

MONTEREY BAY



NATIONAL MARINE SANCTUARY



NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

WINTER 2001



- Authorizes \$32 million in fiscal year 2001, with levels increasing by \$2 million a year through fiscal year 2005. It also authorizes \$6 million a year in fiscal years 2001 through 2005 to build the facilities needed to manage these special places.
- Allows for greater protection of the coral reefs off the Northwestern Hawaiian Islands, one of few remaining major coral reefs complexes affected little by human development. These remote islands are home to approximately 70% of America's coral reefs, and endangered monk seals and sea turtles.
- Establishes the Dr. Nancy Foster Scholarships to recognize outstanding scholarship, particularly by women and minorities, in the fields of oceanography, marine biology, and maritime archeology. The scholarships are named in memory of Dr. Nancy Foster, a 23-year NOAA employee who worked to expand and strengthen marine sanctuaries.

Legislative Update

Brady Phillips

Reauthorization of the National Marine Sanctuaries Act

Last November, former President Clinton signed the National Marine Sanctuaries Amendments Act of 2000 (S. 1482), thereby extending and improving the management of the national marine sanctuary system.

"This nation prides itself on its conservation ethic, as embodied in our national parks and refuges," former President Clinton said. "The 13 marine sanctuaries extend this ethic into the sea, ensuring a healthy ocean environment for future generations of swimmers and surfers, fishermen and explorers, teachers and students."

The Act, administered by NOAA's National Ocean Service, relies on the

involvement of local citizens to find the best possible solutions to the tough challenges communities face in protecting the ocean environment. The National Marine Sanctuary System currently comprises 13 sanctuaries around the country, including Hawaii and American Samoa. In the quarter century since its inception, the sanctuaries Act has provided a powerful tool for marine resource protection resulting in the permanent conservation of many invaluable habitats and maritime artifacts.

Drawing upon this experience, the amended bill refines the Act in substantive ways that reflect the growth and evolution of the program. In addition to strengthening the sanctuary system, the Act provides the following:

Appropriations

Each year the President, the House, and the Senate must reach agreement on annual spending bills for each government agency. On December 15th, the House and the Senate passed the Fiscal Year 2001 appropriations legislation, which included NOAA's spending appropriation. The conference agreement includes a total of \$32.5 million for the National Marine Sanctuary System, including \$3 million for marine sanctuary visitor facilities, and \$500K to support the activities of the Northwest Straits Citizens Advisory Commission as outlined in the House and Senate reports.

Managing Editor/Writer

Dawn Hayes, MBNMS staff

Copy Editors

Dawn Hayes, Jen Jolly

Graphic Design

Kirsten Carlson

Illustrator

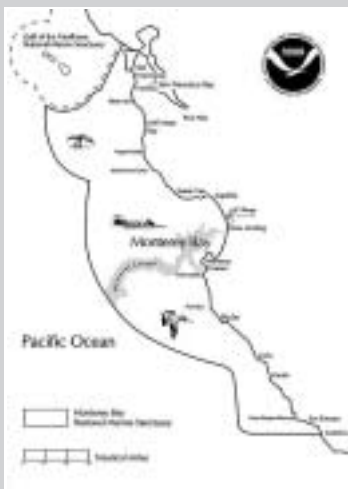
Keelin Sabel

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We welcome comments and will consider items submitted by readers as space permits.

Comments and articles should be sent to Dawn Hayes, Education Coordinator, Monterey Bay National Marine Sanctuary, 299 Foam Street, Monterey, California 93940.



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Above: Michele Roest

Left: Cambria Chamber of Commerce staff with new kiosk.

Sanctuary Opens New Southern Office

Brady Phillips

In October, 2000, the Sanctuary named Michele Roest, a long-time resident of San Luis Obispo County, as the new Education and Outreach Specialist for the southern sanctuary region. Ms. Roest will coordinate education, outreach, and conservation activities along the southern region of the Sanctuary and serve as an on-site resource for local communities.

