



# Monterey Bay National Marine Sanctuary Sanctuary Office Report



Volume 7, Number 3

A REPORT FOR THE SANCTUARY ADVISORY COUNCIL MEMBERS

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## ABOUT THE SANCTUARY

Designated in 1992, the 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, the 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. The 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

### ONMS and CSC Conduct MPA Training in Turkey

ONMS' International MPA Capacity Building Program and the Coastal Services Center just completed a 7-day training on marine spatial planning for Kas-Kekova MPA in Turkey. Twenty-nine participants, including the Ministry of Environment, Ministry of Tourism and Culture, Ministry of Fisheries, MPA staff, local fisherman and tourism operators, worked together to complete a draft marine spatial plan for the MPA. Recommendations were made on a range of zones and regulations to address current and potential future impacts including fishing, diving, marine transportation, land-based pollutants and coastal development. The recommendations will be forwarded to the Ministry of the Environment to complete the design and implementation process over the next 3 years.

### West Coast Deep Sea Coral Cruise

From June 9 - July 3, the NOAA Ship *McArthur II* will explore deep-sea coral habitats in depths along the west coast of the United States from Washington's Olympic Coast National Marine Sanctuary, and along deep-water regions of California between Cordell Bank, Gulf of the Farallones, and Channel Islands National Marine Sanctuaries. Surveys will occur in sanctuaries and adjacent waters with a remotely operated vehicle, an autonomous underwater vehicle and a manned submersible throughout the different legs of the cruise. The marine region off the coast of Washington, Oregon and California accounts for about 7 percent (778,628 km<sup>2</sup>) of the total area of the U.S. Economic Exclusive Zone and contains areas of deep-sea coral. NOAA manages five national marine sanctuaries on the west coast: the Channel Islands, Monterey Bay, Gulf of the Farallones, Cordell Bank, and Olympic Coast. All contain deep-sea corals. NOAA's Coral Reef Conservation Program is charged with coordinating the implementation of deep-sea coral activities, which is primarily authorized by the Magnuson-Stevens Fishery Conservation and Management Act (MSA) (U.S.C. 1801 et seq.). The MSA was reauthorized in 2006 and it included a new requirement to establish a Deep-Sea Coral Research and Technology Program. The goals for the cruise include surveying deep sea coral and sponge communities from Washington to southern California and includes investigating inside and outside NOAA Essential Fish Habitats (EFH), characterize the distribution and abundance of deep sea corals, establish baseline water quality conditions as it relates to deep sea corals (ph). Stay with us during this expedition and check back to see updates from the field.

### NOAA Announces Funding to Support Ocean and Coastal Observation Technologies

A \$4 million NOAA grant will help a university consortium evaluate the readiness of marine forecasts, such as flooding from storm surge or seasonal dead zones, along the Atlantic and Gulf of Mexico coasts and improve those forecasts for use by emergency managers, scientific researchers and the general public. The competitive grant, from NOAA's Integrated Ocean Observing System (IOOS®) program, will go to the Southeastern Universities Research Association, a group of more than 60 universities that work with government agencies and researchers to advance information technology and improve understanding of coastal, ocean, and environmental phenomena. IOOS is a tool for tracking, predicting, managing, and adapting to changes in our marine environment. "Recent advances in science and computing capabilities are leading to improved tools to predict coastal ocean phenomena," said Zdenka Willis, NOAA IOOS program director. "This project creates an objective environment to compare the latest models for improved forecasting that will ultimately benefit the daily lives and livelihoods of millions of Americans." Scientists will work to improve the precision of computer models that forecast recurring issues in the Atlantic and Gulf regions. They will also explore methods for effectively delivering model results to regional centers, scientists and managers relying on IOOS. The project is intended to identify the most useful models and then get the resulting information to the public quickly.

## National Marine Sanctuary News

### Channel Islands NMS

The Channel Islands National Marine Sanctuary's (CINMS) Research Department was one of 5 recent awardees of grant funding from the NOAA-NMFS Office of Science and Technology Ocean Acoustics program. The funded project proposal was titled: **Evaluation of large vessel impacts on large whale in response to new and emerging traffic patterns in the Santa Barbara Channel – the country's second largest traffic corridor**. The project is designed to extend work performed last year tagging blue whales with acoustic logging tags in the path of on-coming large vessels to evaluate their behavioral responses to close approach by commercial vessel traffic. Acoustic records from tagged animals are correlated with broad-band acoustic logging instruments and Automated Identification System (AIS) tracks of ship location and movement. For the last two and a half years research staff from CINMS, in collaboration with partners from Cascadia Research and the Scripps Institution of Oceanography (SIO), have been attaching data logging tags to the backs of large whales in the Santa Barbara Channel. While this work was ongoing, a state regulatory change in fuel usage by large vessels within 24 miles of the mainland coast took effect in July 2009, and, as determined from AIS vessel tracking, has resulted a 107% increase in large vessel traffic transiting south of the CINMS and outside the IMO-designated shipping lanes in the Santa Barbara Channel. Cruises conducted in 2009, however, revealed previously unappreciated high densities of whales along the shelf breaks south and west of San Miguel Island in the CINMS – and adjacent to the area of increased traffic. Significance: This project provides a rare opportunity to evaluate the response of endangered blue whales to the emergence of new shipping traffic patterns and increases in human acoustic impacts.

### Gulf of the Farallones NMS

On June 3rd a sanctuary advisory working group released "Climate Change Impacts: Gulf of the Farallones and Cordell Bank national marine sanctuaries" in San Francisco, Gulf of the Farallones, with the San Francisco Bay National Estuarine Research Reserve and California Academy of Sciences. Later, the Farallones and Cordell sites, with the California Academy of Sciences and San Francisco Bay National Estuarine Research Reserve, held the "2nd Biennial Ocean Climate Summit: Moving from Knowledge to Action." Sixty-five local scientists, educators, media specialists, and marine resource managers participated in discussion groups: Public Outreach, Science and Information, and Adaptation and Innovation. The goals were to address climate change impacts within the San Francisco Bay Area's coast and ocean environment through 1) communication of these impacts to the public; 2) better communication among scientists, natural resource managers, and communities, and 3) strategies to move management from planning for today to planning for the future. The Climate Change Impacts Report visit: <http://farallones.noaa.gov/eco/climate/climate.html#report>.

### Olympic Coast NMS

Personnel from Olympic Coast National Marine Sanctuary, NOAA Office of Law Enforcement and Washington Department of Fish and Wildlife conducted the first enforcement patrol of the sanctuary utilizing a US Coast Guard C-130 aircraft. The aircraft was deployed from Air Station Sacramento and picked up the sanctuary and their partners at Whidbey Island Naval Air Station. The C130 flight lasted approximately three hours and transited the entire sanctuary twice, once off the coast and then again closer to shore. The C130 platform is being evaluated for future ONMS enforcement efforts.

