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**THE OFFICE OF NATIONAL MARINE SANCTUARIES** is part of NOAA's National Ocean Service. 1305 East-West Highway, Silver Spring MD 20910 | Phone: 301-713-3125 | Web: http://sanctuaries.noaa.gov

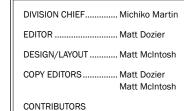
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# SANCTUARIES: 40 YEARS



"A unique system of marine protected areas dedicated to the conservation of special areas of the marine environment for the appreciation and enjoyment of present and future generations."

President William J. Clinton, November 13, 2000



ne of the best ideas born in the United States is the idea of a national marine sanctuary — something akin to a national park, but residing in the deep, linked to the land by human use and humanity's capacity to care.

Unlike America's national parks, which were born in the 19th century, and the National Park Service, which began in 1916, national marine sanctuaries are a more recent achievement. This fall, the National Marine Sanctuary System reaches its four-decade milestone. The story of those 40 years is one of dedicated perseverance, struggle, triumph and an ongoing commitment to serve the people and the resource.



# STRONG by James P. Delgado

# **Conservation Takes Root**

Early efforts to conserve or protect resources in the sea began with a late-19th-century push to manage marine mammal populations in danger of being exploited beyond any hope of recovery. The U.S. Fish Commission, created in 1871 by President Ulysses S. Grant, was another effort, as were treaties governing the hunting of species like fur seals in the Gulf of Alaska and the Arctic.

Faced with pressure to harvest the eggs of the abundant seabird population of California's Farallon Islands, President Theodore Roosevelt set aside some of the islands as a wildlife refuge in 1909, but like other protected areas - including national parks and seashores — little attention was given to what lay beyond the shore and beneath the surface.

There were those, however — ocean scientists, explorers and others with a deep understanding of the sea — who saw that the ocean, no matter how vast it seemed, needed protection every bit as urgently as the land.

Garbage strewn on beaches highlighted a problem with ocean dumping as early as the 1890s, as unhappy bathers waded through

waste-laden surf, but other harmful activities like trawling, dredging and pollution from offshore sewage outfalls remained out of sight and out of mind for most Americans.

# An S.O.S. from the Sea

The conservation movement of the 1960s signaled growing public concern about the environment, spurred by environmental catastrophes like the grounding of the tanker Torrey Canyon in March 1967, which leaked more than 35 million gallons of oil off the shores of Cornwall, England. In the United States, an oil well blowout in January 1969 spilled another 400,000 gallons of crude into the Santa





Blackened beaches and oil-soaked animals from the Santa Barbara oil spill in California, and the Cuyahoga River fire in Cleveland, Ohio, became the catalyst for the environmental movement that gave birth to the National Marine Sanctuaries Act.

Barbara Channel, coating Southern California beaches and marine life for miles.

Famed ocean explorer Jacques Cousteau issued a blunt call to action in November 1970 when he declared that "the oceans are dying," citing overfishing, pollution, dying coral reefs and widespread declines in marine life as evidence of their demise. In the aftermath of the Santa Barbara oil spill, this was a tipping point, as protests, hearings and public outcry for federal action prompted Congress and the White House to step in.

Amid the flurry of environmental legislation passed in the early 1970s, the Marine Protection, Research and Sanctuaries Act was signed into law by President Richard M. Nixon on Oct. 23, 1972. The act gave the secretary of commerce the authority to designate "marine sanctuaries" for the preservation or restoration of areas with special "conservation, recreational, ecological, or esthetic values."

# The Sanctuaries Are Born

Ironically, it was not a teeming coral reef or a stretch of beautiful coastline but the long lost wreck of an iconic warship that would garner the title of America's first national marine sanctuary. When the Civil War ironclad USS Monitor was discovered in

1973 off Cape Hatteras, N.C., after more than a century in its watery grave, no law other than the Sanctuaries Act was thought sufficient to protect it.

On Jan. 30, 1975, Monitor National Marine Sanctuary was signed into existence by President Gerald Ford, setting a precedent for the use of the Sanctuaries Act to protect America's most precious and fragile underwater treasures. Later that year, a second sanctuary was born when President Ford approved the designation of Key Largo National Marine Sanctuary on Dec. 18.

Additional sanctuaries came slowly as the sanctuary system, part of the newly created National Oceanic & Atmospheric Administration, studied potential sites for federal sanctuary designation. A 1979 list included 67 possible candidates, underscoring the program's urgent necessity as well as its tremendous potential.



is signed on Oct. 23, 1972, laying the groundwork for a system of marine protected



areas to protect the most important parts of our ocean and Great Lakes and build a marine stewardship ethic across the country





It was not until September 1980, however, that the third sanctuary, in California's Channel Islands, was signed into law by President Jimmy Carter. At the end of his administration in January 1981, President Carter designated Point-Reyes Farallon Islands, Gray's Reef, and Looe Key national marine sanctuaries off the coasts of California, Georgia and Florida, respectively. Now there were six — and demand for more.

# **Expanding the System**

Political currents can sweep as strong as the ocean's own, and a number of potential designations were shelved or dropped in the following years. The original list of sanctuary candidates was officially replaced in 1983 by a new tool, the Site Evaluation List (SEL), which focused on 29 possible sanctuaries. While individual designations languished, however, political support for the sanctuary concept remained strong. Congress reauthorized the National Marine Sanctuaries Act several times during this span, including in 1977, 1980 and 1983.

In its 1983 reauthorization of the Act, Congress added significant new tools to create sanctuaries. "Historical" and "cultural" qualities, which had long been an essential part of national park and monument designations on land, were declared worthy criteria for making a sanctuary. The requirement that the president approve a new sanctuary was dropped, and other values key to a site's significance, including its research and educational potential, were added.

With these new tools in place, NOAA designated Fagatale Bay National Marine Sanctuary off the coast of American Samoa in 1986, the first marine sanctuary outside the mainland United States and a key stepping stone to future sites in Hawaii. The eighth site came in 1989, when

NOAA designated Cordell Bank National Marine Sanctuary off the coast of Northern California.

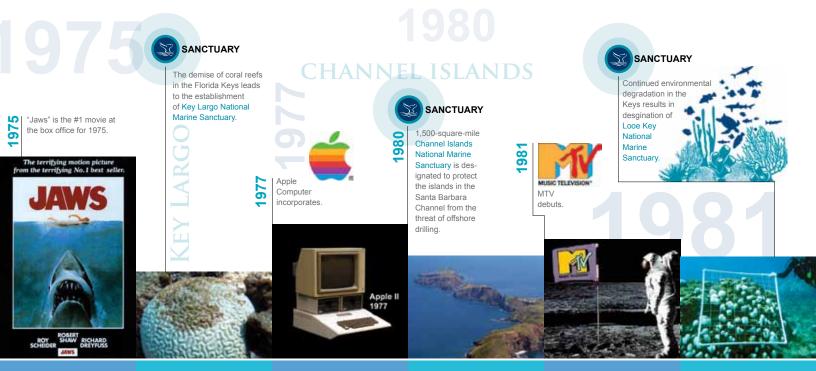
In 1990, Congress designated Florida Keys National Marine Sanctuary, which incorporated Looe Key and Key Largo into a single, much larger sanctuary. The following decade saw the designation of five additional national marine sanctuaries: Flower Garden Banks in the Gulf of Mexico, Monterey Bay in California, Stellwagen Bank off Cape Cod, a humpback whale sanctuary in Hawaii, and Washington state's Olympic Coast.

