

MONTEREY BAY NATIONAL MARINE SANCTUARY

2009 Accomplishments



Welcome

I love to tell people about Monterey Bay National Marine Sanctuary – one of the nation’s largest marine protected areas. As both locals and visitors know, this is a very special place. The word “sanctuary” comes from the Latin “sanctus” meaning a natural location where the divine or sacred is believed to be especially present. Anyone who has spent any length of time on, under or near the water can attest to the feeling of divine power and beauty here. Sanctuary has also come to mean a place of refuge or protection.

But NOAA’s marine sanctuaries are more than that – they have special socioeconomic value and relevance, as well. Established 18 years ago for the purposes of resource protection, research, education and public use, the Monterey Bay sanctuary is the backdrop and backbone for a robust economy based primarily on agriculture, education, research, military, tourism and recreation. The sanctuary is part of the fabric of the central coast, linking people and business to the ocean. Our challenge is to protect this national treasure while allowing compatible uses. No easy feat!

Now, faced with growing concern over climate change as a driver of both environmental and political shifts, we must work harder than ever to understand the connections between ecosystems and people, and to adapt and manage accordingly. If you believe, as I do, that marine sanctuaries hold special value to their communities, that oceans connect us all and ocean health is of paramount importance, then sanctuaries are logical places to build knowledge and solutions for sustainable communities.

My hope is that the sanctuary superintendent a hundred years from now will be as excited as I am to talk about this special place, and that it continues to be a place of divine beauty and vitality. Please join me in building the knowledge and capacity to protect this sanctuary. Get involved through volunteering or serving on the sanctuary advisory council or on one of the working groups. I hope to see you near, on, or in the water!

Paul Michel
Superintendent

*Protecting
Understanding
Communicating*

★

*Underwater
Treasures of
Monterey Bay
National Marine
Sanctuary*

PROTECTING SANCTUARY RESOURCES

Monterey Bay National Marine Sanctuary Expands to Include Davidson Seamount

The Davidson Seamount officially became part of the sanctuary in March 2009, ensuring this unique “Oasis in the Deep” will be conserved and protected for the future. The addition of the seamount (a result of the adoption of the 2008 revised management plan) generated national and international excitement. The Davidson Seamount is one of the largest, pristine undersea mountains in the world and home to fragile, “old-growth” deep-sea coral forests, vast sponge fields and other rarely seen species. Although there are more than 30,000 seamounts in the Pacific Ocean alone, less than 0.1% of the world’s seamounts have been explored and few have been protected. Davidson is the first seamount habitat to be protected in the U.S. by the National Marine Sanctuary System.



Results from two research expeditions are presented in a new *Taxonomic Guide to Davidson Seamount*, which describes the diverse marine organisms of the seamount — including representatives of 237 taxa and 15 new or undescribed species. The guide is available online at <http://sanctuaries.noaa.gov/science/conservation/welcome.html>.

NOAA's West Coast Twin Otter Aircraft Aids in Sanctuary Management and Protection



West Coast Regional Director Bill Douros served as master of ceremonies for the dedication of NOAA's West Coast DeHavilland Twin Otter aircraft based in Monterey, Calif. The Twin Otter is a highly maneuverable, versatile aircraft that can be flown slowly (80-160 knots/150-300 km/hr) and in tight circles. The aircraft enables personnel to monitor human use patterns, support enforcement, conduct vessel traffic studies, observe the effects of runoff, perform damage assessment surveys and collect data on marine species and habitats.



Celebrating 10 Years of Water Quality Protection

The Sanctuary's Water Quality Protection Program had much to celebrate in 2009. Both the Snapshot Day and First Flush water quality monitoring programs have provided 10 years of data about the health of local streams and pollutant concentrations in storm water runoff. With the help of thousands of volunteers and partners, these important programs have established a baseline of information about water flowing from our watersheds into the sanctuary. In addition, the Agriculture Water Quality Alliance celebrated 10 years of collaborative conservation efforts. This unique regional partnership brings together farmers, ranchers, resource conservation agencies, researchers and environmental organizations to protect the health of sanctuary waters.



Farmers and ranchers of the central coast are setting an example for other regions by showing that economically viable agriculture is compatible with environmental protection.

Staff Test New Methods of Recovering Lost Fishing Gear



During October 2009, sanctuary staff and partners conducted a two-week research mission to survey deep-water habitats and test new methods of recovering lost fishing gear from the seafloor. The primary goals of the project were to reduce hazards to marine life, increase knowledge of the degree to which lost fishing gear is affecting deep-water habitats and develop successful removal methods. Cruise operations were conducted aboard the fishing vessel *Donna Kathleen* in Portuguese Ledge State Marine Conservation Area. A remotely operated vehicle fitted with a grabbing arm and a cutting device was deployed to depths of more than 300 feet. As a result, approximately 500 pounds of fishing gear — two

nets over 100 feet long, a crab trap and a 40-foot gill net fragment — were recovered. In addition net-encrusting organisms were photo-cataloged and preserved. Although some fishing gear was successfully removed, much still remains. In just one survey, more than 70 separate sites were identified containing entangled line left by recreational fishermen.

