# Draft Options Paper Modifications to Shrimp and Golden Crab Access Areas



Amendment 10 to the Coral, Coral Reefs, and Live/Hardbottom Habitats of the South Atlantic Region

Amendment 10 the Fishery Management Plan for the Golden Crab Fishery of the Atlantic

Amendment 11 to the Fishery Management Plan for the Shrimp Fishery of the Atlantic

## 8/26/2019



# BACKGROUND

The Joint Coral Amendment 10, Golden Crab Amendment 10, and Shrimp Amendment 11 was created to address issues identified by fishermen. Golden crab fishermen are requesting additional access in the Northern Zone, which is in the Miami Stetson Coral Habitat Area of Particular Concern (CHAPC). Rock shrimp fishermen requested adjustment to the eastern boundary of the Oculina Habitat Area of Particular Concern (OHAPC). Shrimpers are requesting transit provisions be revised to allow for ocean transit during cold-weather closures.

Golden crab fishermen requested modifications to CHAPCs, which were created in Comprehensive Ecosystem Amendment 1 (SAFMC 2009) and modified the Fishery Management Plan for Coral, Coral Reefs, and Live/Hardbottom Habitats of the South Atlantic Region (Coral FMP). CHAPCs were first developed in 2009 and were designed to protect known or likely areas of deep-water coral pinnacles. Some of the corals in the South Atlantic region are reef forming and some deep-water corals reefs are greater than 800 years old. Other corals in the region are non-reef forming and form bush- or tree-like structures. Non-reef forming black coral, for example, can live to be greater than 2,000 years old (Prouty et al. 2011). Coral Amendment 1 prohibited the use of bottom longlines, traps, pots, and bottom trawls within the CHAPCs to protect deep-water coral ecosystems. The CHAPCs were expanded in 2015 after new coral areas were discovered (SAFMC 2014). Golden crab and shrimp fishery access areas were created when the CHAPCs were established to allow for the golden crab and rock shrimp fisheries to operate in historic fishing areas outside of the known coral pinnacles.

Rock shrimp fishermen requested changes to the OHAPC, which prohibited the use of bottom trawls, bottom longlines, dredges, fish traps, and pots to protect Oculina coral mounds off Fort Pierce. The OHAPC was established through the original Coral FMP (SAFMC 1982). Anchoring in the OHAPC by fishing vessels was prohibited in 1996 through Coral Amendment 3 (SAFMC 1995). The OHAPC was expanded in Coral Amendment 4 to include newly discovered Oculina mounds and added two satellite areas (SAFMC 1998). The latest expansion of the OHAPC occurred in Coral Amendment 8, which expanded the area northward (SAFMC 2014) and added a transit provision for vessels transiting through the area.

Penaeid shrimp fishermen requested a change to the transit provision for cold-weather closures, which requires "*trawls with mesh size less than 4 inches, as measured between the centers of opposite knots when pulled taut, to be stowed below deck when transiting the closed areas.*" This transit provision is applicable out 25 nautical miles when adjacent state waters are closed. The SAFMC created the cold-weather closures and associated transit provisions to protect overwintering white shrimp if the abundance of white shrimp decreased by 80% (SAFMC 1993). The transit provisions have not changed since they were enacted in 1994. In 2017, shrimp fishermen indicated they could no longer store gear below deck as vessel design has changed. Adding to the issue, some fishermen stated that portions of the Intracoastal Waterway are not passable for some vessels forcing them to use the ocean to transit where they could be violating the law.

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## **Golden Crab**

The golden crab fishery is a limited entry fishery that typically operates off Florida but there are fishing zones throughout the South Atlantic region. The three fishing zones are: Northern Zone (north of 28° N lat), Middle Zone (25 to 28° N lat) and Southern Zone (south of 25° N lat) (**Figure 1.1**). In the Northern Zone, golden crab traps cannot be fished in less than 900 feet, and in the Middle and Southern zones, golden crab traps cannot be fished in less than 700 feet. The Southern Zone includes a sub-zone called the small-vessel sub-zone. Within this sub-zone, fishing vessels must be less than 65 feet and be permitted to fish in the southern zone.