# **Looking Backward, Moving Forward**

Like the National Park System, the National Marine Sanctuary System is part of the fabric of America. That was reinforced in 2000 with the creation of the 13th sanctuary in Thunder Bay on Michigan's Lake Huron. Thunder Bay is a "museum in the deep," with upwards of 100 well-preserved shipwrecks from more than a century of maritime travel and commerce.

The following year, another major milestone came in the form of the Tortugas Ecological Reserve, then the nation's largest fully protected marine area. The reserve, which was created in 2001 with intensive community input and full scientific support, placed unprecedented new protections on 200 square miles of fragile coral reef habitat within Florida Keys National Marine Sanctuary. In the years following its designation, the reserve has shown impressive increases in the size and abundance of marine life within its boundaries.

The sanctuary system gained its 14th site in 2006, when President George W. Bush issued an executive order directing NOAA to serve as the primary trustee of the newly established Papahānaumokuākea Marine National Monument. The monument is one of the largest marine protected areas on





Photos (left to right): Greg McFall, NOAA, NOAA, Robert Schwemmer, NOAA

Earth, encompassing nearly 140,000 square miles of unspoiled ocean wilderness in the Northwestern Hawaiian Islands. Management responsibility for this vast area is shared between NOAA, the Department of the Interior and the state of Hawaii, based on plans developed through the sanctuary designation efforts for the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve. It continues to be considered for sanctuary designation in order to provide the area the full protections afforded through the National Marine Sanctuaries Act, our nation's strongest ocean conservation legislation.

Over the past decade, the work of the Office of National Marine Sanctuaries has focused on partnering with communities, scientific study, and increased outreach to the public. The key, stresses ONMS Director Daniel J. Basta, is "projection" — not just protection.

Indeed, the sanctuaries have experienced incredible discoveries of marine life and lost ships, unparalleled involvement by citizen-scientists and volunteers, and major strides in ocean science, management and education — all made possible by an ongoing commitment to the vision of 40 years ago. That vision, of a national system of ocean and lake special places vital to the economy, health and soul of the United States, will continue to guide our national marine sanctuaries for the next 40 years and beyond.

# THE NEXT 40 YEARS

# By Daniel J. Basta

Peering 40 years into the future is a daunting prospect, especially given the rapid changes in our world today. Consider that when the National Marine Sanctuaries Act was passed four decades ago the Soviet Union was a global superpower, the Internet did not exist, our country had almost no economic ties with China, and there were more than 100 million fewer Americans. So, how can one hope to meaningfully project the course of the next 40 years?



To think about this in a useful way, we must recognize that while many things will change in unpredictable ways, others remain constant — man's relationship to the natural world, to the processes that sustain life, and to our very ability to survive and prosper, for example.

My "crystal ball" says that special places like national marine sanctuaries will play a larger role in connecting us to the world around us and helping to navigate how we create, support and maintain behaviors that sustain our world. Special places will help shine bright lights on what is possible; they will serve as beacons to communities that show the world how seemingly small solutions can add up to solve the big issues we face.

Just like the last 40, the next 40 years promise to be full of many challenging changes. As we face them, we need to remind ourselves that most problems can be tackled at the local level, by communities that choose to take responsibility for leaving our ocean healthier and more productive for generations to come.

The way forward involves a renewed focus on personal investment in ocean conservation, driven by the pride and inspiration we take from the special places that matter to us most. National marine sanctuaries are a symbol of that investment. They embody the nation's best idea about how to fight for the natural world our society depends on, over the next 40 years and beyond. In the end, it comes down to a simple but powerful message: Special places are vital to America's future.



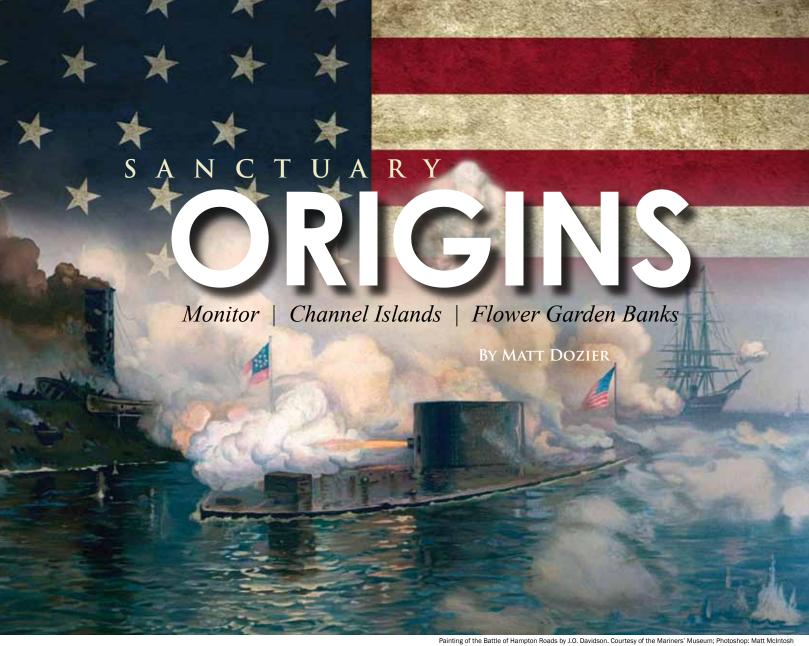


THE M/V WELLWOOD
runs aground in the Florida
Keys with devastating results,
destroving more than 5,800

square meters of living corals and injuring more than 75,000

square meters of reef habitat.





Chernobyl nuclear disaster



Fagatele Bay National Marine Sanctuary, protecting the coral reef ecosystem of the drowned volcano mouth in American Samoa, becomes the first and only national marine sanctuary in the southern hemisphere.

# LOS MARINEROS **PROGRAM**

Channel Islands National

Marine Sanctuary establishes the Los Marineros program in partnership with the Santa Barbara Museum of Natural History to empower fifth-grade students to preserve and protect the

global ocean.

The Simpsons premieres as a series of shorts on the Tracy Ullman show.



# SS WINFIELD SCOTT,

a Gold Rush-era sidewheel steamer in the Channel Islands National Marine Sanctuary, is designated on the National Register of Historic Places.





A series of popular demonstrations takes place in and near Tiananmen Square in Beijing, China



Protecting the destination feeding ground for migratory marine mammals and seabirds, Cordell Bank National Marine Sanctuary, an underwater mountain off of Point Reyes, Calif., is designated.







# DAWN OF A NEW AGE

# MONITOR NATIONAL MARINE SANCTUARY

n a stormy night in December 1862, one of the most famous ships in history vanished into the depths of the Atlantic Ocean.

The ironclad USS Monitor, a Civil War icon and the salvation of the Union Navy, had been in service less than a year when it sank in a vicious gale off Cape Hatteras, N.C. The Monitor had fought the Confederate ironclad CSS Virginia on March 9 at Hampton Roads, Va., in a battle that marked the dawn of a new age of iron warships — but iron was no match for the wrath of the ocean. The flicker of the Monitor's red signal lantern was last seen by the steamer USS Rhode Island, which was towing it south when large waves swamped the low-riding ironclad.

