

Buried sanddab

SEAS OVER SANDY SEAFLOORS

You need a boat to get close to the sanctuary's most extensive habitat—the seas and seafloor offshore. A whale-watching cruise is a favorite activity. In the summer, you can fish for salmon; in the winter, rockfish. Anchovies, albacore, squid and flatfishes are important commercial species found offshore.

Below the blue-green water lies most of the sanctuary: a sandy or muddy seafloor. Here, sanddabs and stingrays hide.

Colorful communities of fishes and invertebrates gather around the occasional granite outcropping, shale reef or shipwreck that interrupts the soft seafloor.

The seafloor holds a wealth of historical and cultural treasures. Approximately 1,276 vessels rest on the bottom along the central and northern California coast. Most notable is the airship *USS Macon*, which crashed and sank in 1935 off Point Sur. Sanctuary protection ensures that researchers will have the opportunity to uncover these vessels' stories.

Whether you're diving, fishing or just looking, take only what you need. If you collect pictures instead of animals, the next visitor can see what you saw.



School of squid



Black-and-yellow rockfish

LUSH KELP FORESTS

On your first visit, you may wonder, "What's that brown, tangled mass on the beach?" If you look offshore, you'll see the source of the beached seaweeds, called wrack. The golden-brown mat on the ocean surface is the top of a lush, underwater forest.

Giant kelp, one of hundreds of seaweeds in the sanctuary, creates underwater forests a hundred feet tall. The golden blades of the surface canopy team with fishes and invertebrates. Shafts of sunlight pierce the canopy, casting an eerie glow on fishes swaying in the gentle surge. Sea stars, sea urchins and snails vie for space on the crowded forest floor.

Among kelp forests, commercial fisheries thrive, divers explore and kayakers glide. You're well acquainted with seaweeds, too. They're in ice cream, processed foods, pharmaceuticals and toothpaste.

Potential oil spills from passing tankers and ships are a constant threat to the kelp forest community. You help when you share a ride or take a bus, reducing our need for oil and the risk of spills.



Sunlight filters through kelp



Melibe sea slugs



Chestnut cowry

MYSTERIOUS MONTEREY CANYON

At the heart of the sanctuary, just a few hundred yards offshore from Moss Landing, is the Monterey Canyon—so wide and deep, it rivals the Grand Canyon. The Monterey Canyon is more than 10,000 feet deep at its seaward end. It harbors life as large as giant squid and endangered blue whales, and as small as plankton (mostly microscopic drifting plants and animals).

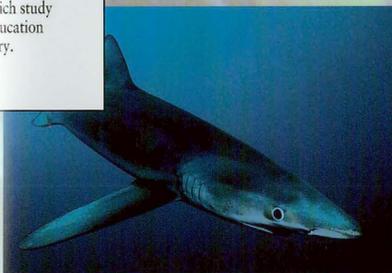
Although it's not easy to see plankton, you can see basking sharks filter plankton from these waters. Below them, delicate jellyfishes drift with the currents. Sharks, including the great white, search these waters for marine mammals and large fishes.

Each spring and summer, cold fertile waters nourish the Monterey Bay National Marine Sanctuary in a process called upwelling. These nutrient-rich upwelled waters feed phytoplankton—tiny plants that are the basis for the wealthy web of marine life in this area.

The immense diversity of life, and the deep sea just offshore, are rich study areas for the 13 research education facilities within the sanctuary.



Deep water jellyfish



Blue shark

VIEW THE WILDS OF A SANCTUARY

You can find picture-postcard scenes every day in the Monterey Bay National Marine Sanctuary. On a rocky shore, waves break over mussel beds. On a sandy beach, hungry sanderlings chase the surf. In a kelp forest, a mother sea otter and pup rest. Through blue-green water, a sardine school glides. In an underwater canyon, a cat shark slips through blackness.

The Monterey Bay National Marine Sanctuary is a haven for sea otters, seals, shorebirds, squid, sardines and thousands of other species, including many that are threatened or endangered. But most important, the sanctuary boundaries include nutrient-rich currents that nourish the area and make possible the rich, diverse marine life.