“This new Sanctuary position culminates four years of efforts by many local community members,” said Chet Forrest, former At-Large Sanctuary Advisory Council member from Cambria. “A NOAA employee located at the Sanctuary’s southern gateway establishes a direct communications link to NOAA. This provides an opportunity to express the community’s desires and needs in decisions that impact the unique ocean waters off our coast.”

Ms. Roest is the first full-time sanctuary employee to be hired for the Southern region of the Sanctuary. Until this position was created and filled, the local communities relied upon the volunteer efforts of the three Cambria area Sanctuary Advisory

Council representatives—Chet Forest, Bill Raver, and Ron Massengill and the staff located in Monterey.

Michele officially started working for the Sanctuary Program on October 23, spending her first week in Monterey meeting staff and learning about various programs and issues. She has an office located at the California State Parks San Simeon District Headquarters at Hearst Castle.

“I am honored to become part of the National Marine Sanctuary System team,” said Michele. “I look forward to working with the local communities in their important role as the southern gateway to the Monterey Bay National Marine Sanctuary.”

Ms. Roest is a field ecologist who received her Bachelor’s Degree in biology from the University of California at Santa Cruz, and her Master’s Degree in biology from California Polytechnic State University in San Luis Obispo. She has also worked as a science educator, written science curricula and coordinated science education programs throughout the United States.

New Members Appointed to Monterey Bay National Marine Sanctuary Advisory Council

Brady Phillips

In early January, the Monterey Bay National Marine Sanctuary appointed eight-primary and nine-alternate representatives to the Sanctuary Advisory Council. The new representatives began serving three-year terms at the February 2, 2001, advisory council meeting in Monterey. The Sanctuary received 57 applications from citizens throughout central California to fill the nine vacant seats.

“We are pleased with the large public interest to serve on the Sanctuary Advisory Council,” said William J. Douros, Superintendent of the Monterey Bay National Marine Sanctuary. “We seized upon the talent and expertise of applicants to diversify the perspectives on the Council, and to provide new opportunity for coastal citizens to participate. We have had so many upstanding citizens on the Council over the years. This new group, with the existing members we have already on the Council, will be an excellent team.”

“Public interest and stewardship are integral to effective management of the Sanctuary,” said Stephanie Harlan, Chair of the Sanctuary Advisory Council and member of the Capitola City Council. “I look forward to working with these new representatives to help protect the Sanctuary’s resources while ensuring that the groups they represent have a voice in decisions that may affect them.”

Based on the advice of the Sanctuary Advisory Council’s review committee, and its own assessment, the Sanctuary will re-advertise the primary fishing seat. “Fishing is an important seat on the Council,” said Douros. “We want to make sure we are selecting someone who reflects the perspective of an active fisher and someone who is closely networked with both the recreational and commercial fishing communities.”

The current primary fishing representative, Dave Danbom, has agreed to serve as the alternate and will represent that seat until a primary is chosen in the

next few months. The Sanctuary will also seek applicants to serve as the alternate for the recently vacated conservation seat.

The Monterey Bay National Marine Sanctuary Advisory Council was established by Federal law to assure continued public participation in the management of the Sanctuary. Since its establishment in March 1994, the Council has played a vital role in the decisions affecting the Sanctuary along the central California Coast. Its nineteen voting members represent a variety of local user groups, as well as the general public, plus seven local, state and federal governmental jurisdictions. Members are appointed competitively by the National Oceanic and Atmospheric Administration and serve three-year terms. The meetings are open to the public.

The public is invited to get involved in the Sanctuary Advisory Council or any of its working groups designed to pro-
continued on page 5...

The Sanctuary is proud to announce the following appointments to the Sanctuary Advisory Council:

Agriculture

Dick Nutter, Primary Monterey County Agricultural Commissioner (retired), Santa Cruz County Farm Bureau

Kirk Schmidt, Alternate President, Quail Mountain Herbs a Watsonville grower of fresh herbs, Pajaro Valley water forum

At-large

Ron Massengill, Primary Cambria area resident, (retired Nat. Park Service Enforcement officer, currently Conservation alt.)

