



Monterey Bay National Marine Sanctuary

Sanctuary Office Report



Volume 13, Number 1

A REPORT FOR THE SANCTUARY ADVISORY COUNCIL MEMBERS

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ABOUT THE SANCTUARY

Designated in 1992, Monterey Bay National Marine Sanctuary (MBNMS or Sanctuary) is a federally protected marine area offshore of California's central coast. Stretching from Marin to Cambria, MBNMS encompasses a shoreline of 276 miles and 6,094 square statute miles of ocean.

Supporting one of the world's most diverse marine ecosystems, it is home to numerous mammals, seabirds, fishes, invertebrates and plants in a remarkably productive coastal environment. MBNMS was established for the purpose of resource protection, research, education and public use of this national treasure.

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) AND OFFICE OF NATIONAL MARINE SANCTUARIES (ONMS) NEWS

NOAA announces \$4 million in funding to build coastal resilience

As part of its efforts to provide communities and businesses with products, tools, services, and funding to better address weather- and climate-related threats, today NOAA announced \$4 million in recommended funding for six habitat restoration projects across the United States.

The projects recommended for funding, under NOAA's 2015 Coastal Ecosystem Resiliency Grants Program, focus on dam removal in New England, creation of living shorelines in North Carolina, and reconnection of rivers to floodplains and flood protection in Washington, Florida, Massachusetts and California.

<http://www.noaanews.noaa.gov/stories2015/120115-noaa-announces-4-million-in-funding-to-build-coastal-resilience.html>

NOAA study finds "living shorelines" can lessen climate change's effects

A recent NOAA study, published in the journal PLOS One, shows "living shorelines" — protected and stabilized shorelines using natural materials such as plants, sand, and rock — can help to keep carbon out of the atmosphere, helping to blunt the effects of climate change.

This study, the first of its kind, measured carbon storing, or "carbon sequestration," in the coastal wetlands and the narrow, fringing marshes of living shorelines in North Carolina.

"Shoreline management techniques like this can help reduce carbon dioxide in the atmosphere while increasing coastal resilience," said Russell Callender, Ph.D., acting director of NOAA's National Ocean Service. "As communities around the country become more vulnerable to natural disasters and long-term adverse environmental change, scientific research such as this helps people, communities, businesses, and governments better understand risk and develop solutions to mitigate impacts."

<http://www.noaanews.noaa.gov/stories2015/121615-noaa-study-finds-living-shorelines-can-lessen-climate-changes-effects.html>

Remains of lost 1800s whaling fleet discovered off Alaska's Arctic coast

NOAA archaeologists have discovered the battered hulls of two 1800s whaling ships nearly 144 years after they and 31 others sank off the Arctic coast of Alaska in one of the planet's most unexplored ocean regions.

The shipwrecks, and parts of other ships, that were found are most likely the remains of 33 ships trapped by pack ice close to the Alaskan Arctic shore in September 1871. The whaling captains had counted on a wind shift from the east to drive the ice out to sea as it had always done in years past.

The ships were destroyed in a matter of weeks, leaving more than 1,200 whalers stranded at the top of the world until they could be rescued by seven ships of the fleet standing by about 80 miles to the south in open water off Icy Cape. No one died in the incident but it is cited as one of the major causes of the demise of commercial whaling in the United States.

<http://www.noaanews.noaa.gov/stories2016/010616-remains-of-lost-1800s-whaling-fleet-discovered-off-alaskas-arctic-coast.html>

Jason-3 reaches orbit, will monitor global sea-level rise, hurricane intensity

Jason-3, a U.S.-European satellite mission, lifted off from Vandenberg Air Force Base in California today at 10:42 a.m. PST aboard a SpaceX Falcon 9 rocket, to become the latest spacecraft to track the rate of global sea-level rise. Jason-3 will also help NOAA's National Weather Service more accurately forecast the strength of tropical cyclones that threaten America's coasts.

