

S A N C T U A R Y
W A T C H

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NATIONAL MARINE
SANCTUARIES



Photo: David Hall

Letter from the Director



Like many of my NOAA colleagues, I am a fan of Jules Verne. Being a scuba diver, I particularly enjoy his *20,000 Leagues Under the Sea*. As the preface to one copy of the book points out, when Verne wrote that classic novel in 1868, “new scientific inventions, like the *Monitor*, had awakened humanity’s desire to explore domains of earth-forces as yet unknown.”

This issue of *Sanctuary Watch* highlights modern scientific inventions that have greatly enhanced our ability to explore the “earth-force” known as the sea. These technologies have given us a view of the underwater world that even Captain Nemo would envy. With them, we have discovered new species, investigated historically significant shipwrecks and submerged cultural sites, and improved our understanding of the natural resources within our national marine sanctuaries and beyond. We hope you enjoy reading about these important tools.

You will also read in this issue how NOAA and our partners are combining technology with good old-fashioned detective work to unlock the secrets of the deep. One effort is the *Alligator* Project, which focuses on the mystery of what happened to the U.S. Navy’s first submarine, the *USS Alligator*.

Now entering its third year, the *Alligator* Project has brought together professionals, students and volunteers from around the globe for a common purpose: Pushing the limits of ocean exploration and preserving our maritime heritage. We profile one of those dedicated volunteers – artist, naval historian and retired U.S. submariner James Christley – in these pages. We invite you to join the hunt for the *Alligator*!

Of course, there are many ways to explore the marine environment. As Monita Fontaine of the National Marine Manufacturers Association indicates in her *Sanctuary Voices* piece, 72 million people explore and enjoy our oceans and waterways each year in recreational boats. NMMA shares our view that ocean exploration and stewardship begins with education and cooperation, and that we all have a role to play in protecting America’s oceans and Great Lakes.

If we are to continue exploring “domains as yet unknown” and protect those already known to us, we must first inspire and educate our youth and the public at large. That is our greatest challenge. We hope the programs, technologies and initiatives presented in this issue do precisely that.

Sincerely,

Daniel J. Basta, Director
NOAA’s National Marine
Sanctuary Program

National Marine Sanctuary System



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Cover: The remotely operated vehicle *Little Herc* cruises around a shipwreck in Thunder Bay National Marine Sanctuary and Underwater Preserve. Photo: John Brooks, courtesy TBNMS & UP

Sound Science

Modern Sensing Tools Help Sanctuary Researchers See Deep into Inner Space

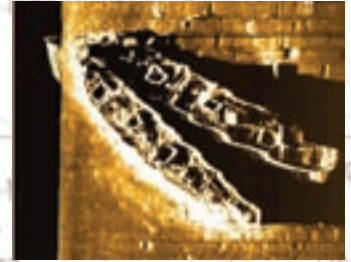
Imagine riding your bicycle or driving your car through a fog bank, in the dark, without headlights—not knowing if there was a tree, boulder or cliff in your path, or if you were passing through a desert or a mountain canyon. Under such conditions, your journey would be neither safe nor enjoyable. You certainly wouldn't learn much about your surroundings.

For much of history, this has been the experience for underwater explorers. Divers wearing masks and helmets have long been able to see beneath the waves, but their view of the ocean realm has always been limited by physics and water clarity.

“Water filters light, so the deeper you go, the less light there is,” says diving expert and author Karen Berger in her book *Scuba Diving*. “The amount of light that actually penetrates to a certain

depth depends on the clarity of the water. In murky water with lots of suspended particles such as silt and organic matter, a depth of only 10 feet can be dark and gloomy.”

Mapping the ocean bottom poses its own challenges. Because water bends light, it is virtually impossible to produce an accurate map of the seafloor by looking down on it from the surface. Early seafloor maps were based on depth measurements, or “soundings,” made with weighted lines that were dropped from the surface, the length of a taut line indicating the distance to the bottom. Seafloor mapping was, therefore, a slow, laborious process.



Sidescan sonar produced this dramatic image of the wrecks of the *Louise B. Palmer* and *Frank A. Cray*, two coal schooners that collided and sank in 1902. The wrecks, still joined in their fatal deadly embrace, lie within Stellwagen Bank National Marine Sanctuary. Image courtesy SBNMS/NURC-UConn.

(Cont'd. on pg. 3)

The Hunt for the Alligator

NOAA, the U.S. Navy and partners are on the hunt for a green, 140-year-old, 47-foot-long alligator. Actually, make that *Alligator*, with a capital “A.”

It's last known location was off the North Carolina coast in the “Graveyard of the Atlantic.” President Lincoln was among those who saw it before it vanished.

If you haven't heard of this mysterious creature, you are in good company. You won't find much, if anything, about it in history books. But now, NOAA and the Navy are shedding new light on the birth, life and fate of the *Alligator*—the U.S. Navy's first submarine.

With help from naval historians, maritime archaeologists, oceanographers, meteorologists, ocean explorers and students, the “*Alligator Project*” team has unearthed new information that is filling large gaps in the history of the all-but-forgotten Union vessel and determine what happened to the sub after it was lost in a storm off North Carolina in 1863.

“Through the *Alligator Project*, we are applying our knowledge of oceanography, meteorology and engineering to solve a mystery of national historical importance,” said Daniel J. Basta, director of NOAA's National Marine Sanctuary Program. “This project is also about getting people young and old alike excited about marine science and exploration, and connecting the public to our nation's maritime heritage. It offers the perfect mix of history, mystery and technology.”