When the Stetson Miami Terrace CHAPC was created, golden crab fishermen access in the Northern Zone was restricted. Golden crab fishermen requested that historic access to the fishery be reestablished in the Northern Zone at an advisory meeting in January 2013. There was some concern that CHPACs had limited fishable areas in the Northern Zone. Specially, the fishermen wanted historic information from a South Carolina Department of Natural Resource (SC DNR) study be plotted, landings from areas north of the Florida/Georgia border be analyzed, and a description of information used to close the area. The Council approved a motion at their March 2013 meeting to "to direct staff to work with the relevant APs regarding examination of modifying the northern limit of the northern zone golden crab fishing area." The northern limit refers the northern boundary of the golden crab northern zone access area at 29° N.

SC DNR conducted a two-year study into potential fishing areas for golden crab off Georgia and South Carolina (Wenner and Ulrich 1987, Wenner and Ulrich 1988). In general, the study caught higher densities of golden crab in areas with silt-clay or foraminifera tests substrate compared to areas with coral rubble substrate. The highest catch rates occurred from 1,200 to 1,800 feet. In this depth and shallower, male golden crab outnumbered female golden crab (female golden crabs cannot be retained). When deeper areas were fished, more female golden crab were caught than male.

The researchers indicated that coral mounds occurred in depths from 1,500 to 1,800 feet and reported one large mound in slightly deeper water than most of the golden crab. The study also reported that exploration off Onslow Bay indicated there were very few golden crab.

The study described the fishing vessel Heavy Duty II as a vessel that was operating in the fishery in 1984 and 1985 off Georgia and South Carolina. The fishery did not take off mainly due to a lack of capital and lack of suitable marketing outlets. A new fishing vessel moved into the Charleston area in 1987 and began fishing.

Landings data for the trips that occurred in 1984 and 1985 have not been found. Searches were done in the Accumulated Landings System, Atlantic Coast Cooperative Statistic Program, and South Carolina Department of Natural Resources. South Carolina landings of golden crab were reported in 1987, 1995, and 1996; however, these data are confidential. The fishing location was not reported. No landings from Georgia were reported in the landings databases above.

Information used to select the CHAPCs and fishery access areas in 2009 were based on reports provided to the Council on coral resources in the South Atlantic region (Appendix A-D in CEBA 1 [SAFMC 2009]) and discussions of the Coral, Habitat Protection, Deep-water Shrimp, Golden

Crab, and Law Enforcement Advisory Panels (SAFMC 2009). The Council wanted to provide historic access to the fishery using location of fishing effort (SAFMC 2009). Council staff met with golden crab fishermen during the development of the amendment to identify important fishing areas and this along with suggestions from the Coral AP were used to designate the areas. There was (is) limited information on where the golden crab fishery operated off Georgia and South Carolina and there were only three years with South Carolina landings compared to off Florida, which has had landings every year since 1986 when the fishery started.

Since the development of these CHAPCs, a coral habitat predictive model (Kinlan et al. 2012) and the Deep-Sea Coral Research and Technology Program Data Portal<sup>1</sup> were developed (**Figure 1.2**). The predictive model indicated deep-water coral habitat was likely the Stetson/Miami Terrace CHAPC, the CHAPC which includes the Golden Crab Northern Zone. Additionally, locations of observed from the Deep-Sea Coral Research and Technology Program Data Portal were common in the Stetson Miami CHAPC (**Figure 1.3**). Many of these observed points were used to develop the boundaries for the CHAPC in 2009 and create access areas around known coral locations. A new predictive coral habitat model is being developed to incorporate new methods for spatial modelling and coral data collected in 2017, 2018, and 2019 in the South Atlantic region. Prior to use in management, the new habitat model will be reviewed by the SAFMC SSC at their October 2019 meeting.

