Amendment 7

to the Fishery Management Plan for the Dolphin and Wahoo Fishery of the Atlantic

and Amendment 33

to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic

Provision to allow dolphin and wahoo fillets to be brought into the U.S. Exclusive Economic Zone from The Bahamas and related issues for dolphin wahoo and snapper grouper species

March 2014

Definitions, Abbreviations, and Acronyms Used in the Document

ABC	acceptable biological catch
ACL	annual catch limits
AM	accountability measures
ACT	annual catch target
B	a measure of stock biomass in either weight or other appropriate unit
B_{MSY}	the stock biomass expected to exist under equilibrium conditions when fishing at F_{MSY}
B_{OY}	the stock biomass expected to exist under equilibrium conditions when fishing at F_{OY}
B_{CURR}	the current stock biomass
CPUE	catch per unit effort
DEIS	draft environmental impact statement
EA	environmental assessment
EEZ	exclusive economic zone
EFH	essential fish habitat
F	a measure of the instantaneous rate of fishing mortality
$F_{30\%SPR}$	fishing mortality that will produce a static SPR = 30%
F_{CURR}	the current instantaneous rate of fishing mortality
F_{MSY}	the rate of fishing mortality expected to achieve MSY under equilibrium conditions and a corresponding biomass of B_{MSY}
F_{OY}	the rate of fishing mortality expected to achieve OY under equilibrium conditions and a corresponding biomass of B_{OY}
FEIS	final environmental impact statement
FMP	fishery management plan
FMU	fishery management unit
M	natural mortality rate
MARMAP	Marine Resources Monitoring Assessment and Prediction Program
MFMT	maximum fishing mortality threshold
MMPA	Marine Mammal Protection Act
MRFSS	Marine Recreational Fisheries Statistics Survey
MRIP	Marine Recreational Information Program
MSFCMA	Magnuson-Stevens Fishery Conservation and Management Act
MSST	minimum stock size threshold
MSY	maximum sustainable yield
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
OFL	overfishing limit
OY	optimum yield
PSE	proportional standard error
RIR	regulatory impact review
SAFMC	South Atlantic Fishery Management Council
SEDAR	Southeast Data, Assessment, and Review
SEFSC	Southeast Fisheries Science Center
SERO	Southeast Regional Office
SIA	social impact assessment
SPR	spawning potential ratio
SSC	Scientific and Statistical Committee

Amendment 7 to the Fishery Management Plan for the Dolphin and Wahoo Fishery for the Atlantic and Amendment 33 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic

Including an Environmental Assessment (EA), Regulatory Impact Review (RIR), and Fishery Impact Statement (FIS)

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SUMMARY

AMENDMENT 7 to the Fishery Management Plan for the Dolphin and Wahoo Fishery for the Atlantic and Amendment 33 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic

Why is the South Atlantic Council Taking Action?

The South Atlantic Fishery Management Council (South Atlantic Council) was approached by recreational fishermen who requested a change in the regulations that currently make it illegal to bring filleted dolphin and wahoo into the U.S exclusive economic zone (EEZ) from Bahamian waters. Fishermen contend that storing fish safely with head and fins intact is difficult and impractical due to the size of the fish. The purpose of Amendment 7 to the Fishery Management Plan (FMP) for the Dolphin and Wahoo Fishery of the Atlantic (Dolphin Wahoo Amendment 7) and Amendment 33 to the FMP for the Snapper Grouper Fishery of the South Atlantic (Snapper Grouper Amendment 33) is to allow recreational fishermen to bring dolphin and wahoo fillets from The Commonwealth of The Bahamas (The Bahamas) into the U.S. exclusive economic zone (EEZ) and update regulations allowing recreational fishermen to bring back snapper grouper fillets from The Bahamas into the U.S. EEZ.

Regulations at 50 C.F.R. § 622.186 (b) currently allow fillets of snapper grouper species from The Bahamas to be brought into the U.S. EEZ. The need for this action is to increase the social and economic benefits to recreational fishermen by removing impediments to the possession of fish in the U.S. EEZ that were legally harvested in Bahamian waters.

What would Dolphin Wahoo Amendment 7 and Snapper Grouper Amendment 33 do?

Dolphin Wahoo Amendment 7 and Snapper Grouper Amendment 33 would allow fillets of dolphin and wahoo lawfully harvested by recreational fishermen from The Bahamas and update regulations allowing recreational fishermen to bring back snapper grouper fillets United States through the Atlantic EEZ

The current relevant regulations for dolphin and wahoo found at 50 C.F.R. § 622.276 (Landing fish intact) are:

(a) Dolphin and wahoo in or from the Atlantic EEZ must be maintained with head and fins intact. Such fish may be eviscerated, gilled, and scaled, but must otherwise be maintained in a whole condition.

(b) The operator of a vessel that fishes in the EEZ is responsible for ensuring that fish on that vessel in the EEZ are maintained intact and, if taken from the EEZ, are maintained intact through offloading ashore, as specified in this section.

Current relevant regulations for snapper grouper at 50 C.F.R. § 622.186 (landing fish intact) are:

(a) South Atlantic snapper grouper in or from the South Atlantic EEZ must be maintained with head and fins intact, except as specified in paragraph (b) of this section. Such fish may be eviscerated, gilled, and scaled, but must otherwise be maintained in a whole condition. The operator of a vessel that fishes in the EEZ is responsible for ensuring that fish on that vessel in the EEZ are maintained intact and, if taken from the EEZ, are maintained intact through offloading ashore, as specified in this section.

(b) In the South Atlantic EEZ, snapper grouper lawfully harvested in Bahamian waters are exempt from the requirement that they be maintained with head and fins intact, provided valid Bahamian fishing and cruising permits are on board the vessel and the vessel is in transit through the South Atlantic EEZ. For the purpose of this paragraph, a vessel is in transit through the South Atlantic EEZ when it is on a direct and continuous course through the South Atlantic EEZ and no one aboard the vessel fishes in the EEZ.

Pros and Cons of Dolphin Wahoo Amendment 7/Snapper Grouper Amendment 33

Pros

- Fillets take up less room in a cooler, thus easier to transport safely.
- Regulations would be consistent with what is currently allowed for bringing snapper grouper species from The Bahamas into the U.S. EEZ.
- Skin-on provision would help with species identification.

Cons

- A vessel with dolphin,wahoo, snapper, and grouper fillets onboard must be in continuous transit within the U.S. EEZ (i.e., cannot stop or fish).
- Vessels bringing snapper grouper fillets into the U.S. EEZ from The Bahamas are required to have stamped and dated passports to prove that the vessel passengers were in The Bahamas, as well as valid current Bahamian cruising and fishing permits onboard the vessel.
- Law enforcement concerns.

Dolphin Wahoo Amendment 7 and Snapper Grouper Amendment 33 would allow dolphin and wahoo that are lawfully harvested in Bahamian waters to be exempt from the requirement that they be maintained with head and fins intact in the Atlantic EEZ, provided valid Bahamian fishing and cruising permits are on board the vessel, and the vessel is in transit through the Atlantic EEZ. A vessel is in transit through the Atlantic EEZ when it is on a direct and continuous course through the Atlantic EEZ and no one aboard the vessel fishes in the EEZ. The vessel must also have stamped and dated passports to prove that the vessel passengers were in The Bahamas.

While in Bahamian waters, fishermen would be required to obtain the necessary Bahamian cruising and fishing permits and obey all Bahamian regulations. Dolphin and wahoo would be exempt from the U.S. bag and possession limits when returning to the U.S. through the U.S. EEZ, i.e., fishermen would be allowed a total of 18 dolphin or wahoo per vessel. A total of 60 pounds of snapper and grouper fillets would be allowed into the U.S. through the U.S. EEZ. All the fillets would be required to have the skin on the entire fillet.

Summary of Effects

Needs updating

Allow dolphin and wahoo that are lawfully harvested in Bahamian waters to be exempt from the requirement that they be maintained with head and fins intact in the Atlantic EEZ, provided valid Bahamian fishing and cruising permits are on board the vessel, and the vessel is in transit through the Atlantic EEZ. A vessel is in transit through the Atlantic EEZ when it is on a direct and continuous course through the Atlantic EEZ and no one aboard the vessel fishes in the EEZ.

Biological Effects

The management measure proposed in Dolphin Wahoo Amendment 7 would allow legally harvested dolphin and wahoo from The Bahamas to be filleted and transported on vessels through the Atlantic EEZ to the U.S. Vessels with dolphin and wahoo fillets would not be allowed to stop and fish in the U.S. EEZ, therefore, no biological impact on species included in the Dolphin Wahoo FMP would be expected.

Economic Effects

Allowing dolphin and wahoo to be brought into the Atlantic EEZ from The Bahamas is not expected to have significant economic effects for the U.S. Atlantic dolphin wahoo fishery. Fishermen carrying dolphin and wahoo fillets from The Bahamas could not fish for any South Atlantic Council managed species in the Atlantic EEZ; however, negative economic effects would be expected to be minimal.

Social Effects

The effects of the proposed action on the fishing fleets, and associated businesses and communities, are expected to be minimal. Allowing filets to be brought into the U.S. EEZ could contribute to improved quality of dolphin and wahoo caught on these trips since whole fish would not have to be stored with head and fins intact. This management measure could be beneficial to South Atlantic fishermen harvesting dolphin and wahoo in The Bahamas, particularly for fishermen coming in and out of south Florida and the Florida Keys.

Administrative Effects

The management measure in Dolphin Wahoo Amendment 7 would make regulations regarding transport of dolphin and wahoo fillets from The Bahamas to the U.S. consistent with existing regulations for snapper grouper species. This would help reduce confusion among fishermen. However, NMFS Office of Law Enforcement has expressed concern over enforcing the bag limits in the U.S. EEZ, as well as Lacey Act as it applies to vessels claiming to be returning from The Bahamas.

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Chapter 1.
Introduction

1.1 What Actions Are Being Proposed in Dolphin Wahoo Amendment 7/Snapper Grouper Amendment 33?

Dolphin Wahoo Amendment 7/ Snapper Grouper Amendment 33 would allow:

- Fishermen to bring dolphin and wahoo fillets from The Bahamas into the U.S. exclusive economic zone (EEZ).
- Exempt fishermen from the U.S. bag and possession limits for dolphin and wahoo when returning to the U.S. through the U.S. EEZ.
- Retain skin on the entire fillet for fillets of snapper, grouper, dolphin, and wahoo from The Bahamas into the U.S. EEZ.

1.2 Who is Proposing the Management Measure?

The South Atlantic Fishery Management Council (South Atlantic Council) is proposing this management measure. The South Atlantic Council recommends management measures and submits them to the National Marine Fisheries Service (NMFS) who ultimately approves, disapproves, or partially approves, and implements the actions in the amendment through the development of regulations on behalf of the Secretary of Commerce. NMFS is an agency in the National Oceanic and Atmospheric Administration within the Department of Commerce.

South Atlantic Fishery Management Council

- Responsible for conservation and management of fish stocks in the South Atlantic Region
- Consists of 13 voting members: 8 appointed by the Secretary of Commerce, 1 representative from each of the 4 South Atlantic states, the Southeast Regional Director of NMFS and 4 non-voting members
- Responsible for developing fishery management plans and amendments under the Magnuson-Stevens Act; recommends actions to NMFS for implementation
- Management area is from 3 to 200 miles off the coasts of North Carolina, South Carolina, Georgia, and east Florida through Key West with the exception of Mackerel which is from New York to Florida, and Dolphin-Wahoo, which is from Maine to Florida

1.3 Where is the Project Located?

Management of the federal dolphin and wahoo fishery located off the eastern United States (Atlantic) in the 3-200 nautical miles U.S. EEZ is conducted under the Dolphin Wahoo FMP (SAFMC 2003) (**Figure 1-1**).

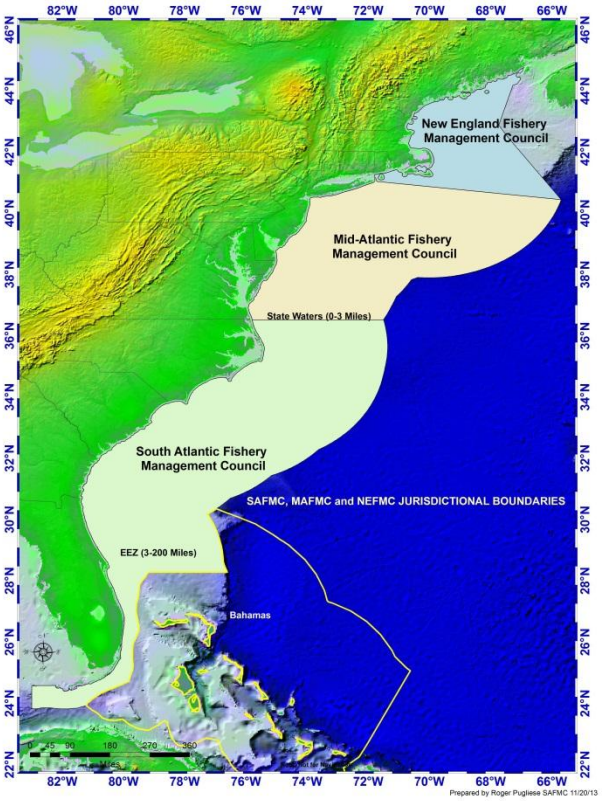

Figure 1-1. The EEZ of The Bahamas and jurisdictional boundaries of the Dolphin and Wahoo Fishery Management Plan for the Atlantic as managed by the South Atlantic Fishery Management Council.

1.4 Why are the Council and NMFS Considering this Action?

In spring of 2013, the South Atlantic Council was approached by recreational fishermen who requested changes to regulations that currently make it illegal to bring filleted dolphin and wahoo into the EEZ from Bahamian waters. The fishermen contend that storing fish safely with head and fins intact is difficult and impractical. Regulations currently allow fillets of snapper grouper species from The Bahamas to be brought into the U.S. EEZ. Inconsistent regulations for snapper grouper and dolphin wahoo is confusing to fishermen and a law enforcement concern.

The purpose of these management measures is to allow recreational fishermen to bring dolphin and wahoo fillets from The Bahamas into the U.S. EEZ and update regulations allowing recreational fishermen to bring back snapper grouper fillets from The Bahamas into the U.S. EEZ. The management measures are needed to increase the social and economic benefits to recreational fishermen by removing impediments to the possession of fish in the U.S. EEZ that were legally harvested in Bahamian waters.

Purpose for Action

The purpose of these management measures is to allow recreational fishermen to bring dolphin and wahoo fillets from The Bahamas into the U.S. EEZ and update regulations allowing recreational fishermen to bring back snapper grouper fillets from The Bahamas into the U.S. EEZ.

Need for Action

The management measures are needed to increase the social and economic benefits to recreational fishermen by removing impediments to the possession of fish in the U.S. EEZ that were legally harvested in Bahamian waters.

1.5 What are the regulations for snapper grouper species

regarding fillets being brought from The Bahamas?

Current regulations for snapper grouper at 50 C.F.R. § 622.186 (landing fish intact) are:

(a) South Atlantic snapper grouper in or from the South Atlantic EEZ must be maintained with head and fins intact, except as specified in paragraph (b) of this section. Such fish may be eviscerated, gilled, and scaled, but must otherwise be maintained in a whole condition. The operator of a vessel that fishes in the EEZ is responsible for ensuring that fish on that vessel in the EEZ are maintained intact and, if taken from the EEZ, are maintained intact through offloading ashore, as specified in this section.

(b) In the South Atlantic EEZ, snapper grouper lawfully harvested in Bahamian waters are exempt from the requirement that they be maintained with head and fins intact, provided valid Bahamian fishing and cruising permits are on board the vessel and the vessel is in transit through the South Atlantic EEZ. For the purpose of this paragraph, a vessel is in transit through the South Atlantic EEZ when it is on a direct and continuous course through the South Atlantic EEZ and no one aboard the vessel fishes in the EEZ.

1.6 What are the regulations in The Bahamas?

Current Bahamian regulations state that: "any migratory fishery resource (such as kingfish, dolphin, tuna, or wahoo) that is caught shall not in total exceed 18 fish aboard the vessel at any time." Bahamian regulations do not prohibit filleting these species. Snapper grouper species are covered under demersal fish, and Bahamian regulations allow 60 pounds or 20 fish per vessel. For more information, see: http://laws.bahamas.gov.bs/cms/images/LEGISLATION/SUBORDINATE/1986/1986-0010/FisheriesResourcesJurisdictionandConservationRegulations_1.pdf

1.7 What are the regulations in Florida?

In Florida, dolphin,wahoo, and snapper grouper species are required to be landed whole in State waters. Current regulations in the State of Florida (Atlantic side) for dolphin are a bag limit of 10 fish per person or 60 per vessel (whichever is less), a size limit of 20 inch fork length, and no seasonal closure . For more information, see: https://www.flrules.org/gateway/ChapterHome.asp?Chapter=68B-41

Wahoo has a 2 fish per person bag limit, no minimum size limit, and no seasonal closure. For more information, see: https://www.flrules.org/gateway/ChapterHome.asp?Chapter=68B-57

For snapper grouper species, see: https://www.flrules.org/gateway/ChapterHome.asp?Chapter=68B-14

1.8 What is the History of Management for Dolphin, Wahoo, and Snapper Grouper Species?

Dolphin and wahoo were originally a part of the Fishery Management Plan for Coastal Pelagic Resources in the Gulf of Mexico and South Atlantic Regions. Under that plan, a control date of May 21, 1999, for possible future limited entry was established for the commercial dolphin and wahoo fishery in the South Atlantic.