UNDERSTANDING SANCTUARY RESOURCES

Monterey Bay National Marine Sanctuary Releases First “Condition Report”



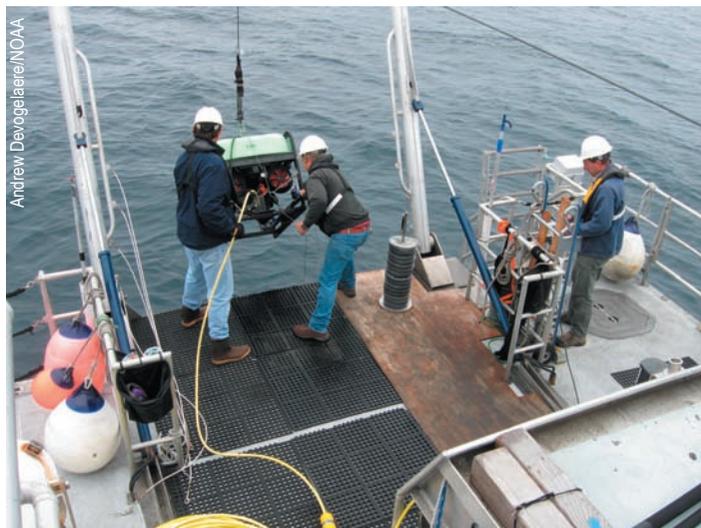
Josh Pederson/NOAA

Each sanctuary produces a condition report to provide information about the health of its ecosystems and resources. The Monterey Bay sanctuary released its first report in October, rating the condition of water quality, habitats, living resources and maritime resources within three distinct marine environments — offshore, nearshore and estuarine. The status and trends of each condition, as well as threats from human activities were determined for all three environments. Overall, the status of offshore and nearshore environments ranged from “good” (highest rating) to “fair” (moderate rating), with threats ranging from vessel traffic and marine debris to polluted runoff from growing coastal popu-

lations and agricultural and urban areas. The conditions in Elkhorn Slough, the only large estuarine environment in the sanctuary, rated from fair to poor. The sanctuary is working with partners to restore estuarine habitats and improve water quality in Elkhorn Slough. View the condition report online at <http://sanctuaries.noaa.gov/science/condition>.

Trawling Impact Study Gets Underway

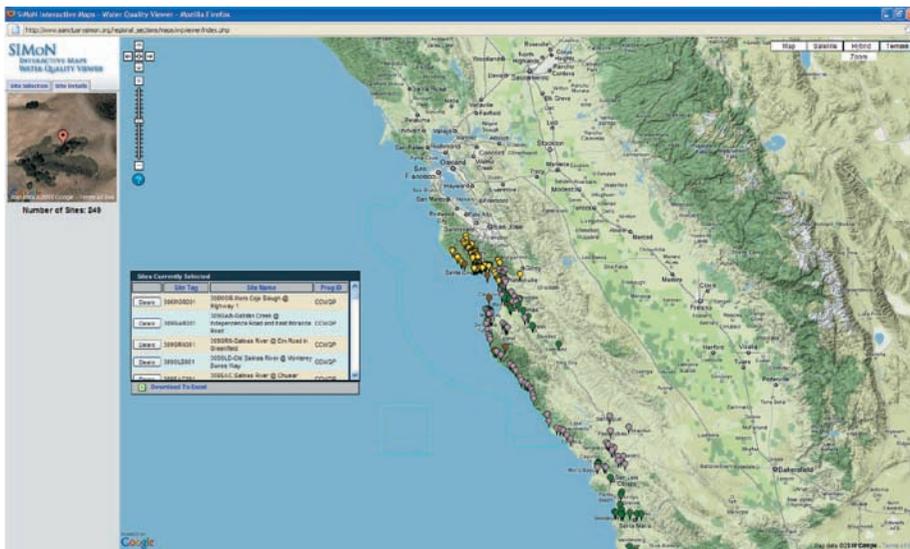
In September 2009, sanctuary scientists assisted The Nature Conservancy (TNC) and other partners in launching a five-year study to assess the impact of trawl fishing on soft-bottom seafloor habitats in Morro Bay, Calif. Using TNC’s remotely operated vehicle the *Beagle*, deployed from the sanctuary’s research vessel *Fulmar*, researchers conducted video transects to document species assemblages and record images of the seafloor. This groundbreaking study involves collaboration with local fishing communities and will provide vital scientific information regarding the impacts of trawl fishing and the rate of recovery within trawled areas. It will also help inform best management practices for groundfish trawling, as well as promote the development of a more ecologically and economically sustainable fishery.



