



# Monterey Bay National Marine Sanctuary

## Sanctuary Office Report



Volume 7, Number 1

A REPORT FOR THE SANCTUARY ADVISORY COUNCIL MEMBERS

REPORTING PERIOD: DECEMBER 2, 2009 – FEBRUARY 4, 2010

### 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

### HD from Deep Sea

Submersibles operated by the Hawaii Undersea Research Laboratory (HURL) and supported by the National Oceanic and Atmospheric Administration have again uncovered new and dramatic species of corals and sponges during deep sea dives in Papahānaumokuākea Marine National Monument. During the early part of December and operating off the University of Hawaii research vessel *Ka'imikai-o-Kanaloa*, scientists conducted dives off Middle Bank and Twin Banks near Nihoa Island, just within the monument's eastern boundary. The dives were to depths of nearly one mile. Dr. Christopher Kelley, the Program Biologist for HURL said at the Middle Bank dive sites researchers found sponges that "were absolutely bizarre." During radio transmissions between the submersible *Pisces IV* and the support ship, one observer remarks when first seeing these sponges, "it looks like something out of Dr. Seuss!"

This was also the first time the HURL program used High Definition (HD) video cameras to capture images of their deep ocean work. The quality of the HD video is so good, scientists expect to be able to identify some animals from the video alone, rather than having to collect actual specimens.

### ONMS Signs Agreement with France's Agence des Aires Marine Protégées

On Thursday, November 17, the Office of National Marine Sanctuaries (ONMS) signed a partnership agreement with its newest international partner, France's Agence des Aires Marine Protégées (AAMP). The agreement provides for a five-year program of work between ONMS and AAMP, focusing on exchanges of experience and expertise in various realms of MPA designation and management, as well as partnering on major MPA projects. Separate projects will also be developed for the Pacific and Caribbean regions within the next year. Pacific projects are already being discussed and will include a series of exchanges between the Monument, Fagatele Bay NMS, Hawaiian Islands Humpback Whale NMS, and their partners, and their French Polynesian counterparts, focusing on traditional Polynesian culture and management methods, MPA experiences, and World Heritage cooperation. The first exchange is tentatively scheduled for summer of 2010 between Hawaii and the Marquesas.

### Channel Islands National Marine Sanctuary (CINMS) and the University of California, Santa Barbara (UCSB) Break Ground on New Ocean Science Education Building (OSEB)

On January 11th, 2010, NOAA Administrator and Undersecretary for Oceans and Atmosphere, Dr. Jane Lubchenco and Congresswoman Lois Capps (Representative 23rd District, California) joined UCSB officials, including Chancellor Henry T. Yang, in a groundbreaking ceremony for the new Ocean Science Education Building (OSEB) on the campus of UCSB. One hundred and fifty guests including local environmental leaders, Santa Barbara school board representatives, agency officials and members of the Sanctuary Advisory Council attended the event. Prior to the ceremony, twenty students and their teacher from Cesar Chavez Charter School in Santa Barbara shared posters with essays, poetry and artwork on ocean related topics with NOAA and UCSB officials, and other attendees. The students are participating in the sanctuary's Multicultural Education for Resource Issues Threatening Oceans (MERITO) Academy. OSEB will house the headquarters offices of the sanctuary and a new state-of-the-art Outreach Center for Teaching Ocean Science (OCTOS). The 15,000 square foot facility is a collaboration between the UCSB Marine Science Institute and NOAA's Channel Islands National Marine Sanctuary. OCTOS will be supported by both the sanctuary and UC Santa Barbara's Marine Science Institute, and will engage students of all ages and their teachers in compelling, hands-on, standards-based educational programming on ocean science topics. It will be located adjacent to UCSB's Marine Science Institute. The area was historically a Chumash village. A Chumash blessing was held prior to the actual groundbreaking. The first phase of construction (sanctuary offices and the shell of OCTOS) is expected to start in the next two months and be completed in 2011.