### Papahānaumokuākea Marine National Monument

More than 2000 children and parents received exposure to the variety of threatened and endangered species, including many marine animals, during the Honolulu Zoo's Hawai'i Endangered Species Day on Saturday, May 22, 2010. Sponsored by The Hawai'i Conservation Alliance and the Honolulu Zoological Society it was a celebration in honor of endangered species in Hawai'i and across the globe. Educational exhibits, games, crafts, and a silk aerial performance by Samadhi Hawai'i were among the festivities. Participants also visited with zookeepers, who shared their firsthand experiences with the zoo's unique residents. They learned about endangered species recovery projects and habitat restoration efforts and what they can do to help protect endangered and threatened species. Papahānaumokuākea Marine National Monument is a member organization of the Hawai'i Conservation Alliance and was one of the organizations that had an outreach table at the event. Staffers provided the first 250 children who visited the table with key chains featuring either a critically endangered Hawaiian Monk Seal or a threatened Green Turtle, which the kids had colored. The key chains also celebrate with text, the 10<sup>th</sup> anniversary of the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve, which established the groundwork for the designation of the Monument in 2006. Late comers got marine mammal tattoos and/or wallet sized cards depicting some of the endangered or threatened terrestrial and marine animals that inhabit Papahānaumokuākea.



## MONTEREY BAY NATIONAL MARINE SANCTUARY NEWS AND PROGRAM UPDATES



### MANAGEMENT

#### **MBNMS and USCG host Congressman Sam Farr for briefing, site tour and lunch at USCG Station Monterey**

MBNMS and US Coast Guard staff hosted a meeting for Congressman Farr on April 6 at the USCG Station Monterey. Additional attendees included Ashley Erickson, Sea Grant Fellow, Alec Arago, District Director, Luke Nachbar with NOS Leg Affairs, and leadership from USCG District and Sector. We provided a briefing to Congressman Farr on the joint proposal for USCG to accommodate MBNMS at Station Monterey. MBNMS is seeking a permanent administrative space for its main office, and to reduce (lease) costs. USCG Station Monterey has surplus space and is looking to reduce long-term operational costs. The proposal describes five separate alternatives and includes one recommended alternative that both agencies agreed was the best choice to meet joint missions, space needs, and life cycle costs. Congressman Farr had initially sparked this discussion a number of years ago, and during the briefing and tour again expressed interest in supporting the proposal, which will expand the administrative building for NOAA (including NOAA OLE) and retrofit the Unaccompanied Personnel Housing (UPH) for USCG operations.

#### **Via Magazine**

MBNMS staff has been exchanging ideas with Via Magazine, a publication of AAA. Although the conversation originally involved advertising with the magazine, staff have moved the dialogue to how to better inform Via Magazine readers of the presence and beauty of the MBNMS. This is particularly relevant given that many AAA members are enthusiastic drivers. If one were to take a road trip on Highway One from Marin County to the Hearst Castle in Cambria, travelers would be looking at the ocean waters of the National Marine Sanctuary nearly the entire time. There are many ways to enjoy the National Marine Sanctuary, and peeking at it while driving is just another! Hopefully, conversations on this vein will continue.

#### **MBNMS, West Coast Regional Office and GFNMS support local bid for The Ocean in A High-CO2 World**

This international conference will take place in Nov/Dec of 2012, and led by MBARI, the local research institutions are working together to submit a bid to have the workshop take place in Monterey. The three-day symposium will focus on ocean acidification and its impacts on marine organisms, ecosystems and biogeochemical cycles. It will also cover socio-economic consequences of ocean acidification, including policy and management implications. Since the first two symposia were held in France and Monaco, the third symposium will likely be held outside Europe. MBNMS is on the planning team and plans to support with \$5K, staff support and has offered the R/V FULMAR as a field trip opportunity. We see this as an opportunity for NOAA and the sanctuary program to highlight our OA and climate change initiatives. The final bid will be submitted to the review committee on April 30<sup>th</sup>.

#### **Blue Ocean Film Festival Planning Updates**

MBNMS, West Coast Regional, National Marine Sanctuary Foundation, and HQ staff attended the April 28th evening meeting of the inaugural session of the Blue Ocean Film Festival Regional Advisory Board. This board will meet regularly to discuss all elements of the Film Festival planning efforts. In addition, the MBNMS and Headquarters staff met with the Directors of the Festival and Monterey Bay Aquarium staff to discuss marketing and media relations efforts to better support the Festival. There was much creativity and enthusiasm expressed during the meeting, and staff are very optimistic about this partnership effort. Lastly, for the past several months, MBNMS staff have been involved in efforts to support the Blue Ocean Film Festival, in a myriad of ways. Last week MBNMS staff caucused with Film Festival Directors, Regional, Headquarters, and NMSF staff to review the MBNMS work plan, accomplishments thus far, and existing needs in an effort to ensure the week-long event in August is a tremendous success.

#### **Outreach to Salinas Valley Chamber of Commerce**

MBNMS and NMSF staff met with the CEO & President of the Salinas Valley Chamber of Commerce. Discussions revolved around several topics including: a greater connection with the MBNMS, the MERITO program, water quality, agriculture, Film Festival, and the Steinbeck Center. Staff will follow up targeted presentations to further the positive messages the MBNMS can offer.

### **Tourism Efforts**

On May 4th, MBNMS staff attended the evening session of the Monterey County Tourism Cluster, a small group of members who discuss ways to partner together to improve tourism opportunities. At this meeting staff had the time to both talk about the upcoming Blue Ocean Film festival, and to broadly highlight the opportunity for business and tourism leaders to collaborate with the National Marine Sanctuary for mutual gain. To that end, staff publicly presented the Monterey Movie Tours with our fabulous new poster. The Monterey Movie Tours makes the effort to highlight the National Marine Sanctuary during their regular driving tours of the Peninsula. This independent outreach is always much appreciated.

### **Collaboration with the Monterey Bay Aquarium**

On May 6<sup>th</sup>, MBNMS staff met with the Monterey Bay Aquarium's Director of Sales and Events to discuss outreach opportunities with local businesses, specifically hoteliers and restaurateurs. In addition, creative opportunities for other types of joint-messages were discussed.

### **Meeting with Bruckner Chase, marathon swimmer**

MBNMS Superintendent and staff met with Bruckner Chase, marathon swimmer, to coordinate with him on efforts related to the Blue Ocean Film Fest and his swim program, which provides messages about ocean health. This was also an introductory meeting, where staff gave an overview of the National Marine Sanctuary system and outreach efforts. The MBNMS is planning on assisting Bruckner with his marathon swim (sans wetsuit) on August 24th.

### **AMBAG Meeting Update**

On May 12<sup>th</sup>, Sanctuary staff attended the evening meeting of the Association of Monterey Bay Area Governments (AMBAG). This group of elected officials meets regularly to discuss a myriad of topics and historically has devoted focused attention on the National Marine Sanctuary. MBNMS staff is working closely with AMBAG members to improve upon the existing relationship with this group.

### **On the MAP!**

MBNMS staff has been providing input to Resort Maps, a private company that provides copies of approximately 400,000 free maps annually in the area, at various tourist outposts. These maps are funded primarily by advertising dollars. At recent business and tourist meetings, staff were able to develop a relationship with this businessman and encouraged him to include information and geographic about the Monterey Bay National Marine Sanctuary on the new maps. In terms of timing, it is convenient that these will be available in advance of the upcoming US Open.