Jeff Kwasny, Alternate Cambria area resident (Los Padres National Forest Resource Officer – Big Sur to San Simeon)

At-large

Jenna Kinghorn, Primary Moss Beach resident (Notifyme Networks, avid diver, natural history writer, and ocean volunteer)

Patrick Conroy, Alternate Moss Beach resident (San Francisco Oceanside Biological Lab, kayaker, fishing, diving, surfing)

At-large

Deborah Streefer, Primary Big Sur resident (Director of Upwellings: Ministry of Environmental Stewardship, ocean volunteer)

Harriet Mitteldorf, Alternate Pebble Beach resident (retired), Big Sur Land Trust, League of Women voters, American Cetacean Soc.

Business/Industry

Dr. Dave Ebert, Primary Vice President of U.S. Abalone, a Davenport based aquaculture company; fisheries biologist, coach

Tony Warman, Alternate Granite Rock Company, Manager of Environmental Services. Sailed on Monterey Bay for over 20 years.

Fishing

Re-advertise Primary in January/February

Dave Danbom, Alternate Salmon Fisherman for over 30 years (retired), and former member of Pacific Fishery Mgmt. Council

Recreation

Dan Haifley, Primary Executive Director of O’Neill Sea Odyssey, Santa Cruz County Conference and Visitor’s Council

Heidi Tiura, Alternate Co-owner of Sanctuary Cruises – ocean wildlife watching business. Vessel Captain.

Research

Dr. Chris Harrold, Primary Director of Conservation Research at the Monterey Bay Aquarium, Pres. Western Society of Naturalists

Dr. Jeffrey Paduan, Alternate Assoc. Professor Oceanography at the Naval Postgraduate School, Assoc. Prof. UC - Santa Cruz.

Tourism

Burke Pease, Primary CEO of the Monterey County Visitor Bureau, 31 years as a tourism marketing professional.

Ted Balestreri, Alternate Managing Partner, Cannery Row Company and California Travel and Tourism Commissioner.

Sanctuary Pilots Team OCEAN

a New Kayaker Education Program



Jen Jolly

This past fall the Sanctuary piloted an innovative new outreach program for the growing community of sea kayakers offshore in Monterey and in Elkhorn Slough. The goal: to inform ocean kayakers about the Monterey Bay National Marine Sanctuary, its marine wildlife, and appropriate wildlife-watching etiquette. The result: Team OCEAN, a team of Sanctuary staff in kayaks on the water, interpreting the Sanctuary's resources to fellow kayakers while protecting marine mammals from disturbance.

There is no question that marine recreation can cause harmful disturbance of sea otters and other marine mammals. The thick kelp beds off Cannery Row in Monterey

and the placid waters of Elkhorn Slough concentrate sea otters – and the kayakers that come to see them. Harbor seals, silently resting and well camouflaged on coastal rocks or mudflats, are also easily spooked.

Most instances of wildlife harassment are unintentional and stem from lack of awareness about marine resources and regulations. Once kayakers are educated on how to recognize marine mammals from a distance, the good reasons for protective regulations, and how to observe wildlife without causing disturbance, they can be transformed from casual visitors to marine conservation advocates.

With this goal in mind, the Sanctuary's two Team OCEAN Kayak Interpreters spent weekends on the water from October through December 2000.

They split their time between Monterey and Elkhorn Slough. They were well received by the kayakers they approached, and were able to head off numerous potential disturbances of resting marine mammals in a friendly and educational manner. Our Team OCEAN interpreters, modeled after a similar boating program at the Florida Keys National Marine Sanctuary, are not aqua-cops. They have no enforcement authority, but do ask that visitors respect wildlife. Most people appreciated their message.

“We found that most kayakers knew to maintain an appropriate distance from the marine mammals, and had every intention of doing so, but didn't see the animals until they were already too close,” says Brad Damitz, one of the kayak interpreters. “They expected the otters and seals to be more obvious. We were able to show these people how to spot the animals from a distance, and explain the impacts of disturbance.”

