4	FL	Marathon	7
FL	Summerland Key	4	FL	Tampa	6
FL	Tampa	4	FL	Largo	5
VA	Newport News	4	AL	Irvington	4
FL	Apalachicola	3	FL	Merritt Island	4
FL	Cocoa Beach	3	VA	Newport News	4
FL	Fort Myers Beach	3	FL	Fort Myers	3
FL	Hialeah	3	FL	Fort Pierce	3

FL	Merritt Island	3	FL	Miami	3
FL	Tarpon Springs	3	FL	Tarpon Springs	3
SC	North Myrtle Beach	3	SC	North Myrtle Beach	3

Source: SERO permit office, April 23, 2018.

As of April 23, 2018, there were 208 federally-permitted spiny lobster tailing vessels; the majority of spiny lobster tailing permits are issued to individuals in Florida (approximately 82%, SERO permit office, April 23, 2018). Residents of other states (Alabama, Georgia, North Carolina, New Jersey, New York, South Carolina, and Virginia) also hold spiny lobster tailing permits.

Spiny lobster tailing permits are held by individuals with mailing addresses in a total of 80 communities (SERO permit office, April 23, 2018). Communities with the most spiny lobster tailing permits are located in Florida, North Carolina, Alabama, Virginia, and South Carolina (Table 3.5.1.4). The communities with the most spiny lobster tailing permits are Key West (13% of spiny lobster tailing permits), Fort Myers Beach (12.5%), and Jacksonville (4.8%).

### Recreational Communities

As of April 16, 2018, 308,680 Florida state-licensed recreational spiny lobster permits (includes charter boat lobster permits, charter captain lobster permits, sportsman’s licenses, lobster permits, and saltwater fishing licenses) were issued; the majority of Florida state-issued recreational spiny lobster permits are held by residents of Florida (approximately 89.1%, J. Torres, FWC, pers. comm. 2018), and all top communities are located in Florida (Table 3.5.1.1). Residents of Miami hold the most recreational spiny lobster permits (5.1%), followed by Jacksonville (2.3%), Tampa (2.2%), Naples (1.8%), and Orlando (1.5%, Table 3.5.1.4).

**Table 3.5.1.5.** Top twenty communities by number of Florida recreational spiny lobster permits.

State	Community	Number of Licenses
FL	Miami	15884
FL	Jacksonville	7013
FL	Tampa	6902
FL	Naples	5528
FL	Orlando	4502
FL	Key West	4198
FL	Fort Myers	3768
FL	Tallahassee	3554
FL	Jupiter	3535
FL	Hialeah	3446
FL	Cape Coral	3285

FL	West Palm Beach	3264
FL	Sarasota	3118
FL	Vero Beach	2907
FL	Homestead	2857
FL	Fort Lauderdale	2799
FL	Boca Raton	2798
FL	Bradenton	2724
FL	Stuart	2647
FL	St Petersburg	2594

Source: FWC, April 16, 2018 (J. Torres, FWC, pers. comm.).

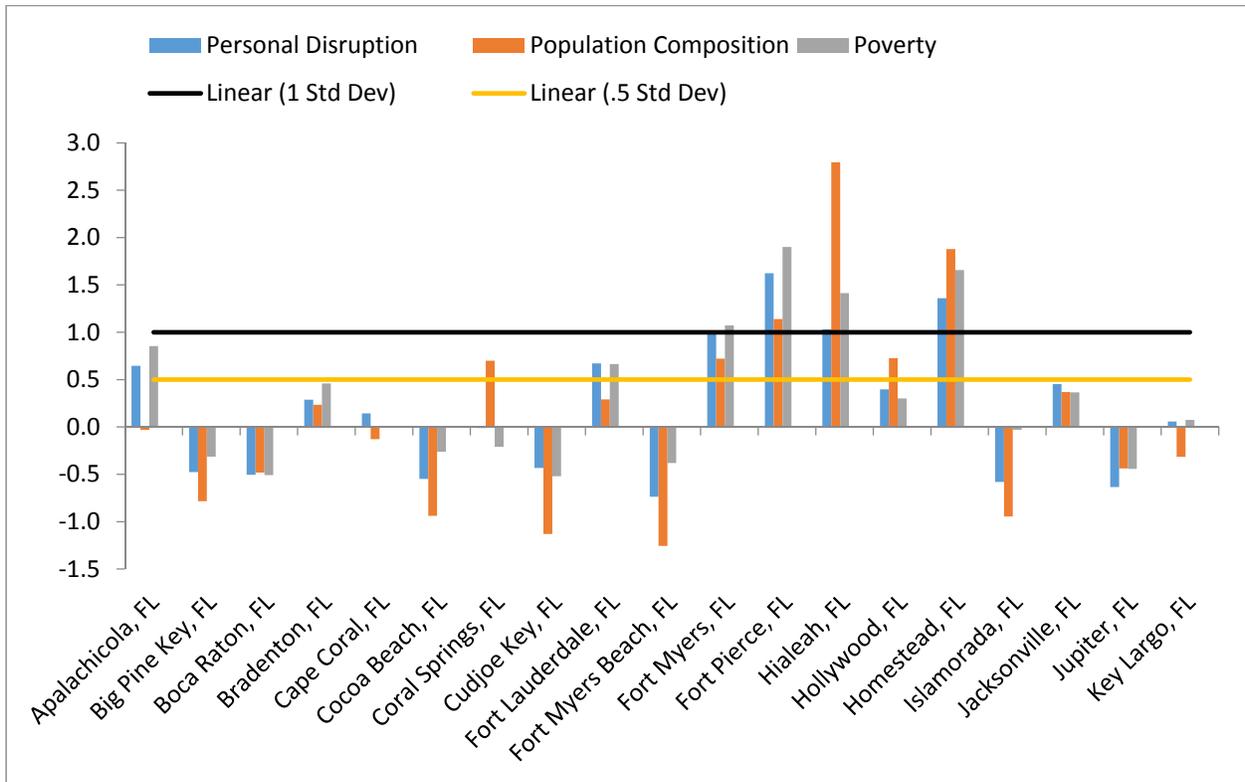
### 3.5.2 Environmental Justice Considerations

Executive Order (E.O) 12898 requires federal agencies conduct their programs, policies, and activities in a manner to ensure individuals or populations are not excluded from participation in, or denied the benefits of, or subjected to discrimination because of their race, color, or national origin. In addition, and specifically with respect to subsistence consumption of fish and wildlife, federal agencies are required to collect, maintain, and analyze information on the consumption patterns of populations who principally rely on fish and/or wildlife for subsistence. The main focus of E.O. 12898 is to consider “the disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States and its territories...” This executive order is generally referred to as environmental justice (EJ).