Jason-3 will undergo a six-month phase to test the satellite's instruments in orbit. Once complete, it will officially begin operations, joining Jason-2, which was launched in 2008.

While flying in a low orbit, 830 miles above the Earth, Jason-3 will use a radar altimeter instrument to monitor 95 percent of the world's ice-free oceans every 10 days. Since the Topex/Poseidon, and Jason satellite missions started in 1992, researchers have observed global sea-level rise occurring at a rate of 3 mm a year, resulting in a total change of 70 mm — or 2.8 inches — in 23 years.

<http://www.noaanews.noaa.gov/stories2016/011716-Jason-3-reaches-orbit-will-monitor-global-sea-level-rise-hurricane-intensity.html>

NATIONAL MARINE SANCTUARY NEWS

U.S. and Cuba to Cooperate on Sister Sanctuaries

On November 18, 2015 a Memorandum of Understanding was signed between NOAA, the National Park Service, and Cuba's National Center for Protected Areas. Part of this new MOU establishes sister-sanctuary relationships between Guanahacabibes and Banco de San Antonio in Cuba, and Flower Garden Banks and Florida Keys national marine sanctuaries in the United States – recognizing that these places are all inextricably linked through the flow of the ocean. The new MOU will make it easier for coral reef managers and scientists in the U.S. and Cuba to learn from one another's experience, which will benefit coral reef resources in both countries.

Grounded Vessels removed from Channel Islands National Marine Sanctuary

Two grounded vessels were recently successfully removed from rocky shorelines of Channel Islands National Marine Sanctuary and Channel Islands National Park. The 18-foot pleasure craft *Swift* was removed by Vessel Assist on November 11th from a cobble shoreline at Chinese Harbor on Santa Cruz Island. The salvage response took about 10 days to launch given delays by the owner and his insurance company. On the third attempt over 12 days, the 51-foot squid fishing vessel *Angeles Gate* was successfully pulled off a rock shelf on November 13th at Skunk Point on Santa Rosa Island and towed back to Ventura Harbor for repairs. These accidents are part of an unusually high number of groundings and other distressed vessel occurrences that have taken place recently, with a total of six incidents in the sanctuary over two months. National marine sanctuaries work with numerous partnering agencies and other parties to respond to vessel accidents, helping to reduce damage to property and the environment.

NOAA Announced Proposed Expansion

After several years of scientific and archaeological assessment and in coordination with the public, NOAA is proposing to expand Monitor National Marine Sanctuary off North Carolina's Outer Banks to include additional maritime heritage resources. The proposed expansion would protect a nationally significant collection of shipwrecks that currently have little or no legal protection, including one of America's only World War II battlefields. The Notice of Intent was published in the Federal Register Notice on January 8, 2016. <http://monitor.noaa.gov/management/expansion.html> Now after more than 40 years of honoring the iconic Civil War ironclad, USS Monitor, and the memory and service of Civil War sailors, MNMS now has an opportunity to explore expansion in order to honor another generation of mariners and to elevate the maritime heritage legacy of coastal North Carolina.

Ocean Noise Work Continues at Gray's Reef

Resource Protection Coordinator Becky Shortland participated in the bi-monthly Ocean Noise Working Group conference call (for which MBNMS is also a member). The Ocean Noise Working Group was established by ONMS to oversee a system-wide approach to managing ocean noise in sanctuaries. This call focused on updates from various sites, including Gray's Reef. In addition to the report on hydrophone deployments and pending retrievals for Gray's Reef, Becky reported that a response was received from the Bureau of Ocean Energy Management (BOEM) to the Sanctuary Advisory Council's BOEM Environmental Studies Program recommendations. The Gray's Reef SAC has concerns related to proposed oil and gas leasing and geophysical surveying that may occur off the coast. BOEM is considering several of the recommendations including additional acoustic monitoring off the Southeast coast. Elizabeth Weinberg at ONMS is working with Gray's Reef to create a blog for posting on social media. Efforts to monitor ocean noise system-wide and at each site aim to reduce negative physical and behavioral impacts to species, as well as conserve the acoustic quality of their habitats.