## **National Marine Sanctuary News**

### **Gulf of the Farallones NMS/Cordell Bank NMS**

On December 4th, the draft Gulf of the Farallones and Cordell Bank National Marine Sanctuaries (GFNMS and CBNMS) Climate Change Site Scenario was submitted for Influential Scientific Information (ISI) review. Reviewers have until January 15th to provide comments. The document is the result of a year-long collaborative effort that brought together local scientists (in the form of a joint working group established under the GFNMS and CBNMS Advisory Councils) to downscale current global climate change information into a regional climate change document, with the goal of identifying relevant climate change impacts to habitats and biological communities along the north-central California coast. Working group members, expert contributors, and sanctuary staff worked collaboratively to develop a comprehensive scoping document, offering a synopsis of the best available knowledge on observed and predicted physical and biological impacts from climate change within the region.

### **Florida Keys NMS**

More than 200 photovoltaic solar panels have been installed on the roof of NOAA's Florida Keys Eco-Discovery Center through a partnership with Florida Municipal Power Agency and Keys Energy Services. Starting Dec. 23, the panels began generating about 30 percent of the power for the Eco-Discovery Center, which is Florida Keys National Marine Sanctuary's free public science and visitor center. The addition of this solar technology further demonstrates NOAA's commitment to resource conservation and provides visitors a firsthand look at steps they can take to increase energy efficiency in their own homes and businesses. By applying and demonstrating new technology, the Florida Keys sanctuary hopes to inspire others to save energy and help to preserve natural resources, reduce pollution, and enhance energy independence.

### **Hawaiian Islands Humpback Whale NMS**

On Dec. 25, the Hawaiian Islands Entanglement Response Network received reports of a whale in distress off Launiopoko, Maui. The animal was observed with a deep gash on its tail stock and was swimming erratically. Staff from NOAA's Hawaiian Islands Humpback Whale National Marine Sanctuary and NOAA Fisheries responded, and with several whale watch tour operators helping monitor the whale's location, they were able to assess the animal and determine that its tail and fluke were entangled with fishing line and a medium-sized anchor. With assistance from the U. S. Coast Guard, the response team was able to remove most, if not all, of the gear entangling the animal, including an estimated 130 feet of line.

### **Olympic Coast NMS**

Olympic Coast National Marine Sanctuary nears completion of Phase III – Public Scoping and Issues Analysis – of management plan review and, following government-to-government consultations with Coastal Treaty Tribes, will begin to draft a revised management plan. Over the past six months, the sanctuary's Advisory Council has demonstrated dedicated support to the process by providing leadership for multiple working groups and workshops to develop recommendations for priority actions for the revised management plan. At its January 22, 2010 meeting, the Advisory Council reviewed and approved a large suite of recommendations related to five topics - Ocean Literacy; Collaborative and Coordinated Research, Assessment and Monitoring; Living Resource Conservation; Spill Prevention, Preparedness, Response, and Restoration; and Maritime Heritage. Following their previous meeting, the Advisory Council forwarded additional recommendations related to Sanctuary Operations Collaborative and Coordinated Management, and Socioeconomic Values of the Sanctuary. In total for the 6 priority topics identified by the Advisory Council, 81 strategies, with 328 activities were forwarded to the Sanctuary Superintendent for consideration.

### **Stellwagen Bank NMS**

The Stellwagen Bank Christmas Bird Count finally took to the water on December 31, 2009 after two weeks of inclement weather with high seas and winds. The New Year's Eve Day trip registered seas of 1-3 feet and winds of 10-15 knots with cloudy weather -- not ideal, but acceptable for this time of the year. Participants included seven ornithologists and birders from Massachusetts Audubon, two employees of the US Fish and Wildlife Service, the sanctuary superintendent, the RV Auk captain and first mate, and sanctuary education coordinator who served as the co-principal investigator for the cruise along with one of the Audubon scientists. The Stellwagen count, which had been undertaken for 21 years, used a new format for 2009. Unlike the traditional circles, the new Stellwagen count covered a set of E-W track lines some 2.5 nm apart, based upon previous marine resource surveys in the sanctuary. The old count circle only covered the southern portion of Stellwagen Bank (and sanctuary) and included part of Cape Cod, allowing for counts when open ocean cruises were not feasible, but including many coastal shorebirds. The new count area focuses on sanctuary resources only and provides flexibility in count day. As agreed upon by Audubon and the sanctuary, the count participants had a three-week window (between Dec 14 and Jan 5) from which to set sail.