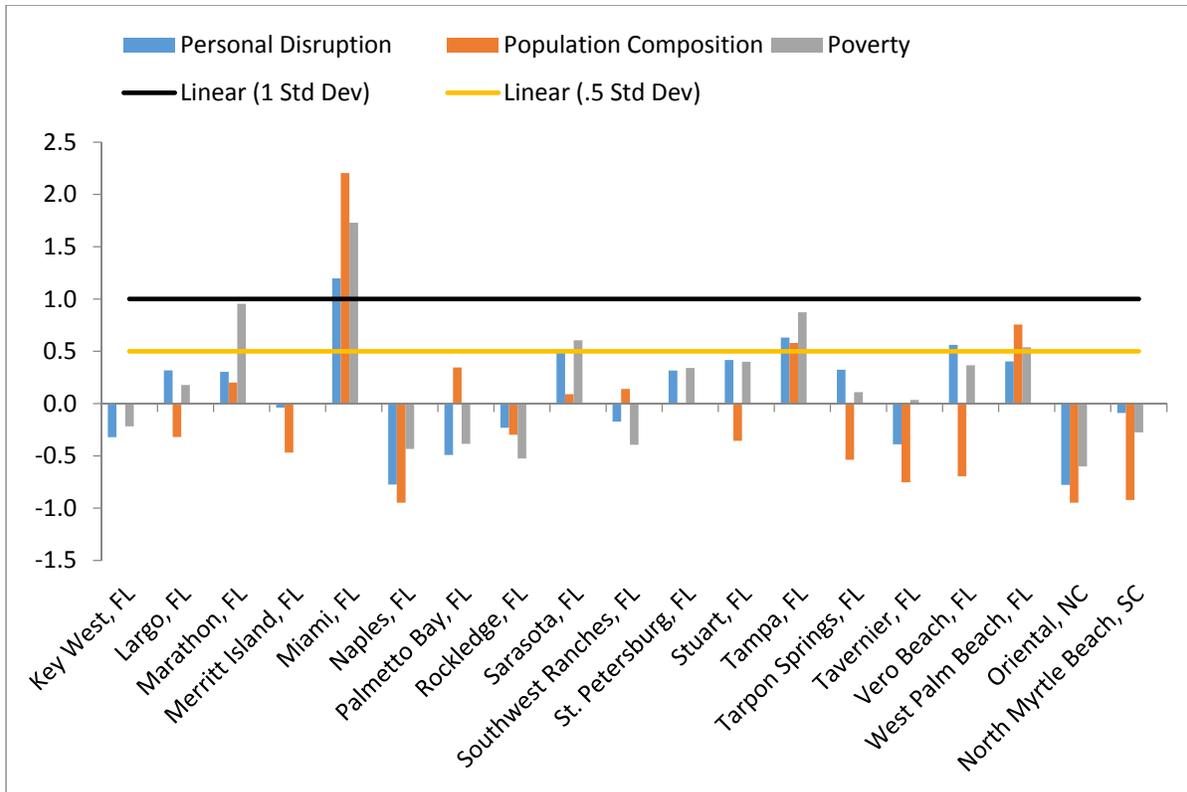
Commercial and recreational fishermen and associated industries could be impacted by the proposed actions. However, information on the race and income status for groups at the different participation levels (individual fishermen and crew) is not available. Although information is available concerning communities overall status with regard to minorities and poverty (e.g., census data), such information is not available specific to fishermen and those involved in the industries and activities, themselves. To help assess whether any EJ concerns arise from the actions in this amendment, a suite of indices were created to examine the social vulnerability of coastal communities. The three indices are poverty, population composition, and personal disruptions. The variables included in each of these indices have been identified through the literature as being important components that contribute to a community’s vulnerability. Indicators such as increased poverty rates for different groups, more single female-headed households and households with children under the age of five, disruptions such as higher separation rates, higher crime rates, and unemployment all are signs of populations experiencing vulnerabilities. Again, for those communities that exceed the threshold it would be expected that they would exhibit vulnerabilities to sudden changes or social disruption that might accrue from regulatory change.

Figures 3.5.2.1. and 3.5.2.2 provide the social vulnerability of the top commercial and recreational communities. Several communities exceed the threshold of 0.5 standard deviation

for at least one of the social vulnerability indices: Apalachicola, Coral Springs, Fort Lauderdale, Fort Myers, Fort Pierce, Hialeah, Hollywood, Homestead, Jacksonville, Marathon, Miami, Sarasota, Tampa, Vero Beach, and West Palm Beach, Florida. The communities of Fort Myers, Fort Pierce, Hialeah, Homestead, Miami, and Tampa, Florida exceed the threshold for all three social vulnerability indices. These communities have substantial vulnerabilities and may be susceptible to further effects from any regulatory changes depending upon the direction and extent of that change.



**Figure 3.5.2.1.** Social vulnerability indices for top spiny lobster fishing communities. Source: SERO, Community Social Vulnerability Indicators Database 2014 (American Community Survey 2010-2014).



**Figure 3.5.2.2.** Social vulnerability indices for top spiny lobster fishing communities continued. Source: SERO, Community Social Vulnerability Indicators Database 2014 (American Community Survey 2010-2014).

People in these communities may be affected by fishing regulations in two ways: participation and employment. Although these communities may have the greatest potential for EJ concerns, no data are available on the race and income status for those involved in the local fishing industry (employment), or for their dependence on spiny lobster specifically (participation). Although no EJ issues have been identified, the absence of potential EJ concerns cannot be assumed.

## 3.6 Description of the Administrative Environment

### 3.6.1 Federal Fishery Management

Federal fishery management is conducted under the authority of the 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 U.S. 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 west Florida to Key West, Alabama, Mississippi, Louisiana, 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 SSCs 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.