<sup>&</sup>lt;sup>1</sup> <u>https://deepseacoraldata.noaa.gov/website/AGSViewers/DeepSeaCorals/mapSites.htm</u>



**Figure 1.1.** Map of the fishing zones for the golden crab fishery in the South Atlantic region. Areas in black are golden crab fishery access areas inside Coral Habitat Areas of Particular Concern except for the area shaded in black in the Southern Zone (Small-Vessel Sub-Zone). Other shaded areas are closed areas to golden crab fishing.



**Figure 1.2**. Map of predicted coral areas for framework forming Scleractinia and *Oculina varicosa* from Kinlan et al (2012). Darker blues indicate higher probability of coral. Areas colored in salmon are closed areas to golden crab fishing and yellow are golden crab fishery access areas in the CHAPC. Note: Observations only go through 2014 and do not include data collected in 2017, 2018, and 2019.

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**Figure 1.3**. This is the same map as **Figure 1.2** with observed locations of coral (black squares), closed areas to golden crab fishing (salmon squares), and golden crab fishery access areas (yellow square). The black squares are reported locations of coral from the Deep-Sea Coral Research and Technology Program Data Portal. Note: Observations only go through 2014 and do not include data collected in 2017, 2018, and 2019.

Adding new fishing area for golden crab should not risk exceeding the annual catch limit for golden crab as the current catches are less than 50% of the annual catch limit (**Table 1, Figure 1.4**). The golden crab fishery is limited entry, and the number of fishermen in each zone are limited to reduce competition for space.

**Table 1**. Commercial landings of golden crab in the South Atlantic region from 2008 to 2018. The annual catch limit (ACL) was put in place in 2012. Source: Atlantic Coast Cooperative Statistics Program Non-Confidential Data Warehouse.

Spec	eies		Year	ACL (lbs)	Landings (lbs)	Trips Reported	
Golden Crab		2008		485,273	242		
Golden Crab		2009		545,307	291		
Gold	len Crab		2010		560,122	339	
Gold	len Crab		2011		582,284	367	
Gold	len Crab		2012	2,000,000	862,302	295	
Gold	len Crab		2013	2,000,000	863,909	240	
Gold	len Crab		2014	2,000,000	894,352	239	
Gold	len Crab		2015	2,000,000	755,583	164	
Gold	len Crab		2016	2,000,000	668,880	148	
Gold	len Crab		2017	2,000,000	606,106	129	
Gold	len Crab		2018	2,000,000	343,909	104	
Pounds	1,000,000 900,000 800,000 700,000 600,000 500,000 400,000 300,000 200,000						
	0	99 <sup>1</sup> ,99° ,9	39, <sup>5</sup> 0, <sup>5</sup> 0, <sup>5</sup> 0,	500, 500, 500, 500, 500, 500, 500, 500,	9 <sup>1</sup> ,29 <sup>2</sup> ,29 <sup>9</sup> ,29 <sup>1</sup> ,29 <sup>1</sup> Year	501, 501, 501, 501, -	2016 2017

**Figure 1.4**. Landings of golden crab off the Atlantic Coast from North Carolina through Florida, 1997-2018. Source: Atlantic Coast Cooperative Statistics Program Non-Confidential Data Warehouse.

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A separate action will consider monitoring and enforcement for the golden crab fishery. If vessels are required to have vessel monitoring systems, this will help law enforcement monitor the fishery. However, vessel monitoring systems only monitor where the vessel is located and not where the traps are located. A requirement for vessel monitoring systems for golden crab vessels was discussed in CE-BA 1 but was not selected as a preferred alternative. This option was considered again in in Golden Crab Amendment 6. The Council recommended stopping work on the amendment in March 2013. At that time the Council had a preferred sub-alternative to require vessel monitoring systems<sup>2</sup>.

