



# Monterey Bay National Marine Sanctuary Sanctuary Office Report



Volume 10, Number 5

A REPORT FOR THE SANCTUARY ADVISORY COUNCIL MEMBERS

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## ABOUT THE SANCTUARY

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

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

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

### Inaugural Sea to Shining Sea: Excellence in Interpretation and Education Award Winners Announced

NOAA's Office of National Marine Sanctuaries recognized the outstanding achievement in the fields of interpretation and environmental education to the winners of the inaugural *Sea to Shining Sea: Excellence in Interpretation and Education Award*. Jennifer Stock, education and outreach coordinator at NOAA's Cordell Bank National Marine Sanctuary, received the individual award for her leadership and inspired vision in working with the Oakland Museum of California to design and fabricate a major exhibit to improve public understanding of the importance of California's marine and coastal resources with particular emphasis on the Cordell Bank sanctuary. The team award was presented to Claire Fackler, Tracy Hajduk, Mike Murray, Julie Bursek, Laura Francis and Rocio Lozano-Knowlton is recognized for their hard work in organizing and hosting Ocean for Life, a two-week international marine science and cultural exchange program hosted at Channel Islands National Marine Sanctuary that brings together students of diverse backgrounds from North

America and the Middle East to explore marine science and develop a stewardship ethic for the ocean while fostering new cross-cultural relationships.

### ONMS and MPA Center Lead Planning for the Marine Theme of the World Parks Congress

Though ONMS and MPA Center staff missed key meetings for World Parks Congress (WPC) planning during the furlough, we are now re-engaging with our partners at WCPA-Marine and Great Barrier Reef Marine Park Authority to ratchet up planning efforts. A call was held with partners on Monday, 4 November to confirm desired outcomes and legacies for the Marine Theme. We will engage in two days of planning meetings next week on 13 and 14 November to continue this effort. Informal consultation meetings/calls were also held this week with intergovernmental partners and colleagues from Chile, Pew Foundation, and TILCEPA. Informal consultations with Marine World Heritage, WWF, TNC, and MCI are planned for coming weeks, and a webinar will be held on November 21.

### Office of National Marine Sanctuaries participates in Federal Interagency Team on Volunteerism meeting

On November 6, National Volunteer Coordinator, Tracy Hajduk, spent the day with colleagues from other natural and cultural resource agencies for the bi-yearly FITV meeting. The group made good progress on laying out a framework to create a unified and shared training program for volunteer managers to help improve volunteer efforts on public lands and waters. After reviewing several modules and methods used by agencies, the group determined they would pursue an a training method created by Betty Stallings which has been used by NPS for over 15 years and is used by other groups around the country such as Habitat for Humanity, the state of Oregon and Minnesota, Special Olympics, and all hospitals in CA to train volunteers. Other topics included a session with the executive director of FICOR to see how to better collaborate between the two groups, a session on working with rural volunteers, the future of the Take Pride Awards, and other administrative tasks.

### ONMS Staff Plan for Biosphere Reserve Program Review

The MPA Center convened a meeting of staff from Grays Reef, Gulf of the Farallones, Cordell Bank and Channel Islands to discuss the review of these sites as parts of Biosphere Reserves under the UNESCO World Network of Biosphere Reserves (also known as the Man and the Biosphere Program). These four sites are submitting documentation to the State Department as part of the periodic review of the Biosphere Reserve program conducted every ten years. This review is required for all sites wishing to continue recognition by UNESCO. Reviews are due to the State Department by October 31, and will be transmitted to UNESCO by December 31. Reviews focus on how Biosphere Reserves can serve as models of voluntary collaboration in land (water) management and sustainable development by securing the support and involvement of local people

## National Marine Sanctuary News

### Thunder Bay NMS

Thunder Bay National Marine Sanctuary completed the second of a series of student ROV (remotely operated vehicle) workshops with thirteen students and four adults attending sessions on thruster development and control box circuitry. Each workshop also focus' on refining the engineering process as student begin developing vehicles for the MATE Regional Great Lakes ROV Competition, hosted annually by the sanctuary and Alpena Community College Marine Technology Program. This workshop series continues to build relationships with the 4-H afterschool programs in northeast Michigan. Michigan 4-H is promoting STEM learning at a statewide level and has been recently partnering with Thunder Bay National Marine Sanctuary to use ROV technology as a way for after school clubs to achieve STEM goals through watershed exploration and robotics.

### Flower Garden Banks NMS

Flower Garden Banks National Marine Sanctuary (FGBNMS) completed another successful mission with the new "Mohawk" ROV aboard the R/V MANTA on November 3rd & 4th. This mission allowed ROV pilots from the University of North Carolina Wilmington (UNCW) Undersea Vehicle Program (<http://www.uncw.edu/uvp/>) to conduct more sea trials of the new ROV. FGBNMS and UNCW UVP were joined by a technician from Forum Energy Technologies (FET) to help trouble-shoot and fine tune the new system. During the trial, researchers collected several hours of HD video footage around Stetson Bank. Researchers from Texas A&M University (TAMU) continued to test a new multi-beam system, provided by Dr. Niall Slowey of TAMU, collecting more high resolution bathymetric data around Stetson Bank.