### **3.6.2 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 its respective web page (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 3.6.2.1.** Gulf and South Atlantic state marine resource agencies and web pages.

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

## CHAPTER 4. ENVIRONMENTAL CONSEQUENCES

### 4.1 Action 1: Florida state bully net permit, marking requirements, and gear prohibitions for bully net gear in the exclusive economic zone (EEZ) off Florida

**Alternative 1:** No Action. A Florida state commercial bully net permit is not required 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.

**Preferred Alternative 2:** 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 permit from Florida
- Require that the vessel be marked with the harvester's Florida bully net permit 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 specific regulatory language related to items above, the reader is referred to (Appendix A and Appendix B).

#### 4.1.1 Direct and Indirect Effects on the Physical and Biological/Ecological Environment

A bully net is a type of gear used for the commercial harvest of spiny lobster and generally consists of a mesh net with a long handle. This type of gear is typically used in shallow waters at night when spiny lobster move away from structure. The lobsters are spotted visually using bright lights shining in the water and the mesh net is used to scoop the lobster out of the water.

**Alternative 1** (No Action) would not require a Florida state commercial bully net permit or regulations related to bully nets to harvest spiny lobster using bully net gear in the EEZ off Florida and, therefore, would continue inconsistent federal regulations with those currently existing in state waters. **Preferred Alternative 2** and its measures would address this inconsistency, aid law enforcement, and address user conflicts among the recreational and commercial sectors, and other members of the public. Adverse direct effects to the physical environment are not expected from bully net gear, indirect adverse effects could occur if the boat ran aground in shallow waters and/or damage caused to the bottom from the propeller. However, any adverse indirect effects to the physical environment are not expected by this action as explained below in the effects to the biological environment. The bully net gear type pre-dates the use of spiny lobster traps and currently comprises 3% of spiny lobster landings (Figure 1.1.1); participation has steadily increased in recent years (Figures 1.1.1 and 1.1.2) with landings

using this gear type increasing from 1% to 3.4% of total landings in one year. As shown in Table 3.1.1, the 5-year average (2012/2013 through 2016/2017 fishing years) landings of spiny lobster by the commercial sector using bully net gear was 147,960 pounds whole weight (lbs ww), similar to the landings using dive gear (179,640 lbs ww), and substantially less than the landings using traps (5,135,010 lbs ww). Currently, there is little indication that spiny lobster are harvested in federal waters off Florida using bully net gear. The EEZ off Florida extends from three to 200 nautical miles offshore on the Atlantic side and nine to 200 nautical miles offshore on the Gulf side; bully net gear is not practical to use in the depths typically found in the EEZ off Florida. Therefore, the level of effort in federal waters is not expected to increase as a result of this action and direct and indirect biological effects to the spiny lobster stock using bully net gear for commercial harvest are not expected.

#### **4.1.2 Direct and Indirect Effects on the Economic Environment**

**Alternative 1** (No Action) would not modify federal regulations to require a Florida state bully net permit, marking requirements, and gear prohibitions for bully net gear in the EEZ off of Florida. There is little information on bully net gear use in federal waters, as this gear is not conducive for use in depths typically found in the EEZ. Harvest of spiny lobster with this gear is likely minimal, if it occurs at all. **Alternative 1** would not affect commercial lobster harvest nor would it result in direct economic effects. This alternative would continue the inconsistency between federal and state regulations for the use of bully net gear off of Florida, which may result in indirect negative economic effects occurring from difficulties in compliance with and enforcement of the differing regulations.

Under **Preferred Alternative 2**, Florida state bully net permit, marking requirements, and gear prohibitions would be necessary to fish the gear in federal waters off Florida. These requirements are not expected to alter commercial harvest of spiny lobster, therefore no changes to ex-vessel revenue are anticipated. The requirements would impose additional costs on bully net fishery participants if these participants only use the gear in federal waters. As mentioned, bully net gear is not useful for harvesting spiny lobster at depths typically found in the EEZ and it is highly likely that fishery participants would also use the gear in state waters off Florida, thus already complying with state regulations. Therefore, any direct negative economic effects that may occur due to **Preferred Alternative 2** would be negligible. Aligning state and federal regulations for bully net gear may result in indirect positive economic effects by enhancing compliance with and enforcement of such regulations.

#### **4.1.3 Direct and Indirect Effects on the Social Environment**

**Alternative 1** (No Action) and **Preferred Alternative 2** are expected to have minimal effects on coastal communities. Because of water depth, harvest of spiny lobster using bully net gear is unlikely to be occurring in the EEZ off Florida.

Public testimony has indicated that there is user conflict between the recreational and commercial bully net sectors, as well as local homeowners. This conflict includes potential use

of the bully net fishery as a cover for illegal activity such as trap robbing from federal waters at night and working traps at night with/or without trap certificates and tags. Increased participation in the spiny lobster bully net fishery (see Section 4.1.1) is likely to exacerbate such conflicts. **Preferred Alternative 2** would result in federal rules for spiny lobster being consistent with those in Florida. **Preferred Alternative 2** would prevent the bully net fishery from being used as a cover for illegal activity, aid law enforcement in identifying the perpetrators at night, and curb illegal use of commercial gear. This would benefit coastal communities by reducing user conflict. Additionally, consistency in regulations between federal and state waters would be expected to reduce confusion among spiny lobster fishermen and aid in compliance.

#### **4.1.4 Direct and Indirect Effects on the Administrative Environment**

The direct and indirect effects on the administrative environment would be expected to be more under **Preferred Alternative 2** when compared with **Alternative 1** (No Action), but would not be expected to rise to the level of significance. No new federal permit will be created under **Preferred Alternative 2**, and the National Marine Fisheries Service (NMFS) will require the same regulations as Florida regulations to harvest spiny lobster using bully net gear in the EEZ off Florida. Therefore, the only added burden to the federal administrative environment under **Preferred Alternative 2** would be in the form of incorporating the new language in the federal regulations that point to the relevant Florida state regulations, educating the public, and enforcing these regulations in the federal waters off Florida. Furthermore, enforcement would be easier due to consistent regulations in state and federal waters.

## **4.2. 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.

**Preferred 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.

**Preferred 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 the EEZ only off Broward, Dade, Monroe, Collier, and Lee Counties, Florida.

