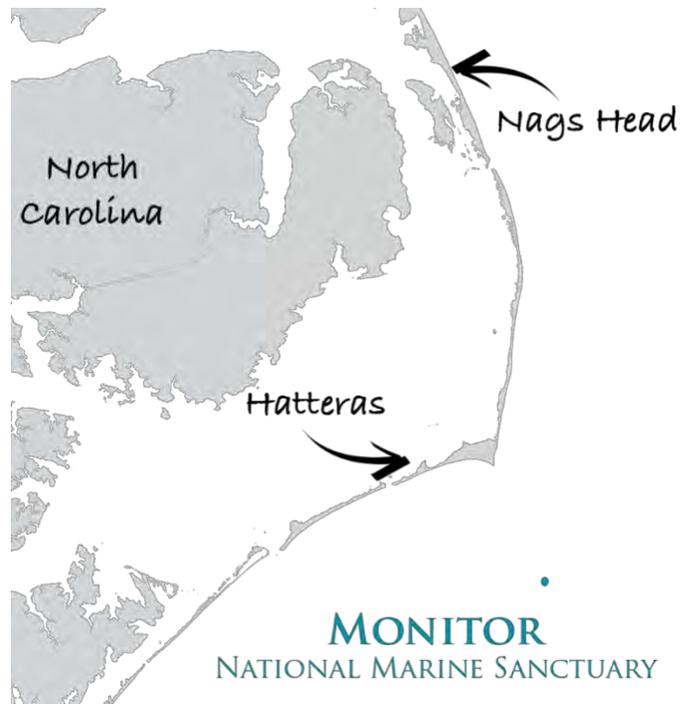


Monitor National Marine Sanctuary Accomplishments

Fiscal Year 2020

Designated in 1975 as the first national marine sanctuary, Monitor National Marine Sanctuary protects the wreck site of the USS *Monitor*. *Monitor* was the prototype for a class of U.S. Civil War ironclad, turreted warships that significantly altered both naval technology and marine architecture in the 19th century. The sanctuary protects the wreck for future generations and works to share this vessel's historical and cultural legacy with the public. With more than four decades of protecting and preserving our nation's maritime heritage, the sanctuary and partners began in 2008 to document and survey the many World War II shipwrecks surrounding the sanctuary.

Visit monitor.noaa.gov for more information.



Bringing history and shipwrecks to the classroom

Through a series of webinars, outreach events, and education products, our nation's maritime heritage entered classrooms and communities across the nation and around the world. Webinars featured the USS *Monitor*, the Civil War, and World War II battles off the North Carolina coast, along with STEM careers and more. Held virtually this year, the annual "Get Into Your Sanctuary" weekend featured videos on *Monitor's* history, as well as tourism in Virginia and North Carolina. In addition, the ninth *Monitor* Trail sign was installed in Syracuse, New York, highlighting the turreted ironclads that came after the USS *Monitor*.

Vital partnerships

In the continuing process to expand the sanctuary's boundaries, key partnerships are vital. Partnering with NOAA's National Centers for Coastal Ocean Science instrumentally aided in the documentation of historical North Carolina shipwrecks for possible inclusion in an expanded sanctuary. A second critical partnership with North Carolina's Office of State Archaeology focused on collaborations in maritime heritage research, presentations, and outreach materials to promote expansion and to gain additional support. The sanctuary also co-sponsored an event with the state.



A scuba diver is seen exploring an underwater shipwreck. Photo: NOAA



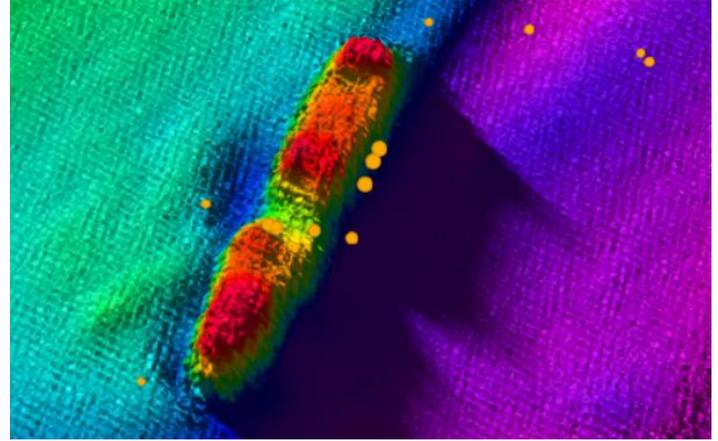
Fish and sharks surround the merchant ship *Dixie Arrow*, a World War II shipwreck. Photo: Tane Casserley/NOAA

Exploring living shipwrecks in 3D

Collaborative research between the sanctuary and NOAA's National Centers for Coastal Ocean Science resulted in significant data collected on historic North Carolina shipwrecks. To ensure reef ecosystems remain sustainable in support of the blue economy, scientists studied and documented how and when fish use these artificial structures. With the data, NOAA created an interactive website that allows users to virtually explore the shipwrecks and marine life in 3D and presented the data in a webinar viewed by more than 400.



Multibeam sonar image with fish visualization of *W.E. Hutton's* wreck site. The merchant tanker sank on March 19, 1942, when struck by a torpedo from a German U-boat. Photo: NOAA



Multibeam sonar image with fish visualization of the *Bluefields'* wreck site. The merchant freighter sank on July 15, 1942, when struck by a torpedo from the German U-boat. Photo: NOAA

Looking Ahead

- As Monitor National Marine Sanctuary moves closer to boundary expansion, NOAA will continue partnerships with other government agencies and academia to research World War II shipwrecks off North Carolina's coast in an effort to commemorate and honor the Battle of the Atlantic and U.S. Merchant Marines.
- A telepresence project in partnership with Global Foundation for Ocean Exploration, National Centers for Coastal Ocean Science, North Carolina's Office of State Archaeology, and NOAA Ship *Nancy Foster* will document North Carolina shipwrecks and bring them virtually to viewers.
- Monitor National Marine Sanctuary will co-sponsor *Submerged North Carolina* during archaeology month and throughout the year in partnership with North Carolina's Office of State Archaeology to honor World War II veterans through a series of presentations, events, and exhibits.

NATIONAL MARINE SANCTUARY SYSTEM



Scale varies in this perspective. Adapted from National Geographic Maps.

- National Marine Sanctuary
- ▲ Marine National Monument
- Proposed National Marine Sanctuary

The National Marine Sanctuary System is a network of underwater parks encompassing more than 600,000 square miles of marine and Great Lakes waters. The network includes a system of 14 national marine sanctuaries and Papahānaumokuākea and Rose Atoll marine national monuments.