Dolphin and wahoo regulations were first implemented in 2003 through a separate Fishery Management Plan for the Dolphin and Wahoo Fishery of the Atlantic (SAFMC 2003). That plan established:

1. A separate management unit for dolphin and wahoo in the U.S. Atlantic

2. A dealer permit
3. For-hire and commercial vessel permits
4. For-hire and commercial operator permits
5. Reporting requirements
6. Maximum Sustainable Yield (MSY) and Optimal Yield (OY)
7. Defined overfishing
8. A management framework
9. Prohibit recreational sale of dolphin or wahoo except by for-hire vessels with a commercial permit
10. A 1.5 million lb or 13% of the total catch soft cap for the commercial sector
11. A recreational bag limit of 10 dolphin per person, 60 dolphin per vessel maximum
12. A minimum size limit of 20 inches fork length off Georgia and Florida
13. A commercial trip limit of 500 lb of wahoo with no at-sea transfer
14. A recreational bag limit of 2 wahoo per person, per day
15. Allowable gear for dolphin and wahoo in the Atlantic EEZ as longline; hook and line gear including manual, electric, or hydraulic rod and reels; bandit gear; handline; and spearfishing gear (including powerheads)
16. A prohibition on the use of surface and pelagic longline gear for dolphin and wahoo within any "time or area closure" in the South Atlantic Council's area of jurisdiction (Atlantic Coast) which is closed to the use of pelagic gear for highly migratory pelagic species
17. The fishing year of January 1 to December 31 for the dolphin and wahoo fishery
18. Essential Fish Habitat (EFH) for dolphin and wahoo as the Gulf Stream, Charleston Gyre, and Florida Current
19. Essential Fish Habitat-Habitat Areas of Particular Concern (EFH-HAPC) for dolphin and wahoo in the Atlantic to include The Point, The Ten-Fathom Ledge, and Big Rock (North Carolina); the Charleston Bump and The Georgetown Hole (South Carolina); The Point off Jupiter Inlet Florida); The Hump off Islamorada, Florida; The Marathon Hump off Marathon, Florida; and The "Wall" off of the Florida Keys

The Fishery Management Plan for Pelagic Sargassum Habitat in the South Atlantic Region (SAFMC 2002) and the Comprehensive Ecosystem-Based Amendment 1 (SAFMC 2009a) designated additional EFH and EFH-HAPCs for dolphin and wahoo.

The Comprehensive ACL Amendment (SAFMC 2011) established the acceptable biological catch (ABC) control rule, ABC, annual catch limits, OY, and accountability measures in the dolphin and wahoo fishery. The Comprehensive ACL Amendment also set an annual catch target for the recreational sector dolphin and wahoo.

Snapper grouper regulations in the South Atlantic were first implemented in 1983. See **Appendix D** of this document for a detailed history of management for the snapper grouper fishery.

Chapter 2. Proposed Actions

2.1 Action 1: Exempt dolphin and wahoo harvested lawfully in The Bahamas from regulations that require them to be landed with head and fins intact in the U.S. EEZ.

Alternative 1 (No Action): Dolphin and wahoo in or from the Atlantic EEZ must be maintained with head and fins intact. Such fish may be eviscerated, gilled, and scaled, but must otherwise be maintained in a whole condition.

Alternative 2: Allow dolphin and wahoo lawfully harvested in The Bahamas and brought into the U.S. EEZ from The Bahamas as fillets. ~~The vessel must have stamped and dated passports to prove that the vessel passengers were in The Bahamas, as well as valid current Bahamian cruising and fishing permits onboard the vessel.~~ The vessel must be in continuous transit in the U.S. EEZ. Two fillets of dolphin or wahoo, regardless of the size of the fillet will count as 1 fish towards the possession limit.

The IPT recommends adding language regarding "lawfully harvested in The Bahamas" as part of the IPT recommends that the language regarding the documentation required be removed from **Alternative 2.** A detailed description in terms what documentation is currently required would be placed in the text of the analysis. In the future, if Bahamian requirements change, U.S. regulations would not have to be changed, as well.

2.1.1 Comparison of Alternatives

2.2 Action 2. Exempt dolphin and wahoo harvested lawfully from The Bahamas from the bag and possession limits in the U.S. EEZ.

Alternative 1 (No Action): The bag limit for the possession of dolphin and wahoo lawfully harvested from The Bahamas, is 10 dolphin (60 dolphin per boat)/2 wahoo per person per day, in the U.S. EEZ.

Alternative 2: Exempt dolphin lawfully harvested in The Bahamas from regulations for bag limits in the U.S. EEZ.

Alternative 3: Exempt wahoo lawfully harvested in The Bahamas from regulations for bag limits in the U.S. EEZ.

2.2.1 Comparison of Alternatives

2.3 Action 3. Require fillets of dolphin, wahoo, and snapper grouper species brought into the U.S. EEZ from The Bahamas to have the skin intact.

Alternative 1 (No Action): Snapper grouper fillets possessed in the U.S. EEZ from The Bahamas are currently not required to have skin intact.

Preferred Alternative 2: Snapper grouper fillets brought into the U.S. EEZ from The Bahamas must have the skin intact on the entire fillet.

Preferred Alternative 3. Dolphin and wahoo fillets brought into the U.S. EEZ from The Bahamas must have the skin intact on the entire fillet.

2.3.1 Comparison of Alternatives

2.4 Action 4. In addition to possessing valid Bahamian cruising and fishing permits, require stamped and dated passports to prove that vessel passengers were in The Bahamas if the vessel is in possession of snapper grouper fillets in the U.S. EEZ.

Alternative 1 (No Action): Vessels bringing snapper grouper fillets into the U.S. EEZ from The Bahamas are required to have valid current Bahamian cruising and fishing permits onboard the vessel.

Alternative 2: Vessels bringing snapper grouper fillets into the U.S. EEZ from The Bahamas are required to have stamped and dated passports to prove that the vessel passengers were in The Bahamas, as well as valid current Bahamian cruising and fishing permits onboard the vessel.

The IPT recommends removing Action 4 from the document because requiring fishermen to "lawfully harvest" in The Bahamas is already required. A detailed description in terms what documentation is currently required would be placed in the text. If the Council chooses **Alternative 2** as a preferred alternative, U.S. regulations would need to be changed if Bahamian regulations change in the future.

2.4.1 Comparison of Alternatives

Chapter 3 Affected Environment

Amendment 7 to the Fishery Management Plan for the Dolphin Wahoo Fishery of the Atlantic (Dolphin Wahoo Amendment 7) addresses dolphin and wahoo fillets lawfully harvested in Bahamian waters. The reader is referred to Dolphin Wahoo Amendment 5 (SAFMC 2013) for details on the affected environment for these species in the Atlantic EEZ, and is summarized below.

3.1 Habitat Environment

Information on the habitat utilized by dolphin and wahoo in the Atlantic is included in Volume II of the Fishery Ecosystem Plan (SAFMC 2009b) and incorporated here by reference. The Fishery Ecosystem Plan can be found at: http://www.safmc.net/ecosystem/Home/EcosystemHome/tabid/435/Default.aspx

3.1.1 Essential Fish Habitat

Essential fish habitat (EFH) for dolphin and wahoo is the Gulf Stream, Charleston Gyre, Florida Current, and pelagic *Sargassum.*

Note: This EFH definition for dolphin was approved by the Secretary of Commerce on June 3, 1999, as a part of the South Atlantic Fishery Management Council's (South Atlantic Council) Comprehensive Habitat Amendment (SAFMC, 1998). Dolphin was included within the Fishery Management Plan for the Coastal Migratory Pelagic Resources in the Gulf of Mexico and Atlantic Region (Coastal Migratory Pelagics FMP). This definition does not apply to extra-jurisdictional areas.

3.1.2 Habitat Areas of Particular Concern

EFH-habitat of particular concern (HAPCs) for dolphin and wahoo in the Atlantic include The Point, The Ten-Fathom Ledge, and Big Rock (North Carolina); The Charleston Bump and The Georgetown Hole (South Carolina); The Point off Jupiter Inlet (Florida); The Hump off Islamorada, Florida; The Marathon Hump off Marathon, Florida; The "Wall" off of the Florida Keys; and Pelagic Sargassum.

Note: This EFH-HAPC definition for dolphin was approved by the Secretary of Commerce on June 3, 1999 as a part of the South Atlantic Council's Comprehensive Habitat Amendment (SAFMC 1998)(dolphin was included within the Coastal Migratory Pelagics FMP).

3.2 Biological and Ecological Environment

The marine environment in the Atlantic management area affected by actions in this environmental assessment is defined by two components (**Figure 3-1**). Each component is described in detail in Chapter 3 of Dolphin Wahoo Amendment 5 (SAFMC 2013).

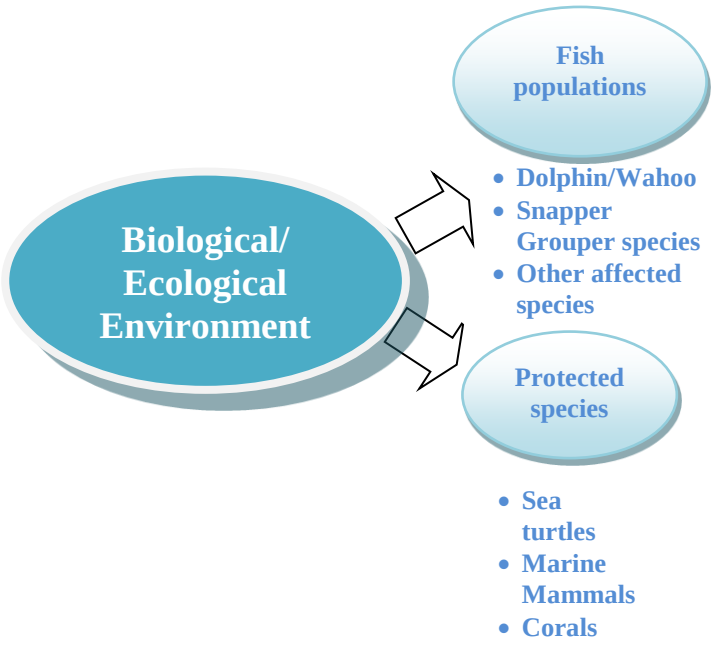

Figure 3-1. Two components of the biological environment described in this document.

3.2.1 Fish Populations

Dolphin and wahoo are highly migratory pelagic species occurring in tropical and subtropical waters worldwide. In the western Atlantic, dolphin and wahoo are distributed from Nova Scotia to Brazil, including Bermuda and the greater Caribbean region, and the Gulf of Mexico. They are found near the surface around natural and artificial floating objects, including *Sargassum* (in the Atlantic).

Dolphin eat a wide variety of species, including small pelagic fish, juvenile tuna, billfish, jacks, and pompano, and pelagic larvae of nearshore, bottom-living species. They also eat invertebrates such as cephalopods, mysids, and jellyfish. Large tuna, rough-toothed dolphin, marlin, sailfish, swordfish, and sharks feed on dolphin, particularly juveniles. Wahoo mainly feed on squid and fish, including frigate mackerel, butterfish, porcupine fish, and round herring. They generally compete with tuna for the same kind of food, but can feed on larger prey. A number of predators such as sharks and large tuna that share their habitat feed on young wahoo. Dolphin and Wahoo are likely to be caught when longline fishermen target other species such as billfish and tuna. Additional background information regarding the fish populations for dolphin and wahoo can be found in the Dolphin Wahoo FMP (SAFMC 2003) at: http://www.safmc.net/Library/Dolphin/Wahoo/tabid/410/Default.aspx

3.2.2 Dolphin, *Coryphaena hippurus*

In the western Atlantic ocean, dolphin are most common from North Carolina, throughout the Gulf of Mexico and Caribbean, to the northeast coast of Brazil (Oxenford 1999). Dolphin are highly migratory and pelagic with adults found in open water, and juveniles with floating seagrass and marine debris and occasionally

Dolphin Life History
An Overview

- Worldwide distribution; In the western Atlantic ocean, from Nova Scotia to Brazil (including Bermuda, The Bahamas, the Gulf of Mexico, and the Caribbean)
- Oceanic, adults in open water and juveniles with floating seagrass and marine debris
- Highly migratory
- Protracted multiple spawning behavior throughout the year, varying with region. Off North Carolina, peak spawning is during April through July
- Maximum age is 4 years (mean <2 years)

found in estuaries and harbors (Palko et al. 1982; Johnson 1978).

In a study by Schwenke and Buckel (2008) off North Carolina, dolphin ranged from 3.5 in (89 mm) fork length (FL) to 57 in (1451 mm) FL. Mean dolphin weight ranged from 14.2 lbs (6.44 kg) for males to 7.6 lbs (3.44 kg) for females. Estimated average growth rate was 0.15 in (3.78 mm)/day during the first six months, and maximum reported age was 3 years. Size at 50% maturity was slightly smaller for female dolphin (18.1 in FL; 460 mm), when compared with males (18.7 in FL; 475 mm); and peak spawning occurred from April through July off North Carolina (Schwenke and Buckel 2008). Prager (2000) estimated natural mortality for dolphin to be between 0.68 and 0.80.

For a more comprehensive record of the literature on the biology and ecology of dolphin, see **Section 3.0** in the Dolphin Wahoo FMP (SAFMC 2003) found at: http://www.safmc.net/Library/Dolphin/Wahoo/tabid/410/Default.aspx

3.2.3 Wahoo, *Acanthocybium solanderi*

In the western Atlantic, the highly migratory, pelagic wahoo are found from New York through Columbia including Bermuda, The Bahamas, the Gulf of Mexico, and the Caribbean (Theisen et al. 2008; Garber et al. 2005; Collette 2002). Wahoo typically occur far offshore, inhabit waters around pinnacles, reef edges, and walls, and may be attracted to oceanic frontal zones and temperature discontinuities (Garber et al. 2005).

Wahoo Life History
An Overview

- Worldwide distribution; In the western Atlantic wahoo are found from New York through Columbia (including Bermuda, The Bahamas, the Gulf of Mexico, and the Caribbean)
- Oceanic
- Highly migratory
- The spawning season extends from June through August, with peak spawning in June and July
- Maximum age is 9.3 years (mean 1.8 years)

In studies off Florida and the northern Bahamas, McBride et al. (2008) reported rapid growth to a large size, with sizes ranging from 24.7 in (628 mm) FL to 77 in (1956 mm) FL. Males were smaller than females, with the largest male at 72.3 lbs (32.8 kg) and the largest female was 101.4 lbs (46.0 kg). Maximum age was 9.3 years. Maki Jenkins and McBride (2009) reported size and age at 50% maturity for female wahoo at 36.4 in (925 mm) FL and 0.64 years, respectively, with peak spawning in the summer.

For a more comprehensive record of the literature on the biology and ecology of wahoo, see **Section 3.0** in the Dolphin Wahoo FMP (SAFMC 2003) found at: http://www.safmc.net/Library/Dolphin/Wahoo/tabid/410/Default.aspx

3.2.4Snapper Grouper Species

3.2.5Other Fish Species Affected

3.2.6 Stock Status of Dolphin and Wahoo

The Report to Congress on the Status of U.S. Stocks indicates dolphin is not overfished, and is not undergoing overfishing (http://www.nmfs.noaa.gov/sfa/statusoffisheries/SOSmain.htm). The overfished/overfishing status of wahoo is unknown, but all indications are that it is a healthy stock. Prager (2000) conducted an exploratory assessment of dolphin, but the results were not conclusive. A Southeast Data, Assessment, and Review (SEDAR) stock assessment for dolphin and wahoo is expected within the next 5 years. The SEDAR process, initiated in 2002, is a cooperative Fishery Management Council process intended to improve the quality, timeliness, and reliability of fishery stock assessments in the South Atlantic, Gulf of Mexico, and U.S. Caribbean. SEDAR is managed by the Caribbean, Gulf of Mexico, and South Atlantic Fishery Management Councils in coordination with NMFS and the Atlantic and Gulf States Marine Fisheries Commissions. Oxenford and Hunte (1986) suggested that there were at least two separate unit stocks of dolphin in the northeast and southeast Caribbean Sea. Oxenford (1999) suggested that it was very likely that additional stocks of dolphin existed in the Gulf of Mexico and central/western Caribbean. Theisen et al. (2008) indicated that a worldwide stock for wahoo consisted of a single globally distributed population. However, Zischke et al. (2012) concluded that despite genetic homogeneity in wahoo, multiple discrete phenotypic stocks existed in the Pacific and eastern Indian oceans.

Life-history characteristics of dolphin and wahoo such as rapid growth rates, early maturity, batch spawning over an extended season, a short life span, and a varied diet could help sustain fishing pressures on these species (Schwenke and Buckel 2008; McBride et al. 2008; Prager 2000; and Oxenford 1999). Dolphin and wahoo are listed as species of "least concern" under the International Union for Conservation of Nature Red List, i.e., species that have a low risk of extinction. See **Section 1.5** for a history of recent management of dolphin and wahoo.

3.2.7 Stock Status of Snapper Grouper Species

3.2.8 Protected Species

There are 31 different species of marine mammals that may occur in the exclusive economic zone (EEZ) of the South Atlantic region. All 31 species are protected under the Marine Mammal Protection Act (MMPA) and six are also listed as endangered under the

Endangered Species Act (ESA) (i.e., sperm, sei, fin, blue, humpback, and North Atlantic right whales). Other species protected under the ESA occurring in the South Atlantic include five species of sea turtle (green, hawksbill, Kemp's ridley, leatherback, and loggerhead); the smalltooth sawfish; four distinct population segments of Atlantic sturgeon; and two *Acropora* coral species (elkhorn [*Acropora palmata*] and staghorn [*A. cervicornis*]). Designated critical habitat for the *Acropora* corals and North Atlantic right whales also occurs within the South Atlantic region. However, only sea turtles are likely to interact with the hook-and line dolphin and wahoo fishery. Sea turtles are discussed in detail in Section 3.2.5.1 of Dolphin Wahoo Amendment 5 (SAFMC 2013).

3.3 Human Environment

3.3.1 Economic Environment

U.S. vessels most likely to participate in Bahamian dolphin and wahoo fisheries could also participate in the dolphin wahoo, snapper grouper, and coastal migratory pelagic fisheries in the south Atlantic region of the U.S.