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

### **4.2.1 Direct and Indirect Effects on the Physical and Biological Environments**

**Alternative 1** (No Action) would not modify federal regulations to include a commercial daily vessel harvest and possession limit for spiny lobster harvested by bully net or diving in the EEZ

off Florida in federal regulations. However, current federal regulations require that for a person to commercially harvest spiny lobster in the EEZ off Florida, that person must have the licenses and certificates specified to be a “commercial harvester,” as defined in Florida’s regulations as of 2008. The 2008 version of “commercial harvester” included a person holding the appropriate licenses and certificates for traps and dive gear. Preferred Alternative 2 in Action 1, would incorporate the most recent Florida definition of “commercial harvester,” into the federal regulations, which includes persons with trap, dive, or bully net licenses. Since commercial spiny lobster dive harvesters in the EEZ off Florida are already required to abide by Florida’s possession limits and there is limited harvest of spiny lobster in the EEZ using bully net gear, physical and biological effects under **Alternative 1** are expected to be the same as **Preferred Alternatives 2 and 3**.

Management of the spiny lobster fishery has been almost entirely based on rules developed by Florida. Limiting the proposed changes to harvest and possession in the EEZ off Florida means that commercial spiny lobster fishermen located outside of Florida will not be required to comply with Florida’s regulations. In Florida, little fishing effort for spiny lobster occurs north of Monroe County on the west coast of Florida. The majority of spiny lobsters caught outside Monroe County come from waters off Dade and Broward Counties. Commercial harvest by diving is not common in Dade County and limited diving effort occurs north of the West Palm Beach area. Commercial harvest by bully net is not common outside of Monroe County due to water depth and clarity issues. **Preferred Alternatives 2 and 3** may enhance the enforcement of Florida’s possession limits by expressly including these limits in the federal regulations that apply to the EEZ off Florida. However, as noted above, commercial spiny lobster bully net and dive harvesters in the EEZ off Florida are already required to abide by Florida’s possession limits because they are required to have Florida “commercial harvester” licenses and certificates. Therefore, **Preferred Alternatives 2 and 3** are not expected have direct or indirect impacts on the biological or the physical environment. For this same reason, **Preferred Alternatives 2 and 3** are not expected to alter fishing behavior in a way that would cause new adverse effects to non-target or protected species.

#### **4.2.2 Direct and Indirect Effects on the Economic Environment**

**Alternative 1** (No Action) would not modify federal regulations in the EEZ off Florida for trip limits of spiny lobster on commercial bully net and dive gear trips to match trip limit regulations that are in place for the gears in Florida state waters. This alternative would not alter the commercial harvest of spiny lobster, therefore, no direct economic effects are anticipated.

**Alternative 1** would continue a possible perceived inconsistency between federal and state regulations for possession limits of spiny lobster caught with commercial bully net and dive gear, which may result in indirect negative economic effects occurring from any confusion that may exist.

**Preferred Alternative 2** would establish, in the federal regulations, a commercial daily harvest and possession limit of spiny lobster in the EEZ that is the same as the limits in place for fishery participants using bully net gear in Florida state waters. If **Preferred Alternative 2 in Action 1** is implemented and approved, the federal regulations will require the Florida commercial bully

net permit for harvest in the EEZ, and this permit restricts fishermen to the state harvest and possession limit for spiny lobster. Additionally, it is not likely that bully net gear is used to harvest spiny lobster in the EEZ off Florida. As such, this alternative is not expected to alter the commercial harvest of spiny lobster nor would it result in direct economic effects. Expressly aligning state and federal regulations for bully net gear possession limits may result in indirect positive economic effects by enhancing compliance with and enforcement of such regulations.

**Preferred Alternative 3** would establish, in the federal regulations, a commercial daily harvest and possession limit of spiny lobster in the EEZ off Broward, Dade, Monroe, Collier, and Lee Counties, Florida, which is the same as the limits in place for fishery participants using dive gear in Florida state waters. Federal regulations require Florida commercial spiny lobster dive permits to harvest this species in the EEZ off Florida and Florida permits restrict fishermen to the state harvest and possession limit for spiny lobster. Therefore, this alternative would not alter the commercial harvest of spiny lobster nor is it expected to result in direct economic effects for participants commercially diving for spiny lobster in the EEZ off Broward, Dade, Monroe, Collier, and Lee Counties, Florida. Expressly aligning state and federal regulations for commercial dive gear may result in indirect positive economic effects by enhancing compliance with and enforcement of such regulations.

#### **4.2.3 Direct and Indirect Effects on the Social Environment**

Establishing commercial spiny lobster bully net and dive possession limits in the federal regulations for the EEZ off Florida is expected to have minimal effects on coastal communities. If **Preferred Alternative 2** in **Action 1** is implemented and approved, the federal regulations will require the Florida commercial bully net permit for harvest in EEZ. Additionally, Federal regulations already require a Florida commercial spiny lobster dive permit to harvest this species in the EEZ off Florida. Both Florida permits restrict fishermen to the state harvest and possession limit for spiny lobster. Under **Alternative 1** (No Action), the Florida possession limits would not be expressly incorporated into the federal regulations. **Alternative 1** (No Action) would not address any confusion about whether these possession limits apply in the EEZ off Florida. **Preferred Alternatives 2** and **3** would expressly align regulations in the EEZ off Florida and Florida state waters, providing clarity to fishermen operating in the spiny lobster fishery in the EEZ off Florida.

#### **4.2.4 Direct and Indirect Effects on the Administrative Environment**

**Alternative 1** (No Action) would not modify federal regulations to include a commercial daily vessel harvest and possession limit for spiny lobster harvested by bully net or diving in the EEZ off Florida to be compatible with Florida regulations. The lack of explicit federal possession limits for these activities may result in an administrative burden for managers and law enforcement if there is confusion among the public. **Alternative 1** would continue this administrative burden. **Preferred Alternatives 2** and **3** could reduce the administrative burden as compared to **Alternative 1**, if these alternatives lessen confusion about the possession limits that apply in the EEZ off Florida and the identified counties.

