



# Guide to Diving America's National Marine Sanctuaries

## INTRODUCTION BY SYLVIA EARLE

Divers often ask, "What can I do to take care of the ocean?" The problems of overfishing, pollution and shoreline damage seem so large, it's easy to feel discouraged and think there isn't much one person can do to help. But there is!

A great place to start is by protecting what remains of the wild ocean through marine reserves and parks. Worldwide, about 1,200 areas in the sea enjoy some form of protection, including such widely admired recreational dive destinations as Australia's Great Barrier Reef, the Bonaire Marine Park and the Florida Keys National Marine Sanctuary.

Based on the celebrated model of our national parks, America's 12 national marine sanctuaries embrace about 18,000 square miles of ocean lying just offshore from the continental U.S., Hawaii and American Samoa. Administered by the National Oceanic and Atmospheric Administration, these special places represent hope for troubled waters and for the species that live in them.

Through the simple act of exploring these treasured sites, divers see what most people only dream about—the ocean from the

inside out. Divers see first-hand that the sea is alive with small, medium and sometimes very large creatures that are as curious about us as we are about them. We view whales as whales see one another—eye to eye—and get to know individual fish swimming in a blue ocean, not just swimming in lemon slices and butter. Any one of us, equipped with a face mask, open eyes and an open mind, can be a powerful force for ocean protection by combatting the ignorance that leads to catastrophic and destructive decisions.

What can divers do? Share what you know! Encourage others to follow you into the sea. Take a child to the beach and show him or her how life in the sea is connected to our own, and how important it is for us to take care of the wild ocean for fishes' sake—and for ours.

Get to know your marine sanctuaries. Enjoy them and support them by volunteering for reef sweeps, beach cleanups, fish counts and educational outreach programs. Urge those in office—local, state and national—to protect and strengthen them.

Sign up, jump in—I'll see you there.



*Sylvia Earle*

Marine biologist and deep ocean explorer Dr. Sylvia Earle has spent her life studying and protecting the oceans, including her tenure as NOAA's chief scientist. As explorer-in-residence at the National Geographic Society, she is spearheading the five-year Sustainable Seas Expedition to explore the continental shelf of North America, with special emphasis on the marine sanctuaries. The \$6 million public-private partnership is co-sponsored by National Geographic, NOAA and the Richard and Rhoda Goldman Fund. For more information on the expedition, go to [www.nationalgeographic.com/seas/about.html](http://www.nationalgeographic.com/seas/about.html).

PHOTO BY KIP EVANS/COURTESY OF NOAA

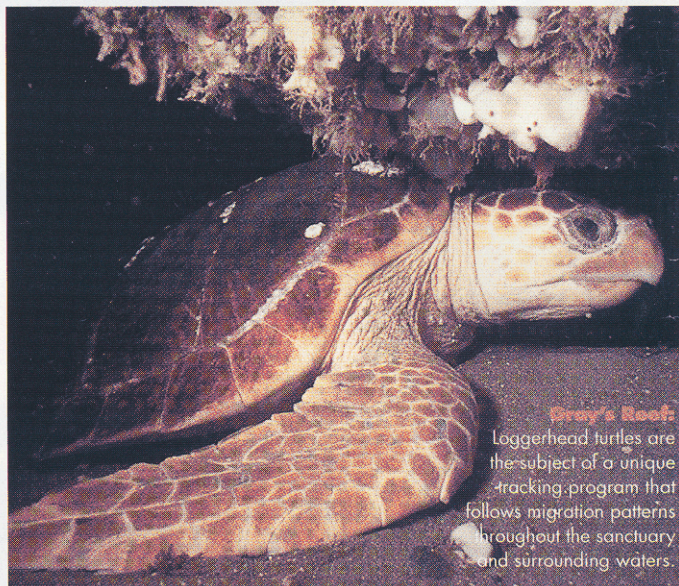


Reprinted with permission.



# America's National Marine Sanctuaries

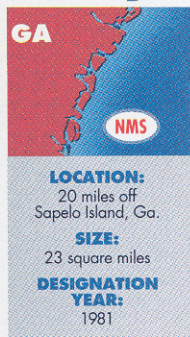
BY JESSE CANCELMO & KEITH PHILLIPS



**Gray's Reef:** Loggerhead turtles are the subject of a unique tracking program that follows migration patterns throughout the sanctuary and surrounding waters.

JESSE CANCELMO

## Gray's Reef NMS



### Why it's a sanctuary:

Gray's Reef is one of the largest nearshore live-bottom reefs in the country and a prime example of the encrusted limestone ledges found off the southeastern United States. Formed by sedimentation during the last ice age, the ledges rise as high as nine feet off the ocean floor, and are encrusted with a colorful variety of soft corals. Filled with caves, burrows and overhangs, these rocky outcroppings are havens for 150 species of fish from reef dwellers to pelagic hunters.

