



Sea Floor Characterization of the U.S. Caribbean 2011 Field Season Day 5: April 1, 2011

Meet Scott

Scott Zolkos here, writing today's blog. I recently graduated mid-year from Middlebury College in Vermont, with a degree in environmental science and geology. I have a longstanding passion for the ocean, and I became very interested in oceanographic research after studying abroad with SEA Semester in 2009. During SEA Semester, I conducted research aboard the SSV *Robert C. Seamans* in the Pacific Ocean. This is my first time aboard the NOAA Ship *Nancy Foster* and I am excited to be part of the team.

We are nearly a week into the cruise, and the science team is in full-on research mode. My role on board is to help process multibeam sonar data with GIS software, such as ArcMap and ENVI. I have also had the opportunity to jump around a bit and assist with other operations, including ROV deployment and recovery.

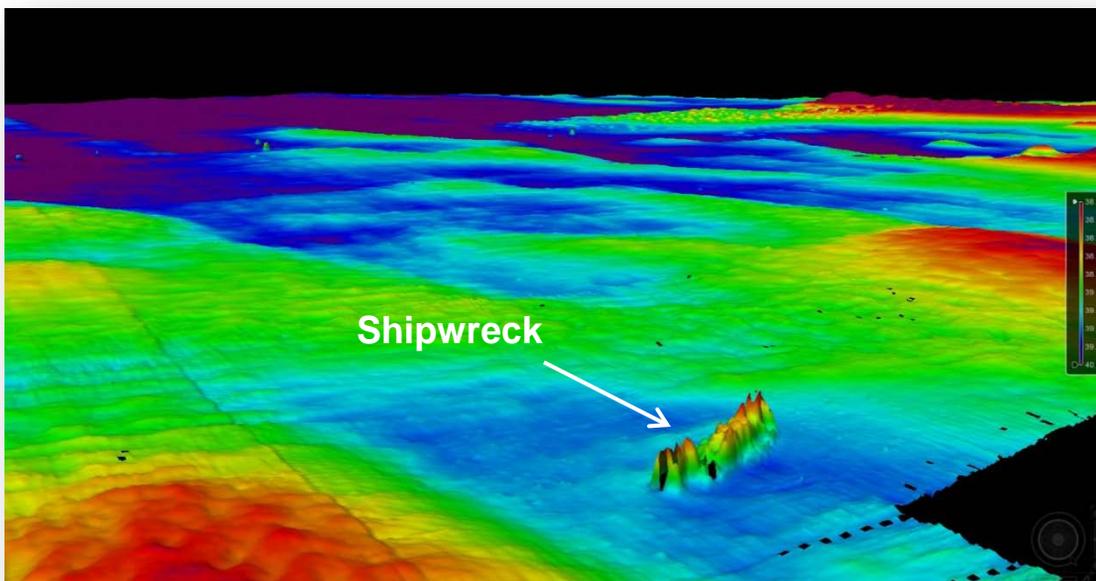


Peter is participating in the NOAA sea floor mapping mission through leg 1.

Uncharted Shipwreck Located!

This morning we returned with the ROV to the site of a suspected shipwreck. The wreck was first observed several days ago in the multibeam imagery as a distinct rectangle on the seafloor. A quick computer measurement suggested the object was roughly two meters high and 60 meters long! While the object seemed like a wrecked barge, everyone on board was eager to deploy the ROV for a visual observation.

A large group of people packed into the ship's wet lab, the room from which the ROV is controlled, to witness the spectacle. It was a treat to see some fantastic shots of the wreck as Glenn Taylor and Lance Horn masterfully navigated the ROV. Many fish swam about the sunken sanctuary, which provided shelter for coarse-eyed jacks, cottonwicks, lionfish, and even sharks. There was also lots of coral on the wreck, some of which was quite large. This suggests the wreck may have been around for some time, maybe several decades at least.



Multibeam sonar image shows the physical characteristics of the sea floor. The shipwreck appears as a distinct feature.

Afternoon Activities

This afternoon consisted of more ROV operations while Tim Battista and Nick Przyuski embarked on the small boat to collect drop camera imagery of the seafloor. Collecting seafloor imagery with the ROV and drop camera is an essential part of seafloor mapping. These visual observations are part of the “ground truthing” procedure, which is crucial because it is used to more accurately define the seafloor type.

Ground truthing along yesterday’s ROV transect revealed some healthy coral stands. In shallow Caribbean waters, live coral coverage is around 3-5%. In deeper Caribbean waters, 10-20% percent coverage is typical. The live coral coverage observed yesterday was nearly 50% in some areas, which was great to see!

Today’s Underwater Shots



The ROV is deployed to explore a possible shipwreck detected by sonar.



We spotted more derelict fish traps.



We thought this might be the ship’s rudder.



We noticed the shipwreck was a good habitat for fish.



More of the wreckage.



Colorful corals, algae and sponges on part of the wreckage.