### National Marine Sanctuary of American Samoa (NMSAS)

This week, sanctuary staff presented on the how, what, where, and why of the National Marine Sanctuary of American Samoa to a group from various Micronesian countries who are on island on a learning exchange. The purpose of the visit is for the territory to learn about the Micronesia Conservation Trust, and how that can assist the territory in the continuing development of the Two Samoa Initiatives. In an effort to share best practices and learning experiences in island marine conservation, members of the Micronesia Challenge consortium, representing four different countries in Micronesia, came to American Samoa to participate in a learning exchange with local agencies. Staff from NMSAS participated, along with DMWR, NPS, SeaGrant, and CRAG. There was a lot of honest exchange in discussions, and participants from Samoa garnered new ideas for helping the Two Samoas conservation partnership, as well as useful tips for engaging government leaders who are critical to its success.

### Channel Islands NMS

The completed phase of UCSB's Ocean Science Education Building (OSEB) has been awarded LEED Gold certification by the United States Green Building Council. The facility is the new main office for Channel Islands National Marine Sanctuary. OSEB will also house the Outreach Center for Teaching Ocean Science (OCTOS) which will be a highly interactive space for children and adults to learn about marine ecosystems and processes. Recognition by the US Green Building Council acknowledges the building's energy and resource efficient design, storm water management, and provision of healthy interior spaces through the use of low-VOC finish materials and an effective natural ventilation system. A reduction of total lifecycle environmental impacts from materials specification and construction practices are a highlight. Total building materials included over 20% recycled content and 85% of construction and demolition waste was diverted from the landfill. Sanctuary staff express thanks and acknowledge the following university representatives: Chancellor Henry T. Yang, Jordan Sager, Martie Levy, Chuck Haines, Karen Rothberg, Steve Gaines, Mark Brzezinski, Gay Larson, Tim Schmidt, Marc Fischer, Jack Wolever, Ray Aronson, Peter Ryan, Michelle Sanchez and the whole UCSB Team. Their leadership and support for construction of the OSEB helped assure green building requirements were properly designed and upheld during construction. Also recognized and thanked is Todd Jacobs from CINMS for being highly engaged in the LEED process over several years and working hard to help make it happen, in addition to support from ONMS staff Chris Mobley, Laura Francis, Ted Lillestolen, and Chris Ostrom.

### Olympic Coast NMS

Education and Outreach Coordinator Robert Steelquist delivered a presentation on "Climate Change and the Olympic Coast" at Peninsula College's Studium Generale lecture series. The presentation highlighted the findings of "Climate Change and the Olympic Coast National Marine Sanctuary: Interpreting Potential Futures," a collaborative effort between the sanctuary and Washington Sea Grant. The audience of about 150 was composed of students, faculty and staff of Peninsula College and many community members. The publication was published in March, 2013 as part of the Marine Sanctuary Conservation Series (ONMS-13-01).



## MONTEREY BAY NATIONAL MARINE SANCTUARY NEWS AND PROGRAM UPDATES



### MANAGEMENT

#### **San Luis Obispo County's Stewardship Traveler Program partnership explored**

MBNMS staff met with staff of San Luis Obispo County's Stewardship Traveler Program to familiarize both entities with the programs currently promoting sustainable tourism to the region, and the opportunities to highlight the presence of special ocean places like Sanctuaries. Partnering opportunities were explored to benefit a shared mission of education, appreciation, marine stewardship and positive public relations.

#### **Monterey County Convention & Visitors Bureau**

Monterey Bay National Marine Sanctuary staff attended the Community Relations Marketing Committee meeting of the Monterey County Convention & Visitors Bureau. A MBNMS staff member is a formal member of this advisory group, which is charged with promoting active participation and cohesive communication with business associations and other community groups on the positive economic and social impacts of tourism in Monterey County. The group met to discuss a plan for more concerted effort of jointly marketing the unique bounty of the region.

#### **Monterey County Business Council - Tourism Cluster**

Staff attended a conversation with this group to discuss how to re-invigorate membership after an unplanned lull due to staff changes. There were many ideas for identifying the value of this group and plans for reaching out to key colleagues & urging attendance.

### RESEARCH AND MONITORING

#### **SIMoN assists with season-ending 2013 subtidal surveys of state MPAs**

On October 18, Sanctuary Integrated Monitoring Network (SIMoN) staff conducted science dives with researchers from the Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO) at the University of California at Santa Cruz (UCSC), completing the 2013 field season. At each of the 26 sites sampled (either inside state MPAs or at adjacent sites lacking protection), science divers survey fishes, invertebrates and algae. Due to a lack of funding since the end of 2011, PISCO is now relying heavily on partnerships with MBNMS staff and volunteers trained in the past to conduct survey dives.

