Appendix 1. Public Comments – 2020 OHAPC Amendment 10 Proposal- J. Reed

November 5, 2020

To: SAFMC Coral AP

Re: Review of "Draft Options for Coral Amendment 10- Establish a Shrimp Fishery Access Area Along the Northern Extension of the Oculina Bank Coral HAPC, 10/27/2020"

In addition to diving with the JSL submersibles on these reefs since their discovery in 1976, I have worked with NOAA Fisheries scientists documenting the habitat and fish with ROV over the past 9 years. This is my review of this document.

1) Pg. 1, paragraph 2- "…after approval of Coral Amendment 8 some rock shrimp fishermen were concerned with the eastern edge of the northern expansion…because at times the fishery operated slightly inshore of the boundary."

This states that the shrimp trawlers are working within the boundaries of the OHAPC. Perhaps they mean historically. If current, this is illegal, and should not be allowed. Of course they operated historically within the current boundaries of the OHAPC. We have documented the damage done from that. Since 1976 we have seen catastrophic destruction of the coral and habitat from bottom trawling (Koenig et al.2005, Reed et al. 2007).

2) Pg. 1, paragraph 2- "The eastern edge of the Oculina Bank …was subsequently mapped to provide better resolution into where coral habitat and soft bottom sediment occurred…However, no validation of habitat type, species use or visual observation …with use of ROV was conducted."

Over years of mapping the Oculina reefs with side scan sonar, multibeam and ground truthing by submersible and ROV (Reed 2002, Reed et al. 2005), Harter et al. 2009 have shown that areas of low relief (pavement, to 1 m relief features) provide important habitat for red snapper, grouper and many other species. The current multibeam maps do not adequately show these low relief hard and live bottom features, nor do they define where coral habitat is or is not. ROV or submersible documentation is essential to ground truth these maps.

Much of the recent MB mapping of the continental shelf is relatively low resolution (10 m or more resolution). Many large areas are mapped at 25 m or more resolution. This is of little use for mapping live bottom, shelf-edge habitat. Maps of moderate resolution (3-5 m; 10-15 ft) may show the larger features of the shelf-edge such as ledges, mounds, and escarpments. But the majority of shelf hard/live bottom habitat is relatively low relief (flat with 1-2 ft ledges). This would require multibeam resolution of <1 m, which is rarely done.

3) Pg. 1, paragraph 3- "The Coral AP discussed fishing closer to the high relief coral habitat and indicated there is concern of sedimentation from the plume from the fishing gear. …indicated concern over potential interactions of the gear and juvenile deep-water snapper grouper species which are known to associate with the base of the coral habitats which are found along the eastern boundary."

I concur with these statements by the Coral AP. We know that the sediment on these shelf-edge Oculina reefs is very muddy (14.4% mud; Hoskin et al. 1987). The fine particulate silt and clay could easily be put into the water column from dragging a net. The net's tickle chain is

made to drag the bottom to stir up the rock shrimp which live in coral, rubble, mud sediment. These mud plumes could travel for miles in the currents.

4) We currently see regrowth of the Oculina coral. They do not need additional stress from trawl sediment plumes. We know that corals are stressed by numerous factors such as sedimentation. This can affect their physiology and reproductive health. Sedimentation could affect the planula larvae of coral which are released into the water column where they live for weeks or more before they settle. They will not settle on sedimented substrate.

5) We also are seeing red snapper and grouper in the low relief and flat areas of shelf-edge reefs (Harter et al. 2016- 2019). We know that many species move off the reefs to forage and feed. Trawling nearby could easily by-catch these species. Again- these fish species in this region are just rebuilding now. The deepwater snapper-grouper complex of species are long lived, slow to mature, and can be quickly be impacted that can take decades to recover.

6) I propose that the SAFMC set up a committee of Shrimp AP, Coral AP, and Fisheries AP to address these questions:

a) What data is collected regarding by-catch from this fishery? How many fish, crabs, lobsters, etc. are caught in the nets? Are these data certified and documented? If not, why not?

b) The exact fishing tracks of the fishers since 2015 to present should be plotted on a map that is overlaid with the best available bathymetry including the NOAA Regional Bathymetric Charts, and available high resolution multibeam (1-3 m relief). In addition to areas adjacent to the OHAPC what other shelf-edge hard/live bottom habitat are in this footprint and potentially impacted within the SE USA? If there are, the Council should consider funding ROV surveys of these areas. The SAFMC has extensive MB maps of areas inside and outside the shelf-edge MPAs from Florida to North Carolina.

7) Pg. 10-
I vote for Option 1- Status quo. Do not develop any action to address the issue.
However, I propose that a minimum of 1-mile buffer zone be made along the eastern border of the northern OHAPC that would extend from the eastern base of the reef zone to the east 1 mile. This would provide a buffer for any sedimentation from offshore trawling, reduce impacts to foraging fish species, and limit any mistakes in trawl deployment and tracking.

Sincerely,

John K. Reed
Research Professor
Cooperative Institute of Ocean Research, Exploration and Technology
Harbor Branch Oceanographic Institute, Florida Atlantic University
5600 U.S. 1, North, Fort Pierce, Florida 34946
Email- jreed12@fau.edu

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