

# SANCTUARY WATCH

## Sanctuary Quest Ocean Explorations Head off for West Coast Sanctuaries

With threatening skies and high waves, the National Marine Sanctuary Program set sail on April 27 with Sanctuary Quest: West Coast Expedition 2002, a 60-day voyage of discovery that takes scientists into five west coast marine sanctuaries: the Channel Islands, Monterey Bay, the Gulf of the Farallones and Cordell Bank, in California and Washington State's Olympic Coast.

Expedition teams have sighted Risso's Dolphins, purple-striped jellyfish, By-the-wind Sailors jellyfish, California sea lions, and ocean sunfish.

"During Sanctuary Quest we will observe and collect data in deep underwater mountains, canyons, and volcano habitats that we know little about and have never explored before," said Daniel J. Basta, director of NOAA's National Marine Sanctuary Program. "Our scientists will compare these relatively undisturbed underwater areas with those that have been altered by

*(cont'd on pg. 4)*



Photo: Jan Roletto

*Adult male California sea lions weigh in at about 800 pounds. Females weigh a dainty 250 pounds.*

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## National Marine Sanctuary Program Aids South Africa in Ocean Management

Staff from NOAA's National Marine Sanctuary Program (NMSP) recently traveled to the Republic of South Africa to share their expertise and experience in marine protection.

The two-year project, initiated by NOAA's International Project Office working with the United States Agency for International Development (USAID), enlisted U.S. marine specialists to help their South African counterparts develop a marine management plan for the Aliwal Shoals Marine Protected Area in the KwaZulu-Natal Province. Earlier in the year South African marine advocates visited some of the U.S. national marine sanctuaries.

Aliwal Shoal, named after an 1849 shipwreck, is a live-bottom habitat formed of sandstone caves, pinnacles, and gullies with large colonies of soft coral and sponges. The shoal, about two miles offshore the mid-southeast coast of the province, is rich in fish and invertebrate species, as well as moray eels, manta rays, sea turtles, and dolphins. A seasonal winter visitor, the ragged tooth shark, is considered a prime attraction.

Three NMSP staff members joined the U.S. delegation for the April 14- May 4 visit: Carol Bernthal, Olympic Coast Sanctuary superintendent; Elizabeth Moore, a Sanctuary Program policy analyst; and Rebecca Shortland, a Grays Reef Sanctuary policy and planning coordinator. Other members of the delegation were Ted Beuttler, Office of the General Counsel; Francesca Cava, Sustainable Seas Expeditions, National Geographic Society;

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*Many boats travel to Stellwagen Bank to watch for whales. Scientists are studying whether sound levels are loud enough to hurt whale hearing or if noises are causing them to change their behaviors.*

Photo: Brad Barr

## Scientists Study Stellwagen Banks Habitat Use

Imagine cruising the waters of Massachusetts Bay, spotting humpback whales, white-sided dolphins, bluefin tuna, and even a rare all-white pilot whale. What if in one day you saw not just one endangered right whale, but several? To some wildlife enthusiasts, this may sound like a fantasy, but it is all part of the job for a team of scientists working at Stellwagen Bank National Marine Sanctuary off Cape Cod, Mass.

In a NOAA and Switzer Leadership Fellowship jointly-funded study, scientists have developed a sanctuarywide method for recording resource use by animals and humans. The data can also be used to correlate use patterns with physical and geographic characteristics of the site, such as water temperature and bottom contour.

During the study, the science team aboard the research vessel covers the sanctuary in specific transects. When spotted, recreational vessels, commercial operations, fixed fishing gear, marine mammals, and small fishing boats are recorded on a handheld Apple Newton computer. The identity, the exact location of the boat (using GPS), and estimations of the distance and angle of the sighting from the boat are noted. The collected data is then analyzed and prepared for Geographical Information Software (GIS). Once in the GIS system, the data will be plotted and mapped so that the researchers can find developing patterns and ways to apply the gathered information. The data will serve as a baseline for future studies in this area and provide valuable information on animal-human interactions, which are important for sanctuary management. The project continues through September.

“This is another example of the national marine sanctuaries taking the leading role in marine conservation,” said Dave Wiley, one of the study’s lead scientists. “The methodology developed provides fundamental information we need for effective management. And the best part is that it can be repeated and used by others.”

—Stephanie Hilter

## National Marine Sanctuary Foundation Ocean Day

The first annual Capitol Hill Oceans Week takes place June 4-6 in Washington, DC. The event builds on last year's Congressional Oceans Day, coordinated by the National Marine Sanctuary Foundation (NMSF). The June event precedes the 10th annual World Oceans Day and is co-hosted by the Senate Commerce Subcommittee on Oceans, Atmosphere and Fisheries, and the House Oceans Caucus.