#### **Research divers continue 3-yr monitoring program at the Alder Creek landslide**

From October 22-24, Sanctuary Integrated Monitoring Network (SIMoN) staff (Chad King and Steve Lonhart) and two research divers from the University of California at Santa Cruz (UCSC) continued a 3-yr long monitoring program in the subtidal at the base of and adjacent to the Alder Creek landslide, which closed Highway 1 in scenic Big Sur for four months in 2011. The California Department of Transportation is funding the monitoring as part of their coastal development permit from the California Coastal Commission, contracting with Dr. Mark Carr at UCSC, who is the main PI for the subtidal component, whereas Dr. Pete Raimondi is the PI for the intertidal monitoring program. Divers surveyed sites north of the slide, at the slide, and just south of the slide. At each of the three survey sites, divers planned to collect data from four depth zones using protocols developed at UCSC. Over the course of three days aboard the R/V FULMAR, the four divers completed 10 of 12 depth zones.

#### **Checklist of MBNMS fishes to be used for revised edition of AFS book**

Monterey Bay National Marine Sanctuary (MBNMS) and California Academy of Sciences personnel recently partnered to create "Checklist of Fishes Known to Occur in Monterey Bay National Marine Sanctuary." The checklist of 525 fish species includes fishes that occur as far as 90 nautical miles (Davidson Seamount Management Zone) from sanctuary shoreline. California Academy of Sciences personnel is also a co-author of the book "Common and Scientific Names of Fishes from the United States, Canada, and Mexico" published by the American Fisheries Society (AFS). It provides the accepted common and scientific names for all fishes in the continental United States, Canada, and Mexico, including marine species inhabiting (as juveniles or adults) contiguous shore waters on or above the continental shelf to a bottom depth of 200 meters. Preparation for the eighth edition has begun, and will now include waters of the exclusive economic zone (EEZ; 200 miles nautical miles from coastal baseline). The MBNMS checklist will serve as a

starting point for adding fishes found off the central coast of California deeper than 200 meters. The MBNMS checklist can be downloaded at: <http://montereybay.noaa.gov/research/techreports/trburton2013b.html>.

### **Nuances of trawling impacts**

MBNMS SAC member Dr. James Lindholm gave a public lecture on the history of his bi-coastal research on trawling impacts to marine ecosystems. MBNMS has funded some of this work and has recently collaborated on an essential fish habitat proposal with local stakeholders, addressing trawling regulatory boundaries. The impacts of trawling are clear in some habitats but difficult to detect in other habitats. Trawl gear type is also a factor relative to intensity of impacts. As with all human interactions with the environment, there are tradeoffs in use and impact, and careful consideration is necessary.

### **Video footage considered for MBNMS Fishes Checklist**

Monterey Bay National Marine Sanctuary (MBNMS), Monterey Bay Aquarium Research Institute (MBARI), and California Academy of Sciences personnel met to discuss several rarely observed fishes captured on video. As part of MBARI's deep-sea research and ocean-engineering efforts, the institute has amassed a large collection of images and video. The MBNMS Fishes Checklist is primarily based on fishes collected within MBNMS boundaries and catalogued at museums. With the increasing use of remote observation, video footage can provide *in situ* imagery for rarely seen fishes. However, it can be challenging to identify some fishes on video where specific identifying characters require a "fish-in-hand." The MBNMS Fishes Checklist can be downloaded at: <http://montereybay.noaa.gov/research/techreports/trburton2013b.html>.

### **ESRI Ocean GIS Forum presentation focused on GIS support of the EFH proposal**

Staff gave a presentation about the successful development of the collaborative Essential Fish Habitat (EFH) proposal by MBNMS and its stakeholders at the ESRI Ocean GIS forum on November 6 in Redlands, CA. The presentation focused on the suite of GIS tools that supported the development of the proposal and how the vetted spatial data, both west coast wide and local, provided a common language for the collaborators. ESRI Press invited us to contribute a chapter to a new book called "Ocean Solutions, Earth Solutions" based on the presentation.

### **Lost Shipping Container Mini-Documentary Submitted to San Francisco International Ocean Film Festival**

*Lost in the Deep*, a 10 minute film documenting the 2011 research expedition to a lost shipping container resting on the seafloor 4,000 feet below the surface of Monterey Bay, was officially submitted to the 11th Annual San Francisco International Ocean Film Festival. The festival will run from March 5-9, 2014 with film topics focusing on ocean exploration, wildlife, conservation, seafaring adventures, sports and coastal cultures. You can view *Lost in the Deep* on YouTube here: <http://www.youtube.com/watch?v=PRU2PxMOh18>.