Remnants of a drifter buoy from Russia found on Shi Shi Beach

Assistance from Olympic Coast National Marine Sanctuary (OCNMS) personnel was requested by Jonathan Scordino, of Makah Fisheries Management, to identify a small float with wiring attached. The object was identified as the float of an ARGOS drifter buoy, a tool used by many oceanographers to study ocean currents, sea surface temperature, atmospheric pressure, winds and salinity. ARGOS drifter buoys transmit their location, and other data, to ARGOS satellites in real-time. Joe Petersen, of the Makah Tribe, found the drifter buoy's float on Shi Shi beach (at approximately 48°15.18 North and 124°41.25 West) on January 2, 2016. It was missing its sub-surface drogue and long cabling, but had the tapered portion of the cabling that attaches to the float. OCNMS personnel reached out to NOAA's Atlantic Oceanographic and Meteorological Laboratory Global Drifter Program to see if it happened to be one of their buoys that had been launched in the Pacific Ocean. It was not, but they were able to put Jonathan Scordino and OCNMS personnel in touch with the buoy's owner from RUSSIA! Turns out the buoy was launched by Gennady Kantakov, of Far East Energy Corporation (FEEC) Ltd., on the northwest side of Sakhalin Island to research the currents in the Sea of Okhotsk. The buoy had a drogue 1 m underneath, which is the depth used for nearshore buoys. Open ocean buoys have a drogue at 10 to 15 m underneath. The buoy somehow went out one of the straits and then circled in the ocean. It last transmitted six months ago north of Hawaii. Dr. Kantakov, very excited to learn of its final disposition, wrote, "since 2008 we have many opportunities to reach NW shore but your proof is definitely first one."



MONTEREY BAY NATIONAL MARINE SANCTUARY NEWS AND PROGRAM UPDATES



MANAGEMENT

Monterey Bay National Marine Sanctuary Holds Advisory Council Meeting

On December 11th, the MBNMS Advisory Council met and received a series of presentations and updates on the appointment of MBNMS Advisory Council members to the GFNMS Overflight Working Group, Advisory Council College seat, Advisory Council recruitment, the upcoming El Niño season, the MBMNS Management Plan Review and the Advisory Council 2016 calendar. The next Advisory Council meeting will be on February 19th, 2016 in Watsonville. Sanctuary Advisory Councils are community-based advisory bodies consisting of representatives from various user groups, government agencies and the public at large. The role of the council is to provide advice to the sanctuary superintendent on the designation and/or operation of a national marine sanctuary.

RESEARCH AND MONITORING

MBNMS Research Activity Panel Meets at CSU Monterey Bay

On January 8th, the MBNMS Research Activity Panel (RAP) met at California State University Monterey Bay (CSUMB), in Seaside, CA. Agenda items included: CSUMB research update, Sanctuary Advisory Council December meeting summary, CalCOFI annual meeting summary, and RAP priorities and links to Management Plan Update. For information, see <http://montereybay.noaa.gov/sac/rap/rapma.html>. The MBNMS Research Activity Panel (RAP) is a working group of the MBNMS Advisory Council. The RAP meets six times per year, and advises SAC and sanctuary staff on basic and conservation science issues.

