



Monterey Bay National Marine Sanctuary

Sanctuary Office Report



Volume 14, Number 1

A REPORT FOR THE SANCTUARY ADVISORY COUNCIL MEMBERS

REPORTING PERIOD: NOVEMBER 12, 2016 – JANUARY 30, 2017

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 awards \$8 million for coastal resiliency investments across the nation

NOAA Fisheries is pleased to announce \$8 million in recommended funding for 11 shovel-ready coastal resiliency projects in various sites across the country. These awards are part of NOAA's continued commitment to build resilient coastal ecosystems, communities, and economies. "Americans who live on the coast face enormous risks when Mother Nature strikes; however, it is natural infrastructure--wetlands, marshes, floodplains, and coral reefs--that often serve as our best defense. The selected projects will restore our natural barriers and help keep people, communities, and businesses safe," said Eileen Sobeck, assistant NOAA administrator for Fisheries. Six projects aim to restore critical wetlands, marshes, and floodplains in Massachusetts, California, Washington, and Hawaii, which increase resiliency and offer flood protection for homes and

businesses. http://www.nmfs.noaa.gov/mediacenter/2016/12/December/2012_coastal_resiliencyawards.html

NOAA satellites go HD with GOES-R

Last week, NOAA engineers and satellite mission scientists had something extra to be thankful for: the successful launch of GOES-R on November 19. Providing more timely and accurate information over the Western hemisphere, total lightning mapping, and higher resolution images streaming down from space more often, the new mission marks the first major redesign of the nation's operational Earth-observing technology in more than 20 years. The Advanced Baseline Imager (ABI) will be the go-to instrument for imaging Earth's weather, land, oceans, and climate. It's called an imager, rather than just a "camera," because it captures way more than the visible wavelengths of light that are captured by a camera for a regular photograph. <https://www.climate.gov/news-features/climate-tech/noaa-satellites-go-hd-goes-r>

NOAA research links human-caused CO2 emissions to dissolving sea snail shells off U.S. West Coast

For the first time, NOAA and partner scientists have connected the concentration of human-caused carbon dioxide in waters off the U.S. Pacific coast to the dissolving of shells of microscopic marine sea snails called pteropods. Commercially valuable fish such as salmon, sablefish and rock sole make the pteropod a major part of their diet. "This is the first time we've been able to tease out the percentage of human-caused carbon dioxide from natural carbon dioxide along a large portion of the West Coast and link it directly to pteropod shell dissolution," said Richard Feely, a NOAA senior scientist who led the research appearing in *Estuarine, Coastal and Shelf Science*. "Our research shows that humans are increasing the acidification of U.S. West Coast coastal waters, making it more difficult for marine species to build strong shells." <http://research.noaa.gov/News/NewsArchive/LatestNews/TabId/684/ArtMID/1768/ArticleID/12006/NOAA-research-links-human-caused-CO2-emissions-to-dissolving-sea-snail-shells-off-US-West-Coast.aspx>

NATIONAL MARINE SANCTUARY NEWS

FKNMS Continues Working to Remove Vessels and Debris from Marquesas Keys

FKNMS staff member Steve Werndli met with managers and staff with the USFWS Florida Keys National Wildlife Refuge Complex, United States Coast Guard (USCG) Sector Key West, Florida Fish and Wildlife Conservation Commission, and Monroe County Marine Resources Office to continue planning and discuss funding, logistics, and environmental compliance for a project that will restore shoreline and nearshore habitats in the vicinity of the Marquesas Keys by permanently recovering the pollution threats and debris from 25 abandoned migrant vessels (chugs) in a manner that minimizes harm to the ecosystem while maintaining a high probability of success. The impacts from vessels, including oil pollution and vessel groundings, are constant threats to the protection and health of these islands and the surrounding marine ecosystem. The Florida Straits have historically been the access route for illegal immigration attempts and the chugs utilized during these activities are often found abandoned on the shorelines of islands throughout the Florida Keys. Actual or threatened spills and releases from these chugs, if not addressed, may present an imminent and substantial endangerment to public health, or welfare, or the environment. FKNMS participation in projects like this promotes inter-agency coordination directly supports the NOS priority for place-based conservation by addressing critical problems confronting NOS special places and assists with the development and implementation of methods to better address threats and impacts to these special places.

