



# Monterey Bay National Marine Sanctuary

## Sanctuary Office Report



Volume 14, Number 5

A REPORT FOR THE SANCTUARY ADVISORY COUNCIL MEMBERS

REPORTING PERIOD: JULY 22, 2017 – SEPTEMBER 22, 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

#### U.S. had 15<sup>th</sup> warmest summer and 3<sup>rd</sup> warmest year to date on record

From record heat, fires and floods to hurricanes, tropical storms and even an eclipse, August brought a dramatic and – for those along the Gulf Coast – devastating end to summer as Mother Nature demonstrated her power and ability to awe. Here's how the summer, last month and the year to date fared in terms of the climate record: Summer 2017 – The average summer U.S. temperature was 72.7 degrees F, 1.3 degrees above average, according to scientists from NOAA's National Centers for Environmental Information. Above-average temperatures spanned the western third of the country, while nine states in the South and Midwest observed a cooler-than-average summer. Precipitation totaled 0.87 of an inch above average, making it the 16th wettest summer on record. For the full story: <http://www.noaa.gov/news/us-had-15th-warmest-summer-and-3rd-warmest-year-to-date-on-record>

#### NOAA announces \$2.2 million in marine debris grants

On Aug. 29, NOAA announced 15 marine debris projects that will support marine debris removal and research received nearly \$2.2 million

in fiscal year 2017 funding through the NOAA Marine Debris Program. These projects support efforts to address the pervasive global problem of marine debris that can impact wildlife, navigation safety, human health, and the economy. Eleven groups received a total of \$1,238,358 to support marine debris removal projects to benefit coastal habitats, waterways, and wildlife, including migratory fish. Projects awarded through this grant competition will implement locally effective activities to remove marine debris, including derelict fishing gear and abandoned and derelict vessels. Projects will provide benefits to coastal communities, and create long-term ecological habitat improvements for NOAA trust resources. In addition, four groups received a total of \$935,156 for research to advance understanding of how microplastics interact with seafood species. Projects awarded through this grant competition will improve our understanding of the ecological risks associated with marine debris as well as the fate and transport of marine debris in nearshore, coastal environments. For full story: <https://oceanservice.noaa.gov/news/aug17/marinedebris-grants.html>

#### Hurricane Andrew: What it was like to work in a category 5 storm

The hurricane season had yet to see its first named storm in August 1992, but that changed dramatically with the arrival of Hurricane Andrew and its direct hit on NOAA's National Hurricane Center in Coral Gables, Florida. We're going to take you behind the scenes for a glimpse of what it was like to be on duty that week 25 years ago. A disturbance rolled off the coast of Africa and became Tropical Storm Andrew on August 17, but three days later it didn't look like a threat. In fact, according to forecaster Dr. Richard Pasch, "It looked like the storm had dissipated. The hurricane hunter aircraft couldn't locate the center of circulation but I told NHC Director Bob Sheets, I don't think it's going away." Dr. Pasch was spot on. NOAA continued to track Andrew and on August 21, reconnaissance aircraft found the system was much better organized. Shortly afterwards on Saturday morning, August 22, they found hurricane-force winds and Andrew officially became a hurricane. As it rumbled across the Atlantic the storm intensified. In the pre-dawn hours of August 24 with winds screaming at more than 155 mph, it neared Miami-Dade County and the National Hurricane Center. For full story: <http://www.noaa.gov/stories/hurricane-andrew-what-it-was-like-to-work-in-category-5-storm>

