



THE SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL

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### **Coral Management** December 2023



## **Coral Deep Water Mapping**



#### **Guidance on Utilization of Deep water Coral Modeling for Management**



**September 2023** – The Council received a presentation from Jeff Buckel on modeling the distribution of deep-sea corals offshore of the southeastern United States to guide efficient discovery and protection of sensitive habitats.

• Methods

- Data Synthesis: compile a database of presence-absence records of DSC occurrence with associated measures of sampling effort and bottom-type
- Predictive Modeling: develop predictive models that relate the occurrence of DSCs and hardbottom habitats to spatial environmental predictors in order to predict and map their potential spatial distributions across the study area

### **Guidance on Utilization of Deep water Coral Modeling for Management**

### **September 2023 – Study Results**

- Improvements over existing models for DSCs in the region:
  - incorporation of absence data with associated sampling effort models
  - attempted to distinguish true from false absences
  - incorporation of bathymetry data from multibeam mapping incorporation of ocean current predictors,
  - genus level models instead of broad taxonomic groups joint modeling of multiple genera
- Limitations:
  - challenges of 'opportunistic' compilation of sample data sample dataset unbalanced
  - not standardized variability in # of observations
  - replicate samples at each site missing environmental predictor variables spatial scale and resolution
- **Recommendation**: promote systematic sampling design intended to inform models of abundance/density





### September 2023 – SSC Review

- SSC deemed the model adequate to inform management and consistent with BSIA.
- It was noted that this modeling product can both provide guidance for future mapping of deepwater coral ecosystems.
- Additionally, when combined with the recent years extensive mapping and characterization, it would provide a baseline for consideration of a boundary extension of CHAPC to encompass these newly discovered deep water coral ecosystems primarily on the Blake Plateau





# **Council Recommendations?**

- Consider initiating an amendment to designate/expand deepwater CHAPCs
- Consider at a later date?



# **Coral 10 Resubmission**



**November 2021:** Council approved Coral 10 for Secretarial review and implementation. Coral 10 would establish a Shrimp fishery Access Area along the eastern boundary of the northern extension of the Oculina Bank Habitat Area of Particular Concern.

**December 2021:** The amendment was submitted to the Department of Commerce

**July 28, 2022:** The Council received a letter of rejection stating that the amendment did not include adequate analysis to guarantee that the FMP would minimize the adverse effects of fishing on EFH and minimize bycatch.

**September 2022:** The council received a presentation by Andrew David (SEFSC) - Visual Survey of the proposed Shrimp Fishery Access Area (SFAA) within the Oculina Habitat Area of Particular Concern (OHAPC)

#### **Study Conclusions:**

- All live colonies have been found on medium and high relief habitat.
- *Oculina* rubble is often found along the perimeter of the relief.
- We have never observed live or standing dead colonies on the low and no relief areas between *Oculina* mounds,
- No live, standing dead or *Oculina* rubble was observed in or immediately adjacent to the SFAA in the May-June 2022 SEFSC visual survey.
- We cannot state definitively that no live *Oculina* colonies exist within the SFAA.





**September 2022:** The SEFSC acknowledged that the survey provided no definitive evidence that *Oculina* colonies do not exist within the proposed SFAA; however, based upon the results of the visual survey and the existing multibeam bathymetry of the entire SFAA (which shows only low or no relief), the SEFSC predicted the likelihood of live *Oculina* within the SFAA to be very low.

The Council discussed the procedure for re-submitting Coral Amendment 10 and approved the following motion:

**MOTION 1:** RESUBMIT CORAL AMENDMENT 10 AFTER MODIFICATIONS. APPROVED BY COUNCIL



# **Guidance?**