Additional information on the recreational sector of the dolphin wahoo fishery contained in previous or concurrent amendments is incorporated herein by reference [see Comprehensive ACL Amendment for the South Atlantic Region (SAFMC 2011a)].

Additional information on the recreational sector of the snapper grouper fishery is contained in previous or concurrent amendments and is incorporated herein by reference [see Snapper Grouper Fishery Amendment 13C (SAFMC 2006), Amendment 15A (SAFMC 2008a), Amendment 15B (SAFMC 2008b), Amendment 16 (SAFMC 2009a), Amendment 17A (SAFMC 2010a), Amendment 17B (SAFMC 2010b), Regulatory Amendment 9 (SAFMC 2011a), Regulatory Amendment 11 (SAFMC 2011b), Comprehensive ACL Amendment for the South Atlantic Region (SAFMC 2011c), and Amendment 24 (SAFMC 2011d)].

Additional information on the recreational sector of the coastal migratory pelagics fishery is contained in previous or concurrent amendments and is incorporated herein by reference [see Coastal Migratory Pelagic Fishery Amendment 20A (SAFMC 2013)

Those affected by the economic description of the fishery are those persons and vessels who arrive in Bahamian waters by sea, are not on a cruise ship, and whose vessel obtains both cruising and fishing permits.

According to the Internet website of the Bahamian Ministry of Tourism, in 2012, 148,578 individuals arrived in Bahamian ports by sea, but not on a cruise ship (http://www.tourismtoday.com/home/statistics/visitor-arrivals/foreign-air-sea/). Potentially, each of these persons could be affected by this action.

3.3.1.1 Economic Description of the Commercial Fishery

3.3.1.1.1 Snapper Grouper Fishery

Additional information on the commercial snapper grouper sector is contained in previous amendments [Amendment 13C (SAFMC 2006), Amendment 15A (SAFMC 2008a), Amendment 15B (SAFMC 2008b), Amendment 16 (SAFMC 2009a), Regulatory Amendment 9 (SAFMC 2011b), and Comprehensive ACL Amendment for the South Atlantic Region (SAFMC 2011c)] and are incorporated herein by reference. Select updated information, with emphasis on mutton snapper, yellowtail snapper, and blue runner are presented below.

The major source of data summarized in this description is the Federal Logbook System (FLS), supplemented by average prices calculated from the Accumulated Landings System (ALS) and price indices taken from the Bureau of Labor Statistics. Real (inflation adjusted) prices are reported in 2011 constant dollars. Landings are expressed in gutted weight to match with the method for collecting ex-vessel price information.

3.3.1.1.1.1 Annual Landings, Revenues, and Effort

The commercial reef fish fishing fleet in the South Atlantic is composed of vessels using different gear types and catching a variety of species. For 2007 - 2011, an average of 16,000 trips landing at least one pound of snapper grouper were taken by 928 permitted vessels. These trips landed 6.8 million pounds, gutted weight (gw), of snapper grouper valued at $16.9 million in nominal prices (**Table 3.3.1**). Trips landing snapper grouper also landed other species; total revenues generated by these trips were about $20 million in nominal prices. On average, snapper grouper price per pound was $2.50, or $2.60 when adjusted for inflation.

An average of 4,225 trips landing at least one pound of yellowtail snapper were taken by 313 vessels (**Table 3.3.2**). These trips landed an average of 895,000 pounds of yellowtail snapper valued at $2.6 million in nominal prices. These trips also landed other species, and total revenues from these trips were $3.4 million. The average price for yellowtail snapper was $2.88 per pound, or $3.00 when adjusted for inflation.

An average of 1,534 trips landing at least one pound of mutton snapper were taken by 313 vessels (**Table 3.3.3**). These trips landed an average of 49,000 pounds of mutton snapper with an ex-vessel value of $134 thousand in nominal prices. These trips also landed other species, and total revenues from these trips were $2.6 million. Thus, mutton snapper was not the main source of revenues for these trips. The average price for mutton snapper was $2.71 per pound, or $2.82 when adjusted for inflation.

An average of 3,253 trips landing at least one pound of blue runner were taken by 336 vessels (**Table 3.3.4**). These trips landed an average of 115,000 pounds of mutton snapper with an ex-vessel value of $111 thousand in nominal prices. These trips also landed other species, and total revenues from these trips were $2.1 million, indicating blue runner was not the main source of revenues for most of these trips. The average price for blue runner was $0.96 per pound, or $1.00 when adjusted for inflation.

Table 3.3.1. Selected characteristics for trips landing at least one pound (gutted weight) of snapper grouper, 2007-2011.

Item	2007	2008	2009	2010	2011	Average
Number of trips	17,034	16,748	17,852	15,719	14,691	16,409
Number of boats	942	956	987	916	841	928
Number of days away from port	26,717	26,950	28,631	24,885	23,508	26,138
Pounds of snapper grouper (1,000 gutted)	6,520	6,811	7,101	6,808	6,636	6,775
Revenues from snapper grouper ($1,000)	$16,717	$17,390	$17,065	$16,350	$16,961	$16,897
Revenues from all species ($1,000)	$19,716	$20,527	$20,223	$19,390	$19,609	$19,893
Nominal price of snapper grouper	$2.56	$2.55	$2.40	$2.40	$2.56	$2.50
Real price ($2011) of snapper grouper	$2.78	$2.67	$2.52	$2.48	$2.56	$2.60

Source: NMFS SEFSC Coastal Fisheries Logbook and Accumulated Landings Data Base Systems, personal communication, Larry Perruso (2012).

Table 3.3.2. Selected characteristics for trips landing at least one pound (gutted weight) of yellowtail snapper , 2007-2011.

Item	2007	2008	2009	2010	2011	Average
Number of trips	4,426	4,423	4,659	3,727	3,891	4,225
Number of boats	335	336	334	293	266	313
Number of days away from port	5,842	6,161	7,015	5,649	5,919	6,117
Pounds of yellowtail sn. (1,000 gutted)	610	803	1,117	920	1,026	895
Revenues from yellowtail sn. ($1,000)	$1,781	$2,249	$2,949	$2,643	$3,249	$2,574
Revenues from all species ($1,000)	$2,540	$3,127	$3,890	$3,578	$4,080	$3,443
Nominal price of yellowtail sn.	$2.92	$2.80	$2.64	$2.87	$3.17	$2.88
Real price ($2011) of yellowtail sn.	$3.17	$2.93	$2.77	$2.96	$3.17	$3.00

Source: NMFS SEFSC Coastal Fisheries Logbook and Accumulated Landings Data Base Systems, personal communication, Larry Perruso (2012).

Table 3.3.3. Selected characteristics for trips landing at least one pound (gutted weight) of mutton snapper , 2007-2011.

Item	2007	2008	2009	2010	2011	Average
Number of trips	1,622	1,467	1,625	1,497	1,457	1,534
Number of boats	341	335	321	315	276	318
Number of days away from port	4,264	3,284	3,296	2,959	2,915	3,344
Pounds of mutton sn. (1,000 gutted)	49	45	49	52	53	49
Revenues from mutton sn. ($1,000)	$124	$119	$132	$142	$152	$134
Revenues from all species ($1,000)	$3,474	$2,346	$2,182	$2,242	$2,530	$2,555
Nominal price of mutton sn.	$2.55	$2.66	$2.70	$2.73	$2.90	$2.71
Real price ($2011) of mutton sn.	$2.76	$2.77	$2.83	$2.81	$2.90	$2.82

Source: NMFS SEFSC Coastal Fisheries Logbook and Accumulated Landings Data Base Systems, personal communication, Larry Perruso (2012).

Table 3.3.4. Selected characteristics for trips landing at least one pound (gutted weight) of blue runner , 2007-2011.

Item	2007	2008	2009	2010	2011	Average
Number of trips	2,653	2,883	3,178	3,712	3,837	3,253
Number of boats	285	322	338	387	348	336
Number of days away from port	2,962	3,080	3,467	4,130	4,379	3,604
Pounds of blue runner (1,000 gutted)	90	99	132	122	130	115
Revenues from blue runner ($1,000)	$87	$89	$123	$118	$138	$111
Revenues from all species ($1,000)	$1,508	$1,794	$1,874	$2,460	$2,778	$2,083
Nominal price of blue runner	$0.97	$0.90	$0.93	$0.96	$1.06	$0.96
Real price ($2011) of blue runner	$1.05	$0.94	$0.98	$1.00	$1.06	$1.00

Source: NMFS SEFSC Coastal Fisheries Logbook and Accumulated Landings Data Base Systems, personal communication, Larry Perruso (2012).

3.3.1.1.1.2 Monthly Landings, Revenues, and Effort

Landings of snapper grouper were distributed fairly well throughout the year, although May and June may be considered as peak months (**Table 3.3.5**). Although November and December showed relatively low landings of snapper grouper, the lowest landing of snapper grouper occurred in April. The monthly distribution of yellowtail landings followed closely that of the entire snapper grouper distribution, with May and June being the peak months (**Table 3.3.6**). The lowest landings of yellowtail snapper occurred in February. Landings of mutton snapper followed almost similar distribution as snapper grouper, with

May and June again being the peak months (**Table 3.3.7**). Relatively low landings were evenly distributed in other months, but September registered the lowest landings of mutton snapper. Landings distribution for blue runner was quite different from those of the other species (**Table 3.3.8**). Peak landings occurred in September and October and the lowest landings occurred in February.

Table 3.3.5. Selected monthly characteristics for trips landing at least one pound (gutted weight) of snapper grouper , 2007-2011 average. Pounds are in thousands gutted weight and revenues are in thousand dollars (nominal prices).

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Trips	1,229	1,167	1,129	1,245	1,818	1,904	1,686	1,654	1,176	1,104	1,173	1,126
Boats	395	377	360	394	512	501	465	459	381	372	401	392
Days	1,928	1,899	1,764	1,847	2,898	2,911	2,709	2,633	1,997	1,880	1,913	1,761
Lbs.	584	549	551	374	791	671	653	650	586	484	450	433
Rev.	$1,428	$1,262	$1,069	$1,009	$1,853	$1,659	$1,786	$1,741	$1,538	$1,266	$1,165	$1,120

Source: NMFS SEFSC Coastal Fisheries Logbook and Accumulated Landings Data Base Systems, personal communication, Larry Perruso (2012).

Table 3.3.6. Selected monthly characteristics for trips landing at least one pound (gutted weight) of yellowtail snapper , 2007-2011 average. Pounds are in thousands gutted weight and revenues are in thousand dollars (nominal prices).

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Trips	371	377	374	478	411	449	359	290	281	256	294	286
Boats	104	103	106	118	125	122	111	94	94	95	101	99
Days	474	490	497	617	626	613	505	449	470	447	499	430
Lbs.	49	45	57	102	115	123	80	81	78	60	57	48
Rev.	$160	$151	$196	$324	$298	$280	$199	$227	$221	$180	$184	$155

Source: NMFS SEFSC Coastal Fisheries Logbook and Accumulated Landings Data Base Systems, personal communication, Larry Perruso (2012).

Table 3.3.7. Selected monthly characteristics for trips landing at least one pound (gutted weight) of mutton snapper , 2007-2011 average. Pounds are in thousands gutted weight and revenues are in thousand dollars (nominal prices).

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Trips	111	127	115	130	225	192	129	120	92	89	104	100
Boats	68	75	69	78	118	102	75	72	60	60	67	69
Days	253	280	239	251	476	373	270	269	216	225	255	237
Lbs.	3	4	3	3	9	9	4	4	2	3	3	3
Rev.	$8	$11	$10	$10	$23	$21	$10	$11	$7	$8	$7	$8

Source: NMFS SEFSC Coastal Fisheries Logbook and Accumulated Landings Data Base Systems, personal communication, Larry Perruso (2012).

Table 3.3.8. Selected monthly characteristics for trips landing at least one pound (gutted weight) of blue runner, 2007-2011 average. Pounds are in thousands gutted weight and revenues are in thousand dollars (nominal prices).

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Trips	223	177	179	229	322	411	373	355	224	225	263	272
Boats	91	74	79	95	113	121	112	110	73	77	95	94
Days	246	191	206	264	350	451	414	383	260	255	290	292
Lbs.	8	5	8	8	8	12	10	7	14	15	12	10
Rev.	$7	$5	$7	$8	$10	$12	$10	$7	$12	$13	$11	$9

Source: NMFS SEFSC Coastal Fisheries Logbook and Accumulated Landings Data Base Systems, personal communication, Larry Perruso (2012).

3.3.1.1.1.3 Average Landings, Revenues, and Effort by Gear Type

It is clear from the next four tables (**Tables 3.3.9** through **Table 3.3.12**) that hook and line was the dominant gear in the harvest of snapper grouper, yellowtail snapper, mutton snapper, and blue runner. This gear type accounted for about 74 percent, 99 percent, 87 percent, and 62 percent of total landings of snapper grouper, yellowtail snapper, mutton snapper, and blue runner, respectively. Significantly more boats used this gear type to harvest snapper grouper. Also, significantly more trips were associated with the use of hook and line. The other gear types were not as important in the harvest of yellowtail snapper, mutton snapper, and blue runner. The relatively higher landing of blue runner by traps was due to some landings in 2008, although virtually no trap landings of blue runner occurred in other years.

Table 3.3.9. Selected monthly characteristics for trips landing at least one pound (gutted weight) of snapper grouper, by gear type, 2007-2011 average.

	Hook & Line	Longline	Traps	Diving	Others
Trips	11,618	366	490	550	3,385
Boats	717	32	49	78	361
Days	20,193	744	741	695	3,766
Pounds	5,029,213	542,548	380,234	145,327	677,943
Revenues	$12,909,305	$1,348,860	$892,879	$590,755	$1,154,956

Source: NMFS SEFSC Coastal Fisheries Logbook and Accumulated Landings Data Base Systems, personal communication, Larry Perruso (2012).

Table 3.3.10. Selected monthly characteristics for trips landing at least one pound (gutted weight) of yellowtail snapper, by gear type, 2007-2011 average.

	Hook & Line	Longline	Traps	Diving	Others
Trips	4,167	1	1	15	44
Days	6,041	12	2	20	50
Pounds	891,159	5,325	9	776	1,084
Revenues	$2,563,539	$13,137	$29	$2,178	$3,138

Source: NMFS SEFSC Coastal Fisheries Logbook and Accumulated Landings Data Base Systems, personal communication, Larry Perruso (2012).

Table 3.3.11. Selected characteristics for trips landing at least one pound (gutted weight) of mutton snapper, by gear type, 2007-2011 average.

	Hook & Line	Longline	Traps	Diving	Others
Trips	1,313	2	4	81	136
Days	3,062	4	5	101	175
Pounds	43,232	82	121	2,389	3,585
Revenues	$117,264	$249	$302	$6,354	$9,687

Source: NMFS SEFSC Coastal Fisheries Logbook and Accumulated Landings Data Base Systems, personal communication, Larry Perruso (2012).

Table 3.3.12. Selected characteristics for trips landing at least one pound (gutted weight) of blue runner, 2007-2011 average.

	Hook & Line	Longline	Traps	Diving	Others
Trips	2,270	4	2	11	967
Days	2,591	7	4	16	989
Pounds	71,080	112	1,077	161	42,599
Revenues	$70,501	$112	$1,041	$367	$39,531

Source: NMFS SEFSC Coastal Fisheries Logbook and Accumulated Landings Data Base Systems, personal communication, Larry Perruso (2012).

3.3.1.1.4 Permits

A commercial permit is required to harvest or possess commercial quantities of snapper grouper from the EEZ. There are two types of commercial snapper grouper permits, an unlimited permit, which is a transferable (subject to restrictions) that allows unlimited harvest of snapper grouper species, subject to trip limits or seasonal restrictions, and a non-transferable trip-limited permit that limits the owner to 225 lbs of snapper grouper harvest per trip. Both permits are limited access permits. The number of commercial snapper grouper permits for 2005-2010 are provided in **Table 3.3.13**. According to the Southeast Regional Office Website, the Constituency Services Branch (Permits) unofficially listed 127 trip-limited snapper grouper permit holders and 563 unlimited snapper grouper permit holders as of October 30, 2012.

As seen in **Tables 3.3.2-3.3.4**, data on the number of vessels landing yellowtail snapper, mutton snapper, or blue runner indicate substantially less snapper grouper permits have been used, on average, to harvest these three species. While permits and vessels need not have one-to-one correspondence (a permit can be used on multiple vessels at different times during a year or across multiple years) and a vessel count from year-to-year may remain stable, yet different vessels may enter and exit a fishery from one year to another (for example, the 260 vessels in 2007 may not have included all of the 220 vessels from 2006.

Table 3.3.13. Number of commercial snapper grouper permits.

	Unlimited	Limited	Total
2005	748	198	946
2006	722	183	905
2007	695	165	860
2008	665	151	816
2009	640	144	784
2010	624	139	763
Average	682	163	846

Source: NMFS SERO Permits Data Base

3.3.1.1.2 Dolphin Wahoo Fishery

Additional information on the commercial dolphin wahoo fishery is contained in previous amendments [Fishery Management Plan for the Dolphin and Wahoo Fishery of the Atlantic (SAFMC 2003), and Comprehensive Annual Catch Limit (ACL) Amendment for the South Atlantic Region (SAFMC 2011a)] and are incorporated herein by reference. Presented below is selected information on the commercial sector of the dolphin wahoo fishery.

The major source of data summarized in this description is the Federal Logbook System (FLS), supplemented by average prices calculated from the Accumulated Landings System (ALS) and price indices taken from the Bureau of Labor Statistics and the SEFSC ACL database. Real (inflation adjusted) prices are reported in 2011 constant dollars. Nominal values are reported in the dollar value of the individual year without adjustment for inflation. Landings are expressed in whole weight to match with the method for collecting ex-vessel price information for dolphin and wahoo.