Andrew Devoe/NOAA



New Mapping Tool Provides Interactive Way to Learn About Water Quality



A new “Water Quality Monitoring Viewer” provides an interactive way to learn about locations and data associated with water quality monitoring programs. This new mapping tool (a Google Maps application) is intended to facilitate collaborative water quality data collection and monitoring along the central coast. The viewer can be found on the Sanctuary Integrated Monitoring Network Web site at http://www.sanctuariesimon.org/regional_sections/maps/index.php

Sanctuary Characterization and Image Display Web Site Goes Live

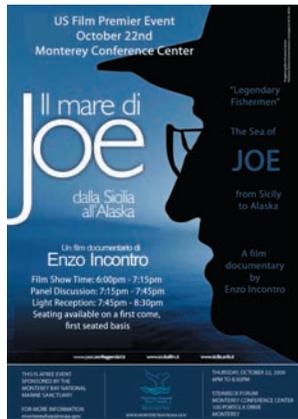
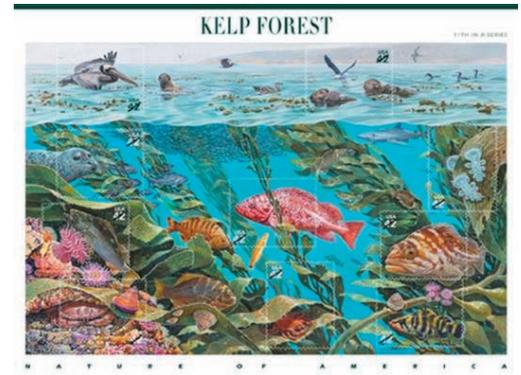
The Sanctuary Characterization and Image Display (SCID) Web Site offers a virtual way to explore and learn about the sanctuary using an interactive map that incorporates the use of video and still images. Produced in partnership with the Institute for Applied Marine Ecology at California State University, Monterey Bay, SCID provides sanctuary characterization information (including video imagery, frame grabs and survey locations) through a user-friendly graphical interface. SCID mostly contains imagery collected using a towed video camera sled, but in the future, data and imagery collected from other research platforms including remotely operated vehicles, autonomous underwater vehicles and submersibles will be available. You can interact with SCID at <http://sep.csUMB.edu/ifame/scid/>.



COMMUNICATING SANCTUARY RESOURCES

New Kelp Forest Stamp Panel Unveiled

Sanctuary staff unveiled a new U.S. Postal Service stamp panel, called "Nature of America: Kelp Forest" at the Monterey Bay Aquarium in October. To mark the occasion, sanctuary divers descended into the kelp forest exhibit and revealed a large mural of the stamp panel to aquarium visitors. The stamps depict a kelp forest in the marine sanctuary and include 27 species of marine life ranging from sea otters and rockfishes to seabirds and anemones. Sanctuary scientists served as advisors for the project, helping to ensure the kelp forest scene and content was accurately portrayed.



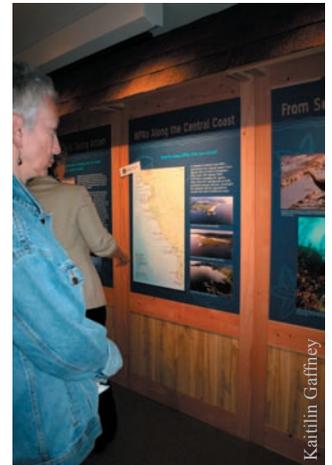
Sanctuary Hosts Premier of Film *Il Mare di Joe/The Sea of Joe*

In October, the sanctuary hosted a very special event, the U.S. premier of the 2009 documentary film *Legendary Fishermen — The Sea of Joe from Sicily to Alaska*. The film follows the story of Sicilian fishermen who became legendary after traveling for 40 days in small sailboats to fish for salmon off the coast of Alaska.

Marine Protected Areas Exhibit Opens

A special exhibit, "Celebrate our Underwater Parks," featuring marine protected areas along the central coast debuted at the Pacific Grove Natural History Museum in March. Former California assembly member Fred Keeley, author of the California Marine Life

Protection Act, was on hand for the opening reception. Sanctuary education staff worked closely with the Monterey Bay Sanctuary Foundation to develop this exhibit and associated activities, including docent training and public programs. "Celebrate our Underwater Parks" will continue to travel to other visitor centers and museums along the central coast.