The sanctuary is part of the calving grounds for critically endangered northern right whales, which can be spotted here in the winter months. Loggerhead turtles are found in the sanctuary year-round and are the subject of a satellite tracking project.

**The diving:** Gray's Reef is the most popular sportfishing and recreational diving spot in the state of Georgia, thanks to an abundance of game fish including snapper, grouper and amberjack. While line and

spearfishing are allowed inside the sanctuary, commercial fishing and the use of powerheads are prohibited.

Maximum depth is about 65 feet, and visibility in the bottle-green water usually ranges from lows of 25 feet to highs of 65 feet. Summer water temperatures rise to a toasty 85 degrees but drop to a chilly 50 degrees in winter. The dive season is April to September, with June and July the best months for diving.

**Volunteer diving opportunities:** Recreational divers can participate in annual summer and fall cleanup dives, and ongoing REEF (Reef Environmental Education Foundation) fish surveys. Data from surveys is shared with sanctuary managers. For more information, contact Judy Wright at (912) 638-6590 or the sanctuary office directly.

**Dive operators:** Island Dive Center, St. Simons Island, Ga. (800-940-3483 or 912-638-6590) and Hammerhead Dive Center, Brunswick, Ga. (912-262-1778).

**For more information:** Gray's Reef National Marine Sanctuary, 10 Ocean Science Circle, Savannah, GA 31411. Tel: (912) 598-2345, fax: (912) 598-2367. E-mail: grnms@ocean.nos.noaa.gov. Web: www.skiio.peachnet.edu/noaa/grnms.htm.

## Monitor NMS



### Why it's a sanctuary:

The Monitor NMS has the dual distinction of being the first national marine sanctuary and the only one protecting a cultural rather than biological treasure—the remains of the Civil War battleship *USS Monitor*.

Designed by the Swedish-born American engineer John Ericsson, *Monitor* was the world's first ironclad, turreted warship. On March 9, 1862, *Monitor* engaged the Confederate ironclad *Virginia* in a four-hour firefight that ended in a draw. Neither ship was significantly damaged, even though shots were often exchanged at point-blank range. The battle marked a new era in naval warfare and led to the development of modern steel navies.

Nine months after the duel—while under tow to Beaufort, N.C., for repairs—the *Monitor* sank in a storm off Cape Hatteras. It wasn't until April 1973 that researchers found the heavily encrusted remains lying upside down at a depth of

**Flower Garden Banks:** The annual coral spawning phenomenon, which takes place around the last full moon in August, brings recreational divers and teams of scientists to the sanctuary.



JESSE CANCELMO



**Gray's Reef:** A belted sandfish nestles into the encrusting growth found in the sanctuary.

PASSAGE PRODUCTIONS

230 feet. Although still recognizable, the vessel has experienced rapid deterioration in the last five years. NOAA surveys indicate the ship's hull is close to collapse, and sanctuary managers are in the second phase of a long-term project to prop up the hull while recovering major components for scientific study and public display. The four-bladed, 5,000-pound propeller and shaft were recovered last June and are now on display at the Mariners' Museum in Newport News, Va., along with a variety of other artifacts.

**The diving:** Access to the *Monitor* is extremely limited by sanctuary regula-

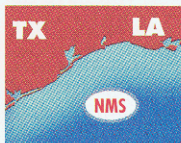
tions, weather and the technical diving challenges of the wreck. A strict NOAA permitting process allows only a handful of recreational charters each summer. Rapidly changing ocean conditions in this part of the Atlantic make each dive an hour-by-hour

proposition, and the extreme depth requires divers to be qualified in tri-mix and extended-range diving.

**Volunteer diving opportunities:** Though divers are not needed, volunteers are needed to help sanctuary staff conduct research, and conduct educational programs on the wreck.

**For more information:** Monitor National Marine Sanctuary, c/o The Mariners' Museum, 100 Museum Dr., Newport News, VA 23606-3759. Tel: (757) 599-3122. E-mail: mnmms@ocean.nos.noaa.gov. Web: www.nos.noaa.gov/ocm/nmmsp/nmsmonitor.html.

## Flower Garden Banks NMS



**Why it's a sanctuary:**

Located in the northern Gulf of Mexico, the Flower Garden Banks are the northernmost coral reef system in the United States. In all, 22 species of corals manage to survive well north of their usual range by clinging to geologic salt domes that bulge from the sand. In turn, the coral community is home to 200 species of fish and

**LOCATION:** The East and West Banks are 110 miles south of the Texas/Louisiana border. Stetson Bank, added to the sanctuary in 1996, is located 30 miles northwest of the Flower Garden Banks.  
**SIZE:** 56 square miles  
**DESIGNATION YEAR:** 1992

400 varieties of invertebrates. The much smaller Stetson Bank does not support enough reef-building corals to form a reef, but is highly productive.

