

Cordell Bank National Marine Sanctuary

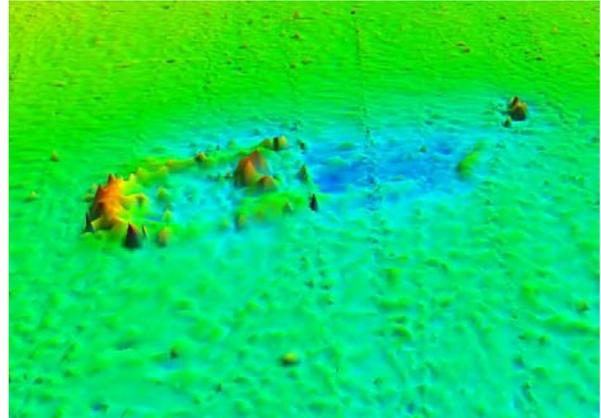
Maritime Heritage Resources

Management Issue

Cordell Bank National Marine Sanctuary (CBNMS or Sanctuary) has incomplete knowledge of the potential occurrence of maritime heritage resources and sunken polluters since less than 40% of the Sanctuary has been mapped using sonar technology capable of detecting sunken vessels.

Description

To date, there are no documented findings of any shipwrecks on the seafloor of the Sanctuary. However, the Farallon Islands and the mainland coast north of San Francisco have historically provided hazardous navigational obstacles to shipping. Many known shipwrecks litter the floor of the nearby Gulf of the Farallones National Marine Sanctuary; therefore, it is possible that shipwrecks exist within the boundaries of CBNMS and will eventually be identified. Our lack of knowledge on potential shipwrecks prevents the Sanctuary from taking actions to protect these maritime heritage resources. In addition, it is possible that sunken vessels residing on the seafloor have the potential to (or presently) leak oil or other contaminants. Understanding the potential risks to sanctuary resources necessitates an understanding of the sunken vessels in the site.



Side-scan sonar and multibeam echosounder (seen above) are two remote sensing mapping techniques that can be used to locate and describe sunken vessels. Image credit: NOAA Ocean and Coast Survey.

Questions and Information Needs

- 1) Are there any shipwrecks located in the Sanctuary?
- 2) What is the integrity of known maritime heritage resources?
- 3) Are any shipwrecks posing environmental hazards?
- 4) Are human activities impacting maritime heritage resource quality?

Scientific Approach and Actions

- Conduct systematic surveys (including remote sensing surveys) to map the occurrence of shipwrecks in the Sanctuary
- If shipwrecks are found in the Sanctuary, investigate shipwrecks using remotely operated vehicles for documentation and assessment of resource integrity
- If shipwrecks are found in the Sanctuary, assess shipwrecks for hazards and establish an inventory of shipwrecks posing environmental threats to marine resources
- If shipwrecks are found in the Sanctuary, assess known human activities in the sanctuary and determine potential for impacts to maritime heritage resources

Potential Key Partners and Information Sources

ONMS Marine Heritage Program, NOAA Office of Response and Restoration, Monterey Bay Aquarium Research Institute, NOAA Office of Exploration and Research

Updated: 5/1/2010

For More Information -- <http://www.sanctuaries.noaa.gov/science/assessment>

Management Support Products

- Inventory of shipwrecks within the Sanctuary
- Inventory of shipwrecks posing environmental threats to marine resources
- Assessment of human activities that could negatively impact maritime heritage resources

Planned Use of Products and Actions

- Use inventory of shipwrecks to establish plans to monitor, protect, and manage submerged maritime heritage resources
- Use inventory of shipwrecks to coordinate with partners to reduce environmental threats from shipwrecks.
- Utilize data products to support outreach and education projects that inspire resource protection and stewardship



In deep water environments like Cordell Bank Sanctuary, remotely operated vehicles are one tool that can be used to assess and characterize maritime heritage resources. Photo credit: Jennifer Renzullo/CBNMS

Program References

CBNMS Management Plan

- Cross-cutting Maritime Heritage Action Plan, strategy XMHR-2, XMHR-3
- Conservation Science Action Plan, strategy CS-2

CBNMS Condition Report

- Integrity of known maritime archaeological resources (question 15)
- Known maritime archaeological resources pose an environmental hazard (question 16)
- Levels of human activities that may influence maritime archaeological resource quality (question 17)

ONMS Performance Measures

- By 2015, 100% of the sanctuary system is adequately characterized.

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