The data reported in this section and its subsections do not represent the entire range of landings from the entire management area because not all fishermen who land dolphin and wahoo are required to have a federal permit (e.g.

some landings from other states, landings from state waters). The dolphin wahoo fishery encompassed by this amendment includes the entire US Atlantic coast; however, logbooks are required only for federally permitted fishermen in the four South Atlantic states.

3.3.1.1.2.1 Annual Landings, Revenues, and Effort

Total landings of dolphin and wahoo in the South, Mid-, and North Atlantic show no particular trend pattern (**Table 3-1-1a**). Dolphin landings range from 650,000 lbs to 1.2 million lbs, with an average of 830,000 lbs. Wahoo landings range from 40,500 lbs to about 60,000 lbs, with an average of about 49,262 lbs. Revenues from dolphin also show no apparent trend. While landings of wahoo move up and down, both nominal real revenues follow an upward direction over time. On average (2008-2012), the South Atlantic region accounts for approximately 93% of total dolphin or wahoo landings.

Table 3-1-1a. Landings and revenues of dolphin and wahoo in the South, Mid-, and North Atlantic, 2008-2012.

	2008	2009	2010	2011	2012	Average
Dolphin						
Pounds (ww)	780,818	1,222,944	706,281	781,693	654,271	829,201
Revenues (nominal)	$1,456,648	$2,084,243	$1,455,301	$1,781,835	$1,758,264	$1,707,258
Revenues (2011 dollars)	$1,521,841	$2,185,299	$1,501,238	$1,781,835	$1,722,615	$1,742,566
Wahoo						
Pounds (ww)	40,525	45,254	43,275	59,820	57,435	49,262
Revenues (nominal)	$107,951	$118,049	$120,270	$174,930	$188,322	$141,904
Revenues (2011 dollars)	$112,782	$123,773	$124,066	$174,930	$184,504	$144,011

Source: SEFSC ACL database, July 2013.

The following discussion focuses on trip characteristics of vessels landing at least one pound of dolphin or wahoo in the South Atlantic. Only vessels reporting logbooks to the FLS are included in the analysis. It is assumed that vessel trip characteristics reported in the FLS would be close approximations of trip characteristics of all vessels landing dolphin or wahoo in the South Atlantic.

There are no discernible trends on the pounds of landings, number of vessels or trips for dolphin from year to year in the time series shown in **Table 3-3-1b.** The average 2007-2011 landings as shown in the table below were 157,435 pounds of dolphin. For 2007-2011, an average of 2,379 trips that landed at least one pound of dolphin were taken by 566 permitted vessels. Over the years 2007 through 2011 dolphin trips landed 787,174 lbs ww of dolphin valued at $1.608 million in 2011 prices (**Table 3-3-1b**). On average from 2007 through 2011, dolphin price per pound was $1.98, or $2.06 when adjusted for inflation (2011 $).

There are no discernible trends in the pounds of landings, number of vessels, or trips for wahoo from year to year in the time series shown in **Table 3-3-1b.** The average 2007-2011 landings as shown in the table below were 25,194 pounds of wahoo. For 2007-2011, an average of 430 trips that landed at least one pound of wahoo were taken by 221 permitted vessels. Over the years 2007 through 2011 wahoo trips landed 125,972 lbs ww of wahoo valued at about $363,985 in 2011 prices (**Table 3-3-1b**). On average from 2007 through 2011, wahoo price

per pound was $2.78, or $2.89 when adjusted for inflation (2011 $).

Table 3-3-1b. Selected characteristics for trips landing at least one pound (whole weight) of dolphin in the South Atlantic, 2007-2011.

Dolphin	2007	2008	2009	2010	2011
# Trips	2,356	2,394	2,913	1,996	2,238
# Vessels	540	580	642	546	521
# Dealers	188	187	190	193	180
Lbs Landed	151,752	146,933	208,203	129,468	150,818
Nominal Revenue	$ 311,381	$ 284,218	$ 358,996	$ 257,466	$ 331,284
Nominal Price/lb	$ 2.05	$ 1.93	$ 1.72	$ 1.99	$ 2.20
Real Revenue (2011 $)	$ 337,848	$ 297,008	$ 376,228	$ 265,705	$ 331,284
Real Price/lb (2011 $)	$ 2.23	$ 2.02	$ 1.81	$ 2.05	$ 2.20
Wahoo	2007	2008	2009	2010	2011
# Trips	528	353	470	354	446
# Vessels	247	176	235	207	240
# Dealers	116	84	98	92	95
Lbs Landed	30,821	18,853	25,255	23,134	27,909
Nominal Revenue	$ 77,196	$ 49,509	$ 68,513	$ 67,553	$ 86,973
Nominal Price/lb	$ 2.50	$ 2.63	$ 2.71	$ 2.92	$ 3.12
Real Revenue (2011 $)	$ 83,758	$ 51,737	$ 71,802	$ 69,715	$ 86,973
Real Price/lb (2011 $)	$ 2.72	$ 2.74	$ 2.84	$ 3.01	$ 3.12

Source: NMFS SEFSC Coastal Fisheries Logbook and Accumulated Landings Data Base Systems (2013).

3.3.1.1.2.2 Monthly Landings, Revenues, and Effort

Dolphin and wahoo commercial seasons have not been closed early in any year due to their ACLs having been met. On average, the greatest number of trips that land dolphin occur in May and June (**Table 3-3-2**). There is a large increase in trips from March to April and July and August see declines from the highs from the late spring months. Likewise, the numbers of participating vessels, pounds landed and ex-vessel revenue earned by fishermen follow the same trend. Most trips that land dolphin last about two days, however in July the length of trips approaches an average of three days.

The occurrence of wahoo trips is more constant across the year than are dolphin trips. The peak tends to be in May, as with dolphin, however, there are only an average of 50 trips that land wahoo in that month and a low of 21 trips on average in February. Trips on which wahoo are landed tend to last about two days.

Table 3-3-2. Selected monthly average characteristics for trips landing at least one pound (ww) of dolphin and wahoo in the South Atlantic, 2007-2011.

Dolphin	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Trips	52	49	64	171	557	528	296	217	139	120	141	72
Vessels	35	29	33	81	153	142	97	86	68	59	59	43
Days Away	1.84	1.87	2.06	1.91	2.24	2.34	2.72	2.33	2.33	2.33	2.07	1.89
Lbs Landed	1,669	2,431	3,416	8,780	54,009	40,399	15,852	10,237	8,161	5,187	4,534	2,787
Nominal Revenue	$3,588	$5,624	$7,069	$20,388	$95,318	$79,467	$31,829	$23,251	$14,408	$10,904	$9,916	$6,907
Wahoo	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Trips	36	21	24	39	50	33	36	56	31	32	40	32
Vessels	22	16	19	26	31	22	24	32	23	23	30	22
Days Away	1.90	2.64	2.55	2.16	2.53	2.64	2.17	2.04	2.53	2.24	2.37	1.78
Lbs Landed	1,964	2,054	1,520	2,056	2,103	1,595	1,720	2,446	1,931	2,468	2,795	2,543
Nominal Revenue	$5,235	$6,129	$4,455	$ 5,325	$ 5,594	$ 4,282	$ 4,865	$ 7,186	$ 5,430	$ 6,363	$7,876	$7,208

Source: NMFS SEFSC Coastal Fisheries Logbook and Accumulated Landings Data Base Systems (2013).

3.3.1.1.2.3 Average Landings, Revenues, and Effort by State

On average, North Carolina (31% of the total landings) landed slightly more pounds annually than did the east coast of Florida (27% of the total landings). However, all vessels from other states with a South Atlantic Dolphin Wahoo Permit landed more dolphin than did fishermen from any of the South Atlantic states other than North Carolina at 29% of the total average landings (**Table 3-3-3**). These states included Gulf of Mexico states, as well as states north of North Carolina. Trips from South Carolina and Georgia, while fewer in number and lower in landings, tended to average 6 to 7 days per trip, while trips from other states typically were one to two days.

The east coast of Florida averaged more trips and pounds landed of wahoo than any other state (**Table 3-3-3**) with 44% of the average annual landings. Trips from South Carolina and Georgia, while fewer in number and lower in landings, tended to average 5 to 7 days per trip, while trips from other states typically were one to two days.

Table 3-3-3. Selected average characteristics for trips landing at least one pound (whole weight) of dolphin and wahoo, by state in the South Atlantic, 2007-2011.

Dolphin	E. FL	GA	SC	NC	Other
Trips	958	33	228	715	445
Vessels	591	9	71	340	268
Days Away	1.44	6.57	6.65	2.44	1.62
Lbs Landed	41,166	2,310	22,009	47,805	44,144
Nominal Revenue	$89,169	$3,815	$47,949	$87,641	$80,094
Wahoo	E. FL	GA	SC	NC	Other
Trips	190	2	67	100	71
Vessels	63	2	9	34	18
Days Away	1.34	5.18	6.73	1.82	1.12
Lbs Landed	11,058	99	3,349	7,169	3,520
Nominal Revenue	$34,207	$ 187	$ 9,052	$18,393	$ 8,108

Source: NMFS SEFSC Coastal Fisheries Logbook and Accumulated Landings Data Base Systems (2013).

3.3.1.1.2.4 Average Landings, Revenues, and Effort by Gear

The majority of dolphin (63%) on average, is commercially landed using hook and line gear (**Table 3-3-4**). Dolphin made up 9% of the total landings on all trips where dolphin was landed, including those trips where dolphin were not targeted, but were encountered. Other major gears include longline and trolling. The average dolphin trip using hook and line lands almost 63 lbs of dolphin. The majority of trips that land dolphin, but do not target them are hook and line trips. Longline trips average 185 lbs of dolphin per trip. Trolling trips that land dolphin average 59 lbs per trip.

Wahoo on average are landed almost exclusively using hook and line (48%) and trolling gears (40%). Wahoo made up 7% of the total landings on all trips where wahoo was landed, including those trips where wahoo were not targeted, but were encountered. The average wahoo trip using hook and line lands almost 52 lbs of wahoo. Trolling trips average 55 lbs of wahoo per trip (**Table 3-3-4**).

Table 3-3-4. Selected average characteristics for trips landing at least one pound (whole weight) of dolphin and wahoo, by gear type in the South Atlantic, 2007-2011.

Dolphin	Hook & Line	Longline	Trolling	Other
Trips	1,591	91	673	24
Vessels	177	11	112	11
Days Away	2.74	2.79	1.13	2.03
Lbs Dolphin	99,810	16,870	39,855	901
Total Lbs	1,424,096	230,062	155,192	19,146
Dolphin Revenue	$ 205,119	$ 19,606	$ 82,136	$ 1,808
Total Revenue	$ 3,734,279	$ 496,475	$ 315,946	$ 56,929
Wahoo	**Hook & Line**	**Longline**	**Trolling**	**Other**
Trips	233	6	183	7
Vessels	75	3	60	6
Days Away	3.10	4.42	1.19	1.49
Lbs Wahoo	12,108	279	9,982	2,825
Total Lbs	258,916	22,926	49,866	5,775
Wahoo Revenue	$ 34,218	$ 718	$ 27,331	$ 7,682
Total Revenue	$ 669,156	$ 51,171	$ 103,587	$ 13,477

Source: NMFS SEFSC Coastal Fisheries Logbook and Accumulated Landings Data Base Systems, (2013).

3.3.1.1.2.5 Permits

A commercial permit is required to harvest or possess commercial quantities of dolphin and wahoo from the EEZ in the South Atlantic. North of the North Carolina/Virginia state line, no permit is required, however, trips are limited to 200 lbs combined of dolphin and wahoo. The number of South Atlantic Commercial Dolphin Wahoo Permits for 2008-2012 is provided in **Table 3-3-5**.

Every year from 2008 through 2012, the number of vessels landing at least one pound of dolphin or wahoo was much lower than the number of dolphin wahoo permits (**Table 3-3-1b** and **Table 3-3-5**). This is not totally unexpected. The South Atlantic Dolphin Wahoo Permit is not a limited access permit. Many commercial fishing operations have multiple federal permits. Presumably, vessel operators buy the permit each year in case they do catch dolphin or wahoo so they can sell the fish.

Table 3-3-5. Number of South Atlantic commercial dolphin wahoo permits, 2008 - 2012.

	Number of Permits
2008	2,526
2009	2,526
2010	2,563
2011	2,614
2012	2,685
Average	2,583

Source: NMFS SERO Permits Data Base

3.3.1.1.2.6 Economic Activity

Estimates of the average annual economic activity (impacts) associated with the commercial harvest of dolphin and wahoo were derived using the model developed for and applied in NMFS (2010) and are provided in **Table 3-3-6**. Business activity for the commercial sector is characterized in the form of full-time equivalent jobs, income impacts (wages, salaries, and self-employed income), and output (sales) impacts (gross business sales). Income impacts should not be added to output (sales) impacts because this would result in double counting.

The estimates of economic activity include the direct effects (effects in the sector where an expenditure is actually made), indirect effects (effects in sectors providing goods and services to directly affected sectors), and induced effects (effects induced by the personal consumption expenditures of employees in the direct and indirectly affected sectors). The estimate of ex-vessel value for 2011 is replicated from **Table 3-3-1b**.

Table 3-3-6. Average annual economic activity associated with dolphin and wahoo, 2007-2011.

Species	Average Revenue (millions)[1]	Total Jobs	Harvester Jobs	Output (Sales) Impacts (millions) [1]	Income Impacts (millions) [1]
Dolphin	$0.331	56	7	$3.959	$1.677
Wahoo	$0.087	16	2	$1.099	$0.466

[1]2011 dollars.
Source: NMFS SERO

3.3.1.2 Economic Description of the Recreational Fishery

Additional information on the recreational sector of the snapper grouper fishery contained in previous or concurrent amendments is incorporated herein by reference [see Amendment 13C (SAFMC 2006), Amendment 15A (SAFMC 2008a), Amendment 15B (SAFMC 2008b), Amendment 16 (SAFMC 2009a), Amendment 17A (SAFMC 2010a), Amendment 17B (SAFMC 2010b), Regulatory Amendment 9 (SAFMC 2011b), Regulatory Amendment 11 (SAFMC 2011a), Comprehensive ACL Amendment for the South Atlantic Region (SAFMC 2011c), and Amendment 24 (SAFMC 2011d)]. These documents contain in particular up to date description of recreational economic value as well as the financial operations of headboats and charterboats and so is included here by specific reference.

The recreational fishery is comprised of the private sector and for-hire sector. The private sector includes anglers fishing from shore (all land-based structures) and private/rental boats. The for-hire sector is composed of the charterboat and headboat (also called partyboat) sectors. Charterboats generally carry fewer passengers and charge a fee on an entire vessel basis, whereas headboats carry more passengers and payment is per person.

3.3.2.1 Snapper Grouper Fishery

3.3.2.1.1 Harvest

The trend of recreational harvest of snapper grouper in the South Atlantic was not uniform across fishing modes (**Table 3.3.14**). Charterboat harvests linearly declined during 2007-2011; headboat harvests also declined over the years but increased in 2009; private/rental mode harvests rose in 2008 before declining in the next three years; and, shore mode harvests increased from 2007 to 2009 but decreased in years thereafter. The private/rental mode was the dominant sector in the harvest of snapper grouper.

Harvests of yellowtail snapper varied across the various fishing modes during 2007-2011 (**Table 3.3.14**). Charterboat harvests fell in 2008 but rose and peaked in 2009; headboat and shore mode harvests followed a see-saw pattern; and, private/rental mode harvests linearly declined in 2007-2011. The private/rental mode was by far the dominant sector in the harvest of yellowtail snapper.

For mutton snapper, only the private/rental mode showed a pattern of harvests different from those of the others (**Table 3.3.14**). Charterboat, headboat, and shore mode harvests followed a see-saw pattern while private/rental mode harvests fell in 2008 and 2009, rose in 2010, and fell again in 2011. The private/rental mode was by far the dominant sector.

Harvest trend for blue runner also differed across fishing modes (**Table 3.3.14**). Charterboat harvests almost followed a see-saw pattern, except that they fell in the 2010 and 2011; headboat harvests increased through 2010 and then fell in 2011; private/rental mode harvests decreased every year, except in 2011; and, shore mode harvests followed a see-saw pattern. The shore mode was the dominant sector in the harvest of blue runner.

Florida dominated all other states in the harvest of snapper grouper. This is even truer in the harvest of yellowtail snapper, mutton snapper, and blue runner (**Table 3.3.15**).

Table 3.3.14. Harvest (pounds whole weight) of snapper grouper, yellowtail snapper, mutton snapper, and blue runner in the South Atlantic, by mode, 2007-2011.

	2007	2008	2009	2010	2011	Average
Snapper Grouper						
Charter	2,384,193	2,061,413	1,744,249	1,542,280	945,812	1,735,589
Headboat	2,249,452	1,394,937	1,506,537	1,379,750	1,246,838	1,555,503
Private/Rental	9,809,505	10,159,889	8,241,461	7,201,943	6,290,178	8,340,595
Shore	2,429,891	2,940,763	4,166,009	2,962,010	2,804,579	3,060,650
Yellowtail Snapper						
Charter	40,446	21,027	43,934	22,940	12,796	28,228
Headboat	81,889	91,142	75,073	85,552	85,024	83,736
Private/Rental	371,059	236,002	198,183	169,277	117,635	218,431
Shore	2,082	3,722	1,175	2,071	0	1,810
Mutton Snapper						
Charter	29,046	12,072	39,768	35,012	37,692	30,718

Headboat	46,974	42,220	72,386	49,645	53,171	52,879
Private/Rental	493,072	279,747	224,349	271,103	86,909	271,036
Shore	19,464	258,684	15,852	26,060	13,395	66,691
Blue Runner						
Charter	38,218	9,833	32,915	8,682	5,816	19,093
Headboat	5,490	16,336	21,399	24,744	20,324	17,659
Private/Rental	630,153	364,761	352,390	142,420	148,919	327,729
Shore	165,313	553,080	665,833	107,989	534,646	405,372

Source: The Headboat Survey, NOAA Fisheries, SEFSC, Beaufort Lab and MRIP database, NOAA Fisheries, NMFS, SERO.