"Capitol Hill Oceans Week is designed to provide a substantive focus on key ocean issues," said NMSF Executive Director Lori Arguelles. "We'll examine both the threats and solutions facing coral reefs, as well as ways to create a more ocean literate society through various educational outlets. Our efforts are designed to complement the work already being undertaken by the U.S. Oceans Policy Commission and the Pew Oceans Commission."

Members of Congress, Capitol Hill staff, Federal Agency representatives, and a variety of stakeholders with an interest in ocean issues will participate. Congressional Committee Members co-hosting the event include: Senators Ernest Hollings, John McCain, John Kerry, and Olympia Snowe, and Congressmen Thomas Allen, Sam Farr, Jim Greenwood, and Curt Weldon.

Sessions focus on existing ocean education programs and future strategies for increasing ocean 'literacy' through a variety of educational methods. Educators and students will discuss their experiences with programs such as the JASON Project, the Sustainable Seas Expedition, Ambassadors of the Environment, and others. Panels focus on coral reefs and address the dangers they face: pollutants, temperature change, and human and long-term natural impacts. Ocean explorer, environmentalist, educator and filmmaker Jean-Michel Cousteau delivers a keynote luncheon address.

Visit the National Marine Sanctuary Foundation at <http://www.nmsfocean.org/>.

## Clean up Nets Vampire Teeth, a Saw & a Wok Lid

Volunteers joined with staff from the Fagatele Bay National Marine Sanctuary in American Samoa to collect several hundred pounds of trash as part of a local Earth Week celebration.

“We are always grateful to the diving and snorkeling community for their help in getting the trash and debris from our coral reefs,” said Nancy Daschbach, manager of Fagatele Bay Sanctuary.

Each year, the Sanctuary sponsors at least two cleanup projects. This year’s Beach Cleanup volunteers filled bags with trash ranging from rusty fishhooks, beverage bottles, rope, and empty spray cans to mounds of Styrofoam. Some of the more interesting finds from the event include a wok lid, plastic Halloween vampire teeth, and a saw.

Participants, ages 7 to over 50, snorkeled, dived, and searched the beach and near-shore reefs for discarded trash and “treasures.” Americorps volunteers were on hand to record and haul away the trash.

—Nadia Sbeih

## Monterey Bay Student Ocean Conference Held

This spring, the Monterey Bay National Marine Sanctuary (MBNMS), Monterey Bay Aquarium (MBA), and Marine Advanced Technology Education (MATE) Center teamed up to host almost 120 central California middle and high school students at a once-in-a-lifetime educational extravaganza combining science, technology, conservation, and geography.

The two-day Student Ocean Conference on May 10 & 11, 2002, focused on the theme of “Using Science and Submersibles to Conserve our Marine Resources.” The event was funded in large part by the National Geographic Society’s Geographic Education Foundation in collaboration with the Sustainable Seas Expeditions and Coastal America. The goal of the conference was to promote marine awareness, the sanctuary in particular, and give students firsthand experience with the science, technology, and conservation efforts that go into understanding our underwater resources.

In a Remotely Operated Vehicle contest, student teams maneuvered home-built submersibles through an obstacle course and retrieving objects. Other students presented their own marine conservation and research projects to an audience of peers and local scientists.

Conference guest speakers included Dr. Sylvia Earle and Alan Scott, a marine electrical engineer who participated in the discovery and exploration of the *S.S. Central America*, a nineteenth century vessel that sank in deep water off the coast of the Carolinas with a treasure of gold.

To learn more about the Monterey Bay National Marine Sanctuary, visit <http://www.mbnms.nos.noaa.gov/>.

—Jen Jolly

## First Joint Sanctuary Advisory Council Held

On April 15, the Advisory Councils of the Cordell Bank, Gulf of the Farallones, and Monterey Bay National Marine Sanctuaries met in Half Moon Bay, CA, to prioritize marine issues, brought up in public scoping meetings, that apply to more than one site.

This workshop marked the first time the Sanctuary Program convened multiple Advisory Councils to address issues on a regional basis. Overall, the workshop was a great success and proved to be an important first step in facilitating interaction between the three SACs. The workshop emphasized how these groups will continue to work together as the program moves forward through the management plan review process.

Visit <http://sanctuaries.nos.noaa.gov/jointplan/> to learn more about the management plan review process.

—Brady Phillips

## NOAA Administrator’s Award—

**Carol Bernthal**, Olympic Coast National Marine Sanctuary superintendent, and **Elizabeth Moore**, program analyst at the National Marine Sanctuary Program national headquarters, received the NOAA Administrator’s Award for 2001 for outstanding service. Bernthal was honored for “outstanding leadership and excellence in environmental conservation by establishing partnerships and expanding research and knowledge to ensure the protection and conservation of NOAA’s Olympic Coast National Marine Sanctuary.” Moore received her award “For superior contributions to environmental conservation by advancing the public interaction with the NMSP by implementing and standardizing a review process for Sanctuary management plans.” Moore was also honored for her working helping to establish Sanctuary Advisory Councils and creating the framework for Sanctuary Advisory Council operations.

