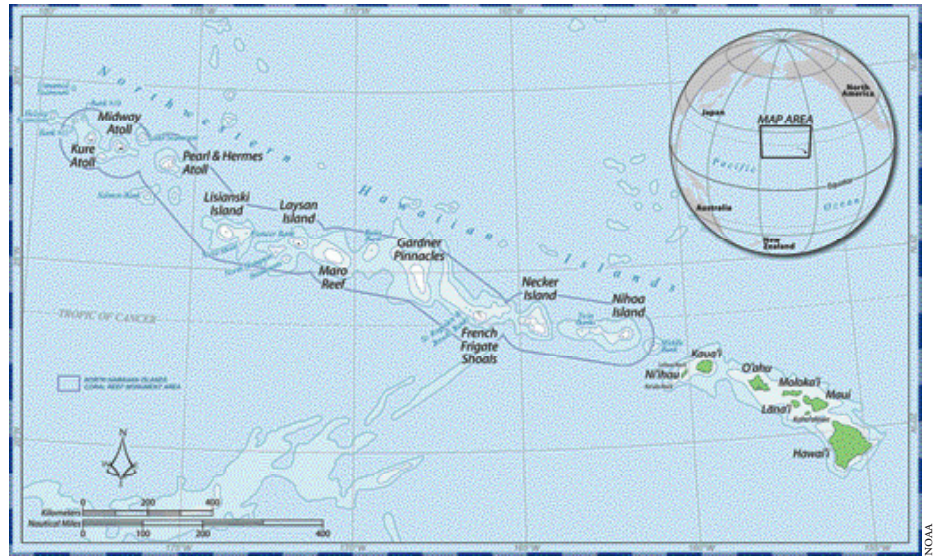


# Whaling Shipwrecks in the Northwest Hawaiian Islands: the 2008 Maritime Heritage Archaeological Expedition

There would be no “watch below” at midnight for the tired whalers aboard the *Parker*. Instead, the oncoming watch joined their shipmates in a desperate attempt to stabilize their ship in the throes of a September storm. It was 1842 and the New Bedford whaler *Parker* was sailing in the far reaches of the Pacific, as they hunted for whales in a broad arc stretching from Hawaii to Japan. Their efforts were in vain, and as seas crashed through the cabin windows at 0200 hours, their ship smashed hard on the reef of Kure Atoll, a reef they knew was in the vicinity, but one they were unable to navigate safely around during the storm. At first light, the shipwrecked whalers could see the tiniest of islands not far off. When they managed to reach it, they discovered an abandoned camp and a feral dog, the remains of another shipwreck—another whaler—that had wrecked there five years before. These would not be the only castaways on the small sandy island at Kure Atoll; in time, at least four more vessels would come to their end in these treacherous waters.

Kure Atoll is the end of a long chain of atolls that stretches out more than a thousand miles north and west of Hawaii. Many of the atolls have nothing but a ring of jagged coral and a few low sandy islands sticking out of the water. Despite their remoteness and lack of resources, their location would, in time, become very valuable to Americans in their expansion into the vast Pacific. For example Midway Atoll, approximately halfway between the west coast of the United States and Asia, became vital in the twentieth century for refueling ships, submarines, and aircraft, and played an important role during World War II.

A century earlier, the location of the Hawaiian Islands in the center of the North Pacific made them ideal port stops as well. British and Yankee whalers pursued their catch far to the west off Japan, to the northern Pacific in summer and to the South Seas in winter. In the heyday of whaling under sail in the early nineteenth century, Japan was closed to foreign ships, and whalers retreated to Honolulu on Oahu and Lahaina on Maui for fresh water, provisions, crew, and a little “R & R.” With the arrival of the ships, Americans soon established businesses there to sell



*The Papahānaumokuākea Marine National Monument, designated as such in 2006, encompasses 140,000 square miles, making it the largest marine protected area in the world.*

goods to whalers that the Hawaiians could not provide and to send whale oil and whale bone back to New England and beyond. Not only did Americans affect life on Hawaii, but native Hawaiians impacted New Englanders as well. From the 1820s, when American and British whalers began calling at Hawaii during their long voyages, native Hawaiians shipped out as crew on whaling ships. Many never returned, either from death at sea in this dangerous industry or from staying with their ships as they sailed for home, emigrating to the United States and Britain. So many left, in fact, that Hawaiian chiefs eventually required whaling captains to post bonds guaranteeing the safe return of their young men. While native Hawaiians did not hail from a tradition of hunting whales, they did expose their shipmates to rituals and stories explaining their cultural and spiritual connections to whales and their environment.