### **AMBAG's Special Session on the MBNMS**

The Association of Monterey Bay Area Governments held a special session on Monday night, May 17th, to discuss their role and input in general, and with the Sanctuary Advisory Council seat specifically. Conversation among AMBAG board members on the topic spanned three hours with the assistance of a professional facilitator. Board members decided to continue the discussion to another special session.

## **RESEARCH AND MONITORING**

### **SIMoN staff reviews Puget Sound Science Update**

SIMoN staff reviewed and provided comments to The Puget Sound Partnership (PSP) on section 1 of the Puget Sound Science Update. The PSP is a public-private entity charged with applying EBM principles to restore the natural and human systems in Puget Sound to a healthy and thriving state by 2020. The Puget Sound Science Update is a synthesis of the state of scientific understanding on critical issues underpinning the work of the PSP. Section 1 of this document focuses on identifying and evaluating indicators of human and natural system condition. This is a topic relevant to a number of MBNMS management needs, including the Enhanced EBM Initiative, integrated ecosystem assessments, and sanctuary condition reports.

### **Presenting Sanctuary Ecosystem Management to Graduate Students in Marine Fisheries**

Moss Landing Marine Labs teaches a graduate course in marine fisheries. They requested a special presentation on ecosystem-based management in the Monterey Bay Sanctuary and its relevance as well as interactions with marine fisheries. Graduate students were interested in discussions on the MBNMS management plan, SIMoN, the Condition Report, Sanctuary involvement with MLPA, and the ONMS/NMFS collaboration on enhanced ecosystem based management for the California Current.

### **Reviewing proposal for a habitat trawl fishery**

The Monterey Harbormaster organized a small meeting with Sanctuary staff and interested parties on a proposed halibut trawl fishery for northern Monterey Bay. The preliminary proposal for the fishery addresses issues of habitat impact, by-catch, and intensity, but

would require Fish and Game Commission support or changes from the California legislature. The Research Activity Panel has organized a subcommittee to review related reports and studies from the similar southern California fishery, and will be providing scientific comments to Sanctuary staff.

### **MBNMS Staff Participate in Semi-Annual NOAA Diver Refresher and DAN First Aid for Professionals Training**

On April 6, MBNMS staff, along with UC Santa Cruz/PISCO and NMFS personnel, completed NOAA's semi-annual diver refresher training aboard the R/V Fulmar. Basic in water skills were conducted during a deep dive at Hopkins Deep Reef offshore of Pacific Grove, followed by simulated conscious and unconscious diver rescues using the Fulmar's A-frame and a rescue litter. After operations at-sea, several MBNMS staff completed the Diver's Alert Network "Diving First Aid for Professional Divers Program," which includes CPR, first aid, oxygen administration, and AED usage.

### **Poster Session at Sanctuary Currents Receives Greatest Number of Submissions to Date**

The research poster session at this year's Sanctuary Currents symposium was packed with graduate, undergraduate and high school students, side by side with professionals, explaining their projects (<http://montereybay.noaa.gov/research/currsymp2010/posters.html>). At the session, which ran from 12-2 pm after a morning of insightful lectures, a record 61 posters were on display. This is the largest number of poster submissions in Sanctuary Currents history. A panel of ten judges from the Sanctuary and Monterey area academic institutions chose the winners of the student poster competition. Certificates for first place and honorable mention were awarded in three categories: Graduate, Undergraduate and High School.



The SCID website displaying a white-plumed anemone photo from southern Monterey Bay.

IfaME/CSUMB MBNMS

### **The Sanctuary Characterization Image Display (SCID) project**

The Sanctuary Characterization Image Display (SCID) project allows the public to view sea floor habitat from photographs and video taken during scientific missions. This MBNMS/Cal. State Monterey Bay collaborative project is built on a Google Earth interface so that the images are located exactly with a position on the Earth. This will also help managers see the areas they are making decisions about. The latest version of SCID, including images from Davidson Seamount, was released at the Sanctuary Currents Symposium. To explore the Sanctuary virtually, you can access SCID through the SIMoN Interactive Maps ([http://www.sanctuariesimon.org/regional\\_sections/maps/index.php](http://www.sanctuariesimon.org/regional_sections/maps/index.php)) or directly at <http://sep.csUMB.edu/ifaME/scid/>

### **MBNMS Conducts Aerial Survey for Marine Mammals over Davidson Seamount**

On April 19, trained observers from Moss Landing Marine Laboratories and San Francisco State University conducted an aerial survey aboard the for marine mammals over and near the Davidson Seamount, 70 miles southwest of Monterey. This new survey launched aboard the

NOAA Twin Otter has been designed to detect any differences in marine mammal abundance, density and diversity as a function of distance from the seamount and the shoreline of California. Over 100 marine mammals were counted along 400 kilometers of transect, covering an estimated observer footprint of 820 square kilometers. An initial map of the survey results is available upon request.

### **MBCORC meets to discuss local bid for International Ocean Acidification Conference in 2012**

The Monterey Bay Crescent Research Consortium (MBCORC) met to discuss supporting a host bid for the international ocean acidification symposium and other regional project opportunities. This group of marine institutions directors represents 2,120 researchers, staff and graduate students with an annual budget of \$255,000,000.

### **ESNERR RAC meets to discuss tidal wetland restoration project**

The Elkhorn Slough National Estuarine Research Reserve Advisory Committee (ESNERR RAC) met to discuss construction and permitting strategies for the \$ 10 M sill being built for the tidal wetland restoration project. This extremely well planned and coordinated project will decrease tidal erosion rates along the banks of Elkhorn Slough and has received broad agency and public support (<http://www.elkhornslough.org/tidalwetlandproject/>). The Committee also discussed a position description and hiring process for a new Manager for the Reserve.

### **New paper on Davidson Seamount accepted for publication**

The paper "Bathymetric patterns in diversity, abundance and community structure on a northeast Pacific seamount" has been accepted

for publication in a special issue of Marine Ecology. Authored by staff at the National Evolutionary Synthesis Center, MBARI, and MBNMS, this paper describes species distribution and abundance patterns on the Davidson Seamount. 50% changes in species composition occurred in 1,500 m depth changes down the sides of the seamount. However, surprisingly, diversity and density exhibited no pattern with depth, and varied greatly even across a single isobath.

#### **SIMoN staff divers collect mark-recapture data for CDFG MPA study off R/V FULMAR**

On April 7, 8, 19, and 20th, Sanctuary Integrated Monitoring Network (SIMoN) research divers assisted marine biologists from the California Department of Fish and Game (CDFG) to collect mark-recapture data within two marine protected areas (MPAs). This project supports two very different methods to collect fishery-related data: 1) the mark and recapture component provides information on population size, catch rates, species composition including individual size, and movement while 2) the diving portion provides information on community structure and species composition, abundance, and information on the health of fish after tagging. This information is used to support fisheries management and to evaluate marine protected area (MPA) efficacy at this site. This project provides critical information on nearshore groundfish populations, movement, and species composition in the Carmel Bay region. A focal area for this project is the Carmel Pinnacles State Marine Reserve, which was implemented in September 2007. Since then coordinated efforts to collect baseline information have been ongoing. Data are being collected within the MPA and at fished reference sites outside the MPA to track changes in community structure and to inform fishery management on the status of populations following spatial and temporal fishery restrictions.