## NATIONAL MARINE SANCTUARY NEWS

### **Deep sea coral and sponge communities discovered in new areas of Cordell Bank National Marine Sanctuary**

Corals, sponges, and other invertebrates that had not been previously recorded in Cordell Bank National Marine Sanctuary (CBNMS) were observed during remotely operated vehicle (ROV) surveys to deep depths of the sanctuary August 6-13, 2017. Scientists on board the E/V *Nautilus* explored the seafloor in areas of CBNMS that were added to the sanctuary boundaries in 2015 but had never been surveyed. CBNMS staff members, along with scientists from Greater Farallones National Marine Sanctuary (GFNMS), California Academy of Sciences, and UC Davis used the ROV *Hercules* to survey the biological communities and environmental conditions at depths from 2700 to 740 meters, deeper than any previous surveys in CBNMS. Three of the four priority target areas on the deep slope of the sanctuary were surveyed, including three dives in Bodega Canyon that ranged from 2250 to 740 meters, allowing the scientists to record changes in habitats and species composition as the ROV ascended through the canyon. In addition to 76 hours of visual surveys during six dives, over 230 samples were collected including organisms, sediment, and water. Biological specimens will be analyzed to determine species identification. Researchers will analyze the water samples for eDNA and carbonate chemistry, and they will analyze the sediment to look at benthic organisms and fossils, as well as geochemistry. Significant observations included at least 16 new coral records for CBNMS, including the first records of black and bamboo corals in the sanctuary; new species observations of sponges, sea cucumbers, anemones, and fish; and information about habitat and environmental conditions. The cruise significantly expanded the information about deep habitat in CBNMS, and opens up new topics for future research and outreach. All the ROV dives were broadcast on [Nautiluslive.org](http://Nautiluslive.org) allowing people around the world to see the research and CBNMS in real time. Live interactions with audiences were broadcast during the cruise, including special sessions on August 12 for “Get Into Your Sanctuary Day”. In addition, Scientists Ashore participated in the surveys remotely to contribute their expertise and advise the scientists on board about collections and observations. Poor weather canceled dives on the last two days of the cruise. Characterization of sanctuary habitat is critical for effective management. OET and *Nautilus* provide the technology capable of exploring deep depths of the sanctuary to see these areas for the first time and share them with the world in real time.

### **SBNMS Collaborates with Harvard University on Groundbreaking Research**

SBNMS provided critical support to groundbreaking research into a non-toxic, lubricant-infused coating that prevents biofouling of underwater surfaces by mussels and other animals and plants. Biofouling organisms cause significant economic and environmental costs: the US Navy alone spends approximately \$1 billion per year on antifouling efforts, and many species are invasive pests that hitch rides to new environments on ships’ hulls. Not only did SBNMS provide a secure location for the research at its dock but Dave Slocum, Operations Coordinator, provided invaluable operational and logistical support to the Harvard team for the past 3 years. The Wyss Institute for Biologically Inspired Engineering at Harvard University conducted the research and recently published a paper in the journal *Science* reporting on the results. The Wyss’ SLIPS technology, inspired by the slick lip of a carnivorous pitcher plant that sends insects sliding down to their doom take advantage of the fact that it is very difficult for an organism to attach to a liquid surface. SLIPS consists of a solid surface infused with a liquid lubricant overlayer that is retained in place so that anything that comes into contact with the liquid layer will simply slide right off. SLIPS have previously been shown to be effective against bacteria and algae, but mussels represent a particularly intimidating foe. Their muscular feet produce adhesive filaments called byssal threads whose tips, called adhesive plaques, contain special adhesive proteins that remove water molecules from the target surface to enable the plaques to bind to it. Large accumulations of mussels can weigh as much as 1,700 pounds per square foot. Sanctuaries can serve as test beds for novel research or management approaches that are then applied more broadly. A non-toxic anti-fouling material can both reduce toxic contamination of the ocean and reduce costs of mitigating fouling on underwater surfaces such as the hulls of NOAA vessels. Weblink for the press release which quotes Dave Slocum and video showing reaction of mussels and researchers at work on NOAA dock:

<https://wyss.harvard.edu/slippery-liquid-surfaces-confuse-mussels-to-stop-them-from-sticking-to-underwater-structures/>