### **Rock Shrimp**

In 2015, CHAPCs and OCHAPC were expanded due to the discovery of additional coral mounds. The expansion of these areas had little impact on the golden crab fishermen. However, rock shrimp fishermen were very concerned with the northern expansion of the OHAPC, particularly the eastern edge. The Council worked with the Coral and Deep-water Shrimp Advisory Panels to best protect coral and allow for the fishery to operate in historic fishing areas. During and after approval of Coral Amendment 8, the Deep-water Shrimp Advisory Panel requested the line move westward because there was no coral in the area. The eastern edge of the Oculina Bank was mapped in 2017 to provide better resolution into where the coral habitat and soft bottom sediment occurred (**Figure 1.5**).

<sup>&</sup>lt;sup>2</sup> See minutes from the South Atlantic Fishery Management Council March 2013 Golden Crab Committee Meeting.



**Figure 1.5**. Map of Oculina Bank and Stetson-Miami Terrace along with the new NOAA mapping data from 2017. The arrows indicate the beginning of the mapping. Due to the resolution of the data, an online <u>map</u> is available to look at mapping data and several other data layers.

The catches of rock shrimp have been variable over the past decade (**Table 2, Figure 1.6**). Storms, abundance of other shrimp, regulations, and other factors have likely impacted rock shrimp landings. Historically (1980s and 1990s), rock shrimp catches were much higher than they are today. But the fishery had its best year since 2009 in 2017. **Table 2**. Commercial landings of rock shrimp in the South Atlantic region from 2008 to 2017.

Species	Year	Landings
Rock Shrimp	2008	1,875,108
Rock Shrimp	2009	3,853,240
Rock Shrimp	2010	1,382,142
Rock Shrimp	2011	1,260,309

Rock Shrimp	2012	238,649
Rock Shrimp	2013	740,806
Rock Shrimp	2014	380,012
Rock Shrimp	2015	1,054,522
Rock Shrimp	2016	285,646
Rock Shrimp	2017	2,768,126

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**Figure 1.6**. Landings of rock shrimp off the Atlantic Coast from North Carolina through Florida, 1982-2017. Source: Atlantic Coast Cooperative Statistics Program Non-Confidential Data Warehouse.

## **Shrimp Transit Provisions**

At the March 2019, Council meeting, it was pointed out the transit provisions for vessels possessing shrimp through closed areas were not consistent and the cold-weather closure transit provision was not possible for some vessels. Transit provisions in the South Atlantic region have been established for cold-weather closure, marine protected areas, spawning special management zones, and Oculina Bank Habitat Area of Particular Concern. Each area has a different transit provision and consistent regulations among the transit provisions could enhance compliance by the fishermen. Additionally, the transit provision for the cold-weather closure, which requires gear stowage below deck, may not be possible for some vessels and transit within the Intracoastal Waterway may not be possible. Transit provisions for closed areas in the South Atlantic, Gulf of Mexico, and Greater Atlantic are provided as potential options to consider for the cold-weather closure transit provision.

# POSSIBLE MANAGEMENT APPROACHES

Typical management approaches for protecting deep-water coral has been to prohibit the use of anchor, anchor and chain, or grapple and chain by all fishing vessels and prohibit the use of bottom-disturbing fishing gear. Bottom-disturbing fishing gear include bottom longlines, trawls, dredge, and pots. Unlike other habitats, coral cannot recover quickly after the area has been impacted.

# POTENTIAL ISSUES

## Issue 1: Fishermen requested the boundaries of the golden crab fishery access areas in the Stetson Miami Coral Habitat Area of Particular Concern (CHAPC) be modified to allow access to historic golden crab fishing locations.

**Reason for including**: The Council motion from March 2013 indicated there was interest to investigate the northern boundary of the Golden Crab Northern Zone access areas based on historic fishing areas. Also, fishermen suggested there were issues with competition for space in this area, which is limited.

Management options to consider:

**Option 1** – Do not develop an action to address the issue

**Option 2** – Develop a suite of alternatives based on the coral habitat probability model that will be reviewed by the SSC in October 2019

**Option 3** – Develop an alternative based on depth contours for the golden crab northern zone access area

Others?