## **MONTEREY BAY NATIONAL MARINE SANCTUARY NEWS AND PROGRAM UPDATES**



---

### **MANAGEMENT**

The MBNMS co-hosted a social event on December 2nd with former mayor of Santa Cruz, Ms. Emily Reilly, Santa Cruz County Supervisor Mark Stone, Santa Cruz County Supervisor Neal Coonerty, and the National Marine Sanctuary Foundation. This was an opportunity for certain selected influential business and community leaders, environmentalists, and elected officials to better get to know the Sanctuary Superintendent, while learning more about the Monterey Bay National Marine Sanctuary. Supervisor Stone promoted the interest in ocean health, while Superintendent Michel talked about the connectivity the new Visitor Center will provide to the already supportive community. Despite a last-minute change of venue, the event has been lauded by many as a huge success, and has left many attendees asking what they can do next to help.

On December 4<sup>th</sup>, Deirdre Whalen met with the Executive Director of the Association of Monterey Bay Area Governments (AMBAG) to discuss planning efforts and next steps related to AMBAG's continued interest in the Sanctuary. In an effort to create a positive step forward, the MBNMS staff is trying to work with AMBAG to identify future possible collaborations and areas of shared interest.

Paul Michel was invited to provide an update to the board of the Alliance of Communities for Sustainable Fisheries (ACSF). The superintendent provided an overview of the Sanctuary's 'Enhanced Ecosystem Management Initiative', which includes broad ecosystem-based management goals including promoting ecologically sustainable uses, such as fishing. The overview sparked a discussion on practical and productive ways for ACSF and MBNMS to collaborate on projects in support of the initiative, ranging from collaborative research to educational activities.

On December 9th, Paul Michel and Deirdre Whalen attended the monthly meeting of AMBAG. On October 14, 2009, the Paul Michel attended the Board of Directors meeting and provided his annual "State of the Sanctuary" report. The Executive Director also made a brief presentation on the role of AMBAG in the Sanctuary. Public comment was received; however, because of time constraints, Board discussion was limited. Given that, the Board voted to continue the discussion on the Sanctuary to its December 2009 meeting. The outcome of the December meeting was positive in that the AMBAG Board seems interested in re-visiting how the Sanctuary staff, local governments, special districts and other stakeholders can work more collaboratively on issues of mutual interest.

On December 16th, Paul Michel and Deirdre Whalen attended the Blue Ocean Film Festival Press Conference at the Monterey Bay Aquarium. The Blue Ocean Films, the Monterey Bay Aquarium, and the National Marine Sanctuaries are pleased to announce the Film Festival will be occurring in Monterey from August 25-29, 2010. Speakers at the press conference included Fabien Cousteau, Bob Talbot, Ted Balestreri, Bill Douros, and Dan Basta. As Dan mentioned at the event, this will be a good opportunity to change the world, one film at a time. Following the press conference, staff from the Monterey Bay National Marine Sanctuary and the West Coast Regional office met with Charles and Debbie Kinder to outline the upcoming festival's focus on ocean literacy, engaging the Latino community, engaging NOAA and local scientists as speakers and their Adopt-a-buoy campaign (focused on climate change). The MBNMS is assisting with the coordination of youth initiatives, engaging the Latino community through their MERITO program connections and connecting scientists with the festival organizers.

### **RESEARCH AND MONITORING**

On December 7th, Sanctuary Integrated Monitoring Network (SIMoN) staff participated in field work for a project by USGS to track changes in sediment cover of rocky reefs off the coast of northern Monterey Bay. Dr. Curt Storlazzi (USGS) is leading a team of scientists engaged in two projects: 1) Seafloor Characterization for Surficial Geology and Geomorphology and 2) Sediment Dynamics and Seafloor Processes. His team is testing the hypothesis that the geologic character of the inner shelf (<30 m) is highly variable over a range of spatial and temporal scales and this has great implications for benthic habitats. USGS is interested in understanding and quantifying not only the magnitude of the variability of the inner shelf but also the processes that drive those changes. For example, how often are inner shelf bedrock outcrops covered by sediment and exhumed? What physical processes drive these changes in the sea floor? USGS uses several methods to address these questions, including:

1) Repetitive multibeam surveys to identify changes in bathymetry and registered acoustic backscatter for substrate classification

- 2) Repetitive digital imagery of the sea floor to determine changes in sea floor geomorphology and substrate classification
- 3) Repetitive in situ calculations of sea floor sediment grain size to identify changes in grain size due to erosion or new sediment deposition
- 4) In situ measurements of temperature, salinity, turbidity, waves, currents and tides to determine the important physical processes driving these changes

By answering some of these very basic geology questions, the USGS hopes to provide biologists and ecologists with data and information that is useful to better understand the dynamics of nearshore ecosystems.