# A Missing Icon Resurfaces

Lost to the clutches of the sea for more than a century, the *Monitor* was finally discovered in 1973 after decades of fruitless searching. It was found in 230 feet of water, 16 miles off the North Carolina coast.

To the dismay of those who were concerned about the *Monitor* falling victim to looters, the wreck was thought to be outside the scope of any recognized federal authority. A U.S. Navy official had written a letter in 1953 abandoning it from the inventory of Navy vessels to facilitate its discovery and possible salvage by private entities. No one seemed to know how to protect this newly discovered national treasure.

# **An Ironclad Finds a Champion**

No one, that is, except Congressman Walter B. Jones Sr., representative for North Carolina's Outer Banks. Just a year before the *Monitor*'s discovery, Jones had championed the passage of the Marine Protection, Research, and Sanctuaries Act of 1972, which granted the secretary of commerce the authority to designate "marine sanctuaries" to protect areas of special value in U.S. waters.

When the *Monitor* was found off the coast of his home state, Jones saw an opportunity to put the so-called Sanctuaries Act to use. Some people favored creating an entirely new law to protect the Civil War ironclad, but he had another solution: make the *Monitor* a national marine sanctuary.

"It was a pretty amazing coincidence that the act passed just before the *Monitor* was discovered," says John Broadwater, former manager of the *Monitor* sanctuary and author of a new book on the history of the *Monitor*.

# **Testing the Sanctuary Waters**

Still, a few obstacles stood in the way. First, no one had ever created a marine sanctuary before. And second, the act was never intended to protect maritime heritage resources like shipwrecks — even one as significant as the first ironclad warship. The original language of the Sanctuaries Act made no mention whatsoever of historical, cultural or archaeological value.

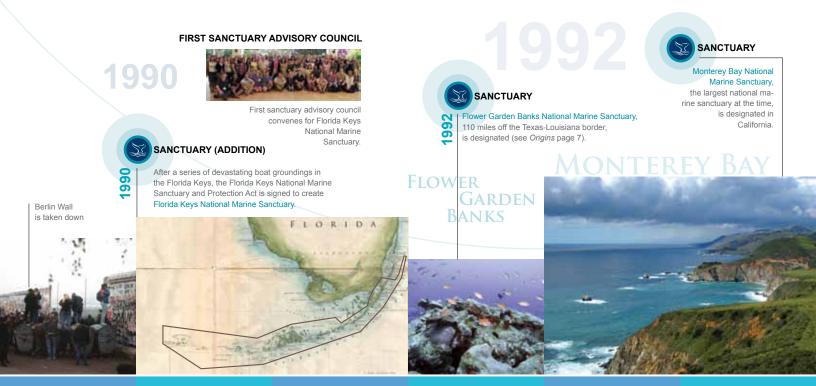
How, then, did the USS *Monitor* become America's first national marine sanctuary? "It was really an 'emergency rescue' kind of situation," Broadwater says.

Thanks in large part to the work of Congressman Jones and others like Harold "Doc" Edgerton (a respected MIT scientist who was part of the discovery team) a growing number of scientists, politicians and ocean managers came to view sanctuary designation as the best — and perhaps the only — means of protecting the *Monitor*. Without swift action, they agreed, the vessel could be irreparably damaged or even destroyed.

# **USS Monitor Makes History — Again**

In September 1974, the North Carolina Division of Archives and History formally nominated the *Monitor* for sanctuary designation. NOAA worked with the Smithsonian Institution and the state of North Carolina to create plans for management, protection and research at the site.

Just four months later, on Jan. 30, 1975, President Gerald Ford approved the designation of the wreck of the USS *Monitor* as the first U.S. national marine sanctuary. In many ways, the designation set the tone for the future of the National Marine Sanctuary System — both in its recognition of the importance of our maritime heritage, and in its emergence as a means of protecting the nation's underwater treasures when all other options fail.



# GALAPAGOS OF NORTH AMERICA

# CHANNEL ISLANDS NATIONAL MARINE SANCTUARY

he black ooze arrived in waves, coating beaches and sea life with a sinister sheen. Residents watched, horrified, as relief workers labored to clean scores of oilcovered seabirds. Dead seals and dolphins washed up, poisoned by the toxic sludge.

This was the scene in Santa Barbara following the disastrous blowout of Union Oil's Platform A on Jan. 28, 1969, just six miles from the California coastline, spewing more than 3.2 million gallons of crude oil in one of the worst environmental catastrophes in history.

# **Reeling from Disaster**

The Channel Islands, sometimes called the "Galapagos of North America" for their diverse mixture of cold- and warm-water marine life, were among the areas tarnished by the spill. Clearly visible from seaside towns, these jewels of the California coast would become the focal point for a community-driven effort to safeguard the state's ocean ecosystems against further harm.



The backlash from the spill was swift and furious. Images of an oil-streaked ocean and tearful citizens reached televisions in households across America, sparking widespread outcry against oil drilling along the nation's coastline. President Nixon ordered an immediate (temporary) halt to drilling in the Santa Barbara Channel, saying that the devastation had "touched the conscience of the American people."

# **New Hope for the Environment**

In the years following the spill, Congress passed a flurry of environmental legislation. These groundbreaking laws included the National Environmental Policy Act, the Clean Water Act, the Coastal Zone Management Act and the Marine Protection, Research, and Sanctuaries Act of 1972.

It was the latter that caught the attention of Richard Charter, director of a local government coalition on ocean issues, in the late 1970s as he and others searched for a way to defend California's coastline from oil drilling. The first national marine sanctuary had just been designated in 1975 around the wreck of the USS *Monitor*, with the second coming that same year in Key Largo, Fla. Charter and his colleagues saw sanctuary designation as their best shot at permanently protecting the waters around the Channel Islands.

Spurred by lingering fears and outrage over the oil spill, a coalition of mayors, city councils and county supervisors nominated the Channel Islands for sanctuary designation in 1978. NOAA's Office of Coastal Zone Management — then in charge of the sanctuary program — held public meetings, listened to community input, and drafted an environmental impact statement and regulations for the proposed sanctuary.

Around the same time, Congressman Robert Lagomarsino of Santa Barbara introduced a bill to establish a national park encompassing Anacapa, Santa Cruz, Santa Rosa, San Miguel, and Santa Barbara Islands. With the help of Congressman Phillip Burton and Senator Alan Cranston, the bill passed, and President Jimmy Carter signed Channel Islands National Park into law in March 1980.

# **Destination: Designation**

Meanwhile, the sanctuary designation process was nearly derailed by the presence of active oil and gas leases within the proposed sanctuary boundaries. Environmentalists were afraid of the precedent set by potentially allowing drilling in an otherwise protected area. Charter pushed back, arguing that the benefits of the sanctuary outweighed other concerns. "I remember saying in meetings, 'Just do it! Just create the sanctuary!" he says. "I'm still amazed it happened, frankly."

In the end, Charter says, the societal "post-traumatic stress" from the 1969 oil spill — still painful a decade later — was strong enough to carry the sanctuary through the designation process. On Sept. 22, 1980, six months after he created the national park, President Carter signed off on the designation of Channel Islands National Marine Sanctuary, protecting the waters around the islands out to six nautical miles.