Today, few are aware of the *Alligator* and its place in history.



Alligator model by James Christley

Until recently, its existence was news even to lifelong U.S. Navy submariners, including Chief of Naval Research Rear Adm. Jay Cohen.

“I had never heard of the *Alligator*. I had never read about or seen a reference to it—nothing,” said Cohen.

It was Cohen's wife who alerted him to it after reading an article about the sub in a Civil War magazine, Cohen was stunned. Most history books cite the USS *Holland*, launched in 1897, as the Navy's first sub.

Eager to delve deeper into the *Alligator's* story, Cohen shared the article with Basta and ocean explorer Dr. Robert Ballard. The admiral knew they would immediately grasp the significance of the submarine to American maritime history and might be in a position to aid in the search for clues into the history and possible location of the long-lost sub.

They soon learned that the *Alligator* was something right out of Jules Verne's *20,000 Leagues Under the Sea*. Built to counter the threat of Confederate ironclads, the green, oar-propelled sub was a vessel like no other. Among its most notable features was an airlock designed to allow a diver to exit the vessel while submerged and place an explosive charge on an enemy ship. The *Alligator's* design also included an air purification system. Both are standard components of modern submarines.

Following its launch from a Philadelphia shipyard in 1862, the *Alligator* was tasked with destroying bridges crossing the Appomattox River and clearing obstructions in the James River

(Cont'd. on pg. 5)

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Sound Science

It wasn't until sonar (short for SOund, NAVigation and Ranging) was invented in the early 1900s that humans were able to "see" through the dark, murky waters of the deep sea and accurately map the ocean floor. Until then, mariners risked striking or colliding with an unseen submerged object, and fishermen inevitably snagged their nets on rocks, reefs and wrecks.

Sonar devices

measure the distance to a given object by bouncing sound waves off the object and measuring the amount of time it takes for the reflected waves to return to the device or the strength of the signal. Because sonar involves sound instead of light, water clarity is not an issue.

In addition to measuring distances, sonar can be used to calculate a moving object's speed or determine the shape of a structure on the seafloor, whether natural or man-made. This makes sonar an invaluable tool for ocean explorers. NOAA researchers routinely use sonar and other sensing systems to get a better picture of the seafloor and submerged resources within national marine sanctuaries.

"We use sensing technologies to look at everything from seamounts to shipwrecks," said Dr. Steve Gittings, science coordinator for the National Marine Sanctuary Program. "Sidescan and multibeam sonar systems are particularly useful to our research efforts."

Sidescan sonar uses sound to produce what looks something

like a black and white photo of the ocean bottom. Resembling small torpedoes, sidescan sonar devices, or "towfish," are typically towed on a cable behind a research vessel over an area of interest, usually in a "mowing the lawn" pattern.

As the towfish passes over the seafloor, it transmits data to a computer on board the survey ship. The data is then transformed into an image, which can be seen in "real time" or later put together electronically to generate the overall picture of the area. The images show reefs, rocks, sand waves and other bottom features in remarkable detail.

"Sonar is now so sensitive that we can identify the type and age of a sunken ship," said Bruce Terrell, senior maritime archaeologist with the sanctuary program.

Multibeam systems also use sound, but do so in a way that gives precise measurements of depth as well as bottom features.

"Multibeam sonar give us millions of soundings from which we can construct excellent maps of seafloor depths, and depict physical features that would never have been shown with older, traditional survey methods such as lead line casts and single beam sonar," said Sanctuary Program Geographer Christine Taylor.

Multibeam can also generate what are called "backscatter" images, which indicate how hard the bottom is and what the composition is likely to be, whether it's silt, mud, sand or rock.

"We use bottom imaging to investigate submerged hazards, find out where contaminants are likely to accumulate, determine how sediments move during storms, study how reefs may have grown and died, and see what fish and invertebrates are using as habitat," said Gittings.

To complete the picture of the undersea environment, sonar systems are often used in conjunction with other devices, such as conductivity and temperature sensors, metal-detecting magnetometers, and remotely operated vehicles, or ROVs.

Usually equipped with lights and video cameras, ROVs give researchers the ability to "fly" down to and around a sunken object and investigate it

visually, all from the relative safety of a research vessel. Marine archaeologists with Stellwagen Bank National Marine Sanctuary recently used an ROV to examine the wreck of the ill-fated 19th century steamship *Portland*, known today as New England's *Titanic*. But first, they used sidescan sonar to locate the wreck