### **MBNMS collaborates with Stanford and Moss Landing Marine Labs on genomic observatory pilot project**

On November 18 & 19th, SIMoN staff (Chad King and Dr. Steve Lonhart) retrieved 5 of 9 Autonomous Reef Monitoring Structures (ARMS). These stacks of settling plates are used extensively in coral reef ecosystems, and only recently expanded into colder waters. ARMS provide "a systematic, consistent and comparable method to monitor cryptic reef diversity over space and time, and information from the ARMS will provide managers with a tool to assess this diversity along with the effects of climate change and ocean acidification." The ARMS were provided by Dr. Jon Geller from Moss Landing Marine Labs, and his group will be conducting genomic analyses. Dr. Steve Litvin, Research Coordinator for the Marine Life Observatory Program at Hopkins Marine Station, Stanford University, has been an integral part of this collaborative project and assisted with ARMS retrieval and small boat operations. A quick inspection of the plates housed in the ARMS showed an incredible diversity of mobile and sessile invertebrates, including many cryptic species.

## **RESOURCE PROTECTION**

### **International Leatherback Sea Turtle Summit a huge success!**

Due to the government shutdown, MBNMS staff, which were to co-host the October 14-16 International Leatherback Sea Turtle Summit, could not attend this first-of-its kind meeting to discuss the future viability and protection of leatherback turtles. The 55 participants included a 14 person delegation from Indonesia, NOAA Fisheries scientists, State of California officials, the Monterey Bay Aquarium, Oceana, and other NGOs. Yet, the show must go on, so a contingency plan was put in place, and the Summit commenced as planned. The first day included talks (with translations) provided by the Tambrau Government reps on management issues related to leatherback conservation, the Papua Barat region's current efforts monitoring and conservation efforts to address threats on nesting beaches, and a number of NOAA Fisheries and US NGO presentations on current critical level population status. The second day (Oct 15) was the official California Leatherback Sea Turtle day, and to commemorate the day and the Summit there was an official signing of a declaration by the Bupati (head Indonesian official), CA Assemblymembers Paul Fong and Mark Stone, CA Natural Resource

Agency, Janelle Beland, Oceana and other NGOs and an MB SAC member. The last day included a charter trip for all participants out on the Sanctuary that was sponsored at no cost by Princess Monterey Whale Watching. Outcomes from the Summit are being compiled and include a number of commitments outlined in an US-CA-Indonesian MOA, which is in clearance. The MOA includes collaborative ideas such as shared ed & outreach tools, rapid assessment for fisheries issues, and other areas of increased US/Indonesia collaborations. Despite the shutdown, the Summit was able to fulfill its goals and this is testimony to the strong partnerships in place, especially with Oceana, as their staff really stepped up to support the event.

#### **Monterey Bay National Marine Sanctuary Vessel Traffic Analysis 2009-2012 to be released**

Sanctuary staff and stakeholders sought to have a better understanding of vessel compliance with the International Maritime Organization (IMO) recommended tracks within MBNMS (established in 2000). Three different analyses using Automated Information System (AIS) ship traffic data were completed to address this question. The Naval Postgraduate School (NPS) reviewed daily AIS data from September 2009-2012 and found annually, fewer than 8 cargo vessels deviated more than 3 nautical miles inshore of the Northbound recommended track for vessels 300 gross tons and above, and only one tanker in 2010 was found deviating from that Northbound track. A further refinement of the analysis of the tanker traffic would be facilitated by access to data on the association and contents of each vessel because Western States Petroleum Association (WSPA) tankers carry crude oil, black oil or other persistent liquid cargo in bulk and have agreed to stay more than 50 nautical miles offshore. The National Marine Fisheries Service's Southwest Fisheries Science Center completed density maps for 2009 AIS data and found tankers are using the recommended tracks, particularly those designated for vessels carrying hazardous cargo in bulk with an especially higher density using the Southbound track. The 2009 data analysis by the Southwest Fisheries Science Center indicated higher densities of cargo vessels in the northbound recommended track for vessels 300 gross tons and above than in the other three tracks. The USCG verifies the AIS data and contacts the vessel if they determine the AIS data does reflect a deviation. These three AIS analyses do indicate a great majority of the vessels transiting through MBNMS are complying with the IMO recommended tracks. Final report will be released by the end of the year.

#### **Congressman Farr and Assemblymember Stone send letters of support for the MBNMS collaborative Essential Fish Habitat proposal**

MBNMS has received two strong letters of support for the collaborative Groundfish EFH proposal from Congressman Sam Farr and from Assemblymember Mark Stone. The Pacific Fishery Management Council is slated to discuss the Groundfish amendment on Nov 5th. Both letters are a testament to the local stakeholder group working together to finding consensus and agreement.