## MONTEREY BAY NATIONAL MARINE SANCTUARY NEWS AND PROGRAM UPDATES



### MANAGEMENT

#### **Monterey Bay National Marine Sanctuary Holds Emergency Advisory Council Meeting**

On July 10<sup>th</sup>, the MBNMS Advisory Council met to address two items with short comment periods, both of which were prior to the next scheduled MBNMS Advisory Council Meeting:

1) a letter in support of the attached proposed California Coastal Commission settlement agreement with CEMEX; and 2) public comment to Regulations.gov on the President's Executive Order on national marine sanctuaries. The support letter regarding CEMEX received a majority vote and was submitted to California Coastal Commission. A motion was made to have a subgroup work on the letter commenting on the President's Executive Order after multiple members requested revisions. A second meeting was scheduled to vote on the revised letter. 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.

#### **Monterey Bay National Marine Sanctuary Holds Second Emergency Advisory Council Meeting**

On July 19<sup>th</sup>, the MBNMS Advisory Council met to review the revised letter commenting on the President's Executive Order on national marine sanctuaries. The letter received a majority vote and was submitted to Regulations.gov as public comment. Sanctuary Advisory Councils are community-based advisory bodies consisting of representatives from various user groups, government agencies and the public at large.

#### **Monterey Bay National Marine Sanctuary and Greater Farallones National Marine Sanctuary Hold Joint Advisory Council Meeting**

On August 16<sup>th</sup>, the MBNMS and GFNMS Advisory Councils met in Half Moon Bay and received a series of presentations and updates on activities occurring in and actions pertaining to the MBNMS Northern Management Area including recommendations from GFNMS Advisory Council, as well as Office of Law Enforcement activities and a beach nourishment workshop including a case study at Surfer's Beach. The next Advisory Council meeting will be on October 20th in Salinas. 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

#### **Sanctuary Research Team Continues Study of Deep-sea Corals at Sur Ridge**

Research staff from MBNMS and Monterey Bay Aquarium Research Institute (MBARI) scientists completed on a 5-day research expedition at Sur Ridge aboard the R/V *Western Flyer*. Sur Ridge is a Manhattan-sized hill on the seafloor about 20 miles off the central California coast. Using a remotely operated vehicle (ROV), they are discovering new populations of deep-sea corals, transplanting corals, revisiting transplanted corals from a year ago, collecting animals for bioluminescence studies, sampling water for environmental DNA analyses, sampling surface water for microplastics, and several other ongoing projects. For information on the last cruise (Aug 2016) to Sur Ridge, visit <http://sanctuariesimon.org/news/2016/08/research-expedition-blog-rv-western-flyer-august-24-28-2016/>. Sur Ridge has been identified by MBNMS as a Sanctuary Ecologically Significant Area (SESA) (<https://montereybay.noaa.gov/resourcepro/ebmi/sesa.html>). SESAs are focal areas for facilitating research to better understand natural and human-caused variation, and understanding how deep sea coral communities establish and thrive will also answer questions about their life history and susceptibility to human impacts such as ocean acidification.

## **MBNMS Research Activity Panel Meets at California Department of Fish and Wildlife**

On September 8th, the Monterey Bay National Marine Sanctuary (MBNMS) Research Activity Panel (RAP) met at California Department of Fish and Wildlife (CDFW), in Monterey, CA. Agenda items included: CDFW research and activities; summaries of June and August Sanctuary Advisory Council meetings; update on RAP Action Plan for long-term monitoring; RAP schedule and membership; and RAP focus areas and subcommittees. 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.