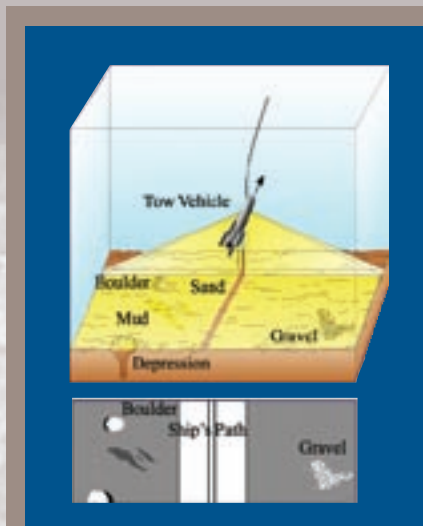
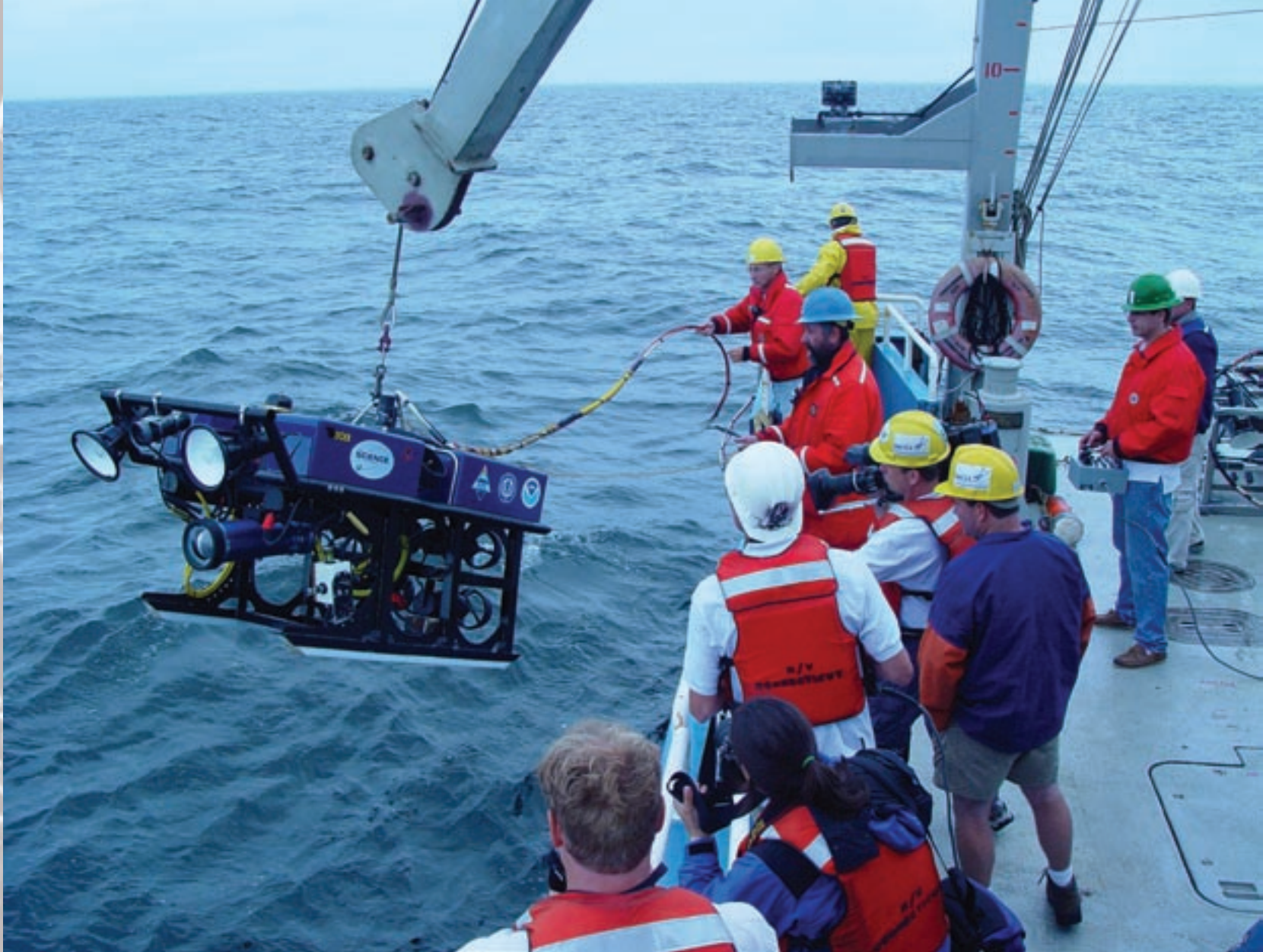


Illustration of a sidescan sonar "towfish" being dragged over the seafloor. Data captured by the towfish is translated by computer into a black-and-white image (below) of the objects on the bottom. Source: USGS



The remotely operated vehicle *Little Herc* was an essential tool for surveying the wreck of the *Montana*, a 19th century package freighter that lies in Thunder Bay National Marine Sanctuary and Underwater Preserve in Michigan. Photo: John Brooks, courtesy TBNMS & UP



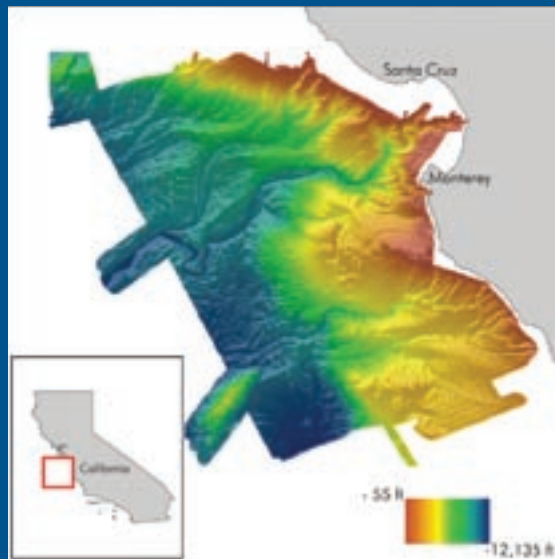
A remotely operated vehicle is lowered over the side of the R/V *Connecticut* during a survey of the wreck of the steamship *Portland*, which rests inside Stellwagen Bank National Marine Sanctuary. Photo: Anne Smrcina/SBNMS

and identify debris that could potentially ensnare or damage the ship-tethered ROV.