## Sanctuary Delegation Aids South Africa MPA *(cont’d from pg. 1)*



Photo: National Marine Sanctuary Program

*A World Heritage Site, St. Lucia Wetlands Park is one of the premier parks under the management of the delegation’s KwaZulu-Natal Wildlife hosts.*

Robert Currul, State of Florida Marine Patrol; Clement Lewsey, International Program Office, National Ocean Service; and Lad Akins, Reef Environmental Education Foundation.

The delegation reports of the many benefits they’ve received in their South African visit. Elizabeth Moore reported on their site visit to the St Lucia Wetlands Park.

“The park comes closest to resembling true ecosystem management as I have ever seen in a single protected area, said Moore. Terrestrial, wetland, estuarine, and marine habitats are all combined, as if a national park and national marine sanctuary were adjacent to each other and managed by the same agency. Unlike many shore areas in the U.S., there are few major access points to the beach, allowing the managers to have a good idea of the level and types of use occurring on the beach and adjacent waters.”

You can read the delegation’s mission logs at [http://www.sanctuaries.nos.noaa.gov/special/south\\_africa/](http://www.sanctuaries.nos.noaa.gov/special/south_africa/).



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**vision** People value marine sanctuaries as treasured places protected for future generations.

**mission** To serve as the trustee for the nation's system of marine protected areas to conserve, protect, and enhance their biodiversity, ecological integrity, and cultural legacy.

## June/July Calendar

### Natural Events

**In June**—Blue and minke whales arrive in the Channel Islands Sanctuary to feed from the rich upwellings. The whales remain through September.

**In July**—Loggerhead sea turtles begin hatching from nests on Georgia's beaches and continue through October. Loggerheads use Gray's Reef Marine Sanctuary for food and rest.

**June 16 - July 31** • *Monitor* 2002 Expedition. The National Marine Sanctuary Program and the U.S. Navy conduct a 45-day expedition to recover the Civil War vessel's guns and famous revolving gun turret. For more information, visit <http://monitor.nos.noaa.gov/>.

July 13 • "Down Under, Out Yonder" Education Workshop in the Flower Garden Banks National Marine Sanctuary. For information, contact 979-779-2705 or visit the sanctuary website at <http://www.flowergarden.nos.noaa.gov/>.

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## Sanctuary Quest: West Coast Expeditions 2002 *(cont'd from pg. 1)*

human activity. These results will have direct application to management issues and will contribute to the ongoing research and data collection within the sanctuary program," said Basta. "We will also be investigating ship wrecks as cultural resources and for their potential impact on the marine environment."

Along with the researchers and crew aboard the NOAA ship *McArthur* are a host of research tools that include a remotely-operated vehicle (ROV) providing "eyes" to the seafloor 2,500 feet below. Scientists will also use a sidescan sonar device, which bounces sound waves of the sea floor to create rough maps of the sanctuaries' terrain.

The expedition's crew of 32 people includes 13 scientists and 19 crew members. Scientists taking part in the Channel Islands leg of the trip represent the University of California, Santa Barbara; Channel Islands National Park; California Department of Fish and Game; and the U.S. Geological Service, among others.

Channel Islands Sanctuary Chief Scientist Sarah Fangman, acts as the mission coordinator for the Channel Islands portion of the expedition which will examine sections of the sanctuary that are being considered as marine reserves.

"Our research team will be gathering information on these areas that one day may become reserves, so scientists will know if there are any environmental changes," said Fangman. "We'll be looking at the current size of fish, and noting the number of urchins and invertebrates." The expedition will add to data already collected in October.

"We are working to understand how the sanctuaries function as a system," said Basta. "The area of this expedition represents a small part of a much larger, very dynamic ecosystem. This research is an example of how the National Marine Sanctuary Program integrates science with management of resources within a much larger ecosystem. The observations and data are critically needed to make sound management decisions."

The expedition joins a number of agencies and organizations in partnership. Mission participants include the U.S. Naval Facilities Engineering Services Center, the U.S. Geological Survey, the California Department of Fish and Game, Moss Landing Marine Lab, Monterey Bay Aquarium Research Institute, and many other academic and private institutions.

The Sanctuary Quest expedition, slowed by bad weather and by a fire in one of the vessel's main generators, was forced to cancel operations in Monterey Bay Sanctuary. On their way to the Gulf of the Farallones Sanctuary, the ROV was deployed off Santa Rosa Island. Scientists identified a number of fish and invertebrates on the sandy bottom and rocky outcroppings. Biologists identified Pacific and speckled sandabs, blacksmith, blackeyed goby, and several species of rockfish.

Sanctuary Quest is expected to conclude on June 20. You can follow the expedition at <http://oceanexplorer.noaa.gov>).

**Sanctuary Watch** is a publication of the National Oceanic and Atmospheric Administration's (NOAA) National Marine Sanctuary Program, Communications and Development Branch.

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