



## **SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL**

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Jessica McCawley, Chair | Mel Bell, Vice Chair  
Gregg T. Waugh, Executive Director

## **SUMMARY REPORT**

### **Habitat Protection and Ecosystem-Based Management Advisory Panel**

Sirata Beach Resort  
St. Petersburg, Florida

November 6-8, 2018

Members of the South Atlantic Fishery Management Council (Council)'s Habitat Protection and Ecosystem-Based Management Advisory Panel (Panel) convened at the Sirata Beach Resort in St. Petersburg, Florida to discuss topics pertaining to the conservation of fish and fish habitat and activities advancing Ecosystem Based Fishery Management (EBFM) in the region. The Panel operates on consensus therefore no motions are provided.

#### **NOAA Fisheries EBFM Activities for the South Atlantic Region** (*Attachments 1-2*)

Cindy Cooksey, NOAA Fisheries Habitat Conservation Division provided a brief update on NOAA's Draft EBFM Implementation Plan for the South Atlantic Region. NOAA Fisheries SERO, during December is addressing comments on the Plan including those provided by the SAFMC. A Final South Atlantic Plan will be available in January 2019 and Karla Gore, NOAA Fisheries SERO will provide the Panel with a review at their next meeting May 2019. Cindy Cooksey also provided, an update on development of a South Atlantic Ecosystem Status Report on behalf of Kevin Craig and Todd Kellison, NOAA Beaufort Lab indicating its availability in 2019. Cindy also provided an update on development of a South Atlantic Climate Vulnerability Assessment on behalf of John Quinlan, NOAA Fisheries SEFSC Miami to be worked on into 2019.

Presentations:

[South Atlantic Ecosystem Status Report](http://safmc.net/download/Briefing%20Book%20Habitat%20AP%20Nov18/Presentations/1%20-%20Cooksey%20Pres_Beaufort%20ESR_H&EBMAP%20Nov%2018.pdf)

[http://safmc.net/download/Briefing%20Book%20Habitat%20AP%20Nov18/Presentations/1%20-%20Cooksey%20Pres\\_Beaufort%20ESR\\_H&EBMAP%20Nov%2018.pdf](http://safmc.net/download/Briefing%20Book%20Habitat%20AP%20Nov18/Presentations/1%20-%20Cooksey%20Pres_Beaufort%20ESR_H&EBMAP%20Nov%2018.pdf)

[South Atlantic Climate Vulnerability Analysis](http://safmc.net/download/Briefing%20Book%20Habitat%20AP%20Nov18/Presentations/1c%20-%20Quinlan%20Pres_SA_Climate%20Variability%20Assessment_Presentation.pdf)

[http://safmc.net/download/Briefing%20Book%20Habitat%20AP%20Nov18/Presentations/1c%20-%20Quinlan%20Pres\\_SA\\_Climate%20Variability%20Assessment\\_Presentation.pdf](http://safmc.net/download/Briefing%20Book%20Habitat%20AP%20Nov18/Presentations/1c%20-%20Quinlan%20Pres_SA_Climate%20Variability%20Assessment_Presentation.pdf)

**Comments and Recommendations:** Members discussed the issue and provided the following input. NOAA Fisheries needs to provide an end point for development of South Atlantic ecosystem products highlighted in NOAA's South Atlantic EBFM Implementation Roadmap where revised timelines are provided noting when final products will be completed. The Panel reiterated a primary mission is to work with the information provided from NOAA and partner products to identify what is happening in the region and provide advice on how to deal with the consequences.

**National Fish Habitat Activities- Regional Partnerships** (*Attachments 3-4*)

Lisa Havel, ASMFC provided an overview of science and data initiatives of the Atlantic Coast Fish Habitat Partnership (ACFHP). Jessica Graham, Southeast Aquatic Fish Habitat Partnership (SARP), provided an overview of ongoing activities and the proposed South Atlantic Fish Habitat Assessment.