#### **MBNMS staff attends Research Coordinators meeting in North Carolina**

Erica Burton participated in the Research Coordinators (RC) Meeting in North Carolina, April 19-23. She gave a presentation, and led a discussion, on Maritime Heritage and Conservation Science in Sanctuaries. In addition, the RCs participated in “Celebrating the Outer Banks: a Forum on Culture, Heritage, and Environment,” an event organized and attended by the Monitor NMS staff and UNC Coastal Studies Institute. The event brought local stakeholders together to talk about the Outer Banks and the uniqueness of the area, the issues facing the area, and potential ways to manage and resolve those issues.

#### **SIMoN staff provides images to Santa Cruz County Visitor Center**

On April 22nd, Sanctuary Integrated Monitoring Network (SIMoN) staff spoke to Ms. Christina Glynn, Communications Director and Film Commissioner for the Santa Cruz County Conference and Visitors Council. Ms. Glynn had contacted Chad King after downloading several images from the SIMoN Photo Library (<http://sanctuariesimon.org/photos/index.php>). She was also provided an additional 66 high resolution, digital images of Santa Cruz by Steve Lonhart. Ms. Glynn is constantly looking for fresh material and images to post on the Santa Cruz County Visitor's web site ([www.santacruz.org/regions/monterey-bay.php](http://www.santacruz.org/regions/monterey-bay.php)). This is another example of how the highly popular SIMoN Photo Library is about used, and how it provides excellent outreach opportunities and increases awareness of the MBNMS and its incredible natural resources.

#### **iPhone application to use SIMoN images**

On April 23rd, Sanctuary Integrated Monitoring Network (SIMoN) staff provided Ms. Cheryl Crabtree, a freelance writer/editor based in Santa Barbara, with 15 images of the Big Sur coastline. In addition, Crabtree downloaded multiple images from the SIMoN Photo Library (<http://sanctuariesimon.org/photos/index.php>). She is developing content for an iPhone application on Big Sur, Carmel and Monterey on behalf of Sutro Media. She included an entry on the Monterey Bay National Marine Sanctuary, which will have a 50 to 150 word description, plus a link to the sanctuary website, a map and phone number. The images will be used for a slide show (each entry includes one to ten photos).

#### **MBNMS Staff Meets with Regional Water Quality Control Board on Stormwater Issues**

On April 27, Water Quality Protection Program staff met with 12 staff members of the Regional Water Quality Control Board in San Luis Obispo to discuss alternatives for implementing tools to track progress and assess effectiveness of stormwater programs implemented by local jurisdictions across the central coast. Experts were on hand from the Lake Tahoe Basin to explain how a process evolved in their region to improve capacity to understand and respond to changing conditions and new information about water quality and implementation of best management practices (BMPs). Meeting participants identified how the central coast may be able to modify tools from other regions to address the needs of urban stormwater and Total Maximum Daily Load (TMDL) programs. The Water Board staff provided guidance on topics and actions to move the process forward with representatives from local jurisdictions.

#### **SIMoN staff assists with NOAA-funded CAMEO ecosystem model**

On April 27th, Sanctuary Integrated Monitoring Network (SIMoN) staff met with Drs. John Pearse and Jim Watanabe at the request of Rodrigo Beas, a Ph.D. student at the University of California at Santa Cruz (UCSC). Beas and his advisor, Dr. Mark Carr, recently received a 600K CAMEO grant from NOAA to create a model of central CA kelp forest communities. Beas was seeking expert advice on invertebrate species to include in the kelp forest model. Beas plans to use up to three models in his doctoral research. The Comparative Analysis of Marine Ecosystem Organization (CAMEO) program was implemented as a partnership between the NOAA

National Marine Fisheries Service and National Science Foundation Division of Ocean Sciences. The purpose of CAMEO is to strengthen the scientific basis for an ecosystem approach to the stewardship of our ocean and coastal living marine resources. The program supports fundamental research to understand complex dynamics controlling ecosystem structure, productivity, behavior, resilience, and population connectivity, as well as effects of climate variability and anthropogenic pressures on living marine resources and critical habitats. CAMEO encourages the development of multiple approaches, such as ecosystem models and comparative analyses of managed and unmanaged areas (e.g., marine protected areas) that can ultimately form a basis for forecasting and decision support. Central to the program is the emphasis on collaborations between academic and private researchers and federal agency scientists with mission responsibilities to inform ecosystem management activities.

#### **SIMoN staff meets with SERC and USDA invasive species experts in Tiburon**

On April 28th, Sanctuary Integrated Monitoring Network (SIMoN) staff met with Dr. Chela Zabin (Smithsonian Environmental Research Center, SERC) and Dr. Lars Anderson (US Department of Agriculture, USDA) to discuss next steps for eradicating the invasive Asian kelp *Undaria pinnatifida* from San Francisco. The USDA is moving forward with plans to test both fresh water and acetic acid (vinegar) treatments to kill *Undaria* in situ. In addition, there is momentum to coordinate efforts between harbors in San Francisco, Monterey, Santa Barbara, and San Diego. This effort would include one year of regular removals, allowing a comparison across the entire state of California for kelp phenology and simple physical parameters, such as water temperature, salinity, and turbidity. This information can then be used to anticipate which harbors north of San Francisco are likely to be invaded next.

#### **High-resolution map of Davidson Seamount created using AUV**

A new map of Davidson Seamount, including 3 meter resolution along the central ridge, has been completed. The new map was completed in conjunction with the development of new mapping AUVs at MBARI. The March 2010 special issue of *Oceanography* designated Davidson Seamount as a "spotlight" seamount because it is so well studied. 60,374 observations have been made of 168 identified fish and invertebrate taxa to date, and new species continue to be described from the site. A "shot list" of video was recently developed from Davidson Seamount to support the 2010 ONMS/NMFS west coast deep sea coral expedition.

#### **USS *Macon* DVD Presented at Big Sur Multi-Agency Advisory Council Meeting**

MBNMS Staff presented the recently created USS *Macon* DVD at the Big Sur Multi-Agency Advisory Council meeting in Pfeiffer Big Sur State Park, CA. The DVD, made possible by a Preserve America Grant, contains historical, and recent research and exploration video footage of the *Macon*. The USS *Macon*, a 785-foot dirigible carrying four Curtiss F9C-2 "Sparrowhawk" fighter planes, was lost offshore of Point Sur on February 12, 1935. Remains of the *Macon* and Sparrowhawks sit on the seafloor of the Monterey Bay National Marine Sanctuary.

#### **Sanctuary Research Highlights from 2009 Are Summarized in a Flyer**

As part of the April National Research Coordinator's meeting, each Sanctuary was required to prepare a summary of 2009 accomplishments, major activities, and collaborations with education efforts. This two-page flyer gives examples of field operations as well as involvement with resource management issues, and is available upon request.