“Together, sensing technologies enable us to explore areas that we just couldn’t get in person,” said Gittings. “Sidescan, multibeam and ROVs are to us what the Hubble Space Telescope and the Mars Rover are to space scientists,” said Gittings. “They are windows onto worlds that, until recently, we have only dreamed about.”



Sidescan sonar towfish. Courtesy L-3 Klein Associates, Inc.



Multibeam data was used to produce this detailed map of the seafloor of California's Monterey Bay. Source: MBARI

(Cont'd. from pg. 2)

in Virginia. But the *Alligator* would never get the chance to prove itself in battle.

After arriving in the combat zone, the waters of the James and Appomattox proved too shallow to allow the sub to submerge. The *Alligator* was also less maneuverable than expected.

Fearing that it could be captured by the Confederacy, the *Alligator* was withdrawn and towed to the Navy Yard in Washington, D.C., where it was refitted with a hand-cranked screw propeller. President Lincoln himself witnessed a demonstration of the “improved” vessel.

After declaring that the *Alligator* was ready for action, Rear Adm. Samuel Dupont ordered the sub to Charleston, S.C., in March 1863. It would be a fateful journey.

While heading south along the North Carolina coast, the *Alligator* and its tow vessel, the USS *Sumpter*, encountered a storm so fierce that the *Sumpter*'s crew, facing the loss of their own ship, was forced to cut the unmanned submarine loose. The Union sub was never seen again.

“We don't know what happened to the *Alligator* after its towline was cut,” said Basta. “Did it sink right away? Did it float for days and then sink? Did it wash up on a beach somewhere? Is it still intact or has it succumbed to corrosion?”

To help answer those questions, Basta enlisted the assistance of faculty and students at the U.S. Naval Academy. After all, three decades earlier, naval academy instructors and midshipmen had aided in the successful search for another Civil War vessel, the USS *Monitor*. The USNA team formulated a number of theories about the *Alligator*'s fate based on the best information available.

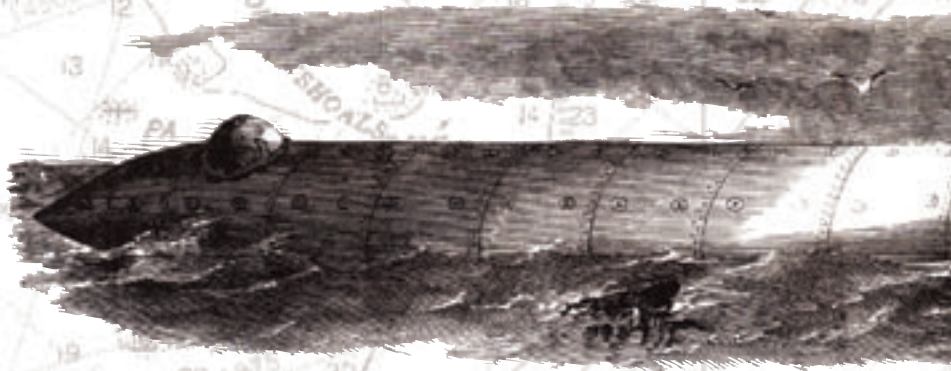
Basta also looked internally for help. He knew that the key to success was learning more the *Alligator* and

the man who invented it, French immigrant and self-described “natural genius” Brutus de Villeroi. Immediately, he thought of the sanctuary program's national partnership coordinator, Catherine Marzin, who hails from Villeroi's native France. Believing French historians might know something about Villeroi and the *Alligator*, and knowing that Marzin was already planning to visit relatives in France, Basta presented her with a challenge: Find the blueprints to the *Alligator*!

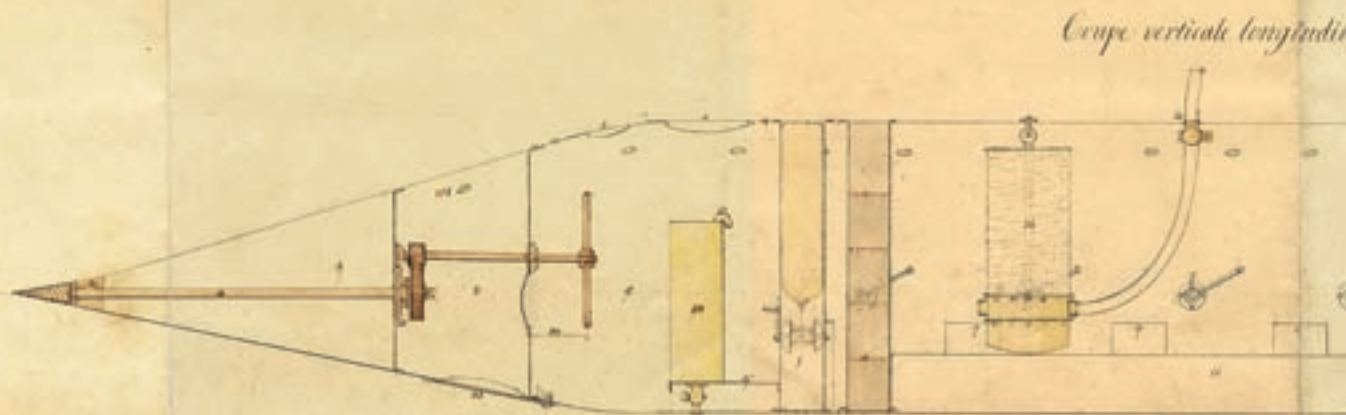
Marzin's search for information about Villeroi and the sub led her to the French naval archives outside Paris. Sure enough, they had a file, or, rather, a box. Labeled “System of Naval Construction, Submarine, Blueprints, de Villeroi, 1832-1882,” it contained a complete set of original drawings of the *Alligator*. They are the only blueprints of the submarine found to date.