On December 9th, SIMoN and research staff conducted a survey of Monterey Harbor for the invasive Asian kelp, *Undaria pinnatifida*, which invaded the harbor in 2001. Since 2003, the sanctuary has led a program to monitor and manage the spread of this invader. Over the course of three hours, three divers surveyed 80% of the pilings in the marina for *Undaria*. Only 17 individuals were removed, and most of them were recruits and found in very localized areas. On January 6, SIMoN staff conducted another survey of Monterey Harbor for the invasive Asian kelp, *Undaria pinnatifida*. Over the course of two hours, two divers surveyed all of the pilings on the A-tier extension (a common loading area) and all of A-tier (where several commercial vessels are docked). Over 400 individuals were removed, however most of them were very new recruits (<15 cm) and found in very localized areas near the western end of the tier, and mostly on the floating dock rather than the pier pilings.

This is part of an on-going effort to control the invasive kelp in the harbor.

On December 14th, SIMoN staff (Chad King and Steve Lonhart) traveled to South Beach Marina, which is adjacent to ATT Park, and surveyed the floating docks and pier pilings for the invasive Asian kelp *Undaria pinnatifida*. Since the discovery of *Undaria* in May 2009 by Dr. Chela Zabin (Smithsonian Environmental Research Center, SERC), efforts to monitor and remove the kelp has involved staff from State Lands Commission, US Fish and Wildlife, and San Francisco Bay Keepers. Six people in the water and eight topside worked for 4 hr, covering all boat slips in the entire marina. Researchers found several hundred individuals, from all areas, which indicates the entire marina is infested.



Steve Lonhart measuring the invasive Asian kelp *Undaria pinnatifida* at the South Beach Marina in San Francisco.

Photo credit: Chad King/NOAA

Researchers found several hundred individuals, from all areas, which indicates the entire marina is infested.

On December 17th, SIMoN staff attended the Fall 2009 Capstone Festival for seniors graduating from the Environmental Science, Technology and Policy Program and the Department of Biology at California State University, Monterey Bay. Adam Curtis, an intern with SIMoN for the last six months, gave a talk entitled "Promoting public awareness of invertebrate inhabitants: Monterey Bay kelp forest ecosystems." In addition to adding to the SIMoN Species Database (see <http://www.sanctuarysimon.org/species>), Adam created an educational brochure, handed it out to folks in front of the Monterey Bay Aquarium, and collected survey data from the public before and after they read the materials. He reported an increase in public awareness and a greater appreciation for the organisms living in kelp forests.

In November 2009, a scientific sensor and partial mooring washed ashore near Del Monte Beach in the Monterey Bay National Marine Sanctuary. Staff from Monterey Harbor, NOAA's Office of Law Enforcement, and Monterey Bay National Marine Sanctuary (MBNMS) worked together to find the rightful owner of the lost equipment. Sanctuary Staff alerted the MBNMS Research Activity Panel (working group of the MBNMS Advisory Council) and the owner was quickly found. The Oceanography Department at the Naval Postgraduate School in Monterey who owns the equipment (thermistor string; a component of the Monterey Inner Shelf Observatory) was grateful for the find. The observatory is designed to study the interaction of winds, waves and the sediment bed in the inner continental shelf, just offshore from the surf zone. Information on the Observatory can be found at <http://www.oc.nps.edu/~stanton/miso/>.

On January 14th, SIMoN staff hosted GFNMS Research Coordinator Jan Roletto at the Santa Cruz office to discuss several of the web-based tools developed by SIMoN for sanctuary staff use. In particular, current capabilities for the Species Database, Photo Library, and Project Database were presented, and potential links to GFNMS products (e.g., species list) were discussed. Several novel uses of these web-based tools were outlined. Research and monitoring projects issued a GFNMS permit are required to submit information to the Project Database, at the discretion of staff. GFNMS has several highly valuable resources (e.g., photos of marine mammals and birds, summaries of natural history) that would improve the SIMoN web site, enhance data discovery, and save development time.