#### **MBNMS Reports on Terrestrial Runoff at CA State Assembly Informational Hearing**

On October 22<sup>nd</sup>, Monterey Bay National Marine Sanctuary Water Quality Protection Program staff presented at an informational hearing organized by CA Assembly Member Mark Stone for his Assembly Select Sub-Committee on Coastal Protection. The hearing was titled *Threats to the Pacific Ocean* and focused on 3 topics: sea-level rise/adaptation and response, runoff/harmful algal blooms/water quality, and ocean acidification. The Assembly Members were interested in becoming better informed to propose legislation and policy changes to solve the issues. MBNMS' presentation touched on beach water quality, legacy pesticides in the water, tissues and sediments in Monterey Bay and recommendations for action regarding state programs, regional monitoring and support for the statewide water quality database.

#### **MBNMS partners with MLML on Hollings proposal for BeachCOMBERS funding**

Moss Landing Marine Laboratories (MLML) and Monterey Bay National Marine Sanctuary (MBNMS) staff worked together to submit a proposal to the Ernest F. Hollings Ocean Awareness Trust Fund for the BeachCOMBERS program. Funding would support specialized training for 175 new and existing volunteers to conduct systematic documentation of marine debris (location of accumulation) and entanglement details (type, source, and extent). The Coastal Ocean Mammal and Bird Education and Research Survey volunteers (BeachCOMBERS) have made great strides in documenting the harmful impacts of marine debris on seabirds, marine mammals and sea turtles in MBNMS. Since 1997, BeachCOMBERS have documented human and natural impacts in the MBNMS using the deposition of marine birds and mammals as an indicator of marine ecosystem health.

#### **Santa Rita Creek Restoration Project Gains Steam**

Monterey Bay National Marine Sanctuary Water Quality Protection Program Staff attended and staffed a booth at the Santa Rita Creek Fair on October 19th at Ferrasci Park in the Santa Rita community near Salinas, CA. Ferrasci Park will be the site of an Integrated Regional Water Management project grant to include creek restoration, water quality monitoring and upstream on-farm BMP implementation for management of nutrients, sediment and bacteria. Volunteers signed up at the event to assist with creek restoration and planting as well as water monitoring. Visitors viewed the 100% design plans for the restoration project and asked questions of WQPP staff and project partners, the Resource Conservation District of Monterey County and Central Coast Wetlands Group.

### **ASBS Trainings Kick Off the Rainy Season**

On October 22nd Monterey Bay National Marine Sanctuary Water Quality Protection Program Staff conducted training for volunteers monitoring Areas of Special Biological Significance (ASBS) in Pacific Grove and Carmel, CA this winter. The training covered sample collection, chain of custody, data sheets and safety. Volunteers will be collecting samples at 16 outfalls for oils and grease, total suspended solids, toxicity and bacteria. Sample collection will take place once during each rainy season for the next two years. ASBS monitoring includes both discharge and receiving water sites providing a picture of how the ocean is affected by runoff from storm events.

### **First Flush Trainings Conducted in Preparation for the First Rains**

Monterey Bay National Marine Sanctuary Water Quality Protection Program Staff conducted two trainings for First Flush volunteers on October 23rd and 24th under a contract with the Monterey Regional Storm Water Management Program (MRSWMP). Volunteers were presented with sample collection protocols, data sheets, mobilization criteria and safety precautions. During the First Flush, the first major rainstorm of the winter season, volunteers collect samples that will be analyzed for E. coli, enterococcus, nitrate, phosphate, urea, copper, zinc, lead and total suspended solids. This will be the 14th year of First Flush monitoring at outfalls that drain into the Monterey Bay National Marine Sanctuary. Data from First Flush aids local cities in determining which watersheds require source tracking or BMP implementation.

### **Central Coast Resource Conservation District (RCD) Fall Meeting at Elkhorn Slough**

The fall meeting of the RCDs from California's Central Coast was held at Elkhorn Slough on 10/30/13. It was attended by RCD staff and board members as well as partner organizations who play a large role in the success of RCD efforts. The MBNMS Agricultural Water Quality Coordinator provided an update of the activities related to the grants and partnerships between the organizations. They include two grant projects that provide funding to local RCD efforts to improve irrigation and nutrient management on agricultural fields in watersheds that drain into the Monterey Bay National Marine Sanctuary. MBNMS also leads two voluntary collaborative efforts; the Agricultural Water Quality Alliance and Farm Food Safety Conservation Network, which are heavily attended by RCD staff as well as by growers, resource conservation specialists, non-profit organizations and governmental organizations.

### **Monterey Bay Cities Flush on October 28<sup>th</sup>**

At 9 am on Monday October 28th, First Flush volunteers for the Monterey Bay National Marine Sanctuary mobilized to collect samples at storm drain outfalls during the first major rainstorm of the wet weather season. Storm squalls starting passing through the area at 5 am but did not generate enough flow until 9 am when a heavy rain fell on the area. The storm dropped .33" of rain on most areas of the coast. In all, seven sites were sampled for First Flush on Monday by fourteen volunteers. Volunteers in the Santa Cruz area, coordinated by the Coastal Watershed Council, already had their First Flush event on September 21<sup>st</sup>. This event did not happen this year on the San Mateo Coast due to lack of funding and staffing capacity. Samples that the volunteers collect are analyzed for E. coli, enterococcus, nitrate, phosphate, urea, copper, zinc, lead and total suspended solids. This is the 14th year of First Flush monitoring at outfalls that drain into the Monterey Bay National Marine Sanctuary. Data from First Flush aids local cities in determining which watersheds require source tracking or BMP implementation.