Table 3.3.15. Harvest (pounds whole weight) of snapper grouper, yellowtail snapper, mutton snapper, and blue runner in the South Atlantic, by state, 2007-2011.

	2007	2008	2009	2010	2011	Average
Snapper Grouper						
Florida	9,578,792	9,209,888	9,898,958	7,295,141	6,757,843	8,548,124
Georgia	548,732	670,145	351,847	612,057	683,376	573,231
N Carolina	4,724,065	4,492,428	3,892,259	3,309,559	2,246,825	3,733,027
S Carolina	2,021,451	2,184,541	1,515,191	1,869,227	1,599,365	1,837,955
Yellowtail Snapper						
Florida	492,649	351,595	318,127	279,825	215,424	331,524
Georgia	16					16
N Carolina	28	65	3			32
S Carolina	2,782	232	234	15	32	659
Mutton Snapper						
Florida	588,298	592,719	352,318	381,794	191,158	421,258
Georgia						
N Carolina	6		11			9
S Carolina	252	3	26	26	10	63
Blue Runner						
Florida	837,347	940,963	1,072,188	283,491	704,504	767,698
Georgia		837		26	27	297
N Carolina	85	2,004	24	235	4,878	1,445
S Carolina	1,743	207	325	82	296	531

Source: The Headboat Survey, NOAA Fisheries, SEFSC, Beaufort Lab and MRIP database, NOAA Fisheries, NMFS, SERO.

The seasonal distribution in the harvest of snapper grouper, yellowtail snapper, mutton snapper, and blue runner is shown in **Table 3.3.16**. For snapper grouper and yellowtail snapper, peak harvest occurred in Wave 3 (May-June). On the other hand, peak harvests of mutton snapper and blue runner occurred in Wave 4 (July-August).

Table 3.3.16. Average harvest (pounds whole weight) of snapper grouper, yellowtail snapper, mutton snapper, and blue runner in the South Atlantic, by wave, 2007-2011.

	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
Snapper Grouper	1,301,947	1,830,283	3,658,124	3,280,467	2,548,362	2,073,154
Yellowtail Snapper	45,610	33,622	102,475	58,266	46,916	45,317
Mutton Snapper	55,463	37,649	112,218	124,429	48,503	43,064
Blue Runner	87,948	59,487	77,428	228,489	180,932	135,567

Source: MRIP database, NOAA Fisheries, NMFS, SERO.

3.3.2.1.2 Effort

Recreational effort can be characterized in terms of the number of trips as follows:

1. Target effort - The number of individual angler trips, regardless of trip duration, where the intercepted angler indicated that the species was targeted as either the first or the second primary target for the trip. The species did not have to be caught.
2. Catch effort - The number of individual angler trips, regardless of trip duration and target intent, where the individual species was caught. The fish caught did not have to be kept.
3. All recreational trips - The total estimated number of recreational trips taken, regardless of target intent or catch success.

Estimates of catch effort are presented in **Tables 3.3.17-3.3.19** while those for target effort are shown in **Tables 3.3.20-3.3.22**. Apparent in these tables is the substantial difference between target and catch trips, with target trips being generally less than a third of catch trips. While many angler trips recorded harvest of yellowtail snapper, mutton snapper, and blue runner, much fewer angler trips recorded these species as target species.

For snapper grouper as a whole, the private/rental mode dominated all other fishing modes in catch trips, followed by the shore mode and charterboats (**Table 3.3.17**). The private/rental mode was by far the dominant sector in terms of catch trips for yellowtail snapper and mutton snapper. For blue runner, both the shore mode was the dominant sector but followed very closely by the private/rental mode.

The dominance of Florida in terms of catch trips for yellowtail snapper, mutton snapper, and blue runner merely reflects the location where most of these species were caught (**Table 3.3.18**). There barely were any catch trips for yellowtail snapper and mutton snapper in other states. Other than Florida, North Carolina reported a relatively consistent presence of catch trips for blue runner.

The seasonal distribution of catch trips mimics that of harvests. Catch trips peaked in Wave 3 (May-June) for yellowtail snapper and Wave 4 (July-August) for mutton snapper and blue runner (**Table 3.3.19**). These are also the respective waves when harvests of these species peaked.

Table 3.3.17. Catch trips for snapper grouper, yellowtail snapper, mutton snapper, and blue runner in the South Atlantic, by mode, 2007-2011.

	2007	2008	2009	2010	2011	Average
Snapper Grouper						
Shore	1,099,638	1,160,179	990,162	717,126	832,083	959,838
Charter	134,589	112,715	118,286	123,111	88,706	115,481
Private	2,748,584	2,617,229	2,079,541	1,785,123	1,671,727	2,180,441
Yellowtail Snapper						
Shore	26,300	39,388	36,499	6,295	5,394	22,775
Charter	26,365	16,129	21,870	18,360	14,523	19,449
Private	192,383	161,893	116,322	109,443	74,642	130,937
Mutton Snapper						
Shore	31,899	70,377	31,710	16,978	7,522	31,697
Charter	18,547	19,498	22,481	22,109	10,123	18,552
Private	167,363	191,976	114,135	97,785	41,244	122,501

Blue Runner						
Shore	206,588	285,796	200,345	173,339	186,701	210,554
Charter	23,533	12,027	8,418	14,499	15,327	14,761
Private	248,305	225,023	147,445	173,210	161,421	191,081

Source: MRIP database, NOAA Fisheries, NMFS, SERO.

Table 3.3.18. Catch trips for snapper grouper, yellowtail snapper, mutton snapper, and blue runner in the South Atlantic, by state, 2007-2011.

	2007	2008	2009	2010	2011	Average
Snapper Grouper						
Florida	3,143,441	2,946,266	2,497,913	1,997,370	1,949,529	2,506,904
Georgia	127,847	213,737	105,832	92,688	105,781	129,177
N Carolina	473,836	485,127	379,223	367,856	307,802	402,769
S Carolina	237,686	244,992	205,021	167,447	229,404	216,910
Yellowtail Snapper						
Florida	245,049	217,314	173,529	134,097	94,560	172,910
Georgia	0	0	0	0	0	0
N Carolina	0	96	0	0	0	19
S Carolina	0	0	1,162	0	0	232
Mutton Snapper						
Florida	217,809	281,851	168,325	136,872	58,889	172,749
Georgia	0	0	0	0	0	0
N Carolina	0	0	0	0	0	0
S Carolina	0	0	0	0	0	0
Blue Runner						
Florida	473,500	510,025	355,917	358,096	359,295	411,367
Georgia	0	1,563	0	71	33	333
N Carolina	3,367	8,966	291	2,882	4,121	3,925
S Carolina	1,558	2,293	0	0	0	770

Source: MRIP database, NOAA Fisheries, NMFS, SERO.

Table 3.3.19. Average catch trips for snapper grouper, yellowtail snapper, mutton snapper, and blue runner in the South Atlantic, by wave, 2007-2011.

	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
Snapper Grouper	352,514	413,283	620,400	766,495	608,033	495,034
Yellowtail Snapper	19,654	15,236	40,902	39,835	31,717	25,818
Mutton Snapper	25,029	16,456	33,712	43,240	29,963	24,350
Blue Runner	46,949	41,623	66,132	100,848	91,359	69,484

Source: MRIP database, NOAA Fisheries, NMFS, SERO.

Similar to catch trips, most target trips for yellowtail snapper and mutton snapper came from the private/rental mode anglers (**Table 3.3.20**). There is, however, some good level of target trips for mutton snapper by shore mode anglers. In fact, there were substantially more target trips for blue runner by shore mode anglers than by anglers in other fishing modes. Although this reflects the dominance of the shore mode with respect to catch trips for blue runner, the private/rental mode was not too far behind in terms of catch trips for blue runner.

Target trips for yellowtail snapper, mutton snapper, and blue runner by state follows the same pattern as catch trips for these species, with Florida being the dominant state (**Table 3.3.21**). While there are reported catch trips for yellowtail snapper and mutton snapper in states other than Florida, these states reported no target trips for these species. Also, while North Carolina recorded some catch trips for blue

runner throughout 2007-2011, there were no recorded target trips for this species in this state except in 2011.

Peak target trips for yellowtail snapper (Wave 3: May-June) coincided with the peak catch trips for this species (**Table 3.3.22**). The same happened for mutton snapper, with Wave 4 (June-July) as the peak period for both catch and target trips. Target trips for blue runner, on the other hand, occurred in Wave 5 (August-September) whereas catch trips peaked in Wave 4 (June-July).

Table 3.3.20. Target trips for snapper grouper, yellowtail snapper, mutton snapper, and blue runner in the South Atlantic, by mode, 2007-2011.

	2007	2008	2009	2010	2011	Average
Snapper Grouper						
Shore	259,194	287,248	228,125	214,268	193,240	236,415
Charter	42,164	38,641	30,636	38,114	22,029	34,317
Private	620,512	747,349	623,703	609,126	575,821	635,302
Yellowtail Snapper						
Shore	1,521	18,587	858	0	0	4,193
Charter	0	2,289	1,384	639	0	862
Private	38,734	41,202	15,699	16,510	13,964	25,222
Mutton Snapper						
Shore	15,772	39,397	5,832	3,574	0	12,915
Charter	368	525	1,855	922	0	734
Private	42,752	39,199	13,771	26,916	22,983	29,124
Blue Runner						
Shore	15,776	33,853	13,282	8,377	8,412	15,940
Charter	0	0	0	0	0	0
Private	1,053	0	17,460	1,884	0	4,079

Source: MRIP database, NOAA Fisheries, NMFS, SERO.

Table 3.3.21. Target trips for snapper grouper, yellowtail snapper, mutton snapper, and blue runner in the South Atlantic, by state, 2007-2011.

	2007	2008	2009	2010	2011	Average
Snapper Grouper						
Florida	669,333	809,451	683,738	623,166	534,471	664,032
Georgia	27,019	40,893	29,665	30,351	40,417	33,669
N Carolina	112,849	88,310	92,499	121,103	88,867	100,726
S Carolina	112,668	134,585	76,561	86,889	127,334	107,607
Yellowtail Snapper						
Florida	40,255	62,078	17,940	17,149	13,964	30,277
Georgia	0	0	0	0	0	0
N Carolina	0	0	0	0	0	0
S Carolina	0	0	0	0	0	0
Mutton Snapper						
Florida	58,892	79,121	21,458	31,413	22,983	42,773
Georgia	0	0	0	0	0	0
N Carolina	0	0	0	0	0	0
S Carolina	0	0	0	0	0	0
Blue Runner						
Florida	16,829	33,853	22,605	8,377	8,210	17,975
Georgia	0	0	0	0	0	0
N Carolina	0	0	0	0	202	40
S Carolina	0	0	8,136	1,884	0	2,004

Source: MRIP database, NOAA Fisheries, NMFS, SERO.

Table 3.3.22. Average target trips for snapper grouper, yellowtail snapper, mutton snapper, and blue runner in the South Atlantic, by wave, 2007-2011.

	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
Snapper Grouper	101,671	143,242	182,124	221,560	116,146	141,291
Yellowtail Snapper	3,951	2,157	9,724	7,791	4,320	2,335
Mutton Snapper	3,871	3,358	11,233	14,564	4,673	5,074
Blue Runner	1,596	1,914	2,868	5,478	5,851	2,312

Source: MRIP database, NOAA Fisheries, NMFS, SERO.

Similar analysis of recreational effort is not possible for the headboat sector because the headboat data are not collected at the angler level. Estimates of effort in the headboat sector are provided in terms of angler days, or the number of standardized 12-hour fishing days that account for the different half-, three-quarter-, and full-day fishing trips by headboats. **Table 3.3.23** displays the annual angler days and **Table 3.3.24** displays their average monthly distribution. Confidentiality issues required combining Georgia estimates with those of Northeast Florida.

Headboat angler days varied from year to year but generally declined since 2007 (**Table 3.3.23**). Southeast Florida registered the highest number of angler trips, followed by Georgia/Northeast Florida, South Carolina, and North Carolina. Clearly Florida dominated all other states in terms of headboat angler days.

On average, overall angler days peaked in June and troughed in December (**Table 3.3.24**). North Carolina and South Carolina had similar peaks and troughs as the overall average. Angler days in Georgia/Northeast Florida peaked in June and troughed in November while those in Southeast Florida peaked in April and troughed in September.

Table 3.3.23. South Atlantic headboat angler days, by state, 2005-2010.

	NC	SC	GA/NEFL	SEFL	TOTAL
2005	40,916	52,036	74,663	82,870	250,485
2006	25,736	56,074	48,908	126,614	257,332
2007	29,002	60,729	53,762	103,388	246,881
2008	16,982	47,287	52,521	71,598	188,388
2009	19,468	40,919	66,447	69,973	196,807
2010	21,071	44,951	53,676	69,986	189,684
Average	25,529	50,333	58,330	87,405	221,596

Source: The Headboat Survey, NOAA Fisheries, SEFSC, Beaufort Lab.

Table 3.3.24. Average monthly distribution of headboat angler days in the South Atlantic, by state, 2005-2010.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
NC	220	194	813	1,647	2,740	4,640	5,118	4,440	2,309	2,273	1,062	75
SC	153	272	1,828	3,791	5,201	9,772	12,245	8,949	3,603	3,031	1,337	153
GA/NEFL	2,668	3,423	5,672	6,380	6,056	8,402	8,229	5,688	3,175	3,173	2,637	2,826
SEFL	7,432	8,517	9,647	9,764	7,962	8,635	9,609	7,006	4,112	4,135	4,829	5,758
TOTAL	10,473	12,405	17,960	21,582	21,958	31,449	35,202	26,082	13,199	12,612	9,864	8,811

Source: The Headboat Survey, NOAA Fisheries, SEFSC, Beaufort Lab.

3.3.2.1.3 Permits

For-hire vessels are required to have a for-hire snapper grouper permit to fish for or possess snapper grouper species in the South Atlantic EEZ. The number of vessels with for-hire snapper grouper permits for the period 2005-2010 is provided in **Table 3.3.25**. This sector operates as an open access fishery and not all permitted vessels are necessarily active in the fishery. Some vessel owners obtain open access permits as insurance for uncertainties in the fisheries in which they currently operate.

The number of for-hire permits issued for the South Atlantic snapper grouper fishery increased from 1,904 permits in 2005 to 2,104 permits in 2008, but subsequently decreased to 2,091 in 2009 and 1,815 in 2010. The majority of snapper grouper for-hire permitted vessels were home-ported in Florida; a relatively high proportion of these permitted vessels were also home-ported in North Carolina and South Carolina. Many vessels with South Atlantic for-hire snapper-grouper permits were homeported in states outside of SAFMC's area of jurisdiction, particularly in the Gulf states of Alabama through Texas. Although the number of vessels with South Atlantic for-hire snapper-grouper permits homeported in states outside of SAFMC's area of jurisdiction increased from 2005 to 2009, they still account for approximately the same proportion (9-10%) of the total number of permits. For-hire snapper-grouper permits in these other areas fell in 2010.

Table 3.3.25. Number of South Atlantic for-hire snapper-grouper vessel permits, 2005-2010.

Home Port State	2005	2006	2007	2008	2009	2010	Avg.
North Carolina	294	317	353	399	391	333	348
South Carolina	136	142	152	160	167	147	151
Georgia	37	36	37	35	36	28	35
Florida	1,267	1,304	1,312	1,310	1,280	1,110	1,264
Gulf States (AL-TX)	102	84	79	84	87	84	87
Other States	68	84	93	116	130	113	101
Total	1,904	1,967	2,026	2,104	2,091	1,815	1,985

For-hire permits do not distinguish charterboats from headboats. Based on a 1997 survey, Holland et al. (1999) estimated that a total of 1,080 charter vessels and 96 headboats supplied for-hire services in all South Atlantic fisheries during 1997. By 2010, the estimated number of headboats supplying for-hire services in all South Atlantic fisheries had fallen to 85, indicating a decrease in fleet size of approximately 11% between 1997 and 2010 (K. Brennan, Beaufort Laboratory, SEFSC, personal communication, Feb. 2011).

According to the Southeast Regional Office Website, the Constituency Services Branch (Permits) unofficially listed 1,509 current holders of South Atlantic for-hire snapper grouper permits as of October 30, 2012. There are no specific permitting requirements for recreational anglers to harvest snapper grouper. Instead, anglers are required to possess either a state recreational anglers are required to possess either a state recreational fishing permit that authorizes saltwater fishing in general, or be registered in the federal National Saltwater Angler Registry system, subject to appropriate exemptions.

3.3.2.2 Dolphin Wahoo Fishery

Additional information on the recreational sector of the dolphin wahoo fishery contained in previous or concurrent amendments is incorporated herein by reference [see Comprehensive ACL Amendment for the South Atlantic Region (SAFMC 2011a)]. The following description focuses mainly on the recreational sector of the dolphin and wahoo fishery in the Atlantic.

The recreational fishery is comprised of the private sector and for-hire sector. The private sector includes anglers fishing from shore (all land-based structures) and private/rental boats. The for-hire sector is composed of the charter boat and headboat (also called party boat) sectors. 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.

3.3.2.2.1 Harvest

Harvest information for dolphin is summarized in **Table 3-3-7** and **Table 3-3-8**, and those for wahoo, in **Table 3-3-9** and **Table 3-3-10**. At this stage, it is instructive to point out that harvest estimates are sometimes subject to relatively high proportional standard errors (PSE), reflecting a high level of imprecision in the estimates. This has particular relevance to the relatively low harvests of these species in Georgia, South Carolina, and North Atlantic as well as to the harvest estimates by wave.