**The diving:** For recreational divers, the Flower Garden Banks has it all. *RSD* readers consistently rank the sanctuary as one of the Top 10 overall dive destinations in North America and in 1998 gave it Top 5 ratings for visibility, health of marine environment, big animals and advanced div-

ing. The Flower Garden Banks Sanctuary is also known for two seasonal biological phenomena—the annual winter migration of scalloped hammerhead sharks (February to April) and mass coral spawns in August or September, depending on the date of the August full moon.

There are 15 moored diving sites on the three formations, each offering typical profiles of 65 to 90 feet. The East and West Flower Gardens are appropriately named—colorful coral meadows stretch as far as you can see. The reef system supports a broad web of marine life from reef dwellers like chromis, parrotfish and grouper to pelagic predators like barracuda and schooling jacks. You might also see manta, mobula and eagle rays, loggerhead turtles, sandbar and silky sharks, and the occasional whale shark. While the winter temperatures at Stetson Bank are too cool to allow the hard corals found here to form into reefs, this separate claystone formation has a thriving coral and sponge community and dense aggregates of fish.

Visibility in the sanctuary ranges from 75 to 150 feet. Water temperatures vary from the low 60s at Stetson Bank and upper 60s at the Flower Gardens in the winter to a mid-summer high of 85 degrees. Currents are variable. The summer season runs from May through October, with August and September being the best months for diving.

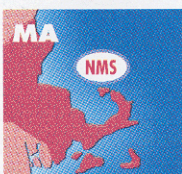
**Volunteer diving opportunities:** On every dive in the sanctuary, you have the opportunity to participate in elasmobranch (sharks and rays) and sea turtle surveys. Contact the sanctuary office or ask the dive boat captain for sighting data

sheets. Divers may also participate in fish surveys either during REEF-sponsored trips or on their own. Divers are also encouraged to report any unusual conditions—bleaching, diseases, etc. or sanctuary violations, especially damage caused by illegal anchoring.

**Dive operators:** *Fling Charters* (MV *Fling* and MV *Spree*), Freeport, Texas, (409) 233-4445, fax: (409) 233-0040. *Sea Searcher II*, Freeport, Texas, (800) 396-3483 or (409) 230-0333.

**For more information:** Flower Garden Banks National Marine Sanctuary, tel: (409) 779-2705, fax: (409) 779-2334. E-mail: flower\_gardens@ocean.nos.noaa.gov. Web: www.nos.noaa.gov/ocrm/nmsp/nms-flowergardenbanks.html.

## Stellwagen Bank NMS



**LOCATION:**  
In the mouth of Massachusetts Bay, 25 miles east of Boston.

**SIZE:**  
842 square miles

**DESIGNATION YEAR:**  
1992

### Why it's a sanctuary:

Situated in a stretch of open ocean between Cape Ann and Cape Cod, Stellwagen Bank is a sandy plateau formed by glaciers during the last ice age. The bank is one of a group of biologically productive areas in the northeastern United States where nutrient-rich water from the

deeper Gulf of Maine wells up along the flanks of the bank. When these nutrients are bombarded by sunlight, they form a planktonic soup that supports important commercial stocks of herring, cod and

other bottom dwellers, bluefin tuna, baleen whales, dolphins, sharks and marine birds.

Chief among the marine life found at the bank is the northern right whale. Only about 300 exist and every late winter and early spring most of them congregate at Stellwagen Bank and in Cape Cod Bay before heading north for the summer (these same whales spend winter months birthing and calving near Gray's Reef NMS). About the time the right whales leave Stellwagen, humpback whales arrive. Humpbacks spend their summers fueling up on sand lances (a small eel-like fish) at Stellwagen prior to heading south to breed in the Caribbean. Other whales seen at Stellwagen include finbacks, pilots, seis and minkes.

**The diving:** About a half-million people a year visit the sanctuary, most on commercial whale-watching boats. Recreational diving is not encouraged in the sanctuary because of the depth, current and boat traffic.

**Volunteer diving opportunities:** None, though individuals can join a corps of about 70 specially trained volunteers who monitor surface activity in the sanctuary through the local Coast Guard auxiliary. For more information, contact the sanctuary office.

**For more information:** Stellwagen Bank National Marine Sanctuary, 14 Union St., Plymouth, MA 02360. Tel: (508) 747-1691, fax: (508) 747-1949. E-mail: asmr-cina@ocean.nos.noaa.gov. Web: vineyard.er.usgs.gov/.

## Hawaiian Islands Humpback Whale NMS



**LOCATION:**  
Critical areas around the main Hawaiian Islands within the 100-fathom depth contour.

**SIZE:**  
1,370 square miles

**DESIGNATION YEAR:**  
1992

### Why it's a sanctuary:

Every year, approximately 1,500 humpback whales (about two-thirds of the total North Pacific population) migrate to Hawaii for breeding and calving, making it one of the most important whale habitats in the world. Sanctuary regulations

prevent boats from approaching within 100 yards of a humpback, and all aircraft are restricted to a distance of 1,000 feet.

