

NOAA OKEANOS Explorer Program, 2013 Northeast U.S. Canyons Expedition



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AMERICA'S DEEP SEA TREASURES: THE NORTHEAST CANYONS AND SEAMOUNTS MARINE NATIONAL MONUMENT

Located about 150 miles off the coast of Cape Cod and approximately the size of Connecticut, the Northeast Canyons and Seamounts Marine National Monument is the first and only marine national monument off the continental United States.

The Northeast Canyons and Seamounts Marine National Monument features three underwater canyons deeper than the Grand Canyon, and four seamounts (extinct volcanoes) that rise higher than any mountain east of the Rockies. These dramatic ocean features are home to an array of marine life, including endangered whales, sea turtles, seabirds, and rare deep-sea corals, that are protected from commercial extractive activities. This refuge provided by the monument safeguards fragile and interconnected ocean ecosystems, improves ocean resilience to warming temperatures and other threats, and helps to sustain tourism, recreation, fishing, and other sectors of the New England economy that depend on abundant fish and wildlife. Designated in September 2016, the nation's newest ocean park upholds America's proud tradition of preserving the best examples of the country's remarkable natural heritage and biological bounty using the Antiquities Act, a tradition dating back to Teddy Roosevelt and embraced by fifteen presidents of both parties since.

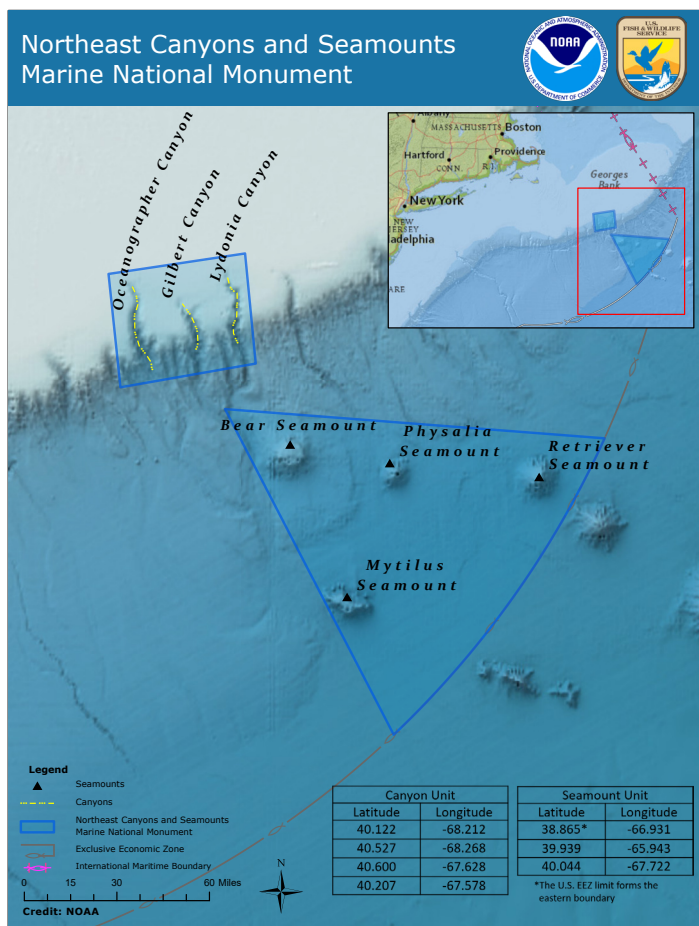
A BIODIVERSITY HOTSPOT

The Northeast Canyons and Seamounts Marine National Monument protects a spectacular underwater seascape inhabited by an extraordinary diversity of life. On the monument's cliffs and crags, colonies of vivid cold-water corals grow—some the size of small trees, centuries old, and as thick as forests. As many as 73 different coral species have been identified in the canyons and seamounts, two dozen alone during a recent expedition.¹ These coral communities form the foundation of deep-sea ecosystems, providing food, spawning habitat, and shelter for fish and invertebrates. The waters above the canyons and seamounts teem with marine life, drawn to upwellings of nutrients and dense schools of small fish and squid. An exceptional diversity and abundance of marine mammals forage in the monument. These include the endangered sperm whale and beaked whales, which are able to dive nearly two miles deep and hold their breath for over two hours. One leading whale researcher described the area as a "Serengeti of the Sea." The monument also attracts seabirds like the iconic Atlantic puffin, sea turtles, and, of course, a multitude of fish species, including sharks, tuna, and billfish.