The annual trend of recreational harvest of dolphin in the South Atlantic, Mid-Atlantic, and North Atlantic was not uniform across fishing modes during 2008-2012 (**Table 3-3-7**). Charter boat harvests fell in 2009, rose in 2010, and fell in 2011 and 2012. Harvests by headboats and private/rental modes, on the other hand, went the opposite way, except in 2012 when private/rental mode harvests fell with charter boat harvests. The private/rental mode was the dominant sector in the harvest of dolphin, followed by charter boats and headboats. There were no reported harvests of dolphin from the shore mode.

Harvest trend for dolphin also differed across the four South Atlantic states and across the three regions in the Atlantic (**Table 3-3-7**). Harvests in Florida decreased in 2009 and 2010 but increased in the subsequent two years; the relatively low harvests in Georgia mostly rose throughout, except in 2010; harvests in North Carolina followed a seesaw pattern; and harvests in South Carolina mostly rose throughout, except in 2011. Apparent in the table is the substantial harvest increase in 2009, followed by a substantial decrease in 2010, for Georgia. South Carolina also reported a substantial harvest increase in 2009 and substantial harvest decrease in 2011. Worthy of note here is that high PSEs characterize the estimates in Georgia and South Carolina. Harvests in the Mid-Atlantic increased in 2009 but consecutively decreased in the following years. The North Atlantic reported harvests of dolphin only in 2011 and 2012. The South Atlantic clearly dominated the other regions in the harvest of dolphin, and within this region, North Carolina was the dominant state, followed by Florida, South Carolina, and Georgia.

The peaks and troughs of average (2008-2012) dolphin harvests by wave were similar for all fishing modes (**Table 3-3-8**). Peaks occurred in Wave 3 for all fishing modes and troughs occurred in Wave 1 for all fishing modes. In addition, the peaks and troughs of harvests by wave were similar for all states in the South Atlantic (**Table 3-3-8**). Peaks occurred in Wave 3 and troughs occurred in Wave 1 for all states.

The peaks in the Mid- and North Atlantic occurred in Wave 4, noting that the Mid-Atlantic reported dolphin harvests only in Wave 3 through Wave 5, and the North Atlantic in Wave 4 only.

Table 3-3-7. Harvests of dolphin in the South Atlantic, Mid-Atlantic, and North Atlantic, 2008-2012. Harvests are in pounds whole weight.

	2008	2009	2010	2011	2012	Average
By Fishing Mode						
Charter	3,246,604	1,820,523	2,353,472	2,219,069	1,744,489	2,276,832
Headboat	12,825	24,138	19,442	20,128	20,437	19,394
Private/Rental	4,964,915	5,672,189	3,814,986	4,289,060	3,851,123	4,518,455
TOTAL	8,224,344	7,516,851	6,187,899	6,528,257	5,616,049	6,814,680
By State/Region						
Florida East	4,553,132	2,503,705	1,685,442	2,638,967	2,653,128	2,806,875
Georgia	856	128,226	127	909	3,265	26,676
N. Carolina	3,349,185	3,848,165	3,276,882	3,492,208	2,280,333	3,249,355
S. Carolina	66,384	501,764	881,065	40,465	549,852	407,906
Mid-Atlantic	254,788	534,992	344,383	309,338	113,409	311,382
North Atl.	0	0	0	46,370	16,064	12,487
TOTAL	8,224,344	7,516,851	6,187,899	6,528,257	5,616,049	6,814,680

2012 data are preliminary.
Source: The Headboat Survey, NMFS, SEFSC, Beaufort Lab; SEFSC MRFSS ACL database, NMFS, SERO.

Table 3-3-8. Average (2008-2012) harvests of dolphin in the South Atlantic, Mid-Atlantic, and North Atlantic, by wave. Harvests are in pounds whole weight.

	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
By Fishing Mode						
Charter	14,843	84,848	1,244,581	757,478	141,365	33,717
Headboat	1,224	2,645	7,049	3,905	2,056	2,515
Private/Rental	124,719	600,172	1,909,594	1,056,867	479,382	347,721
TOTAL	140,786	687,664	3,161,224	1,818,250	622,803	383,953
By State/Region						
Florida East	138,973	450,721	1,022,669	419,461	417,659	357,392
Georgia	0	667	25,890	65	17	37
N. Carolina	1,812	72,167	1,892,917	1,082,466	173,487	26,506

S. Carolina	0	164,110	201,070	36,660	6,048	18
Mid-Atlantic	0	0	18,679	267,112	25,592	0
North Atl.	0	0	0	12,487	0	0
TOTAL	140,786	687,664	3,161,224	1,818,250	622,803	383,953

Wave 1: Jan-Feb; Wave 2: Mar-Apr; Wave 3: May-Jun; Wave 4: Jul-Aug; Wave 5: Sep-Oct; Wave 6: Nov-Dec; 2012 data are preliminary.

Source: The Headboat Survey, NMFS, SEFSC, Beaufort Lab; SEFSC MRFSS ACL database, NMFS, SERO.

Harvest trends for wahoo were closely uniform across fishing modes (**Table 3-3-9**). Harvests generally rose throughout the period, falling only in 2010 for the charter and private/rental modes and in 2011 for headboats. Peak harvests occurred in 2012 for the charter and private/rental fishing modes, whereas for headboats peak harvests occurred in 2010. On average, the private/rental mode dominated all other fishing modes, followed by charter boats and headboats.

Harvest trends for wahoo varied mostly across states in the South Atlantic and across regions (**Table 3-3-9**). Harvests in Florida and North Carolina followed similar pattern—they increased in 2009, fell in 2010 and increased in the next two years. Georgia reported harvests only in 2009 and 2010. Harvests in South Carolina rose in 2009 and 2010, fell in 2011, and rose again in 2012. Again, high PSEs characterized harvests in Georgia and South Carolina. Wahoo harvests in the Mid-Atlantic fell in 2009 and 2010 but rose in the next two years. North Atlantic reported no harvests of wahoo in 2008-2012. Within the South Atlantic region, North Carolina was the dominant state in the harvest of wahoo, followed by Florida, South Carolina, and Georgia.

On average, peak harvests occurred in Wave 5 for charter boats, Wave 4 for headboats, and Wave 2 for the private/rental mode (**Table 3-3-10**). The troughs occurred in Wave 1 for all fishing modes. For all fishing modes combined, Wave 4 registered the highest harvests. Peak harvests occurred in Wave 6 for Florida, Wave 2 for Georgia and South Carolina, and Wave 5 for North Carolina. Georgia recorded harvest only in Wave 2. Harvest troughs occurred in Wave 1 for all states, except Florida whose trough occurred in Wave 3. The Mid-Atlantic region reported harvests only in Wave 4 and Wave 5, whereas the North Atlantic did not report any harvest of wahoo.

Table 3-3-9. Harvests of wahoo in the South Atlantic, Mid-Atlantic, and North Atlantic, 2008-2012. Harvests are in pounds whole weight.

	2008	2009	2010	2011	2012	Average
By Fishing Mode						
Charter	206,539	208,835	200,407	254,215	546,716	283,342
Headboat	2,767	3,369	4,606	1,633	3,844	3,244
Private/Rental	457,069	583,845	391,958	444,273	880,745	551,578
TOTAL	666,375	796,050	596,970	700,120	1,431,306	838,164
By State/Region						
Florida East	317,036	336,227	136,115	179,647	334,854	260,776
Georgia	0	578	41,556	0	0	8,427
N. Carolina	311,867	410,789	375,580	449,513	759,574	461,465
S. Carolina	734	25,839	32,907	202	250,655	62,067
Mid-Atlantic	36,739	22,616	10,813	70,758	86,223	45,430
North Atl.	0	0	0	0	0	0
TOTAL	666,375	796,050	596,970	700,120	1,431,306	838,164

2012 data are preliminary.
Source: The Headboat Survey, NMFS, SEFSC, Beaufort Lab; SEFSC MRFSS ACL database, NMFS, SERO.

Table 3-3-10. Average (2008-2012) harvest of wahoo in the South Atlantic, Mid-Atlantic, and North Atlantic, by wave. Harvests are in pounds whole weight.

	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
By Fishing Mode						
Charter	3,151	16,764	32,661	99,536	115,101	16,129
Headboat	242	490	620	1,189	456	247
Private/Rental	42,752	149,314	43,975	130,375	105,175	79,987
TOTAL	46,145	166,568	77,256	231,100	220,731	96,364
By State/Region						
Florida East	41,590	41,624	22,753	46,374	32,089	76,346
Georgia	0	8,427	0	0	0	0
N. Carolina	4,556	60,290	53,433	155,586	167,588	20,012
S. Carolina	0	56,228	1,070	3,896	868	5
Mid-Atlantic	0	0	0	25,243	20,186	0
North Atl.	0	0	0	0	0	0
TOTAL	46,145	166,568	77,256	231,100	220,731	96,364

Wave 1: Jan-Feb; Wave 2: Mar-Apr; Wave 3: May-Jun; Wave 4: Jul-Aug; Wave 5: Sep-Oct; Wave 6: Nov-Dec; 2012 data are preliminary

Source: The Headboat Survey, NMFS, SEFSC, Beaufort Lab; SEFSC MRFSS ACL database, NMFS, SERO.

3.3.2.2.2 Effort

Recreational effort can be characterized in terms of the number of trips as follows:

Target effort - The number of individual angler trips, regardless of trip duration, where the intercepted angler indicated that the species was targeted as either the first or the second primary target for the trip. The species did not have to be caught.

Catch effort - The number of individual angler trips, regardless of trip duration and target intent, where the individual species was caught. The fish caught did not have to be kept.

All recreational trips - The total estimated number of recreational trips taken, regardless of target intent or catch success.

Estimates of target and catch effort for dolphin are presented in **Table 3-3-11** through **Table 3-3-14** and those for wahoo are presented in **Table 3-3-15** through **Table 3-3-18**. Clearly apparent in these tables is the substantial difference between target and catch trips, with target trips being higher than catch trips. This is very much unlike the case with most snapper grouper species when target trips generally are substantially lower than catch trips. Dolphin and wahoo are in a sense highly targeted species but many target trips are unsuccessful in harvesting the species. The shore mode recorded very few target and catch trips for dolphin and none for wahoo. As with recreational harvests of snapper grouper species, target and catch trips for these species were characterized with relative high PSEs, especially in fishing modes, states/regions, and waves with low target or catch trips. Therefore, the interpretation of the trends below should be used with caution.

The annual variation in dolphin target trips matched well with the annual variation in catch trips for charter boats but not as well for the private/rental mode (**Table 3-3-11**). For charter boats, target and catch trips decreased in 2009, rose in 2010, and fell in the next two years. For the private/rental mode, changes in target and

catch trips matched in 2009 and 2010 but not in 2011 and 2012. The private/rental mode was by far the dominant fishing mode in both target and catch trips.

In the South Atlantic region, the variation in target trips did not match well with the variation in catch trips across states, except for Florida where negative and positive changes in target trips matched exactly with the corresponding changes in catch trips (**Table 3-3-12**). In the other states, negative changes in target trips occurred with positive changes in catch trips in most years. Georgia recorded no target trips but had some catch trips. For both target and catch trips, Florida, by far, dominated all other states, followed by North Carolina, South Carolina, and Georgia. In the Mid-Atlantic, target trips rose in 2009 and 2010 but fell in the next two years, whereas catch trips followed a seesaw pattern. Peaks for both target and catch trips occurred in Wave 3 for charter boats and the private/rental mode (**Table 3-3-13**). The troughs for both target and catch trips occurred in Wave 1 for charter boats and the private/rental mode. The shore mode recorded target trips in Waves 2, 4, and 6 and catch trips in Waves 3 and 5.

The timing of the peaks and troughs for target and catch trips were similar for all states in the South Atlantic (**Table 3-3-14**). Peaks occurred in Wave 3 and troughs in Wave 1 for all states. Georgia reported catch trips in some waves that did not have target trips. The peak for both target and catch trips in the Mid-Atlantic region occurred in Wave 4, noting that this region recorded target trips in Waves 3 through 6 and catch trips in Waves 3 through 5. The North Atlantic region had a record of catch trips in Wave 4 but no record of target trips in any wave.

Table 3-3-11. Target and catch trips for dolphin in the South Atlantic, Mid-Atlantic, and North Atlantic, by fishing mode, 2008-2012.

	2008	2009	2010	2011	2012	Average
Target Trips						
Shore	2,467	0	10,536	0	0	2,601
Charter	42,037	25,985	38,176	37,816	20,571	32,917
Private	790,157	859,161	596,645	654,861	639,253	708,015
TOTAL	834,661	885,146	645,357	692,677	659,824	743,533
Catch Trips						
Shore	0	0	642	0	1,593	447
Charter	36,493	28,027	37,511	27,515	24,245	30,758
Private	259,235	294,114	258,817	251,690	254,810	263,733
TOTAL	295,728	322,141	296,970	279,205	280,648	294,938

2012 data are preliminary.
Source: MRIP database, NMFS, SERO.

Table 3-3-12. Target and catch trips for dolphin in the South Atlantic (by state), Mid-Atlantic, and North Atlantic, 2008-2012.

	2008	2009	2010	2011	2012	Average
Target Trips						
Florida East	740,609	717,476	501,830	600,660	568,069	625,729
Georgia	0	0	0	0	0	0
N. Carolina	63,754	128,202	100,145	69,607	54,696	83,281
S. Carolina	17,285	15,492	17,111	6,104	33,201	17,839
Mid-Atlantic	13,012	23,976	26,270	12,750	1,618	15,525
North Atl.	0	0	0	0	0	0
Catch Trips						
Florida East	236,983	198,828	197,218	205,689	199,802	207,704
Georgia	1,208	902	5	31	65	442
N. Carolina	43,530	84,130	60,589	43,832	42,206	54,857
S. Carolina	3,624	10,635	14,943	1,769	25,665	11,327
Mid-Atlantic	10,384	27,642	24,215	26,108	11,450	19,960
North Atl.	0	0	0	1,774	1,462	647

2012 data are preliminary.
Source: MRIP database, NMFS, SERO.

Table 3-3-13. Average (2008-2012) target and catch trips for dolphin in the South Atlantic, Mid-Atlantic, and North Atlantic, by wave and fishing mode.

	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
Target Trips						
Shore	0	1,655	0	493	0	452
Charter	1,341	4,660	15,705	7,934	1,400	1,876
Private	43,890	118,392	236,587	161,895	75,638	71,614
TOTAL	45,231	124,707	252,292	170,322	77,039	73,942
Catch Trips						
Shore	0	0	319	0	128	0
Charter	1,027	2,709	12,873	10,385	2,600	1,164
Private	13,530	42,222	100,613	60,310	26,122	20,936
TOTAL	14,558	44,931	113,805	70,695	28,850	22,100

2012 data are preliminary.
Source: MRIP database, NMFS, SERO.

Table 3-3-14. Average (2008-2012) target and catch trips for dolphin in the South Atlantic (by state), Mid-Atlantic, and North Atlantic, by wave.

	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
Target Trips						
Florida East	45,052	116,488	167,196	123,876	71,144	72,036
Georgia	0	0	0	146	565	0
N. Carolina	179	4,187	38,324	30,088	3,598	605
S. Carolina	0	4,032	5,965	4,325	171	0
Mid-Atlantic	0	0	777	11,564	1,560	1,301
North Atl.	0	0	0	0	0	0
Catch Trips						
Florida East	14,471	38,574	76,588	32,238	24,251	21,582
Georgia	0	21	413	2	1	5
N. Carolina	86	2,943	29,816	18,176	3,323	513
S. Carolina	0	3,393	6,238	1,437	260	0
Mid-Atlantic	0	0	751	18,195	1,014	0
North Atl.	0	0	0	647	0	0

2012 data are preliminary.
Source: MRIP database, NMFS, SERO.

The annual variation in target trips for wahoo did not quite match with the annual variation in target trips across fishing modes during 2008-2012 (**Table 3-3-15**). For charter boats, target trips increased throughout except in 2012 whereas catch trips were down in 2009 and 2010 and rose in the two subsequent years. For the private/rental mode, changes in target trips matched well with changes in catch trips in 2010 and 2012, but the exact opposite occurred in the other years. The private/rental mode was the dominant fishing mode in both target and catch trips, with its target trips being substantially higher than those of charter boats.

The variation in target trips for wahoo also did not match well with the variation in catch trips across states in the South Atlantic (**Table 3-3-16**). In Florida, changes in target trips matched exactly with change in catch trips in 2010 and 2011, but the exact opposite occurred in the other years. In North Carolina, positive and negative changes in target trips matched exactly with the corresponding changes in catch trips. In South Carolina, changes in target trips followed a seesaw pattern, but changes in catch trips were all positive, except in 2011. Florida dominated in terms of target trips, followed by North Carolina, South Carolina, and Georgia. On the other hand, North Carolina dominated all other states in terms of catch trips, followed by Florida, South Carolina, and Georgia. Target trips in the Mid-Atlantic region followed a seesaw pattern, whereas catch trips fell in 2009 and 2010 and rose in the next two years. The North Atlantic region did not record any target or catch trips for wahoo.

The timing of peaks and troughs for target and catch trips varied from one another and across fishing modes (**Table 3-3-17**). Peaks for charter boats occurred in Wave 3 for target trips and Wave 1 for catch trips; peaks for the private/rental mode occurred in Wave 4 for target trips and Wave 5 for catch trips. For charter boats, the troughs occurred in Wave 1 for target trips and Wave 3 for catch trips; for the private/rental mode, the troughs occurred in Wave 3 for target trips and Wave 4 for catch trips. As noted before, there were no recorded target or catch trips for the shore mode.

While the timing of the peaks and troughs for target and catch trips across states in the South Atlantic varied, there were some apparent similarities (**Table 3-3-18**). For North Carolina,

the peaks for both target and catch trips occurred in Wave 4, and for South Carolina the peaks for both target and catch trips occurred in Wave 2. In addition, the troughs for both target and catch trips occurred in Wave 3 for Florida and in Wave 1 for South Carolina. The Mid-Atlantic region recorded target trips only in Waves 4 and 5 and catch trips only in Wave 4. As noted earlier, there were no recorded target or catch trips for wahoo in the North Atlantic region.

