Draft Options
Coral Amendment 10
Establish a Shrimp Fishery Access Area Along the Northern Extension of the Oculina Bank Coral HAPC

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

10/27/20

BACKGROUND

Coral Amendment 10 would address expanded fishing area access identified by rock shrimp fishermen. These fishermen requested access to historic fishing areas along the eastern boundary of the northern extension of the Oculina Bank Coral Habitat Area of Particular Concern (OHAPC), implemented in Amendment 8 to the Fishery Management Plan for Coral, Coral Reefs and Live Hard Bottom Habitat in the South Atlantic Region (Coral FMP).

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 coral habitat and added two satellite areas (SAFMC 1998). With the discovery of an extensive northern distribution of Oculina and more extensive *Lophelia* deepwater coral ecosystems, regulations expanding OHAPC and deepwater CHAPCs were implemented through Coral Amendment 8 (SAFMC 2014). Coral Amendment 8 expanded portions of the northern and western boundaries of the OHAPC (Figures 1.1 and 1.2), allowed transit through the OHAPC by fishing vessels with rock shrimp on board, and modified vessel monitoring system (VMS) requirements for rock shrimp fishermen transiting through the OHAPC with rock shrimp on board.

During development of Coral Amendment 8, the Council worked with the Habitat and Ecosystem, Coral, and Deepwater Shrimp Advisory Panels to find ways to best protect deepwater coral ecosystems while allowing for the fishery to operate in historic fishing areas. In response to comments received during the scoping and public hearing process, the Council modified the eastern boundary of the northern extension of the Oculina Bank two separate times at the request of industry and in the final version approved by the Council. However, after approval of Coral Amendment 8, some rock shrimp fishermen were concerned with the eastern edge of the northern expansion of the OHAPC line moved further westward because at times the fishery operated slightly inshore of the boundary. The eastern edge of the Oculina Bank north of 28.5 N. was subsequently mapped in 2017 (Figures 1.4, 1.6 and 1.7) to provide better resolution into where the coral habitat and soft bottom sediment occurred. However, other than use of conductivity, temperature, and depth (CTD) electronic instrument casts in two locations (Figure 1.5), no validation of habitat type, species use or visual observation documenting distribution of coral rubble, low relief hard bottom or low relief deepwater coral habitat with use of remotely operated vehicles (ROV) was conducted.

The Deepwater Shrimp AP in 2018 recommended the Council move the eastern boundary of the northern expansion in Coral Amendment 8 westward based on recommendations made by rock shrimp fishermen. The Coral AP discussed fishing closer to the high relief coral habitat and indicated there is concern of sedimentation due to the plume from the fishing gear. In subsequent Council discussion members indicated concern over potential interaction of the gear and juvenile deepwater snapper grouper species which were known to associate with the base of the coral habitats and mounds which are also found along the eastern boundary.

Subsequently rock shrimp fishermen have requested the eastern edge of the northern extension of the Oculina Bank created in Coral Amendment 8 be reviewed to determine if historic trawling areas could be reopened to rock shrimp fishing.

DRAFT PURPOSE FOR ACTION

The purpose of Coral Amendment 10 is to increase rock shrimp fishery access to an area along the eastern boundary of the northern extension of the Oculina Bank Coral Habitat Area of Particular Concern while maintaining protection of the Oculina deepwater coral ecosystems.

DRAFT NEED FOR ACTION

The need for Coral Amendment 10 is to provide access to historic rock shrimp fishing grounds along the eastern edge of the northern extension of the Oculina Bank Coral Habitat Area of Particular Concern.

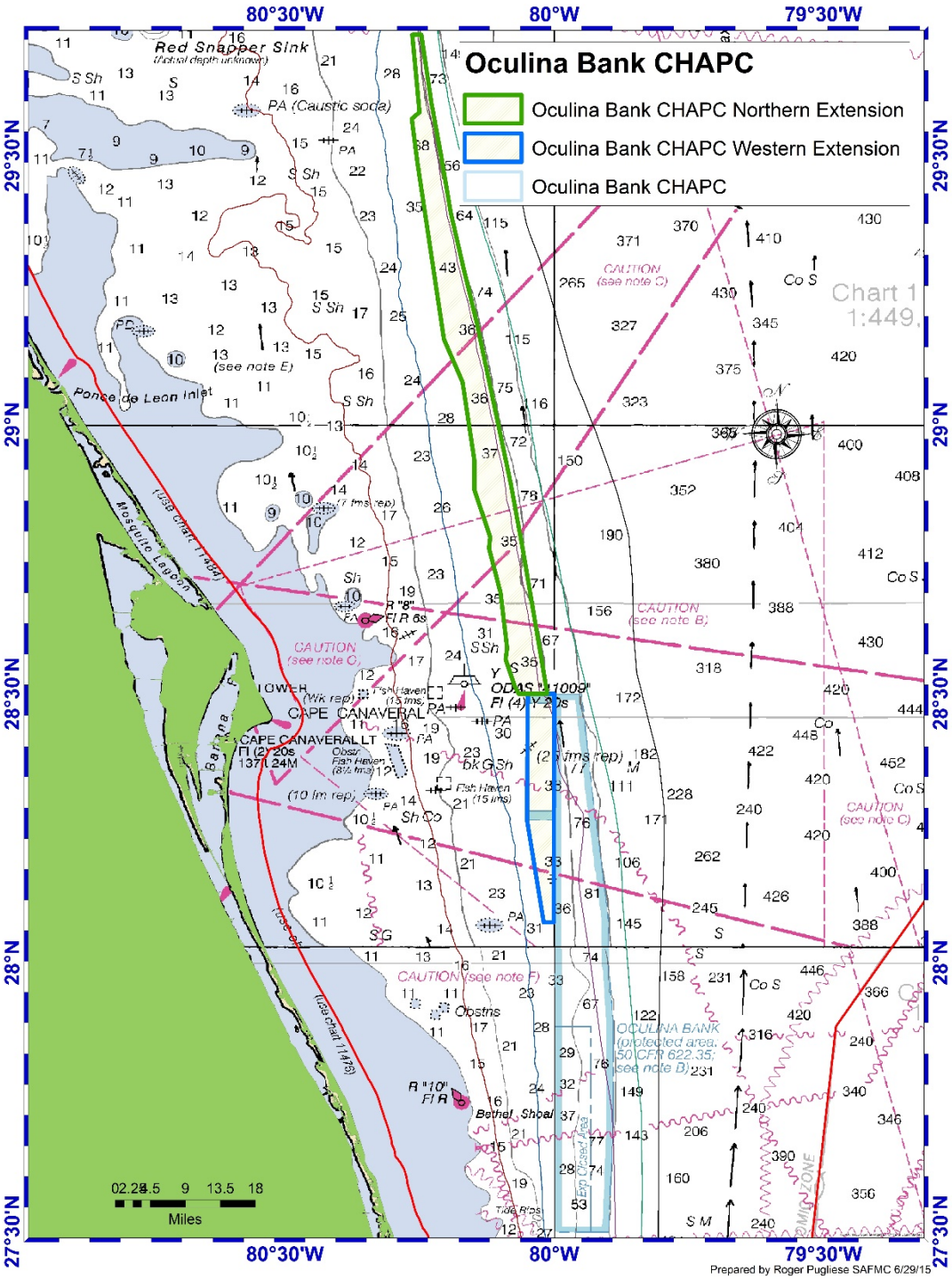


Figure 1.1. Map of Oculina Bank CHAPC Highlighting Coral Amendment 8 Expansions North and West. Source: Roger Pugliese SAFMC Staff.