Partner Links: National Fish Habitat Partnership: <http://www.fishhabitat.org/>

SARP: <https://southeastaquatics.net/>

Southern Instream Flow Network: <https://southeastaquatics.net/sarps-programs/sifn>

ACFHP: <http://www.atlanticfishhabitat.org/>

Presentations:

Atlantic Coast Fish Habitat Partnership

[http://safmc.net/download/Briefing%20Book%20Habitat%20AP%20Nov18/Presentations/2b%20-%20Havel%20Pres\\_SAFMC%20Habitat%20AP%20Fall%202018.pdf](http://safmc.net/download/Briefing%20Book%20Habitat%20AP%20Nov18/Presentations/2b%20-%20Havel%20Pres_SAFMC%20Habitat%20AP%20Fall%202018.pdf)

Southeast Aquatic Fish Habitat Partnership

[http://safmc.net/download/Briefing%20Book%20Habitat%20AP%20Nov18/Presentations/2a%20-%20Graham%20Pres\\_SARPUupdate2018\\_SAMFCHabitat.pdf](http://safmc.net/download/Briefing%20Book%20Habitat%20AP%20Nov18/Presentations/2a%20-%20Graham%20Pres_SARPUupdate2018_SAMFCHabitat.pdf)

**Comments and Recommendations:** Members discussed the issue and provided the following input. Existing funding must be maximized and additional funds sought for on the ground projects for habitat protection and restoration. When those monies are spent, there is a strong need to continue emphasizing you more importantly have the outreach tools to immediately show all the stakeholders and general public what this means to them on the ground.

Coordinate with regional partners to highlight the value of regional, state and local conservation and restoration efforts through partner developed outreach materials and online capabilities providing expanded accessibility through the FEP II Dashboard. The National Fish Habitat Partnership should examine what the regional partnerships strengths and functions are so the best products provided and capabilities available can be used to further evolve the system advancing conservation from the continental divide across the continental shelf. A one-pager for each state on restoration funding needs for legislators is recommended.

**Ecosystem Considerations: Prey supporting Dolphin Wahoo Fisheries** (*Attachments 5-7*)

Steve Poland, NC DEQ reviewed the ecological importance of frigate and bullet mackerel (also called frigate and bullet tuna) and other species as prey for dolphin and wahoo.

Presentation:

[http://safmc.net/download/Briefing%20Book%20Habitat%20AP%20Nov18/Presentations/3%20-%20Poland%20Pres\\_HabitatAP\\_Auxis\\_DW\\_10262018.pdf](http://safmc.net/download/Briefing%20Book%20Habitat%20AP%20Nov18/Presentations/3%20-%20Poland%20Pres_HabitatAP_Auxis_DW_10262018.pdf)

**Comments and Recommendations:** Members discussed the issue and provided the following input. Issue: The MAFMC has requested the SAFMC consider the possibility of managing prey species such as frigate and bullet and mackerel as ecosystem components in the Dolphin/Wahoo FMP.

Review: The Habitat and Ecosystem Advisory Panel has reviewed current information on the prey forage base of these predators. These prey species are currently neither overfished nor facing any immediate threats to their respective populations. Current levels of these prey species and others also appear to be stable over the last few years relative to dolphin and wahoo populations in the South Atlantic. However, they are dominant prey to dolphin and wahoo.

Recommendation: The Habitat and Ecosystem Advisory Panel feels that a proactive approach to monitoring these prey species by the SAFMC is both warranted and potentially valuable as management of these predator species transitions to a more ecosystem based management approach.

### **South Atlantic State Natural Events of 2018**

State Sub-Panel Chairs and state representatives opened a roundtable discussion on the extreme natural events of 2018. Florida Gulf and more recently East coasts, have been impacted by red tide and associated fish kills, exasperated by land based nutrient inputs. South Florida coral habitat has been devastated by white plague disease from the northern keys to Marathon. Unlike previous coral diseases, this is affecting more species of coral and causing a greater extent of mortality. The cause is unknown but thought to have started off of Governors Cut. Georgia has seen increasing impacts to shellfish harvest due to *Vibrio* related closures and increasing water temperatures. North Carolina and South Carolina were impacted by hurricane related flooding. The effect on fisheries is still uncertain, however large volumes of organic waste from treatment plants and agriculture entered estuarine waters.