Whaling under sail has a rich and colorful history in America. Nantucket and New Bedford, Massachusetts, are both famous for their whaling heritage. This heritage goes far beyond the cultural and folk traditions surrounding this occupation. The great income generated from the fishery built up towns and cities and financed the growth of the nation in the first decades after independence. In the nineteenth century, whaling was considered a necessary and admirable profession. Whale oil illuminated the world and lubricated machines, and whale bone

(baleen) was fashioned into stiffening stays for apparel, umbrellas, and tools.

Most importantly, whaling played a strategic and global role for the young country of America. Whaling from shore was practiced the world over, and in the United States, residents of Long Island and New England developed this fishery as well. Once catches off the beach became less frequent, these communities began sending men and ships out to sea to seek whales in offshore waters. Over time, the fishery became a full-fledged industry with bigger ships, specialized tools, and voyages that sailed to distant oceans, lasting three to four years in duration. Whale-ships brought Americans into contact with lands and people all over the world, from the high Arctic Ocean to the tropical South Seas. In 1788, the first British whaler entered the Pacific, with an American whaler following the next year. When a large concentration of sperm whales off Japan was reported back in Massachusetts in 1820, droves of New Englanders put to sea in ships bound for the western Pacific. In 1824, more than one hundred whale-ships dropped anchor in Hawaii. More than 700 whaling vessels visited Hawaii in 1846, bringing with them permanent changes in the economy and culture of the islands. Major scientific expeditions were launched in support of whaling, charting unknown areas of the Pacific and expanding the country's knowledge of the world.

# to the Papahānaumokuākea Marine National Monument

Both British and American investors sent whalers to the Japan Grounds and elsewhere in the Pacific during this period. By the 1840s, American whalers completely dominated the fishery, and by the late 1850s, the industry had come to a climax. While New Englanders still sent ships to hunt whales in the Pacific into the twentieth century, the golden age of whaling under sail had passed. The discovery of petroleum in Pennsylvania in 1859 and the devastation of the fleet by Confederate raiders in the 1860s had marked effects on the industry. These effects, combined with the unregulated decimation of whale populations, meant that by the late nineteenth century whaleships were pressing far into the Arctic ice in search of prey, taking greater risks than ever. A further blow to the industry came with the unexpected shifting of the ice pack in the Arctic in August of 1871, trapping and crushing thirty-two whaleships all at once. Examples of material culture—tools, logbooks, journals, and folk art—of this once important and lively industry are well preserved in museums in New England and elsewhere. Of the hundreds of wooden sailing whaleships, only Mystic Seaport's *Charles W. Morgan*, has survived. There are others from which we can study and learn, but they are not as easy to visit, as they are whaling shipwrecks, located underwater. Sometimes



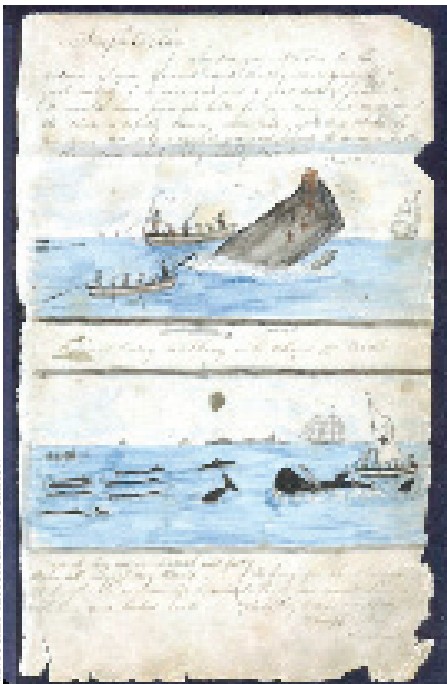
*Trypots on the sea floor reveal the final resting place of the British whaleship Pearl, wrecked in the Northwest Hawaiian Islands in 1822.*