### 4.3. Action 3: Establish an enhanced cooperative management procedure for federal and Florida state agencies for the management of spiny lobster for the EEZ off Florida

**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.

**Preferred Alternative 2.** Establish an enhanced cooperative management procedure that allows Florida to request changes to the spiny lobster federal regulations through NMFS rulemaking and combine the procedure with the existing protocol as specified in Amendment 10 to the Spiny Lobster FMP. Following is the proposed language (adapted from Amendment 2 to the Spiny Lobster FMP) for the combined procedure and protocol: (Full Cooperative Management Protocol and Procedure is available in Section 2.3).

#### 4.3.1 Direct and Indirect Effects on the Physical and Biological Environments

Neither **Alternative 1** (No Action) nor **Preferred Alternative 2** would have any direct effect on the physical or biological environment. Currently, the amendment process requires the analyses of the physical, biological, and ecological environments. **Preferred Alternative 2** would still require these analyses, but the burden would be on Florida to provide these analyses. This action is administrative in nature in that it establishes a procedure for Florida to directly recommend regulations to NMFS. Indirectly, this may have positive effects on the physical, biological, or ecological environments should these regulatory recommendations be based on efforts to mitigate harm to these environments as it would allow for a more streamlined process.

#### 4.3.2 Direct and Indirect Effects on the Economic Environment

**Alternative 1** (No Action) would not implement an enhanced cooperative management procedure for the management of spiny lobster. To maintain consistency between Florida's and federal regulations, Gulf and South Atlantic Councils would continue to develop regulatory actions to implement new federal regulations in response to Florida's new regulations.

**Alternative 1** is not expected to affect spiny lobster harvest and would, therefore, not be expected to result in direct economic effects. However, **Alternative 1** could result in adverse indirect economic effects if there are adverse impacts to the spiny lobster stock due to delays in the implementation of required regulatory changes proposed by the Florida.

By re-establishing the enhanced cooperative management procedure for spiny lobster, **Preferred Alternative 2** could streamline the regulatory process and result in a timelier implementation of regulatory changes requested by the state of Florida. **Preferred Alternative 2** would not be expected to result in direct economic effects because it is not expected to affect spiny lobster

harvest. However, a timelier implementation of regulatory changes could benefit the spiny lobster fishery, thereby resulting in indirect economic benefits.

### 4.3.3 Direct and Indirect Effects on the Social Environment

The development of an enhanced cooperative management procedure would have beneficial impacts on the social environment as management may be able to react to changes in the stock status or fishery in a timelier manner. **Alternative 1** (No Action) would not allow for these types of changes and could, over time, have negative indirect effects. Actions that are promulgated quickly may not provide for as much public input and comment on the actions as other regulatory processes. However, in these situations, the benefits of timely action should outweigh the diminished time frame for comment. **Preferred Alternative 2** would provide consistency in language with regulatory changes and have few effects on the social environment. As updated, the enhanced cooperative management procedure under **Preferred Alternative 2**, does not require regulatory changes promulgated through the procedure to be reviewed by the Councils' Science and Statistical Committees (SSCs) and advisory panels, although that is optional. As mentioned earlier, timing and public input become the key social parameters that are affected by the alternatives. While public input and participation by the SSCs and advisory panels can be beneficial, it is time consuming and can slow the process. Yet, that participation can provide a more acceptable regulation which may lead to better compliance. Given the limited regulations that can be changed under the enhanced cooperative management procedure, review by the SSCs and advisory panels for every change is likely not imperative and could still be undertaken if needed.

### 4.3.4 Direct and Indirect Effects on the Administrative Environment

**Alternative 1** (No Action) would not provide a mechanism for Florida to recommend regulations directly to NMFS. This would add to the administrative burden for management as for each regulatory adjustment requested by Florida, the amendment process (either via framework or a full amendment) would be required. **Preferred Alternative 2** would be more beneficial for the administrative environment than **Alternative 1** because it would allow for a direct mechanism for regulations to be provided for implementation from Florida to NMFS. **Preferred Alternative 2** establishes the procedure necessary for Florida to be able to provide these regulatory recommendations with the appropriate analyses to NMFS. NMFS's involvement in the protocol and procedure would be no more of a burden than the current amendment process. Therefore, the direct and indirect effects on the administrative environment under **Preferred Alternative 2** would be expected to be lower than **Alternative 1**.

## 4.4 Cumulative Effects

The impacts to the physical, biological, economic, and social environments are likely negligible or minimal for these actions. Impacts to the administrative environment could be expected, but are not expected to rise to the level of significance. Cumulatively, the direct and indirect effects of these actions are likely to be minimal because it is not likely that any of these actions will

affect how the fishery is currently being prosecuted. Actions 1 and 2 would make federal regulations consistent with Florida state regulations, and Action 3 would re-establish an enhanced cooperative management procedure that would allow Florida to request changes to the spiny lobster federal regulations through NMFS rulemaking; none of these actions are likely to have unforeseen cumulative effects.

Overall, these actions are not likely to result in significant effects when considered in combination with other relevant past, present, and reasonably foreseeable actions because they would not substantially alter the manner in which the spiny lobster fishery is prosecuted. Past actions are summarized in Section 1.3. As of this writing, there are no reasonably foreseeable actions that can be identified.

There are several environmental considerations which may contribute to the cumulative effects including the PaV1 pathogenic virus, the *Deepwater Horizon* MC252 oil spill, tropical weather events, economic changes and potential climate change impacts. The impacts from these environmental influences are not necessarily quantifiable at this time; however, the potential effects are described below.

A naturally occurring, pathogenic virus, PaV1, infects juvenile Caribbean spiny lobsters. This virus is lethal to lobsters. Infection is highest in smaller juveniles; mortality occurs after larval settlement but before recruitment to the fishery. PaV1 was first detected in the U.S. spiny lobster population around 1996. No evidence shows PaV1 has increased in prevalence or virulence since 2000, so mortality from PaV1 may explain why landings declined beginning about that time while the post-larval recruitment index remained steady or environmental conditions outside of the PaV1 virus caused the stock to natural fluctuate.