### **Navy's Atlantic Fleet Testing and Training Area** (*Attachments 8-11*)

Laura Busch, US Navy and Cynthia Cooksey, NOAA Fisheries HCD provided an overview of cooperation in developing the Final EIS for the Navy's Fleet Testing and Training Area and addressing EFH concerns.

Presentation:

[http://safmc.net/download/Briefing%20Book%20Habitat%20AP%20Nov18/Presentations/5%20-%20Busch%20Pres%20\\_AFTT%20EFH%20brief%20for%20SAFMC.pdf](http://safmc.net/download/Briefing%20Book%20Habitat%20AP%20Nov18/Presentations/5%20-%20Busch%20Pres%20_AFTT%20EFH%20brief%20for%20SAFMC.pdf)

**Comments and Recommendations:** Members discussed the issue and provided the following input. Members raised concern over how Navy determines if new technology will impact resources, habitats, or humans in the system. Discussion also highlighted ongoing Navy acoustic research observing fish with and without swim bladders to determine thresholds for the species. In addition, recent and ongoing research includes how fish respond to pile driving and the impact of underwater explosions on fish. Members indicated there may also be a benefit in understanding impacts if the Navy could provide records on jettisoned jet fuel for large exercises if available unclassified.

### **Fishery Independent Research Supporting EBFM and Developing South Atlantic Ecosystem Model** (*Attachments 12-14*)

Marcel Reichert, SCDNR updated members on regional fishery independent research activities. Tracy Smart, SCDNR provided an overview of fishery independent research compiled supporting South Atlantic ecosystem model development. Tina Udouj, FWRI provided members an overview of ongoing efforts using fishery independent research to enhance spatial presentation of species distribution.

Presentations:

Fishery Independent Surveys

[http://safmc.net/download/Briefing%20Book%20Habitat%20AP%20Nov18/Presentations/6a%20-%20Reichert%20Pres\\_Update%20Fish%20Indep.%20Surveys-Hab%20AP%20Nov%202018.pdf](http://safmc.net/download/Briefing%20Book%20Habitat%20AP%20Nov18/Presentations/6a%20-%20Reichert%20Pres_Update%20Fish%20Indep.%20Surveys-Hab%20AP%20Nov%202018.pdf)

Surveys Supporting Ecosystem Modeling

[http://safmc.net/download/Briefing%20Book%20Habitat%20AP%20Nov18/Presentations/6b%20-%20Smart\\_SA%20Fishery-independent%20Ecosystem%20Support.pdf](http://safmc.net/download/Briefing%20Book%20Habitat%20AP%20Nov18/Presentations/6b%20-%20Smart_SA%20Fishery-independent%20Ecosystem%20Support.pdf)

Spatial Presentation of Species Distribution

[http://safmc.net/download/Briefing%20Book%20Habitat%20AP%20Nov18/Presentations/6c%20-%20Udouj%20Pres\\_SpeciesDistribution.pdf](http://safmc.net/download/Briefing%20Book%20Habitat%20AP%20Nov18/Presentations/6c%20-%20Udouj%20Pres_SpeciesDistribution.pdf)

**Comments and Recommendations:** Members discussed the issue and provided the following input. Researchers should investigate potential interactions between red snapper increase and black sea bass and bank sea bass decline. Members noted both sea basses are estuarine dependent and since the late