#### Discussion

Fishermen generally fish for golden crab from 1,00 to 2,400 feet on muddy bottom avoiding areas with high relief or coral. Densities of golden crab tend to be higher in mud and silty areas (Wenner and Ulrich 1987, Reed et al. 2017). The location of potential access areas should focus on areas where deep-sea corals do not exist, and high catches of crab can occur. The Stetson-Miami Terrace CHAPC was created to protect deep-sea coral and the connectivity of the habitats. **Option 1** would maintain current level of protection for coral. **Option 1** was created to protect deep-water coral, which can be impacted by golden crab traps, lines, and grapples. **Option 2** would include a series of sub-alternatives that would incorporate information from recent coral habitat probability models (Kinlan et al. 2012, Hourigan et al. 2017). The first models were developed by Kinlan et al. (2012) and have been expanded to incorporate information for several different coral taxa and new methods (Hourigan et al. 2017). New models are being developed and will be reviewed by the SAFMC SSC in the October 2019 meeting, which would incorporate data collected in 2017, 2018, and 2019. **Option 3** could

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include an option to follow the depth ranges at the northern end of the access area in the Northern Zone northward. Most of the **Option 3** would be located within the Stetson-Miami Terrace CHAPC.

# Issue 2. Monitoring and enforcement of the golden crab fishery is difficult due to the distance from shore that the fishery operates.

Reason for including: The Council recommended stopping work on Amendment 6 to the Golden Crab Fishery Management Plan in March 2013 mainly Council because the Council did not want to pursue a catch share system for the golden crab fishery. Within the amendment, the Council had a preferred sub-alternative for monitoring and enforcement at their March 2013:

**"Preferred Alternative 2.** Require all fishing vessels permitted in the golden crab catch share program to be equipped with VMS. The purchase, installation, and maintenance of VMS equipment must conform to the protocol established by NMFS in the Federal Register. **Preferred Sub-alternative 2c.** The purchase of VMS equipment will be reimbursed by the National OLE VMS reimbursement account if funding is available. Installation, maintenance, and communication costs will be paid for or arranged by the shareholder."

The below options could revisit monitoring and enforcement for the golden crab fishery.

**Option 1** – No Action

Option 2 – Use alternatives from Golden Crab Amendment 6

**Option 3** – Use alternatives from most recent amendment in Southeast region to consider requiring location information

**Option 4** – Develop an alternative that would consider pingers or other gear that could be placed on pots.

#### Discussion

Pot gear can damage coral and coral habitat. Although fishermen try to avoid these areas, protection of coral and coral habitats is needed because of sensitivity of coral and coral mounds to fishing gear interactions. Since fishery access areas in coral habitat areas of particular concern (CHAPC) are provided for fishermen targeting golden crab and rock shrimp based on historic fishing areas, vessel monitoring systems may be useful to assist for law enforcement in monitoring these offshore fisheries around sensitive habitats. The rock shrimp fishery has a requirement for vessels to be equipped with vessel monitoring systems. The golden crab fishery does not have a requirement for vessels to have vessel monitoring systems would assist law enforcement in monitoring the golden crab fishery and potential provide information on how the fishery operates (**Option 2**). Since the Council is considering an additional access area in the Stetson-Miami CHAPC based on historic fishing information, the Council could consider just fishermen with a Northern Zone permit to fish within this proposed area (**Issue 1**) to have vessel monitoring system **(Option 3**).

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Coral mounds have been identified around the proposed access area and requiring vessel monitoring will enable law enforcement to better track the fishing location to ensure incursions into protected areas do not occur. An issue that arises for the golden crab fishery is that vessel monitoring systems are on the vessel and not where the traps are fishing. Due to currents, it may appear a golden crab vessel is fishing in a closed area when they are fishing in an open area. Fishermen indicated that confining the vessel into access areas based on vessel location may lead to safety issues while retrieving gear during inclement weather.

Instead of monitoring the fishing vessel, the golden crab fishermen could be required to have a monitoring device or pinger installed on their trawl lines (**Option 4**). This will enable law enforcement to monitor the location of the traps, but law enforcement will need to be in the vicinity of the gear to detect the gear's location. Gears such as pingers do not have the capability to archive location information. Pingers are required in the New England Small Mesh Gillnet Fishery as part of the Harbor Porpoise Take Reduction Plan. The pingers may decrease the potential for lost gear as they have been used to locate displaced gear.