### **Environmental Coordination with City of Pacific Grove**

MBNMS staff met with the Environmental Planner of the City of Pacific Grove to discuss the recently adopted ordinance for Protection of Natural Resources- specifically related to Harbor Seals. Last year the harbor seals extended their range on the beach, and as a result there were some unfortunate public interactions, which prompted the need for a better plan. In an effort to improve the situation for this coming year, and ensure necessary requirements are copacetic, staff met with the City and discussed a myriad of issues related to proposed permanent & temporary fencing; discussed permitting issues of concern with the CA Coastal Commission; and conducted a site visit to determine the most ideal placement of educational signage for this year's pupping season.

### **Fishing and NGO stakeholders provide testimony to PFMC on behalf of MBNMS Collaborative EFH proposal**

On November 5, the Pacific Fishery Management Council took public comment during the Groundfish EFH agenda item, and received some positive comments regarding the MBNMS Collaborative proposal that seeks to add protections to vulnerable biogenic habitat, as well as return some historically important trawl fishing grounds to fishermen. MB staff coordinated with the following EFH stakeholder members to provide the testimony, as MB staff was not able to attend the meeting. At the end of the session, PFMC members voted 7-6 to advance all 7 proposals to amend EFH and advance overall their EFH effort to the next phase, which will include analyzing the proposals, developing alternatives and carrying out necessary consultations.

### **Last of the First Flush Sites Monitored and First of ASBS Sites Monitored During Latest Storm**

In the late night hours of November 19th into the early morning hours of November 20th, intrepid volunteers from Santa Cruz to Carmel ventured out to storm drain outfalls to collect samples from the latest storm to hit the Central Coast of CA. The Coastal Watershed Council monitored Capitola sites while sanctuary staff coordinated the southern sites for the Monterey Regional Storm Water Management Program. This storm dropped between 0.3 to 0.7 inches of rain in a 24 hour period. Volunteers began to mobilize in Capitola at 7:00 pm, 10:00 pm in Pajaro (on November 19th) and 1:45 am (November 20th) for sites in Monterey and Carmel Valley. Volunteers collect samples to be analyzed for *E. coli*, enterococcus, nitrate, phosphate, urea, fluoride, potassium, detergents, copper, zinc, lead and total suspended solids. This is the 14th year of First Flush monitoring at outfalls draining into Monterey Bay National Marine Sanctuary. During the same storm a huge logistical feat coordinated by Applied Marine Science consulting firm, enabled storm sampling from Marin County to Big Sur for Areas of Special Biological Significance. Sanctuary staff assisted with logistics in getting samples to multiple labs for water chemistry and toxicity. Three more storm events will be monitored this season.

### **Pacific Grove Urban Watch Season Comes to an End**

Since 1998, the Urban Watch volunteer water quality monitoring program, funded by the City of Pacific Grove and coordinated by Monterey Bay National Marine Sanctuary, has been educating local citizens and collecting water quality data for dry weather urban runoff. Additionally, it has also helped the City to partially fulfill the education, outreach, and monitoring requirements of its Phase II National Pollution Discharge Elimination System (NPDES) storm water permit. Because of this, the program has adapted to the needs of the City and in 2013, sites were added to compliment the Special Protections required for Areas of Special Biological Significance (ASBS) as well as a more focused approach to collect and document trash found at each site. A total of 13 volunteers contributed 128 hours to the program. Only one monitoring event warranted further source tracking for detergents. A total of 31.5 pounds of trash was removed from Pacific Grove beaches.

### **Sanctuary Staff Comment on TNC Draft Report *Salinas Land-Sea Project***

As Strategic Advisors, Monterey Bay National Marine Sanctuary Water Quality Protection Program staff reviewed and commented on a draft report summarizing the findings of a Nature Conservancy convened Science Advisory Panel (SAP), which reviewed and synthesized existing literature and research regarding agricultural influences on surface water quality and its impacts on the ecology of the region, and the degree to which on- and off-farm practices can improve water quality conditions in the Salinas and Elkhorn Slough watershed. The SAP focused on three stressors identified by the Regional Water Quality Control Board – nutrients, pesticides and sediment – and evaluated the sources, transport and ecological effects of these stressors on freshwater and estuarine/nearshore ecosystems in the Salinas River area. The SAP also evaluated the effectiveness and feasibility of a suite of agricultural management practices available for use in the region. These evaluations were conducted through an extensive literature review, focusing primarily on local studies documenting clear causative effects.