Channel Islands National Marine Sanctuary Advisory Council hosts UCSB Graduate Students for “Mock” Council Session

In November 2016, members of the Channel Islands National Marine Sanctuary Advisory Council paired up with graduate students enrolled in a Coastal and Ocean Policy and Management course at UCSB’s Bren School of Environmental Science and Management. Each participating council member was interviewed by a graduate student, who then served as their proxy in a “mock” student council session hosted on November 18th in Ventura at the council’s regularly scheduled public meeting. The students used insight they had gained from talking with council members to play the roles of various stakeholders. The mock scenario that the students engaged in was focused on the recent emergence of the invasive algae *Undaria pinnatifida* within the sanctuary. A similar exercise was conducted last year, and once again it was a nice success. Students had the chance to engage in a real world public policy forum, and to connect with actual coastal community stakeholders. Their comments at the meeting reflected that they had done their “homework” on community issues and views, and their participation was focused and engaging. Students will also be drafting a meeting summary to report back to their assigned council members. Through interviews and the mock council session, the sanctuary advisory council helped provide a valuable educational and training experience for graduate students. Council members expressed appreciation for the chance to help influence the way future marine policy professionals relate to stakeholders.

Monitor NMS Partners with Sketchfab for Online 3D Shipwreck Content

Monitor NMS has partnered with online 3D content provider Sketchfab to highlight *Monitor* and the WWI and WWII Battle of the Atlantic research. Sketchfab provides a portal for the public to view and manipulate Monitor NMS’s 3D photogrammetric models which are available on the Sketchfab website and on the Monitor NMS and Facebook webpages through an embedded code. As part of the partnership with Sketchfab the company agreed to provide their services to MNMS free of charge and with no expiration date. Please explore some of MNMS’s 3D shipwreck models at <https://sketchfab.com/NOAAMonitorNMS>. The collaboration with Sketchfab saved the site considerable expense, and it provides a broader platform in promoting the work that Monitor NMS does to document, protect and preserve our nation’s World War II maritime history.



MONTEREY BAY NATIONAL MARINE SANCTUARY NEWS AND PROGRAM UPDATES



MANAGEMENT

Monterey Bay National Marine Sanctuary Holds Advisory Council Meeting

On December 8th, the MBNMS Advisory Council met and received a series of presentations and updates on the MBNMS Advisory Council member recruitment and Management Plan Review Council Workshop on urban runoff. Actions taken included: the approval of a letter to the new NOAA Administrator encouraging enhancement of enforcement services, the approval of a letter of support for a State-funded research vessel and the approval of the 2017 Advisory Council meeting calendar. The next Advisory Council meeting will be on February 17th 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

MBNMS Research Activity Panel Meets at Hopkins Marine Station

On January 13th, the Monterey Bay National Marine Sanctuary (MBNMS) Research Activity Panel (RAP) met at Hopkins Marine Station of Stanford University in Pacific Grove, CA. Agenda items included: announcement of Ricketts award and lecture event; research activities by Hopkins Marine Station scientists; draft outline of conservation science action plan for MBNMS Management Plan; RAP memorandum for long-term monitoring; summary of December Sanctuary Advisory Council meeting; and SAC's letter of support for California Universities' shared-use research vessel.

RESOURCE PROTECTION

Agricultural Forum Review of Water Quality Action Plan

Agricultural stakeholders and Sanctuary Advisory Council members met with MBNMS staff on November 9th to review the draft Water Quality Protection Program Action Plan as part of our Management Plan Review Process. Stakeholder input regarding the five Strategies and their accompanying actions will provide the basis for continuing to develop the Action Plan that will guide our activities over the next 5 years. Much of the effort to reduce agricultural based pollution is based on voluntary collaborative efforts, so gaining stakeholder comments, suggestions and critique is important to creating alignment for making regional progress. Hearing from agricultural stakeholders and incorporating their input into our Action Plan can help MBNMS staff be more effective in our efforts to reduce land to sea based pollutants getting into MBNMS.

