

Developing options for national and regional conservation and protection of deep sea corals and associated communities

Seminar Presentation Abstract

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Although scientists have recognized deep-sea corals¹ for more than a century, protection of the resource has only recently begun to gain more widespread attention as an issue of concern in the marine environment. There has been some effort to gain a better understanding of the resource, but the difficulties and expense of studying a resource at great depths has limited the extent and pace of the research. In recent years, several countries have begun to take action to protect this resource, as some believe that it is currently under severe threat from human activities and is of ecological importance and may serve as an important nursery ground for commercially important fisheries species.

As a part of my master's thesis, I propose to study several aspects of current efforts to protect deep-sea corals as well as to analyze alternative approaches to further protection. The two categories of study I propose are to (1) examine the appropriate scale of protection for deep-sea corals and (2) determine the necessary substance of a policy to protect and conserve deep-sea coral communities. This research and any recommendations following the study will be an effort to inform the current debate and to take a precautionary approach to protect this resource from further harm given its potential ecological importance.

At the domestic level, questions include whether or not it is appropriate to protect deep-sea corals as part of fishery management plans (through the Magnuson-Stevens Act) or whether the resource requires protection under a new or alternative framework (eg. the Coral Reef Conservation Act.) Another question I will address in my research is whether or not efforts to protect deep-sea corals should be folded into an existing program such as the National Marine Sanctuary Program or into an effort towards a broader management regime in the Exclusive Economic Zone.

In addition to the national level, it may be appropriate to manage and protect deep-sea corals on a regional basis using bilateral or multilateral agreements with other nations. In my research I will examine whether there are existing agreements in place that could be used to protect the resource, or that could be used as a framework for development of a new agreement.

Lastly, questions exist as to whether this resource is better protected at a global level since the resource has been identified in at least forty-one countries including Canada, European nations, the United States, Australia and New Zealand among others and is perhaps important to commercial fisheries that may extend into the waters of multiple nations. If this resource is important to numerous nations both with and without stands of deep-sea corals, a global effort may be necessary.

In order to examine these questions I propose to use the following process: 1) Define the problem and assemble evidence, 2) Construct the Alternatives, 3) Select the Criteria, 4) Compare the Alternatives, 5) Project the outcomes, 6) Confront trade-offs / Consider political and organizational constraints, 7) Select Appropriate Policy. This process is modified from the work of Munger (2000) and Bardach (2000) on the appropriate steps of policy analysis.

¹ In this presentation, I use the term deep-sea coral to refer to those that are found in waters below 50 meters, do not contain symbiotic algae, and are not associated with a tropical reef.