Another option could be to require fishermen to archive GPS locations and map the location of the initial trap, middle, and last trap in the trawl line (**Option 5**). Law enforcement would not have real-time data on fishing location, but this could provide information on bottom bathymetry and fishing location.

### Issue 3. Rock shrimp fishermen have requested adjustment the Oculina Bank Habitat Area of Particular Concern (OHAPC) boundary created in Coral Amendment 8.

Reason for including: Coral Amendment 8 created additional OHAPC to protect newly discovered Oculina coral mounds. Fishermen have requested the eastern edge of the Oculina Bank be reviewed to determine if historic trawling areas could be reopened to fishing.

Rock shrimp fishermen requested the Council consider four options which are listed below along with an option for not changing the Oculina Bank HAPC boundary.

**Option 1** – Do not develop an action to address the issue

**Option 2** – Develop an alternative based on the boundary on the eastern edge of the Oculina Bank OHAPC expanded in Coral Amendment 8 to follow the 94-meter contour.

**Option 3a** – Develop alternatives based on the boundary on the eastern edge of the Oculina Bank OHAPC expanded in Coral Amendment 8 to follow contour line:

**a.** Presented by fishermen as part of November 2013 public comment.

Easte	rn		
Edge		Latitude	Longitude
	1	29.725	-80.2634

2	29.58102	-80.2502
3	29.56872	-80.2644
4	29.49025	-80.2544
5	29.29213	-80.1728
6	29.18887	-80.1482
7	28.88742	-80.0907
8	28.81005	-80.0759
9	28.7659	-80.0681
10	28.5	-80.017

**b**. Presented by fishermen as part of March 2014 public comment.

Eastern				
Edge		Latitude	Longitude	
-	1	29.725	-80.2634	
4	2	29.58102	-80.2502	
3	3	29.56872	-80.2644	
4	1	29.49025	-80.2544	
ŗ	5	29.29213	-80.1728	
(	5	29.183	-80.1442	
-	7	29.05973	-80.1246	
8	3	28.90697	-80.0898	
9	Э	28.81013	-80.0728	
1(	)	28.5	-80.017	

**Option 4**. Develop alternatives to the eastern edge of the Oculina Bank OHAPC south of 28.5 N based on depth

Others?

#### Discussion

Rock shrimp fishermen requested a review of the Oculina Bank eastern edge that closed in the Coral Amendment 8 and previously during the development of the Oculina Bank to determine if historic trawling areas could be reopened to fishing. Fishermen stated they trawled with the eastern boundary during public comment in November 2013 and March 2014 (**Options 2** and **3**). Mapping was done in July 2017, which can be reviewed for the area north of 28.5 N. The area south of 28.5 N was requested based on depth contour (**Option 4**) indicating very little relief

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changes, which may indicate the bottom is not suitable habitat for Oculina coral. An online map tool was created to look at the available data for the area and incorporate information on the proposed areas, observed coral locations, and current mapping data. The Coral AP indicated there is concern of sedimentation of coral habitats due to the plum from the fishing gear. A buffer between the coral habitat and fishing area could be considered in the development of the boundaries. When new coral probability maps are created, they will include coral probability maps for Oculina coral. These new maps will be reviewed by the SAFMC SSC in October 2019.



**Figure 1.7**. This is same map as **Figure 1.6** with an example of a shrimp fishery access area in the Northern Zone (gray box). Areas colored in salmon are closed areas to trawling.

### Issue 4. Shrimp fishermen requested transit provisions for coldweather closures be modified.

Reason for including: During the most recent cold-weather shrimp closure (2017), shrimpers indicated the stowage requirement to transit the area in the ocean was no longer possible. Additional options were included based on the Council's discussion in June 2018.

Option 1 – Do not develop an action to address the issue

**Option 2** – Develop alternatives for modifying the cold-weather transit provisions based on the suite of transit provisions in **Table 3** 

Other?