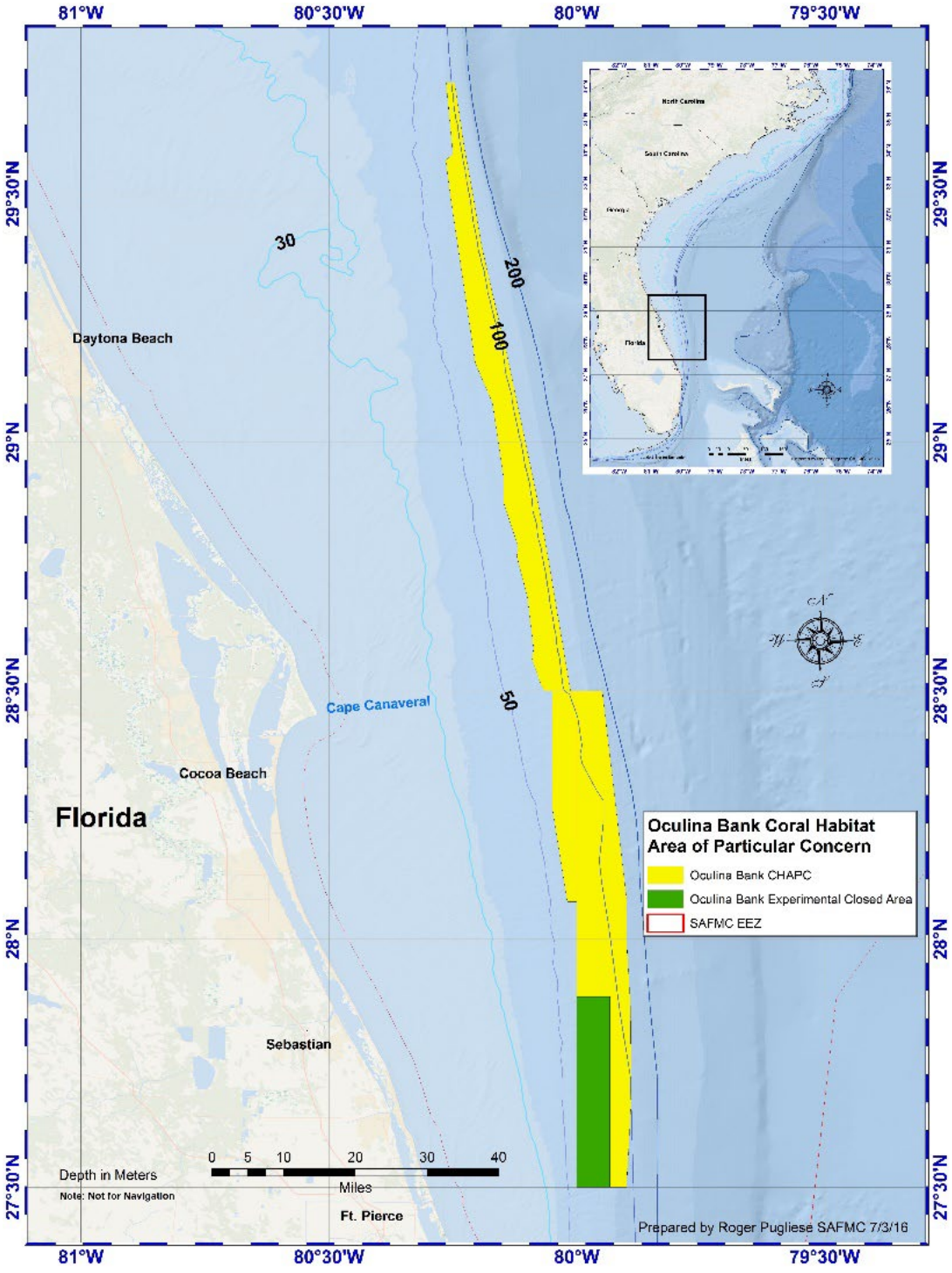


Figure 1.2. Map of Oculina Bank CHAPC with Implementation of Coral Amendment 8 Source: Roger Pugliese SAFMC Staff.

Multi-beam mapping surveys

The total area of seafloor mapped during the expedition was 480 km2 off the south side of Florida and the *Oculina* Bank mapped during leg 2 (Figure 4). The area mapped during leg 1 was mostly at depths ranging between 200-300 m, and included a continuous ridge feature at approximately 250 m depth that should be explored in the future. The area mapped on leg 2 was mostly at depths shallower than 150 m, and showed some relief in close proximity of the existing *Oculina* Bank Coral HAPC.

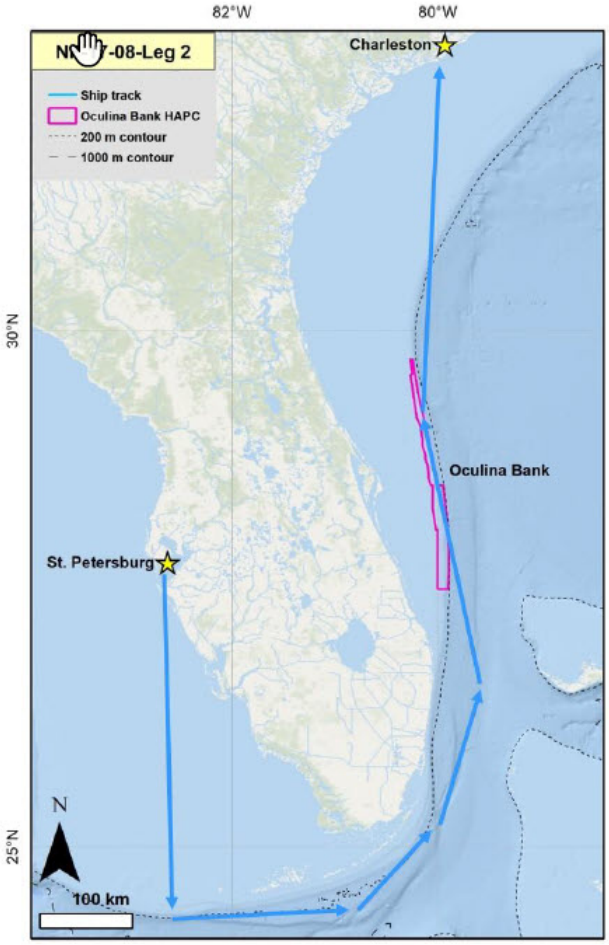


Figure 1.3. Map showing the operational area of leg 2 of expedition NF-17-08 aboard NOAA Ship *Nancy Foster* that surveyed deep-sea coral ecosystems in the South Atlantic Bight. Source: Expedition Report: 2017 Southeast Deep Coral Initiative (SEDCI) expedition aboard NOAA Ship *Nancy Foster* (NF-17-08: August 12-31, 2017).

