



**Marine Bio-Technologies
Center of Innovation**
5600 Marvin K. Moss Lane
Wilmington, NC, 28409
910.962.2294 Office
910.962.3410 Fax
www.MBCOI.net

February 3, 2015

Dr. Christopher Moore
Executive Director, Mid-Atlantic Fishery Management Council
800 North State Street, Suite 201
Dover, DE 19901

Re: Deep Sea Corals Amendment

Dear Dr. Moore:

We would like to thank the Mid-Atlantic Fishery Management Council for its proactive decision to conserve deep-sea corals and the marine resources associated with these largely unknown, but potentially invaluable ecosystems.

The Marine Bio-Technologies Center of Innovation (MBCOI) is an independent, 501(c)(3) nonprofit organization established in 2012 through an inception grant from the North Carolina Biotechnology Center (NCBC). MBCOI serves as a nexus to facilitate collaboration on emerging marine biotechnologies between and among universities, scientific researchers, industry, and funding organizations (both domestically and internationally) to aid the commercialization of new scientific discoveries that benefit North Carolina's economy. We understand that the meeting during which the Council will decide on the scope of its Deep Sea Corals Amendment will take place in Raleigh, NC. While I have pre-existing commitments that preclude my personal attendance, I hope the Council will consider these written comments to provide context for its decision regarding deep-sea coral conservation.

As an organization committed to fostering the scientific and commercial development of marine biotechnology, we fully recognize the fundamental and irreplaceable role that living organisms play in the discovery process. In short, without the existence of the marine organisms that are the subject of study and sampling, this sector would not be viable, either scientifically or economically. As advanced technology enables the discovery of formerly unknown organisms, processes and relationships in the deep sea, the increased potential for biotechnological growth through discovery in the deep sea becomes more and more apparent. The field of marine biotechnology has yielded a first generation of successful entrepreneurial companies

capitalizing on the acknowledged potential of this field. Current projections are that the global marine biotechnology market is expected to reach \$4.6 billion by 2017.

The marine biotechnology sector is in its early stages and poised to make an impact on many fields, including but not limited to agriculture, aquaculture, biochemistry, biotechnology, environmental protection, health and medicine, manufacturing, nutrition, and pharmaceuticals. Although more than 80% of living organisms are found in aquatic ecosystems, biochemical analysis for many of these organisms is just beginning. Broadly defined, marine biotechnology is “the exploration of the capabilities of marine organisms at the whole, cell, or molecular level, to provide solutions to today’s problems, with the use of technology to advance the understanding and accessibility of marine biological material” (Lee & Burrill, 1994).

Coastal North Carolina possesses significant marine science research capacity. Understanding the extent of such activity is fundamental to developing the region’s biotechnology potential. From identification and evaluation all the way to connection and commercialization, MBCOI helps nurture North Carolina’s emerging marine biotechnologies and pairs them with entrepreneurial resources.

Additionally, the National Oceanic and Atmospheric Administration (NOAA) has recognized, “Exotic, hard-to-reach places, such as deep-sea hot vents and seabed sediments, have barely been documented. However, as advances in ocean exploration and underwater technology open new depths to scientists, the ocean’s potential as a biochemical resource has become more apparent.”¹

As the Mid-Atlantic Fishery Management Council moves forward with its progressive policy to take Ecosystem Approaches to Fisheries Management including socioeconomic impacts of fisheries management decisions, we hope that the Council will evaluate impacts on the biotechnological research potential of the marine resources under its jurisdiction. Particularly with respect to deep-sea corals and the organisms that coexist with them, which we know so little about, the potential for scientific breakthrough and the growth of associated valuable industries is vast and exponential.

Thank you for your consideration of these comments.

Sincerely,



Deborah A. Mosca, PhD, CEO
Marine Bio-Technologies Center of Innovation

¹ http://www.noaa.gov/features/economic_0309/medicines.html