



Monterey Bay National Marine Sanctuary

Sanctuary Office Report



Volume 16, Number 2

A REPORT FOR THE SANCTUARY ADVISORY COUNCIL MEMBERS

REPORTING PERIOD: JANUARY 30, 2019 – MARCH 29, 2019

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

Scientists find mystery killer whales off Cape Horn, Chile

In January 2019, an international team of scientists working off the tip of southern Chile got their first live look at what might be a new species of killer whale. Called Type D, the whales were previously known only from a beach stranding more than 60 years ago, fishermen's stories, and tourist photographs. Genetic samples the team collected will help determine whether this animal, with its distinctly different color pattern and body shape, is indeed new to science. "We are very excited about the genetic analyses to come. Type D killer whales could be the largest undescribed animal left on the planet and a clear indication of how little we know about life in our oceans," said Bob Pitman, a researcher from NOAA Fisheries' Southwest Fisheries Science Center in La Jolla, California. The team's encounter with the distinctive whales came after they spent more than a week at anchor, waiting out the perpetual storms of Cape Horn off southern Chile. It was here that the scientists collected three biopsy samples—tiny bits of skin harmlessly taken from the whales with a crossbow dart—from

a group of Type D killer whales. For more information: <https://www.fisheries.noaa.gov/feature-story/scientists-find-mystery-killer-whales-cape-horn-chile>

Deep diving robots find warming accelerating in ocean off Antarctica

New research from NOAA and partners analyzing data from deep-diving ocean robots and research cruises shows that the coldest, near-bottom South Pacific waters originating from Antarctica are warming three times faster than they were in the 1990s. "Measuring the warming occurring in these deep ocean waters helps us understand one of the drivers of sea level rise and will help to improve predictions of future sea level," said Gregory C. Johnson, a NOAA oceanographer and co-author of two recently published research papers. As ocean waters warm, they expand, contributing to rising seas. New autonomous ocean robots called Deep Argo floats are able to dive down to depths of nearly four miles to collect data. Operating year round, they are improving our ability to monitor how heat is taken up by the ocean. The warming ocean affects not only sea level rise, but also weather patterns and long-term climate. For more information: <https://research.noaa.gov/article/ArtMID/587/ArticleID/2402/Deep-diving-robots-find-warming-accelerating-in-South-Pacific-Ocean-waters>

NOAA, recreation industry to strengthen sustainable fishing and boating in federal waters

Recreational fishing and boating are enormously popular American pastimes, an economic force, and a bridge to conservation. In recognition of the importance of these activities to coastal economies, NOAA today announced a formal partnership with leading industry and resource management groups. This partnership aims to strengthen collaboration promoting sustainable, long-term recreational fishing and boating opportunities in federal waters, including national marine sanctuaries. The formal agreement is between NOAA's Office of National Marine Sanctuaries, NOAA Fisheries, the National Marine Manufacturers Association, the American Sportfishing Association, the Association of Fish and Wildlife Agencies, and the Recreational Boating and Fishing Foundation. It is intended to help communities realize greater social and economic benefits from sustainable recreational fishing and boating and inspire momentum for a healthy ocean. For more information:

<https://sanctuaries.noaa.gov/news/jan19/noaa-recreation-industry-promote-sustainable-fishing-boating.html>

NATIONAL MARINE SANCTUARY NEWS

Hawaiian Islands Humpback Whale National Marine Sanctuary leads multi-day effort to free an entangled humpback whale off Maui