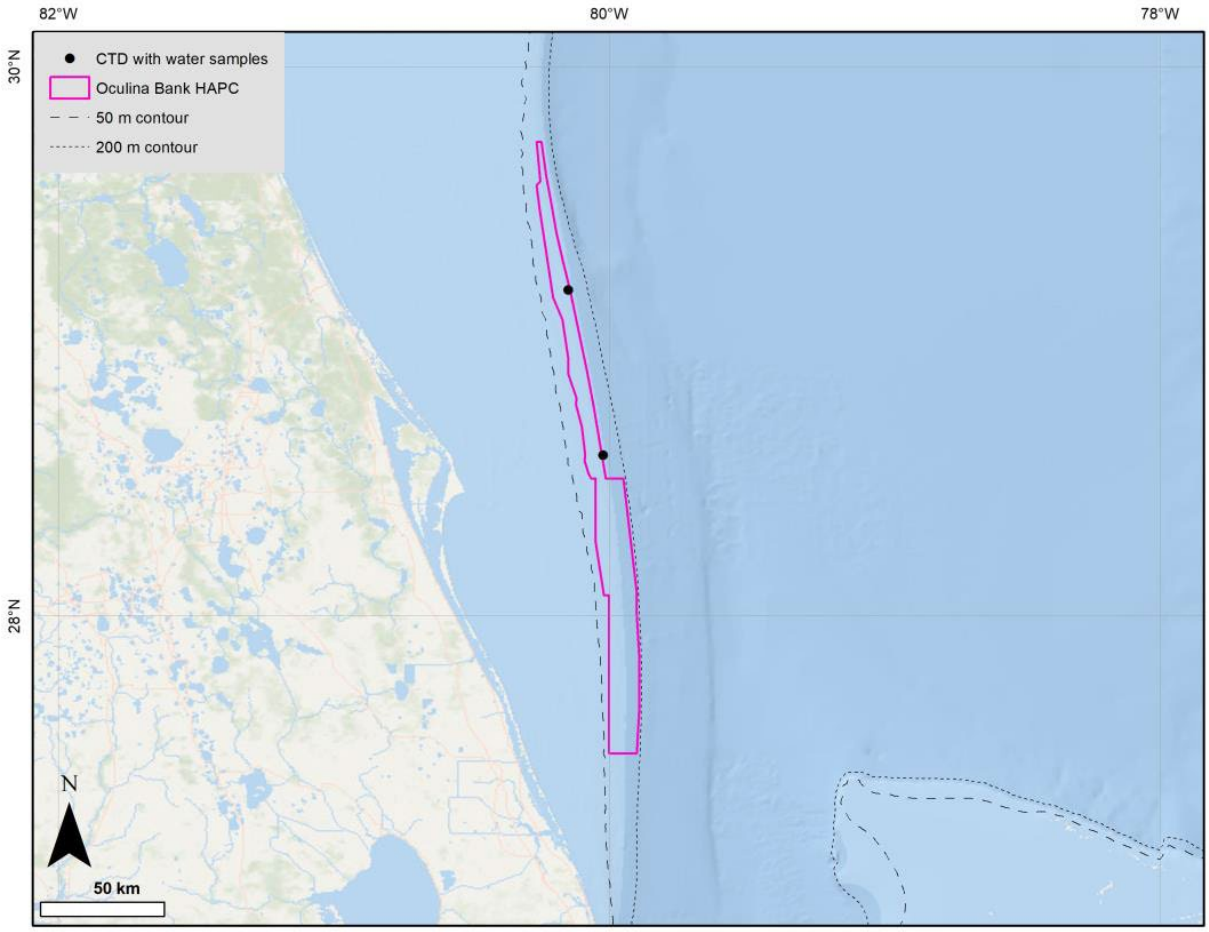


Figure 1.4. Map showing the locations of CTD casts conducted during (top) leg 1, and (bottom) leg 2 of NF-17-08. Note that the map does not include the five CTD casts conducted during leg 2 using the underway CTD system. Source: NOAA 2018.

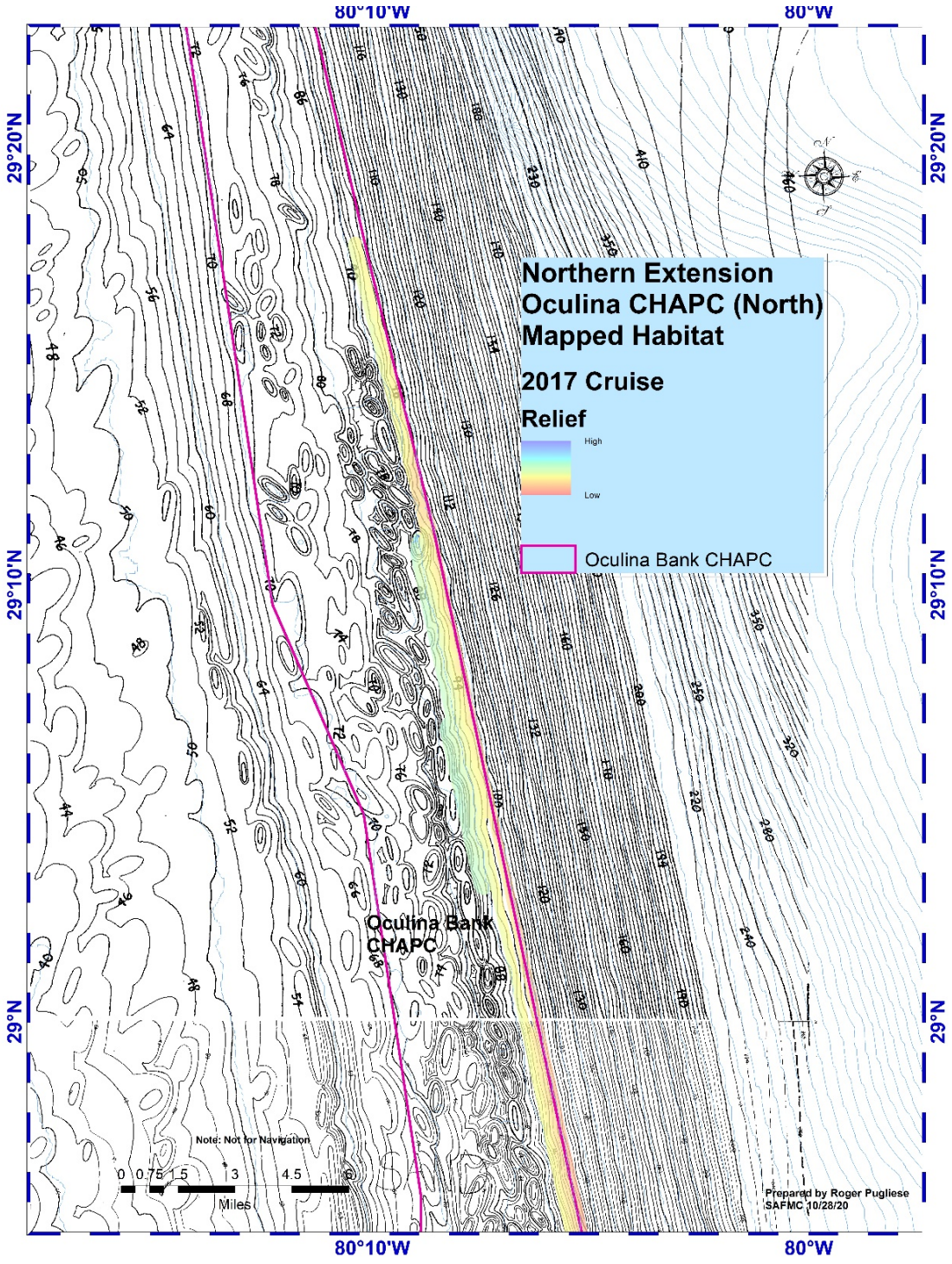


Figure 1.5. Benthic habitat mapped in 2017 along eastern edge of the Oculina Bank Coral HAPC (North) during Southeast Deep Coral Initiative (SEDCI) expedition aboard NOAA Ship Nancy Foster (NF-17-08: August 12-31, 2017) Source: NOAA 2018.