It is unknown whether the impacts of the *Deepwater Horizon* MC252 oil spill affected south Florida where spiny lobster are harvested. Information on the effects of the oil on the spiny lobster fishery is incomplete and unavailable at this time. Although not reported in the primary spiny lobster fishing area, there have been reports of increased incidences of diseased fish by some scientists that may be related to the spill; however, others have argued there is no baseline from which to judge the prevalence of disease, so no correlation can be conclusively determined. In a recent study, Weisberg et al. (2014) suggested the hydrocarbons associated with the *Deepwater Horizon* MC252 oil spill did transit onto the Florida shelf and may be associated with the occurrences of reef fish with lesions and other deformities. The Programmatic Damage Assessment and Restoration Plan (PDARP) for the *Deepwater Horizon* oil spill, outlines the extent and severity of injuries to the ecosystem and the toxicity impacts of exposure to various organisms (2016). The PDARP suggests that fish embryos and larvae were vulnerable to the exposure to oil causing developmental abnormalities, inhibited growth, decreased swimming ability, and additional negative impacts and increased mortality. The PDARP also assesses the effects of oil exposure on the benthic resources, water quality, nearshore marine ecosystem, benthic resources, birds, sea turtles, and marine mammals.

The hurricane season is from June 1 to November 30, and accounts for 97% of all tropical activity affecting the Atlantic Basin (NOAA 2007). These storms, although unpredictable in

their annual occurrence, can devastate areas when they occur. Direct losses to the fishing industry and businesses supporting fishing activities included: loss of vessels, loss of revenue due to cancelled fishing trips, and destruction of marinas and other fishery infrastructure (Walker et al. 2006). However, while these effects may be temporary, those fishing-related businesses whose profitability is marginal may go out of business if a hurricane strikes.

It is unclear how climate change would affect spiny lobster. Climate change can affect factors such as migration, range, larval and juvenile survival, prey availability, and susceptibility to predators. In addition, the distribution of native and exotic species may change with increased water temperature, as well as the prevalence of disease in keystone animals such as corals and the occurrence and intensity of toxic algae blooms. Decreases in surface ocean pH due to absorption of anthropogenic CO<sub>2</sub> emissions may impact a wide range of organisms and ecosystems, particularly organism that absorb calcium from surface waters, such as corals, molluscs, and crustaceans (IPCC 2014, and references therein). Hollowed et al. (2013) provided a review of projected effects of climate change on marine fisheries and dependent communities. Integrating the potential effects of climate change into fisheries stock assessments is currently difficult due to differences in time scales (Hollowed et al. 2013). Fisheries stock assessments rarely project across a time period that would include detectable climate change effects.

The effects of the proposed actions are, and would continue to be, monitored through stock assessments and stock assessment updates, life history studies, economic and social analyses, and other scientific observations. In addition, monitoring and tracking the level of take of protected species by the spiny lobster fishery is imperative. NMFS must ensure that measures to monitor and report any sea turtle, smalltooth sawfish, or *Acropora* spp. and other listed coral species. Interactions, including: 1) detect any adverse effects resulting from the spiny lobster fishery; 2) assess the actual level of incidental take in comparison with the anticipated incidental take; and 3) detect when the level of anticipated take is exceeded.

## **CHAPTER 5. REGULATORY IMPACT REVIEW**

Will be completed at a later date

# CHAPTER 6. REGULATORY FLEXIBILITY ACT ANALYSIS

Will be completed at a later date

## CHAPTER 7. LIST OF AGENCIES, ORGANIZATIONS, AND PERSONS CONSULTED

Preparers:

<b>Name</b>	<b>Expertise</b>	<b>Responsibility</b>	<b>Agency</b>
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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
Ken Blackburn	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
Jennifer Lee	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

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

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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.

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# APPENDIX A. FLORIDA ADMINISTRATIVE CODE ON SPINY LOBSTER

## CHAPTER 68B-24

### SPINY LOBSTER (CRAWFISH) AND SLIPPER LOBSTER

68B-24.001	Purpose and Intent
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#### **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:

	Name of Area	Plot Corner	North Latitude	West 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. STATE AND FEDERAL REGULATION DIFFERENCES

Table 1. Recommended changes to the federal regulations, responses, and if this amendment directly addresses those changes.

Federal Rule Number	Issue	Identifying Agency	NMFS response	Included in Amendment?
622.400(a)(1)(i)	definition of commercial harvester	FWC	Incorporate by reference FAC 68B-24.002(4) with effective date of May 1, 2017.	y
622.400(a)(2)	syntax	NMFS	Change crawfish "endorsement" to "license."	y
622.402(a)	vessel ID requirements	FWC	Incorporate by reference FAC 68B-24.006(7) with an effective date of May 1, 2017.	y
622.402(a)(2)	effective date	FWC	Update the incorporate by reference (which is correct) with an FAC effective date of May 1, 2017.	y
622.402(c)(1)	timing of removal of derelict traps	FWC	Remove phrase "during times other than the authorized fishing season."	N
622.404	prohibition on trap pullers from being aboard vessels that are, or are required to be, marked with a bully net permit number	FWC	Incorporate by reference FAC 68B-24.006(8) with an effective date of May 1, 2017 OR establish regulations related to a federal prohibition.	Y
622.404	scuba gear prohibition	FWC	Incorporate by reference FAC 68B-24.007(5) with an effective date of May 1, 2017.	Y

Federal Rule Number	Issue	Identifying Agency	NMFS response	Included in Amendment?
622.405(b)(2)	trap theft	FWC	Incorporate by reference FAC 68B-24.006(9); Prohibitions, 622.13, Interfere with fishing or obstruct or damage fishing gear or the fishing vessel of another, as specified in this part. This already applies overall. Also, the current text in 405(b)(2) should be sufficient. NMFS' opinion is that in the 622 regulations, the use of pulling and tending also apply to the removal of contents as "tending" is interpreted broadly.	N
622.405(b)(2)(i)	tending restrictions	FWC	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.	N
622.408(b)	bag limits	FWC	622.408 Revise (b)(5) to reflect accurate bag limits.	Y
622.412	adjustment of management measures.	NMFS	Add in additional language about procedure and protocol.	y
622.413(b)	incorp. by reference website address/phone number	NMFS	Update to correct general website: <a href="http://www.flrules.org/">http://www.flrules.org/</a> and correct phone number: (850) 487-0554	N
622.413(b)(2)	definition for spiny lobster incorp. By reference correction re: date	FWC	Update the "incorporated by reference" in 622.413(b)(2) to include the effective date May 1, 2017.	y
622.413(b)(3)	seasons update incorp. by reference re: date	NMFS	Effective date June 1, 1994 (resolves typo).	N