wrecks of this far-flung industry are only found hundreds of miles, and in some cases more than a thousand miles, from populated areas. Recently, a team of maritime archaeologists completed a research expedition to the Northwest Hawaiian Islands, the atolls within the Papahānaumokuākea Marine National Monument, where they documented shipwrecks, including five whaleship wreck sites. Of the five, three are British and two are American—two of the five were just discovered by the archaeology team during the expedition. These sites, ships wrecked during the heyday of whaling under sail, can add considerably to the historical and archaeological record, as they include a wide variety of material culture specific to the whaling industry.

The atolls in the Papahānaumokuākea Marine National Monument are the remnants of the old Hawaiian archipelago, whose volcanic islands have sunk below the surface of the ocean as the coral reef continued to grow on them toward the surface. With the passage of time, these atolls shifted to the northwest with the movement of the oceanic seafloor, and younger islands, the main Hawaiian Islands, emerged to the southeast. In the nineteenth century, as sailing ships were crossing thousands of miles of the open Pacific, the reefs of these ancient atolls were a veritable ship trap. Most of the ships that wrecked there did so at night, when they had no chance of even knowing they were in anything but deep water. Whaling ships were equipped with boats on davits at the ready for the call of

“Whale Ho!” and, as a result, all of their crews were able to get off their ships without suffering a single casualty. A desperate and resourceful lot, the castaways were eventually rescued by passing ships or effected their own rescue by building boats from salvaged ship parts and sailing them back toward Hawaii.

The National Oceanic and Atmospheric Administration (NOAA) Maritime Heritage Program, established in 2002, has been working with the Monument's administration to support a number of survey expeditions to the region, looking for shipwrecks and documenting wreck sites previously identified. In August of 2008, a team of archaeologists, under the leadership of Dr. Kelly Gleason, maritime archaeologist for the Monument, put to sea aboard the NOAA ship *Hi'ialakai*, bound for the atolls and wreck sites of these historic ships. The six-member team enjoyed unusually favorable sea conditions, allowing them to access parts of the reefs that earlier expeditions were unable to reach. As a result, they were able to fully map a number of wreck sites; recover artifacts for conservation, study, and eventual display; and even discover the locations of two more whaling shipwreck sites. One is the wreck of the British whaler *Gledstanes* at Kure Atoll, wrecked in 1837, and the other is a wreck site at French Frigate Shoals and is thought to be one of three known whalers wrecked at that location. The following is an examination of some of the history and discoveries of these whaling shipwrecks.



NAVY HISTORICAL ASSOCIATION



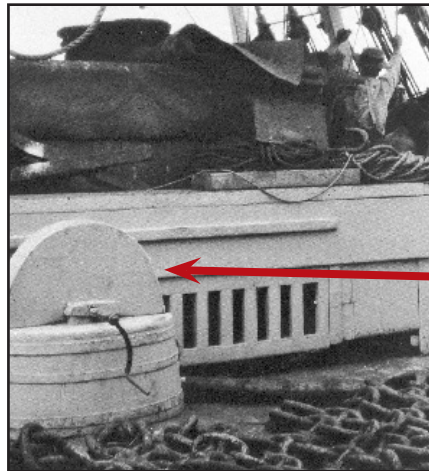
# Pearl and Hermes, 1822

Traveling in consort, the British whalers *Pearl* and *Hermes* sailed from Honolulu in 1822, bound for the newly discovered Japan Grounds. Their route led them through the treacherous Northwestern Hawaiian Islands, atolls not marked on charts of the period. In the night, the 262-ton *Hermes* ran aground on an unseen reef; the unsuspecting crew of the 320-ton *Pearl* followed after, running aground just to the east. Neither ship would get off the reef: *Pearl's* keel settled into the sand channel, wedging her hull between the harder coralline substrate on either side, and *Hermes* wrecked high up on the jagged coral, her hull breaking up in the surf and depositing heavy anchors, cannon, trypots, hardware and fastenings in crevices and pockets about the reef.