Within the sanctuary, scientists study deep-sea life, sightseers spy rugged rocky shores, divers explore majestic kelp forests and fishermen harvest the bounty. Because this is a sanctuary, educators, researchers, resource managers and resource users safeguard pristine waters and abundant marine life. What you see today will enrich and delight future generations.

HABITAT VARIETY CREATES DIVERSE LIFESTYLES

Within the boundaries of the Monterey Bay National Marine Sanctuary you'll find rugged rocky shores, sunny sandy beaches, lush kelp forests, seas covering sandy seafloors and a mysterious submarine canyon. These diverse habitats provide an ideal laboratory for scientists, fertile grounds for fishermen and thrilling sights for residents and visitors. The habitats bound by this sanctuary support a wealth and diversity of life you'll find nowhere else.

RUGGED ROCKY SHORES

A walk along a rocky shore can be an adventure of discovery, if you think small. Get down on your hands and knees and look closely. You'll find something alive in every nook and cranny.

Tide pools (pools of water that remain as the tide subsides) are oases for life left high and dry. A tidepool sculpin blends so well you'll see this small fish only when it darts out of your way. Look for lined shore crabs wedged into crevices or worms and sea stars under the cover of a seaweed mat.

The returning tide spreads over the rocky shore like a watery blanket. Watch as barnacles open their shells and sweep the water with their legs to catch food or as sea anemones unfold flowerlike tentacles to zap a meal.

When you visit a rocky shore, take care. Your shoes can crush seaweeds and squish animals. Overturned rocks expose animals to predators and the deadly, drying sun. Step lightly and replace everything as you found it.



Acorn barnacle's feathery legs



A foggy summer day



Sea otter draped in kelp



Red sea star

Background photo: Jackmackerel school in kelp
© Howard Hall/HBP

WHAT IS A NATIONAL MARINE SANCTUARY?

You'll find each national marine sanctuary a special place—an underwater world so rich in biological or cultural resources that it needs to be protected and managed.

The Monterey Bay National Marine Sanctuary is our nation's eleventh marine sanctuary and the largest—larger than Yosemite or Yellowstone national parks. Its protected resources include our nation's most expansive kelp forests, one of North America's largest underwater canyons and the closest-to-shore deep ocean environment in the continental United States.

The National Oceanic and Atmospheric Administration (NOAA) manages the Monterey Bay National Marine Sanctuary and the other sanctuaries to maintain their natural beauty and bounty. NOAA managers balance research and protection with recreational and commercial uses. For each sanctuary, managers develop and follow a management plan that restricts some activities (see the list of regulated activities), but also provides for basic research and for the education of visitors and residents in caring for each sanctuary's treasures.

National marine sanctuaries are special places. They satisfy our need for beauty, wonder, recreation and sustenance.

U.S. Department of Commerce
National Oceanic and Atmospheric Administration
Sanctuaries and Reserves Division
Washington, D.C. 20235



NATIONAL MARINE SANCTUARY
Monterey Bay

SUNNY SANDY BEACHES

If you've ever visited a California beach, you know about the sun, surf and sand. But did you know there's a wriggling world beneath the beach towels? Animals live among the sand grains, mostly out of sight.

You may see beach hoppers jumping from beneath your feet. They're waiting for high tides to deposit decaying seaweeds. Beneath the waves, mole crabs move up and down the beach following food-rich tides. Beyond the breakers, sand dollars and sanddabs settle in. If you sit quietly, shorebirds show you where the dining's right—they probe the sand for beach hoppers, worms or mole crabs.

Sandy beach life once fed local Native Americans. Ancient piles of shells, called middens, show scientists what sustained these early shoreline residents.

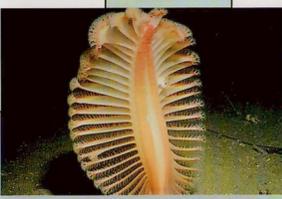
Today, people threaten beaches by mining sand, trampling dune plants, dumping garbage and building dams that hold back the sands. While you're here, conserve water, use designated trails and carry out your trash so the beach hoppers, shorebirds and sand dollars will remain.