As the nation's third national marine sanctuary and the first in California waters, the Channel Islands — with their incredible biological diversity and complex mixture of human uses — would become a cornerstone of the National Marine Sanctuary System for decades to come.



# GARDENS IN THE GULF

# <u>FLOWER GARD</u>EN BANKS NATIONAL MARINE SANCTUARY

ocated roughly 100 miles south of the Texas-Louisiana border, the Flower Garden Banks are an underwater oasis in the vast muddy plains of the Gulf seafloor. Rising from depths of more than 300 feet to within 55 feet of the surface, these twin "salt domes" boast the northernmost coral reefs in the continental U.S., along with a multitude of underwater life in all colors and sizes.

# A Secret "Garden"

Snapper fishermen have known about the Flower Garden Banks since the early 1800s, although records dating back that far are spotty. Legend has it the banks got their name from the brilliantly hued anemones, corals and sponges that anglers would occasionally haul up from the reef crest, like picking flowers from a particularly strange and wonderful garden.

The first recorded discovery of East and West Flower Garden Banks and nearby Stetson Bank came in 1936, when a hydrographic survey conducted by the U.S. Coast and Geodetic Survey mapped a large swath of the Gulf of Mexico seafloor. These unusual geological formations gained widespread attention in the 1960s as researchers, recreational divers and the oil industry began to take an interest in the banks for their scientific value, their extraordinary beauty — and their hidden mineral wealth.

# **Father of the Flower Gardens**

Dr. Tom Bright of Texas A&M University was one of the first scientists to explore the Flower Garden Banks in the early 1970s. "I was just a young assistant professor looking for something to do with myself," Bright jokes.

Working in partnership with Robert Alderdice

of the University of Texas Flower Garden Ocean Research Center, Bright and his team of graduate students used scuba gear to delve underwater and catalog the area's remarkably diverse species and habitats. The work gained Bright a reputation as the "father of the Flower Gardens" and laid the groundwork for the banks' eventual designation as a national marine sanctuary.

The road to designation would be a long one, fraught with false starts and political roadblocks. The subject of sanctuary protection for the Flower Garden Banks first came up in the mid-1970s, when the oil and gas industry began expanding offshore to the Gulf of Mexico's outer continental shelf. Concern over impacts to sensitive ecosystems pushed the Bureau of Land Management (BLM) to fund new environmental studies across the northwestern Gulf, enabling Bright and others to create detailed maps of the areas in need of protection.

# Seeking a Sanctuary

A Texas recreational scuba diving group called the Houston Underwater Club submitted the first official nomination to create a national marine sanctuary at the Flower Garden Banks in 1979. The effort stalled, however, in the face of opposition from wary oil industry representatives and fishermen. "That first effort sort of stumbled, and tripped, and didn't get anywhere," Bright recalls.

In 1982, the site was removed from NOAA's list of active candidates for designation — just a year after Mobil Oil Company installed the first oil platform near East Flower Garden Bank. Sanctuary opponents had claimed that the Flower Gardens were already protected by other federal authorities like the Minerals Management Service (formerly BLM) and NOAA Fisheries Service.

In fact, strict MMS lease guidelines did succeed in protecting the Flower Garden Banks from contamination due to offshore drilling. What they couldn't prevent was another devastating human impact: ocean-going vessels dropping their massive anchors directly onto the banks' fragile coral reefs.

# **A New Hope**

One day in October 1983, researchers were doing scientific monitoring work at East Flower Garden Bank when a tow boat dragged its anchor over the bank, cutting a scar in the reef. The researchers caught the incident on video and shared it with Bright and others, who then showed it to everyone they could. "I think that incident was the trigger that set the final wheels in motion," he says.

Within a year, the Flower Garden Banks were back on NOAA's list for sanctuary designation — this time with support from Representative Solomon Ortiz of Texas, Representative John Breaux of Louisiana and NOAA Chief Scientist Sylvia Earle, among others. Even the oil industry began to warm to the idea of the sanctuary. The next eight years were consumed by the steady march toward designation, from draft environmental impact statement to public scoping meetings to final management plan.

Finally, on January 17, 1992, the Flower Garden Banks were designated by President George H. W. Bush as the 10th site in the National Marine Sanctuary System. Nearby Stetson Bank was added to the sanctuary by Congress in 1996. It remains the only sanctuary in the Gulf of Mexico, offering a valuable case study for productive cooperation between a unique offshore marine protected area and the Gulf's prevalent oil and gas industry.



Gulf of the Farallones National Marine Sanctuary's Sanctuary
Education Awareness and Long Term Stewardship (SEALS)
program is created, recruiting over 65 volunteers to help protect
pupping harbor seals in Tomales Bay and Bolinas Lagoon.

# OOWN UNDER, OUT YONDER

Flower Garden Banks National Marine Sanctuary launches a new type of field experience for educators, the award-winning Down Under, Out Yonder workshop. Since 1996, over 350 educators have conducted important fish surveys and other reef monitoring activities while diving



# YELLOW SNAPPING SHRIMP

A new species of shrimp, the yellow snapping shrimp, is discovered in Flower Garden Banks National Marine Sanctuary.

# OCEAN COUNT

More than 140 volunteers on O'ahu count Hawaii's endangered whales with the Hawaiian Islands Humpback Whale Sanctuary's Ocean Count. Over 17 years, more than 20,000 volunteers have spent upwards of 100,000 hours counting whales and recording their behavior through the program.



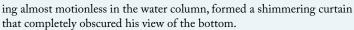


Over the last 40 years, the National Marine Sanctuary System has been shaped by the energy individuals, separated by more than 2,000 miles and several decades, yet both struggling to re

# CORDELL BANK: From Hidden Gem to Historic Discovery

obert Schmieder kept a firm grip on the line as he descended headfirst into the watery void, the noise of his scuba regulator bubbling rhythmically in his ears. Above him, the silhouette of the boat swayed placidly on the ocean's surface.

Around 60 feet down, a greenish-gray blanket materialized out of the darkness below. His heart sank. Had they come all this way to find — what, exactly? A barren expanse of mud? As the hazy seafloor gradually came into focus, Schmieder realized that what he was looking at was not mud; it wasn't the seafloor, at all. It was fish. Thousands of rockfish, float-



A hole opened in the curtain of fish as Schmieder drew nearer, widening "like an iris" to reveal a sight he will never forget. "I saw below me this extraordinarily colorful, exquisitely beautiful, astonishingly bright landscape," he recalls. "It was an overwhelming visual experience." There, some 100 feet below the waves, lay the object of Schmieder's obsession, the focus of months of arduous planning and preparation.

"At that moment, what went through my head was, 'Holy smokes, I'm here. I've seen it. No matter what else I do in my life, I have seen Cordell Bank."



# **An Obsession Begins**

Schmieder's quest began in the late 1970s while he was working at Sandia National Laboratories in the San Francisco Bay Area. A career physicist, he yearned to escape the lab and pursue new projects out in the field. He took up scuba diving, but quickly grew bored of underwater "sightseeing." "I wanted to do something that required more than just the normal level of effort," he says.

When news reports in 1977 revealed that the U.S. government had stored radioactive waste in the ocean just off San Francisco, Schmieder was keen to investigate.