On January 15th, SIMoN staff met with Sarah Traiger, a senior student majoring in biology at UC Santa Cruz, to discuss her proposed project on the invasive bryozoan *Watersipora subtorquata*. This invasive bryozoan has been in Monterey Harbor for several years, but only in the last few years has it been observed on the open coast, including the kelp forest in front of Stanford's Hopkins Marine Station, which is protected by the Lovers Point State Marine Reserve. Sarah is particularly interested in how community composition varies as a function of the percent cover of *Watersipora*, which is notorious for overgrowing other invertebrates. She will be working on the project through May 2010.



The R/V *Fulmar* from the NOAA Twin Otter.  
Photo Credit: Nicole Capps/NOAA

On January 15th, the Monterey Bay National Marine Sanctuary conducted an aerial survey over the Davidson Seamount aboard a NOAA Twin Otter aircraft. Trained observers recorded positions of marine mammals and seabirds using line transect protocols to characterize and estimate the density of birds and mammals over the seamount and its surrounding areas. Highlights included sightings of Cuvier's beaked whale, sperm whale, and Laysan Albatross. The Davidson Seamount is a pristine undersea mountain habitat off the coast of Central California and was added to the Sanctuary in 2009. Aerial surveys are an ideal method to reach remote locations and cover large areas in short periods of time compared to standard ship surveys. The Twin Otter was the platform choice because of its fast speed, great viewing windows, and expert crew.

Sanctuary staff participated in NOAA's West Coast Deep-Sea Coral Research Priorities Workshop in Portland, Oregon, January 19-21. Attendees developed a draft multi-year exploration and research priorities plan for deep-sea corals and sponges for the U.S. West Coast that addresses resource management needs. Identification and prioritization of critical information needs was the primary outcome of the meeting,

including various activities that could be accomplished to address those needs. The draft plan will be circulated for review by workshop attendees.

On January 20th, SIMoN staff attended the Elkhorn Slough research symposium at Moss Landing Marine Labs. The purpose of the event was to enhance collaborations between scientists at local research organizations and to share the latest findings about the Elkhorn Slough's estuarine ecosystem with resource management organizations that can then use this information to improve conservation and restoration strategies. Hosted by the Elkhorn Slough Foundation, Elkhorn Slough National Estuarine Research Reserve, Central Coast Wetlands Group, and Moss Landing Marine Laboratories, the event featured 14 oral presentations and 6 posters.

Former MBNMS Sea Grant Fellow, Steve Choy, will be leading our funded project titled, "Innovative historical ecology trend analysis and interpretation for the Monterey Bay National Marine Sanctuary." One of the highlights of this project will be a web-enabled timeline of the ecological changes and human activities within the Central California Area.

## RESOURCE PROTECTION

On December 16<sup>th</sup>, MBNMS Deputy Superintendent coordinated a phone conference with reps from CA Department of Fish and Game (DFG), the Pacific States Marine Fisheries Commission, The Nature Conservancy (TNC), Marine Applied Research & Exploration (MARE), Cordell Bank NMS, CSU Monterey Bay, and NMFS/SWFSC to discuss and schedule 2010 projects aboard the fishing vessel *Donna Kathleen*. The group is interested in more effective coordination in terms of scheduling days at sea aboard the fishing vessel for the MBNMS lost fishing gear project, the MBNMS/TNC/MARE/CSUMB trawl impact study, the DFG MLPA baseline characterization for Central and North Coast MPAs, and for NMFS juvenile rockfish and squid tagging projects. A total of 80-100 days at sea are currently slated for calendar year 2010, and additional days at sea are available for more projects. MBNMS is coordinating the next meeting at the end of January which will focus on discussing research needs and priorities, additional projects (currently being sought), staff sharing and cross training needs, and equipment sharing and back ups.