#### **15,000 People Learn About the Monterey Bay National Marine Sanctuary Fishes and Habitats**

Sanctuary staff contributed exhibits for the Pacific Grove Natural History Museum on Fishes of the World. Between February 2nd and April 24th, 15,000 people toured the exhibits. The Sanctuary displays focused on different habitats of the Monterey Bay Sanctuary, and what fishes would be found there. Moreover, an interactive computer display of SCID (Sanctuary Characterization and Image Display-<http://sep.csUMB.edu/ifame/scid/>) showed actual video and pictures from different areas of the Sanctuary seafloor.

#### **MBNMS Research Activity Panel Meets at Elkhorn Slough NERR**

On May 14th, the MBNMS Research Activity Panel (RAP) met at the Elkhorn Slough National Estuarine Research Reserve (ESNERR) in Watsonville, CA. Agenda items included: Estuarine Conservation Research at ESNERR, MBNMS Research Update, MBNMS Enhanced Ecosystem-based Management Initiative, Seaweed and Abalone Aquaculture, Proposed Halibut Trawl Fishery, and Sanctuary Currents Symposium. For information on the RAP, see <http://montereybay.noaa.gov/sac/rap/objectives.html>.

#### **MBNMS on CSUMB Advisory Committee for Institute for Applied Marine Ecology (IfAME)**

Andrew DeVogelaere will serve of the 2010/11 Advisory Committee for Cal. State University Monterey Bay's (CSUMB) Institute for Applied Marine Ecology (IfAME). IfAME has worked on a series of science and policy projects with the Monterey Bay National Marine Sanctuary, using extensive graduate student and undergraduate student support; which provides education and training opportunities while advancing Sanctuary goals. On May 21st, the CSUMB Spring Capstone Festival for Environmental Science, Technology and Policy, and Biology was held at the Monterey Peninsula Foundation Auditorium. IfAME students presented research on Sanctuary topics such as: assessing appropriate sampling frequency for megafaunal invertebrate distribution using the Sanctuary's towed camera sled system (Katie Wrubel); the distribution of blackeye goby and color morph variations on temperate reefs along

Central California (Megan Kelly); the role of Davidson Seamount in feeding young elephant seals (Jessica Riggin); and site characterization of the sea floor communities adjacent to the Klamath River Delta (Ryan Fura). The Klamath River Delta work received the Erik Edmonds Capstone Award for its relevance to marine policy.

#### **SIMoN staff assists with invasive kelp surveys**

On May 24th, Sanctuary Integrated Monitoring Network (SIMoN) staff participated in survey efforts at Pillar Point Harbor near Half Moon Bay. Divers searched the docks and boat hulls for the invasive Asian kelp *Undaria pinnatifida*. Divers found only a few large specimens near a boat that had been heavily fouled three months earlier. After 3 hours of searching, divers found that most areas were free of the invader. Future efforts will continue to focus on the single "hot spot" on B-tier dock.

#### **SIMoN staff attends Science Advisory Council meeting for Save Our Shores**

On May 25th, Sanctuary Integrated Monitoring Network (SIMoN) staff participated in a meeting of the Science Advisory Council (SAC) for Save Our Shores (SOS), a non-profit marine conservation organization in Santa Cruz, California whose mission is caring for the marine environment through ocean awareness, advocacy, and citizen action. SAC members reviewed and advised SOS staff and Executive Director Laura Kasa on the Plastic Pollution Initiative, and specifically how to analyze data based on the items SOS volunteers pick up during beach and river cleanups. The SAC also provided input on the issue of desalination, since SOS is being asked by other groups for a stance on this issue.

#### **Monterey Bay Sea Otter dive club invites SIMoN staff to give presentation**

On May 26th, Sanctuary Integrated Monitoring Network (SIMoN) staff gave a presentation to the Monterey Bay Sea Otters Dive Club, a local dive club with 50 members. During monthly meetings invited speakers give presentations on topics relevant to diving and the Monterey Bay. The club's Activities Director invited staff to give an overview of the sanctuary and the SIMoN program, with an emphasis on diving-related projects. With nearly 30 divers in attendance, the presentation touched on diving projects related to MPA monitoring and the Big Sur Nearshore Characterization project, highlighting many of the fascinating marine organisms living in kelp forests along the Big Sur coastline.

#### **Montebello Task Force meets to discuss feasibility of oil survey using ROV**

On May 27, 2010, staff participated in the Montebello Task Force conference call to discuss the feasibility of ROV video and oil sampling surveys during September 2010. In addition, a 3D sonar survey, and hydrocarbon AUV survey were discussed. Partners include California Department of Fish and Game's Office of Spill Prevention and Response, Monterey Bay Aquarium Research Institute, Office of National Marine Sanctuaries, NOAA HAZMAT, National Park Service, Cal-Trans, and Chevron.

#### **Sanctuary meets with "Around the Americas"**

"Around the Americas" is a circumnavigation expedition around North and South America (<http://www.aroundtheamericas.org/>). The Sailing Vessel *Ocean Watch* is carrying scientific equipment to measure weather parameters and ocean pH while promoting ocean conservation. The vessel stopped in Monterey to interview Superintendent Paul Michel and Research Coordinator Andrew DeVogelaere to learn about the Sanctuary program in general as well as specific research and resource protection initiatives. *S/V Ocean Watch* is finishing off this year-long expedition, then will promote its findings through seminars, blogs, and other outreach materials.

## **RESOURCE PROTECTION**

#### **Grower Outreach in Santa Maria**

On April 13th, Agricultural Water Quality Alliance staff provided a presentation titled "Growing Partnerships: Technical assistance to meet regional problems and regional needs" at a grower meeting in the Santa Maria watershed. The presentation provided an update on collaborative efforts to address agricultural water quality issues in Sanctuary watersheds. Growers also had an opportunity to provide input on technical assistance needs and priorities, as part of a broader technical needs assessment that AWQA is initiating.

#### **Pacific Grove Gasoline Spill**

April 16<sup>th</sup>, 30 gallons of diesel spilled at a local gas station in Pacific Grove at 1530. The cause was a person accidentally pumping gas into his fishing pole holder on his boat, instead of his gas tank. The PR fled the area, and the attendant called authorities to respond. Fire Dept diked the two closest storm drains and checked the outfalls for vapors and sheens. A slight vapor was detected and no sheen on the water.

#### **Montara Sewage Spill**

April 23<sup>rd</sup>, MBNMS received a report of a 4000-gallon sewage spill that occurred at the Montara Water District. MBNMS WQPP Director followed up with calls to GFNMS, the Montara Water District, Sewer Authority Mid-Coastside (SAM), and San Mateo Co Env

Health. The health department did not respond, as they knew the location of the outfall is rugged and hard to access so they were not concerned about human contact. SAM plans to run a camera up the line to determine if there are any more blockages in that area.

### **Community support for water quality monitoring in MBNMS watersheds on Snapshot Day**

On Saturday, May 1st, over 150 community volunteers from Pacifica to Morro Bay (over 300 miles) monitored the water quality of rivers and streams flowing into the sanctuary on the 11th anniversary of Snapshot Day. Volunteers gathered at four different hubs to be welcomed by local public officials and the Sanctuary Superintendent (in Santa Cruz). All reinforced the message of gratitude for taking time out of their busy lives to appreciate the beauty of the central coast watersheds while collecting valuable long term monitoring data. A ten-year report is in development.