The Hawaiian Islands Humpback Whale National Marine Sanctuary lead a multi-day, multi-team effort to free an entangled humpback whale in Sanctuary waters off Maui. The adult whale was entangled through its mouth and tail and was carrying a trap below it. While the animal was in good to fair condition, the entanglement was deemed life threatening, and an authorized response was mounted. The response team included trained personnel from the sanctuary, NOAA Fisheries Pacific Islands Region, NOAA Corps, the state of Hawaii (Kaho'olawe Island Reserve Commission), Oceanwide Science Institute, and NGOs, Ultimate Whale Watch and Pacific Whale Foundation. Unfortunately, after 2 days of effort only a small amount of gear was removed, leaving the animal partially disentangled, but with a great deal of gear remaining. The gear that was removed will be used to better understand and mitigate the threat of entanglement in the future. While the Hawaiian Islands Humpback Whale National Marine Sanctuary, working under NOAA's Marine Mammal Health and Stranding Response Program, and alongside its partners, endeavors to free large whales from life threatening entanglements, the ultimate goal is gaining information towards reducing the threat in the long-term.

Female divers make buoy team history during Women's History Month

During Women's History Month, FKNMS would like to recognize the accomplishments of women working divers Cassie Qualls and Eliza Jones who made Florida Keys National Marine Sanctuary buoy team history on March 5, 2019, when they became the first fully female dive team to reinstall a deep-water mooring. The replacement of the mooring system on the bow of the artificial reef *Duane* is considered an advanced dive due to the depth (97 feet) and prevailing currents that can frequently be very strong flowing from bow to stern. While positions on the buoy team have primarily been male, women have occasionally occupied buoy technician positions. Qualls and Jones were hired under the NOAA/FIU cooperative agreement. The addition of women to the buoy team satisfies the ONMS strategic goal encouraging a culture of inclusion and respect.

Participation in the First World Congress on Maritime Heritage 2019

Maritime Heritage Program staff participated in the First World Congress on Maritime Heritage, held in Singapore March 13-15. The Congress succeeded in bringing together a diverse global array of maritime constituent groups, institutions, and stakeholders (ministers of transport and communication, merchant mariners, shipping captains, port personnel, museum directors, aquarium specialists, historians, archaeologists, heritage professionals), and providing a unique opportunity for all to form new partnerships towards achieving a common objective: securing a sustainable future through better understanding of our common maritime heritage. As a speaker and panelist, Hans Van Tilburg included support for the maritime cultural landscape approach as it is used by the Maritime Heritage Program and the Marine Protected Areas Center (cultural heritage toolkit). Maritime cultural landscapes highlight multicultural and oceanic perspectives. The issue of climate change emerged clearly as closely linked to the development of shipping, safety at sea, the underwater cultural heritage, and (today) potential threats to coastlines and ports. The planning committee is expecting the second World Congress on Maritime Heritage to be held in two or three years. Directly relating maritime heritage to contemporary issues associated with achieving a sustainable future, at the international level. For more information: <https://wcmh2019.com/>



MONTEREY BAY NATIONAL MARINE SANCTUARY NEWS AND PROGRAM UPDATES



MANAGEMENT

Monterey Bay National Marine Sanctuary Holds Advisory Council Meeting

On February 15th, MBNMS' Advisory Council met and received a series of presentations and updates on the Monterey Bay Ecotourism Region initiative, the Sanctuary Advisory Council (SAC) Challenge, state and federal ocean/coast related legislation and issues and the proposed Advisory Council 2019 work plan. The next meeting will be held on April 19th in Moss Landing. 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

Deep sea collections within Monterey Bay National Marine Sanctuary

Sophie De Beukelaer, Lynker Technologies Contractor to MBNMS, joined Monterey Bay Aquarium and Monterey Bay Aquarium Research Institute (MBARI) staff on a very successful deep sea collection cruise at two sites within Monterey Bay National Marine Sanctuary and far offshore to Guide Seamount from January 22 to 25, 2019. Participating in research at sea, provides MBNMS's permit coordinator the ability to effectively assess methodologies outlined in permit applications and then develop precise permit conditions and comprehensive NEPA documentation to best reflect the impacts of the research. Unfortunately, marine debris, including lots of line and an old trap, was found at both of the deep Ascension canyon and Monterey Canyon sites within MBNMS. Data collected by the ROV and processed by MBARI during cruises like these inform MBNMS projects such as ecosystem-based management initiatives including the Essential Fish Habitat proposal and identifying Sanctuary Ecologically Significant Areas (SESAs) and lost fishing gear removal efforts. Accompanying our partners on cruises like these allows permit coordinators to have a more thorough understanding of the deep sea environment and therefore process more informed NEPA documentation.