Their combined crew of 57 men made it to the nearby island, salvaging what provisions and parts of the ships that they could. Hundreds of miles from Honolulu, they knew that the chances of rescue by a passing ship were slim. *Hermes's* carpenter James Robinson assembled a crew to begin construction of a boat that could carry some of the men to civilization to send a rescue party for the rest. Over the next few months, the castaways built a 30-ton schooner, the *Deliverance*, on the beach. Just before the boat was launched, a passing ship sighted the camp and offered to take onboard the shipwrecked whalers. Robinson and eleven others elected to take their chances in *Deliverance* and successfully sailed back to Honolulu. Robinson would become a prominent citizen in Hawaii, founding a shipyard and making the islands his permanent home.

Between 2005 and 2008, NOAA maritime archaeologists returned to Pearl and Hermes Atoll to document the wreck sites of

the ships for whom the atoll is named. On the *Pearl* site, large iron trypots sit upright along the sea floor. Two anchors lie to the north, with a gudgeon and grinding wheel resting on the sandy bottom seaward of the reef line. The placement of the keel indicates that the ship likely grounded in the sandy groove, pressing her keel and



*Grinding wheels were mounted on deck to sharpen flensing knives, spades, and harpoons. The Pearl's grinding wheel lies near the gudgeon (in view toward the right in the photo).*

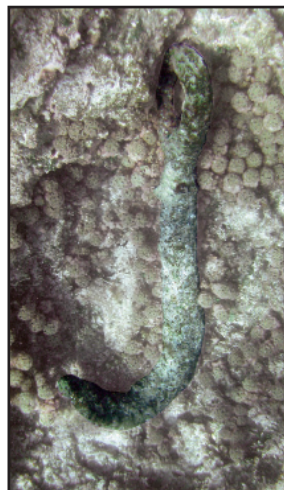
garboard strakes deep into the sand between the coral substrate surrounding it.

The 2008 team returned to the atoll to document the *Hermes* site. Sea conditions allowed access to the high-energy environment in the shallows, where they documented individual artifacts and trilaterated the main features of the site. Two anchors and cannon are its largest artifacts, while fastenings and hardware are littered about in small pockets of the reef. A collection of cannonballs, concreted in a near-perfect linear formation, suggest they were stowed in a rack, ready for loading if the need arose. Whalers put to sea

with everything they could think of that they might need for a lengthy voyage in distant oceans—including arms. The design of the two huge anchors help identify the wreck as an early nineteenth-century vessel, as their straight arms come to a point at the crown, unlike the fair curve found on many later designs.

While the presence of trypots obviously identifies these wrecks as whaling vessels, other artifacts highly specific to the whaling industry have survived at the *Hermes* site. Tossed way up in the shallows lies a blubber hook, a tool used to hoist the blanket pieces from the whale carcass as the men began cutting the flesh off their catch from staging outboard of the ship. Tucked under the crown of one of the anchors protrudes a bailer, a tool used to move boiling whale oil from the trypots to the cooling tanks, like a bucket secured to a long pole. No other tools of the whalers have been located, but the shipwrecked sailors likely put a priority on their salvage, as spades and cutting tools could double as shipbuilding tools for the carpenters on the beach.

*Pearl* and *Hermes* are the oldest discovered wrecks in the Hawaiian Islands. Together with the *Gledstanes*, they may be the only British South Seas whalers ever discovered in an archaeological context.



*Artifacts on the Hermes site. The pointed crown on the anchor (above) suggests an early 19th-century design. The blubber hook (right) clearly identifies this as a whaleship wreck site.*



# Gledstanes, 1837

Over the course of several field seasons, NOAA maritime archaeologists had been looking for the site of the British whaleship *Gledstanes*, which wrecked at Kure Atoll, fifteen years after the loss of the *Pearl* and the *Hermes*. Like the whalers of *Pearl* and *Hermes*, all onboard survived the wrecking event and eventually made it back to civilization after enduring several months camped out on the nearby tiny Ocean (now “Green”) Island, where they built a boat on the beach to seek their own rescue. Like the boat built by the *Pearl* and *Hermes* crew, this vessel was also named *Deliverance*.