Representing MBNMS to Middlebury Institute of International Studies (MIIS) Students

The agricultural coordinator for MBNMS presented the regulatory and non-regulatory elements of the water quality protection program to MIIS students attending the Agricultural Sustainability class on November 11th. Helping students understand MBNMS's role in protecting water quality and fostering improvements will help these future world citizens understand the importance of the land to sea connection and how agriculture can impact the Sanctuary health. Students are the voice of the future so building their understanding and commitment to MBNMS activities can help them become advocates and stakeholders in the ocean health and agriculture's ability to influence.

Bi-national workshop helps national marine sanctuaries, Channel Islands National Park, The Nature Conservancy, universities and Mexican marine protected area representatives initiate rapid assessments of regional climate vulnerability and management adaptation strategies

On December 8-9, 2016, three representatives from Channel Islands National Marine Sanctuary (CINMS), one from Monterey Bay National Marine Sanctuary (MBNMS), and two from the Office of National Marine Sanctuaries (ONMS) headquarters participated in a Rapid Vulnerability Assessment (RVA) workshop facilitated by EcoAdapt. The 2-day workshop was held in Ventura, California and hosted by the Commission for Environmental Cooperation. Also participating from Mexico were managers from Vizcaino Biosphere Reserve and Guadalupe Island National Park, as well representatives from the Universidad Autónoma de Baja California (UABC) and the non-profit organization CostaSalvaje/WildCoast. Multi-national collaboration can help us better understand and manage for climate change impacts across west coast regional protected areas.

MBNMS participates in Monterey Bay Aquarium's Plastic Pollution Symposium

On December 5, MBNMS Resource Protection Coordinator attended Day 1 of a 3-day Symposium on Plastic Pollution in Monterey hosted by Monterey Bay Aquarium. The day focused on the latest research on the scope of the problem which revealed some startling statistics such as:

- 8 million metric tons of plastic went into the ocean in 2010.
- The amount of plastic produced will double over the next 20 years
- A survey funded by Packard Fnd reported that “millennials” consider protection of the marine environment a second tier issue and animal welfare rates higher than environmental issues
- Fish are ingesting microplastics which then bioaccumulate into the food web
- The term “plastic pollution” rated highly with survey participants vs “marine debris” which rated poorly

A variety of solutions were discussed such as promoting “Extended Producer Responsibility” for plastic manufacturers at aquariums across the nation which can serve as ambassadors for this idea. This information will feed into the MBNMS management plan effort to address plastics in the marine environment. Plastic pollution remains one of the most serious threats to the marine environment, and will require sanctuaries to continue and expand outreach efforts that inspire cooperative and collective action to affect this issue on a regional, national and global scale.

MBNMS and CPUC release joint draft EIR/EIS for Monterey Peninsula Water Supply Project

On January 13, 2017, MBNMS and the California Public Utilities Commission (CPUC) released a jointly prepared Draft Environmental Impact Report/Environmental Impact Statement (DEIR/EIS) for the Monterey Peninsula Water Supply Project. Three meetings are scheduled in February to provide the public an opportunity to learn about the report and provide comments. The public comment period will be open until February 27th. The DEIR/EIS evaluates the MPWSP proposed facilities and improvements, including a subsurface seawater intake system in Marina; a 9.6 million gallons per day desalination plant in unincorporated Monterey County; approximately 21 miles of water conveyance (pipelines) and storage facilities; and improvements to the existing Seaside Groundwater Basin Aquifer Storage and Recovery facilities in Seaside. MBNMS staff worked closely with CPUC staff, consultant ESA, HQ and GC to review and clear the document through the NOAA review process.