<b>Federal Rule Number</b>	<b>Issue</b>	<b>Identifying Agency</b>	<b>NMFS response</b>	<b>Included in Amendment?</b>
622.413(b)(4)	gear update incorp. by reference re: date	FWC	Update the “incorporated by reference” in 622.413(b)(4) (Incorporation by reference) to include the effective date May 1, 2017.	Y
622.413(c)	outdated contact information	FWC	Update the phone number to (850) 487-0554 and website to <a href="http://www.flrules.org/">http://www.flrules.org/</a>	Y
622.415(a)	misspelling	FWC	correct "foeign" to "foreign"	N
622.404	harvest from artificial habitat prohibition	FWC	This was moved to “considered but rejected” in this amendment process.	Y
622.405(a)	revise trap construction specification	FWC	This was moved to “considered but rejected” in this amendment process.	Y
622.408(b)(4)	Misspelling: Correct “loading” to “landing” Correct “fish” to “species”	FWC	These terms are correct as they appear in the CFR.	N

## **APPENDIX C. EXISTING 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.

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## APPENDIX D. OTHER APPLICABLE LAW

The Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) (16 U.S.C. 1801 et seq.) provides the authority for management of stocks included in fishery management plans (FMP) in federal waters of the exclusive economic zone. However, management decision-making is also affected by a number of other federal statutes designed to protect the biological and human components of U.S. fisheries, as well as the ecosystems that support those fisheries. Major laws affecting federal fishery management decision-making include the Endangered Species Act (Section 3.3), E.O. 12866 (Regulatory Planning and Review, Chapter TBD) and E.O. 12898 (Environmental Justice, Section 3.5.2). Other applicable laws are summarized below.

### **Administrative Procedure Act**

All federal rulemaking is governed under the provisions of the Administrative Procedure Act (5 U.S.C. Subchapter II), which establishes a “notice and comment” procedure to enable public participation in the rulemaking process. Under the Act, the National Marine Fisheries Service (NMFS) is required to publish notification of proposed rules in the *Federal Register* and to solicit, consider, and respond to public comment on those rules before they are finalized. The Act also establishes a 30-day waiting period from the time a final rule is published until it takes effect. Proposed and final rules will be published before implementing the actions in this amendment.

### **Coastal Zone Management Act**

Section 307(c)(1) of the federal Coastal Zone Management Act of 1972 (CZMA), as amended, requires federal activities that affect any land or water use or natural resource of a state’s coastal zone be conducted in a manner consistent, to the maximum extent practicable, with approved state coastal management programs. The requirements for such a consistency determination are set forth in NOAA regulations at 15 CFR part 930, subpart C. According to these regulations and CZMA Section 307(c)(1), when taking an action that affects any land or water use or natural resource of a state’s coastal zone, NMFS is required to provide a consistency determination to the relevant state agency at least 90 days before taking final action.

Upon submission to the Secretary of Commerce, NMFS will determine if this plan amendment is consistent with the Coastal Zone Management programs of the Gulf of Mexico (Gulf) and South Atlantic states to the maximum extent possible. Their determination will then be submitted to the responsible state agencies under Section 307 of the CZMA administering approved Coastal Zone Management programs for these states.

### **Data Quality Act**

The Data Quality Act (Public Law 106-443) effective October 1, 2002, requires the government to set standards for the quality of scientific information and statistics used and disseminated by federal agencies. Information includes any communication or representation of knowledge such

as facts or data, in any medium or form, including textual, numerical, cartographic, narrative, or audiovisual forms (includes web dissemination, but not hyperlinks to information that others disseminate; does not include clearly stated opinions).

Specifically, the Act directs the Office of Management and Budget to issue government wide guidelines that “provide policy and procedural guidance to federal agencies for ensuring and maximizing the quality, objectivity, utility, and integrity of information disseminated by federal agencies.” Such guidelines have been issued, directing all federal agencies to create and disseminate agency-specific standards to: (1 ensure information quality and develop a pre-dissemination review process; (2 establish administrative mechanisms allowing affected persons to seek and obtain correction of information; and (3 report periodically to Office of Management and Budget on the number and nature of complaints received.

Scientific information and data are key components of FMPs and amendments and the use of best available information is the second national standard under the Magnuson-Stevens Act. To be consistent with the Magnuson-Stevens Act, FMPs and amendments must be based on the best information available. They should also properly reference all supporting materials and data, and be reviewed by technically competent individuals. With respect to original data generated for FMPs and amendments, it is important to ensure that the data are collected according to documented procedures or in a manner that reflects standard practices accepted by the relevant scientific and technical communities. Data will also undergo quality control prior to being used by the agency and a pre-dissemination review.

### **National Historic Preservation Act**

The National Historic Preservation Act (NHPA) of 1966, (Public Law 89-665; 16 U.S.C. 470 *et seq.*) is intended to preserve historical and archaeological sites in the United States of America. Section 106 of the NHPA requires federal agencies to evaluate the impact of all federally funded or permitted projects for sites on listed on, or eligible for listing on, the National Register of Historic Places and aims to minimize damage to such places.

Historical research indicates that over 2,000 ships have sunk on the Federal Outer Continental Shelf between 1625 and 1951; thousands more have sunk closer to shore in state waters during the same period. Only a handful of these have been scientifically excavated by archaeologists for the benefit of generations to come. Further information can be found at: <http://www.boem.gov/Environmental-Stewardship/Archaeology/Shipwrecks.aspx>

The proposed action does not adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places nor is it expected to cause loss or destruction of significant scientific, cultural, or historical resources. In the Gulf, the *U.S.S. Hatteras*, located in federal waters off Texas, is listed in the National Register of Historic Places. Fishing activity already occurs in the vicinity of this site, but the proposed action would have no additional adverse impacts on listed historic resources, nor would they alter any regulations intended to protect them.