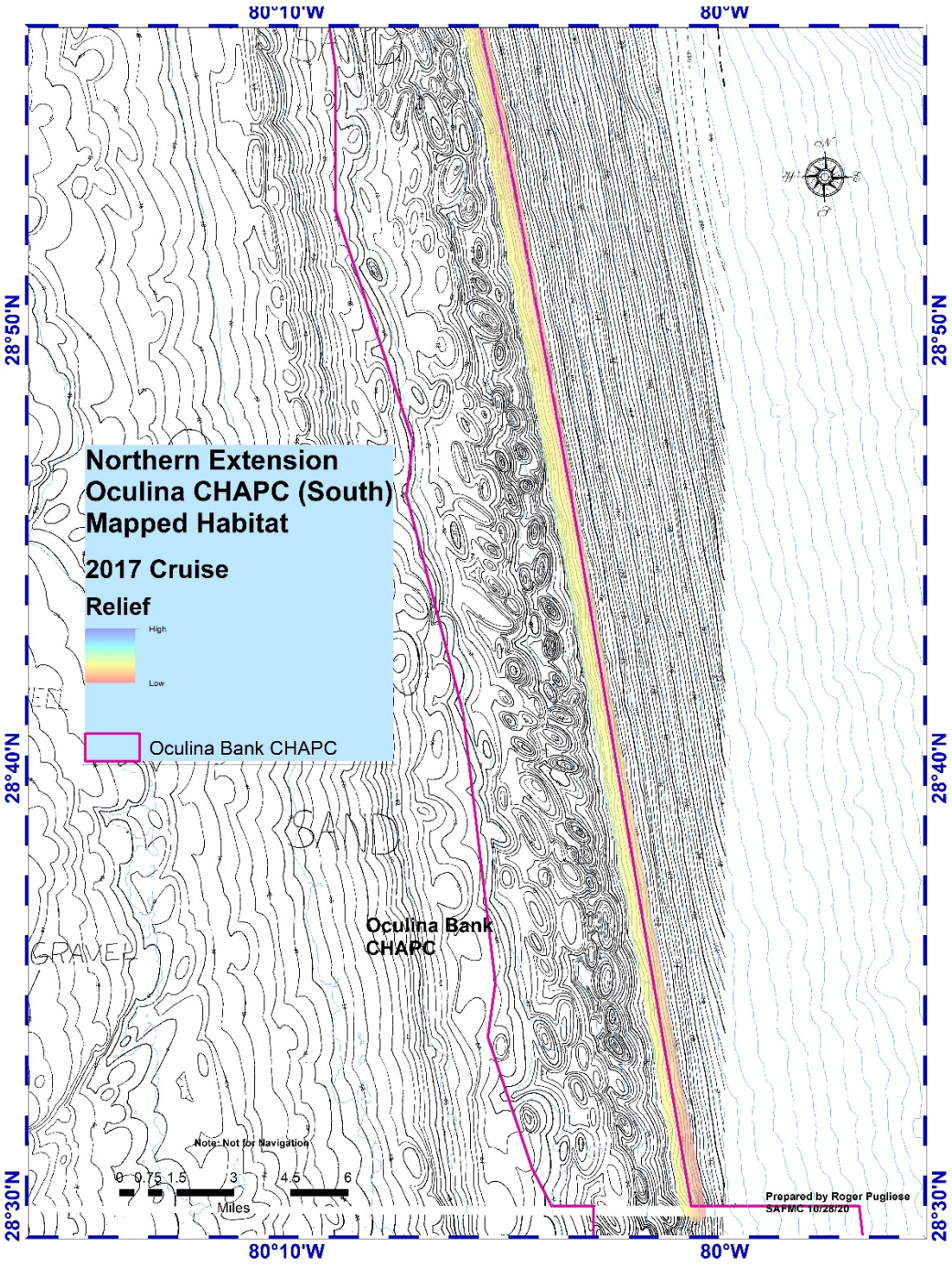


Figure 1.6. Benthic habitat mapped in 2017 along eastern edge of the Oculina Bank Coral HAPC (South) during Southeast Deep Coral Initiative (SEDCI) expedition aboard NOAA Ship Nancy Foster (NF-17-08: August 12-31, 2017). Source: NOAA 2018.

The catches of rock shrimp have been variable over the past decade. Storms, abundance of other shrimp, regulations, and other factors have likely impacted rock shrimp landings. Historically (1980s and 1990s), rock shrimp catches were occasionally higher than they are today but the fishery had its best year since 2009 in 2017. **Table 1.1** presents commercial landings of rock shrimp in the South Atlantic region from 2008 to 2018.

Table 1.1. Landings of rock shrimp off the Atlantic Coast from North Carolina through Florida, 2008 -2018. Source: Atlantic Coast Cooperative Statistics Program Non-Confidential Data Warehouse.

Year	Region	Species	Pounds (lb)	Value ($)
2008	South Atlantic	SHRIMP, ROCK	1,875,108	$3,898,638.55
2009	South Atlantic	SHRIMP, ROCK	3,853,240	$2,770,939.76
2010	South Atlantic	SHRIMP, ROCK	1,382,142	$1,960,764.22
2011	South Atlantic	SHRIMP, ROCK	1,260,308	$1,658,246.61
2012	South Atlantic	SHRIMP, ROCK	238,649	$499,699.76
2013	South Atlantic	SHRIMP, ROCK	728,127	$1,961,488.45
2014	South Atlantic	SHRIMP, ROCK	380,012	$1,136,985.95
2015	South Atlantic	SHRIMP, ROCK	1,054,522	$1,597,408.09
2016	South Atlantic	SHRIMP, ROCK	285,646	$780,718.40
2017	South Atlantic	SHRIMP, ROCK	2,768,126	$4,919,158.51
2018	South Atlantic	SHRIMP, ROCK	928,140	$1,457,534.65

Issue. Rock shrimp fishermen requested the eastern edge of the northern extension of the Oculina Bank created in Coral Amendment 8 be reviewed to determine if historic trawling areas could be reopened to rock shrimp fishing.