He studied charts of the waters around the Farallon Islands, where hundreds of barrels of spent nuclear material lay at the bottom of the Pacific.

But something else caught his eye, something that made him forget about the barrels. There on the chart, not far from the islands, was an underwater mountain spanning some 26 square miles at the edge of the continental shelf. The name on the chart read "Cordell Bank."

Schmieder had never heard of Cordell Bank. As it turned out, neither had pretty much anyone else. Those who knew about it dismissed it as a

**Continued on Page 10** 

# S Coogle



# SUSTAINABLE SEAS

The sanctuary system surges to the forefront of public attention in the ocean arena when NOAA partners with the National Geographic Society on a multimillion-dollar, five-year ocean exploration and public education project called Sustainable Seas.

# SANCTUARY WATCH makes its debut as a humble

FIRST SANCTUARY VISITOR CENTER
opens at Gulf of the Farallones National Marine Sanctuary





WATCH

# **FUNDING INCREASE**

President Clinton signs into law a historic funding increase for the National Marine Sanctuary Program. The \$11.7 million increase for the 12 marine sanctuaries nearly doubles the program's budget of \$14.4 million to \$26 million.







# Struggle By Matt Dozier

y and dedication of countless men and women. These are the stories of two such passionate each the same goal: permanent protection for our nation's underwater treasures.

# WISCONSIN: Looking to the Future on Lake Michigan

orma Bishop grew up outside Chicago, but it's the time she spent with her family on Lake Michigan that would leave the deepest impression on her life. "So many of my early experiences were on the water that I felt the lake was a part of me," she says. "If I got homesick, I got homesick for the lake."

Her love of the water led to a career in the U.S. Navy, during which she served as an air traffic controller in far-flung locations across the Pacific like the tropical atoll of Diego Garcia. She retired from active duty after 21 years of service and

practiced law in San Francisco for several years before accepting a position as executive director of the Santa Barbara Maritime Museum in 2003.

In 2005, Bishop heard that the Wisconsin Maritime Museum, located in Manitowoc along the shores of Lake Michigan, was searching for a new CEO. News of the job opening brought memories from her childhood flooding back. "I never expected to come back here," she says. "It was fate, I guess."

# A Wisconsin Sanctuary?

Fate or otherwise, Bishop got the job. For the first time in more than 25 years, she returned to the lake she grew up on and quickly fell back in love

with it. Working at the museum gave her a greater appreciation of the lake's history — and the countless shipwrecks hidden beneath its surface like time capsules of centuries past.

"It's one of the best collections of 19th-century wrecks in the world," says Keith Meverden, Wisconsin state underwater archaeologist. Around the time that Bishop arrived in Manitowoc, Meverden and colleague Tamara Thomsen were working on an inventory of those shipwrecks for the Wisconsin Historical Society. Their report evaluated Wisconsin's collection of historic shipwrecks for the possibility of NOAA designating a national marine sanctuary in Wisconsin's Great

Lakes waters. The recommended study area included the Lake Michigan waters off of Two Rivers, Manitowoc, Cheboygan and Port Washington.

When Bishop learned in 2006 about the interest in a national marine sanctuary, she was enthralled with the idea. She visited Alpena, a small Michigan city on Lake Huron, where she saw the positive impact Thunder Bay National Marine Sanctuary had had on the local community in the six years since its designation. Residents spoke about the sanctuary's revitalizing effect on tourism and how its education programs helped

**Continued on Page 12** 





# CORDELL, Continued from Page 8

geological oddity, too deep to support plentiful life. He spoke to marine scientists at the California Academy of Sciences, who told him that exploring the bank would be a waste of time.

"That's when I knew there was no competition for going out there," Schmieder says. He was convinced that there was more to Cordell Bank than anyone realized, and decided that he would be the one to prove it.

# The Right Stuff

Diving on the submerged mountain, 115 feet below the surface at its highest point, in the unpredictable ocean conditions 22 miles off Point Reyes would be difficult and dangerous work. For the expedition to succeed, Schmieder needed people who could handle the demands of such a strenuous environment.

Finding interested divers wasn't a problem ("They found me," he says), but not everyone was suited for the work. Schmieder required all wouldbe expedition members to do a rehearsal dive with him down to 150 feet a daunting challenge, even by modern scuba standards.

"I told them, 'You have to be obsessed by it. It's going to require a lot of time, preparation and commitment in order to live through this," he says. "I found that about two-thirds of the people who said they wanted to go to Cordell Bank didn't, after that."

Despite the high dropout rate, Schmieder assembled a team and founded the nonprofit research group Cordell Expeditions in 1977. Working over long weekends and using their own money, these passionate men and women spent the next year drawing up meticulous plans and assembling gear for the massive undertaking.

# Cordell Bank Goes Missing

On Oct. 22, 1978, the Cordell Expeditions vessel left the harbor and set a course for the nondescript blob on the chart labeled Cordell Bank. First discovered by George Davidson of the U.S. Coast Survey in 1853, Cordell Bank got its name from another surveyor, Edward Cordell, who mapped the bank in detail in 1869.

Schmieder and his crew neared what should have been the shallowest part of the bank, but something was amiss. Every depth measurement registered hundreds of feet, far deeper than expected. "We spent hours that day surveying," he says. "I say surveying - we were wandering, hoping to find Cordell Bank!"

As the team began to contemplate heading home, Schmieder thought back to the account of Edward Cordell's expedition more than a century prior, in which the surveyor described an abundance of seabirds filling





Listen to audio of Bob Schmieder (right) and other original members of the Cordell Expeditions team (above) talking about their first trip to Cordell Bank by scanning the QR code below or visiting http://go.usa.gov/YPkh



the skies over the bank. With nothing to lose, Schmieder steered the boat toward a nearby gathering of gulls, terns and shearwaters. "Sure enough, bingo, we hit 20 fathoms!" he says. The mission was back on.

The descent line was lowered as Schmieder and fellow diver Larry Pfoutz prepared to get in the water, donning thick wetsuits and dual scuba tanks. Moments later, the two men took a long stride off the stern of the boat and plunged into the unknown.

# From Curiosity to Concern

On that first dive, Schmieder was awed by the kaleidoscope of life atop the bank, with its hues of pink and purple and orange and white. Here, just 50 miles northwest of the heart of San Francisco, was a thriving marine ecosystem unlike anything he'd ever seen. He realized immediately that it was a special place — but also a fragile one.

The team worked to document every aspect of Cordell Bank and its marine life over the next several years, returning to the site as often as time and funds would permit. "We were pretty much getting an idea of what the place was like," Schmieder says. Every trip yielded new charts, photographs and scores of creatures like sponges, sea stars and hydrocorals for their records, including several undescribed species.

Still, amid the excitement of exploration and discovery, doubts about



# **MERITO**

The Multicultural Education for Resource Issues Threatening Oceans (MERITO) initiative is established by Monterey Bay National Marine Sanctuary in 2002, then adopted by Channel Islands National Marine Sanctuary in 2005 to raise awareness of ocean issues among the fastgrowing multicultural population of California.