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

## **RESOURCE PROTECTION**

### **MBNMS and NMFS Collaborate on Imaging the Sanctuary's Sensitive Habitats**

From July 7th to the 19th, 2017, a team comprised of staff at NOAA Fisheries and Monterey Bay National Marine Sanctuary conducted dive surveys aboard the R/V *Fulmar* using a NMFS autonomous underwater vehicle (AUV) to image ecologically sensitive areas in the Sanctuary. The project was funded through restoration settlement funds and the focus was to collect baseline data and/or comparative data on the distribution, abundance, and condition of deep sea corals and sponge communities, demersal fish, basic geological habitat categories and some physical attributes such as O<sub>2</sub>. The AUV completed imaging for 7 sites that were selected as part of a joint proposal among local fishermen, conservation groups, and MBNMS to increase seafloor protections and fishing opportunities in the Sanctuary. The sites included 2 Voluntary Management Areas (VMAs), which is a new concept to pilot voluntary trawl avoidance zones, and 5 proposed essential fish habitat closures and re-openings identified by the Monterey Collaborative group during the recent process with the Pacific Fishery Management Council to modify groundfish EFH conservation areas. The areas also overlapped 4 of the recently established "Sanctuary Ecologically Significant Areas (SESAs)." Surveyed sites included Ascension Canyon, Point Sur (2 sites), south and west of Davenport Reef, outer Soquel Canyon, and outer Carmel Canyon. For more information and images from the cruise, visit the mission log at <http://montereybay.noaa.gov/new/2017/170710auv/welcome.html> Recovery of benthic species due to fishing impacts is under study along the west coast, and has varied results depending on the species and the habitat stability. Monitoring the Monterey Collaborative proposal management areas will contribute to this effort and inform the existing EFH groundfish process as well as future processes in MBNMS.

### **MBNMS AgKnowledge Program on Labor**

Requirements, benefits and difficulties associated with obtaining field laborers in regional agriculture was the topic of the AgKnowledge class attended by the MBNMS agricultural water quality coordinator. The opportunity for discussion among educators, researchers, Monterey County offices, Senator Jimmy Panetta and the Monterey Bay Labor Council provided insight into the history and future of agricultural workforce and its development. Topics included immigration, housing, benefits, technology development and past and current temporary work permit programs. By increasing our understanding of the infrastructure and values of the agriculture industry on the Central Coast of California, we can develop better strategies and plans for encouraging the adoption of practices and technologies for reducing chemical inputs and supporting sustainable agriculture. These efforts should help improve the water quality entering MBNMS.

### **Taking Trash to the Cleaners in Carmel by the Sea**

MBNMS Contractor Lisa Emanuelson, volunteers from MBNMS' First Flush, Team OCEAN and Bay Net and volunteers with Lovers of Carmel Beach teamed up to monitor trash at Carmel's main beach for eleven scheduled trash assessments conducted every Friday from August 4th to October 13th. Each week volunteers collect, categorize and weigh trash from across the beach. Trash types and weights are reported to the City of Carmel in

order to determine where trash is being left on the beach and what types. While walking the beach members of the trash teams talked with the public and informed them of the city's desire to understand and clean up the beach. In the first two Fridays of the trash assessment half of the weight of all trash was dog poops both in and outside of poop bags. Through a new trash amendment to the NPDES permit, cities are required to decrease the trash being transported through storm drain systems and reaching receiving waters such as MBNMS. Trash left on beaches can directly impact sanctuary resources and affect the aesthetic qualities of beaches. By working with local cities to assess trash sources and types, MBNMS accomplishes a goal of keeping pollutants out of the sanctuary.

### **Pacific Grove E.9.c Monitoring Report**

The report chronicling the annual monitoring for Pacific Grove's E.9.c. requirement of their NPDES permit has been sent to Pacific Grove for final approval. Each June since 2013 each and every outfall along the Pacific Grove shoreline is checked for flow. If flow is present water quality samples are collected and tested for nutrients (nitrate, orthophosphate, ammonia and urea), bacteria (*E. coli* and enterococcus), metals (copper, lead and zinc) and total suspended solids, color, Methylene Blue Active Substances (MBAS) detergents, fluoride, hardness (as CaCO<sub>3</sub>), potassium and turbidity. Of the 40 storm drain outfalls monitored, only 8 were flowing, three of which are currently monitored for either the Urban Watch or First Flush programs. Monitoring outfalls during dry weather months is critical to understanding all water quality inputs from land based sources and potential impacts to MBNMS. Water quality analytes are those also tested for during the Dry Run and First Flush programs, making all water quality results comparable across programs.