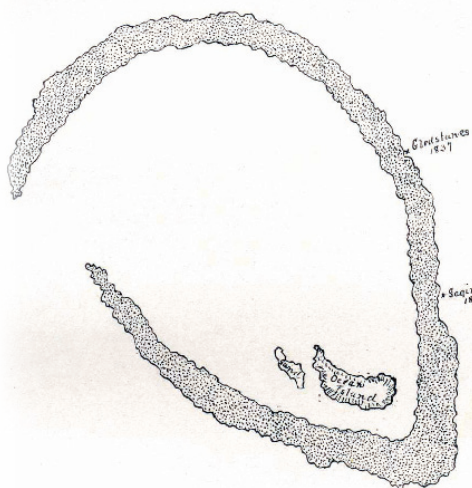
Confirmation of the *Gledstanes* wrecking event came five years later, when the New Bedford whaleship *Parker* wrecked along that same reef in 1842. Her survivors noted where the *Gledstanes*'s remains were located, and they used items the British whalers had left behind on Ocean Island to aid them in their own survival. Remarkably, in 1870, portions of the *Gledstanes* wreck were still visible—thirty-three years later! In that year, the US Navy steamship *Saginaw* ran aground on the reef during the night. When daylight broke, after a harrowing night on the reef, her sailors let out a cheer when the silhouette of another ship appeared on the horizon. Soon their elation gave way to desperation when they realized that the ship would not be their salvation—it was the shipwreck of the *Gledstanes*.

Most of the *Saginaw* crew would survive their ordeal, and their journals and reports helped archaeologists immeasurably in locating the *Gledstanes* in 2008. Using data gleaned from historical research and previous field surveys, it was the *Saginaw*



Rectangular iron bars scattered in a ravine were the first artifacts divers saw when they discovered the site of the *Gledstanes* in the Papahānaumokuākea Marine National Monument.

survivors' map of the atoll that proved the most helpful. Nevertheless, an “X” on a hand-drawn sketch hardly lands you exactly in the right spot out on the ocean



COURTESY HOUGHTON MIFFLIN

Commander Montgomery Sicard of *USS Saginaw* made this sketch of Kure Atoll with the location of the *Gledstanes* wreck clearly marked on the upper right.



Kelly Gleason examines the sheered off trypot at the *Gledstanes* wreck site.

with no permanent landmarks from which to take bearings. Dr. Hans Van Tilburg's extensive historical research and field experience, coupled with Dr. Kelly Gleason's systematic approach toward narrowing the search area, put this year's archaeology dive team close to the location of the *Gledstanes* remains. With the sea conditions unusually calm during this field season, the team was able to towboard and drift-dive very close to the reef crest.

On the second day of surveying, the team came across a large collection of iron bars lying in a groove about 600 feet from the reef line. Following the sand channel shoreward, dramatically flanked by steep coral walls on either side, the divers discovered more ballast (about 40 to 50 bars in all), piles of heavy chain, at least one cannon, four massive anchors, and heavy iron pieces encrusted into the coralline substrate (possibly tryworks knees). Finally, the discovery of a sheered-off trypot confirmed the site as a whaling shipwreck. Between the reports of the shipwrecked sailors from the *Gledstanes*, *Parker*, and *Saginaw*, and the fact that the *Gledstanes* is the only whaleship known to have been lost on the eastern side of the atoll, the archaeologists are confident that this site is indeed the British whaleship lost here in 1837, the 428-ton *Gledstanes*.

The story of *Gledstanes*'s career, wrecking, and subsequent survival of her crew reflects the history of Britain's involvement in the business of whaling across the globe, of whaling's influence on Hawaiian history (at least of two of the shipwrecked whalers were native Hawaiians), and of man's indomitable spirit and resourcefulness when faced with surviving a shipwreck more than a thousand miles from the closest port. Look for the full story in an upcoming issue of *Sea History*.