### **MBNMS Host Stormwater Workshop**

On April 28, MBNMS and the Central Coast Wetlands Group hosted the Central Coast Water Quality Partners Stormwater Assessment Tools Workshop with the help of resource managers and technical experts from the Lake Tahoe Basin. The Lake Tahoe Basin has been a national leader in understanding water quality problems and developing tracking tools for resource allocation and understanding water quality protection effectiveness. The objectives of the workshop last week were to identify goals to motivate new actions to improve water quality on the central coast; identify how programs developed elsewhere could be used to support stormwater program prioritization, execution and reporting on the central coast; and define how regional partnerships can address priority needs of counties, cities, the Regional Water Board, and the MBNMS. Information and support gathered at the workshop will move this inter-agency partnership forward to scope funding for a regional proposal that addresses several elements in the MBNMS Water Quality Protection Action Plan.

### **Strategic Planning for the Farm, Food Safety, and Conservation Committee**

At Elkhorn Slough on April 29th the MBNMS Agriculture Water Quality Coordinator facilitated a strategic planning workshop for the steering committee of the Farm, Food Safety, and Conservation Network ("Network"). The Network is a Central Coast working group that brings together diverse interests to address apparent conflicts between food safety and environmental protection. The Network steering committee includes 14 agencies and organizations, including NMFS, EPA, Wild Farm Alliance, Community Alliance with Family Farmers, The Nature Conservancy, Dept. of Fish and Game, Ocean Mist Farms, Metz Fresh, NRCS, the Regional Water Quality Control Board, and the Central Coast Ag Water Quality Coalition. At the workshop the committee adopted a Charter, reviewed accomplishments to date, brainstormed and prioritized goals and activities for the coming year. Priority goals included: inform federal food safety rule making process in a coordinated manner, improve transparency and communication of the Network to the general public, and conduct outreach on co-management of food safety and the environment to third party food safety auditors.

### **Coordination with the Elkhorn Slough National Estuarine Research Reserve**

On May 7th, MBNMS staff jointly discussed "A Science and Policy Framework for Wetland Restoration with Sediment Additions at the ESNERR". This conversation revolved around how the addition of sediment can restore historic marsh habitat and reestablish the processes that sustain the habitat, while taking into consideration a myriad of regulatory, science, and possible sediment & toxicity challenges. Currently, ESNERR staff are working on a grant proposal that will result in the a project to develop a formal agreement between key regulatory agencies, businesses and agencies that manage sediment, and most importantly would develop a document that provides clear guidance and a pathway for the beneficial reuse of sediment from various sources.

### **Central Coast Agricultural Water Enhancement Program receives continued USDA support**

The USDA recently announced that it will continue to fund the Central Coast Agricultural Water Enhancement Program (AWEP), with approximately \$2 Million available to agricultural producers in FY2010 for conservation planning, technical design, and financial assistance to implement improved irrigation and nutrient management practices. The Central Coast AWEP was developed by the Agriculture Water Quality Alliance in collaboration with the Central Coast Resource Conservation & Development Council and a suite of regional partners. Initially selected and funded by the USDA in 2009, the Central Coast AWEP in its first year helped 29 growers install 185 conservation practices, treating 2,215 acres to reduce runoff and leaching of nutrients in MBNMS watersheds.

### **Water Quality Planning Session in Salinas**

A Planning Session provides New Vision for Environmental Protection on May 10<sup>th</sup>. WQPP Director attended a funding planning session with City of Salinas staff to identify future projects that will enhance open space and habitat surrounding urban streams while improving water quality. A shift in attitude is occurring in Salinas and the future vision includes repurposing of the Reclamation Ditch, currently seen as a flood control ditch; creating wetlands to treat water from agriculture industry packaging plants; and watershed plans for each of the urban streams flowing through the city. These projects will be proposed as part of the Integrated Regional Watershed Management planning funded through Prop. 84.

### **MBNMS & National Marine Fisheries Service releases joint guidelines on Desalination**

On May 11, MBNMS and National Marine Fisheries Service released joint guidelines to ensure that future desalination plants adjacent to the sanctuary are properly sited, designed, and operated to avoid damaging impacts to the marine environment. The Guidelines for Desalination Plants in the MBNMS were developed in collaboration with the California Coastal Commission, the Central Coast Regional Water Quality Control Board, and other state and local agencies, and were designed to address the collective mandates of numerous agencies involved in review of desalination proposals. The new guidelines address issues associated with desalination including site selection, construction and operational impacts, plant discharges, and intake systems. They are intended to assist regulatory agencies in reviewing proposed desalination projects and to help ensure that project proponents and designers address resource protection concerns. The document is available online at: <http://montereybay.noaa.gov/new/welcome.html#desal>.

### **MBNMS Staff Assist Deepwater Horizon Incident With SCAT Support**

May 18-27, Scott Kathey, MBNMS Regulatory Coordinator, provided SCAT (Shoreline Cleanup & Assessment Team) support to the Deepwater Horizon incident command in Schriever, Louisiana. He assisted the characterization of the initial stranding of oil on beaches in the Grand Isle area and in the marshes of Terrebonne and Tembalier Bay and at the mouth of the Mississippi River. He also assisted in aerial reconnaissance missions that help inform each day's SCAT mission planning. SCAT members work an average of 14 hours/day in order to navigate 5 to 20 miles of shoreline, and operate under hot and humid conditions. They will characterize the variable type, volume, and characteristics of oil present and recommend cleanup actions. SCAT members also observe wildlife impacts or potential threats to wildlife. The federal representative on each SCAT provides input on issues of federal interest, such as protection of protected wildlife resources negatively impacted by either the oil or spill response efforts. A second MBNMS employee, Jean de Marignac, was deployed on May 28<sup>th</sup> for 14 days. Jean will also provide SCAT support in the same region.



Scott Kathey performs SCAT duties in an airboat through an oiled marsh.

### **Water Quality Protection Program (WQPP) MOA signed by California Resource Agencies**

On May 27th, the WQPP Director traveled to Sacramento and Oakland to meet with the heads of Cal EPA, State Water Resources Control Board and San Francisco Regional Water Quality Control Board to discuss water quality issues and sign the MBNMS WQPP MOA. To provide some background on the WQPP, it was formed in the fall of 1993 with the establishment of an interagency committee to oversee program development and implementation of issued based action plans addressing marinas and boating, urban runoff, coordinated monitoring, agriculture, and microbial contamination. An MOA was drafted and signed by eight federal, state and local agencies with a mandate to protect and improve water quality. During the MBNMS Management Plan review process, the WQPP MOA was updated to provide additional detail including each agency's authorities and commitment to our joint efforts to improve water quality in the sanctuary. The document went through multiple interagency reviews and was finalized by the Office of National Marine Sanctuaries in March 2010.