## **EDUCATION, VOLUNTEER AND OUTREACH PROGRAMS**

### **MBNMS Staff sit on a Careers Panel for MARINE and MIIS graduate students**

On July 26<sup>th</sup>, MBNMS staff were part of a panel at an interdisciplinary ocean careers event for the Center for Ocean Solutions' [MARINE](#) program at the Middlebury Institute of International Studies at Monterey (MIIS). The event was part of a course crossover activity between [MARINE Ocean Policy course](#), and [MIIS' Blue Pioneers Program](#). Students in this course had an opportunity to explore a wide variety of ocean-related careers via a "power" networking event with scientists, communicators and educators that work in and around MBNMS. Students were provided with a short course on interviewing and power networking, and then asked to practice their skills in small groups with a variety of interdisciplinary professionals representing different fields by asking them questions about their work and career paths. Approximately 50 students (both from the US and China) and ~15 panelists provided a rich networking environment to aid student career planning, and broaden their thinking. Providing a rich networking environment to students aid them in their career pathway and empowers students to make good professional connections in the area.

### **Monterey Bay National Marine Sanctuary Exploration Center Hosts "Bounty in the Bay" Public Art and Science Event**

On August 4, 2017 the MBNMS Exploration Center hosted a science and art event highlighting creative ways to turn ocean trash, specifically seaglass, into art. The event featured local artists Kirsti Scott and Monica Combs, who have learned how to reuse manmade items once discarded into the ocean. More than 140 First Friday attendees created do-it-yourself clay and seaglass marine animal, read information regarding ocean trash, and learned how to decrease their impact. By speaking to the center's docents, staff, and the artists, guests gained vital information about the importance of reducing their amount of single-use plastics, reusing items, and recycling in order to protect the Monterey Bay National Marine Sanctuary. 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.

### **“Get Into Your Sanctuary” Day takes Boys and Girls Club of Santa Cruz kayaking and engage the public all day at the Sanctuary Exploration Center**

On August 12<sup>th</sup>, 2017, MBNMS staff members conducted their 4<sup>th</sup> annual **Get Into Your Sanctuary** engaging the Boys and Girls Club of Santa Cruz, Monterey recreational businesses and the public visiting the Sanctuary Exploration Center. Boys and Girls Club family members ‘got in’ MBNMS by going on a guided kayak tour with Venture Quest Kayaks from the Santa Cruz wharf. During their tour, members collected plankton and brought it back to the classroom to view under microscopes. The Boys and Girls Club members and the public also had an opportunity to connect live with the Ocean Exploration Trust’s (OET) *Nautilus* expedition in the Fly Thru Theater of the Sanctuary Exploration Center. A great conversation between Cordell Bank National Marine Sanctuary staff and OET Staff from aboard the *R/V Nautilus* ensued discussing some of the exciting research being done off California’s coast. Simultaneously, 3 recreational and tourism businesses (4 locations) partnered with MBNMS to hand out sanctuary brochures and materials, put up posters and show sanctuary videos in their businesses throughout GIYS day. Events like this where sanctuary sites across the system host concurrent public events help heighten sanctuary awareness and the special nature of these places as well as engages the local communities and recreational tourism business partners in recreational and educational activities in our sanctuaries.

### **Shore Whaling Exhibit Completed at Coastal Discovery Center in San Simeon, CA**

MBNMS, in collaboration with California State Parks completed an outdoor shore whaling exhibit at the Coastal Discovery Center in San Simeon. Located at the William Randolph Hearst State Park, this exhibit is the only shore whaling exhibit in the southern portion of MBNMS. San Simeon was one of 21 shore whaling locations in California that captured whales, processed whales and shipped oil from 1854-1904. In the 20th century, we began to understand what was almost lost. Changes in attitude and environmental awareness contributed to international conservation efforts to stop whaling. By 1972, the United States banned all whaling. Today, huge numbers of whales and other marine animals can be seen migrating up and down the California coast. While whales have rebounded, interactions between ships and whales are on the rise. It is important that we continue to protect and educate the public about marine mammals and human interactions and the threats.

