A History of the New England **Marine Resources Trinity**

Fisheries, sanctuaries, and monuments

by CDR Eric Johnson Deputy Chief, Enforcement Branch U.S. Coast Guard, First District in partnership with the Northeast Regional Fisheries Training Center

ommercial fishing throughout New England has a long, rich history dating back hundreds of years. Established as one of the first Colonial industries of the 1600s, the Atlantic Ocean and its bountiful marine life have sustained and employed generation after generation of New Englanders. However, a growing population increased the demand for fish, prompting the development of more efficient fishing—and, for a time, whaling techniques, which led to some stocks being overfished.

While the concept of fisheries management might seem like a relatively recent initiative, efforts have been in place for well over a century. In 1871, former President Ulysses S. Grant appointed Spencer Fullerton Baird as the first commissioner of the newly formed U.S. Commission of Fish and Fisheries. As commissioner, one of Baird's first actions was the establishment of a fisheries laboratory located in Woods Hole, Massachusetts.

Soon after being established, the laboratory issued a report detailing the status of the New England fisheries, highlighting multiple issues based upon the results

of numerous studies that had been conducted to ascertain the status of the region's fish stocks. These issues included depleted bait stocks for native fish species, migration of certain species to other geographic areas, and overfishing by the commercial fleet.

Despite the publication of these findings, which arguably illuminated the need for more aggressive management of the fish stocks, the health of fisheries throughout the region continued to decline. From the 1930s through the 1970s, fish stocks declined at a historic rate. This decline can be attributed to a combination of factors, not the least of which was the continued development of more efficient fishing methods and equipment. The growing fleets, encroachment into the area by foreign fishing fleets, and the innovation of offshore commercial fish processing vessels also contributed to this depletion. With catch numbers consistently increasing, it was simply a matter of time until harvests outpaced natural replenishment of the stocks.

In one of the first attempts to proactively manage the stocks, end overfishing, and rebuild groundfish stocks, the Magnuson-Stevens Act, now referred to as the Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA), was enacted in 1976. The MSFCMA established a fishery conservation zone of 200 miles, but this language was later changed to establish the area of coverage as the exclusive economic zone (EEZ).1

The MSFCMA also established eight regional fishery councils charged with managing fisheries throughout their respective regions through the use of Fisheries Management Plans (FMPs). FMPs are required to comply with comprehensive requirements in order to ensure efficiency. Throughout the following years the Magnuson-Stevens Act was amended twice, first in 1996 through passage of the Sustainable Fisheries Act, and again in 2006 with the Magnuson-Stevens Fishery Conservation and



Dolphins escort a small boat from USCGC Legare back to the ship after a living marine resource boarding. Dolphins are known to approach bow waves of their own accord. Coast Guard photo by Petty Officer 3rd Class Kaitlin Bearden



A whale breaches near USCGC Legare as the ship enters Block Island Sound. Coast Guard photo by Petty Officer Angel Claudio

Management Reauthorization Act. The reauthorization of the MSFCMA solidified the United States' commitment to the effective management of fisheries stocks.

A Whale of a Story

The establishment of the Stellwagen Bank Marine Sanctuary in 1992 was another effort to preserve an area representative of the marine ecosystems of New England. Stellwagen Bank is an underwater plateau formed by the same glacial processes that formed Cape Cod. The sanctuary—the 12th of 13 created under Title III of the Marine Protection, Research, and Sanctuaries Act of 1972—was established to help protect the marine life in the area as well as the plant and sea life contained therein.

The designated sanctuary is a 638-square-nautical-mile area at the mouth of the Massachusetts Bay, with rectangular boundaries starting 3 miles southeast of Cape Ann, Massachusetts, and extending to 3 miles north of Cape Cod. It is about 25 miles east of Boston, situated wholly within federal waters. It encompasses all of Stellwagen and Tillies Banks, along with the southern portion of Jeffrey's Ledge.

