



**CORDELL BANK NATIONAL MARINE SANCTUARY  
SANCTUARY ADVISORY COUNCIL**

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**Resolution to support staff recommendations within the Maritime Heritage Topic Briefing**

At its meeting on November 17, 2023, the Cordell Bank National Marine Sanctuary Advisory Council suggested edits to the staff recommendations within the Maritime Heritage Topic Briefing. The council passed a resolution to support the staff recommendations with the suggested edits.

Attachments: Maritime Heritage Topic Briefing

**Voting Members**

<b>Community-at-Large Marin Co.</b>	<b>Community-at-Large Sonoma Co.</b>	<b>Conservation</b>	<b>Education</b>
Vacant	Frank Capurro	Scott Artis	Vacant
Vacant	Steve Tubbs	Vacant	Vacant
<b>Fishing</b>	<b>Maritime Activities</b>	<b>Research</b>	
Christopher Ohanian	Vacant	Jeff Dorman (Chair)	
Vacant	Kai Martin	Chrissy Piotrowski	

The council is an advisory body to the sanctuary superintendent. The opinions and findings of this letter/publication do not necessarily reflect the position of the sanctuary and the National Oceanic and Atmospheric Administration.



## Briefing on Maritime Heritage in Greater Farallones and Cordell Bank National Marine Sanctuaries

### State of the Resource

This evaluation looks at the assessment of tangible resources and recognizes that these are non-renewable resources.

#### Condition Report Data (in preparation)

- CBNMS
  - CBNMS has one known historical resource<sup>1</sup> in the sanctuary, a shipwreck, the ex-USS *Stewart (DD-224)*. It was intentionally sunk within what is now the sanctuary in 1946 but it has not been relocated since. Although its condition is unknown and thought to be worsening, it is a significant cultural and archaeological resource for its role in U.S. Naval operations in WWII and likely continues to retain cultural and historical significance and educational value.
- GFNMS
  - GFNMS has 34 known shipwrecks; 17 have been documented by federal, state and private partners, and 13 coastal and offshore wrecks have been partially assessed for condition. Only a few have had comprehensive archaeological surveys.
    - All are experiencing physical degradation primarily due to natural processes. Human disturbances are thought to be minimal during the condition report assessment period (2010-2022).
    - Three shipwrecks are listed on the National Park Service's National Register of Historic Places<sup>2</sup>, the *Norlina*, the SS *Pomona*, and the USS *Conestoga*.
  - GFNMS has 24 historic doghole port sites
    - Surveys were conducted at 14 Sonoma County sites by federal and state partners; a few port remnants were documented

<sup>1</sup> "Historical resource" means any resource possessing historical, cultural, archaeological or paleontological significance, including a site, contextual information, structure, district, and object significantly associated with or representative of earlier people, culture, maritime heritage, and human activities and events (15 CFR 922.11).

<sup>2</sup> The National Register of Historic Places is the official list of the Nation's historic places worthy of preservation. The National Register is the official Federal list of districts, sites, buildings, structures, and objects significant in American history, architecture, archeology, engineering, and culture. National Register properties have significance to the history of their community state, or the nation. Authorized by the National Historic Preservation Act of 1966, the National Park Service's National Register of Historic Places is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archeological resources.

- Two doghole ports are listed on the National Register of Historic Places as part of Landing Historical and Archaeological Districts.
- The other doghole port sites have been included in a multiple property listing<sup>3</sup> submitted to the National Park Service. No sites have been documented as looted during the condition report assessment period; anecdotal evidence indicates some could have occurred in that time frame.
- Archaeological sites are adjacent to or near the sanctuary in some locations; these have not been assessed in the condition report.