### **Monterey Bay National Marine Sanctuary Celebrates its 25th Anniversary in San Simeon**

Over 600 visitors recently helped to celebrate the 25th Anniversary of Monterey Bay National Marine Sanctuary at an ocean-themed fair at the Coastal Discovery Center in San Simeon. Visitors from all over the world attended, as far away as Thailand and Australia. The fair celebrated partners in resource protection along the Central Coast and included agencies and NGOs such as CA State Parks, Los Padres National Forest, CA Fish and Wildlife, BLM, Friends of the Elephant Seal, and many more. Exhibitors educated the public through interactive games and demonstrations such ROV building, seabird obstacle races, magnetic fishing game and a mock oil cleanup. Live animals were on hand from local wildlife rehabilitation centers and aquarium. were and children were encouraged to visit all exhibitors with a passport book and prize. Local politicians and agencies who spoke on behalf of MBNMS were MBNMS superintendent, Paul Michel, CA State Parks' Brooke Gutierrez, San Luis Obispo County representative, Bruce Gibson, Greg Haas from the office of Congressman Salud Carbajal, and Erik Howell from the CA Coastal Commission. To cap off the event, a new exhibit on shore- whaling funded by NOAA’s Preserve America grant was recognized with a ribbon -cutting and anniversary cake. MBNMS works closely with over 30 partners in the southern region of the sanctuary to help fulfill its mission to protect its natural and cultural resources. The fair reflected the importance of our partners of 25 years, in addition to educating visitors world-wide about this special part of the coast and ocean.



### **Monterey Bay National Marine Sanctuary holds 25th Anniversary event at the Sanctuary Exploration Center**

On Saturday, September 9, the sanctuary held an anniversary event at Sanctuary Exploration Center in Santa Cruz for 90 members of the local Santa Cruz community and long time sanctuary supporters. Presentation was given by Paul Michel, sanctuary superintendent, and other invited speakers included Dan Hailey, Executive Director of O'Neill Sea Odyssey; John Laird, Secretary of the California Natural Resources Agency; Cynthia Chase, Mayor of Santa Cruz; and Fred Keeley, former Assemblymember of the California State Assembly on the significance of the sanctuary to the region over the past 25 years, and future plans to protect and support the sanctuary moving into the next 25 years. The event was catered by Real Good Fish, which offered locally sourced, sustainable seafood. MBNMS works closely with local and state level government officials to help promote the value and significance of MBNMS to the region, and bring light to the sanctuary's mission to protect natural and cultural resources for the American people.

### **Monterey Bay National Marine Sanctuary and National Marine Sanctuary Foundation holds 25th Anniversary Gala at the Monterey Bay Aquarium**

On Saturday, September 16, MBNMS and NMSF held an anniversary gala at the Monterey Bay Aquarium. The Honorable Leon Panetta was honored at the gala for his pivotal role in establishing the Monterey Bay National Marine Sanctuary and lifelong commitment to ocean conservation. More than 250 guests and sponsors, including longtime supporters and local champions, enjoyed an intimate reception and dinner made with local, sustainable ingredients among the Monterey Bay Aquarium's world-class exhibits. During the evening presentations with Master of Ceremony Anna Chavez, remarks were given by Leon Panetta, Congressman Jimmy Panetta, The Honorable Sam Farr, Julie Packard, Paul Michel, Kristen Sarri, and Fred Keeley on the sanctuary's significance to the region's economy and identity, and actions we can take to ensure current sanctuary protections remain in place. The NMSF announced the creation of a local chapter, Monterey Bay National Marine Sanctuary Foundation, that will act as a local fundraising vehicle for MBNMS and a start up matching grant of \$100K from The Monterey Peninsula Foundation. Proceeds from the gala and silent auction will directly support Monterey Bay National Marine Sanctuary programs. MBNMS works closely with local, state, and federal government officials to help promote the value and significance of MBNMS to the region, and bring light to the sanctuary's mission to protect natural and cultural resources for the American people.