“It was a very exciting moment,” said Marzin of her discovery. “It was like hitting the jackpot.”

With the drawings were a number of hand-written letters exchanged by Villeroi and the French government. The letters document Villeroi's repeated but unsuccessful attempts to



NOAA located this original design drawing of the *Alligator*, drafted by French inventor Brutus de Villeroi himself, at the French Naval Archive near Paris. Courtesy Service Historique de la Marine/NOAA.



persuade his own country to purchase his submarine designs.

The newly “discovered” blueprints are already helping *Alligator* Project team partners, including NOAA’s Office of Ocean Exploration, refine their theories about the vessel’s fate.

“The blueprints provide information that we can use to calculate how quickly the *Alligator* may have flooded and how fast it may have been going when it hit the seafloor,” said the sanctuary program’s Michiko Martin, who was one of the naval academy instructors involved in the *Alligator* Project before joining NOAA in the fall of 2002.

The blueprints and other recent findings by the project team generated a lot of enthusiasm in October 2003 at the first-ever symposium about the *Alligator*.

Sponsored by NOAA and the Office of Naval Research and held, appropriately, at the Submarine Force Museum in Groton, Conn., the meeting sparked discussion about the

possibility of locating and recovering the historically significant vessel.

Alligator Project team member NOAA Lt.(j.g.) Jeremy Weirich, a maritime archaeologist with the Office of Ocean Exploration, said that combining information from the blueprints with other historical and scientific data will “allow us to design a more reliable and systematic survey plan and give us a better chance

of finding it” should a search begin in earnest.

Cohen argued that the search for the *Alligator* would be an excellent test of our ability to find a relatively small object on the seafloor “in an intelligent way over a reasonable period of time and at a reasonable cost.” He said that in the age of ultra-quiet diesel submarines and heightened concerns about the security of our ports and near-shore waters, it’s the potential deployment of small, inexpensive submerged weapons that keeps him awake at night. “But if we can find the *Alligator*, we can find anything.”

The consensus among the symposium’s participants was that the hunt itself is as important as actually recovering the craft.

“Whether we find the *Alligator* or not, the *Alligator* Project will help us move ocean science and exploration forward,” said Capt. Craig McLean, director of the Office of Ocean Exploration. “We also will engage, and hopefully inspire, more than a few budding scientists and historians along the way.”



At a special symposium sponsored by the Office of Naval Research and NOAA, ocean explorer Robert Ballard (far left), U.S. Navy Chief of Naval Research Rear Adm. Jay Cohen (second from left), National Marine Sanctuary Program Director Dan Basta (second from right), and Capt. Craig McLean, director of NOAA's Office of Ocean Exploration, discussed the potential for finding the *Alligator*. The symposium was held in October 2003 at the Submarine Force Museum in Groton, Conn. Photo: Jennifer Huergo/Office of Naval Research.



Longitude du Bateau sous-marin

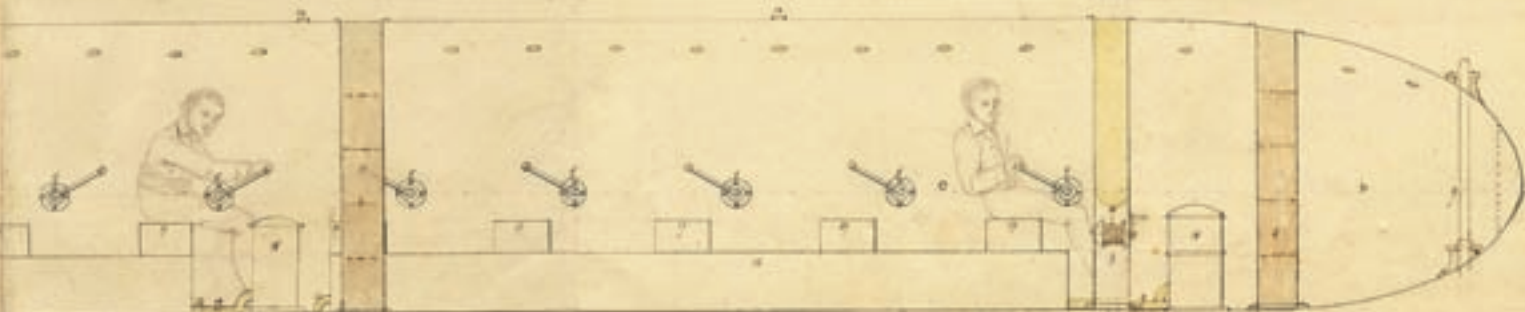




Photo courtesy James Christley

Star of the Sea



James Christley, EMCS (SS), USN (Ret.)

Suppose you needed information about a submarine that was built and lost more than a century ago, but couldn't find much, if anything, about it in history books or on the Internet. And let's suppose you needed an illustration or model of the vessel, but had only some old, fanciful drawings to go by. What would you do?