New and experienced Beach COMBERS citizen science volunteers receive training

A training was held for new and experienced Beach COMBERS volunteers on Sunday February 3 at Moss Landing Marine Laboratories. Beach COMBERS (Coastal Ocean Mammal and Bird Education and Research Surveys) is a citizen science program collaboration among Monterey Bay National Marine Sanctuary, Moss Landing Marine Laboratories, US Geological Survey, US Fish and Wildlife Service, California Department of Fish and Wildlife, and Save The Earth Foundation. Since 1997, trained volunteers have surveyed beached marine birds and mammals monthly at selected sections of beaches throughout the Monterey Bay area, with the specific goal of using deposition of beach cast carcasses as an index of the health of the sanctuary. On average, Beach COMBERS detect 2.5 events per year, where baseline numbers of dead organisms are significantly surpassed. These could be natural events (e.g., a low productivity year for food) or human caused (e.g., an oil spill). Beach COMBERS accomplishments and information can be found on the web site

<https://www.mlml.calstate.edu/beachcombers/>

New deep-sea species described from Sur Ridge within Monterey Bay National Marine Sanctuary

A deep-sea tunicate observed at Sur Ridge within Monterey Bay National Marine Sanctuary, has been described in the recent paper, "A new *Culeolus* species (Ascidiacea) from the NE Pacific, California" published in the journal Zootaxa (<http://dx.doi.org/10.11646/zootaxa.4420.2.8>). The Monterey Bay Aquarium Research Institute (MBARI) and Monterey Bay National Marine Sanctuary (MBNMS) collected the species during a collaborative research cruise during December 2017. The collaborators have been conducting research and coral experiments at

Sur Ridge since 2013, and the location is becoming a deep-sea coral observatory. The new species, *Culeolus barryi*, was named in honor of Dr. James P. Barry (MBARI) for his many contributions to deep-sea ecology. Dr. Barry is a key collaborator with MBNMS. An image of the newly described species can also be viewed in the Sur Ridge Field Guide (as *Culeolus* sp. A, p. 80; <https://sanctuaries.noaa.gov/science/conservation/sur-ridge-field-guide-monterey-bay-national-marine-sanctuary.html>). Sur Ridge is a large rocky feature located approximately 28 miles west of Point Sur, central California. Sur Ridge is considered a sanctuary ecologically significant area (SESA), and serves as a focal area for facilitating research to better understand natural and human-caused ecosystem variation. Sur Ridge is considered a sanctuary ecologically significant area (SESA), supported by expansive fields of deep-sea corals and sponges. Research will continue to characterize the area.

MBNMS Research Activity Panel Meets at Long Marine Lab

On March 8, Monterey Bay National Marine Sanctuary's Research Activity Panel (RAP) met at Long Marine Lab in Santa Cruz, CA. Agenda items included: California Sea Grant update; Central California urchin removal and kelp restoration project; use of seal bombs in California fisheries; hydrodynamics and morphodynamics of a small bar built estuary: the Carmel River; summary of December and February MBNMS Advisory Council meetings; and potential 2019 Ricketts Award venue locations. The MBNMS Research Activity Panel (RAP) is a working group of the MBNMS Advisory Council (AC). The RAP meets five times per year; and advises AC and sanctuary staff on basic and conservation science issues. For more information:

<http://montereybay.noaa.gov/sac/rap/rapma.html>

RESOURCE PROTECTION

MBNMS Represented at CA Water Environment Annual P3S Conference

On February 11, the Water Quality Protection Program Director participated in the Opening General Session and Panel discussion for the CA Water Environment Annual P3S Conference. This group is made up of wastewater, water supply and storm water professionals. The theme was *Connect the Dots to Clean Water*. The panelists were experts in toxicity reduction, monitoring pollutants of concern and improving packaging design and recyclability. Participants traveled from all over the state and were introduced to the beauty of MBNMS. When given the opportunity, it is important to communicate with audiences who have similar goals yet are unfamiliar with the national marine sanctuary system and the benefits we can provide.