Table 3-3-15. Target and catch trips for wahoo in the South Atlantic, Mid-Atlantic, and North Atlantic, by fishing mode, 2008-2012.

	2008	2009	2010	2011	2012	Average
Target Trips						
Shore	0	0	0	0	0	0
Charter	4,973	5,354	9,262	9,414	5,676	6,936
Private	124,844	100,880	92,818	128,104	139,071	117,143
TOTAL	129,817	106,234	102,080	137,518	144,747	124,079
Catch Trips						
Shore	0	0	0	0	0	0
Charter	9,091	5,936	4,920	5,998	8,727	6,934
Private	18,251	22,826	13,192	10,870	26,186	18,265
TOTAL	27,342	28,762	18,112	16,868	34,913	25,199

2012 data are preliminary.
Source: MRIP database, NMFS, SERO.

Table 3-3-16. Target and catch trips for wahoo in the South Atlantic (by state), Mid-Atlantic, and North Atlantic, 2008-2012.

	2008	2009	2010	2011	2012	Average
Target Trips						
Florida East	108,643	89,609	75,330	120,749	112,004	101,267
Georgia	0	0	1,224	2,825	0	810
N. Carolina	13,018	12,814	17,003	12,663	15,071	14,114
S. Carolina	5,325	3,243	7,488	1,281	17,305	6,928
Mid-Atlantic	2,831	566	1,036	0	368	960
North Atl.	0	0	0	0	0	0
Catch Trips						
Florida East	12,959	16,391	6,039	6,147	11,315	10,570
Georgia	0	75	1,224	0	0	260
N. Carolina	12,728	11,425	10,137	8,387	12,814	11,098
S. Carolina	0	285	496	0	5,597	1,276
Mid-Atlantic	1,652	587	108	2,334	5,189	1,974
North Atl.	0	0	0	0	0	0

2012 data are preliminary.
Source: MRIP database, NMFS, SERO.

Table 3-3-17. Average (2008-2012) target and catch trips for wahoo in the South Atlantic, Mid-Atlantic, and North Atlantic, by wave and fishing mode.

	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6

Target Trips						
Shore	0	0	0	0	0	0
Charter	238	751	2,082	1,739	1,650	475
Private	16,751	23,547	13,418	27,218	20,742	15,468
TOTAL	16,989	24,298	15,501	28,958	22,391	15,942
Catch Trips						
Shore	0	0	0	0	0	0
Charter	9,091	5,936	4,920	5,998	8,727	6,934
Private	18,251	22,826	13,192	10,870	26,186	18,265
TOTAL	27,342	28,762	18,112	16,868	34,913	25,199

2012 data are preliminary.
Source: MRIP database, NMFS, SERO.

Table 3-3-18. Average (2008-2012) target and catch trips for wahoo in the South Atlantic (by state), Mid-Atlantic, and North Atlantic, by wave.

	Wave 1	Wave 2	Wave 3	Wave 4	Wave 5	Wave 6
Target Trips						
Florida East	16,399	18,424	10,882	22,951	17,418	15,193
Georgia	0	245	0	0	565	0
N. Carolina	590	1,978	2,377	4,466	4,141	562
S. Carolina	0	3,652	2,242	836	11	187
Mid-Atlantic	0	0	0	591	256	0
North Atl.	0	0	0	0	0	0
Catch Trips						
Florida East	1,551	2,081	1,004	2,136	1,016	2,782
Georgia	0	260	0	0	0	0
N. Carolina	50	1,505	2,533	3,805	2,870	336
S. Carolina	0	1,209	15	33	18	0
Mid-Atlantic	0	0	0	1,974	0	0
North Atl.	0	0	0	0	0	0

2012 data are preliminary.
Source: MRIP database, NMFS, SERO.

Similar analysis of recreational effort is not possible for the headboat sector because the headboat data are not collected at the angler level. Estimates of effort in the headboat sector are provided in terms of angler days, or the number of standardized 12-hour fishing days that account for the different half-, three-quarter-, and full-day fishing trips by headboats. **Table 3-3-19** displays the annual angler days by state in the South Atlantic for 2008-2012 and **Table 3-3-20** displays their average (2008-2012) monthly distribution. Confidentiality issues required combining Georgia estimates with those of Northeast Florida.

Headboat angler days (trips) varied from year to year across various states. Total headboat angler trips increased in 2009, fell in the next two years, and increased in 2012 (**Table 3-3-19**). Southeast Florida registered the highest number of angler days, followed by South Carolina, North Carolina, and Georgia/Northeast Florida. Florida clearly dominated all other states in terms of headboat angler days.

On average (2008-2012), overall angler days peaked in July and troughed in November **(Table 3-3-20**). All states recorded peak angler trips in July, similar to the overall peak month. None of the states, however, had the same trough month as the overall angler trips. North Carolina had a trough in February, South Carolina and Georgia/Northeast Florida in January, and Southeast Florida in October.

Table 3-3-19. South Atlantic headboat angler days, by state, 2008-2012.

	2008	2009	2010	2011	2012	AVERAGE
NC	16,982	19,468	21,071	18,457	20,766	19,349
SC	47,287	40,919	44,951	44,645	41,003	43,761
GA/NEFL	52,521	66,447	53,676	46,256	8,800	12,822
SEFL	71,598	69,973	69,986	77,785	130,823	116,751
TOTAL	188,388	196,807	189,684	187,143	201,392	192,683

Source: The Headboat Survey, NMFS, SEFSC, Beaufort Lab.

Table 3-3-20. Average monthly distribution of headboat angler days in the South Atlantic, by state, 2008-2012.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
NC	26	12	224	1,142	2,372	3,908	4,331	3,478	1,851	1,659	321	23
SC	70	196	1,234	3,203	3,897	9,363	11,614	8,118	3,093	2,236	618	118
GA/NEFL	158	357	734	1,344	1,631	2,389	2,459	1,478	894	662	403	312
SEFL	7,927	9,732	12,911	12,934	10,985	13,239	14,868	10,035	5,385	5,141	5,662	7,930
TOTAL	8,181	10,298	15,103	18,624	18,885	28,900	33,272	23,109	11,224	9,698	7,004	8,384

Source: The Headboat Survey, NMFS, SEFSC, Beaufort Lab.

3.3.2.2.3 Permits

For-hire vessels are required to have a dolphin wahoo for-hire permit to fish for or possess dolphin or wahoo in the Atlantic EEZ. The number of vessels with for-hire dolphin wahoo permits for 2008-2012 is provided in **Table 3-3-21**. This sector operates as an open access fishery and not all permitted vessels are necessarily active in the fishery. Some vessel owners may have obtained open access permits as insurance for uncertainties in the fisheries in which they currently operate.

The number of for-hire permits issued for the South Atlantic dolphin wahoo fishery increased from 1,965 permits in 2008 to 2,019 permits in 2012. Based on applications for dolphin wahoo for-hire permits, an average of 79% of for-hire permitted vessels were home-ported in the South Atlantic states, 15% in the Mid-Atlantic states, 1% in the North Atlantic states, and the rest in the Gulf and other states. Among the South Atlantic states, Florida accounted for the greatest proportion of home-ported for-hire vessels, followed by North Carolina, South Carolina, and Georgia. In the Mid-Atlantic (not shown in the table), Maryland had, on average, the most number of home-ported for-hire vessels, followed by New Jersey, Delaware, Virginia, and New York. In the North Atlantic (not shown in the table), most of the permitted for-hire vessels were home-ported in Massachusetts and Rhode

Island. The number of vessels in the Gulf and other states with for-hire dolphin wahoo permits has remained steady over the years.

Table 3-3-21. Number of South Atlantic for-hire dolphin wahoo vessel permits, 2008-2012.

Home Port State	2008	2009	2010	2011	2012	Average
Florida	1,011	1,021	1,015	1,031	1,052	1,026
Georgia	24	28	24	23	25	25
North Carolina	401	412	394	393	368	394
South Carolina	137	148	147	140	141	143
Mid-Atlantic	291	299	313	303	301	301
North Atlantic	14	19	21	21	22	19
Gulf States (AL-TX)	66	73	78	86	91	79
Other States	21	21	14	17	19	18
Total	1,965	2,021	2,006	2,014	2,019	2,005

Source: NMFS, SERO Permits Data Base.

For-hire permits do not distinguish charter boats from headboats. Some vessels could operate solely as charter boats, others solely as headboats, while still others could operate either as charter boats or headboats (not both at the same time) at some period during the fishing year. Based on a 1997 survey, Holland et al. (1999) estimated that a total of 1,080 charter vessels and 96 headboats supplied for-hire services in all South Atlantic fisheries during 1997. By 2013, the estimated number of headboats supplying for-hire services in all South Atlantic fisheries had fallen to 75 (K. Brennan, Beaufort Laboratory, SEFSC, personal communication, 2013).

According to the Southeast Regional Office Website, the Constituency Services Branch (Permits) unofficially listed 1,623 holders of South Atlantic for-hire dolphin wahoo permits as of April 23, 2013. There are no specific permitting requirements for recreational anglers to harvest dolphin or wahoo in the South Atlantic. Instead, anglers are required to possess either a state recreational fishing permit that authorizes saltwater fishing in general, or be registered in the federal National Saltwater Angler Registry system, subject to appropriate exemptions.

3.3.2.2.4 Economic Values and For-Hire Vessel Financials

Participation, effort, and harvest are indicators of the value of saltwater recreational fishing. However, a more specific indicator of value is the satisfaction that anglers experience over and above their costs of fishing. The monetary value of this satisfaction is referred to as consumer surplus. The value or benefit derived from the recreational experience is dependent on several quality determinants, which include fish size, catch success rate, and the number of fish kept. These variables help determine the value of a fishing trip and influence total demand for recreational fishing trips.

The NMFS Southeast Science Center (Table 7, Carter and Liese 2012) developed estimates of consumer surplus per angler trip. These estimates were culled from various studies – Haab et al. (2009), Dumas et al. (2009), and NOAA SEFSC SSRG (2009). The values/ranges of consumer surplus estimates are

(in 2011 dollars) $117 to $134 for red snapper, $129 to $134 for grouper, $11.50 for other snappers, and $84 for snapper grouper. Haab et al. (2009) also estimated consumer surplus for dolphin of two general sizes. They estimated that for one additional fish caught and kept the consumer surplus would range from $48 to $538 (2011 dollars) for dolphin greater than 20 inches and from $5 to $30 (2011 dollars) for smaller dolphin. Carter and Liese (2012) also estimated the mean willingness to pay per fish, per trip for dolphin (in 2011 dollars) of $14.40, $9.60, $7.10, $5.60, and $4.60, respectively for the second, third, fourth, fifth, and sixth fish caught and kept. They also estimated declining mean willingness to pay for additional fish caught and released due to the size or bag limit.

While anglers receive economic value as measured by the consumer surplus associated with fishing, for-hire businesses receive value from the services they provide. Producer surplus is the measure of the economic value these operations receive. Producer surplus is the difference between the revenue a business receives for a good or service, such as a charter or headboat trip, and the cost the business incurs to provide that good or service. Estimates of the producer surplus associated with for-hire trips are not available. However, proxy values in the form of net operating revenues are available (Christopher Liese, NMFS SEFSC, personal communication, August 2010). These estimates were culled from several studies – Liese et al. (2009), Dumas et al. (2009), Holland et al. (1999), and Sutton et al. (1999). Estimates of net operating revenue per angler trip (2011 dollars) on representative charter trips (average charter trip regardless of area fished) are $153 for Louisiana through east Florida, $142 for east Florida, $164 for northeast Florida, and $134 for North Carolina. For charter trips into the EEZ only, net operating revenues are $148 in east Florida and $155 in northeast Florida. For full-day and overnight trips only, net operating revenues are estimated to be $163-$168 in North Carolina. Comparable estimates are not available for Georgia, South Carolina, or Texas.

Net operating revenues per angler trip are lower for headboats than for charter boats. Net operating revenue estimates (2011 dollars) for a representative headboat trip are $50 in the Gulf of Mexico (all states and all of Florida), and $66-$71 in North Carolina. For full-day and overnight headboat trips, net operating revenues (2011 dollars) are estimated to be $78-$81 in North Carolina. Comparable estimates are not available for Georgia and South Carolina.

A study of the North Carolina for-hire fishery provides some information on the financial status of the for-hire fishery in the state (Dumas et al., 2009). Depending on vessel length, regional location, and season, charter fees (2011 dollars) per passenger per trip ranged from $176 to $263.80 for a full-day trip and from $98.20 to $130 for a half-day trip; headboat fees ranged from $76 to $86 for a full-day trip and from $39.90 to $47.20 for a half-day trip. Charter boats generated a total of $58.4 million in passenger fees, $3.4 million in other vessel income (e.g., food and beverages), and $5.0 million in tips (2011 dollars). The corresponding figures for headboats in 2011 dollars were $10.3 million in passenger fees, $0.21 million in other vessel income, and $0.94 million in tips. Non-labor expenditures (e.g., boat insurance, dockage fees, bait, ice, fuel) amounted to $45.7 million for charter boats and $5.6 million for headboats (2011 dollars). Summing across vessel lengths and regions, charter vessels had an aggregate value (depreciated) of $126.2 million and headboats had an aggregate value (depreciated) of $10.7 million (2011 dollars).

A more recent study of the for-hire sector provides estimates on gross revenues generated by the charter boats and headboats in the South Atlantic (Holland et al. 2012). Average annual revenues (2011 dollars) for charter boats are estimated to be $126,032 for Florida vessels,

$53,443 for Georgia vessels, $100,823 for South Carolina vessels, and $101,959 for North Carolina vessels. For headboats, the corresponding estimates are $209,507 for Florida vessels and $153,848 for vessels in the other states. Revenue information for headboats in states, other than Florida, are aggregated due to small sample size.

3.3.2 Social Environment

Descriptions of the social environment of the dolphin-wahoo fishery are contained in Amendment 5 (SAFMC 2013) and are incorporated herein by reference where appropriate. The South Atlantic, Mid-Atlantic, and New England regions are included in the description of the social environment. The referenced description focuses on available geographic and demographic data to identify communities with strong relationships with dolphin or wahoo fishing (i.e., significant landings and revenue), and positive or negative impacts from regulatory change are expected to occur in places with greater landings of wahoo or dolphin.

The descriptions of South Atlantic communities in Amendment 5 (SAFMC 2013) include information about the top communities based upon regional quotients of commercial landings and value for dolphin and wahoo. These top communities are referred to in this document as "dolphin communities" and "wahoo communities" because these are the areas that would be most likely to experience the effects of proposed actions that could change the dolphin or wahoo fisheries and impact the participants and associated businesses and communities within the region. Additionally, the descriptions in Amendment 5 (SAFMC 2013) for all Atlantic regions also include reliance and engagement indices to identify other areas in which dolphin and wahoo fishing is important, and provide information of how a community overall is involved with commercial and recreational fishing and could experience effects from regulatory actions for any species (see Amendment 5 for more details about the reliance and engagement indices). The identified communities in this section are referenced in Section 4.1.3 in order to provide information on how the alternatives could affect specific areas. Overall, the dolphin and wahoo fisheries are primarily recreational, and effort and landings predominantly occur in south Florida and the Florida Keys.

Commercial Dolphin and Wahoo Communities in the South Atlantic

Using the regional quotient to identify dolphin communities, Wadmalaw Island, South Carolina and Palm Beach Gardens, Florida make up about 1/3 of the total commercial dolphin landings and value. Most commercial dolphin communities are in Florida and include Mayport, St. Augustine, Cocoa, and Margate in addition to a few communities in the Florida Keys (Key West, Key Largo, Marathon, and Islamorada). North Carolina communities with higher regional quotients include Wanchese, Wrightsville Beach, Hatteras, and Beaufort. In addition to Wadmalaw Island, the community of McClellanville, South Carolina also has a high regional quotient for dolphin. No Georgia communities are identified as dolphin communties.

Communities with high regional quotients for wahoo are similar to those for dolphin. Wadmalaw Island, South Carolina and Palm Beach Gardens, Florida make up the highest levels of commercial dolphin landings and value. Wahoo communities in Florida include Key West, Margate, St. Augustine, Ft. Lauderdale, Miami, Jupiter, New Smyrna Beach, and Hialeah. North Carolina communities with higher regional quotients include Wanchese, Wrightsville Beach, and Morehead City. In addition to Wadmalaw Island, the community of Yonges Island, South Carolina also has a high regional quotient for

wahoo. No areas in Georgia are identified as wahoo communities.

Reliance on and Engagement with Commercial and Recreational Fishing in the South Atlantic
Reliance and engagement indices are used in Amendment 5 (SAFMC 2013) to identify several communities in the South Atlantic that are substantially engaged in commercial and recreational fishing. The communities of Islamorada, Key West, and Marathon, Florida; and Atlantic Beach, Beaufort, and Wanchese, North Carolina are both engaged and reliant on commercial fishing. The communities of Islamorada, Key West, Marathon, Florida, and St. Augustine, Florida; Atlantic Beach, Morehead City, Nags Head and Wanchese, North Carolina. Wrightsville Beach, North Carolina and Murrell's Inlet, South Carolina are above the threshold for recreational engagement and reliance. These communities would most likely have local economies with some dependence upon recreational fishing and its supporting businesses.

In terms of overall fishing dependence, the communities of Islamorada, Key West, and Marathon, Florida and Atlantic Beach, and Wanchese, North Carolina are engaged and reliant for both commercial and recreational fishing. These communities would have an especially strong dependence upon fishing throughout their overall economy with substantial support infrastructure.