You could call historian, artist and former submariner James Christley of Lisbon, Connecticut for help.

That's exactly what the U.S. Navy's Office of Naval Research did when they wanted to know more about a mysterious Civil War craft known as the United States Submarine Propeller *Alligator*—the Navy's first submarine. (See page 2 for more about the *Alligator*.)

It wasn't long before ONR realized that they had called the right person for the job. Few people know more about the 47-foot-long, green Union vessel than Christley, who has been researching the *Alligator* for more than two decades.

Christley first learned of the largely forgotten sub in 1979 while serving as an engineering instructor at the United States Naval Submarine School in Groton, Conn. In the course of pursuing an interest in the locally built Civil War ironclad USS *Galena*, Christley came across an historical document about inventor Brutus de Villeroi's Submarine Propeller.

"Being a submariner, my interest was piqued," said Christley. A year later, Christley would have enough information to draft an article about the *Alligator* for *Civil War Times Illustrated* and *All Hands Magazine*. But his research efforts didn't end there. He continued to dig into historical records for more about the unusual craft.

Since being contacted by ONR in 2002, Christley has been an invaluable member of the *Alligator* Project team, providing key historical information about the vessel and its inventor, offering insights gleaned from his 20 years of active duty in the U.S. submarine force, and depicting the *Alligator* through masterfully crafted paintings, drawings and scale models.

"Jim is a man of many talents," said Daniel J. Basta, director of NOAA's National Marine Sanctuary Program, which has partnered with ONR, Christley and others to unlock the *Alligator*'s secrets. "He has an artist's eye for detail, an engineer's devotion to accuracy, and a

naval historian's commitment to preserving America's maritime heritage, all of which are extremely important on a project like this."

"Senior Chief Jim Christley represents the finest in American volunteers. His successful U.S. submarine career gave him a thirst for submarine history which he has focused on the mystery of USS *Alligator*," said Chief of Naval Research and fellow submariner Rear Adm. Jay Cohen, who proudly displays one of Christley's *Alligator* models in his Arlington, Virginia office. "His skills as an author and artist have helped bring *Alligator* to life for current enthusiasts. When *Alligator* is found, it will be due to Jim Christley's initiative and tenacity. We owe him a great debt of gratitude for his service."

What is Christley's fondest hope for the vessel?

"That the USS *Alligator* and the men who designed, built and sailed in her take their rightful place in naval history alongside the [early submarines] *Turtle*, *H.L. Hunley* and USS *Holland*. [That's] the important part of this project, as I see it."

Of course, he and his project partners also wouldn't mind seeing the *Alligator*, or significant portions of it, raised from the seafloor and put on display—if it is ever found.

"Some parts of the hull and perhaps some innards could be recovered, I'm sure," said Christley. "They could be incorporated into a full-sized replica and preserved at [the Submarine Force Museum in] Groton."

One can only wonder if it is coincidence or fate that Christley joined the Navy exactly 100 years after the *Alligator* entered naval service.



A portrait of the artist working on his latest painting. Photo courtesy James Christley.

A warty sea slug calls Gray's Reef home. Photo: Greg McFall/GRMS

Critter Files: Warty Sea Slug

As sanctuary critters go, *Dendrodoris warta*, or the warty sea slug, will probably never reach mega-fauna stardom. But this beautiful nudibranch has a charm all its own and has created a stir in the scientific community.

Last year Gray's Reef National Marine Sanctuary Science Coordinator Greg McFall photographed and videotaped this beautiful nudibranch at the reef. Nudibranchs (from the Latin for "naked lungs") are shell-less gastropod creatures often of dazzling colors that populate reefs around the world. McFall encountered the baseball-sized creature while assisting Alan Harvey, Danny Gleason and Steve Vives of Georgia Southern University. Together the group is producing a web-based invertebrate identification guide for the sanctuary.

At first, the team couldn't identify this creature so they sent photos to experts in this field of science. The experts responded with great excitement because they had no known photos of this lovely bumpy bottom-dwelling creature. A photo of the warty sea slug was posted on the "The Slug Site" website at slugsite.tierranet.com, a home page devoted to the study of opisthobranch mollusks.

According to the site, the Gray's Reef specimen matched the original description of the species as having a dark brown to black background with tan to pinkish-beige variably sized tubercles and margin of the mantle. The rhinophores have light colored lamellae and tips. McFall even caught a shot of the egg ribbon as the warty sea slug went about the business of reproducing in the sanctuary. While *Dendrodoris warta* is not the most common nudibranch on the reef, it is pretty conspicuous as it grows to roughly the size of a baseball.

While they are not found in high abundance at Gray's Reef, they are a fairly common occurrence, and pretty easy to spot while diving. Very little is known about the life history of this species, but it is expected that after they arrive as larvae they remain in one area for their entire lives which may last as long as several years.

While it is not known exactly what comprises the diet of the warty sea slug, if they are similar to related species, they consume sponges, which are abundant on the reef. Several species of nudibranchs are known to derive a chemical protection from compounds produced by the sponges that they eat; these chemicals are then absorbed into the tissues of the nudibranch. Some of these sponge-produced chemicals are known to prevent fish from eating sponges, which may help explain why a shell-less gastropod can roam around on the reef where a whelk or a



Researcher's Notebook

Common name: Warty Sea Slug

Scientific name: *Dendrodoris warta*

Max length: Unknown

Max weight: Unknown

Max lifespan: Unknown

Distribution: Found from Georgia to the Florida Keys.