EDUCATION, VOLUNTEER AND OUTREACH PROGRAMS

Plankton Citizen Science Monitoring Program Workshop brings together sanctuary partners

On November 7, MBNMS staff, UC Santa Cruz, California State University Monterey Bay, O’Neill Sea Odyssey, CENCOOS, Monterey Bay Aquarium, Cabrillo College, NOAA Phytoplankton Monitoring Network and California Department of Health Services convened in an all day workshop at the Elkhorn Slough Estuarine Research Reserve. The objective of the workshop was to refine and methodize a plankton monitoring protocol partners can implement at their respective sites along the coast. Collecting plankton data over time and at many

regional sites will help to understand the long-term trends of both phytoplankton and zooplankton in our sanctuaries and provide a long-term data set that can be used by managers, scientists and other end users. Even more importantly, plankton as a citizen science educational activity is engaging and informative. Phytoplankton creates more than 50% of the oxygen we breathe and is a catalyst for having discussions about ocean acidification, sea level rise and climate change. MBNMS is creating a regional collaborative Citizen Science program that will educate the public and aligns well with the new Next Generation Science Standards (NGSS) and Ocean Literacy Principles. In addition, this program will provide robust data/science about the plankton communities along the CA coast that can be used by many end users to monitor MBNMS coastal health.

Sanctuary Exploration Center Docents Monitor Wilder Ranch and Almar Intertidal Sites

On November 13th and 14th Exploration Center staff and volunteers surveyed Wilder Ranch and Almar intertidal sites. These surveys were done as part of the LiMPETS monitoring network, whose data is used to inform management decisions statewide. The Exploration Center has committed to monitor these sites quarterly (depending on tides) with help from a trained volunteer team. This monitoring team provides not only a great opportunity for volunteers to visit a restricted site in the sanctuary, but also for LiMPETS to gain consistent, high frequency monitoring data from one of their less visited sites. The docents that participate in the LiMPETS program monitor the biology in rocky intertidal and sandy beach ecosystems and provide long-term data to inform marine resource management for Monterey Bay National Marine Sanctuary.

Sanctuary Exploration Center Hosts Fourth Annual 2016 Beneath the Waves Film Festival

On Saturday, November 19, Monterey Bay National Marine Sanctuary hosted the 2016 Beneath the Waves Film Festival at the Sanctuary Exploration Center. Top selected student, amateur and professional films from global artists were screened over the half-day event. The festival was separated into two main themes including “Threatened and Thriving” and “Wave Makers”. “Threatened and Thriving” featured films of marine organisms and ecosystems that previously or currently experience a threat to their population and included a short presentation from Dr. Andrew DeVogelaere, Research Coordinator for Monterey Bay National Marine Sanctuary. “Wave Makers” highlighted individuals who are making strides in the marine conservation field paired with a Q and A session with Dania Trespalacios of the Nature Conservancy. In addition, the event was filled with other engaging activities including fish printing and plankton viewing. Over 350 people attended the event with 80-100 people attending each themed session. The incredible power of film is a great tool to educate and inspire the public to protect our world’s oceans and national marine sanctuaries. This film festival is a great educational use for the Sanctuary Exploration Centers technology with its immersive theater and interactive exhibits.

Sanctuary Exploration Center Hosts Marine Holiday Artisan Boutique

The Sanctuary Exploration Center hosted its inaugural Holiday Artisan Boutique as December’s First Friday art and science event. The Boutique featured 10 local marine artists and artisans each displaying a pop-up art gallery. Galleries included Doug Ross Fine Art, This Tiny Ocean, John F. Hunter Photography, Robert Seals (wood & metal creations), Beth Gripenstraw (Ceramics), Seaglass Creations by Monica Combs, NorthCoast Brine Apparel, Ashby Confections, Follow the Sun Art, and more. The event also included sea creature ornament making from recycled materials, a hot chocolate and wine bar, and baked goods made by Sanctuary Exploration Center docents. Repurposed and recycled gift wrapping was also available. Community events such as First Fridays are a perfect opportunity to bring art, activities and science together as an innovative education tool to promote and inspire visitors to protect and conserve the health of Sanctuary ecosystems.

Alternative High School satisfies biology requirement through Coastal Discovery Center Field Trips

Students from an alternative high school in Cambria have been participating in a 10-session marine biology field studies course for the last 8 years. The class was a combination of field trips and labs in plankton and harmful algal blooms, sandy and rocky intertidal ecology, kelp forests, marine mammals, marine conservation, MBNMS and history of San Simeon Bay. Field trips included trips to beaches, a local abalone farm, Piedras Blancas Light Station and a local elephant seal rookery, and included local hikes and kayaking. This course combined experiential learning with the best of what MBNMS has to offer in Cambria and San Simeon. It also emphasized the role MBNMS plays in resource protection, education and ocean stewardship, in partnership with other agencies and NGOs that assisted with these field trips.