The Council extended protection through the known northern extension of Oculina, to protect newly discovered extensive distribution of Oculina high relief coral mounds, low relief coral habitat and establishing conservation of the full extent of the deepwater Oculina coral ecosystem in the South Atlantic region. Fishermen requested the eastern edge of the northern extension of the Oculina Bank be reviewed to determine if historic trawling areas could be reopened to rock shrimp fishing. The Council during the September 2020 meeting recommended proceeding to develop Coral Amendment 10 to include one action considering establishing a shrimp fishery access area (SFAA) along the eastern boundary of the northern extension of the Oculina Bank CHAPC. The Habitat and Ecosystem Advisory Panel, Coral Advisory Panel, and Deepwater Shrimp Advisory Panel will discuss the possible establishment of a SFAA and comments will be provided to the Council in December 2020 when they review options and consider approval for scoping. The following represent options and SFAA alternatives for consideration based on coordinates provided by industry in 2014 (Table 1.2) represented in Alternative 2a and on coordinates provided by industry in 2013 (Table 1.3) represented as Alternative 2b.

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

Option 2. Create a Shrimp Fishery Access Area (SFAA) along eastern edge of northern extension of Oculina CHAPC.

Table 1.2 Coordinates presented by fishermen as part of March 2014 public comment which are along the eastern edge of the OHAPC Northern extension.

Coordinates Provided by Industry (2014)	Latitude	Longitude
1	29.29213	-80.1728
2	29.183	-80.1442
3	29.05973	-80.1246
4	28.90697	-80.0898
5	28.81013	-80.0728
6	28.5	-80.017

Alternative 2a.

SFAA boundaries based on coordinates presented by fishermen as part of March 2014 public comment.

Alternative 2a SFAA (2014)		
Point	**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	29.183	-80.1442
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5	28.81013	-80.0728
6	28.5	-80.017

Alternative 2b

SFAA boundaries based on coordinates presented by fishermen as part of March 2013 public comment.

Alternative 2b SFAA (2013)		
Point	**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

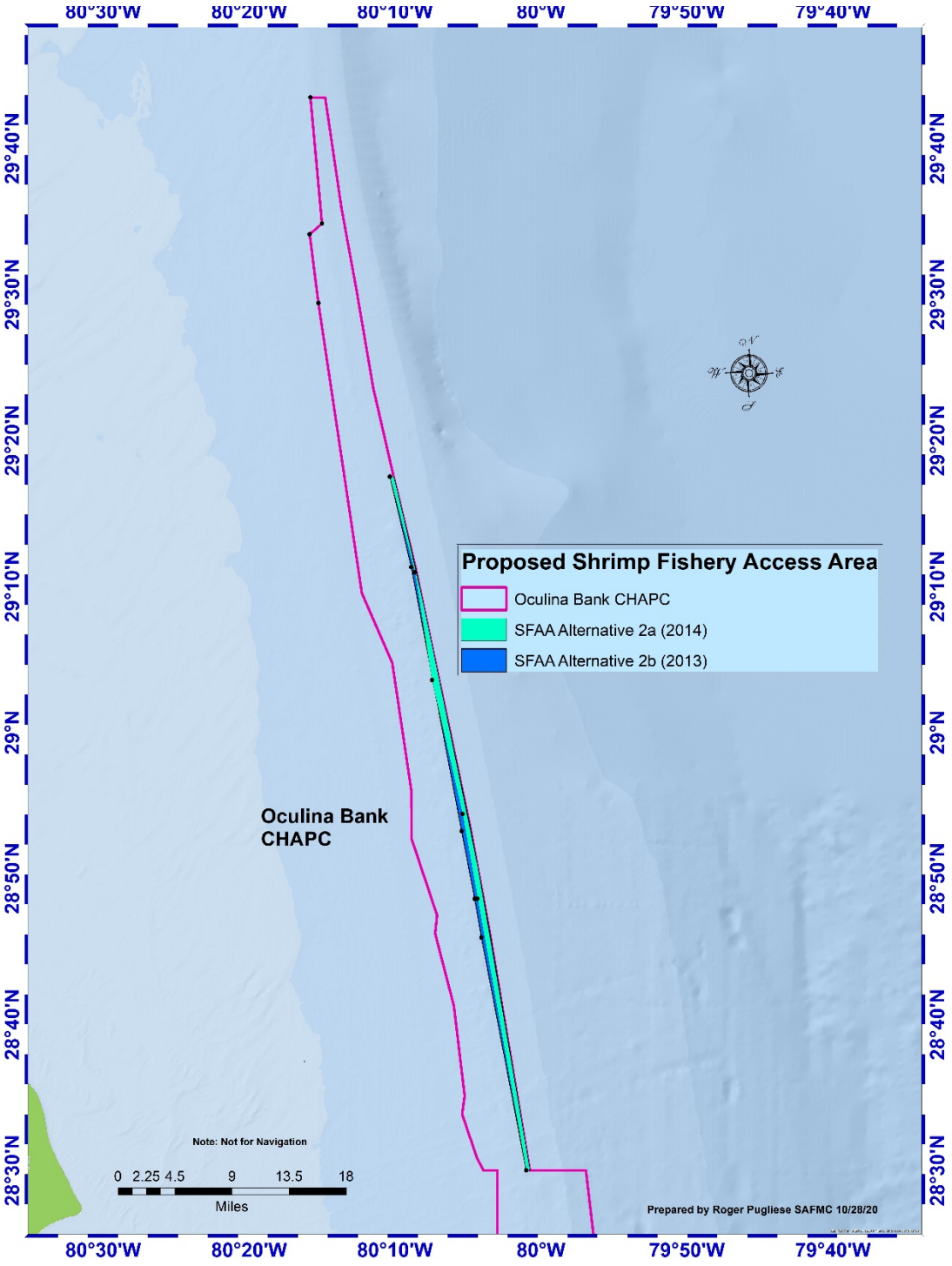
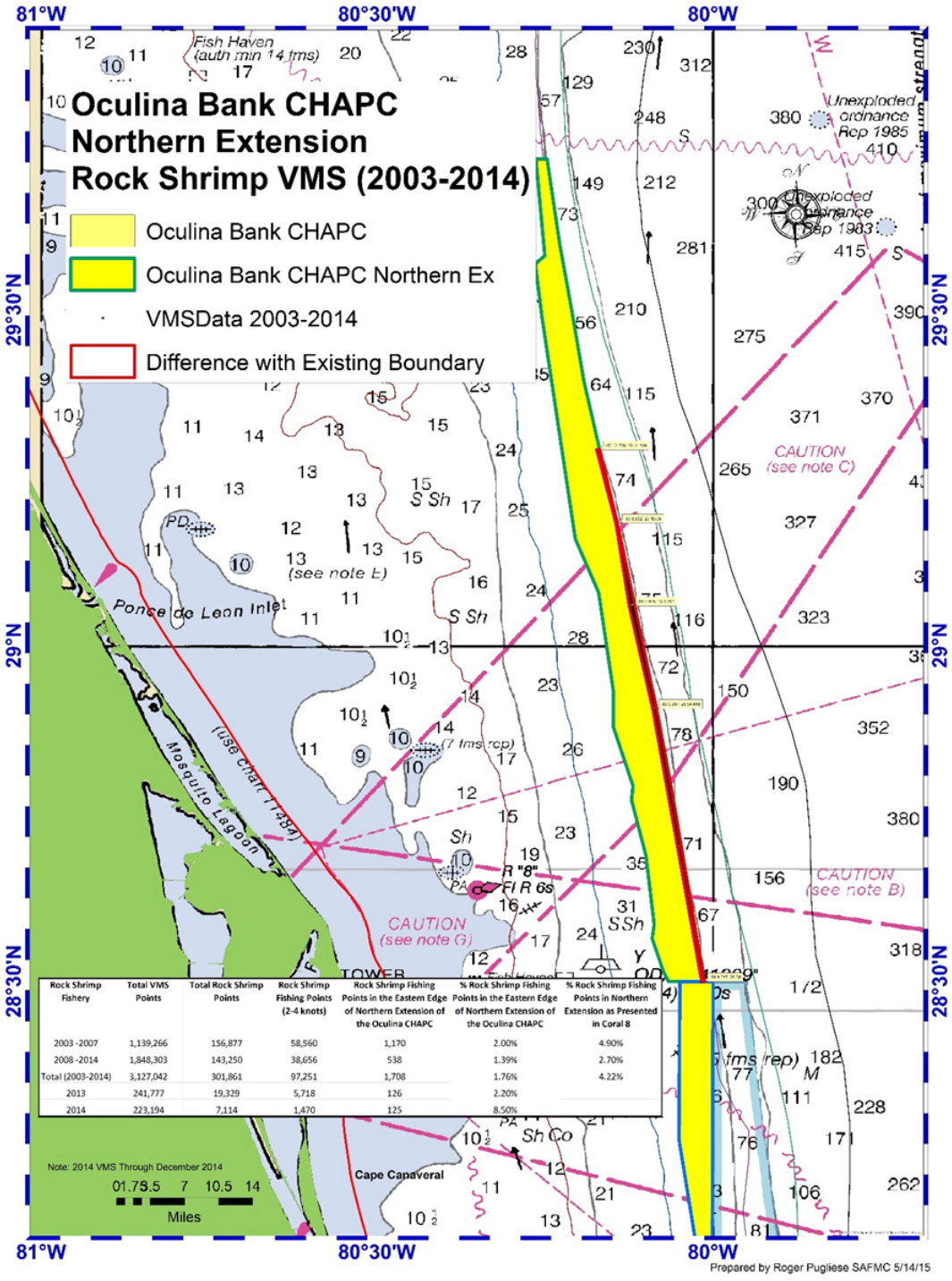


