

NOAA Fisheries Northeast Regional Office
A Partnership to Develop and Implement a Strategy
for Deep Sea Coral Conservation in the Northwest Atlantic
September 19, 2011

Concept: A partnership including NOAA Fisheries Northeast Regional Office (NERO), Northeast Fisheries Science Center (NEFSC), and the New England and Mid-Atlantic Fisheries Management Councils (Councils) will develop and implement a deep sea coral conservation strategy for U.S. waters in the Northwest Atlantic. Deep sea corals form remarkable complex and fragile ecosystems throughout the world's oceans, providing habitat (substrate, refugia) for a diversity of other organisms, including many commercially important fish and invertebrate species. These ecosystems occur primarily on hard substrate on the continental shelf and slope, submarine canyons, and seamounts. These ecosystems have been shown to be vulnerable to various fishing activities and other man made impacts associated with energy development. NERO, NEFSC and the Councils (the Partnership) will collaborate in the development of the conservation strategy and will be responsible for implementing various components of the strategy utilizing existing authorities. This approach fully integrates habitat protection, fisheries management, and research into a comprehensive conservation strategy.

Development and implementation of the plan will occur in a stepwise process, as follows:

1. Assessment of data: Utilizing the NOAA Strategic Plan for Deep Sea Coral and Sponge Ecosystems as a guide, NERO, NEFSC, and the Councils will generate a Tier 1 habitat assessment which includes an evaluation of historical and contemporary data on the distribution of deep sea corals and their associated faunal communities in the Northwest Atlantic that will provide a foundation for the development of a conservation strategy. The partners will also identify and evaluate potential threats (fishing and non-fishing) to these ecosystems. This stage will include development of map products and technical documents.
2. Development of a conservation strategy: The conservation strategy will focus on the identification of deep sea coral protection zones and the development of advice for protecting deep-sea coral and sponge ecosystems from identified threats. The strategy will also include recommendations on how to disseminate information, how to conduct research that will define localized deep sea coral ecosystems, and how to monitor the long-term success of the conservation strategy. Existing Council work on these issues, which included NERO and NEFSC, will be used as a foundation for these efforts.
3. Implementation of the strategy:
 - a) Data and information will be provided to the Councils so that they can more effectively identify coral protection zones and manage problematic fishing activities using the authorities of the Magnuson-Stevens Fisheries Conservation and Management Act;
 - b) With respect to energy development, NERO will work with the Councils to implement the conservation strategy with federal offshore energy licensing agencies, such as the Bureau of Ocean Energy Management (BOEM), using existing coordination and consultation procedures;
 - c) NEFSC will assess existing data, and undertake additional research required to define deep sea coral ecosystems on a local scale, and predict coral distributions on a broad scale, and will develop a monitoring plan to evaluate coral protection strategies;
 - d) NERO and NEFSC will coordinate with regional Coastal Marine Spatial Planning (CMSP) initiatives and provide information for incorporation into the CMSP data portal;
 - e) The science and monitoring results will feed back into the review and assessment of the conservation strategy over the longer-term.

Goal: The goal of this effort is to achieve effective, long-term habitat conservation in the highly fragile and vulnerable deep sea coral ecosystems of the Northwest Atlantic utilizing existing management and scientific resources. A tangible benefit of this pilot effort will be a template that guides and measures coordinated and timely integration of habitat science and habitat conservation considerations into the regional fishery management council process.

Metrics: Progress will be measured in several tangible ways with a focus on management and research. Management metrics include development of a deep sea coral conservation strategy with information to support coral protection decisions. Research metrics include the completion of a data assessment of coral location information to assist with the identification of areas appropriate for coral protection, the development of an action plan for deep sea coral research, and development of a long-term monitoring plan to evaluate coral protection strategies.

Collaboration: NERO and NEFSC are collaborating with the Councils and the NMFS Office of Habitat Conservation Deep Sea Coral Program to develop and implement a deep sea coral conservation strategy for the Northwest Atlantic. The collaborators recently participated in a workshop (August 9-10, 2011, at the NEFSC, J.J. Howard Lab) to identify and prioritize critical information needs and to develop a proposed plan of action that will guide scientific research, data analysis, management, and monitoring. NERO and NEFSC will address those needs as part of a larger program involving NOAA, BOEM, USGS, industry, academia, and non-governmental organizations. Information derived from this collaboration will be integrated and aligned to deliver information and products into the Councils' process to be used in managing impacts to deep sea corals from fishing gears. Specifically, these products will include improvements in our characterization and documentation of individual canyons and the refinement of coral zone boundaries. NERO and NEFSC will work with the Councils at every opportunity to incorporate the most current deep sea coral information into the development of their Fisheries Management Plans addressing management of deep sea coral impacts. The two regional Councils are already collaborating to develop management measures to protect deep-sea corals via the Omnibus EFH Amendment. In addition, coordination and collaboration with BOEM will allow for enhanced data collection efforts in several mid- Atlantic canyons which will result in more informed decisions regarding offshore energy development.

Near-term Outcomes:

1. Over the next month, NERO, NEFSC, and the Councils will define their individual roles and responsibilities for this activity and develop a work plan for completing the conservation strategy, insuring that coral information is provided in a manner to meet time lines and schedules for Councils' FMP development.
2. In early FY2012, NERO, NEFSC, and the Councils will complete the Tier 1 habitat assessment, including an informational guide/data matrix for specific locations on the outer continental shelf and in the U.S. EEZ (e.g., submarine canyons and seamounts), which describes where corals are known or predicted to occur. This information will be used to identify areas appropriate for coral protection.
3. In FY 2012, NERO, NEFSC and the Councils will complete the deep sea coral conservation strategy, addressing issues such as identification of areas that should be protected, development of advice for protection of corals from identified threats, and research needs.
4. In FY2012, NERO and the Councils will share data with BOEM and use the conservation strategy to take action that will protect deep sea coral and sponge ecosystems in designated protection zones from offshore energy development activities.

5. Also in FY2012, NEFSC and NERO will work with NOAA's Deep Sea Coral Research and Technology Program to develop a deep sea coral research action plan for the Northeast region based upon the recommendations of an August 2011 workshop.
6. In FY 2013, NOAA will begin a three year strategic deep sea coral research program with funds provided by the NOAA Deep Sea Coral Research and Technology Program.
7. By FY2015, NEFSC will develop a long-term monitoring plan to assess the status of deep-sea coral and sponge ecosystems in any coral protection zones that are established by the Councils.
8. Over time the data matrix will be updated to remain current and dynamic with information that informs the research and management decisions made by the collaborating parties.