2015 Update to the Monterey Bay National Marine Sanctuary Condition Report Released

On January 4th, the Monterey Bay National Marine Sanctuary (MBNMS) released a partial update to the 2009 Condition Report. The 2009 report provided a summary of resources in MBNMS, pressures on those resources, current conditions and trends, and management responses to reduce or mitigate human pressures. The 2015 report provides an updated assessment of the health of the sanctuary in the State of Sanctuary Resources section. Sanctuary staff, with input from regional scientific experts, re-evaluated status and trend ratings for 16 questions covering four resource categories: water quality, habitat, living resources and maritime archaeological resources. Each question was re-evaluated for accuracy and completeness, given new data sets, published literature and expert opinion that have become available since 2009. New information and updated narratives are provided for most questions, and many include new status and trend ratings. Trend ratings are generally based on trends since 2009. This re-evaluation was completed for each of three marine environments: (1.) estuarine, (2.) nearshore and (3.) offshore. A fourth marine environment, seamount, was evaluated for the first time in this update due to the addition of Davidson Seamount Management Zone to the sanctuary in November 2008. The report is available on-line at: <http://sanctuaries.noaa.gov/science/condition/monterey-bay-2015/>. A formal ‘roll out’ of the report, including press release, congressional letter, and web story, will occur in mid-January. This update to the Monterey Bay National Marine Sanctuary Condition Report used the best available science and most recent data to assess the condition of various parts of the sanctuary’s ecosystem. We identified resources that are in a healthy and stable condition, as well as some problems and declining trends. The findings in this update are being used as a tool to support the process to review and update Monterey Bay National Marine Sanctuary’s Management Plan.

Monterey Bay MBON Poster at 2015 CalCOFI Conference

On December 15th, a poster highlighting some of the recent efforts of the Monterey Bay Marine Biodiversity Observation Network (MBON) was presented at the [2015 California Cooperative Oceanic Fisheries Investigations \(CalCOFI\) conference](#). The poster titled “Monterey Bay Marine Biodiversity Observation Network (MBON): Integrating multidisciplinary regional data to track biodiversity and inform resource management” fostered interesting discussion with conference attendees. The poster session was held at Moss Landing Marine Laboratories. This poster was a collaborative effort of 11 authors who represent many of the institutions involved in the Monterey Bay MBON project: Monterey Bay National Marine Sanctuary, National Marine Fisheries Service Southwest Fisheries Science Center’s Fisheries Ecology and Environmental Research Divisions, Monterey Bay Aquarium Research Institute, Point Blue Conservation Science, Woods Hole Oceanographic Institute, and University of California Santa Cruz. National marine sanctuaries are an ideal setting

to develop and evaluate a biodiversity observation network because these areas encompass a wide range of marine environments with a high density of research and monitoring efforts, as well as nearby coastal communities that depend on the ocean for business and recreation. The sanctuary MBON demonstration project will help us better track the health of marine ecosystems and serve as a potential model for improving world-wide biodiversity observing capabilities.

RESOURCE PROTECTION

MBNMS staff Presents at Central Coast GIS Day

Monterey Bay National Marine Sanctuary staff, Sophie De Beukelaer, was invited to present at the 2015 Central Coast GIS Day on November 18, 2015. The presentation, “Using Maps and Apps to explore the resources of Monterey Bay National Marine Sanctuary,” focused on how interactive tools such as ArcGIS Online Maps, ESRI Story Maps and mobile apps, can be used to engage our stakeholders. GIS Day activities also included a live UAS demonstration and judged poster session which Sophie led. Approximately 100 GIS professionals working for local, state or federal agencies and NGOs, students, scientists and teachers were in attendance. This presentation provided an opportunity to engage technically focused people to partake in digital resources developed by ONMS to effectively advance their knowledge of the sanctuary’s resources and engage in citizen science efforts.

MBNMS Presents Accomplishments Report to US Coast Guard Auxiliary Air Squadron and US Coast Guard Air Station Command Staff