Figure 1.7. Northern Extension of the Oculina Bank Coral HAPC and SFAA Alternative 2a (based on 2014 Fishermen input) and SFAA Alternative 2b (based on 2013 fishermen input).

Updated rock shrimp Vessel Monitoring System (VMS) analyses were provided during a Habitat Protection and Ecosystem-Based Management Committee Meeting, held in Key West, Florida on the April 7-8, 2015. As follow-up to direction to staff from the December Council meeting, additional analyses of rock shrimp VMS data through 2014 were conducted and catch information was further reviewed for the fishery. The chart (Figure 1.8) of the Northern Extension of the Oculina Bank includes a table highlighting fishing activity as related to those shown in Coral Amendment 8. This chart was developed to address statements by industry that the predominant fishing effort occurred along the edge of the existing eastern boundary of the Northern Extension. While greater fishing east of the existing boundary occurred, fishing points inside the edge of the boundary accounted for 1.76% of all fishing points during 2003-2014. With the implementation of the new VMS requirements in Coral Amendment 8, rock shrimp vessels have been able to transit across the northern expansion of OHAPC to the offshore fishing grounds to fish east of the present boundary. The Council, in development of the implemented Northern Extension of the CHAPC area, shifted the boundaries and reduced the overall size of the CHAPC three separate times to address industry concerns. The analyses shows that significantly less overall impact is associated with the edge of the existing eastern boundary than is shown as an overall impact in Coral Amendment 8.



Rock Shrimp Fishery	Total VMS Points	Total Rock Shrimp Points	Rock Shrimp Fishing Points (2-4 knots)	Rock Shrimp Fishing Points in the Eastern Edge of Northern Extension of the Oculina CHAPC	% Rock Shrimp Fishing Points in the Eastern Edge of Northern Extension of the Oculina CHAPC	% Rock Shrimp Fishing Points in Northern Extension as Presented in Coral 8
2003 -2007	1,139,266	156,877	58,560	1,170	2.00%	4.90%
2008 -2014	1,848,303	143,250	38,656	538	1.39%	2.70%
Total (2003-2014)	3,127,042	301,861	97,251	1,708	1.76%	4.22%
2013	241,777	19,329	5,718	126	2.20%	
2014	223,194	7,114	1,470	125	8.50%	

Figure 1.8. Relative position of possible SFAA along eastern edge of the northern extension of the Oculina Bank CHAPC including past fishing activity based on historic VMS data.