2000s there has been a massive increase in beach re-nourishment throughout the region. A question was raised whether that could have potentially affected settlement. Another consideration was to recommend further evaluation of lionfish now routinely captured in the surveys, to investigate their ecology and potential role in predation. However, it was noted that black sea bass have not been identified in recent lionfish diet analyses in the South Atlantic. Members requested future SCDNR presentations include an overview of primary diet composition of key managed species. Future review of prey field available for managed species is encouraged which could cross between the Reef Fish Survey and Coastal Trawl Survey. Members encouraged collection and analysis of critical water quality parameters (e.g., chlorophyll for HABs, proxies for pesticides (e.g., glyphosphate), proxies for nutrient analyses (e.g., nitogen/phosphate)) while collecting biological information. Foundation inputs need to be collected to be able to address impacts of red tide, nutrient input into the Atlantic and freshwater inflow on resources. Potential advancement could occur through collection during existing fishery independent surveys, by universities state resource surveys, NOAA regional Ocean Observing Systems and through the SARP Instream Flow Network to support the effort. Members encouraged highlighting regional partners efforts through enhancing links and products available through the FEP II Dashboard and partners online capabilities.

### **Deep Water Ecosystem Characterization - NOAA Office of Ocean Exploration and Deep Sea Coral Research and Technology Program** (*Attachment 15*)

Heather Coleman, NOAA Deep Sea Coral Research and Technology Program provided members an overview of NOAA's deep-sea coral and sponge research to inform habitat protection in the South Atlantic. Kasey Cantwell, NOAA Office of Ocean Exploration and Research, provided members a review of NOAA Ship Okeanos Explorer 2018 South Atlantic cruise results in the context of mapping and characterization across the South Atlantic Region. Kasey Cantwell, Heather Coleman John Reed provided a presentation and Sandra Brooke provide input highlighting the complexity of habitats and species living in the deepwater ecosystem.

Presentations:

Deepsea Coral Research and 2018 Okeanos Explorer

<http://safmc.net/download/Briefing%20Book%20Habitat%20AP%20Nov18/Presentations/7-%20Coleman%20Pres%20Deepsea%20Coral%20Program.pdf>

Complexity of Deepwater Coral Ecosystems

[http://safmc.net/download/Briefing%20Book%20Habitat%20AP%20Nov18/Presentations/7c%20-Reed%20Pres\\_2018%20SAFMC%20Meeting%20Deep%20Reefs.pdf](http://safmc.net/download/Briefing%20Book%20Habitat%20AP%20Nov18/Presentations/7c%20-Reed%20Pres_2018%20SAFMC%20Meeting%20Deep%20Reefs.pdf)

**Comments and Recommendations:** Members discussed the issue and provided the following input. It was clarified that CHAPC boundaries have been modified by the Council as new deepwater coral ecosystems were identified, including the extension of the Miami Terrace CHAPC and the northern extension of the Oculina CHAPC. While recent mapping and characterization is refining the understand of the existing distribution of habitat in CHAPCs (e.g., Million Mounds mapped in the Miami Terrace CHAPC by the Okeanos Explorer in 2014 was verified to be all deepwater coral habitat) some of the deeper newly mapped areas include areas outside of the managed area. Concern was raised that where detailed location information is available online, deepwater habitats could be damaged or fished before management can be implemented. It was clarified that Okeanos Explorer Research generally does not provide additional monitoring of previously surveyed areas however the Deepsea Coral Program may be able to establish monitoring if identified as a priority and if resources are available. Priorities and resources are presently focused on completing extensive mapping and characterization of existing managed areas. Members asked if damage had been observed from fishing gear. Presenters did not recall seeing damage but noted they only look at a small percentage of the coral area. In each dive, however, they have seen marine debris of some kind. To address member recommendation to provide monitoring, it was noted that the Deep Sea Coral Program

requested deep sea coral locations be added to the Atlantic ocean acidification program. Members also discussed opportunities to advance new technology included potential use of landers to remotely collect data and the possible characterization of the soundscapes of reef systems.