### Climate Vulnerability Assessment Findings (in preparation)

- Exposure and sensitivity were factored into an assessment of the potential future impacts on Maritime Heritage Resources (MHR). Adaptive capacity was not included, as is general practice among MHR practitioners, because MHR are non-renewable and cannot adapt to climate impacts. 2023 was the first time MHR were assessed for a climate vulnerability assessment. Across the 3 MHR categories of resources assessed (Doghole Ports, Nearshore Shipwrecks, and Offshore Shipwrecks), exposure and sensitivity to climate-driven changes were rated as highest for doghole ports and lowest for offshore shipwrecks. This is due to the significant disturbances expected in coastal and nearshore areas from increased wave action and erosion, increased sedimentation and inundation. Dissolved oxygen and pH were common stressors noted across all 3 resource categories.
- Doghole ports have **high** potential to be impacted by climate change due to **very high** exposure and **moderate** sensitivity, with wave action, sedimentation, erosion, and dissolved oxygen as the most critical climate stressors. Doghole ports also have very high sensitivity and experience high current exposure to the non-climate stressors of artifact movement (e.g. movement by ocean currents) and biochemical degradation.
- Nearshore shipwrecks have **high** potential to be impacted by climate change due to **high** exposure and **moderate** sensitivity, with the same climate stressors identified as for doghole ports: primarily, wave action, sedimentation, erosion and dissolved oxygen. Nearshore wrecks are similarly highly sensitive to artifact movement and biochemical degradation, though current exposure to artifact movement was indicated to be moderate.
- Offshore shipwrecks have **low** potential to be impacted by climate change due to **moderate** exposure and **low** sensitivity, with dissolved oxygen as the only climate stressor rated higher than moderate. Again, artifact movement and biochemical degradation were identified as high sensitivities for this resource category, though the current exposure is low and moderate, respectively.

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<sup>3</sup> A multiple property submission covers a grouping of individual properties characterized by common physical and/or associative attributes, tied to a historic context. The cover form contains much of the context for evaluation, which does not have to be repeated in individual nominations submitted as part of the group. It facilitates evaluations of significance for related resources, enabling easier assessment of National Register of Historic Preservation eligibility for individual properties.

## **Pressures on Maritime Heritage**

Human activities and natural processes can affect the condition of maritime heritage resources through a variety of pathways. This section has been included to inform the public about the most significant overarching pressures, past, present, and potential, that may impact these resources. While some pressures are beyond the scope of what ONMS can address, the two sanctuaries are monitoring and working on efforts to respond to the following pressures:

- Impacts from research that contacts the seafloor
- Damage from benthic fishing
- Climate change - wave action, sedimentation, erosion
- Illegal take of structural remains and artifacts

## **Summary of Relevant Regulations**

See links to full text, definition, exceptions, and exemptions on the regulations pages of the [GFNMS](#) and [CBNMS](#) websites.

The following GFNMS and CBNMS prohibitions can prevent impacts on historical resources from listed prohibited activities:

1. Exploring for, developing, or producing oil, gas or minerals.
2. Constructing, placing or abandoning any structure, drilling into, dredging, or otherwise altering the submerged lands of the Sanctuary.
3. Possessing, moving, removing, or injuring, or attempting to possess, move, remove or injure, a Sanctuary historical resource.

## **Summary of Relevant Sanctuary Projects**

### **Supporting the National Program**

The Office of National Marine Sanctuaries Conservation Science Division leads and coordinates maritime heritage activities across the sanctuary system. Current systemwide activities focus on documenting physical resources, such as historic shipwrecks, ports and landings, and prehistoric archaeological sites; reviewing archival documents; recording oral histories, and documenting historical practices and traditional seafaring and ecological knowledge of indigenous cultures and coastal communities in web stories, maritime cultural landscape publications, and other media. A regional Maritime Heritage Coordinator supports all West Coast sanctuaries, since there are no site level Maritime Heritage Programs in the Region. GFNMS and CBNMS contribute by supporting activities at the sites.

### **Conservation Science**

- Conservation Science staff work with ONMS and West Coast Region maritime heritage staff and partners to identify potential sites for subsurface visual surveys and may conduct or assist surveys and analysis of submerged archaeological resources.

### **Resource Protection**

- Resource protection staff review permit applications for potential adverse impacts on historical resources as defined in the National Marine Sanctuary Act and work with

ONMS and West Coast Region maritime heritage staff to ensure proper consultation and documentation is completed as required under the National Historic Preservation Act and other federal laws and regulations.

- Through permitting actions the sanctuaries manage, reduce, or eliminate injury to MHR.
- Similarly, resource protection staff review other proposed federal actions, including proposed management plans and regulations, for adverse impacts on maritime heritage resources to ensure proper consultation and documentation is completed as required under the National Historic Preservation Act and other federal laws and regulations.
- The sanctuaries work with NOAA's Office of Law Enforcement to document and enforce sanctuary regulations that protect MHR.

### **Education and Outreach**

Education and Outreach staff communicate maritime heritage topics through various education and outreach programs and communications. The staff work with the west coast region and national program to include sanctuary related maritime heritage topics in regional and national products and programs.