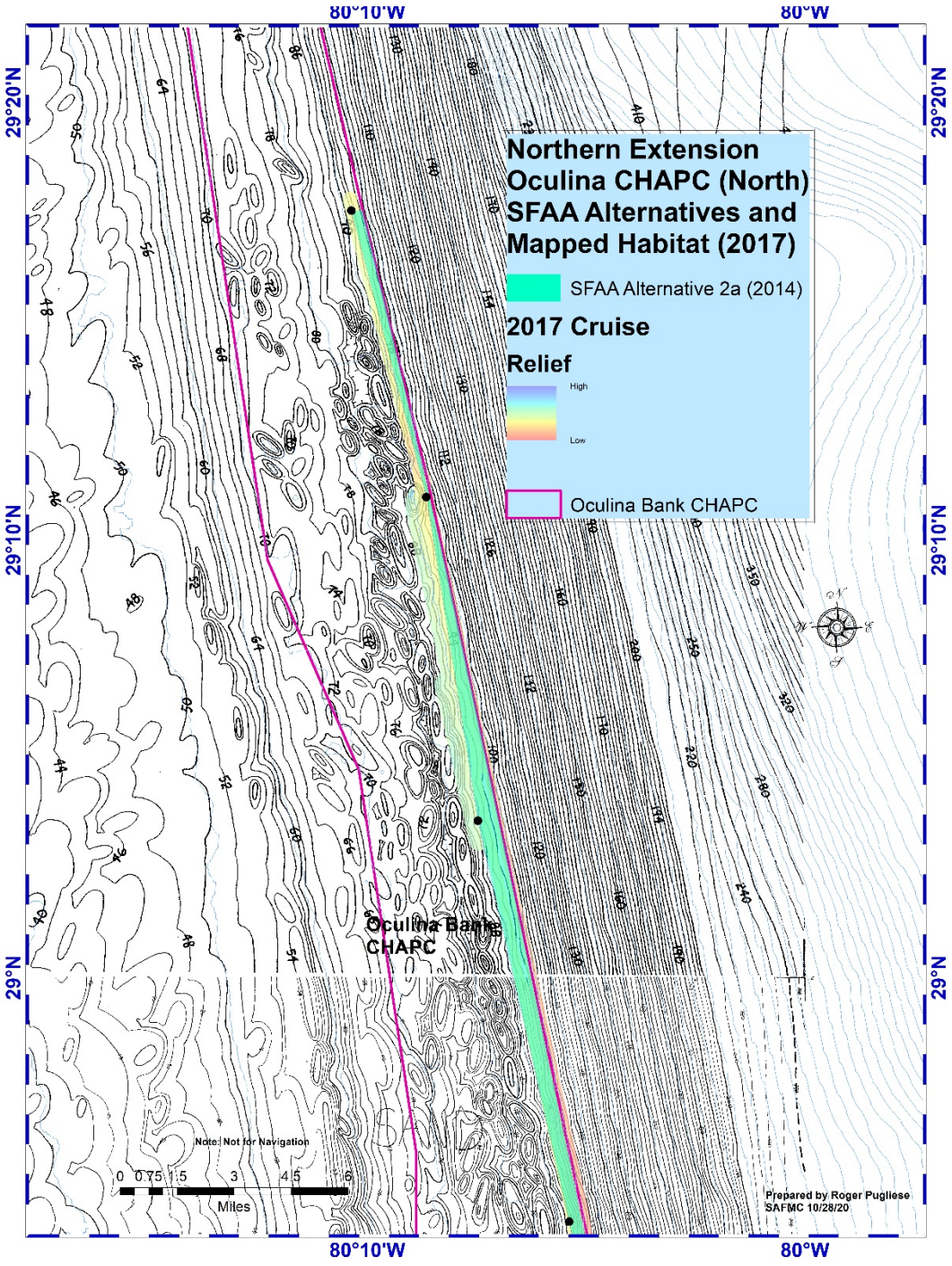


Figure 1.9. Northern extension of the Oculina Bank CHAPC (North) Alternative 2a SFAA and Habitat mapped in 2017 during the Southeast Deep Coral Initiative (SEDCI) expedition.

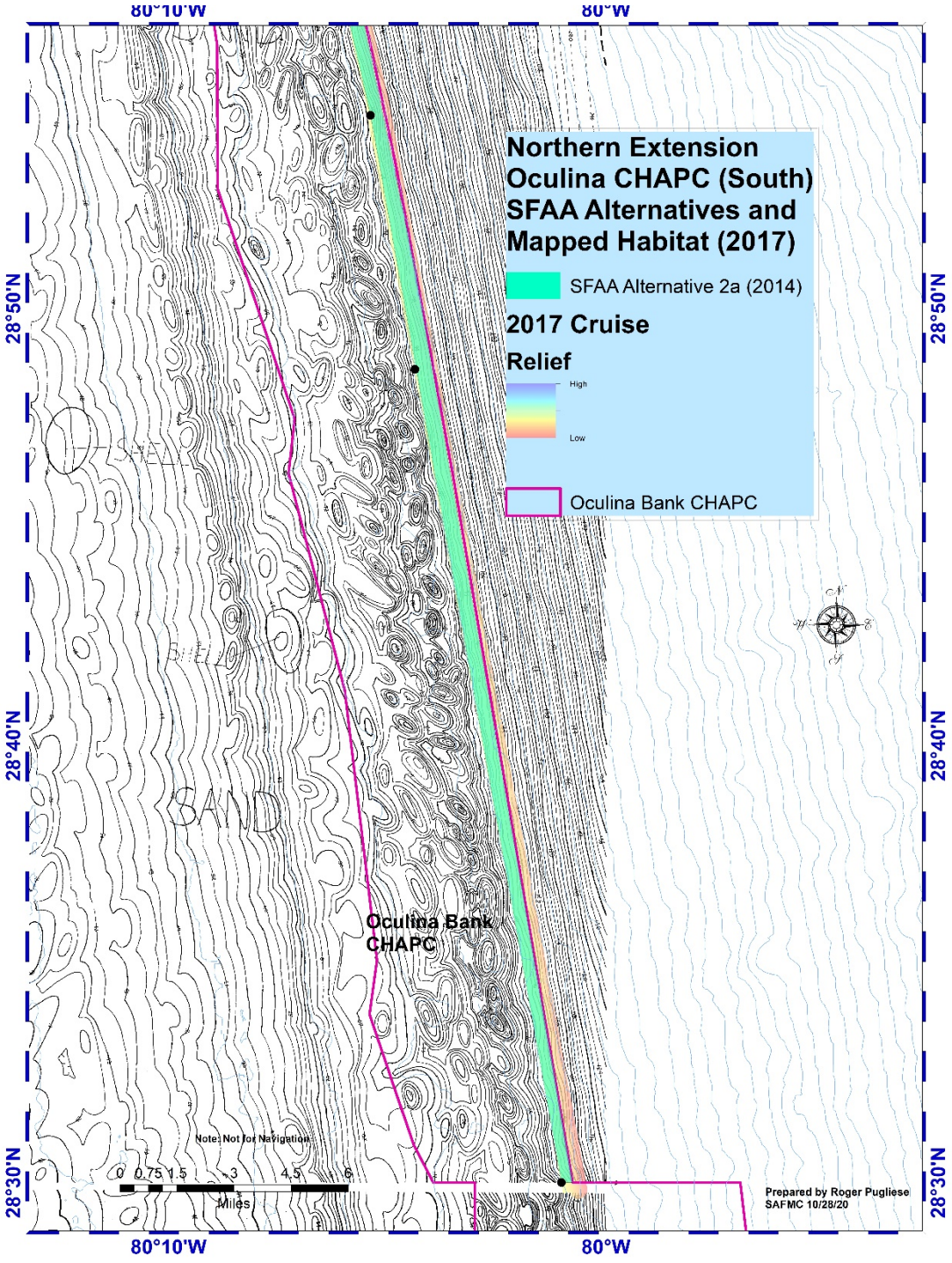


Figure 1.10. Northern extension of the Oculina Bank CHAPC (South) Alternative 2a SFAA and Habitat mapped in 2017 during the Southeast Deep Coral Initiative (SEDCI) expedition.