Diet: Unknown; possibly sponges.

Status: Unknown

conch has to have a shell for protection. If you taste bad enough, no one wants to eat you!

This sea slug and all other invertebrates of Gray's Reef National Marine Sanctuary are protected from being taken.

The staff of Gray's Reef Sanctuary is considering petitioning the legislature of Georgia to declare the warty sea slug the state nudibranch so the animal can take its place beside the brown thrasher and the Cherokee rose as symbols of the rich biodiversity of Georgia.

The excitement stirred by this first photograph of a species of sea slug points out that we are still just wading along the ocean's edge in terms of science—there is much that is deeper that awaits discovery and understanding in the nation's marine sanctuaries.



California Sanctuary Celebrates 15th Anniversary Designated in 1989, Cordell Bank National Marine Sanctuary is celebrating 15 years of research, education and stewardship of one of America's ocean treasures. Located about 52 miles northwest of San Francisco, the 526-square-mile sanctuary is one of the most biologically productive areas on the Pacific coast. Local residents can learn more about California's hidden sanctuary and the amazing seabirds that thrive there by attending a free public lecture on June 3 in Bodega Bay. For more information, please visit cordellbank.noaa.gov.



New Manager Appointed for Farallones Sanctuary

Maria Brown has been selected as manager of NOAA's Gulf of the Farallones National Marine Sanctuary. Brown had served as the assistant manager since February 2002. Brown first began working directly with the

sanctuary program in 1996 as executive director of the Farallones Marine Sanctuary Association. "Maria has worked to protect and educate the public about the Gulf of the Farallones' incredible diversity of marine life for the past nine years and we are pleased that she will continue to serve the sanctuary, which is one of America's ocean treasures, in her new role as its manager," said Richard W. Spinrad, assistant administrator for the NOAA National Ocean Service. To learn more about the Gulf of the Farallones, please visit farallones.noaa.gov.

Monterey Bay Releases Report on Water Quality

Recently released results from two annual water quality events are providing valuable information on water quality trends within Monterey Bay National Marine Sanctuary and its watersheds. Summary reports for "First Flush 2003" and "Snapshot Day 2003" show that much of the water flowing into the sanctuary is generally of good quality, although there are pollution hot spots needing attention. For more information, please visit montereybay.noaa.gov.

Sanctuary Program Receives 2004 Budget Increase

The FY 2004 appropriation for NOAA's National Marine Sanctuary Program is approximately \$49M million for operations (ORF) and \$7.4M for construction (PAC). This amount is \$13.6M over the President's FY 2004 Request, and \$16.6M over the FY 2003 enacted amount. The sanctuary program went through a rigorous systematic process to determine the allocation

of additional funds received in 2004. In FY05, the President's request is \$36.23M for operations and \$7.3M for construction. For more information on NOAA's budget, please visit www.publicaffairs.noaa.gov/budget2005.

Volunteers Look Seaward in Hawaii During Humpback Whale Count

Four hundred volunteers gathered data from the shores of O'ahu, Kaua'i and the Big Island at the ninth annual Hawaiian Islands Humpback Whale National Marine Sanctuary Ocean Count to tally sightings and document surface behaviors of the endangered humpback whales. Scientific studies have shown that Hawai'i's humpback whale population has been increasing at an annual rate of approximately seven percent for the last 10 years. Over time, data from the Sanctuary Ocean Count can be used to corroborate these scientific findings. To learn more about the count, please visit hawaiihumpbackwhale.noaa.gov.

Safety Comes First At Sanctuary Sites

During March, the men and women of NOAA's National Marine Sanctuary Program demonstrated their commitment to the safety by revising and updating emergency planning procedures, testing rescue equipment, and conducting extensive safety drills at each sanctuary and at headquarters.

"We value the safety of our employees, those who volunteer in our sanctuaries, those who visit them, and those who conduct research in them," said NOAA Capt. Ted Lillestolen, deputy director for facilities, vessels, aircraft and safety. "Safety is our first priority." For more information on the program's safety efforts, please visit sanctuaries.noaa.gov.



Monterey Bay National Marine Sanctuary staff practice a "man overboard" drill during "Safety Week." Photo: Brad Damitz/MBNMS

Ocean Commission Releases Report

On April 20, the U.S. Commission on Ocean Policy released its preliminary report with recommendations for a coordinated and comprehensive national ocean policy. The report is available for review and comment by the nation's governors and interested stakeholders until May 21. After any needed changes to the report are made and approved by the commission, it will be transmitted to the president and Congress. The preliminary report addresses a broad range of issues from the stewardship of marine resources and pollution prevention to enhancing and supporting marine science, commerce and transportation. The report and detailed instructions for submitting comments are available at www.oceancommission.gov.



Sanctuary Voices

Boaters: A Natural Partner in Protecting Our Marine Sanctuaries

Monita W. Fontaine, Esq.
Vice President, Government Relations
National Marine Manufacturers Association

Perhaps more than any other industry, marine manufacturers have a vested interest in the majesty of our marine waters, which is why the National Marine Manufacturers Association (NMMA) has always celebrated our national aquatic treasures. For some, the idea of recreational boating, marine preservation, and environmental protection, will always be incompatible and remain at odds when developing policies and initiatives to protect marine waters. This idea is no longer tenable.