On January 5th, a two-year contract with the CA State Water Resource Control Board was successfully completed by the Water Quality Protection Program (WQPP) team. A communication strategy and strategic plan were developed to enhance citizen water quality monitoring programs around the state and technical assistance was provided to upload water quality data into a statewide database. The

project was successful in highlighting the utility of citizen collected water quality data and establishing communications between citizen programs and state resource agency staff. Future efforts will target the SB 1070 Statewide Monitoring Council and the use of water quality data to populate the web-based water quality information portals.

On January 7th, the Lost Fishing Gear project team met for a cruise debrief and to discuss 2010 planning at the GFNMS office with representatives from MBNMS, CBNMS, GFNMS, DFG, and UC Davis SeaDoc Society. A number of action items came from the meeting including scheduling a meeting with internal and partner ROV leads in order to discuss how to coordinate collection of fishing gear targets and other potential data sharing. A concept paper will describe the recent collaborative experiences aboard the vessel, the benefits in terms of cross-interest research, cross-training of personnel, and equipment sharing and future plans and funding needs.

In addition, staff met with Dr. Bob Van Syoc at California Academy of Sciences as he has agreed to identify some of the specimens that were collected from the October 2009 Lost Fishing Gear cruise.

On January 13th, WQPP staff attended and presented at the Integrated Watershed Restoration Planning (IWRP) Technical Advisory Committee Forum at the NMFS lab in Santa Cruz. The IWRP program began in Santa Cruz County in 2003 and has received over \$8M from the CA State Coastal Conservancy (SCC) to coordinate and implement projects to improve fish and wildlife habitat and water quality in Santa Cruz watersheds using a voluntary, non-regulatory approach. Recent SCC funding has allowed expansion of this highly successful program to San Mateo and Monterey counties. This forum was a scoping session to hear from resource agencies such as USFWS, NMFS, Dept. of Fish and Game, Regional Water Quality Control Board and MBNMS as to their program priorities and input for future projects.

On January 25th, the WQPP Director testified at the Monterey County Water Resources Agency (MCWRA) Board of Directors meeting to encourage their participation in the Greater Monterey County Integrated Regional Water Management Planning process. By signing the MOA, the MCWRA committed to participating in a county wide effort that includes 18 diverse governmental, academic, non-profit and industry organizations committed to integrating regional water management planning (including water quality, supply, flood control, environmental protection) in order to be eligible for millions of dollars of grant funding from the CA Dept. of Water Resources.

On January 28th, WQPP staff met with Gulf of Farallones (HMB office) staff to discuss water quality efforts in the Northern Management Area. Topics included volunteer monitoring events, wastewater treatment, Ag Water Quality Alliance (AWQA) activities, potential funding opportunities, and ideas for collaboration. It was an informative meeting and there will be follow up communications as a result.

On the evening of January 28th, a volunteer appreciation event was hosted at the Monterey Peninsula Yacht Club. Paul Michel thanked the volunteers that participated in the Urban Watch and First Flush water monitoring programs. Results from both programs were presented to inform and highlight the importance of their efforts, which combined, contributed over 1000 volunteer hours. Overall, Urban Watch (dry weather) results indicate good water quality in the runoff except for a couple of outfalls that routinely had high detergent, orthophosphate and E. coli concentrations. Upstream source tracking is being conducted in those watersheds. First Flush results were consistent with previous year's results. Certain outfalls have higher concentrations of pollutants compared to others. Santa Cruz and San Mateo counties had better water quality than Monterey County sites. A summary report is being drafted.

The MBNMS' WQPP conducted water quality monitoring during the winter of 2008 in the watersheds affected by the Basin Complex and Chalk Fires in Big Sur, CA, which burned 160,000 acres and 16,270 acres, respectively in the summer and fall of 2008. The study was designed to compare concentrations of nitrate-N, orthophosphate-P, and transparency following the wildfires with historical Snapshot Day water quality measurements. The results showed significant increases in nitrate and decreases transparency in two of the burned watersheds and no changes from before to after the fires in the unburned control watersheds. The data collected improve our understating of post-fire dynamics of sediment and nutrient transport out of the Big Sur coastal watersheds and into nearshore marine systems. The full report is now available on the SIMoN website ([http://sanctuarymonitoring.org/regional\\_docs/monitoring\\_projects/100142\\_BigSurFireReport.pdf](http://sanctuarymonitoring.org/regional_docs/monitoring_projects/100142_BigSurFireReport.pdf)).