Coastal Discovery Center Celebrates 10 Years of Education and Outreach

Coastal Discovery Center docents, MBNMS staff and CA State Parks staff celebrated ten years of accomplishments at a docent appreciation dinner. The event included volunteer awards and a comprehensive slide show of programs that have served our visitors, school groups, partners in conservation and citizen science. Photos of the amazing wildlife of the central coast were also included. The Coastal Discovery Center, a collaborative effort between MBNMS and CA State Parks, is a small interpretive center located at the southern boundary of MBNMS. It has served over 160,000 visitors and 8,000 school children over the last 10 years. Its docents have contributed to dozens of outreach events and citizen science programs, in addition to daily promoting MBNMS and modeling ocean stewardship.

Sanctuary Exploration Center Docents Participate in Climate Change Workshop

Twelve Sanctuary Exploration Center volunteer docents participated in a climate change interpretive workshop as the final installment of the Sanctuary Exploration Center's climate change speaker series on Saturday, December 11th. The docents reviewed the basics of climate change science, various interpretation techniques, and workshopped how to incorporate these topics into conversations with the Center's visitors. In addition, the docents drafted a climate change interpretation training manual and now serve as trained leaders to share what they learned with the rest of the docent community. This is especially important as the Center does not have any exhibits solely dedicated to climate change and docents are essential to explaining these complex concepts in conversation.

Journalists Visit the Coastal Discovery Center

Journalists and nature writers attended the fourth Annual Coastal Discovery & Stewardship Celebration in San Simeon with members from local chambers of commerce, agencies and MBNMS staff. The 3 –day event included recognition of the **Whale Trail**, founded by Donna Sandstrom, and a tour of local points of interest such as the Coastal Discovery Center. The one-hour tour of the center included hands-on citizen science activities followed by a discussion of MBNMS' mission and local partnerships.

Monterey Bay National Marine Sanctuary participates in 2017 WhaleFest

Monterey's Whalefest 2017 took place on January 28&29 in Monterey at the Old Fisherman's Wharf and Custom House Plaza. This free, fun and educational, interactive family event was attended by thousands of people from all ages that brought awareness of whale migration and conservation within the MBNMS. Sanctuary Superintendent Paul Michel and Volunteer Coordinator Lisa Emanuelson gave talks about sanctuary resources at an all day symposium. Along with two staff members, seven MBNMS volunteers from Team Ocean and BayNet programs worked together to host an interactive booth with activities and displays on marine debris to educate and involve the public in the sanctuary protection.

NEWS COVERAGE

[Coastal Discovery Center's Skinder received top award](http://www.sanluisobispo.com/news/local/community/cambrian/article115134113.html)

<http://www.sanluisobispo.com/news/local/community/cambrian/article115134113.html>
The Tribune-November 16, 2016

[Powerful swell forces evacuation of Cemex dredge boat](http://www.montereycountyweekly.com/blogs/news_blog/powerful-swell-forces-evacuation-of-cemex-dredge-boat/article_c85dfed8-adc6-11e6-b417-9bf5df148090.html)

http://www.montereycountyweekly.com/blogs/news_blog/powerful-swell-forces-evacuation-of-cemex-dredge-boat/article_c85dfed8-adc6-11e6-b417-9bf5df148090.html
Monterey County Weekly-November 18, 2016

[Dan Haifley, Our Ocean Backyard, A decorated lighthouse and lighted boats](http://www.santacruzsentinel.com/environment-and-nature/20161119/dan-haifley-our-ocean-backyard-a-decorated-lighthouse-and-lighted-boats)

<http://www.santacruzsentinel.com/environment-and-nature/20161119/dan-haifley-our-ocean-backyard-a-decorated-lighthouse-and-lighted-boats>
Santa Cruz Sentinel-November 19, 2016