Transit Provisions
Brown shrimp, pink shrimp, or white shrimp may be possessed on board a fishing vessel in a closed area, provided the vessel is in transit and all trawl nets with a mesh size less than 4 inches (10.2 cm), as measured between the centers of opposite knots when pulled taut, are stowed below deck while transiting the closed area. For the purpose of this paragraph, a vessel is in transit when it is on a direct and continuous course through a closed area.
appropriately stowed means a trawl or try net may remain on deck, but trawl doors must be disconnected from such net and must be secured.
Transit means direct, non-stop progression through the area. Fishing gear appropriately stowed means trawl doors and nets must be out of the water, but the doors are not required to be on deck or secured on or below deck.
Fishing for or possession of rock shrimp in or from the area is prohibited, except for a shrimp vessel with a valid commercial vessel permit for rock shrimp that possesses rock shrimp may transit through the area if fishing gear is appropriately stowed. For the purpose of this paragraph, transit means a direct and non-stop continuous course through the area, maintaining a minimum speed of five knots as determined by an operating VMS and a VMS minimum ping rate of 1 ping per 5 minutes; fishing gear appropriately stowed means that doors and nets are out of the water.
A vessel may transit the area with non-stop progression through the area and fishing great appropriately stowed. A trawl net may remain on deck, but trawl doors must be disconnected from the trawl gear and must be secured.
A vessel may transit with non-stop progression through the South Atlantic EEZ with fishing gear appropriately stowed with trawl doors and nets out of the water and the bag straps must be removed from the net.

**Table 3**. Transit provision regulations for managed areas from the South Atlantic, Gulf ofMexico, Mid-Atlantic and New England regions.

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	Vessels may transit the area provided bottom-tending trawl nets are out of the water and stowed on the reel and any other fishing gear that is prohibited in
Northeast Coral Zones	these areas is onboard, out of the water, and not deployed. Fishing gear is not
	when a vessel transits the area.
	A vessel may transit the area, unless otherwise restricted, provided that its gear
Northeast Protected Areas	is stowed and not available for immediate use as defined in below. A vessel may transit the area, provided there is a compelling safety reason to enter the area and all gear is stowed and not available for immediate use as defined below.
Coral Habitat Area of Particular Concern	There are no restrictions for shrimp vessels transiting CHAPCs

#### Discussion

The Council requested staff begin working on options to consider regulations for the transit provisions for vessels possessing shrimp. It was pointed out that many vessels may not be able to store their gear below deck as required during a cold-weather closure. The Council then discussed whether all transit provisions for vessels possessing shrimp should be similar. The four sub-actions were designed to enable discussion of the different transit provisions. There might be instances when transiting a closed area should require different provisions.

Vessels possessing shrimp transiting a closed area due to the cold-weather closure are likely vessels targeting Penaeid shrimp. This closed area is in much shallower water when retrieval time is reduced. Since retrieval time is shortened due since the scope of the trawl lines is shorter, it might be necessary to have more restrictive gear stowage requirements compared to areas in deeper waters.

Vessels transiting marine protected areas and spawning special management zones have a similar regulation to those created in the Gulf of Mexico when transiting a protected area. These areas vary in size and depth and are designed to protect snapper grouper species and their habitats from fishing impacts. The marine protected areas and spawning special management zones were created in the Snapper Grouper Fishery Management Plan (FMP). The Snapper Grouper FMP would need to be added to the list of amended plans if these are considered for changes.

The Oculina Bank HAPC transit provision was revised in Coral Amendment 8. The Oculina Bank has been designed to protective sensitive Oculina coral pinnacles. The transit provision requires vessels with rock shrimp to have a VMS operating at a specified minimum ping rate, maintain at a minimum speed of five knots, and have doors and gear out of the water. Although stowage requirements are less strict for the Oculina Bank, due to the short amount of time it takes to transit the area, VMS, speed requirement, and ping rate allow enforcement of the protected area without a direct observation of the infraction.