A juvenile squat lobster found in net.  
Photo Credit: Kristine Faloon/MBNMS

The USDA Natural Resources Conservation Service has secured \$400,000 through a Congressional Fiscal Year 2010 Earmark to support ongoing implementation of the Monterey Bay National Marine Sanctuary's Agriculture and Rural Lands Plan. This congressional allocation funds critical regional coordination and technical assistance provided by the Agriculture Water Quality Alliance (including staff and project implementation support to the Monterey Bay Sanctuary Foundation, the Central Coast Agricultural Water Quality Coalition, 6 regional Resource Conservation Districts, UC Cooperative Extension, and the NRCS). By leveraging this core federal funding, AWQA partners are able to provide coordinated technical assistance, education, outreach, and research to reduce water quality impacts from central coast agricultural and rural lands

### **Enforcement**

While leading a multi-agency, low-tide patrol aboard the R/V *FULMAR* on Jan 28, MBNMS personnel received an urgent request from the California Department of Fish and Game to assist in the immediate detection and apprehension of poachers within the Point Lobos State Marine Reserve. The *FULMAR*, with NOAA and California State Park law enforcement personnel aboard, responded to the scene within 5 minutes of the request and helped search for additional poachers in a rugged coastal area of 40-ft cliffs and recessed rock formations. State officials apprehended subjects in possession of prohibited abalone.

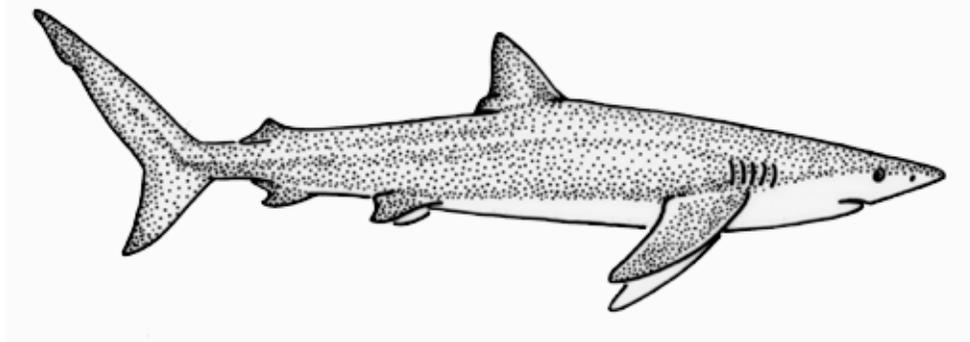
The MBNMS Law Enforcement Technical Advisory Committee met in February to collaborate on regional environmental enforcement issues and investigate upcoming opportunities for joint operations and mutual support. The MBNMS offered several operation days by NOAA aircraft and vessel to support inter-agency marine law enforcement efforts. The group discussed seasonal enforcement issues; enforcement of MPWC regulations; deputization of State Park peace officers from the Santa Cruz, Monterey, and San Luis Obispo park districts; cross-deputization between federal agencies; a regional law enforcement statistical analysis; and law enforcement training needs and scheduling.

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

On December 13th, two MBNMS staff members and 16 volunteers staffed a booth at the Monterey Bay Aquarium's Community Day. Community Day marks the last day in a week of free admission to the aquarium for Monterey and Santa Cruz County residents. At the booth visitors learned about volunteer opportunities, urban runoff through the use of the watershed model, and how to improve ocean health through actions on land. Over 400 visitors stopped at the MBNMS booth and watershed model. This one-day event helps to educate local residents about urban runoff and assists in recruiting new volunteers to all programs offered by the MBNMS.

Paul Michel and staff, UCSC's Long Marine Lab Seymour Center's Executive Director Julie Barrett-Heffington, a board member and National Marine Sanctuary Foundation staff met to discuss strategic planning for future mutual collaboration between the MBNMS Sanctuary Exploration Center and the Seymour Center. General objectives were outlined, as well as potential near term activities that the two facilities can pursue together with the goal of promoting each other in the Santa Cruz community and beyond.