Today, Stellwagen Bank is home to a multitude of marine species, including lobster, Atlantic bluefin tuna, and Atlantic cod. However, Stellwagen Bank is probably best known for its robust and vibrant humpback and North Atlantic right whale populations.²

A Monumental Task

Northeast Canyons and Seamounts Marine National Monument

In September 2016, former President Barack Obama designated the first marine national monument in the Atlantic

Ocean. Located about 150 miles southeast of Massachusetts, this monument is thought to have been created by extinct undersea volcanoes and seabed sediment erosion. Now known as the Northeast Canyons and Seamounts Marine National Monument, this area is a hot spot for rare and endangered species.

The monument is an area of 4,913 square miles that is home to four distinct underwater seamounts named Bear, Mytilus, Physalia, and Retriever. In addition, there are three undersea canyons located within the boundaries of the monument, and all three—Oceanographer, Lydonia, and Gilbert—extend into the continental shelf.

This location has been subject to extensive underwater research and discovery for decades because of its unique ecosystem and rich biodiversity. The continued protection of this area will ensure the sustainment of, and critical protection for, important ecological resources and marine species, including endangered sperm, fin, and sei whales, Kemp's "ridley" turtles, important deep-sea coral, numerous fish species, and other marine mammals and birds.³

Frank R. Lautenberg Deep-Sea Coral Protection Area

Deep-sea coral beds are vital to the preservation and ability of numerous fish species and invertebrates to flourish. The protection of existing deep-sea coral habitats is vital to preserving these extremely fragile ecosystems, which can take centuries to recover from damage sustained by disturbances on the sea floor.

The Frank R. Lautenberg Deep-Sea Coral Protection Area was named for the late New Jersey senator who was dedicated to ocean resource conservation. The protection area was created in December 2016 as an amendment to another fisheries management plan, with the goal of protecting the delicate coral formations from potential damage due to bottom-tended fishing gear.

The protection area lies off the coast of the mid-Atlantic states of Virginia, Maryland, Delaware, New Jersey, New York, and Connecticut and encompasses an area of about 38,000 square miles. The area enveloped by the protection area is either known or likely to have a high concentration and presence of deep-sea coral in the underwater canyons and sloping areas that extend out from the continental shelf. Because of the likely presence of coral in these areas, commercial fishing vessels are prohibited from using most types of bottom-tended fishing gear, yet recreational fishing in the area is not affected.⁴

Something's Fishy Around Here

Fisheries enforcement in the Northeast region is an extremely complex business. New Bedford, Massachusetts, is the home port for the country's most profitable fishing fleet, bringing in about \$369 million dollars' worth of catch and generating a multi-billion dollar economic impact every year. The northeast fishery bio mass is a critical national resource, key to our economic sustainment and independence.

To ensure preservation of the resource and adherence to laws and regulations from the National Oceanic and Atmospheric Administration, living marine resources enforcement activities are governed by two Coast Guard doctrines—Ocean Guardian and Ocean Steward. Ocean Guardian is a Fisheries Enforcement Strategic Plan that contains effective and professional at-sea enforcement of federal fisheries regulations strategy. This strategic plan also advances national goals for the conservation and management of living marine resources and their environment. Ocean Steward focuses on another aspect of maritime strategy by providing guidance on the elimination and mitigation of environmental damage and natural resource degradation associated with all maritime activities.

Within the guidelines of these two strategic documents, operational directives have been developed to further guide the implementation of these strategies and ensure that effective enforcement is coupled with education and outreach efforts.

In the First Coast Guard District, units execute Operation Atlantic Venture. This long-standing operation balances the protection and stewardship of our natural resources by leveling the playing field within the fishing industry to prevent overfishing, curtail environmental degradation, and enforce protections for species vital to the country's economy.