Due to the positive feedback we've received, we hope to continue and expand the Team OCEAN kayak interpretive program in the summer of 2001. If funding allows, we plan to increase staff and spread north to the Santa Cruz coast. The Sanctuary gratefully thanks Perception Kayaks for donating the kayaks for this program; Monterey Bay Kayaks, for loaning all the kayaking gear; and The Otter Project and BayNet, for partnership and assistance in this effort.

High School Students Get Into It

Jen Jolly

What's the best way for young people to learn about the Monterey Bay National Marine Sanctuary? By getting into it, of course! High school students from Tomales to Cambria are getting their feet wet through extracurricular marine

science research projects for the third annual Sanctuary Student Summit. Participation has tripled this year, as over 125 students from fifteen different schools plan to join in. Some students will monitor stream or storm drain water quality near their school, while others characterize the Sanctuary's rocky intertidal communities, or conduct other studies of their own design. Students will present their research results at the

Sanctuary Student Summit on April 26, 2001. Some will also attend the Sanctuary Currents Research Symposium in March, or join Sanctuary staff for a water sampling trip on the Monterey Bay. Thank you to the students who are spending time learning about science, environmental stewardship, and the Monterey Bay National Marine Sanctuary!

Viewing Elephant Seals in the Sanctuary

Michele Roest

Historically, elephant seals occurred all along the Pacific coast of North America. During the 1800's elephant seals were hunted extensively for their meat and blubber. By 1900, Northern elephant seals were believed extinct. A small colony remained off Baja California and all Northern elephant seals living today are descended from this small group. The present population is estimated to be about 150,000 seals.

A large colony of Northern elephant seals has been in residence since the early 1970's at Año Nuevo State Reserve, about 20 miles north of Santa Cruz. Two additional colonies occur in the southern region of the Sanctuary. In 1983 elephant seals began using beaches at Cape San Martin near the

town of Gorda and in 1990 the first elephant seal pups were born at Point Piedras Blancas, approximately 8 miles north of San Simeon. It is likely that these new colonies developed as breeding colonies on the San Miguel and San Nicholas Islands became overcrowded.

As the population expands, seals are returning to ancestral breeding grounds throughout California. The population at Piedras Blancas is growing rapidly. Population estimates at Piedras Blancas, during the breeding season, are 7,500 seals.

Elephant seals have a complex life cycle. The cycle begins in late November when the bulls (3,000 to 5,000 pounds) arrive at the breeding grounds. They have "site fidelity," meaning they return to their place of birth. The rest of the time they swim to

nutrient-rich waters off Canada and Alaska to feed. Pregnant females (900-1,800 pounds) arrive in December, give birth to their pups on land, in January and nurse them for about one month, wean them, mate with a bull, and then depart for the northern feeding grounds. By March, most of the adults have left. A few months later, they return to the site to molt their old fur and grow new fur, a process that takes about a month. The cycle begins again in November.

When viewing elephant seals or any marine mammal, it is important to stay at least 50 feet away from them. The seals fast when they come ashore for breeding and molting. Any disturbance wastes precious energy and could even affect their ability to survive. Dogs are threats to elephant seals. Keep them on leash, or preferably, in the car. Elephant seals carry diseases that can be picked up by dogs and people. Avoid walking barefoot on beaches where they occur.

People from all over the world come to watch these remarkable marine mammals during the breeding season at Año Nuevo and Piedras Blancas. Both areas provide excellent opportunities for viewing the seals without disturbing their natural breeding cycle. For information at Año Nuevo call Año Nuevo State Reserve at (650) 879-0227. For information at Piedras Blancas call the Friends of the Elephant Seal at (805) 924-1628.