Thornback ray



Sand dollars



Sea pen and resting juvenile rockfish



Background photo: Eel grass
© Jeff Foot

MONTEREY BAY



REGULATED ACTIVITIES

The natural environment is a gift all of us can share. To protect the resources within the Monterey Bay National Marine Sanctuary, the following activities are prohibited:

- exploring for, developing or producing oil, gas or mineral resources
- designating new dredged-material disposal sites

These activities are regulated:

- discharging or depositing any materials
- flying motorized aircraft below 1,000 feet along portions of the coast
- altering the seabed or constructing any structures on the seabed
- moving, injuring or possessing historical resources
- injuring or harassing marine mammals, turtles and seabirds

Vessel traffic, aquaculture and kelp harvesting may be subject to future regulations. For information about specific regulations, contact NOAA.

Thank you for protecting the sanctuary's treasures.

NATIONAL MARINE SANCTUARIES

Your tax dollars support sanctuaries, like the Monterey Bay National Marine Sanctuary, along the coasts of the continental United States and American Samoa. National sanctuaries protect nearshore coral reefs, open oceans, subtidal reefs, submarine canyons and submerged shipwrecks. To learn more about the National Marine Sanctuary (NMS) program, contact NOAA or visit a sanctuary.

Channel Islands NMS
off southern California near Santa Barbara
(805) 966-7107

Cordell Bank NMS
off northern California near Point Reyes
(415) 556-3509

Fagatele Bay NMS
off Tutuila Island, American Samoa
(684) 633-5155

Florida Keys NMS
off southern Florida
(305) 743-2437
includes Key Largo NMS
(305) 451-1644, and
Looe Key NMS
(305) 872-4039

Flower Garden Banks NMS
off Texas southeast of Galveston
(409) 847-9296

Gray's Reef NMS
off Georgia
(912) 598-2496

Gulf of the Farallones NMS
off California northwest of San Francisco
(415) 556-3509

USS Monitor NMS
off North Carolina
(804) 441-6469

EXPLORE THE WONDROUS WORLDS OF THE MONTEREY BAY NATIONAL MARINE SANCTUARY

During your visit to the California coast, be sure to explore the Monterey Bay National Marine Sanctuary. The sanctuary reaches for more than 300 miles from the Gulf of the Farallones National Marine Sanctuary near San Francisco south to Cambria, and extends from the high-tide mark to as far as 53 miles offshore.

Depending on when you visit, you'll experience one of three seasons: the spring and summer upwelling season when the water is rich and the coast is foggy; the fall oceanic season when the water and weather are warmer; or the winter wet season when the weather alternates between storms and cool sun.

Take your time and discover life in a sanctuary.



Northern elephant seal



Keyhole limpet in sea star's arms

Giant kelp forest



Waves crash on rocky shores



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Cordell Bank National Marine Sanctuary

Gulf of the Farallones National Marine Sanctuary

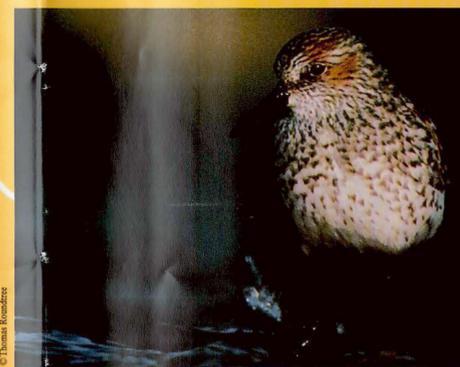
Monterey Bay National Marine Sanctuary



Rocky shore & tide pools
Sandy beaches
Kelp forests
Offshore access (open rips)
Natural history information
Cultural history information
Research center
Marine mammal watching
Bird watching
Fishing
Swimming & diving
Kayaking

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*an area of special biological significance (ASBS)



Sandpiper