Mid-Atlantic and New England Regions
The South Atlantic Council manages dolphin and wahoo through the Mid-Atlantic and New England regions. Overall, landings of these species in the Mid-Atlantic and New England regions are very low compared to landings in the South Atlantic, and management actions by the South Atlantic Council likely have minimal impacts on Mid-Atlantic and New England communities. More detailed information about these communities and how they were identified is described in Amendment 5 (SAFMC 2013).

Commercial Dolphin and Wahoo Communities in the Mid-Atlantic and New England Regions
Using the regional quotient to identify dolphin communities, New Bedford, Massachusetts is the leading port in terms of dolphin landings with Ocean City, Maryland a distant second. Several other communities follow with near comparable amounts of dolphin landed but far less than the leading community. Wahoo landings for 2011were far less than dolphin with only three communities reporting landings: New Bedford, Massachusetts; Hatteras, North Carolina; and Cape May, New Jersey.

Reliance on and Engagement with Commercial and Recreational Fishing in the Mid-Atlantic and New England Regions
Ocean City, Maryland; Belmar, Barnegat Light, Cape May, and Point Pleasant, New Jersey; Montauk, New York; Virginia Beach, and Watchapreague, Virginia; Boston, and New Bedford, Massachusetts; and Point Lookout, New York are all over either the engaged or reliant threshold for commercial fishing or both. In terms of recreational fishing engagement and reliance for Northeast communities with dolphin and wahoo landings, almost every community is over the threshold for either engagement or reliance for recreational fishing.

3.3.3 Environmental Justice Considerations

3.4 Administrative Environment

3.4.1 The Fishery Management Process and Applicable Laws

3.4.1.1 Federal Fishery Management

Federal fishery management is conducted under the authority of the Magnuson-Stevens Act (16 U.S.C. 1801 et seq.), originally enacted in 1976 as the Fishery Conservation and Management

Act. The Magnuson-Stevens Act claims sovereign rights and exclusive fishery management authority over most fishery resources within the EEZ, an area extending 200 nm 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 U.S. 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 South Atlantic Council, in cooperation with the Mid-Atlantic Fishery Management Council and the New England Fishery Management Council, is responsible for conservation and management of dolphin and wahoo in federal waters off the Atlantic states. These waters extend from 3 to 200 mi offshore from the seaward boundary of Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, and east Florida to Key West. The South Atlantic Council has thirteen 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. On the South Atlantic Council, there are two public members from each of the four South Atlantic States. Non-voting members include representatives of the U.S. Fish and Wildlife Service, U.S. Coast Guard, State Department, and Atlantic States Marine Fisheries Commission (ASMFC). The South Atlantic Council has adopted procedures whereby the non-voting members serving on the South Atlantic Council Committees have full voting rights at the Committee level but not at the full South Atlantic Council level. South Atlantic Council members serve three-year terms and are recommended by state governors and appointed by the Secretary from lists of nominees submitted by state governors. Appointed members may serve a maximum of three consecutive terms.

Public interests also are involved in the fishery management process through participation on Advisory Panels and through council meetings, which, with few exceptions for discussing personnel matters and litigation, are open to the public. The South Atlantic Council uses its Scientific and Statistical Committee (SSC) to review the data and science being used in assessments and fishery management plans/amendments. In addition, the regulatory process is in accordance with the Administrative Procedure Act, in the form of "notice and comment" rulemaking.

3.4.1.2 State Fishery Management

The state governments of Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia North Carolina, South Carolina, Georgia, and Florida have the authority to manage fisheries that occur in waters extending three nautical miles from their respective shorelines. The Department of Marine Fisheries is responsible for marine fisheries in Maine's state waters. In New Hampshire, marine fisheries are managed by the Marine Fisheries Division of the New Hampshire Fish and Game Department. Massachusetts's marine fisheries are managed by the Division of Marine Fisheries of the

Massachusetts Department of Fish and Game. Rhode Island's marine fisheries are managed by the Division of Fish and Wildlife of Rhode Island's Department of Environmental Management. Connecticut manages its marine fisheries through the Department of Energy and Environmental Protection. New York's marine fisheries are managed by the Division of Fish, Wildlife and Marine Resources of the Department of Environmental Conservation. New Jersey manages its marine fisheries through the Division of Fish and Wildlife of the Department of Environmental Protection. Pennsylvania manages its fisheries through the Pennsylvania Fish and Boat Commission. Marine fisheries in Delaware are managed by the Fisheries Section of the Division of Fish and Wildlife. Maryland's Department of Natural Resources manages its marine fisheries. Marine fisheries in Virginia are managed by the Virginia Marine Resources Commission. North Carolina's marine fisheries are managed by the Marine Fisheries Division of the North Carolina Department of Environment and Natural Resources. The Marine Resources Division of the South Carolina Department of Natural Resources regulates South Carolina's marine fisheries. Georgia's marine fisheries are managed by the Coastal Resources Division of the Department of Natural Resources. The Marine Fisheries Division of the Florida Fish and Wildlife Conservation Commission is responsible for managing Florida's marine fisheries. Each state fishery management agency has a designated seat on the South Atlantic Council. The purpose of state representation at the South Atlantic 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 Atlantic States are also involved through the ASMFC in management of marine fisheries. This commission was created to coordinate state regulations and develop management plans for interstate fisheries. It has significant authority, through the Atlantic Striped Bass Conservation Act and the Atlantic Coastal Fisheries Cooperative Management Act, to compel adoption of consistent state regulations to conserve coastal species. The ASFMC is also represented at the South Atlantic Council level, but does not have voting authority at the South Atlantic Council level.

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 ASMFC to develop and implement cooperative State-Federal fisheries regulations.

3.4.1.3 Management of Fisheries in The Bahamas

Fisheries Resources (Jurisdiction and Conservation) Regulations in The Bahamas are covered under Chapter 244-Section 48 of the Subsidiary Legislation of The Bahamas. The Bahamas allow for a total of 18 fish in any aggregation of king mackerel, tunas, dolphin, or wahoo. Filleting of dolphin and wahoo is not prohibited under Bahamian law. There are no size limits for dolphin or wahoo in The Bahamas. Foreign (e.g., U.S. vessels) are required to have a cruising and fishing permit onboard, otherwise the vessel has a possession limit of six fish. For more information, see: http://laws.bahamas.gov.bs/cms/images/LEGISLATION/SUBORDINATE/1986/1986-0010/FisheriesResourcesJurisdictionandConservationRegulations_1.pdf

3.4.1.4 Enforcement

Both the National Oceanic and Atmospheric Administration (NOAA) Fisheries Office for Law Enforcement (NOAA/OLE) and the United States Coast Guard (USCG) have the authority and the responsibility to enforce South Atlantic Council regulations. NOAA/OLE agents, who specialize in living marine resource violations, provide fisheries expertise and investigative support for the overall fisheries mission. The USCG is a multi-mission agency, which provides at sea patrol services for the fisheries mission.

Neither NOAA/OLE nor the USCG can provide a continuous law enforcement presence in all areas due to the limited resources of NOAA/OLE and the priority tasking of the USCG. To supplement at sea and dockside inspections of fishing vessels, NOAA entered into Cooperative Enforcement Agreements with all but one of the states in the Southeast Region (North Carolina), which granted authority to state officers to enforce the laws for which NOAA/OLE has jurisdiction. In recent years, the level of involvement by the states has increased through Joint Enforcement Agreements, whereby states conduct patrols that focus on federal priorities and, in some circumstances, prosecute resultant violators through the state when a state violation has occurred.

The NOAA Office of General Counsel Penalty Policy and Penalty Schedules can be found at www.gc.noaa.gov/enforce-office3.html.

Chapter 4. Environmental Consequences

4.1 Action 1: Exempt dolphin and wahoo harvested lawfully in The Bahamas from regulations that require them to be landed with head and fins intact in the U.S. EEZ.

4.1.1 Biological Effects

Needs updating

The biological effects of the proposed management measure to allow dolphin and wahoo fillets lawfully harvested in Bahamian waters to be exempt from the requirement that they be maintained with head and fins intact in the South Atlantic EEZ are expected to be negligible. Dolphin and wahoo subject to proposed measure would be lawfully harvested in Bahamian waters according to Bahamian regulations. Currently, fishermen can harvest a bag limit of up to 18 fish in any aggregation of king mackerel, tuna, dolphin, or wahoo per vessel as long as they possess the necessary permits issued by the government of The Bahamas. The management measure proposed in Dolphin Wahoo Amendment 7 would allow legally harvested dolphin and wahoo from The Bahamas to be filleted and transported on vessels through the South Atlantic EEZ to the U.S. However, the exemption would not apply to possession of bag limits in the U.S. EEZ, i.e. the bag limit of 10 dolphin and 2 wahoo per person would apply. Furthermore, vessels with dolphin and wahoo fillets would not be allowed to stop and fish in the U.S. EEZ, therefore, no biological impact on species included in the Dolphin Wahoo FMP would be expected.

***Alternatives*[1]**

*(preferred alternatives in **bold**)*

1. No Action. Dolphin and wahoo in or from the Atlantic EEZ must be maintained with head and fins intact. Such fish may be eviscerated, gilled, and scaled, but must otherwise be maintained in a whole condition.

2. Allow dolphin and wahoo brought into the U.S. EEZ from The Bahamas as fillets. The vessel must have stamped and dated passports to prove that the vessel passengers were in The Bahamas, as well as valid current Bahamian cruising and fishing permits onboard the vessel. The vessel must be in continuous transit in the U.S. EEZ. Two fillets of dolphin or wahoo, regardless of the size of the fillet will count as 1 fish towards the possession limit.

[1]See Chapter 2 for a more detailed description of the alternatives.

The Report to Congress on the Status of U.S. Stocks indicates dolphin is not overfished, and is not undergoing overfishing (http://www.nmfs.noaa.gov/sfa/statusoffisheries/SOSmain.htm). The overfished/overfishing status of wahoo is unknown, but all indications are that it is a healthy stock. Prager (2000) conducted an exploratory assessment of dolphin, but the results were not conclusive. A Southeast Data, Assessment, and Review (SEDAR) stock assessment for dolphin and wahoo is expected within the next 5 years. Life-history characteristics of dolphin and wahoo such as rapid growth rates, early maturity, batch spawning over an extended season, short life span, and varied diet help sustain fishing pressures on these species (Schwenke and Buckel 2008; McBride et al. 2008; Prager 2000; and Oxenford 1999). Furthermore, dolphin and wahoo are currently listed as species of "least concern" under the International Union for Conservation of Nature Red List, i.e., species that have a low risk of

extinction. Therefore, no adverse biological effects are expected from the management measure in Dolphin Wahoo Amendment 7.

4.1.2 Economic Effects

Needs updating

The current prohibition on bringing dolphin and wahoo fillets has several economic effects. Some fishermen have been confused about what is and is not allowed. While snapper and grouper species can be filleted and brought from The Bahamas into the U.S. EEZ, fishermen have received violations for mistakenly filleting dolphin and wahoo as they can with snapper grouper species. This leads to legal costs and additional economic losses due to missed work to appear in court.

Not allowing dolphin and wahoo to be brought back as fillets could impact whether or not fishermen will make trips. Many fishermen make trips to The Bahamas in order to keep the fish they catch to eat them later. Many dolphin and wahoo are too large to be stored whole and placed in a cooler. Some fishermen may become less likely to plan a trip to The Bahamas if they think they are not likely to be able to bring back fish they feel is safe enough to eat through proper refrigeration. Fillets are generally, easier to store and refrigerate than are fish with head and fins intact.

Allowing dolphin and wahoo to be brought into the Atlantic EEZ from The Bahamas is not expected to have significant economic effects in regards to the U.S. Atlantic dolphin wahoo fishery. However, it is not known whether allowing dolphin and wahoo fillets into the Atlantic EEZ would have an impact on the number of trips made to The Bahamas to fish for dolphin and wahoo. Vessels carrying dolphin or wahoo fillets could not stop or fish in the Atlantic EEZ; however, any negative economic effects would be expected to be minimal.

Allowing recreational fishermen to bring into the U.S. EEZ dolphin and wahoo fillets from fish caught in The Bahamas could potentially have a small effect on the number of fish that might otherwise be purchased by these fishermen once back in the U.S. However, the estimated impact of lost sales due to Bahamian dolphin and wahoo brought into the U.S. is expected to be minimal.

4.1.3 Social Effects

Needs updating

Overall, the effects of the proposed action on the fishing fleets, and associated businesses and communities, would be expected to be minimal. Allowing fillets to be brought into the U.S. EEZ from The Bahamas could contribute to improved quality and quantity of dolphin and wahoo caught on these trips. The proposed action could contribute to improved quality of dolphin and wahoo caught on these trips since whole fish would not have to be stored with head and fins intact. This management measure should be beneficial to South Atlantic fishermen harvesting dolphin and wahoo in The Bahamas, particularly for fishermen coming in and out of south Florida and the Florida Keys. It is not expected that removal of the requirement for fish to be intact would result in negative impacts on fishermen or communities in Florida or across the Atlantic coast. Additionally, allowing fillets to be brought into the Atlantic EEZ would make the Dolphin Wahoo FMP consistent with the regulations for snapper grouper species that allows fillets legally harvest in The Bahamas to be brought into the U.S. EEZ from The Bahamas.

4.1.4 Administrative Effects

Needs updating

National Marine Fisheries Service's (NMFS) Office of Law Enforcement (OLE), in conjunction with state enforcement agencies inspects some vessels for violations and issues citations as applicable. The management measure in Dolphin Wahoo Amendment 7 would make regulations regarding transport of dolphin and wahoo fillets from The Bahamas to the U.S. consistent with existing regulations for snapper grouper species and help reduce confusion among fishermen. However, NMFS Office of Law Enforcement has expressed concern over enforcing the bag limits in the U.S. EEZ, as well as the Lacey Act as it applies to vessels returning from The Bahamas. Other administrative burdens that may result from the management measure in Dolphin Wahoo Amendment 7 would take the form of development and dissemination of outreach and education materials for fishery participants and law enforcement.

4.2 **Action 2**: Exempt dolphin and wahoo harvested lawfully from The Bahamas from the bag and possession limits in the U.S. EEZ.

4.2.1 Biological Effects

4.2.2 Economic Effects

4.2.3 Social Effects

4.2.4 Administrative Effects

Alternatives[1]

*(preferred alternatives in **bold**)*

1. No Action. The bag limit for the possession of dolphin and wahoo lawfully harvested from The Bahamas, is 10 dolphin (60 dolphin per boat)/2 wahoo per person per day, in the U.S. EEZ.

2. Exempt dolphin lawfully harvested in The Bahamas from regulations for bag limits in the U.S. EEZ.

3. Exempt wahoo lawfully harvested in The Bahamas from regulations for bag limits in the U.S. EEZ.

[1]See Chapter 2 for a more detailed description of the alternatives.

4.3 **Action 3**: Require fillets of dolphin, wahoo, and snapper grouper species brought into the U.S. EEZ from The Bahamas to have the skin intact.

4.3.1 Biological Effects

4.3.2 Economic Effects

4.3.3 Social Effects

4.3.4 Administrative Effects

Alternatives[1]

*(preferred alternatives in **bold**)*

1. No Action. Snapper grouper fillets possessed in the U.S. EEZ from The Bahamas are currently not required to have skin intact.

2. **Snapper grouper fillets brought into the U.S. EEZ from The Bahamas must have the skin intact on the entire fillet.**

3. **Dolphin and wahoo fillets brought into the U.S. EEZ from The Bahamas must have the skin intact on the entire fillet.**

[1]See Chapter 2 for a more detailed description of the alternatives.

4.4 **Action 4**: In addition to possessing valid Bahamian cruising and fishing permits, require stamped and dated passports to prove that vessel passengers were in The Bahamas if the vessel is in possession of snapper grouper fillets in the U.S. EEZ.

4.4.1 Biological Effects

4.4.2 Economic Effects

4.4.3 Social Effects

4.4.4 Administrative Effects

Alternatives[1]

*(preferred alternatives in **bold**)*

1. No Action. Vessels bringing snapper grouper fillets into the U.S. EEZ from The Bahamas are required to have valid current Bahamian cruising and fishing permits onboard the vessel.

2. Vessels bringing snapper grouper fillets into the U.S. EEZ from The Bahamas are required to have stamped and dated passports to prove that the vessel passengers were in The Bahamas, as well as valid current Bahamian cruising and fishing permits onboard the vessel.

[1]See Chapter 2 for a more detailed description of the alternatives.

Chapter 5. Council's Choice for the Preferred Alternative

Chapter 6. Cumulative Effects

6.1 Biological

6.2 Socioeconomic

Chapter 7. List of Preparers

Table 7-1. List of preparers of the document.

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NMFS = National Marine Fisheries Service, SAFMC = South Atlantic Fishery Management Council, SF = Sustainable Fisheries Division, PR = Protected Resources Division, SERO = Southeast Regional Office, HC = Habitat Conservation Division, GC = General Counsel, Eco=Economics

Table 7-2. List of interdisciplinary plan team members for the document.

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NMFS = National Marine Fisheries Service, SAFMC = South Atlantic Fishery Management Council, SF = Sustainable Fisheries Division, PR = Protected Resources Division, SERO = Southeast Regional Office, HC = Habitat Conservation Division, GC = General Counsel, Eco=Economics

Chapter 8. Agencies and Persons Consulted

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List of Agencies, Organizations, and Persons Consulted
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SAFMC Dolphin Wahoo Advisory Panel
SAFMC Scientific and Statistical Committee
SAFMC Information and Education Advisory Panel
Florida Fish and Wildlife Conservation Commission
Georgia Department of Natural Resources
South Carolina Department of Natural Resources
North Carolina Division of Marine Fisheries
Atlantic States Marine Fisheries Commission
Gulf of Mexico Fishery Management Council
Mid Atlantic Fishery Management Council
New England Fishery Management Council
National Marine Fisheries Service
- Washington Office
- Office of Ecology and Conservation
- Southeast Regional Office
- Southeast Fisheries Science Center

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