# SIMoN

The Sanctuary Integrated Monitoring Network (SIMoN) - funded by the David and Lucile Packard Foundation - is born to connect the public to marine science and conservation through the website www.sanctuarysimon.org











the future of Cordell Bank lingered. Around 1980, Schmieder learned about the National Marine Sanctuary System and its ongoing efforts to protect some of California's most iconic ocean places. He wasted no time in contacting Dr. Nancy Foster, then director of the sanctuaries, to ask if NOAA would be interested in making Cordell Bank a sanctuary.

Her response was an emphatic "yes." All she needed was for Schmieder to submit a formal letter nominating the sanctuary for designation. Much to her surprise, he refused.

# Getting the Whole Story

SHARKMOBILE Gulf of the Farallones National

Marine Sanctuary launches its

"At Your School" Sharkmobile

through sixth-grade students

vation issues at their schools

about shark biology and conser-

program to educate fourth-

"I felt that I had an incomplete story," Schmieder recalls. "I was worried that if I went forward with the nomination, someone would say, 'This doesn't look like much!" He argued that more research remained to be done before they could claim to have a full description of Cordell Bank.

The sanctuary program agreed to give Cordell Expeditions more time and additional funding — to complete its surveys of the bank. From that point on, the expedition took on a new meaning for Schmieder and his band of amateur marine scientists. "We were no longer explorers in our own little world," he says. "We were a part of history. And we took that very seriously."

By 1983, Schmieder decided that they had gathered sufficient infor-

mation to make the case for sanctuary protection of Cordell Bank. He wrote a letter officially nominating the sanctuary, setting the wheels of bureaucracy in motion.

# Looking to the Future

In the years following, Schmieder's connection to Cordell Bank gradually waned. His team concluded their research in 1985, and others took up the mantle of sanctuary designation. He says he watched the process with a mixture of great pride that Cordell Bank would be protected and disappointment that it was no longer "his" secret place.

The sanctuary process languished until 1989, when Representative Doug Bosco introduced a bill co-sponsored by then-representatives Barbara Boxer and Nancy Pelosi to push the designation through. Just like that, on May 24, the sanctuary was signed into law by President George H. W. Bush.

Schmieder's role in the sanctuary's creation was largely overshadowed by the fanfare of the congressional designation, but he knew that he had been part of something momentous. And indeed, without his leadership and tremendous personal investment in the future of Cordell Bank, it might never have happened.

There's no way I can adequately say how gratifying it is to see that what we did lives on."

# OCEAN FILM FESTIVAL

Gray's Reef National Marine Sanctuary establishes the first fully sanctuary-sponsored ocean film festival in the country.



is launched

# SPLASH The Structure of Populations, Levels of Abundance, and Status of Humpback Whales program launches. This largest international collaborative study of any whale population cataloged 8,000 humpback whales and collected more than 6,000 skin samples for DNA analysis

# HABITAT AREAS

Flower Garden Banks National Marine Sanctuary's scientific research leads to the designation of 15 Habitat Areas of Particular Concern (HAPCs), including four Coral HAPCs that carry protection regulations.

# **CAPACITY BUILDING**

The sanctuary system establishes its International Marine Protected Area Management Capacity Building Program, thus far training more than 2,000 partners and colleagues around the world in more than a hundred training sessions and workshops.

# **WISCONSIN, Continued from Page 9**

them connect with their shared history. She wanted that for Wisconsin. "I thought oh, wow, this is incredible! We could make this happen," she says.

# Laying the Groundwork

As plans for evaluating a possible national marine sanctuary in Wisconsin took shape, Bishop began working to rally support — first in the local schools, chamber of commerce, city council and mayor's office, then in the governor's office and state legislature. She talked to anyone who would listen about the incredible historical shipwrecks in Lake Michigan, and the importance of protecting them and sharing them with the world. "The first challenge was just explaining to people that this is not going to be another regulatory burden on their lives," she says.

Bishop didn't face the challenges alone. In addition to her work through the maritime museum, others like Meverden and Thomsen at the Wisconsin Historical Society played vital roles in building a groundswell of support for the sanctuary proposal. "I think we provide a really good complement to one another," Meverden says. But as everyone involved would come to learn, sometimes even dedicated teamwork, widespread support and positive momentum are no guarantee of immediate, or even moderately swift, success.

# No Sanctuary in Sight?

Six years have passed since the effort to consider designating a sanctuary in Lake Michigan began, with little progress to show for it. Bishop remains optimistic, but admits that the lack of progress has been frustrating. "Never in my wildest imagination did I think it would take this long," she says.

One of the hurdles facing the Wisconsin effort — or any new sanctu-

ary designation effort — can be found in NOAA's regulations for sanctuaries. Those regulations require that in order for any site to be actively considered for sanctuary status, it must come from a list of candidate sites, called the "Site Evaluation List." NOAA's regulations also state that this list of potential sanctuary candidate sites is inactive and would need to be reactivated if Wisconsin is to begin the designation process in earnest.

As a result, Bishop and her colleagues have spent much of the past half-dozen years in a holding pattern, hoping for a signal from NOAA or Congress that they can move forward. "We've felt like the girl sitting on the other side of the gym, waiting to be asked to dance," she says.

They aren't alone. Communities around the nation have expressed interest in marine sanctuaries in places like the waters off St. Augustine in northeast Florida, Mallow's Bay in Maryland, Santa Lucia Bank off California's central coast, and many others. Their efforts vary widely in size, scope and level of support, but the end goal is the same: to ensure the future of the ocean places that matter to them.

# In for the Long Haul

The politics are complicated, and Bishop says she knows it could easily take another six years or more to reach their goal, but she continues to see signs of encouragement. As recently as August, the Manitowoc City Council voted unanimously in favor of a resolution supporting the creation of a national marine sanctuary off their shores.

When asked if she would ever contemplate giving up on the idea of a sanctuary for Wisconsin, Bishop responded with the conviction shared by countless others who have fought to protect special places for future generations throughout the 40-year history of the National Marine Sanctuary System.

"No. Never. The shipwrecks are going to be here for a long, long time, so I'm committed."  $\searrow$ 







The waters of Lake Michigan are home to well-preserved shipwrecks spanning more than 125 years of maritime travel and commerce on the Great Lakes. Groups like the Wisconsin Maritime Museum and Wisconsin Historical Society are working to secure greater long-term protection for these historical treasures.

# ADVISORY COUNCILS

With the establishment of the Monitor National Marine Sanctuary Advisory Council, the suite of advisory councils for the sanctuary system is completed. There are currently more than 700 people actively engaged in sanctuary advisory councils across the nation.



# SISTER SANCTUARIES

Stellwagen Bank National Marine Sanctuary establishes the first international sister sanctuary network with the Dominican Republic. This partnership helps to protect the endangered humpback whale at both ends of its range.

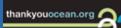
# **NEW ENGLAND'S TITANIC**

Discovered in Stellwagen Bank National Marine Sanctuary in 1989, the *Portland*, dubbed "New England's *Titanic*" for its sinking with the loss of 192 lives, is successfully listed on the National Register of Historic Places.



# "THANK YOU OCEAN,"

the California-wide ocean public awareness campaign, is launched by the National Marine Sanctuary System and the California Natural Resources Agency. Thankyouocean.org reaches millions of citizens to help protect the ocean's health and recourses.





The Northwestern Hawaiian Islands, one of the last pristine, tropical, predator-dominated ecosystems left on the planet, are designated as Papahānaumokuākea Marine National Monument.