### **Energy Development Activities in the South Atlantic** (*Attachments 16-18*)

**Description:** Brian Hooker, BOEM provided members a status report on BOEM activities in the South Atlantic region with a focus on renewable energy leasing and development. Craig Poff, Development Director, Kitty Hawk Offshore Wind, provide members an introduction to wind power generation and industry planning and opportunity for early coordination on Kitty Hawk North Carolina offshore wind development.

Presentations:

BOEM Energy Activities

[http://safmc.net/download/Briefing%20Book%20Habitat%20AP%20Nov18/Presentations/8%20-%20Hooker%20Pres%20SAFMC\\_Habupdate\\_Nov2018.pptx](http://safmc.net/download/Briefing%20Book%20Habitat%20AP%20Nov18/Presentations/8%20-%20Hooker%20Pres%20SAFMC_Habupdate_Nov2018.pptx)

Kitty Hawk Offshore Wind

[http://safmc.net/download/Briefing%20Book%20Habitat%20AP%20Nov18/Presentations/8b%20-%20Poff%20Pres\\_Kitty%20Hawk%202018-11.pdf](http://safmc.net/download/Briefing%20Book%20Habitat%20AP%20Nov18/Presentations/8b%20-%20Poff%20Pres_Kitty%20Hawk%202018-11.pdf)

**Comments and Recommendations:** Members discussed the issue and provided the following input. Brian Hooker responded to member questions and indicated multibeam data from seismic surveys may be available for future habitat conservation efforts in 2-3 years. Members discussed visibility consideration and it was noted the Kitty Hawk lease site is 24 miles from shore as recommended by National Park Service to address visibility as it related to the National Seashore. Also depending on the ultimate size of the turbines the distance between structure would vary and coordination with fishermen and stakeholder would occur. Benthic studies would occur at buoy deployment areas with detailed requirement to understand the geology and species and habitat characterization including a high-resolution geophysical survey with benthic and camera before buoy or cable deployment. In addition, any cultural resources like ship wrecks once documented and mapped would be avoided. Questions over acoustic impacts highlighted while impacts from piling driving are documented and further being analyzed, the impact of turbine operations are to be compiled. Comments on transmission cables placement were responded to by indicating they would be buried to avoid interaction. Concerns highlighting the creation of a sub-station and impacts of hurricanes were responded to by noting that turbines would be designed to withstand extreme forces and in the event of a hurricane orient with wind and stall. They will also be outfitted with a floating lidar and wave profilers to ensure operation of the possible investment of \$3-6 billion. Similar sub-station platforms already successfully exist in Europe. Members appreciated early coordination in future survey and development design and layout for the offshore wind project. Also, members encouraged coordination with regional partners to integrate observing capability into structures post construction to advance oceanographic modeling and possible species monitoring through acoustic, other sensor or observing capability available. It was noted there already had been coordination with regional partners associated with ocean observing and modeling including NC State University and UNC at Chapel Hill.

### **Afternoon Member Roundtable Session** (*Attachments 14 and 19*)

Members and Invited Participants engaged in a roundtable session on: Enhancing EFH information, its presentation and availability to enhance NEPA and permit review addressing non-fishing threats; and enhancing presentation of and linkages to ongoing research efforts including NOAA Ocean Exploration Program and NOAA Ship Okeanos Explorer mapping and characterization of deep-water ecosystems.

To introduce the members and participants to the topics, Tina Udouj, FWRI provided a demonstration of Web Services report creation supporting review. Heather Coleman, NOAA Fisheries provided an introduction to efforts underway to enhance EFH information to address non-fishing threats. Kasey Cantwell, NOAA OE set the stage for member input on enhancing access, availability and use of deep water ecosystems information supporting conservation and management and NEPA review.

### **South Atlantic Landscape Conservation Cooperative (SALCC) Conservation Blueprint**

Hillary Morris, SALCC/NCSU joined the members by Webinar and provided an overview of the refinement of the SALCC Conservation Blueprint Simple Viewer and a YouTube video access and use of the Simple Viewer.