Mystery Oiling of Birds and Otters in Monterey Bay National Marine Sanctuary

Over the weekend of 2/16-2/17, at least seven heavily oiled birds (mostly Common Murres and one Pacific Loon with oil covering >50% of their bodies) were recovered from beaches on the Monterey Peninsula. The oil produced skin burns on the birds. Additionally, three dead oiled sea otter pups were collected at Asilomar Beach between 2/16 and 2/18. During the same time period, a few oiled birds per day were collected in Santa Barbara and Ventura Counties. Santa Barbara Wildlife Care Network received 37 live oiled birds between 2/3 and 2/18. Oil samples from oiled birds collected in Pismo Beach on 2/4-2/5 and from oiled birds collected in Ventura on 1/18 were analyzed and found to be consistent with weathered Monterey Formation crude, presumed to have originated from natural seeps on the seafloor. MBNMS is aiding the state's investigation of the oil's source by leveraging its long-standing partnership with a local Coast Guard Auxiliary Air Squadron. MBNMS has asked the air squadron to conduct special survey flights over known natural crude oil seep locations within the sanctuary to determine if sheening is present and help determine if the source of recently oiled wildlife is from natural geological phenomena or human activity. Standing MBNMS partnerships are vital to successful management of the sanctuary. Strong inter-agency relationships are the result of diligence and regular communication, and they return very practical benefits and efficiencies at no added costs to NOAA. Partner assistance, such as aerial surveys in this case, help sanctuary management better understand the ecosystem through improved real-time situational awareness.

Big Sur Multi Agency Advisory Committee (MAAC) convenes on March 15

MBNMS serves a member of the Big Sur MAAC, which has been meeting quarterly for the past decade or more. The group is chaired by Congressman Jimmy Panetta and Monterey Co. Board of Supervisor Mary Adams, and is represented by other local elected, federal and state resource agencies, along with local Big Sur reps such as the Chamber and Property Owner’s Association. Many of the Big Sur residents attend the meeting and bring their issues of concern to the group. One of the topics included unpermitted drones at Bixby Bridge and other locations, and the group suggests allowing two permits per year max in order to limit disruption to traffic and resident privacy. A key issue discussed was lack of cell service, which became evident when a teen drowned off Garrapata and his friends were not able to call 911, and even responders were not able to effectively communicate with each other. There is now a group working with AT&T and other providers to put infrastructure in place to provide cell service from the Carmel Highlands to the River Inn area. During the fires, USCG had staged a vessel off the coast in order to support cell service. The MAAC recommended infrastructure should be put in place for the entire coastline, so that another life would not be lost. MBNMS reported on the May 4 Snapshot Day 20th anniversary event, and the open recruitment occurring for Sanctuary Advisory Council member, and had follow up discussions on additional support for Snapshot Day. Participating in local committees and advisory councils is important to Sanctuary resource protection and education and outreach efforts.