**The diving:** Areas covered by the whale sanctuary include popular diving reefs, but there are no additional restrictions for divers. Your chances of spotting a whale while diving in the sanctuary are slim, but

**Hawaiian Islands Humpback Whale NMS:** A mother and her playful calf are just two of the 1,500 humpbacks that migrate to the sanctuary's waters from December to April.



**Channel Islands NMS:** A stealthy leopard shark moves through a California kelp forest.



on Tutuila, few people explore the sanctuary. Many areas of the bay are still covered with coral rubble from starfish blight, but there are loads of tropical fish, and it's not uncommon to see blacktip and whitetip sharks. Sanctuary regulations prohibit the taking of any invertebrates or sea turtles and allow only traditional fishing methods in the inner bay. Line

you can hear their haunting songs, especially from December to April when whales congregate around the islands.

The diving terrain includes lava tubes, caverns, drop-offs and pinnacles covered in lobe, cauliflower, rice and finger corals. A diverse blend of Pacific reef and pelagic species—almost a third of which are found nowhere else in the world—make their home in these waters. Green turtles thrive in sanctuary waters and whitetip reef sharks are frequently spotted. Other fascinating animals inhabiting the sanctuary include spinner dolphins, false killer whales, manta rays off the Kona coast and the endangered Hawaiian monk seals.

Diving takes place year-round with water temperatures averaging 72 to 80 degrees and visibility varying from 75 feet to 100 feet.

**Dive operators:** For a list of Hawaii dive operators, see [www.scubadiving.com/US/hawaii/HawaiiOperators.html](http://www.scubadiving.com/US/hawaii/HawaiiOperators.html) or the "International Dive Travel Directory," RSD, May '98.

**Volunteer diving opportunities:** On Maui, volunteers can join Support Our Sanctuaries Coalition. The nonprofit group monitors beaches and water quality on the west, north and south shores of the island. For more information, call Hannah Bernard at (808) 667-0437.

**For more information:** Hawaiian Islands Humpback Whale NMS, 726 South Kihei Rd., Kihei, HI 96753. Tel: (800) 831-4888 or (808) 879-2818, fax: (808) 874-3815. E-mail: [hihwnms@ocean.nos.noaa.gov](mailto:hihwnms@ocean.nos.noaa.gov). Web: [www.t-link.net/~whale/](http://www.t-link.net/~whale/).

## Fagatele Bay NMS



**LOCATION:**  
The southwestern shore of Tutuila Island, American Samoa.

**SIZE:**  
.25 square mile

**DESIGNATION YEAR:**  
1986

### Why it's a sanctuary:

Located in the South Pacific, 4,100 miles southwest of Los Angeles, Fagatele (*fahng-ah-TELL-ay*) Bay is the smallest and most isolated of the national marine sanctuaries, and the only Indo-Pacific reef among the 12 sites.

Twenty years ago, crown of thorns starfish decimated a significant portion of Fagatele Bay's fringing coral reef. The sanctuary was created to protect the reef from other stress factors and allow recovery.

The crescent-shaped bay is the collapsed crater of a long-extinct underwater volcano. It currently supports a reef system of 200 species of Indo-Pacific corals and more than 500 species of reef fish including angelfish, surgeonfish, wrasses and parrotfish. Octopus, anemones, crabs and giant *Tridacna* clams also thrive in the bay. Southern Pacific humpback whales visit during the austral winter months of August through November. Other cetaceans that pass through this area include sperm whales and several porpoise species. Endangered green and hawksbill turtles also find refuge in the sanctuary.

**The diving:** Fagatele Bay is open to divers, but due to its remote location and the relatively small number of recreational divers

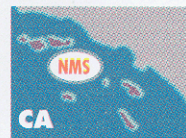
fishing is allowed in the outer bay. Water conditions are pristine, thanks to minimal development around the bay. Water temperature is 78 to 83 degrees year-round and visibility normally around 70 feet.

**Volunteer diving opportunities:** None.

**Dive operators:** Tutuila Dive Shop, P.O. Box 5137, Pago Pago, American Samoa 96799. Tel/fax: 011-684-699-2842.

**For more information:** Fagatele Bay National Marine Sanctuary, P.O. Box 4318, Pago Pago, American Samoa 96799. Tel: 011-684-633-7354, fax: 011-684-633-7355. E-mail: [ndaschbach@ocean.nos.noaa.gov](mailto:ndaschbach@ocean.nos.noaa.gov). Web: [www.nos.noaa.gov/nmsp/FBNMS/](http://www.nos.noaa.gov/nmsp/FBNMS/).

## Channel Islands NMS



**LOCATION:**  
Off the Southern California coast encompassing Santa Barbara, San Miguel, Santa Rosa, Santa Cruz and Anacapa islands from the shoreline to six nautical miles offshore.