# LAYING THE FOUNDATION

The National Marine Sanctuary Foundation has been the National Marine Sanctuary System's closest ally and fervent supporter. Established in 2000, the foundation has made strides in spreading ocean conservation awareness across the nation, from classrooms to Capitol Hill. It owes much of that success to the vision, dedication and passion of people like these current and former board members.



# INTERGOVERNMENTAL

**POLICY COUNCIL** The Olympic Coast Intergovernmental Policy Council, the first of its kind in the nation, is formed to discuss co-management responsibilities of the Hoh, Makah and Quileute tribes, the Quinault Indian Nation, Olympic Coast National Marine Sanctuary

# LONG-TERM REFUGE

To protect endangered whales in Stellwagen Bank National Marine Sanctuary, the International

Maritime Organization accepts a proposal to redirect shipping lanes in the sanctuary

SHIPPING LANES



# YOUTH SEAT

The first youth seat is created in the Monitor National Marine Sanctuary Advisory Council. Hawaiian Islands Humpback Whale, Fagatele Bay, Channel Islands and Stellwagen Bank now also have youth seats on their advisory councils

# **TWO BROTHERS**

NOAA maritime archaeologists discover the scattered remains of the Nantucket whaleship Two Brothers at French Frigate Shoa

connecting the small island of Nantucket with one of the largest marine protected areas in the world.









# SPECIES DISCOVERED

Seven new species of deep-sea gorgonian corals, two new sponges and one new nudibranch are discovered in Olympic Coast National Marine Sanctuary.

# R/V MANTA

The newest and largest sanctuary research vessel, R/V Manta is launched at Flower Garden Banks National Marine Sanctuary to conduct research and education.



# OCEAN GUARDIAN

NOAA's Ocean Guardian School program launches throughout California to implement projects that help protect the ocean. Through the program, students are actively engaged in picking up trash, recycling, removing non-native

plants and numerous other stewardship efforts.



Rose Atoll Marine National Monument is established by presidential proclamation.

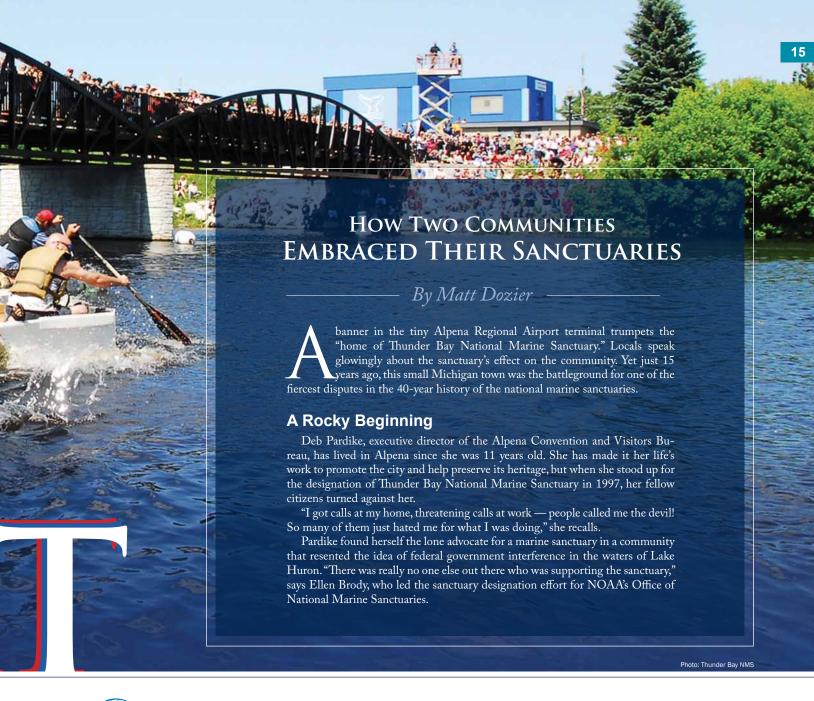
Rose Atoll is the easternmost Samoan island and the southernmost point of the United States. The monument covers approximately 13,440 square miles.

# INTERNATIONAL COOPERATION

Rose Atoll

For the first time, Sanctuaries co-hosts the First International Conference on Marine Mammal Protected Areas, bringing together more than 200 managers, scientists and educators from 40 countries.

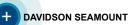






In memory of the terrorist attacks on Sept. 11, 2001, the Office of National Marine Sanctuaries creates the Ocean for Life program to enhance cultural understanding through ocean science. The program brings together

nearly 60 multicultural students from the Middle East and North America to discover marine science, conservation and how the ocean connects us all.



becomes the first seamount protected in the United States when it is included within the boundaries of Monterey Bay National Marine Sanctuary. Less than 0.1% of the world's seamounts have been explored, and relatively few are protected.

# 10 MILLIONTH VISITOR

The National Marine Sanctuary System website (sanctuaries.noaa. gov) receives its 10 millionth visitor, achieving more than 25 million page views.



a 10-day mission to the only undersea laboratory in the world, Aquarius, brings the science of ocean conservation to the public via 34 live internet broadcasts, reaching half a million people.

# USS MACON

The airship USS *Macon* wreck site, found in Monterey Bay National Marine Sanctuary, is added to the National Register of Historic Places.



# | RESEARCH AREA

Following the implementation of a spearfishing ban at Gray's Reef National Marine Sanctuary in 2010, a research-only area is established in the sanctuary to help scientists assess the impacts of human and natural events within and outside the sanctuary.

Papahānaumokuākea Marine National Monument is inscribed as a mixed natural and cultural World Heritage Site by UNESCO.

WORLD HERITAGE SITE







To protest the designation of Florida Keys National Marine Sanctuary, the Conch Coalition hung the sanctuary's first superintendent in effigy in 1990.

Brody says the best measure of the community's displeasure came in 1997, when Alpena residents voted on a non-binding ballot question asking whether they were for or against creating a national marine sanctuary in Thunder Bay. The response was overwhelmingly negative. Out of more than 2,500 people who cast their votes, a whopping 70 percent said they opposed the sanctuary.

It was a harsh rebuke to those who had been working for years to protect Thunder Bay's unique collection of remarkably well-preserved historical shipwrecks through sanctuary designation. "Certainly, I was frustrated," says Brody. "The opposition was intense, but I guess the magnitude of it was sort of surprising."

Meanwhile, angry divers, fishermen and salvage operators wore T-shirts and buttons bearing the slogan "Say No to NOAA" and packed public meetings to voice their objections. Long-time dive charter operator Steve Kroll was one of the many who spoke out against the sanctuary. He says he and others were concerned that increased government control would lead to restricted access to Thunder Bay's shipwrecks.

"We'd been diving these wrecks for years," Kroll says. "We didn't want [NOAA] telling us we couldn't dive the wrecks, and we didn't want to be charged fees to dive them."

# **Conflict in the Keys**

Alpena's "Say No to NOAA" attitude was far from a new response to sanctuary designation. In fact, the slogan had first cropped up nearly a decade earlier, some 1,400 miles south of Alpena on the sunny shores of the Florida Keys.

Bad blood swirled around the creation of Florida Keys National Marine Sanctuary in 1990, which combined two existing sanctuaries — Looe Key and Key Largo — into a much larger protected area that encompassed the

entirety of Florida Keys waters. From the beginning, the designation process was plagued by bitter disputes and accusations of deception from both sides.