On Saturday, November 21, MBNMS staff member Scott Kathey made a presentation to US Coast Guard Auxiliary Air Squadron 11N (based in Livermore, California) highlighting aerial observation support the squadron has provided to MBNMS since February 2014. Between February 2014 and November 2015, the squadron submitted 66 aerial patrol reports to MBNMS representing approximately 265 hours of aerial surveillance effort within the marine sanctuary. This service, provided free to NOAA, was underwritten by the Coast Guard at an approximate cost of \$50,000. Auxiliary pilots reported several observations of illegal fishing in state marine reserves, provided real-time situational awareness and photo-documentation regarding vessel groundings and entangled whales, and improved MBNMS awareness of the location, timing, and nature of human activities occurring within the sanctuary. Aerial observations within the sanctuary are a key component of resource protection efforts. Due to the large size of MBNMS, aerial observations provide the most efficient means for detecting certain potential resource violations within the sanctuary, but flight time is typically expensive and in short supply. Partnership with the Coast Guard Auxiliary Air Squadron has provided an essential service at no direct cost to NOAA, and has significantly expanded sanctuary awareness of the nature and degree of violation activity within MBNMS. Auxiliary pilots have collaborated with MBNMS staff to develop reporting protocols, training modules, and an MBNMS aerial patrol guide.

MBNMS staff attend CalTRANS Winter Preparation Mtg in Big Sur

On December 3, MBNMS Resource Protection and Research staff attended the CalTRANS winter prep meeting at Big Sur Multi Agency Facility. The main goal of the meeting was to coordinate with the agencies involved in dealing with HWY One emergencies and landslides. The agencies that attended included Parks, County, USACE, CCC, USFWS, CDFG, CHP, NFS and the Regional Water Board. The meeting provided a chance for any feedback on the Emergency Notification Form (ENF) and the process of getting the information, as well as updates on known hot spots for landslides identified by CalTRANS. In addition, the group discussed emergency sediment storage locations along HWY One and received an update on the Alder Creek study from Steve Lonhart. For the past decade, MBNMS has coordinated closely with CalTRANS and other agencies on Big Sur landslide issues, and these annual meetings provide good opportunities for open communication on landslide disposal.

EDUCATION, VOLUNTEER AND OUTREACH PROGRAMS

Sanctuary Exploration Center Hosts Guest Speaker, Adam Ratner from the Marine Mammal Center

On Wednesday November 19th the Sanctuary Exploration Center’s monthly volunteer enrichment series featured Adam Ratner, Guest Experience Manager at the Marine Mammal Center. Mr Ratner gave an engaging presentation on “Behind the Bark: Saving Sea Lions in California”. Sea Lions and seals have been severely impacted by several environmental impacts over the past three years. Mr. Ratner explained why these environmental changes have occurred, and how they have

affected seals and sea lions. Volunteers now have a suite of interesting stories and interpretative tips to engage visitors in this pertinent topic. Sanctuary volunteers are an integral to the success of the Sanctuary Exploration Center by assisting visitors and interpreting complex marine science and conservation topics. Monthly enrichments give Exploration Center volunteers in depth knowledge or experiences to better communicate SEC exhibits to the public. Additionally, they provide an opportunity for socializing and camaraderie, which strengthens the sense of community at the Center.

Recreation & Tourism MBNMS Advisory Council Subcommittee

The MBNMS Recreation & Tourism Advisory Council Subcommittee met last week to discuss a myriad of topics. This subcommittee is comprised of Advisory Council members who who have a direct linkage to the recreation or tourism industry, a strong connectivity to area business, a history of positive cross promotion opportunities for the constituency they represent, and a willingness to contribute to the Subcommittee in a meaningful and productive way. The December 1st meeting reviewed: Friends of the Sanctuary Program Checklist; the Holiday Newsletter to the business community; and AC member updates.

Monterey Bay National Marine Sanctuary Exploration Center Exhibits closed in late November to mid-December for exhibits update/reopened December 22

After 3.5 years of operations, the Sanctuary Exploration Center in Santa Cruz, CA is getting a facelift and new hands-on interactives are being added to the exhibit floor. The goal for this phase of exhibit enhancement was to add more tactile exhibits for younger children and to improve and enhance the exterior of the building. Some of the exhibits include a new and upgraded “Introduction to ONMS and MBNMS, new watershed, Mapping the seafloor tri-column puzzle, Matching sands to rock game, Microscience under a video- microscope, Ray Troll Fishing boats and species magnet art, Migration exhibit and an opportunity for visitors make a choice about what stewardship and volunteer activities they can do as a citizen to help protect our sanctuaries.