**SIZE:**  
1,658 square miles

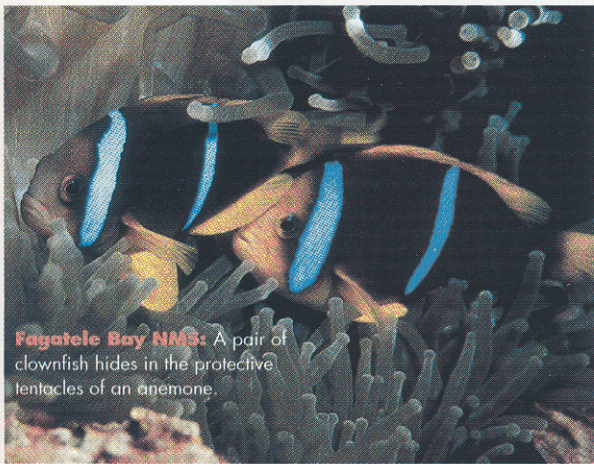
**DESIGNATION YEAR:**  
1980

### Why it's a sanctuary:

The Channel Islands National Marine Sanctuary includes five islands well-known to Southern California divers. The underwater habitats surrounding the four northern Channel Islands—San Miguel, Santa Rosa, Santa Cruz and Anacapa—and the southern island, Santa Barbara, are rich with submerged biological and

cultural treasures.

Located in the Southern California Bight, the rugged islands are ground zero for the collision of cold-water currents flowing down from Alaska and warm-



**Fagatele Bay NMS:** A pair of clownfish hides in the protective tentacles of an anemone.

water currents flowing up from the Baja Peninsula. As a result, you'll find an unusually rich blend of Pacific sea life—everything from orange Garibaldi and sea lions to cold-water anemones and reef-dwelling rockfish. There are also more than 100 shipwrecks to explore, though sanctuary regulations prohibit taking artifacts.

**The diving:** Each island in the sanctuary has its own mix of marine life and diving terrain.

► **San Miguel:** The westernmost of the Channel Islands is a weather-beaten rock best known for its steep walls and pinnacles covered with lush invertebrate life. This island experiences the full brunt of the cold current and is home to elephant seals, pelicans and cormorants.

► **Santa Rosa:** The second largest of the Channel Islands, Santa Rosa also experiences more cold currents than warm. The island touts an abundance of scallops, nudibranchs and huge lobsters as well as thick amber kelp beds.

► **Santa Cruz:** The largest of the Channel

Islands is equally influenced by the cold and warm currents. Among sea caves, rocky ledges, reefs and kelp beds (not to mention the wreck of the *Peacock*), divers find the most diverse collection of marine life in the Channel Islands.

► **Anacapa Island:** Actually three small islets connected by shallow sandbars, Anacapa is the closest island to the California

mainland and the most pristine of the Channel Islands. Ecological reserves encompass much of the island, leaving it with abundant populations of hard-to-find abalone, scallops, lobster and colorful Pacific reef fish including bass and sheephead. Favorite among divers are the kelp beds, but there are also encrusted rock ledges and sea caves for divers to explore.

► **Santa Barbara:** The smallest island in the sanctuary has walls, kelp forests and dramatic archways, but is most famous for the large sea lion rookery. Expect playful pups to buzz past you if you're diving anywhere nearby.

Summer offers the most comfortable water temps, 65 to 75 degrees, and vis often exceeds 60 feet, but the best visibility—up to 100 feet and more—usually occurs during the fall and winter months. Winter water temperatures range from the low 50s to about 60 degrees. The least desirable conditions are in the spring when the wind blows and visibility is often limited to a range of 25 to 40 feet. Currents and surge are highly variable from site to site.

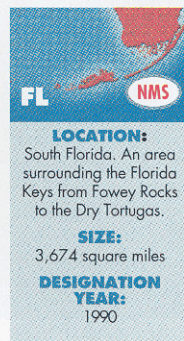
**Volunteer diving opportunities:** There are several volunteer projects that can use the help of recreational divers, including the annual Great American Fish Count, year-round REEF surveys, the Sea Bass Monitoring Program and various underwater cleanup dives. For more information, contact the sanctuary office.

**Dive operators:** Anacapa, Santa Cruz, Santa Rosa and San Miguel are mostly served by boats from Santa Barbara, Ventura and Oxnard. Call *Liberty* (805-642-6655), *Spectre* (805-483-6612), *Peace* (805-984-2025), and *Truth, Conception and Vision* (805-962-1127). Boats that dive Santa Barbara Island include *Atlantis* (562-592-1154), *Encore* (310-541-1025), *Great Escape* (714-828-9157), *Mr. C* (310-

521-9737), *Sundiver* (800-555-9446), *Bottom Scratcher* (714-963-4378), *Horizon and Ocean Odyssey* (619-277-7823), and *Lois Ann* (800-201-4381).

**For more information:** Channel Islands National Marine Sanctuary, 113 Harbor Way, Santa Barbara, CA 93109. Tel: (805) 966-7107, fax: (805) 568-1582. E-mail: channel\_islands@ocean.nos.noaa.gov. Web: www.cinms.nos.noaa.gov.