### **Dry Weather Runoff Monitored by Volunteers**

On May 24th, six volunteers joined MBNMS water quality staff to conduct urban runoff monitoring for the Monterey Regional Storm Water Monitoring Program (MRSWMP) at 22 sites from Pajaro to Camel Valley. This monitoring is conducted as part of the MRSWMP's NPDES permit for urban and storm water discharges into the ocean and Monterey Bay National Marine Sanctuary. This event is one of four sampling events scheduled annually through the wet and dry seasons. Volunteers performed field measurements of temperature, pH, conductivity, and transparency, and collected samples to be lab tested for bacteria, metals, suspended solids and nutrients.

### **Urban Watch Season Begins in Pacific Grove and Monterey**

Urban Watch 2010 training was conducted on May 26th for 16 new Volunteers. Urban Watch focuses on the urban runoff from streets and urban areas in Monterey and Pacific Grove. Volunteers collect samples four times a month at five outfalls in each city and test sampled water for detergents, ammonia, orthophosphate, and chlorine. Thirty-six volunteers will collect samples starting in June and continue until the first major rainstorm of the season, usually in November.

## Enforcement

### NOAA Enforcement Training for Federal and State Partners

On April 27, the MBNMS, NOAA OLE, and NOAA GCEL SW conducted NOAA deputization training for 26 Coast Guard personnel and a California Fish and Game senior warden in Monterey. The purpose of the training is to expand cooperative enforcement capability within the MBNMS to better protect sanctuary resources. It also meets recent recommendations by the OIG for improved enforcement of the NMSA.

## EDUCATION, VOLUNTEER AND OUTREACH PROGRAMS

### MERITO Youth Media and Ocean Literacy program serves 100 students from Salinas, Marina and Seaside.

Last week, MERITO staff launched the second round of its Multicultural Voices for Ocean Literacy (MVOL) project. Four MERITO Academy groups (100 students total) will participate in a series of workshops over the next 6 weeks, in order to produce short digital stories about their understanding of life in the ocean and the important role Marine Protected Areas play in maintaining healthy marine ecosystems. Student films will be submitted to the Blue Ocean Film Festival 2010. MVOL is a youth media and ocean literacy program supporting middle school students from historically underrepresented communities, generously supported by the Monterey Bay Sanctuary Foundation.



Student from Salinas Adult School looking at the city of Salinas and Gabilan Watershed from Fremont Peak (Upper Gabilan watershed).

Photo: Sacha Lozano

### MERITO Adult Watershed Education program started in Salinas, serving 120 adult ESL students

On April 13th, MERITO staff launched a new pilot program serving 120 adult English learners from the city of Salinas (CA). An 8-week curriculum will be implemented between April and June with four ESL groups at the Salinas Adult School. The curriculum offers presentations, hands-on activities and field trips, integrating watershed and ocean literacy with career development and green job opportunities. This program is funded by NOAA's B-WET Program and it is a collaborative effort between MBNMS-MERITO, CSUMB's Watershed Institute, and the Salinas Adult School.

### MERITO Community Outreach – Family Science & Health Day, Hartnell College, Salinas

On April 17th MERITO staff hosted a community outreach booth at Hartnell College's Family Science and Health Day in Salinas (CA). Approximately 1500-2000 local residents attended the event. MERITO staff provided general information about the MBNMS, its regional land to sea connections, and career opportunities in marine science.

### MBNMS Staff Highlight Exploration Center at Santa Cruz Earth Day

MBNMS education staff Lisa Uttal and Sonya Padron joined over 30 other booths at the Santa Cruz Earth Day in downtown San Lorenzo Park on Saturday, April 17th. Joined by other green businesses and organizations, over 300 people came up to the booth and learned about the upcoming Sanctuary Exploration Center groundbreaking. The messages about what the MBNMS sanctuary is, as well as the SEC's Leadership in Energy and Environmental Design (LEED) building were highlighted to visitors.

### MERITO Partnerships – MERITO Staff presents to organic agriculture students in Salinas

On April 22nd MERITO staff presented as a guest speaker to adult organic farming students at the Agriculture and Land-based Training Association (ALBA) in Salinas, CA. The presentation provided an overview of history and land-to-sea connections in the lower Salinas valley. This is part of an ongoing effort to link adult education opportunities and vocational trainings focusing on watershed literacy and environmental protection in the lower Salinas valley. ALBA and MERITO will continue to collaborate and exchange presentations to benefit both of their audiences in the Salinas area.

### MERITO Community Outreach – MERITO attended Earth Day / Día del Niño event in Watsonville

On April 25th MERITO staff hosted a community outreach booth at Watsonville's Earth Day and Día del Niño community event. Approximately 2000 local residents attended the event. MERITO staff provided general information about the MBNMS, its regional land to sea connections, and career opportunities in marine science.

### **Earth day Presentation at Hewlett Packard Inc.**

On Earth Day, Education staff presented to staff at the Hewlett Packard Corporation in Cupertino, CA. The presentation was not only live, but also was fed via Internet to other HP employees at neighboring campuses. Staff presented on ONMS system, the MBNMS sanctuary specifically and then shared some stories of research, monitoring and education that are currently being conducted to promote resource protection in the MBNMS ecosystem.

### **Sanctuary Exploration Center, the Ins and Outs on Exhibits and Facilities Presented to Santa Cruz NextSpace.**

Education staff gave an in-depth presentation to Santa Cruz entrepreneurs from the group called NextSpace, located in Santa Cruz, CA. Their mission is to catalyze local talent, local ideas, and local capital to create products, services, and solutions for the global marketplace. Members of NextSpace are part of the Leadership Team for the MBNMS Exploration Center and they are assisting in helping with the promotion of the center.

### **MERITO program celebrates Earth Day with local MERITO Academy students**

During Earth Week 2010, staff and interns from the Multicultural Education for Resource Issues Threatening Oceans program celebrated Earth Day with 210 MERITO Academy students in Marina, Monterey, and Seaside. Students from three MERITO Academy sites hosted campus and community cleanups followed by Family Earth Day Celebrations.

### **MERITO staff guest lecture at UC Santa Cruz**

On April 15, 2010, MERITO staff guest lectured for 200 students of UC Santa Cruz's Sociology 103B: Logic and Methods of Social Inquiry class. MBNMS MERITO staff discussed the evolution of the MERITO Academy logic model and survey tools over the past 5 years and the integration of scientific research methods into the non-profit sector.

### **Sanctuary Exploration Center Graphics/AV documents finalized**

MBNMS staff and City of Santa Cruz Construction Manager Chris Thompson spent 3 days working with BIOS, the exhibit development group to finalize the design and development of the exhibits and interactive video kiosks for the Sanctuary Exploration Center. These efforts will result in moving the exhibits to 100% Construction Documents so that the project can go out to bid in conjunction with the facility bid process this summer.

### **MERITO Adult Education – 60 adult ESL students from Salinas attend MERITO field trip**

On April 29<sup>th</sup>, MERITO staff led a bilingual field trip to Fremont Peak (upper Gabilan watershed) as part of its pilot Vocational Adult Watershed Literacy program in the city of Salinas. This was the first of three field trips included in an 8-week curriculum currently being piloted at the Salinas Adult School. 60 adult English learners (mostly Latinos) visited Fremont peak for the first time, and enjoyed a clear view of the entire watershed in which they live. In the next two field trips, students will visit the mid and lower parts of the same watershed, grounding their understanding of land-to-sea connections in the place where they live. MERITO's Vocational Adult Watershed Literacy program is grant funded by NOAA B-WET.

