

**MARCO STATEMENT ON A COURSE OF ACTION FOR THE CONSERVATION
OF MID-ATLANTIC SUBMARINE CANYONS**
September 12, 2014

A number of submarine canyons exist along the continental shelf edge in the Mid-Atlantic region. Current data suggest these canyons support unique, highly diverse and vulnerable habitats of exceptional ecological and significant economic importance. More documentation and exploration is underway to refine and expand our understanding of these important offshore areas.

It is the goal of the Mid-Atlantic states¹, aligned as the Mid-Atlantic Regional Council on the Ocean (“MARCO”), to ensure the key ocean habitats of the Mid-Atlantic are protected from the effects that threaten their sensitive and unique features, biological populations and ecological processes.

Course of Action

To advance its common goal, MARCO intends to work in partnership with researchers, Federal agencies and stakeholders to:

1. Gather, analyze and apply the best available science to identify important submarine canyon habitats, processes and features including those supporting high biomass and biological diversity, and clearly define both their ecological and economic benefit to the Mid-Atlantic region.
2. Determine where gaps in data exist, and with the intention of closing those gaps, encourage and guide a sustained process of scientific exploration and research to inform the ongoing assessment of management priorities.
3. Gather, analyze and apply the best available science to identify and understand the effects of current and potential human activities on submarine canyon habitats in the Mid-Atlantic region.
4. Consider potential mechanisms that strengthen protection of submarine canyon habitats. MARCO may develop recommendations to federal agencies to protect canyon habitats from certain harmful effects.
5. As the economy and environment are inextricably linked, we must further characterize the importance of submarine canyons, and the ocean areas they occupy, to fisheries, tourism and recreation, shipping and waterborne transportation, and potential future activities.

¹ Delaware, Maryland, New Jersey, New York and Virginia

Background

To address this new era of ocean challenges and opportunities, including those that affect unique yet sensitive offshore habitats, the Governors of New York, New Jersey, Delaware, Maryland and Virginia in 2009 signed the Mid-Atlantic Governors' Agreement on Ocean Conservation. The Agreement established the Mid-Atlantic Regional Council on the Ocean (MARCO) as a partnership to address shared regional priorities and provide a collective voice for the states.

The Governors' Agreement also identified four regional priorities for shared action to improve ocean health and contribute to the high quality of life and economic vitality of the region:

- Adaptation to the impacts of climate change,
- Development of sustainable offshore renewable energy,
- Protection of marine habitats, and
- Improving ocean water quality.

Ocean planning was recognized as a means to advance priorities identified in the Governors' Agreement. In April 2013, the Mid-Atlantic Regional Planning Body (RPB) was formed to advance an ocean planning process for the region. The RPB is composed of the MARCO member states with the addition of Pennsylvania, along with representatives from Federal agencies, the Mid-Atlantic Fishery Management Council, and the Shinnecock Indian Nation.

MARCO objectives to advance the marine habitat protection priority are:

1. Understand the attributes of the region's submarine canyons and develop a list of potential effects that should be avoided to ensure the long-term viability of the canyon habitats and the ecosystem services they provide.
2. Continually update MARCO's regional online mapping system – the Mid-Atlantic Ocean Data Portal² - to highlight and make available the best information on the location, characterization and descriptions of offshore habitat areas.
3. Recommend federal action to protect canyon habitats and identify emerging threats.

To advance these objectives, MARCO understands:

- The sensitive coral-dominated communities found within the Mid-Atlantic's submarine canyons have individual colonies that are likely over 1,000 years old³ and are among the oldest animals on the planet. These deep-sea cold-water corals are slow growing, making them particularly sensitive to disturbance. Other unique invertebrates also exist in the canyons, such as sea pens, squat lobster and sea spiders. Canyon habitats also

² <http://portal.midatlanticocean.org/portal/>

³ Auster, Peter. 2008. Personal communication. University of Connecticut National Undersea Research Program

provide a refuge for juvenile and adult commercially important fish,⁴ ⁵such as tilefish and summer flounder. All of the canyons are located along the shelf slope break, which is known for high concentrations of tuna, billfish, crabs, marine mammals, sea turtles and seabirds.

- Dozens of submarine canyons exist along the Mid-Atlantic shelf edge. Major canyons such as Norfolk, Washington, Poor Mans/Accomack, Baltimore, Wilmington, Spencer, Lindenkohl, Carteret, Toms and Hudson are of interest, with many smaller canyons yet to be explored. The canyons are physically complex with outcrops, steep slopes, and diverse sediments providing a high flux of fine-particle nutrients and areas of upwelling associated with high biological productivity. The rocks and boulders exposed at the heads of these canyons and along their steep walls provide habitat for sponges, corals and anemones that require hard surfaces for attachment – an uncommon substrate in the mostly sandy Mid-Atlantic Ocean continental shelf.
- Not all canyons have been explored. MARCO has recently (2014) recommended that canyons with comparatively less scientific data than others, including Carteret, Lindenkohl, Spencer, Wilmington, Washington, Babylon/Jones Canyon Complex, McMaster and Uchupi, be targeted for scientific exploration.
- Existing raw scientific data collected from the submarine canyons should be organized, synthesized and analyzed and made available to resource managers and the public in an easily accessible format using the Mid-Atlantic Ocean Data Portal and other appropriate means.
- Federal management responsibilities for resources in and around the submarine canyons are currently addressed by BOEM, NOAA, USCG, USFWS, ACOE and FERC. MARCO will use the best available science to develop recommendations to these agencies regarding the protection of resources and uses in the offshore canyons in the Mid-Atlantic region.

⁴ Buhl-Mortensen, L., Vanreusel, A., Gooday, A.J., Levin, L.A., Priede, I.G., Buhl-Mortensen, P., Gheerardyn, H., King, N.J., Raes, M. 2010. Biological structures as a source of habitat heterogeneity and biodiversity on the deep ocean margins. *Mar. Ecol.—Evol. Perspect.* 31: 21–50

⁵ Roberts, S. and M. Hirshfield. 2004. Deep-sea corals: out of sight, but no longer out of mind. *Front. Ecol. Environ.*: 123–130.