Though some recreational boaters have been a source of problems in the past, NMMA is committed to improving the environment by educating boaters on responsible boating practices and through industry-led technological advances that make marine engines cleaner, quieter, and more efficient. For example, NMMA has been an active supporter in promoting the United States Coast Guard's (USCG) boating education and safety initiative "You're in Command" and other programs that encourage boating safety and responsibility. NMMA is working with the sanctuary program to promote and distribute boating education information to the recreational boating community. Also, NMMA supports the National Association of State Boating Law Administrators' Model Noise Act, which would require boats to reduce exhaust noise.

Boaters need to be part of the decision-making process on how best to manage our marine resources. Through this participation, boaters become vested in the process. Last year alone, over 72 million people participated in recreational boating and a vast majority of these people know the waters intimately. Still, NOAA and other federal agencies have yet to fully utilize the recreational boating community in a "grassroots-style" effort to help better manage and protect marine sanctuaries. Both the boating community and NOAA need to make a more concerted effort to ensure that there are boating representatives on citizen-based advisory bodies such as sanctuary advisory councils. We need to be engaged and involved in ocean stewardship at the local level.

In addition, it is important for sanctuary managers to maintain a clear distinction between the environmental impacts of commercial and recreational fishing. We can achieve a vibrant biosystem that supports substantial fishery populations without unnecessarily restricting recreational boaters' and anglers' access to our treasured aquatic resources. NMMA recognizes that certain areas may require access restrictions where science shows that doing so is necessary to protect sensitive habitats or animal

populations. However, NOAA needs to work with boaters to ensure that any restrictions are not unduly onerous or unsafe and have support of recreational boating community.

NMMA has long believed that this access, particularly to our marine sanctuaries, is an act of environmental protection. Studies have found that those who enjoy the environment are more prone to protect it. Access to these waters by recreational boaters and anglers not only allows for the enjoyment of these thriving aquatic resources, but also educates marine enthusiasts on the importance of preservation and sound environmental policy. These educated boaters can be NOAA's best ally in securing much needed funds and community support for sanctuaries.

With rising interest in recreational boating throughout the country, it is imperative that NMMA, the recreational boating community, and federal agencies like NOAA and the USCG, form a coalition to help preserve our nation's marine waters. This is a coalition that will benefit all, and most importantly, our marine resources. It will also give NOAA a venue to better inform the recreational boating community on laws and regulations pertaining to these waters.



More than 72 million people participated in recreational boating last year alone.
Photo: Laura Urian/FKNMS

For decades, the recreational boating community has worked hard to accomplish many of the same goals as NOAA. As the marine industry's largest trade association, NMMA has the ability to bring NOAA and the recreational boating community closer together, and we want your help to do just that.

The opinions expressed by columnists in "Sanctuary Voices" do not imply endorsement by NOAA's National Marine Sanctuary Program of any particular product, service, organization, company or policy.



NATIONAL MARINE
SANCTUARIES

The National Marine Sanctuary
Program is managed by NOAA's
National Ocean Service

vision

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

mission

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

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Lawmakers & Ocean Experts
to Gather for CHOW 2004

On June 9-10, Congressional leaders and ocean experts will gather together in Washington, D.C. for Capitol Hill Oceans Week 2004. Among the invited guests are renowned undersea explorer Jean-Michel Cousteau, the Honorable Leon Panetta, Admiral James D. Watkins, and the chairman of the White House Council on Environmental Quality, Jim Connaughton.

Now in its fourth year, this symposium, coordinated by the National Marine Sanctuary Foundation, has established itself as one of the most important events of the year for exchanging knowledge and ideas about ocean issues and policies.

"The event will be of particular interest this year as we will have the benefit of two major reports on ocean issues, the U.S. Ocean Policy Commission report, and the work of the Pew Oceans Commission," said Lori Arguelles, executive director of the National Marine Sanctuary Foundation. "We are honored to coordinate an effort that places ocean issues prominently in front of our nation's leaders."

Representatives from government, private industry, nonprofits, and academia will focus on topics including Ecosystem Based Management, Managing Multiple Uses of Ocean Resources, Ocean Exploration, Ocean Observing and Monitoring Systems, and Ocean Literacy. Each panel discussion will begin with an overview from a Member of Congress and conclude with a question and answer session. Exhibitors will join the symposium each day for the Ocean Technology Fair, featuring organizations, companies and federal agencies whose mission focus on exploring, conserving and protecting marine resources.

Capitol Hill Oceans Week 2004 kicks off the evening of June 8th with a tribute dinner honoring Senator Olympia J. Snowe; and the House Oceans Caucus and its co-chairs Representatives Tom Allen, Sam Farr, Jim Greenwood and Curt Weldon. They will receive the National Marine Sanctuary Foundation Leadership Award for their work on ocean issues. In addition, the foundation will also present its Volunteer of the Year award to an individual who has dedicated their time, energy and efforts to enhancing the work of the National Marine Sanctuary Program.

Congressional co-hosts of CHOW 2004 include the Senate Committee on Commerce, Science and Transportation, and the House Oceans Caucus. Co-sponsors include Perot Systems, the Consortium for Oceanic Research and Education, Mote Marine Laboratory, and the National Ocean Industries Association.

Check for CHOW updates and learn how your organization can participate at www.NMSFocean.org.



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OCEANS WEEK
2004