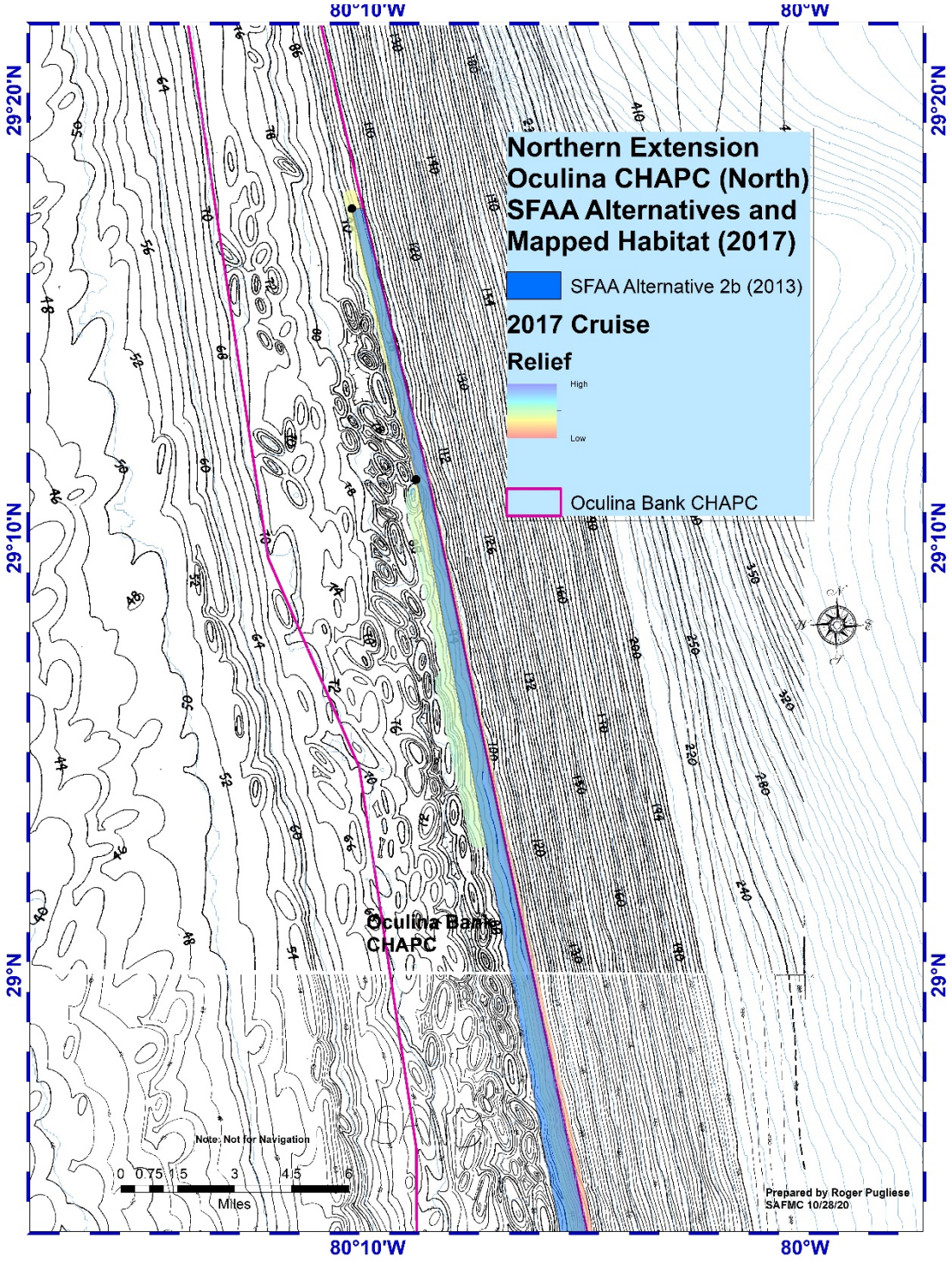


Figure 1.11. Northern extension of the Oculina Bank CHAPC (North) Alternative 2b SFAA and Habitat mapped in 2017 during the Southeast Deep Coral Initiative (SEDCI) expedition.

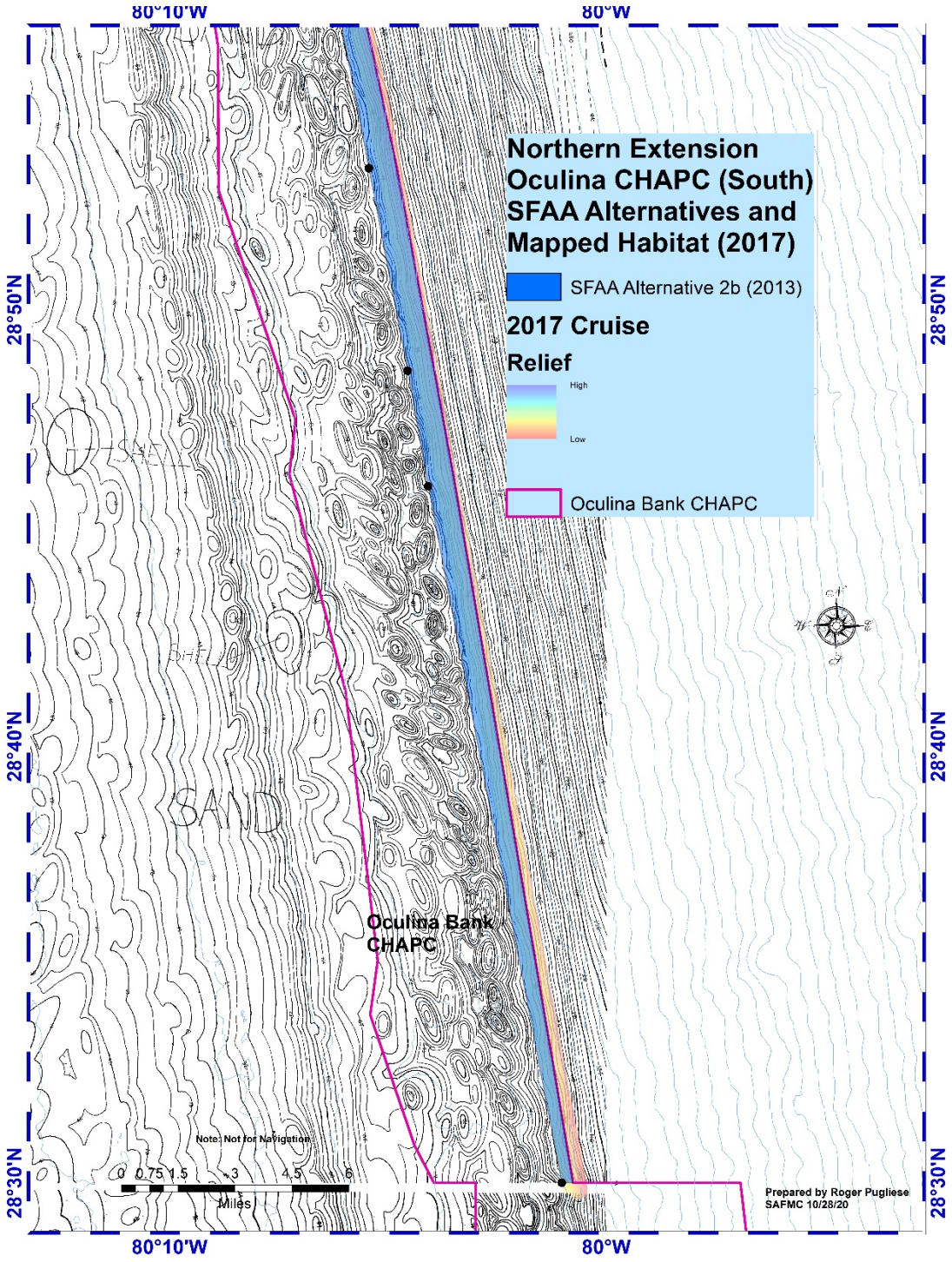


Figure 1.12. Northern extension of the Oculina Bank CHAPC (South) Alternative 2b SFAA and Habitat mapped in 2017 during the Southeast Deep Coral Initiative (SEDCI) expedition.

DRAFT TIMELINE

- Habitat Advisory Panel presentation – October 2020
- Deepwater Shrimp Advisory Panel presentation – November 2020
- Habitat and Ecosystem Committee during the December 2020 Council meeting, will consider the issue and possible approval of options for scoping.
- Scoping meetings would occur via Webinar during the winter 2021.
- Habitat and Ecosystem Committee during the March Council meeting to review scoping comments and develop actions/alternatives.
- Habitat and Ecosystem Committee during the June 2021 Council meeting to review effects analysis and approve for public hearings.
- Public hearings would occur in the fall of 2021.
- Habitat and Ecosystem Committee during the September 2021 Council meeting review public hearings comments and approve all actions and alternatives.
- Council would approve Coral Amendment 10 for Secretarial review during the December 2021 Council meeting.