- School programs
  - Ocean After School: Maritime heritage presentation and activities
  - Fisherman in the Classroom "At Your School" programs for 7th-12th grades. Brings local commercial fishermen into Bay Area classrooms to teach students about the rich cultural history and current day relevance of commercial fishing in North-central California
- Community programs
  - Oral History Public Event featuring Cordell Expeditions divers
  - Sanctuary Lectures: Abalone Soiree (history of abalone fishing)
- Summer Camp: Maritime heritage presentation and activities
- Exhibits/Signs-Oakland Museum of CA exhibits feature relevant heritage around CBNMS
- Media & outreach activities-
  - Social media posts featuring maritime heritage artifacts, maritime landscape (historical use of the ocean)
  - Shipwrecks of GFNMS Story Map on the sanctuary website, Get into your Sanctuary Story Map that features destinations to visit throughout and adjacent to the sanctuary, including maritime heritage features
  - Earth is Blue online videos featuring Doghole Ports, USS *Conestoga*, Nautilus video featuring the *Ituna*,
  - Poster: Harvestable Bounty of the Sea featuring fishing vessels of past and present
  - Cordell Expeditions Oral History project: written and audio files on website and archived in NOAA and local libraries.
  - Ocean Currents radio program maritime heritage topics

## Infrastructure and Vessels

Sanctuary infrastructure that supports maritime heritage includes office infrastructure and at-sea assets.

- The sanctuary hosts ONMS regional and national maritime heritage staff for information sharing and collaboration planning.
- Sanctuary staff have developed web offerings for ONMS-led maritime heritage projects such as the Doghole Port Study and a Storymap on Shipwrecks of Greater Farallones and the Narrows of the Golden Gate.
- The sanctuary vessel *Fulmar* and exploration vessel *Nautilus* and remotely operated vehicles have been used to support ONMS-led maritime heritage missions, e.g., surveys of the SS *Dorothy Wintermote* and *Ituna*, and discovery of the USS *Conestoga*.

## Summary

Currently GFNMS and CBNMS do not have a maritime heritage program. Site staff support maritime heritage activities such as condition reports and climate vulnerability assessments, National maritime heritage research and monitoring projects, and consultations. Maritime heritage is incorporated into exhibits, outreach materials, and education programs. The operations team supports this work through facilities and vessels.

## GFNMS and CBNMS Advisory Council Recommendations

*These recommendations were provided during a GFNMS Advisory Council meeting on July 14, 2023 and a CBNMS Advisory Council meeting on November 17, 2023. To view council discussion on this topic, please visit [https://farallones.noaa.gov/manage/sac\\_meetings.html](https://farallones.noaa.gov/manage/sac_meetings.html) and view the meeting's highlights.*

Conservation Science: Continue to work with and support ONMS and West Coast Region maritime heritage staff and partners to identify potential sites for surveys and conduct or assist with surveys of archaeological and cultural resources to support characterization of maritime heritage resources and environmental conditions and obtain information that can be used in outreach products and to inform management of these resources. Encourage and support research activities regarding the mysterious “holes” found on Cordell Bank to determine the purpose and/or use of the holes and their historical/maritime heritage significance. Survey potential pollution threats from existing shipwrecks to existing natural resources.

Resource Protection: Continue to work with and support ONMS and West Coast Region maritime heritage staff and partners as needed to protect historical resources. Identify and coordinate with site education and science programs maritime heritage project priorities. Continue to review permit applications and other proposed federal actions for potential impacts on historical resources and implementation of measures to avoid or mitigate adverse impacts on historical resources. Work with ONMS or regional Maritime Heritage Program staff to ensure proper consultation and documentation is completed as required. Reevaluate pollution threats from existing shipwrecks to existing natural resources.

Education and Outreach: Continue to work with and support ONMS and West Coast Region maritime heritage staff and partners and connect historical maritime stories and artifacts to current conservation issues and communities in media and outreach programs. Magnify messages about National Historic designations and rich maritime cultural history in education programs and communications. Encourage collaboration with other state and local entities to develop and share education resources for school groups and the general public and integrate maritime heritage (e.g. doghole ports, commercial and local uses) in naturalist training. Work with Point Arena Lighthouse to design and install exterior interpretive signs to communicate about the maritime history in the region. Work with Sonoma County Regional Parks to pursue future interpretive collaborations in the Sonoma region to include sanctuary maritime heritage (e.g. Gualala River Regional Park Visitor Center). Update existing maritime heritage signs at existing ports of departure to GFNMS such as Pillar Point Harbor.

Infrastructure: Continue to work with and support ONMS and West Coast Region maritime heritage staff and partners by providing access to sanctuary and partner at-sea assets. Expand Crissy Field Visitor Center to provide space for additional maritime heritage exhibits. Ensuring adequate resources to support sanctuary staff.