### **Indonesian Delegation Visit in San Francisco**

Monterey Bay National Marine Sanctuary staff presented information on marine policy to a group of Indonesian Parliament members at the California Coastal Commission headquarters in San Francisco. The Indonesia Coastal Resources Management Program has recently adopted a far-reaching National Coastal and Small Islands management Act. The Delegation received presentations from the Coastal Commission, Bay Conservation and Development Commission (BCDC), and Sanctuary staff. The focus of this forum was centered around marine conservation, permitting and spatial planning. Included was an update on MBNMS efforts of protecting the endangered Leatherback Sea Turtle. It was a really positive meeting, and is expected to have longer-term favorable impacts for resource protection in Indonesia.

## **ENFORCEMENT**

### **Aerial Observation Training Conducted**

On September 26, Monterey Bay National Marine Sanctuary staff conducted training for 30 US Coast Guard Air Auxiliary pilots who provide free aerial observation services to MBNMS on a weekly basis. The pilots are trained to identify potential sanctuary regulations and systematically report observations in a timely fashion. MBNMS has developed a customized air patrol guide and standardized reporting form as job aids for the pilots. This cooperative effort is a strong example of how MBNMS relies on partnerships to protect and manage the sanctuary.

## EDUCATION, VOLUNTEER AND OUTREACH

### **Celebrating 7 Years in Service**

The Coastal Discovery Center hosted its 7<sup>th</sup> annual docent appreciation event to commemorate its accomplishments for 2013. Among them were; the remodeling of 4 exhibits; teaching of 450 students; hosting of 2 interns from Penn State and Cal Poly, development of a 3-part educational geocach site at the park; training of 8 new docents; and collaboration with the Central Coast Wine Country Stewardship Traveler Program! Since the Center has been open, it has hosted over 100,100 visitors, educated over 3,000 students and held 8 annual ocean fairs!

### **Education Staff attended Monterey Bay Environmental Educators Network Meeting**

The California Regional Environmental Education Community (CREEC) held the meeting on Oct. 23 at the Santa Cruz County Office of Education. The focus of the meeting was about effective use of social media. Results of an internal survey were reviewed, leading to a discussion on a range of tools and approaches to integrating social media into our mission and work, as well as effective practices recommended by social media advisors. The meeting was very useful, as Monterey Bay National Marine Sanctuary has identified social media and other types of digital outreach and communications as a priority focus for the coming year.

### **Research Staff Speak to Conservation Biology Seminar Class at Moss Landing Marine Labs**

Andrew DeVogelaere gave a lecture to the Conservation Biology Seminar Class at Moss Landing Marine Laboratories. The 18 students learned about the Sanctuary Program, the value of taxonomic studies, interpretation of lost shipping containers science, and how science and policy interact on fishery issues. This graduate course and the students demonstrate a long-term shift in the desire of scientists to apply their work.

### **Sanctuary Exploration Center Docents Forming LiMPETS Monitoring Team**

On November 16<sup>th</sup> staff from the Long-term Monitoring Program and Experiential Training for Students (LiMPETS) will host a training for SEC docents to monitor Wilder Ranch intertidal site. The SEC has committed to monitoring this site quarterly through 2014 (tide dependant) 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. If successful, this team could expand to also monitor other sites within the sanctuary.

### **Sanctuary Exploration Center Hosts Presentation by Artists Richard and Judith Lang**

In partnership with Save Our Shores, the Sanctuary Exploration Center hosted an interactive presentation and discussion with artists Richard and Judith Selby Lang about their project *Plastic Forever*. Since 1999, the husband and wife team have collected more than two tons of plastic trash from the 1000-yard stretch of Kehoe Beach along the Point Reyes National Seashore, and transformed this plastic debris into engaging works of art to raise awareness about our dependency on plastics and plastic pollution's impact on our marine environment. Sixty-five volunteers and community members attended the event.

### **Changes in MBNMS beach surveys**

As we head into the fall season, the more common birds in Sanctuary are changing to Northern Fulmars (the name sake of the MBNMS research vessel). Review what the prehistoric beak on a Northern Fulmar looks like by checking out images on the SeaPhoto App. We are also having changes in personnel, as Erica Donnelly is transitioning to The Marine Mammal Center. Day-to-day coordination will be handled by Hannah Nevins, with the Department of Fish and Wildlife. Beach COMBERS is a collaborative citizen science program run by Moss Landing Marine Labs, the CA Department of Fish and Wildlife, and MBNMS.

### **Pre-proposal submitted for FY14 NOAA Preserve America Initiative Internal Funding**

MBNMS staff submitted a pre-proposal for Preserve America Initiative Internal Funding to update the video featuring the wreck of the SS *Montebello*, currently being run at the Coastal Discovery Center in San Simeon Bay. Last year's mission to the wreck has determined the threat of crude oil leaking from its hull is no longer an issue, contrary to what is outlined in the current video. The development of a new video, using old footage, supplemented with new, will not only tell the story of the SS *Montebello*, but will highlight the technologies (old and new) used to characterize the wreck and how important monitoring these resources are to ocean health.