[Plastic shopping bags banned](http://www.tpgonlinedaily.com/plastic-shopping-bags-banned/)

<http://www.tpgonlinedaily.com/plastic-shopping-bags-banned/>
Aptos Times-November 29, 2016

[Teacher revs up STEM ed with robots](http://www.thecalifornian.com/story/news/2016/12/02/teacher-revs-up-stem-ed-robots/94831618/)

<http://www.thecalifornian.com/story/news/2016/12/02/teacher-revs-up-stem-ed-robots/94831618/>
Salinas Californian-December 2, 2016

[Offshore Oil: Brown asks Obama for a permanent ban on new drilling off California](http://www.santacruzsentinel.com/article/NE/20161213/NEWS/161219903)

<http://www.santacruzsentinel.com/article/NE/20161213/NEWS/161219903>
Santa Cruz Sentinel-December 13, 2016

[Central Coast sanctuary would be problematic for fisheries](http://www.sanluisobispo.com/opinion/letters-to-the-editor/article122599509.html)

<http://www.sanluisobispo.com/opinion/letters-to-the-editor/article122599509.html>
The Tribune-December 22, 2016

[Why are juvenile crabs hitching rides on sea pigs?](https://blogs.scientificamerican.com/guest-blog/why-are-juvenile-crabs-hitching-rides-on-sea-pigs/)

<https://blogs.scientificamerican.com/guest-blog/why-are-juvenile-crabs-hitching-rides-on-sea-pigs/>
Scientific American-December 26, 2016

[FAA boosts outreach and enforcement on drones](http://www.montereycountyweekly.com/news/local_news/faa-boosts-outreach-and-enforcement-on-drones/article_e6037834-cd36-11e6-8dbc-97044520519b.html)

http://www.montereycountyweekly.com/news/local_news/faa-boosts-outreach-and-enforcement-on-drones/article_e6037834-cd36-11e6-8dbc-97044520519b.html
Monterey County Weekly-December 29, 2016

[Dan Haifley, Our Ocean Backyard: A new president, ocean protection](http://www.santacruzsentinel.com/environment-and-nature/20161231/dan-haifley-our-ocean-backyard-a-new-president-ocean-protection)

<http://www.santacruzsentinel.com/environment-and-nature/20161231/dan-haifley-our-ocean-backyard-a-new-president-ocean-protection>
Santa Cruz Sentinel-December 31, 2016

[Draft desal project environmental review released, new analysis reaches same core conclusions](http://www.montereyherald.com/article/NF/20170112/NEWS/170119902)

<http://www.montereyherald.com/article/NF/20170112/NEWS/170119902>
Monterey Herald-January 21, 2017

[7th Annual Whalefest Monterey](http://www.consumerelectronicsnet.com/article/7th-Annual-Whalefest-Monterey-to-Be-Held-on-January-28--29-2017-at-Old-Fisherman---s-Wharf-Monterey-California-Including-an-Outstanding-2-day-Symposium-4773112)

<http://www.consumerelectronicsnet.com/article/7th-Annual-Whalefest-Monterey-to-Be-Held-on-January-28--29-2017-at-Old-Fisherman---s-Wharf-Monterey-California-Including-an-Outstanding-2-day-Symposium-4773112>
Consumer Electronic Net-January 16, 2017

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/>

MBNMS STAFF

Paul Michel – Superintendent
Dawn Hayes – Deputy Superintendent

Research

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

Education

Amity Wood – Education and Outreach Coordinator
Jennifer Cormier – Program Assistant (SEC)
Michelle Berryessa – SEC Gift and Bookstore Manager
Tess Bohey – Program Assistant (CDC)
Catherine Drake – Program Assistant (SEC)
Nick Ingram – Program Assistant (SEC)
Liz Love – Education Specialist
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
Pamela Krone-Davis – Agriculture Water Quality Coordinator

Program Operations

Raymond Chisolm – Program Specialist
Kristen Hart – Program Specialist
Nichole Rodriguez – Advisory Council Coordinator
Richard Stanley – SEC Maintenance Specialist
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: <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>

- Contact Information -

Monterey Bay National Marine Sanctuary

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