### **Coastal Discovery Center Lecture Series**

On April 30<sup>th</sup>, a presentation on the MPA in the Central Coast was given by Dr. Lisa Wooninck as part of a public lecture series offered by the Monterey Bay National Marine Sanctuary's San Simeon office. Other well-attended lectures have been given on the Davidson Seamount and SIMoN, and on the Monterey Bay National Marine Sanctuary itself. Lectures are open to the public and partnering agencies such as CA State Parks and the Bureau of Land Management.

### **MBNMS Voices of the Bay Fisheries Education Program**

MBNMS Voices of the Bay fisheries education program uploaded their first west coast fisherman interview to the NOAA National Marine Fisheries website (<http://www.st.nmfs.noaa.gov/voicesfromthefisheries/>). Joey Jones, local Moss Landing fisherman who was lost at sea two years ago and one of the first Monterey area fisherman to do Fisherman in the Classroom program on the west coast family contributed an interview of his life to this oral history database which is documenting the human experience of the United States fisheries.



Salinas Adult School students exploring the upper Gabilan watershed at Fremont Peak.

Photo: Sacha Lozano

### **Fisheries Curriculum Presented at CA Bay-Watershed Education & Training Conference**

Sanctuary staff presented the Voices of the Bay Fisheries curriculum developed in Monterey Bay to teachers from CA coastal communities participating in the CA B-WET conference on May 8, 2010. The concepts of economics, oral histories and ecosystem-based management are covered in the new three-module curriculum.

### **MERITO Adult Education – Adult ESL students from Salinas attend second field trip to Gabilan Watershed**

On May 6<sup>th</sup>, MERITO and CSUMB-Return of the Natives (RON) staff led a bilingual field trip to Natividad Creek Park and Upper Carr Lake (mid Gabilan watershed) as part of MERITO's adult watershed education program in the city of Salinas. 60-70 adult English learners (mostly Latinos) participated in this field trip, learning more about the watershed in which they live. This was the second of three field trips included in an 8-week curriculum currently being piloted at the Salinas Adult School. MERITO's Vocational Adult Watershed Literacy program is grant funded by NOAA B-WET.

### **MERITO Adult Education – Adult ESL students from Salinas attend field trip to lower Gabilan Watershed (Elkhorn Slough)**

On May 20th MERITO and ESNERR staff led a bilingual field trip to Elkhorn Slough National Estuarine Research Reserve (lower Gabilan watershed) as part of MERITO's adult watershed education program in the city of Salinas. 50 adult English learners (mostly Latinos) participated in this field trip, learning more about the watershed in which they live. This was the last of three field trips included in an 8-week curriculum currently being piloted at the Salinas Adult School. MERITO's Vocational Adult Watershed Literacy program is grant funded by NOAA B-WET.

### **NOAA Green Grant Awarded**

Monterey Bay National Marine Sanctuary Exploration Center (SEC) staff received a NOAA Green Grant of \$30,000 to support the installation of photovoltaics for the facility. The Center will reduce its energy consumption by 30% or more in comparison to traditional buildings by using set-back thermostats, occupancy sensors for lighting, and sunshade devices, and deep overhangs that reduce solar heat gain and glare. Fan-assisted stack towers will provide natural ventilation to the building. The SEC will also install a cistern and use other sustainable construction methods.

## **SIGNIFICANT NEWS COVERAGE**

4/6 – “Marine Sanctuary accepting applications for Advisory Council” - The Salinas Californian

4/16 – “Monterey Bay-area students encouraged to submit ocean-related films” - The Salinas Californian

**April 26, 2010 - CSUMB students tops in research contest, The Salinas Californian.** A team of students from host California State University, Monterey Bay, took first place in the undergraduate division of the research poster contest for the Currents Symposium, sponsored by the Monterey Bay National Marine Sanctuary. The research project involved a 10-year study of landscape changes in California's most common seafloor habitat — the shallow, sandy plains home to many flat fish and invertebrate species.

5/17 – KSBW TV video – “Monterey Bay National Marine Sanctuary”, <http://www.ksbw.com/>, Interview with Paul Michel and Chad King

5/17 – KION TV coverage of May 13th FULMAR cruise and interview featuring Paul Michel and Chad King.

6/2 - KSBW TV video, "Dead sea lions spotted on beaches," <http://www.ksbw.com/news/23777076/detail.html>, Interview with Andrew DeVogelaere.

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

### **Recent Updates**

Visit the web pages listed below to see recently updated sections of the MBNMS web site.

- MBNMS & NMFS Release Joint NOAA Guidelines for Desalination Plants in the Sanctuary  
<http://montereybay.noaa.gov/resourcepro/resmanissues/pdf/050610desal.pdf>
- Student Video Contest  
<http://montereybay.noaa.gov/new/2010/032610blue.pdf110covlet.html>

### **Follow the 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**

### **NOAA Online Media Library**

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

### **Encyclopedia of the Sanctuaries**

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

### **Oceans Live**

<http://www.oceanslive.org/portal/>

### **SIMON**

[www.mbnms-simon.org](http://www.mbnms-simon.org)

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

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

### **NOAA Ocean Explorer**

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

### **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/>

### **Thank You Ocean**

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

## Learn More About Your Sanctuary

The Sanctuary Office Report is produced bi-monthly by the Monterey Bay National Marine Sanctuary 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 that encompass 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/educate/internship.html>

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



## MBNMS Staff

**Paul Michel** – Superintendent  
**Karen Grimmer** – Deputy Superintendent  
**Andrew DeVogelaere** – Research Coordinator  
**Erica Burton** – Research Assistant  
**Jennifer Brown** – Research Associate  
**Steve Lonhart** – SIMoN Scientist  
**Jean de Marignac** – Field Scientist  
**Chad King** – SIMoN Data Analyst  
**Gary Conley** – SIMoN Water Quality Analyst  
**Kristine Faloon** – SeaGrant Fellow  
**Dawn Hayes** – Education & Outreach Coordinator  
**Liz Love** – Education Specialist  
**Sonya Padron** – Bilingual Education Specialist  
**Lisa Uttal** – Visitor Center Project Manager  
**Scott Kathey** – Regulatory Coordinator  
**Deirdre Whalen** – Community and Government Relations Coordinator  
**Brad Damitz** – Environmental Policy Specialist  
**Lisa Lurie** – Agriculture Water Quality Coordinator  
**Bridget Hoover** – WQ Protection Program Director  
**Carolyn Skinder** – Southern Education & Outreach Coordinator  
**Lisa Emanuelson** – Citizen Watershed Monitoring Network Coordinator  
**Lisa de Marignac** – Environmental Policy Specialist  
**Rikki Dunsmore** – Resource Protection Specialist  
**Raymond Chisolm** – Program Specialist  
**Nicole Capps** – Advisory Council Coordinator  
**Andrew White** – Network Manager  
**Sophie De Beukelaer** – GIS Analyst  
**David Minard** – R/V Fulmar Captain  
**Hans Burning** – R/V Fulmar Mate  
**Erik Larson** – R/V Fulmar Operator

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