### **KCBS news report mentions Monterey Bay National Marine Sanctuary**

On November 3rd, Mary Elaine Helix from BOEM and a manager of the Multi-Agency Rocky Intertidal Network (MARINE) was interviewed by Jeff Bell from the KCBS News Desk in San Francisco. Mary discussed visiting tidepools in MBNMS and highlighted a new web site that provides information on California tidepools (<http://www.eeb.ucsc.edu/pacificrockyintertidal/index.html>).

### **Exploration Center Hosts Delegation from Ukraine**

On November 14<sup>th</sup>, Sanctuary Exploration Center staff hosted a group of delegates from Santa Cruz’ sister city, Alushta, Ukraine. The delegates were given a presentation on the history and goals of Monterey Bay National Marine Sanctuary and the specific goals of the Exploration Center. They were also given a tour of the Center where they enjoyed the film, “One Breath,” used the interactive exhibits and enjoyed viewing an anchovy bait ball feeding frenzy off of the viewing deck. The Ukrainian delegates were particularly interested in the sanctuary designation process and lessons they could bring back to their own coastal community.

### **Maps focusing on CA state Marine Protected Areas for educational recreational fishing brochures**

Staff completed five cartographic maps for Monterey Bay Sanctuary Foundation's educational brochures designed for distribution to recreational fishermen. The maps focus on highlighting the boundaries of the CA state Marine Life Protection Act Marine Protected Areas, parks and recognizable points on land such as lighthouses. The maps were produced using ESRI GIS Desktop software and finessed using Adobe Photoshop.

## NEWS COVERAGE

### **MBNMS Announces Details on CRSMP Plan**

Dredging Today - November 17, 2013

<http://www.dredgingtoday.com/2013/11/17/mbnms-announces-details-on-crsmplan-usa/>

### **UCSC study finds more targeted approach to marine conservation**

Monterey Herald – November 17, 2013

[http://www.montereyherald.com/science/ci\\_24541430/ucsc-study-finds-more-targeted-approach-marine-conservation](http://www.montereyherald.com/science/ci_24541430/ucsc-study-finds-more-targeted-approach-marine-conservation)

### **Your Town: Sanctuary seeks council applicants**

Monterey Herald – November 19, 2013

[http://www.montereyherald.com/yourtown/ci\\_24554190/your-town-sanctuary-seeks-council-applicants?source=rss](http://www.montereyherald.com/yourtown/ci_24554190/your-town-sanctuary-seeks-council-applicants?source=rss)

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## **WEB SITE (<http://montereybay.noaa.gov/>)**

### **Recent Updates**

Monterey Bay National Marine Sanctuary is pleased to announce the release of our new website, designed with a fresh new look and easy navigation. The homepage features upcoming events & news, and quick links to get you where you want to go with one click. The new website contains the latest information about our programs as well as new content, like “Things to Do” featuring fun ways to experience your sanctuary, from tide pooling and fishing to whale watching. We hope you enjoy browsing our new site!

### **Follow MBNMS on Facebook and Twitter!**

*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).*

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## **FUN, OCEAN RELATED WEB SITES**

### **Seasons in the Sea**

<http://www.seasonsintthesea.com>

### **Thank You Ocean**

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

### **NOAA Online Media Library**

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

### **SIMON**

<http://www.sanctuarysimon.org>

### **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/>

### MBNMS Staff

**Paul Michel** – Superintendent  
**Dawn Hayes** – Deputy Superintendent

#### Research

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

#### Education

**Liz Love** – Acting Education Coordinator  
**Lisa Uttal** – Interim Exploration Center Director  
**Carolyn Skinder** – Southern Region Program Coordinator  
**Chelsea Prindle** – Education Specialist  
**Craig Jutson** – Exploration Center Operations Specialist  
**Kaitlin Graiff** – Exploration Center Gift and Bookstore Manager  
**Brittany Cooper** – Coastal Discovery Center Docent Coordinator

#### Resource Protection

**Karen Grimmer** – Resource Protection Coordinator  
**Scott Kathey** – Regulatory/Emergency Response Coordinator  
**Deirdre Whalen** – Government and Community Relations Coordinator/Permit Coordinator  
**Sophie De Beukelaer** – GIS Analyst  
**Pamela Krone-Davis** – Agriculture Water Quality Coordinator  
**Bridget Hoover** – Water Quality Protection Program Director  
**Lisa Emanuelson** – Citizen Watershed Monitoring Network Coordinator

#### Program Operations

**Raymond Chisolm** – Program Specialist  
**Sara Hutto** – 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: <http://www.montereybay.noaa.gov>.

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

### **The Office of National Marine Sanctuaries**

The 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#educate>

### **- Contact Information -**

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