Coastal Discovery Center launches “Elephant Seal Ambassador Program” - 2016

Twenty volunteers made up of Coastal Discovery Center docents, local teachers and high school students attended a half - day training on the natural history of the northern elephant seal, the marine mammal protection act, interpretation, and CA State Park and MBNMS regulations. Volunteers will man the San Simeon park entrance kiosk and San Simeon Beach to prevent negative human-seal interactions from January to March when overflow seals visit the local public beach and CA State Park at San Simeon Cove.

NEWS COVERAGE

[California American Water has resumed operation of its test slant well following a halt in the well's operation pending a coastal commission ruling.](http://www.desalination.biz/news/news_story.asp?id=8236&title=Monterey+slant+well+test+back+in+action)

http://www.desalination.biz/news/news_story.asp?id=8236&title=Monterey+slant+well+test+back+in+action
desalination.biz-November 18, 2015

[Shoreline protection work underway at Surfer's Beach: Construction project to combat erosion](http://www.smdailyjournal.com/articles/news/2015-11-20/shoreline-protection-work-underway-at-surfers-beach-construction-project-to-combat-erosion/1776425153899.html)

http://www.smdailyjournal.com/articles/news/2015-11-20/shoreline-protection-work-underway-at-surfers-beach-construction-project-to-combat-erosion/1776425153899.html
The Daily Journal-November 20, 2015

[Inside look at Moss Landing whale rescue team](http://www.ksbw.com/news/inside-look-at-moss-landing-whale-rescue-team/36778724)

http://www.ksbw.com/news/inside-look-at-moss-landing-whale-rescue-team/36778724
KSBW-December 3, 2015

[Hunt continues for cargo containers lost off Florida's coast](http://www.sun-sentinel.com/local/palm-beach/fl-cargo-falls-off-barge-fofo-20151207-story.html)

http://www.sun-sentinel.com/local/palm-beach/fl-cargo-falls-off-barge-fofo-20151207-story.html
Sun Sentinel-December 7, 2015

[DeepWater Desal CEO contributes paper to climate change conference](http://www.montereyherald.com/article/NF/20151207/NEWS/151209835)

http://www.montereyherald.com/article/NF/20151207/NEWS/151209835
Monterey Herald-December 7, 2015

[What's causing weird foam to appear at Santa Rosa Creek?](http://www.sanluisobispo.com/news/local/community/cambrian/article49128145.html)

http://www.sanluisobispo.com/news/local/community/cambrian/article49128145.html
The San Luis Obispo Tribune-December 10, 2015

[El Niño expected to leave more and more sea lions stranded on shore](http://www.kionrightnow.com/news/local-news/el-nino-expected-to-leave-more-and-more-sea-lions-stranded-on-shore/36983398)

http://www.kionrightnow.com/news/local-news/el-nino-expected-to-leave-more-and-more-sea-lions-stranded-on-shore/36983398
KION-December 15, 2015

[Save Our Shores Launches First Gift Catalog](http://www.tpgonlinedaily.com/24427-2/)

http://www.tpgonlinedaily.com/24427-2/
Aptos Times-December 21, 2015

[Education Digest for Dec. 22](http://www.thecalifornian.com/story/news/2015/12/21/education-digest-dec-22/77723330/?from=global&sessionKey=&autologin=)

http://www.thecalifornian.com/story/news/2015/12/21/education-digest-dec-22/77723330/?from=global&sessionKey=&autologin=
The Californian-December 21, 2015

[Bash for Behemoths: Whalefest Monterey](http://www.nbclosangeles.com/blogs/worth-the-drive/Bash-for-Behemoths-Whalefest-Monterey-363497361.html)

http://www.nbclosangeles.com/blogs/worth-the-drive/Bash-for-Behemoths-Whalefest-Monterey-363497361.html
NBC Southern California-December 29, 2015