### **National Marine Sanctuaries Act**

Under the National Marine Sanctuaries Act (also known as Title III of the Marine Protection, Research and Sanctuaries Act of 1972), as amended, the Secretary of Commerce is authorized to designate National Marine Sanctuaries to protect distinctive natural and cultural resources whose protection and beneficial use requires comprehensive planning and management. The National Marine Sanctuaries are administered by NOAA's National Ocean Service. The Act provides authority for comprehensive and coordinated conservation and management of these marine areas. The National Marine Sanctuary System currently comprises 13 sanctuaries around the country, including sites in American Samoa and Hawaii. These sites include significant coral reef and kelp forest habitats, and breeding and feeding grounds of whales, sea lions, sharks, and sea turtles. A complete listing of the current sanctuaries and information about their location, size, characteristics, and affected fisheries can be found at: <http://www.sanctuaries.nos.noaa.gov/oms/oms.html>.

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

The PRA of 1995 (44 U.S.C. 3501 et seq.) regulates the collection of public information by federal agencies to ensure that the public is not overburdened with information requests, that the federal government's information collection procedures are efficient, and that federal agencies adhere to appropriate rules governing the confidentiality of such information. The PRA requires NMFS to obtain approval from OMB before requesting most types of fishery information from the public. This action would not invoke the PRA.

### **Executive Orders (E.O.)**

#### **E.O. 12630: Takings**

The E.O. on Government Actions and Interference with Constitutionally Protected Property Rights that became effective March 18, 1988, requires each federal agency prepare a Takings Implication Assessment for any of its administrative, regulatory, and legislative policies and actions that affect, or may affect, the use of any real or personal property. Clearance of a regulatory action must include a takings statement and, if appropriate, a Takings Implication Assessment. The NOAA Office of General Counsel will determine whether a Taking Implication Assessment is necessary for this amendment.

#### **E.O. 12962: Recreational Fisheries**

This E.O. requires federal agencies, in cooperation with states and tribes, to improve the quantity, function, sustainable productivity, and distribution of U.S. aquatic resources for increased recreational fishing opportunities through a variety of methods including, but not limited to, developing joint partnerships; promoting the restoration of recreational fishing areas that are limited by water quality and habitat degradation; fostering sound aquatic conservation and restoration endeavors; and evaluating the effects of federally-funded, permitted, or authorized actions on aquatic systems and recreational fisheries, and documenting those effects. Additionally, it establishes a seven-member National Recreational Fisheries Coordination Council (NRFCC) responsible for, among other things, ensuring that social and economic values

of healthy aquatic systems that support recreational fisheries are considered by federal agencies in the course of their actions, sharing the latest resource information and management technologies, and reducing duplicative and cost-inefficient programs among federal agencies involved in conserving or managing recreational fisheries. The NRFCC also is responsible for developing, in cooperation with federal agencies, States and Tribes, a Recreational Fishery Resource Conservation Plan - to include a five-year agenda. Finally, the E.O. requires NMFS and the United States Fish and Wildlife Service to develop a joint agency policy for administering the ESA.

#### **E.O. 13089: Coral Reef Protection**

The E.O. on Coral Reef Protection requires federal agencies whose actions may affect U.S. coral reef ecosystems to identify those actions, utilize their programs and authorities to protect and enhance the conditions of such ecosystems, and, to the extent permitted by law, ensure actions that they authorize, fund, or carry out do not degrade the condition of that ecosystem. By definition, a U.S. coral reef ecosystem means those species, habitats, and other national resources associated with coral reefs in all maritime areas and zones subject to the jurisdiction or control of the United States (e.g., federal, state, territorial, or commonwealth waters).

#### **E.O. 13132: Federalism**

The E.O. on Federalism requires agencies in formulating and implementing policies, to be guided by the fundamental Federalism principles. The E.O. serves to guarantee the division of governmental responsibilities between the national government and the states that was intended by the framers of the Constitution. Federalism is rooted in the belief that issues not national in scope or significance are most appropriately addressed by the level of government closest to the people. This E.O. is relevant to FMPs and amendments given the overlapping authorities of NMFS, the states, and local authorities in managing coastal resources, including fisheries, and the need for a clear definition of responsibilities. It is important to recognize those components of the ecosystem over which fishery managers have no direct control and to develop strategies to address them in conjunction with appropriate state, tribes and local entities (international too).

The proposed management measures in this Spiny Lobster FMP amendment have been developed with the local and federal officials.

#### **E.O. 13158: Marine Protected Areas**

This E.O. requires federal agencies to consider whether their proposed action(s) will affect any area of the marine environment that has been reserved by federal, state, territorial, tribal, or local laws or regulations to provide lasting protection for part or all of the natural or cultural resource within the protected area.

## APPENDIX E. ACTIONS CONSIDERED BUT REJECTED

The following action was removed because information from industry was provided to the Councils indicating that addressing this action may have unintended consequences. Several fishermen indicated that, due to different environmental conditions, the traps used in the EEZ are constructed of different material than those used in state waters. Also, Florida is currently reviewing their trap regulations. The Councils chose to remove this item from consideration, as Florida's regulations may change. The intent of this Amendment was to make federal regulations consistent with state regulations when appropriate. Therefore, this action was no longer consistent with the purpose and need of this amendment, and this action was removed from consideration.

### Action: 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. In federal waters, spiny lobster traps are primarily used in the EEZ off Florida, though they are occasionally used 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 and 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 types.

The following action was removed from consideration after further analyses were conducted. NOAA General Counsel indicated that this action would be problematic to notice to the public as not all artificial habitats are known. The rationale for this regulation in state waters is to discourage the placement of ‘casitas’ in state waters. The Councils chose to remove this item from consideration after information was presented regarding the problems in both noticing and enforcing this action. It was determined that, given these caveats, the action no longer fit the purpose and need of this amendment.

## **Action: 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\* in the EEZ off Florida. 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 64B-24.006(12).

**\*Note:** For the purpose of this prohibition, “artificial habitat” means any material placed in the waters of the state of Florida or in the EEZ off Florida 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 the specific purpose of attracting lobsters or for some other purpose. The term does not include fishing gear allowed by federal regulations, 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

### **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.

### **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 [Florida Fish and Wildlife Conservation] 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. The definition used for artificial habitat in this Action mimics that outlined in the FAC, but it has been modified to apply to federal waters.

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 sea floor 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 1990s 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 jurisdictional hurdles have prevented the development of 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 Fishery Management Plan for the Spiny Lobster Fishery of the Gulf of Mexico and South Atlantic (Spiny Lobster FMP). Choosing **Alternative 1** would maintain the existing differences between state and federal regulations which is cumbersome for law enforcement.

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