## Florida Keys NMS



**FL** **NMS**

**LOCATION:**  
South Florida. An area surrounding the Florida Keys from Fowey Rocks to the Dry Tortugas.

**SIZE:**  
3,674 square miles

**DESIGNATION YEAR:**  
1990

**Why it's a sanctuary:** The Florida

Keys, a 200-mile-long string of islands from Key Largo to the Dry Tortugas, is home to the only living barrier reef system in the continental United States. The reef is an international dive destination and the backbone of

the local economy, supporting recreational diving, snorkeling, commercial fishing and recreational fishing. The sanctuary also includes critical mangrove and seagrass habitats that filter runoff and serve as hatcheries for lobsters, shrimp, tarpon and snapper.

With more than one million visitors arriving each year and a growing resident population, overuse is the biggest threat to the reef. Adding to the trouble is an overburdened sewage system and a decline in water quality flowing through the Keys from Florida Bay.

In the late 1980s, the threat of oil drilling, a series of major ship groundings and growing concern about the region's water quality prompted Congress to declare the waters surrounding the entire string of islands a national marine sanctuary. The law called for sanctuary managers to replace a patchwork of protective programs with a comprehensive management plan to protect both the reef and the economy. A key part of that plan was the creation of 18 sanctuary preservation areas (SPAs) covering popular diving reefs. SPAs are no-take zones off-limits to spearfishermen, fish collectors, and hook-and-line fishermen. Another initiative was the installation of a comprehensive system of mooring buoys to prevent anchor damage.

**The diving:** The Keys offer good to excellent year-round diving, easy drive-to access and affordable prices, making the islands the most popular diving play-



**Florida Keys:** The famous Christ of the Abyss statue is just one of the underwater attractions.

ground in the United States. The reefs are typically shallow spur-and-groove formations composed of hard elkhorn corals, boulder-size brain corals, giant purple sea fans, and tall, willowy sea whips. On most dives, you'll see dense schools of reef fish including snapper, goatfish, parrotfish and blue tang. Look under the ledges and overhangs to find the more bashful creatures like lobster, nurse sharks and moray eels. Wreck diving opportunities in the sanctuary include the *City of Washington* and the *Benwood* for shallow dives and the *Bibb* and *Duane* for the advanced set.

The water temperature is a comfy 85 degrees in the summer but drops as low as the mid-60s in the winter. Expect visibility to be in the 40- to 60-foot range, but it can get better when the Gulf Stream eddies in. Currents vary from nil to stiff; the calmest conditions are in the spring, summer and fall.

**Volunteer diving opportunities:** Of all the national marine sanctuaries, the Florida Keys NMS has the widest array of volunteer organizations that help collect data and monitor the health of the marine environment. REEF fish surveys, clean-up dives, coral surveys and volunteer water quality monitoring programs are just a few of the ongoing activities that rely on volunteers. For more information, contact the sanctuary office.

**Dive operators:** For a complete list of Florida Keys operators, see "Reader Ratings" (page 102) or go to [www.scubadiving.com/US/flkeys/FlkeyOpts.shtml](http://www.scubadiving.com/US/flkeys/FlkeyOpts.shtml).

**For more information:** Florida Keys National Marine Sanctuary, P.O. Box 500368, Marathon, FL 33050. Tel: (305) 743-2437, fax: (305) 743-2357. E-mail: [fkNMS@ocean.nos.noaa.gov](mailto:fkNMS@ocean.nos.noaa.gov). Web: [www.nos.noaa.gov/nmsp/fkNMS](http://www.nos.noaa.gov/nmsp/fkNMS).