The Monterey Bay National Marine Sanctuary has contributed a display to the *World of Fishes* exhibit at Pacific Grove Museum of Natural History. The exhibit opened in January and runs through April 24, 2010. *World of Fishes* showcases the diversity of fishes from around the world, including information on fish reproduction, behaviors, habitats and research on local fishes. Developed in collaboration with California State University, Monterey Bay, the Sanctuary display highlights fish species found in the Monterey Bay, as well as research currently underway to study fishes and their habitats in the Sanctuary.



## SIGNIFICANT NEWS COVERAGE

12/9 – “Monterey Makeover Plan” – Monterey County Herald

12/11 – “Monterey Bay Coastal Rec Trail gets \$800,000 in House bill” – The Californian

12/14 – “PG&E awards grant for new Monterey Bay National Marine Sanctuary Exploration Center”, Monterey County Herald

12/18 – “Acid Oceans: the “evil twin” of climate change” – The Associated Press

12/17 – “Blue Ocean Film Festival moves to Peninsula” – The Monterey County Herald

12/16 – “Acclaimed International Ocean Film Festival” – Earthtimes PR

12/14 – “PG&E awards grant for new Monterey Bay National Marine Sanctuary Exploration Center” – The Monterey County Herald

1/5 - “NOAA Proposes Critical Habitat Revisions for Leatherback Sea Turtles” NOAA Press Release

1/6 – “Proposed leatherback turtle habitat includes Monterey Bay” Monterey County Herald - Laith Agha

1/5 - “Big Sur's Bixby Creek Bridge to star on stamp” Monterey County Herald - Laith Agha

1/4 - “California Greenin”, E/The Environmental Magazine - John Ivanko, Lisa Kivirist

1/4 - “Vast protected area proposed for leatherbacks”, San Francisco Chronicle - Peter Fimrite

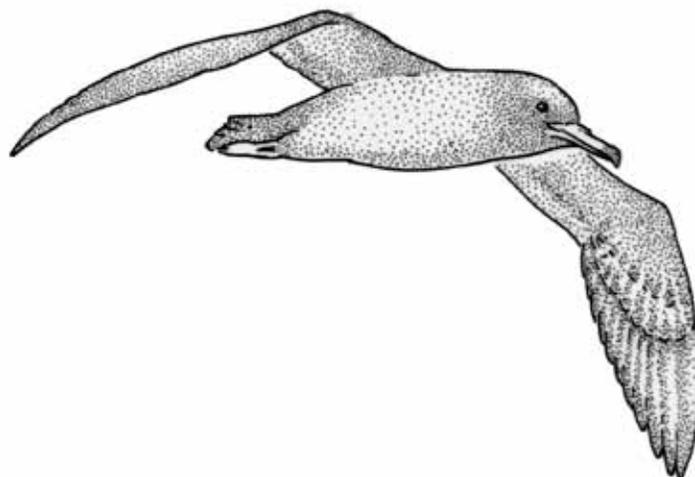
1/15 – “John Laird likely to run for state Senate seat”, San Luis Obispo Tribune - Bob Cuddy

1/23 – “Blakeslee wants danger of sunken tanker assessed”, San Luis Obispo Tribune Jan 23--Torpedoed tanker off Cambria may have 3 million gallons of oil that could be an environmental threat (Photos NOAA, MBNMS)

1/22 – “Task Force Investigates WWII Shipwreck, off Cambria”, KCOY-TV Posted: Jan 22, 2010 7:40

1/23 – “Biologists Worry About Possible Shipwrecked Oil”, KCAL 9, CBS2 Los Angeles

1/26- “Garbage Trashes Deep Ocean Abyss”, Discovery News - Larry O'Hanlon



---

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

### **Recent Updates**

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

- Best of Summer 2009 (A “best of” compilation of recent CSUMB, MBNMS, TNC, MARE, SIMoN efforts <http://montereybay.noaa.gov/research/naturalresources.html#best2009>)

### **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).*

---

---

## **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  
**Mike Eng** – Resource Protection Coordinator  
**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  
**Lisa Wooninck** – Resource Protection Specialist  
**Raymond Chisolm** – Program Specialist  
**Nicole Capps** – Advisory Council Coordinator  
**Christian Walters** – Administrative Assistant  
**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

### **- Contact Information -**

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

299 Foam Street  
Monterey, CA 93940  
Phone (831) 647-4201  
Fax (831) 647-4250