# Parker, 1842

After it was reported that large concentrations of sperm whales could be found in the waters off Japan in 1820, dozens, and later hundreds, of New Bedford and Nantucket whalers set out across the Pacific to find them. In 1842, the New Bedford whaler *Parker* was underway, north and west of Hawaii, engaged in hunting whales “on Japan.” It was a typical whaleship on a typical voyage, but the *Parker’s* route to the whaling grounds took her through the Northwestern Hawaiian Islands. By 1842, this chain of atolls was well-known, but not necessarily accurately charted, and ships’ navigators were not always able to plot accurate positions. When a storm roared through the area late in September, the *Parker* was caught in the middle of it. That night, as her crew struggled to maintain the integrity of their vessel, the ship struck the reef on the north side of Kure Atoll, the northernmost atoll in this archipelago.

In less than an hour, the ship became a total loss. Her crew scrambled to save what food they could lay their hands on—a peck of beans and fifteen pounds of salted meat. Breaking waves stove in their whaleboats, so the sailors fashioned a crude raft out of the ship’s masts and spars. Though Ocean Island was in sight, it took eight days to drift and warp their makeshift raft to its shores.

Ocean Island provided little shelter, and there they discovered the ominous signs of previous castaways—the *Gledstanes* camp and a dog. While the islands within the atoll provide little in natural resources for shipwrecked sailors, they are home to monk seals and tens of thousands of seabirds, which provided food for the sailors during their seven-month stay on the island. The *Parker’s* crew also secured wooden tallies to the legs of more than a hundred Laysan albatross, hoping the birds would be found by someone who could send a rescue ship.

After more than seven months on the beach, the captain and a few others were picked up by the ship *James Stewart* on 16 April 1843. Two weeks later, a fellow New Bedford whaler, *Nassau*, sailed into view and saved the rest of the crew, landing them in Honolulu a short time later.

Between 2002 and 2008, another ship has returned to the *Parker* wreck site. NOAA’s Maritime Heritage Program sent a crew of archaeologists aboard the ship *Hi’ialakai* to map the site and document individual artifacts. Anchors, chain, hull sheathing,



*The whaleship Parker’s remains are spread out in a line on the sea floor at Kure Atoll. This anchor, one of two on the site, has trapped a pile of artifacts in this spot. Underneath the shank rests an intact blubber hook, an integral piece of equipment for processing whales. (inset) The Parker’s bell was recovered in the 2008 field season and is being conserved for eventual display at the Mokupapa Discovery Center in Hilo.*

copper fasteners, hawsepipes, a windlass, rigging hardware, bricks, and other material are distributed in a line more than 300 feet in length. Not far from this main distribution area is a trail of bricks and trypot shards. In a pile of artifacts trapped under and about one of the anchors lies a blubber hook, similar to the one found at the *Hermes* site. Just to the southwest of the main distribution of artifacts, a team in 2007 located the ship’s bell.

The 2008 crew sought to recover the bell for conservation and display at an exhibit being developed at the Monument’s Mokupapa Discovery Center in Hilo, Hawaii, sometime next year. On 11 August, the *Parker’s* bell was carefully lifted off the bottom and transferred to a tank on the boat deck, emerging from the water after 166 years on

the sea floor. After a brief examination in the ship’s wet lab, the bell spent the rest of the expedition in a tank aboard *Hi’ialakai* before being shipped to a lab for conservation.

New Bedford emerged as the foremost whaling port in the world in the first half of the nineteenth century, having surpassed Nantucket for this title in 1823. At one time, it was considered one of the richest cities in the country, if not the world. Just a year before the *Parker* met its end in the Pacific, the famous whaleship *Charles W. Morgan* was launched from a New Bedford shipyard. While the *Morgan* has been fully documented and its history extensively researched, the remains of another New Bedford whaler, the *Parker*, lie unmolested on the sea floor at Kure Atoll, exactly as they were left in 1842.



# Mystery Whaler at French Frigate Shoals

Planning field work can be challenging, especially when operations involve SCUBA diving and are based from a ship at sea. The prudent principal investigator would be wise to allow time for equipment failures, bad weather, and earaches. Dr. Kelly Gleason, the chief scientist for the 2008 Maritime Heritage Expedition, did an admirable job hand-picking her team, assembling equipment, and planning the dives and schedules, hoping to achieve the goals of the mission. In addition to the whaling shipwrecks the team documented, the team also mapped, surveyed, and monitored a half dozen other sites, including wrecks of commercial and military ships and a WW2 Corsair.