Coastal Discovery Center Offers New Programs



More than 14,000 visitors and 600 school children learned about the sanctuary at the Coastal Discovery Center in San Simeon last year. Visitors explored exhibits and viewed a new display that tells the riveting story of the dirigible *USS Macon*. Students participated in exciting new programs ranging from collecting and learning about plankton to studying and monitoring the rocky intertidal. Young visitors were also given the opportunity to participate in a new California State Park Junior Ranger program. Other activities at the center included hosting the annual Ocean Fair and involving local citizens in sanctuary monitoring programs.



“Voices of the Bay” Curriculum Teaches about Fisheries

Twenty teachers participated in a training to learn about Voices of the Bay, a new education program developed in collaboration with the Office of National Marine Sanctuaries, fishermen and scientists. The program centers on local fisheries, fishing communities and the region’s rich maritime history as a way to teach about marine resource use and management. The curriculum includes: “Balance in the Bay,” introducing the concepts of sustainable fishing through a simulated fishing activity; “From Ocean to Table,” a socioeconomic study tracking the costs of bringing seafood to the dinner plate; and “Capturing the Voices of the Bay,” teaching skills to interview fishermen to record their unique knowledge.



Ocean for Life Program Fosters International Connection



Monterey Bay, Gulf of the Farallones and Cordell Bank national marine sanctuaries hosted the West Coast portion of the inaugural “Ocean for Life” program, which brought together 30 high school students from Greater Middle Eastern and Western countries for a shared ocean education experience. Ocean for Life participants explored the sanctuaries, documenting and reflecting on their experiences by creating multimedia projects using their own video and photography images. The students gained a better understanding of cultural relationships and a new appreciation for our global connection to the ocean. They are already working together in their home countries to continue their ocean stewardship activities and cultural connections.

MERITO Expands Opportunities for Latino Communities

Our MERITO program continues to strengthen opportunities for the region’s growing Latino community to engage in marine science and conservation. In 2009 we conducted 49 watershed and ocean science after school programs at 20 different sites, serving a total of 1,359 students. Full scholarships for 92 of these students allowed them to attend weeklong summer camps offered by Camp SEA Lab. Staff also trained 44 teachers, providing them with tools to help their students learn about the sanctuary. A new youth ocean media program was piloted and curriculum is being developed for a vocational ocean and watershed adult education program. Latino families joined us in the field as well, exploring first-hand central coast marine protected areas including Point Lobos and Elkhorn Slough.



SANCTUARY AWARDS

Sanctuaries Awarded Department of Commerce Medal for Oil Spill Efforts



Dan Basta, director of the Office of National Marine Sanctuaries, accepted a Department of Commerce Bronze Medal on behalf of sanctuary staff and other groups who provided outstanding service during and following the November 2007 M/V *Cosco Busan* oil spill in San Francisco Bay. Staff from Monterey Bay, Gulf of the Farallones and Cordell Bank national marine sanctuaries, Farallones Marine Sanctuary Association and over 100 Sanctuary Beach Watch volunteers were commended for offering excellent response, damage assessment and public affairs support. Their efforts were vital in ensuring the protection of NOAA's trust resources and minimizing additional economic and environmental harm.

Sanctuary Reflections Awards

The Sanctuary Reflections Awards, presented in partnership with the Association of Monterey Bay Area Governments, are given to individuals and organizations that have contributed significantly to the mission and goals of the Monterey Bay National Marine Sanctuary. The following groups and individuals were honored last year.

- Ruth Vreeland Public Official: **John Ricker**, Santa Cruz County
- Conservation: **Laura Kasa**, Save Our Shores
- Organization: **Public Works Department**, City of Watsonville
- Education: **Laura Lee Lienk**, Watershed Institute, California State University, Monterey Bay
- Research: **Dr. Rikk Kvitek**, Division of Science and Environmental Policy, California State University, Monterey Bay
- Citizen: **Kathe Tanner**
- Business: **Kayak Connection**



Sanctuary Volunteer Awards



The Volunteer Awards recognize the dedicated efforts of community members who give their time in support of the sanctuary's mission and programs. **Jon Hubbard** was selected as the Monterey Bay National Marine Sanctuary **Volunteer of the Year** for his outstanding dedication and service to the BeachCOMBERS program since 1997. Through the time he has devoted, he has contributed much to our understanding of the sanctuary's marine birds and mammals.

Special Recognition: We extend our deepest gratitude to the following volunteers for their dedicated contributions to these sanctuary programs in 2008:

- **Leslie McGarry**, Coastal Discovery Center
- **Annie Schmidt** (posthumous), Citizen Watershed Monitoring Network
- **Rita Chaffin**, Team OCEAN
- **Marc Rush**, Bay Net