Presentation:

[http://safmc.net/download/Briefing%20Book%20Habitat%20AP%20Nov18/Presentations/11%20-%20Morris%20Pres\\_SAFMC\\_Habitat\\_SimpleViewerOverview\\_IntroSlides\\_11-8-18.pdf](http://safmc.net/download/Briefing%20Book%20Habitat%20AP%20Nov18/Presentations/11%20-%20Morris%20Pres_SAFMC_Habitat_SimpleViewerOverview_IntroSlides_11-8-18.pdf)

Link to YouTube video on accessing the Simple Viewer: <https://youtu.be/GrFy7baRpak>

**Comments and Recommendations:** Members discussed the issue and provided the following input. There is a need to further refine marine indicators and investigate opportunities to draw on Florida recent marine indicator efforts. Recommend the system align closer with State efforts which may be accomplished by an effort to develop a finer resolution Conservation Blueprint. Connectivity is key and SALCC is encouraged to work with the Council and Habitat and Ecosystem Advisory Panel including State partners to identify restraints on use to guide further refinement of the system to better meet needs of users. Recommendation that the Conservation Blueprint focus on the value added of the product to the South Atlantic Council including state and regional habitat and ecosystem partners.

### **South Atlantic Ecopath Model**

Tom Okey, University of Victoria and Howard Townsend NOAA Fisheries Headquarters, joined members by Webinar and provided an update on development of next generation Ecopath Model. The model will be balanced, calibrated and completed in 2018 advancing to Ecosim simulations and potential example scenarios which will be presented during the next SSC in 2019.

Presentation:

<http://safmc.net/download/Briefing%20Book%20Habitat%20AP%20Nov18/Presentations/12%20-%20Okey%20Pres%20SA%20Ecopath%20Model%20Hab%20AP%20Nov%20%202018.pdf>

**Comments and Recommendations:** Members discussed the issue and provided the following input. Concern was raised over the availability of diet composition and that the effort in itself will highlight what data still needs to be collected or refined. The model needs to be completed so example scenarios can be developed to provide an understanding of the system, identify further data needs and begin to investigate what some implications of management are. It was identified that further refinement of diet information to integrate spatial or temporal differences, including abundances of benthic organisms and zooplankton may advance the effort even further in the future. Recommend a priority be focusing on evaluating the economic impact in the system. While the use of ecosystem models may be the ultimate goal in the future, other simple ecosystem models may be considered in the interim.

### **Other Business:**

Panel members requested updates on State and NOAA Fisheries Budget. David Dale NOAA Fisheries SERO indicated FY 2019 budget is unknown and they are operation under a continuing resolution however there is talk about a rescission. On a good note, NOAA Fisheries was provided

\$8 million to augment the EFH consultation process and the Southeast Region (North Carolina through Texas including Puerto Rico and the Virgin Islands) was successful in receiving \$1.8 million of those increases for the region. North Carolina budgets are somewhat stable with no increases expected but significant past cuts are still in place with no increases projected. Florida fiscal year is July to June and heavily relies on Federal funds for fish restoration and fishery surveys. Georgia to provide update at a later date. South Carolina budget is relatively stable with no great increases but no significant reductions.

**Comments and Recommendations:** Members discussed the issue and provided the following input. Agencies should in lieu of building infrastructure beyond capacity lost over time and to a level adequate to accommodate review, identify what habitat research and restoration done best and leverage funds to advance the success. For states look at trends in licensed fishermen and hunters for the next three to five years which could result in a reduction in the distribution of funds unless the formula is adjusted. States heavily invested in Federal funding should take analytical steps to investigate what if scenarios with future reductions in licensing potentially affecting available resources. Additional issues discussed included the need to fund the critical State supported Fishery Independent surveys providing critical information for stock assessment, habitat and species characterization and the foundation for ecosystem modeling in the region. Additional opportunities highlighted associated with state efforts and Council managed areas included recent private sector funding for enhancement of the Charleston Deep Artificial Reef Marine Protected Area supporting both benthic conservation and enhanced pelagic fishing opportunity.