## Cordell Bank NMS

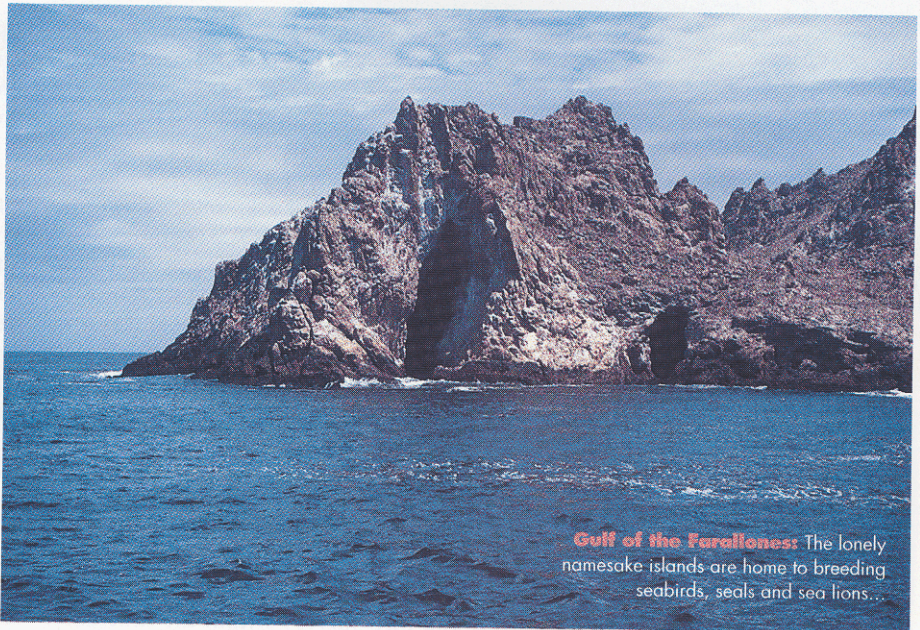


**LOCATION:**  
40 miles northwest of San Francisco, just north of and contiguous with the Gulf of the Farallones NMS.

**SIZE:**  
526 square miles

**DESIGNATION YEAR:**  
1989

**Why it's a sanctuary:** Cordell Bank is one of the most productive seamounts on the U.S. west coast. Located 18 miles offshore, the bank rises abruptly from 6,000 feet to its shallowest point at about 120 feet. Cordell Bank causes cold water upwellings, creating a plankton feast for marine life that includes Pacific salmon,



**Gulf of the Farallones:** The lonely namesake islands are home to breeding seabirds, seals and sea lions...

rockfish, seals, sea lions and 33 species of marine mammals including porpoises, humpbacks and blue whales. The area is also known as a feeding ground for albatross.

**The diving:** The bank is constantly swept by three- to five-knot currents and with an average depth of 120 to 350 feet, is not recommended for recreational divers.

**Volunteer diving opportunities:** While divers are not used, volunteers are needed to help with education and outreach programs in the sanctuary office.

**For more information:** Cordell Bank NMS, Fort Mason, Building #201, San Francisco, CA 94123. Tel: (415) 561-6622, fax: (415) 561-6616. E-mail: [cbnms@ocean.nos.noaa.gov](mailto:cbnms@ocean.nos.noaa.gov). Web: [wave.nos.noaa.gov/ocrm/nmsp/nmscordellbank.html](http://wave.nos.noaa.gov/ocrm/nmsp/nmscordellbank.html).

## Gulf of the Farallones NMS



**LOCATION:**  
West of San Francisco, wedged in between Cordell Bank NMS to the north and Monterey Bay NMS to the south.

**SIZE:**  
1,255 square miles

**DESIGNATION YEAR:**  
1981

**Why it's a sanctuary:** Like the crucial piece of a jigsaw puzzle, the Gulf of the Farallones sanctuary links the Monterey Bay NMS to Cordell Bank NMS. Together, the three sanctuaries form a seamless swath of protected waters covering much of the Northern California coastline.

The Farallones sanctuary includes such diverse aquatic terrain as coastal beaches, tide flats, salt marshes, the continental shelf and the eponymous offshore

islands. Its waters are spawning grounds for commercially important stocks of anchovies, crab, rockfish and flatfish. The sanctuary is home to 33 species of marine mammals, 15 species of breeding seabirds (the largest concentration of breeding seabirds in the continental U.S.) and one-fifth of California's breeding harbor seal population.

The Farallon Islands are located 27 miles west of the Golden Gate, and are home to 300,000 breeding seabirds and 7,000 seals and sea lions. While protected from land predators, seals and sea lions must be on the lookout for predatory killer whales and white sharks found around the islands.

**The diving:** Recreational diving is not encouraged inside the sanctuary. Ocean conditions can be brutal and the only real diving options are found in the remote Farallon Islands, which are also the feeding grounds for white sharks. Common recreational uses of the sanctuary include fishing, whale watching and tide pooling.

**Volunteer diving opportunities:** There are no volunteer diving opportunities, but volunteers can help with Beach Watch, a shoreline monitoring program; SEALS, a harbor seal interpretation and monitor program; and Visitor Center education and outreach programs. Contact the sanctuary association office for more information at (415) 561-6625.

**For more information:** Gulf of the Farallones NMS, Fort Mason, Building #201, San Francisco, CA 94123. Tel: (415) 561-6622, fax: (415) 561-6616. E-mail: [gfnms@ocean.nos.noaa.gov](mailto:gfnms@ocean.nos.noaa.gov). Web: [www.nos.noaa.gov/nmsp/gfnms](http://www.nos.noaa.gov/nmsp/gfnms).



## Monterey Bay NMS



**LOCATION:**  
Central California coast.

**SIZE:**  
5,328 square miles

**DESIGNATION YEAR:**  
1992

### Why it's a sanctuary:

"Diving in Monterey Bay National Marine Sanctuary, you see what California has looked like for tens of thousands of years," boasts superintendent Bill Douros. He's not the only one proud of the sanctuary that ocean-loving

central Californians like to think of as their own submerged national park.

Created to protect the coastal environment from oil spills, Monterey Bay is the largest national marine sanctuary, and it covers marine habitats as diverse as rocky shorelines, lush kelp beds and one of the deepest ocean channels on the planet—the 10,600-foot-deep Monterey Canyon.

