Testimony of Andrew A. Rosenberg, Ph.D.
Subcommittee on Water, Power and Oceans
"The Potential Implications of Pending Marine National Monument Designations"
September 29, 2015

Chairman Fleming, Ranking Member Huffman, and Members of the Committee, thank you for the opportunity to testify today to discuss the importance of marine national monuments. I am Dr. Andrew Rosenberg, Director of the Center for Science and Democracy at the Union of Concerned Scientists. However, I am testifying here today in my personal capacity as a marine scientist. For the past 30 years, I worked in marine ecology, fisheries, and ocean policy in academia and government. I am formerly the Deputy Director of NOAA's National Marine Fisheries Service and also the former Dean of Life Sciences and Agriculture at the University of New Hampshire.

The idea of marine national monuments makes sense to me. Some marine features such as seamounts and underwater canyons and ledges are unique oceanographic features supporting ecosystems of high biological diversity. As such, they are important public trust resources for the nation as part of our natural heritage. In addition, these ecosystems are important for supporting the marine life in surrounding areas. They contribute so-called ecosystem services. These are functions of the ecosystem that directly support human well-being from fisheries, to natural products and genetic resources, to resilience to the ongoing effects of climate change.

The New England seamounts, ledges and canyons are a critical part of the large marine ecosystem of the Northeastern United States. This seamount chain contains the only seamounts in U.S. Atlantic waters, highlighting their uniqueness. Several outstanding U.S. ocean sciences research organizations and universities have ongoing studies of the New England seamounts, Cashes Ledge, and the deep canyons because of their important role in the ecology of the entire region.

Life forms that live in the deep sea are most often slow growing and slow to reproduce, while often have very long lifespans. This means that they are also highly vulnerable to both environmental changes and human exploitation. Simply put, they can be very rapidly overexploited and very slow to recover once damaged. There are numerous examples around the globe of newly discovered resources, or more often new markets for products from deep sea resources, attracting a boom of escalating fishing and a rapid bust due to overexploitation, followed by very slow or no real recovery. In other words, if human impacts on deep sea resources are to be managed, we may only have one chance to get it right.

Creating a marine national monument containing seamounts, ledges and canyons in offshore areas is a sensible step for conservation of these areas. It would create a Marine Protected Area, or MPA, which is a well-developed and studied management tool for ocean resources that restrict damaging activities within the monument area. Area protections have been shown to be effective if they truly limit or minimize exploitation and are large enough to provide real protection for biological resources. The Northwest Hawaiian Islands National Monument created by President Bush is a case in point. Other large closed areas in the western Pacific, Indian Ocean and North Atlantic are also in place. The large closed areas in New England have led to the recovery, of some important fisheries including scallops and some groundfish. Many

published, peer reviewed studies, including my own, have shown that MPAs can be an effective management tool, particularly when coupled with other measures that control exploitation.

One of the most important attributes of MPAs is that they provide a "hedge" against rapid increases in fishing pressure or the impacts of other activities including the ongoing effects of a changing climate. Protecting an intact, significant portion of an ecosystem helps ensure that other impacts won't have as potentially devastating effects as they might have if no protected area existed. For example, there is good scientific evidence that parts of an ecosystem that are largely intact, are far more resilient to the effects of a changing climate than those that are already heavily exploited.

As a matter of the ecology of the marine resources of the U.S., these sea mounts, ledges and canyons are unique and play an important role in the productivity of our oceans. As a matter of policy, MPAs are well developed management tools that can be applied to good effect, reasonably and simply enforced. MPAs can provide real benefits to the Nation. It is important to recognize in this instance, putting a protected area in place before extensive exploitation is underway is far easier, more efficient and less disruptive than waiting to try to conserve resources once fishing or other actions are already ramping up.

Mr. Chairman, I thank you for the opportunity to share my views and I would be happy to answer any questions.