[Lawrence Berkeley Lab supercomputers to review CalAm test well data, modeling](http://www.montereyherald.com/environment-and-nature/20160105/lawrence-berkeley-lab-supercomputers-to-review-cal-am-test-well-data-modeling)

http://www.montereyherald.com/environment-and-nature/20160105/lawrence-berkeley-lab-supercomputers-to-review-cal-am-test-well-data-modeling
Monterey Herald-January 5, 2016

[Rainstorms, tides and El Niño are reshaping Monterey Bay beaches](http://www.montereyherald.com/article/NF/20160111/NEWS/160119966)

http://www.montereyherald.com/article/NF/20160111/NEWS/160119966
Monterey Herald-January 11, 2016

[Cemex mine reflects human hunger for sand.](http://www.montereycountyweekly.com/news/cover/cemex-mine-reflects-human-hunger-for-sand/article_a7535ade-ba34-11e5-99c5-6fa7fd2f622a.html)

http://www.montereycountyweekly.com/news/cover/cemex-mine-reflects-human-hunger-for-sand/article_a7535ade-ba34-11e5-99c5-6fa7fd2f622a.html
Monterey County Weekly-January 14, 2016

Web Site (<http://montereybay.noaa.gov/>)

Follow MBNMS on Facebook (<https://www.facebook.com/MBNMS>) and **Twitter** (<https://twitter.com/mbnms>)

*Please take a few moments to peruse the site. Your feedback is greatly appreciated.
Comments and suggestions can be sent to andrew.white@noaa.gov.*

FUN, OCEAN RELATED WEB SITES

Caitlin Seaview Survey

<http://www.catlinseaviewsurvey.com>

SIMON

<http://www.sanctuariesimon.org>

Seasons in the Sea

<http://www.seasonsintthesea.com>

Waterlust

<http://www.waterlust.org/about/>

Thank You Ocean

<http://www.thankyouocean.org/>

NOAA Online Media Library

<http://sanctuaries.noaa.gov/photos>

Oceans Live

<http://oceanslive.gso.uri.edu/>

Office of National Marine Sanctuaries

<http://www.sanctuaries.nos.noaa.gov/>

NOAA Ocean Explorer

<http://oceanexplorer.noaa.gov/>

Encyclopedia of the Sanctuaries

<http://www.ocean.com/Library/Encyclopedia/>

National Data Buoy Center

<http://www.ndbc.noaa.gov/rmd.shtml>

National Ocean Service

<http://www.nos.noaa.gov/>

National Oceanic & Atmospheric Administration

<http://www.noaa.gov/>

Your Sanctuary TV

<http://yoursanctuarytv.org/>

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Learn More About Your Sanctuary

The Sanctuary Office Report is produced bi-monthly by Monterey Bay National Marine Sanctuary staff in conjunction with Sanctuary Advisory Council meetings. To learn more about the Sanctuary please visit our web site at: <http://www.montereybay.noaa.gov>.

To learn more about the Sanctuary Advisory Council please visit:
<http://montereybay.noaa.gov/sac/advisory.html>

The Office of National Marine Sanctuaries

Monterey Bay National Marine Sanctuary is one of 14 marine protected areas in the National Marine Sanctuary System encompassing more than 150,000 square miles of marine and Great Lakes waters from Washington State to the Florida Keys, and from Lake Huron to American Samoa. The system includes 13 national marine sanctuaries and the Papahānaumokuākea Marine National Monument. Visit the ONMS web site at:
<http://www.sanctuaries.nos.noaa.gov/>

Get involved and stay informed!

To learn how to get involved in the Sanctuary visit:
<http://montereybay.noaa.gov/getinvolved/welcome.html>

Sign up for the MBNMS listserv to receive email notices about upcoming Sanctuary events, and public meetings of the Sanctuary Advisory Council and Working Groups:
<http://montereybay.noaa.gov/intro/elists.html>

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