One of the most important lines of effort for Coast Guard living marine resource enforcement (LMRE) is to ensure a level playing field for everyone. Because of



USCGC Legare approaches a deceased right whale on Georges Bank. Coast Guard photo by Petty Officer Angel Claudio

Species Regulated in Accordance with **Management Plans Northeast Multispecies** Haddock Atlantic cod Redfish **Highly Migratory Species** • Atlantic bluefin tuna Shark Swordfish **Other Species** Atlantic sea scallops · American lobster Monkfish · Atlantic mackerel · Squid and butterfish Herring Striped bass · Summer flounder · Black sea bass

the potential for profitability within the fishing industry, there will always be some who will attempt to get ahead by any means necessary. Unfortunately, those who subvert regulations to gain an advantage over their competitors may not comprehend, or simply disregard, the impact their actions have on the fragile ecosystem. The Coast Guard has encountered myriad tactics irresponsible fishermen have adopted in attempts to gain unfair advantage.

Preserving the Trinity

Scup

Living marine resource enforcement within the USCG First District is the bread and butter—or fish and chips—of its law enforcement program. As the geographic point of origin for the nation's efforts to manage marine resources and establish marine resource protection, and as the home of America's number one fishing port, New Bedford, the Northeast Region serves as the touchstone for the nation's fisheries enforcement.

Coupled with the acute environmental awareness of the population in the Northeast Region and the prominent role of the marine environment as a cultural icon, enforcement of fisheries harvest regulations is only one piece of the puzzle. Preservation of the fragile marine ecosystem is also achieved by effective implementation, education, outreach, and enforcement. For Coast Guard LMRE, education and outreach efforts run the gamut,

How Irresponsible Fishermen Thwart the Law

- · Making false statements
- Improper and deceptive use of the Vessel Monitoring System for the purpose of hiding vessel incursions into closed areas
- · Intentional fishing inside areas closed to fishing
- · Retaining prohibited catch
- · Significant catch overages
- · Using undersized net mesh
- Employing net liners and choking mechanisms to increase catch potential
- Using hidden compartments to conceal illegal catch

from everyday interactions between Coast Guard law enforcement personnel and the fishing industry, to displays set up by the New England Fisheries Management Council, and meetings that are open to the public.

Regardless of the forum, personnel of the First Coast Guard District; along with various local, state, and federal partners; work diligently to ensure the preservation of the New England marine resources trinity, and to ensure the public is aware of how best to protect our valuable resources.

About the author:

CDR Eric Johnson is a native of Missouri, where he grew up on a farm near a town of 460 people. After enlisting in 1987, he advanced to chief in 1997, attending Officer Candidate School in 2000. He became a permanent cutterman in 1994, and his most recent assignment was as executive officer of USCGC Reliance. He has served in the Coast Guard for 31 years.

CDR Johnson worked on this article in partnership with the Northeast Regional Fisheries Training Center (NRFTC). The NRFTC was established in Cape Cod, Massachusetts, in 1994 to educate Coast Guard boarding officers on the regulations, policies, and procedures governing the East Coast's most complex and diverse fisheries and marine protected species.

The NRFTC's area of responsibility spans the Northeast and Mid-Atlantic regions, consisting of Coast Guard units from Maine to North Carolina. The training center delivers 12 living marine resource boarding officer courses per year, training nearly 200 Coast Guard boarding officers as well as enforcement partners from the National Oceanic and Atmospheric Administration and state agencies. Additionally, the NRFTC conducts specialized living marine resource enforcement action training and familiarization for pilots, air crews, and shoreside enforcement personnel throughout the year.

Endnotes:

- 1. Digest of Federal Resource Laws of Interest to the U.S. Fish and Wildlife Service, available at: www.fws.gov/laws/lawsdigest/FISHCON.HTML
- 2. https://stellwagen.noaa.gov/about/faq.html
- https://obamawhitehouse.archives.gov/the-press-office/2016/09/15/fact-sheet-president-obama-continue-global-leadership-combatting-climate
- ${}^{4\cdot} www.greateratlantic.fisheries.noaa.gov/stories/2016/december/13_deep-seacoral-protection_area.html$