EDUCATION, VOLUNTEER AND OUTREACH PROGRAMS

Weekly public outreach and media engagements in Monterey Bay National Marine Sanctuary

In order to inform constituents about sanctuary issues, current events, research, education, and resource protection policy, staff engage and utilize various media and public platforms when appropriate. From February 18-24, staff responded to two media requests regarding wildlife disturbances by humans, one by KION TV station, and another by San Luis Obispo Tribune. Social media was also used to inform followers about upcoming sanctuary volunteer opportunities for Bay Net and Team OCEAN programs, local research in Elkhorn Slough, as well as highlighting ONMS web stories, Zero Waste Week Campaign, and Earth Is Blue magazine to local and national audiences. Maintaining regular media/outreach communication helps to highlight NOAA’s relevance to the public in sanctuary research, resource protection, and conservation through education and volunteer programs. By building awareness, NOAA informs communities on how sanctuary issues are addressed through a variety of means to reduce or prevent detrimental human impacts, and helps engage and encourage public stewardship of America’s Underwater Parks.

Monterey Bay National Marine Sanctuary’s Coastal Discovery Center work with partners to keep the public safe around elephant seals

Each winter, the public beach next to the Coastal Discovery Center hosts several subadult “bachelor” elephant seals. The seals mimic the territorial behavior of their breeding relatives 4.5 miles north of the Center, making their movement and aggression displays unpredictable. Beach-goers, seals and dogs do not mix. To help educate visitors and keep them a safe distance from the seals, Monterey Bay National Marine Sanctuary (MBNMS) joined forces with CA State Parks, the Marine Mammal Center (TMMC) and Friends of the Elephant Seal (FES) to address elephant seal education and safety. Saturday morning talks at the Center on the natural history of elephant seals are well attended, TMMC’s skull and pelt display on the beach invite visitors to ask questions about seals, and FES interns set driftwood fences around the seals while taking data on seal behavior. As a result, visitors make informed decisions on how to best behave around wildlife, dogs stay on leashes and everyone stays safe! Visitor experience and safety is greatly increased, and camaraderie between cooperating agencies and NGOs enhanced when everyone works together.

Keynote speaker Robert Schwemmer Presents History of the S.S. *Montebello* at Cambria Historical Society's Annual Banquet

On February 24, Robert Schwemmer, West Coast Regional Maritime Heritage Coordinator, spoke to over 80 historians at Cambria Historical Society's annual banquet at Cambria Pines Lodge. The sold-out crowd was captivated as Schwemmer shared historic research he had uncovered on the S.S. *Montebello*, a Union Oil Company tanker torpedoed by Japanese sub I-21 only 6.5 miles off of Cambria in 1941. The sunken ship sits in 900 feet just south of the Monterey Bay National Marine Sanctuary (MBNMS) and for many years it was unknown if the ship still contained oil. Schwemmer was on the science team that discovered the wreck in 1996, and at subsequent dives in 2003 and 2009 when the *Montebello* Assessment Task Force was established at the request of California State Senator Sam Blakeslee to coordinate a risk assessment and determine the likelihood of the release of the potential cargo of more than 3,000,000 gallons of Santa Maria crude oil. In 2011, Schwemmer served as technical advisor with the taskforce on board the OSRV *Nanuq* during the U.S. Coast Guard-directed assessment for which he received the Award of Operational Merit. Schwemmer's presentation included underwater video of the sunken ship as well as footage from live interviews with the crew's last survivor, Richard Quincy. Additional information was shared on NOAA's recent shipwreck discoveries of two other ships sunk by the Japanese submarines during their campaign in the Eastern Pacific. "The history of the *Montebello* is still deeply rooted in the communities of Cambria, Cayucos and Morro Bay, for these citizens took heroic actions to launch a sea and land rescue for the *Montebello*'s crew of 38. Today, nearly 80 years after the sinking of the *Montebello*, people are just learning about the little-known history of Japanese submarines attacking and sinking American merchant ships within sight of shoreline of the West Coast of the United States," said Schwemmer. MBNMS' Coastal Discovery Center, the Cambria Historical Society and Morro Bay's Maritime Museum all use information from the National Marine Sanctuary Maritime Heritage program in their exhibits on the S.S. *Montebello*. Sharing the discovery, study and protection of our maritime cultural heritage resources with historians in southern MBNMS has helped build relationships and promote MBNMS and the West Coast National Marine Sanctuary Maritime Heritage program. To learn more about the SS *Montebello* <https://montereybay.noaa.gov/maritime/frmontebello.html>