Among the diverse marine life that calls the sanctuary waters home are 27 species of rare and endangered species. Commercial fishing stocks include salmon, rockfish, swordfish, squid and anchovy, but divers here are more familiar with California sea lions, southern sea otters, rockfish and other kelp-dwelling marine life.

**The diving:** Some of the best on the West Coast is found inside the sanctuary. The boundaries include more than 360 miles of shoreline and some of the most popular shore dives in the state, including the Breakwater at Monterey Bay, the Pinnacles at Carmel Bay and Point Lobos. Visibility varies from site to site, but averages 20 to 30 feet most of the year, with peaks of 60 feet from September to November. Water temperatures average in the mid-50s year-round with temperatures dropping into the 40s at deeper sites.

**Volunteer diving opportunities:** The Great American Fish Count, the granddaddy of all volunteer dives, was started

in the sanctuary in 1992 and has since spread nationwide in partnership with REEF and the American Oceans Campaign (for more information, call 1-800-8OCEAN0 or go to [www.fishcount.org](http://www.fishcount.org)).

There are plans for a two-day diver education program that teaches recreational divers to identify fish and other marine life. Graduates will help sanctuary managers collect data on the abundance of fish and critters inside the sanctuary. For more information, contact Kip Evans at (408) 647-4217.

The Monterey National Marine Sanctuary Beach Combers is an organization of volunteers that conducts mammal and bird surveys within the sanctuary. For more information, contact Andrew De Vogelaere at (408) 647-4213.

Finally, the Monterey Bay Dolphin and Whale Research Project also needs volunteers to track the migration of blue whales, humpbacks and dolphins through the sanctuary. For more information, contact Oceanic Society Expeditions at (800) 726-7491.

**Dive operators:** Aquarius Dive Shop (408-375-1933); Monterey Bay Dive Center (408-656-0454); Diver Dan's Wet Pleasure (408-984-5819); Bamboo Reef Dive Shop (408-372-1685). Charter boats operating in the sanctuary include *Beach Hopper II* (800-806-2345); *Cypress Sea* (408-244-4433); *Xanadu* (408-475-3483).

**For more information:** Monterey Bay National Marine Sanctuary, 209 Foam St., Suite D, Monterey, CA 93940. Tel: (408) 647-4201, fax: (408) 647-4250. E-mail: [mbnms@ocean.nos.noaa.gov](mailto:mbnms@ocean.nos.noaa.gov). Web: [bonita.mbnms.nos.noaa.gov](http://bonita.mbnms.nos.noaa.gov).

## Olympic Coast NMS



**LOCATION:**  
Along the outer coast of Washington state from Cape Flattery to the mouth of the Copalis River and extending 35 miles seaward.

**SIZE:**  
3,310 square miles

**DESIGNATION YEAR:**  
1994

### Why it's a sanctuary:

At twice the size of Yosemite National Park, the Olympic Coast sanctuary contains some of the richest fishing grounds on the planet. Annual harvests of salmon, halibut, rockfish, flatfish and cod exceed nine million fish. The sanctuary is also visited by 29 species of

marine mammals, including killer whales and gray whales.

**The diving:** The rocky reefs and lush kelp gardens found inside the sanctuary offer some of the best cold-water diving in the United States. In addition to an abundance of kelp greenling, rockfish, Dungeness crabs, urchins and sea stars on these dive sites, there are 870 offshore islands where seabirds like puffins and pigeon guillemots nest, and 150 documented historical shipwrecks. Like all cold-water dive sites, the reefs in the sanctuary are heavy on soft corals, anemones and sponges.

The best diving is usually done out of Neah Bay and Seiku, both towns located at the very tip of the Olympic Peninsula. Although the popular nearshore reef dive sites tend to be shallow—less than 100 feet in most cases—swirling currents and dramatic tidal fluctuations make them advanced dives. Favorites include Tatoosh Island and Duncan Rock.

All diving is by boat and scheduled at slack tides when currents are at their weakest. Fall offers the best diving conditions, when visibility can peak at 60 feet (it drops as low as 15 feet during spring plankton blooms) and water temperatures are cold year-round. Expect average temperature of 53 degrees and bring a dry suit.

**Volunteer diving opportunities:** Recreational divers can now conduct REEF surveys in the sanctuary. For more information, call Michele Malarney at (206) 526-4293.

**Dive operators:** Curley's Resort and Dive Center in Seiku and Neah Bay (800-542-9680).

**For more information:** Olympic Coast National Marine Sanctuary, 138 West First St., Port Angeles, WA 98362. Tel: (360) 457-6622, fax: (360) 457-8496. E-mail: [ocnms@ocean.nos.noaa.gov](mailto:ocnms@ocean.nos.noaa.gov). Web: [www.nos.noaa.gov/ocrm/nmsolympic-coast.html](http://www.nos.noaa.gov/ocrm/nmsolympic-coast.html).

**Monterey Bay:** Sea lion colonies are found throughout the largest of the 12 national marine sanctuaries.

