

**SNAPPER GROUPER AMENDMENT 14 (MPAs)**  
**Research, Outreach & Law Enforcement Needs**  
**July 2007**

**4.11 Research Needs**

Mapping needs

- Map the proposed Type 2 MPAs.

Research and monitoring needs

- Model coupled biological and physical properties as well as relevant chemical/nutrient and physiological characteristics.
  
- Determine and monitor the effect of the Type 2 MPAs on deepwater snapper grouper species' distribution and status.
  - Assess spawning aggregations of deepwater snapper grouper species.
  - Track fish movement.
  - Identify fish population demographics (e.g., size and age structure, sex ratio, etc.) within the Type 2 MPAs.
  - Determine pre-closure distribution of dominant harvested species in and outside the Type 2 MPAs, in order to provide historical context for subsequent assessments.
  - Determine age distribution, nursery grounds, migratory patterns, and mortality rates for dominant harvested fish stocks.
  
- Identify stressors affecting the Deepwater Type 2 MPAs.
  - Identify natural and anthropogenic stressors (i.e., disease, gear impacts, poaching, enforcement, etc.)
  
- Identify key trophodynamic functional groups.
  - Identify food web structure and dynamics.
  - Determine impact of lionfish invasion on recovery potential of deepwater snapper grouper species within the Type 2 MPAs.

Assessment needs

- Determine the effect of management measures in the Type 2 MPAs on the status of deepwater snapper grouper fishery stocks:
  - Characterize deepwater snapper grouper species within the Type 2 MPAs compared to reference sites (including distribution and abundance patterns, size and age distribution, spawning aggregation presence, sex ratios, etc.).

- Characterize fish communities, inside and out, including habitat utilization patterns, trophic interactions, ontogenetic changes, predator-prey relationships, etc.
  - Connectivity to the broader seascape (larval sources and sinks, spill-over effects).
- Determine how oceanographic conditions and episodic events affect fish stock condition, reproduction, and growth:
    - Quantify the extent, intensity, and frequency of episodic events (upwelling, storms, etc).
    - Assess the impact of episodic events (upwelling, storms, etc).

#### **4.12 Outreach Needs**

The list of outreach needs included in this section is modified from the outreach component of the Council's 2005 Oculina Experimental Closed Area (OECA) Evaluation Plan. For additional information about the OECA Evaluation Plan and efforts used to develop the outreach component of the plan, visit:

<http://www.safmc.net/HabitatManagement/DeepwaterCorals/Oculina/tabid/246/Default.aspx>.

The Council will solicit input from its Information and Education Advisory Panel and the Information and Education Committee in reviewing these needs and possibly developing further recommendations. As with the outreach component of the Oculina Experimental Closed Area Evaluation Plan, the Council acknowledges the need to work closely through partnerships to achieve these outreach needs. Possible partners in outreach efforts include, but are not limited to: Sea Grant, NOAA Fisheries, NOAA National Undersea Research Center at the University of North Carolina – Wilmington (NURC/UNCW), NOAA Office for Law Enforcement, individual state marine resources and law enforcement agencies, NOAA National Marine Sanctuary Program, Harbor Branch Oceanographic Institution, Centers for Ocean Sciences Education Excellence (COSEE) in South Carolina and Florida, Project Oceanica, and others.

***GOAL: Increase awareness and understanding of the Deepwater Type 2 MPAs among fishermen, citizens, and visitors in the South Atlantic region and the U.S. public.***

Project 1: Provide SAFMC regulation brochures to area fishermen.

- *Tasks:* reprint updated federal regulation brochure to include the Type 2 MPAs and distribute to federal, state, and local law enforcement offices for distribution.
- *Justification:* the regulations brochure will provide a summary of regulations and

information for the Type 2 MPAs as well as an identification chart for snapper/grouper species found in the area.

Project 2: Work with fishing chart manufacturers (both printed and electronic) and/or vendors to improve available information for the Deepwater Type 2 MPAs

- *Tasks:* identify manufacturers of more commonly used fishing charts in South Atlantic, contact manufacturers and coordinate methods to update products.
- *Justification:* fishermen have expressed concerns that charts commonly used do not currently portray the coordinates and restrictions for new Type 2 MPAs.

Project 3: Develop and distribute news releases (coordinating with local contacts) to focus on law enforcement activities, research and monitoring projects, and the ecological importance of the Type 2 MPAs.

- *Tasks:* work closely with law enforcement agencies (state and federal) to highlight law enforcement activities and cases; create science-based news releases relevant to ongoing research and monitoring activities with focus on habitat, snapper grouper species, and links to ecosystem-based management. Coordinate releases with ongoing activities and strive to provide high resolution photos and graphics to media.
- *Justification:* increase awareness of all activities in the Type 2 MPAs.

Project 4: Develop Powerpoint presentations about Deepwater Type 2 MPAs; distribute on CD, post at Web site, and present to fishing clubs, environmental groups, local governments, etc.

- *Tasks:* design and create a PowerPoint presentation using existing photos, video, maps, and other information to highlight Type 2 MPAs, history of management, research and monitoring activities, law enforcement, etc.
- *Justification:* provides a quick method to distribute information for use by various audiences, can be readily updated.