AN ECOLOGICAL NECESSITY SAFEGUARDED FROM THREATS

Many of the monument's deep-sea species, like its ancient and fragile corals, have very long recovery times and extremely low resilience. Such marine life is increasingly vulnerable to disturbance as technological advances enable human activity to venture deeper and deeper into the ocean. As a marine national monument, the canyons and seamounts are protected from all commercial extractive activities, such as offshore oil and gas activities, seabed mining, and commercial fishing (with the exception of a seven-year lobster and red crab fishing phase out). Based on the latest research, nations and organizations at last year's IUCN World Conservation Congress called for 30 percent of the planet's oceans to be protected from extractive activities by 2030 in order to safeguard ocean ecosystem health and resilience.² Such strongly protected areas in continental U.S. ocean waters fall far short of this mark. While encompassing only about 1.5 percent of U.S. waters along just the Atlantic coast, the monument is a step in the right direction.



OVERWHELMING PUBLIC SUPPORT FOR AMERICA'S NEWEST OCEAN PARK

The Northeast Canyons and Seamounts Marine National Monument's designation was the product of broad public and stakeholder input. The year long process included a public meeting, multiple stakeholder meetings, and a web portal for submission of written comments. This extensive public engagement demonstrated strong public support for the monument. More than 300,000 citizens, 145 scientists, 100 new England businesses, more than 50 faith leaders and groups, ten aquariums, as well as dozens of fishermen and fishing groups, marine mammal research groups and whale watch operators, dive groups, and conservation organizations voiced their support for protecting the canyons and seamounts area. More than 50 federal and state elected officials supported protection, including the entire Connecticut federal Congressional delegation, led by Senator Richard Blumenthal. Four out of five people—both Republicans and Democrats—surveyed in Massachusetts and Rhode Island supported protection.

Although fishing in the monument area's deep and rugged terrain was relatively light, the canyon and inter-canyon area in the original monument proposal was reduced by almost 60 percent to leave out the most active fishing areas. The monument proclamation also provided a seven-year phase-out for lobster and red crab fishing, allowing time for the small affected number of these fishermen to transition to new fishing grounds.

UPHOLDING A PROUD TRADITION AND BENEFITTING THE ECONOMY

Americans have always strongly supported protecting and conserving public lands and waters. As George W. Bush showed when he designated the nation's first marine national monument, the Papahānaumokuākea Marine National Monument, special places in the ocean warrant protection just as they do on land. The Northeast Canyons and Seamounts is an American treasure and is part of the nation's growing system of "blue parks." The monument also contributes to the health and productivity of the regional ocean ecosystem—areas with similar levels of protection have been shown to significantly increase abundance of marine life.³ New England's economy benefits from such healthy ocean ecosystems. Ocean tourism and recreation supports 170,000 jobs and \$7.4 billion in economic activity in coastal New England. Fishing in New England is also a big business, valued at \$1.2 billion in revenues in 2012,⁴ and protected areas elsewhere have been shown to increase catch of species such as lobster in adjacent areas.⁵

ENDNOTES

- 1 S.D. Kraus, et al. 2016. Scientific Assessment of a Proposed Marine National Monument off the Northeast United States. Science briefing for press and interested parties. Final version 31 March 2016. DOI:10.13140/RG.2.1.1268.1360.
- 2 IUCN World Conservation Congress, Hawaii 2016. 2016. 053 - Increasing marine protected area coverage for effective marine biodiversity conservation. Published November 7, 2016. Available at <https://portals.iucn.org/congress/motion/053>.
- 3 S.E. Lester, et al. 2009. Biological effects within no-take marine reserves: a global synthesis. *Mar Ecol Prog Ser* 384: 33-46. <https://doi.org/10.3354/meps08029>.
- 4 NMFS Economics and Social Analysis Division, Fisheries Economics of the United States, 2012 (2014), 49. Available online at: <https://www.st.nmfs.noaa.gov/Assets/economics/documents/feus/2012/FEUS2012.pdf>.
- 5 R. Goñi, et al. 2010. Net contribution of spillover from a marine reserve to fishery catches. *Marine Ecology Progress Series*, Vol. 400: 233-243 (2010). DOI:10.3354/meps08419; F. Vandeperre, et al. 2011. Effects of no-take area size and age of marine protected areas on fisheries yields: a meta-analytical approach. *Fish and Fisheries*, 2011, 12, 412-426. DOI:10.1111/j.1467-2979.2010.00401.x.

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