Opponents of the sanctuary called it a federal "power grab" and said NOAA had no intention of keeping its promises. Sanctuary advocates shot back, alleging that the anti-NOAA activists in the Keys were funded and staffed by outside interests. Billy Causey, the first superintendent of the sanctuary, was even hung in effigy by a group of irate protestors who called themselves the "Conch Coalition."

"That was a tough time," Causey says. "It got to be pretty ugly."

Bill Kelly, now the executive director of the Florida Keys Commercial Fishing Association, saw the battle unfolding around Florida Keys National Marine Sanctuary's designation in 1990. "The Keys were livid," Kelly recalls. "Things like government control and law enforcement intervention were deeply resented at the time."

It's no coincidence that the same sentiments were echoed in Alpena later in the decade, Brody says. Many Michigan residents knew about the Keys struggle from spending winters in Florida, and the Conch Coalition even took out an anti-sanctuary ad in the Alpena newspaper. Despite the vocal opposition, however, the efforts of Deb Pardike and others to rally community support eventually paid off, and Thunder Bay National Marine Sanctuary was designated in October 2000.

# From Cynic to Supporter

Twelve years later, Steve Kroll stood before the House Subcommittee on Fisheries, Wildlife and Oceans, and prepared to testify on a proposal to expand the Thunder Bay sanctuary boundaries from 448 square miles to more than 4,000 square miles.

"It's very important that you understand that originally I was against establishment of the sanctuary," Kroll's testimony began. "I believed having the federal government determine what we should do with our resources would lead to too many restrictions. This attitude was shared by many citizens and expressed at public hearings prior to designation."

But instead of criticizing the assembled members of Congress and NOAA leaders for imposing unwanted bureaucracy on the people of Michigan, Kroll went on to paint a radically different picture of the sanctuary: "The sanctuary has proven itself as a trusted partner, not just with the state of Michigan, but also with the local community. I've been involved in the process and can assure you it's real and working."

So, what changed? It began with the sanctuary advisory council, which was created to give divers, fishermen, boaters and other user groups a voice in the sanctuary's management. Kroll, who has served on the council as a diving representative and council chair, describes a process of open communication and compromise that helped the sanctuary earn the trust of the local community. "It allowed people to have their voice and see over the course of time

# 2011

# PROJECT SHIPHUNT

Five high school students from Saginaw, Mich., embark on Project Shiphunt, using



cutting-edge technology to hunt for a sunken ship lost to the depths of Lake Huron's Shipwreck Alley in Thunder Bay National Marine Sanctuary.

# SANCTUARIES IN THE NEWS

Sanctuaries receive 800 million news media impressions, worth an estimated advertising value of more than \$29 million.





# TAKE PRIDE

At Channel Islands National Marine Sanctuary, the Naturalist Corps volunteer program is named the Take Pride in America Outstanding Federal Volunteer Program of the year. More than 140 volunteers are trained to educate passengers on whale watch tours and island hikes, engaging more than 300,000 people every year.

# CONDITION REPORTS

The Office of National Marine Sanctuaries completes the first set of 14 science condition reports, providing a snapshot of the status and trends of water quality, habitat, living resources, archaeological resources, and the human activities that affect them.



# 2012

# ONE MILLION HOURS

The sanctuary system receives its one millionth volunteer hour. From removing trash to counting whales and educating school children, volunteers across the country perform a variety of critical functions in community service to help conserve the country's ocean and coastal treasures for future generations.

## CLIMATE SYMPOSIUM

The first of its kind, the First Stewards Climate Symposium is held at the Smithsonian's National Museum of the American Indian.



**NEW SPECIES** 

A brand new species

of bird, Bryan's shear-

water, is described by

Papahānaumokuākea

Dr. Peter Pyle in the

Marine National

Monument. It is the

first new species of

bird discovered in the





that their input matters," he says. "That's the way you get ownership."

The other element, Kroll says, was education. "The sanctuary is helping bring maritime heritage back into schools, taking kids out on the water," he says. "Along this whole northeastern shore of Michigan, people who live here are reconnecting to their past."

# **Changing Minds, Producing Results**

Visit either of these communities today and you will see a very different relationship between the two sanctuaries and local residents than in the early days of their designation. Gone are the "Say No to NOAA" signs. The dialogue at public meetings is civil rather than confrontational. Sanctuary staff are treated as peers instead of pariahs.

"I can wear a sanctuary shirt to the grocery store now," jokes Deputy Superintendent Mary Tagliareni. At one time, Tagliareni says, she hesitated to advertise her NOAA affiliation for fear of being stopped by a disgruntled resident looking for an argument.

Bill Kelly, who as a lifelong fisherman had initial doubts about the motives behind the Florida Keys sanctuary, says those doubts were quickly erased by his interactions with sanctuary staff. In people like Causey and Tagliareni, Kelly says he saw like-minded individuals working toward a goal they shared in common: ensuring the future health of Florida's ocean ecosystems. And indeed, over the past two decades the Florida

Keys have seen major strides in ocean management and conservation that benefit both local communities and the marine environment.

"It's so much to our benefit to preserve these places," Kelly says. "It's far better to have cooperative management than to always be at each other's throats."

In Alpena, the Thunder Bay sanctuary is now a hub of education, science and tourism for an area that has suffered decades of economic downturn. The sanctuary is a valued partner in the community, one that works to protect Thunder Bay's marine resources but also to link local residents with their heritage and re-



Today, Thunder Bay National Marine Sanctuary is a valued partner in Alpena and the centerpiece of the city's economic revitalization.

store a sense of pride in the community.

"The community as a whole has embraced the sanctuary," Pardike says. "Local people aren't just supporters of the sanctuary; they've become stewards."

# **Building a Better Future**

Gaining the support of the public is a positive step for these sanctuaries and others that have experienced similar turnarounds, but it is only one step. Going forward, Causey says, the sanctuaries have a responsibility to work with their stakeholders to achieve their mutual goals.

"One of the most important things is to not lose the connection with the community," he says. "You can never take that for granted."

With former opponents of the sanctuaries now some of their most fervent supporters, places like Alpena and the Florida Keys are now among our nation's best hopes in turning the tide of ocean conservation for the better.





# **40TH ANNIVERSARY**

The National Marine Sanctuary System celebrates its 40th anniversary, four decades of conserving and protecting America's underwater treasures.

# SMALLEST TO LARGEST

Fagatele Bay National Marine Sanctuary expands its protections in a move that takes it from the smallest national marine sanctuary to the largest. The new name proposed is the National Marine Sanctuary of American Samoa.



# Marine sanctuaries

have the promise of enlarging our vistas, teaching our history, restoring our souls and conserving discrete areas of the ocean.<sup>39</sup>

ideal places

to conduct the critical science necessary to understand and address the changes taking place in our oceans and atmosphere...? hopes of making sure
the ocean economy is
sustainable and pro-

the ocean economy is sustainable and productive for generations to come..."

...one of our **best** 

# AN INCREASING ROLE IN SUSTAINING OUR FUTURE

...an essential part of our ocean infrastructure."

...important tools to restore productivity

and sustain cultures that depend on the sea..."

"...living research laboratories..."

understanding our past, we can manage better for the