Examples of Northeast Coral and Protected areas were provided based on the recommendations of the Council. The regulation for the Northeast Coral protected areas requires gear to be "onboard, out of the water, and not deployed."

# Issue 5. New research has identified coral mounds and coral habitat that are not protected by CHAPCs

**Reason to <u>consider</u>:** Research cruises mapping and surveying deep-water bottom habitat were conducted in the South Atlantic region in 2017, 2018, and 2019. Several coral mounds and new coral habitat were observed outside of current CHAPCs. Additionally, new coral habitat probability models will be developed for the SAFMC SSC October 2019 Meeting.

Option 1 - Do not modify the Coral Habitat Areas of Particular Concern (CHAPC) boundaries.

**Option 2** – Develop alternatives to modify or create Coral Habitat Areas of Particular Concern (CHAPC) boundaries based on observed coral locations.

**Option 3** – Develop alternatives to modify or create Coral Habitat Areas of Particular Concern (CHAPC) boundaries based on coral habitat probability models.

Others?

#### Discussion

In 2017, 2018, and 2019, research cruises conducted high resolution mapping and habitat verification to develop habitat classifications for deep-water coral habitat for previously unexplored regions in the South Atlantic region. These research cruise identified significant coral mounds in the region, some of which are not currently in Coral Habitat Areas of Particular Concern (**Figures 2.1** and **2.2**).

Based on the findings of these research cruises, NMFS will be updating coral habitat probability maps for the region. These coral habitat probability maps have not been used for management in the past but could be considered in creating new or modifying the CHAPCs. The methods for the coral habitat probability maps will be reviewed by the SAFMC SSC in October 2019 and the SSC will make a recommendation on their usefulness in managing deep-water corals. Once the SSC makes their recommendation, maps will be developed to demonstrate potential CHAPCs designs or modifications.

In addition to creating or modifying CHAPCs, a system management plan should be developed as was done for Snapper Grouper Amendment 14 and 36. A system management plan is plan to evaluate the effectiveness of a managed area in achieving the goals set out by the Council and a framework for adjusting management. A system management plan includes goals and objectives for the area, knowledge gaps, action items to be completed, metrics for evaluation, and timelines for completing action items and review. The system management plan will be created with the assistance of the SAFMC System Management Plan Workgroup. The system management plan is not required for amendment approval, but it does aid in communication with stakeholders on the goals and objectives for the area, the plan for evaluation, and the duration of management.



Figure 2.1. Lophelia coral thicket observed in the South Atlantic region. Some of the coral mounds were over 100 feet tall. Image credit. NOAA Office of Ocean Exploration and Research, Windows to the Deep 2019.



Figure 2.1. Map of Golden Crab Access Areas, Stetson-Miami Terrace CHAPC, Oculina Bank HAPC, and EX1903L2 dive locations which observed coral. Dive locations provided by NOAA Office of Ocean Exploration.

## PURPOSE FOR ACTION

The purpose of Coral Amendment 10, Golden Crab Amendment 10, and Shrimp Amendment 11 is to modify the access areas for the golden crab and rock shrimp fisheries while maintaining protection of deep-water coral, develop an appropriate monitoring system for the golden crab fishery to ensure protection of deep-water coral, and modify transit provisions in the shrimp trawl fishery to make the regulations compatible with vessels.

## NEED FOR ACTION

The need for Coral Amendment 10, Golden Crab Amendment 10, and Shrimp Amendment 11 is to increase access in the golden crab fishery and better achieve optimal yield, modify access in the rock shrimp fishery, revise transit provisions for shrimp trawlers to reflect how vessels are designed, and provide protection to essential fish habitat and coral.

# DRAFT TIMELINE

Draft options paper reviewed - September 2019

Scoping hearings - November 2019

Review scoping comments and develop actions/alternatives - December 2019

Review effects analysis and approve for public hearings - June 2020

Public hearings - August 2020

Review public hearings comments and approve all actions and alternatives - September 2020

Final action to approve for Secretarial review – December 2020