An efficient and competent crew aboard the NOAA ship *Hi'ialakai* allowed the teams of scientists to focus on their specific tasks without having to worry about vessel operations, navigation, or even meal planning. This year, the weather could not have been more agreeable, divers were well trained and prepped, and no physical ailments caused any setbacks. Aside from the occasional flooded camera, the equipment provided no obstacles to the work at hand. As a result, the team had finished its main objectives and still had two days of diving left at French Frigate Shoals, where the apex predator scientists (a.k.a. shark taggers) had work to do.

Dr. Gleason planned a day of towboarding, where snorkelers get dragged through the water behind the ship's boat, holding onto a board attached to a tow-rope. It allows the archaeologists to cover a great deal of ground while surveying for new wrecks. The first towboarding team started in an area near a marked anchorage ground. In a short time, archaeologist Jason Raupp located a large anchor, one surprisingly reminiscent of the straight-armed anchors of the 1822 *Hermes* site. Soon the team discovered three intact trypots, hundreds of bricks, another anchor, and sailing rig components scattered about across a turbulent and shallow section of the reef. Another whaler.

Only three whalers are known to have been lost at French Frigate Shoals: the 1823 *Two Brothers* of Nantucket (lost under the command of Captain George Pollard on his next whaling voyage after having lost the

*Essex* in 1822), the *South Seaman* in 1859, and the *Daniel Wood*, out of New Bedford, lost in 1867. This unexpected discovery occurred in the final days of the expedition, so the team did what they could in two days of diving to photograph, measure, and sketch in the main features of the site. Further research back in Hawaii and New England will hopefully shed some light on the identity of the vessel. Analysis of the material culture of the site may enable researchers



*Trypot at French Frigate Shoals*

to weed out one or more of the choices if documentation can be found about the inventory taken to sea in these specific vessels or if the design of the anchors, for example, pinpoints the wreck to a certain time period.

The Papahānaumokuākea Marine National Monument, NOAA's Maritime Heritage Program and Office of National Marine Sanctuaries are working together to continue field work collecting data about these maritime and cultural resources, to pursue historical research to best analyze and interpret what they discover, and to disseminate their findings to the public through media broadcasts, the expedition web site, curriculum development, creation of museum exhibits, and live presentations.

## *New Bedford Whaler Daniel Wood, lost at French Frigate Shoals in 1867*

The shipwreck inventory within the Monument's waters is extensive and represents the variety of maritime activity transiting the northern Pacific since at least as early as the 1822 wrecking of the *Pearl* and the *Hermes*. The sites remain undisturbed by divers, as they are in remote locations, which happen to be in the largest protected area in the United States. Co-managed by the State of Hawaii, NOAA, and the US Fish and Wildlife Service, the Monument preserves one of the most pristine areas of coral reef in the world. In addition to environmental conservation, the Monument protects and studies the cultural and maritime heritage sites within its boundaries.

Whaling played an important role in the history and development of the United States. Along the way, the whalers influenced the history of the places they visited, and the hunters decimated the population of whales across the world's oceans. With only one wooden sailing whaler left in the world, the shipwrecks of her sisters can provide valuable information to further our understanding of this industry. ⚓

*The 2008 Maritime Heritage Expedition team consisted of NOAA archaeologists Dr. Kelly Gleason, Dr. Hans Van Tilburg, Cathy Green, and Tane Casserley. Visiting archaeologists Jason Raupp of Flinders University in South Australia and Deirdre O'Regan, editor of Sea History, rounded out the dive team. Visit the web site, <http://hawaiiireef.noaa.gov>, for information about the Monument. Click on "Maritime Heritage Expedition," for details on all the shipwrecks, blogs, photos, and video of this year's expedition. For information on NOAA's Office of National Marine Sanctuaries, visit <http://sanctuaries.noaa.gov>. Historical research for this article was conducted and analyzed by Dr. Hans Van Tilburg, the maritime heritage coordinator for NOAA's Office of National Marine Sanctuaries' Pacific Islands Region.*