

Explorers find a wreck and a lot of life in deep seas

By William E. Gibson, Washington Bureau

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NOAA Ship Okeanos Explorer conducts operations in the northern Gulf of Mexico. (NOAA Ocean Explorer, Image courtesy / April 4, 2012)

WASHINGTON – While scientists watched intently on computer screens in Florida and across the world, the crew of a federal exploratory ship cruising in the Gulf of Mexico last month grew increasingly excited as they maneuvered a robotic undersea vessel toward a major find nestled on the seafloor 4,000 feet below.

First an anchor appeared. Then a hull, remarkably intact, revealing the remains of a wooden ship from the early 1800s.

As the robotic vessel's high-definition cameras swept across the wreck, the crew on the surface and those watching on shore could see a stunning array of artifacts: ceramic plates, bottles, cannon and a box that appeared to contain muskets.

"There was a burst of pride from the whole crew," recalled Mashkoor Malik, expedition coordinator for the National Oceanic and Atmospheric Administration.

The shipwreck was just one of several remarkable discoveries during the latest voyage of the Okeanos Explorer. Perhaps most important were many unexpected signs of marine life, notably forests of deep-sea coral in the Gulf and off the shores of northeast Florida.

The ship keeps exploring wherever it goes. So after completing a 56-day expedition across the central Gulf — from the Texas coast to near the site of the Deepwater Horizon oil spill south of Louisiana — the crew sailed through the Florida Straits and up the state's east coast, stopping

near Jacksonville to map the sea floor, confirm the presence of deep-sea corals and briefly escape a storm at sea.

After leaving Florida waters this week on their way back to home port in Rhode Island, the crew talked with the Sun Sentinel via NOAA's command center in Silver Spring, Md.

"We wanted to stay forever, because it was new and we were finding big concentrations of fish," said Elaine Stuart, a NOAA senior survey technician. "I think even the scientists were surprised to see all the life down there because they weren't sure what those populations were. When we actually went down with the ROV [remotely controlled vehicle] and saw all the clam beds and the mussel beds, it was a major find for them to know that these existed."

These signs were especially heartening after the massive Deepwater Horizon spill spewed millions of gallons of oil into the Gulf in 2010, fouling waters already burdened with stormwater runoff, fertilizers and many other sources of pollution.

The 224-foot Explorer, with a crew of about 19, is the only federal ship solely dedicated to systematic exploration of the Earth's oceans. Its mission: explore strange new worlds in the depths of the seas, seek out marine life and peer into places no human has seen before.

NOAA estimates that less than 5 percent of the deep seas have been examined. The Explorer — not considered a research vessel — provides data for others to interpret and shape future study. It also helps federal officials decide where to allow or exclude offshore oil drilling.

Based on recommendations from 55 scientists, the Explorer's latest mission was to examine parts of the Gulf, check out suspected shipwrecks, find and measure natural gas seeps that rise from the bottom and use its multi-beam sonar equipment to map sections of the seafloor.

Scenes from the ROVs were relayed via satellite and high-speed Internet to command centers on the Gulf Coast and Silver Spring and to scientists sitting at their computers in Florida and around the world.

NOAA also encouraged the public to join in as "citizen explorers," prompting an estimated 80,000 people to watch live video during some part of the exploration last month.

"The video from this ROV is spectacular," said Tamara Frank, a marine scientist at Nova Southeastern University who specializes in deep-sea ecosystems.

Discovery of deep-sea coral was especially encouraging, she said. "They serve as refuges for juvenile fish and juvenile crustaceans. No hard data yet, but it appears that there's a rich bottom community that works its way all the way up through the water column."

The Explorer's data also is used by the Bureau of Ocean Energy Management, the federal agency that recommends where energy companies can lay pipelines and drill for gas and oil. It was BOEM that recommended checking out the shipwreck site after it was spotted last year by sonar during a survey for Shell Oil Company.

The wreck, about 200 miles south of the Gulf Coast, turns out to be an historic treasure from the War of 1812-era with a coral colony growing over its bow, said Frank Cantelas, a marine archaeologist at NOAA.

"You rarely see something like this in the deep," he said. "It's standing upright on the bottom. All

of the artifacts are still there. Even the rudder seems to be attached. Usually you might just see a mast buried in sediment."

Cantelas hopes that research money can be found to further explore the wreck, but meantime the video evidence from the Explorer will provide a valuable record.

"It can tell us a lot about the people and culture of that time," he said. "This lost wreck stole the show."

More information and videos about the expedition can be found at wgibson@tribune.com"><http://oceanexplorer.noaa.gov/>.

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