Sea Turtle rescued near MBNMS' Coastal Discovery Center

On Saturday, March 2, MBNMS' Carolyn Skinder received a report of a "dead" sea turtle on San Simeon Beach near the Coastal Discovery Center. After being granted permission to access the north end of the beach through private property, the sea turtle was found to be a live olive ridley, an endangered species that has had other reported strandings this winter in northern CA. The turtle was promptly called in to the Marine Mammal Center in Morro Bay and to sea turtle expert, Dr. Heather Harris. The male turtle weighed 28 kg, and was treated in Morro Bay before being sent to Seaworld in San Diego for recovery. San Simeon Cove is a popular site for marine bird and mammal strandings. In addition to educating the public about the Sanctuary's natural history, staff and docents at the Coastal Discovery Center work with the community to relay accurate information to local wildlife rescue teams and marine biologists.

NEWS COVERAGE

[Thousands of golf balls found in waters of Pebble Beach the cause of marine pollution](https://abc13.com/society/thousands-of-golf-balls-found-off-coast-cause-marine-pollution-/5118999/)

<https://abc13.com/society/thousands-of-golf-balls-found-off-coast-cause-marine-pollution-/5118999/>
KTRK-TV – February 3, 2019

[California has a weird new desert. It's in the Pacific Ocean.](https://www.mercurynews.com/2019/02/03/colorful-sea-star-vanishes-from-california-coast-devastating-marine-ecology-fisheries/)

<https://www.mercurynews.com/2019/02/03/colorful-sea-star-vanishes-from-california-coast-devastating-marine-ecology-fisheries/>
Mercury News – February 3, 2019

[Elkhorn Slough's fight to adapt to climate change](https://www.montereyherald.com/2019/02/10/dan-haifley-our-ocean-backyard-elkhorn-sloughs-fight-to-adapt-to-climate-change/)

<https://www.montereyherald.com/2019/02/10/dan-haifley-our-ocean-backyard-elkhorn-sloughs-fight-to-adapt-to-climate-change/>
Monterey Herald – February 10, 2019

[Inside a teenage diver's quest to collect thousands of golf balls from Pebble Beach](https://www.thecalifornian.com/story/news/2019/02/18/pebble-beach-golf-balls-pollution-monterey-bay/2683334002/)

<https://www.thecalifornian.com/story/news/2019/02/18/pebble-beach-golf-balls-pollution-monterey-bay/2683334002/>
The Californian – February 18, 2019

[Monterey Bay National Marine Sanctuary Foundation expands public outreach whale rescue programs](https://www.santacruzsentinel.com/2019/02/20/monterey-bay-national-marine-sanctuary-foundation-expands-public-outreach-whale-rescue-programs/)

<https://www.santacruzsentinel.com/2019/02/20/monterey-bay-national-marine-sanctuary-foundation-expands-public-outreach-whale-rescue-programs/>
Santa Cruz Sentinel – February 20, 2019

[Welcome \(Back\) to Santa Cruz](https://www.surflife.com/surf-news/welcome-back-santa-cruz/45943)

<https://www.surflife.com/surf-news/welcome-back-santa-cruz/45943>
Surflife – February 25, 2019

[Report argues for offshore wind farm on central coast](https://goodtimes.sc/santa-cruz-news/news/offshore-wind-report/)

<https://goodtimes.sc/santa-cruz-news/news/offshore-wind-report/>
Good Times – February 26, 2019

[Exxon Valdez, danger of offshore oil transport and production](https://www.santacruzsentinel.com/2019/03/09/exxon-valdez-danger-of-offshore-oil-transport-and-production-dan-haifley-our-ocean-backyard/)