## NEWS COVERAGE

### [Marine sanctuaries](#)

[http://www.smdailyjournal.com/opinion/letters\\_to\\_editor/marine-sanctuaries/article\\_cd957da2-6db7-11e7-b6b4-672419cdc236.html](http://www.smdailyjournal.com/opinion/letters_to_editor/marine-sanctuaries/article_cd957da2-6db7-11e7-b6b4-672419cdc236.html)

The Daily Journal-July 21, 2017

### [Meet the scientist who has discovered more than 1,000 species of sea slug](#)

<https://baynature.org/article/meet-scientist-discovered-1000-species-sea-slug/>

Bay Nature-July 31, 2017

### [Untangling a whale of a problem for environmentalists and fishermen](#)

<http://www.sfexaminer.com/untangling-whale-problem-environmentalists-fishermen/>

San Francisco Examiner-August 2, 2017

### [CPUC delays Cal Am desal project environmental reports six months](#)

<http://www.montereyherald.com/environment-and-nature/20170807/cpuc-delays-cal-am-desal-project-environmental-reports-six-months>

Monterey Herald-August 7, 2017

### [Coast Line: Get Into Your Sanctuary Day held in Santa Cruz](#)

<http://www.santacruzsentinel.com/article/NE/20170808/NEWS/170809725>

Santa Cruz Sentinel-August 8, 2017

### [Coastal Commission approves CEMEX settlement](#)

<http://www.tpgonlinedaily.com/coastal-commission-approves-cemex-settlement/>

Aptos Times-August 10, 2017

### [No longer moving mountains, CalTrans works with massive Big Sur slide](#)

<http://kcbx.org/post/no-longer-moving-mountains-caltrans-works-massive-big-sur-slide#stream/0>

KCBX-August 10, 2017

### [Dan Haifley, Our Ocean Backyard: Exploring the ocean floor for a unique fishing-conservation partnership](#)

<http://www.santacruzsentinel.com/environment-and-nature/20170812/dan-haifley-our-ocean-backyard-exploring-the-ocean-floor-for-a-unique-fishing-conservation-partnership>

Santa Cruz Sentinel-August 12, 2017

### [Cargo containers lost at sea are hard to count, track](#)

[https://pilotonline.com/business/ports-rail/it-s-hard-for-ocean-carriers-to-get-data-on/article\\_9d776698-58ee-5f2c-a3c7-d859b29affed.html](https://pilotonline.com/business/ports-rail/it-s-hard-for-ocean-carriers-to-get-data-on/article_9d776698-58ee-5f2c-a3c7-d859b29affed.html)

The Virginian-Pilot-August 19, 2017

### [Dan Haifley, Our Ocean Backyard: Monterey Bay Sanctuary turns 25](#)

<http://www.santacruzsentinel.com/article/NE/20170909/NEWS/170909658>

Santa Cruz Sentinel-September 9, 2017

### [Celebrating 20 years of beachcombing – for science](#)

<http://pineconearchive.fileburstcdn.com/170915PCA.pdf>

Carmel Pine Cone-September 15, 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](mailto: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**

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**Dawn Hayes** – Deputy Superintendent

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**Bridget Hoover** – Water Quality Protection Program Director  
**Scott Kathey** – Regulatory/Emergency Response Coordinator  
**Pamela Krone-Davis** – Agriculture Water Quality Coordinator

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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>

## **- Contact Information -**

### **Monterey Bay National Marine Sanctuary**

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