Project 5: Develop and distribute posters and rack cards/informational brochures at area bait and tackle shops, marinas, fish houses, boating stores, fishing tournaments, boat shows, etc.

- *Tasks:* contract design layout and printing for poster and complimentary rack cards and/or brochure, distribute to targeted businesses and fishing tournament directors.
- *Justification:* effectively designed poster and brochures and/or rack cards would draw attention to the Type 2 MPAs and provide quick access to general information about habitat, fish species, maps, regulations, and law enforcement contacts.

Project 6: Expand the Council's web site to provide comprehensive education and outreach products (e.g., regulations, publications, research and monitoring information, law enforcement activities, news releases, high resolution video and photographs, maps, etc.). Publicize availability of information by having links posted on other fishing/Non-Governmental Organizations/tourism related web sites.

- *Tasks:* enhance the Council website and integrate materials, including links to other relevant sites. Publicize the availability of web-based information.
- *Justification:* The Web site is the best media for maintaining comprehensive, dynamic content and imagery. The availability of this information can be publicized from other existing high-profile Web sites.

Project 7: Develop education products for teachers (K-12) and informal educators, post on SAFMC Web site, and develop packet for distribution to science teachers.

- *Tasks:* Identify, develop, and produce education products
- *Justification:* This was identified as a need at area constituent meetings held to address outreach needs for the OECA Evaluation Plan and determined a priority item by the Information and Education Advisory Panel. Initial ground work will be needed to identify local education needs.

Project 8: Develop TV documentaries working with environmental TV outlets (e.g., Discovery Channel, Public TV, and independent media contractors).

- *Tasks:* produce documentaries for television that feature the Type 2 MPAs; possibly tie in with interest in the proposed Deepwater Coral Habitat Areas of Particular Concern and the Council's approach to ecosystem-based management through the Fishery Ecosystem Plan and Comprehensive Amendment.
- *Justification:* TV is number one way to reach the public.

#### **4.13 Enforcement Needs**

There are two very large obstacles facing enforcement of these proposed Type 2 MPAs. The first is the great distance that the majority of these Type 2 MPAs are located from shore. The second is the fact that these are Type 2 areas which allow certain fishing activities to exist. Consequently, occasional flyovers by enforcement aircraft would not be an effective tool; therefore, an on-site enforcement presence will be necessary in order to determine whether the fishing activity is lawful or not.

Law Enforcement Advisory Panel Members representing the member States have evaluated their assets and categorized their ability to effectively patrol each MPA as either HIGH, MODERATE, or LOW. **This rating is based solely on the individual states assets and does not include the assets that their Federal partners may or may not have.**

A “**HIGH**” rating means that the area is easily accessible with the assets and personnel already in place. Such an area may already be patrolled and would not require additional assets. Additional funding *may* be required to maintain adequate enforcement patrols.

A “**MODERATE**” rating indicates that with some additional assets, or the relocation of existing assets, patrols could be conducted from time to time and during targeted details. Additional funding *will likely* be required to increase the ability rating to “**HIGH**”.

A “**LOW**” rating means that patrols of the area would only occur during an organized enforcement detail with Federal partners such as NMFS or USCG. The States do not have the assets or personnel with the proper training to patrol the area. Additional funding will be *essential* to increase the ability rating.

Each proposed Type 2 MPA is listed below by State. Comments on location options are listed as well as the ability of patrol rating.

Florida

- |                           |                       |                                 |
|---------------------------|-----------------------|---------------------------------|
| 1) <b>North Florida:</b>  | No option preference. | Enforceability: <b>LOW</b>      |
| 2) <b>Sea Bass Rocks:</b> | No location option.   | Enforceability: <b>MODERATE</b> |
| 3) <b>East Hump:</b>      | No location option.   | Enforceability: <b>MODERATE</b> |

Georgia

- |                        |                       |                            |
|------------------------|-----------------------|----------------------------|
| 4) <b>Georgia MPA:</b> | No option preference. | Enforceability: <b>LOW</b> |
|------------------------|-----------------------|----------------------------|

South Carolina

- |                             |                     |                            |
|-----------------------------|---------------------|----------------------------|
| 5) <b>South Carolina A:</b> | Location option #3. | Enforceability: <b>LOW</b> |
| 6) <b>South Carolina B:</b> | Location option #2. | Enforceability: <b>LOW</b> |
| 7) <b>Deep Reef:</b>        | No location option. | Enforceability: <b>LOW</b> |

North Carolina

- |                        |                    |                            |
|------------------------|--------------------|----------------------------|
| 8) <b>Snowy Wreck:</b> | No location option | Enforceability: <b>LOW</b> |
|------------------------|--------------------|----------------------------|

Meeting even the LOW rating will only be accomplished at the expense of some other enforcement priority. To accomplish any increase in the enforcement rating/presence would require a substantial funding increase to include:

- Hire, train, and equip additional law enforcement personnel
- Administrative support
  - Personnel
  - Equipment
- Acquire several fully equipped large offshore patrol vessels
- Recurring operational costs
  - Fuel
  - Maintenance
  - Dockage
  - Etc.
- Aircraft surveillance support costs