<https://www.santacruzsentinel.com/2019/03/09/exxon-valdez-danger-of-offshore-oil-transport-and-production-dan-haifley-our-ocean-backyard/>
Santa Cruz Sentinel – March 9, 2019

[Where did all these golf balls come from?](https://www.montereyherald.com/2019/03/09/where-did-all-these-golf-balls-come-from/)

<https://www.montereyherald.com/2019/03/09/where-did-all-these-golf-balls-come-from/>
Monterey Herald – March 9, 2019

[Oceana's tiny staff covers lots of ground](https://www.santacruzsentinel.com/2019/03/20/oceanas-tiny-staff-cover-lots-of-ground/)

<https://www.santacruzsentinel.com/2019/03/20/oceanas-tiny-staff-cover-lots-of-ground/>
Santa Cruz Sentinel – March 20, 2019

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

★★ Check out these updated MBNMS Advisory Council webpage links! ★★

Advisory Council Meeting Agendas & Minutes

<https://montereybay.noaa.gov/sac/sacma.html>

Advisory Council Actions and Results

<https://montereybay.noaa.gov/sac/sacact.html>

Advisory Council User Group Newsletters (seats and working groups/sub-committees)

<https://montereybay.noaa.gov/sac/advisory-nwsltr.html>

Sanctuary Tourism and Recreation Working Group

<https://montereybay.noaa.gov/sac/rec-tour.html>

*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.*

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

FUN, OCEAN RELATED WEB SITES

★★ NEW link! NOS Ocean Facts: Ocean Life ★★

<https://oceanservice.noaa.gov/factspage.php?siteName=oceanfacts&cat=Ocean%20Life>

Caitlin Seaview Survey

<http://www.caitlinseaviewsurvey.com>

SIMON

<https://www.sanctuariesimon.org>

Seasons in the Sea

<http://www.seasonsintthesea.com>

Thank You Ocean

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

Oceans Live

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

NOAA Ocean Explorer

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

Encyclopedia of the Sanctuaries

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

MBNMS STAFF

Paul Michel – Superintendent
Dawn Hayes – Deputy Superintendent

Research

Andrew DeVogelaere – Research Coordinator
Jennifer Brown – SIMoN Ecosystem Scientist
Erica Burton – Research Specialist
Chad King – SIMoN Data Analyst
Steve Lonhart – SIMoN Senior Scientist

Education

Amity Wood – Education and Outreach Coordinator
Ashlyn Adams – SEC Gift and Bookstore Manager
Acy Wood – Program Assistant (SEC)
Nick Ingram – Exhibits/Facility Specialist (SEC)
Bri Madrigal – Volunteer Coordinator (SEC)
Emily Pierce – Program Assistant (SEC)
Chelsea Prindle – SEC Manager
Carolyn Skinder – Southern Region Program Coordinator
Lisa Uttal – Education Specialist

Resource Protection

Karen Grimmer – Resource Protection Coordinator
Sophie De Beukelaer – GIS Analyst & Research Permit Coordinator
Lisa Emanuelson – Citizen Watershed Monitoring Network Coordinator
Bridget Hoover – Water Quality Protection Program Director
Scott Kathey – Regulatory/Emergency Response Coordinator (on detail to GRNMS)
Pamela Krone – Agriculture Water Quality Coordinator

Program Operations

Raymond Chisolm – Program Specialist
Nichole Rodriguez – Advisory Council Coordinator
Andrew White – Network Manager and Webmaster



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: <https://www.montereybay.noaa.gov>.

To learn more about the Sanctuary Advisory Council please visit:
<https://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:
<https://www.sanctuaries.nos.noaa.gov/>

Get involved and stay informed!

To learn how to get involved in the Sanctuary visit:
<https://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:
<https://montereybay.noaa.gov/intro/elists.html>

- Contact Information -

Monterey Bay National Marine Sanctuary

99 Pacific Street, 455A
Monterey, CA 93940
Phone (831) 647-4201
Fax (831) 647-4250