Male Northern elephant seal (*Mirounga angustirostris*). © 2000 Kip Evans for MBNMS

continued from page 3,

mote the conservation and multiple-use management goals of the Sanctuary Program. The working groups—the Research Activity Panel, the Sanctuary Education Panel and the Conservation Working Group—meet on a monthly

basis and provide valuable information and advice to the Sanctuary Superintendent and the Advisory Council on Sanctuary issues. There is also a Business and Tourism Activity Panel that meets quarterly to discuss ways of increasing partnerships and addressing concerns with the business

and tourism communities. In addition, local working groups, such as the Santa Cruz Interagency Sanctuary Taskforce and a planned group in Cambria will provide additional avenues for the public to get involved. All working group and Council meetings are open to the public.

S I M O N



Sanctuary Integrated Monitoring Network

Mario Tamburri

The Monterey Bay National Marine Sanctuary has recently completed planning for a comprehensive, long-term monitoring program as a fundamental, and required, element of its management plan. The Sanctuary Integrated Monitoring Network (SIMoN) has been designed in partnership with the regional science and management community in a systematic manner over the past two years, with its key mission to detect natural and human induced changes to the Monterey Bay National Marine Sanctuary and its resources. The principal goals of SIMoN are to:

- Integrate existing monitoring programs in the MBNMS,
- Initiate basic surveys or characterizations of all habitats and regions of the MBNMS,
- Initiate specific, question driven monitoring efforts with fixed durations,

- Establish a series of essential long-term monitoring efforts that will continue into the future,
- Provide timely and pertinent information to managers and decision makers, the research community, and the general public, and
- Provide a model for other National Marine Sanctuaries and marine protected areas.

The SIMoN program will utilize existing data sets, support and augment current research/monitoring efforts, and initiate new efforts to address important gaps in our knowledge of the Sanctuary. The strength of this program is that the MBNMS will serve as the hub for regional ecosystem monitoring. Local scientists, of which there is an extensive network in the Monterey Bay area, will continue to collect the large majority of monitoring data, but the Sanctuary will help generate much of the funds required to maintain or expand some existing

efforts and to initiate new programs. The funds secured by the MBNMS will be granted to researchers and institutions for specific monitoring efforts through annual requests for proposals (RFP's). RFP topics will be decided on by a committee of scientists and managers working from a list of priority areas of need.

Through SIMoN, the MBNMS will also integrate and interpret results of individual, existing and new, monitoring efforts in a large ecosystem-wide context and continuously update and disseminate data summaries to facilitate the communication between researchers, managers, educators, and the public. Timely and pertinent information will be provided to all parties through a SIMoN web portal, annual symposium, and a series of technical and public reports (i.e., annual "State of the Sanctuary" reports).

While SIMoN has been designed to serve as a comprehensive monitoring

Duke Energy Mitigation

William J. Douros

The former PG&E power plant in Moss Landing was purchased several years ago by Duke Energy, who in October 2000 received permits to expand the power plant to 1,060 megawatts, making it the largest (in terms of power output) power plant in California. The existing power plant uses water pulled from Moss Landing Harbor

to cool the turbines and discharges that "thermal cooling water" into the Pacific Ocean, and partially into the Sanctuary, through outfall pipes offshore of MBARI. The planned expansion calls for increasing the amount of cooling water to a total of approximately 1.2 billion gallons per day at peak operating capacity. This is by far the largest discharge into the MBNMS.

The process of drawing cooling water into the power plant and discharging it offshore was reviewed by state permitting agencies and found to have some impacts to marine

life; in particular, small fish and crab larvae can be killed by the cooling process. In order to mitigate impacts to the Elkhorn Slough, the state permitting agencies required Duke to pay \$7 million to the Elkhorn Slough Foundation for land conservation and related watershed projects. They also required Duke to fund a coastal waters monitoring program, directed by the Sanctuary, to assess the impacts of the thermal plume offshore.

With these necessary monitoring and mitigation requirements in place, the Sanctuary

network long into the future, it will have a phased approach with periodic external reviews. The first phase of the SIMoN effort will include an initial year for instituting the various program components (proposed for 2001), a second year for the initiation of preliminary monitoring efforts, and four following years for installing full scale monitoring programs throughout the Sanctuary.

In summary, SIMoN will be a comprehensive, long-term program that takes an ecosystem approach to identify and understand changes to a large marine protected area. It will provide resource managers with the information needed for effective decision making and make possible an unparalleled basic understanding of a complex and important marine environment. SIMoN will facilitate the critical but often overlooked communication between researchers, resource managers, educators and the public. Finally, NOAA's National Marine Sanctuary System is interested in using SIMoN as a model monitoring program for other marine sanctuaries nationwide.

The complete SIMoN document can be found as both html and pdf files at <http://www.mbnms.nos.noaa.gov/Research/simon/index.htm>.

authorized the discharge of the cooling water into the Sanctuary.

A last minute agreement was also crafted between a group of five environmental organizations and Duke to fund an additional \$1 million monitoring program within the Slough. Those organizations have asked the Sanctuary to administer these funds, along with the coastal waters monitoring program, through SIMoN. Monitoring for both programs will begin later this year.

New Faces at Sanctuary Offices

The Monterey Bay National Marine Sanctuary staff has grown considerably since its inception in 1992. Education, Resource Protection, Research and Program Support have expanded and new staff have been hired to keep abreast of these needs. Seven new staff have joined the Sanctuary, filling positions in Monterey, San Simeon and Half Moon Bay.



Dawn Hayes joined the education team last September as the new Education and Outreach Coordinator (Liz Love is still with us in a part time capacity). Also joining Education are two new Education and Outreach Specialists, acting as liaisons

to our constituents at both ends of the Sanctuary. Michele Roest manages the new San Simeon Office in the southern region of the Sanctuary (see pg. 2), and Julie Barrow will establish and oversee a joint northern sanctuary office in Half Moon Bay in February.



Julie will represent both the Monterey Bay and Gulf of Farallones National Marine Sanctuaries. Deirdre Hall, a former contractor for our Resource Protection program, was hired on in January as a Permit Assistant, dealing with permit issues from discharge and dredging to seabed alteration and aircraft overflight.

Research also gained needed support in October with the addition of Research Specialist, Erica Burton. Erica organizes scientific data and information for ecological monitoring projects, coordinates research meetings and assists with web page development.



Our Program Support team recently hired Brad Damitz as a Policy Specialist. Brad will be of great help in the management plan review process when Brady Phillips' year-long detail from headquarters ends in April.

For more information about the Sanctuary's staff, be sure to visit our staff webpage: <http://www.mbnms.nos.noaa.gov/Intro/AboutOffice/personnel.html>



*New staff from top:
Dawn Hayes, Julie Barrow, Erica Burton, Brad Damitz.*

About the Monterey Bay National Marine Sanctuary

The Monterey Bay National Marine Sanctuary was established in 1992 as the largest of 13 federal marine sanctuaries managed by NOAA, the National Oceanic and Atmospheric Administration. Encompassing over 5,300 square miles of water, the Sanctuary stretches along the central California coast from the Marin Headlands north of San Francisco southward to Cambria in San Luis Obispo County, and

protects many habitats, from sandy beaches and kelp forest to one of the largest underwater canyons on the west coast.

Nutrient-rich currents nourish the area, supporting a productive and diverse marine ecosystem where countless species, many of them threatened or endangered, make their homes.

The mission of the Monterey Bay National Marine Sanctuary is to understand and protect the coastal ecosystem and submerged cultural

resources of central California.

The mission of the National Marine Sanctuaries System serves as the trustee for the nation's system of marine protected areas to conserve, protect, and enhance their biodiversity, ecological integrity, and cultural legacy.

For more information contact the Monterey Bay National Marine Sanctuary office at 299 Foam Street, Monterey, CA 93940. (831)647-4201; or visit www.mbnms.nos.noaa.gov

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Monterey Bay National Marine Sanctuary
299 Foam Street
Monterey, California 93940
www.mbnms.nos.noaa.gov

