



Okeanos Explorer ROV Dive Summary

Dive Information

<p>General Location Map</p>	
<p>General Area Descriptor</p>	<p>East of Stetson Mesa, Blake Plateau, U.S. Southeast</p>
<p>Site Name</p>	<p>Stetson Mound Field 02</p>
<p>Science Team Leads</p>	<p>Kimberly Galvez, University of Miami, Rosenstiel School of Marine and Atmospheric Sciences Stephanie Farrington, Florida Atlantic University. Harbor Branch Oceanographic Institute</p>
<p>Expedition Coordinator</p>	<p>Michael P. White, NOAA OER</p>
<p>ROV Dive Supervisor</p>	<p>Christopher Ritter, Global Foundation for Ocean Exploration</p>
<p>Mapping Lead</p>	<p>Shannon Hoy, NOAA OER</p>

ROV Dive Name

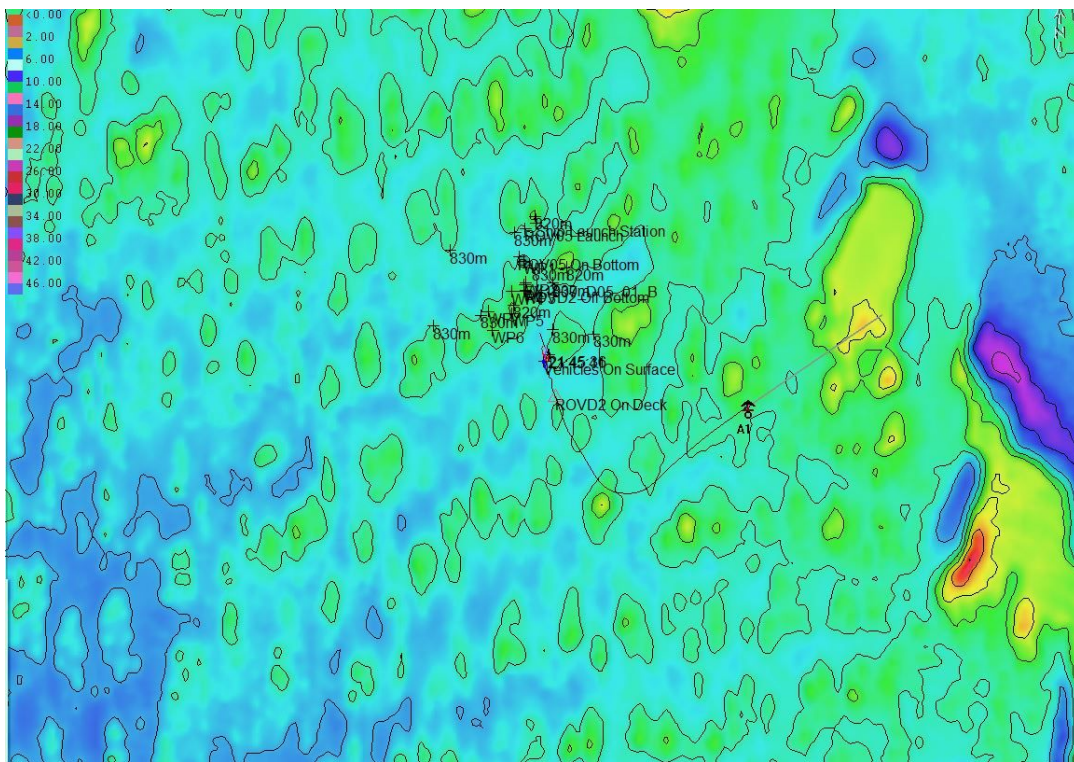
<p>Cruise</p>	<p>2019 Southeast U.S. Deep-sea Exploration</p>
<p>Dive Number</p>	<p>Dive 05</p>

Dive Purpose	This site was first mapped on EX1906. Site has the potential to be a suitable habitat for deep sea corals and sponges and could very likely be an aggregation of cold-water coral mounds. Dives 4 and 5 are located in the same field of mound features, although the features seem to differ in morphology and sizes. These dives will compare mounds of different sizes and shapes. This area is also part of a Habitat Area of Particular Concern (HAPC) and is a priority for regional managers.
Dive Description	<p>Target site: three consecutive, 10 m tall, elongated mounds located 2 nmi from dive 4, inside the deep coral HAPC. The mounds range in depth of 829 m to 818 m deep with a ~9° slope. The mound area is likely an area of coalesced mounds that started individually, but began to develop into one another. Originally we planned a 880 m dive track but the dive was shortened because of inclement weather.</p> <p>On the bottom there is a light current, we landed on the northern face of mound 1. The bottom was covered in coral rubble with mixed skeletal coarse-grained sand with sightings of <i>Pentametrocrinus atlanticus</i>- 5 armed crinoid, and 10 armed bottom dwelling crinoid - <i>Atelecrinus</i> as well as the pink siphon of a clam that retracted into the sediment upon disturbance. There is very little macrobiota here until we zoom in and find most of the bottom is covered with life, including: munnopsid isopods, small crustaceans, small thecate hydroids (feather like), fan sponges. Sediments are a continuation of what we've seen in this location and what we would expect, that is carbonate skeletal fragments including foraminifera, gastropod shells, coral fragments, pteropod shells, etc.</p> <p>Heading up the north face of mound 1 the dead coral rubble continues as well as the fan sponges and a cluster of Euplectellidae all with a well extended "marginalia" around the top border. Half way up mound 1- there is a large area of 10 cm wide sand waves indicating the prevailing current comes from the south. Here we run into a decorator crab with glass sponge on his carapace. We stop to collect Hexactinellida EX1907_D05_01B 20 cm wide, 5 mm thick thin folded amphitheater shaped "potato chip" sponge that is attached along most of the base. At the peak of mound 1 there is an increase in standing framework dead corals along with a large <i>Oceanapia</i> similar to the one collected on dive one and a tiny goniaster starfish feeding on the polyps of sparsely branched octocoral.</p>
Notable Observations	Goniaster star eating a coral.

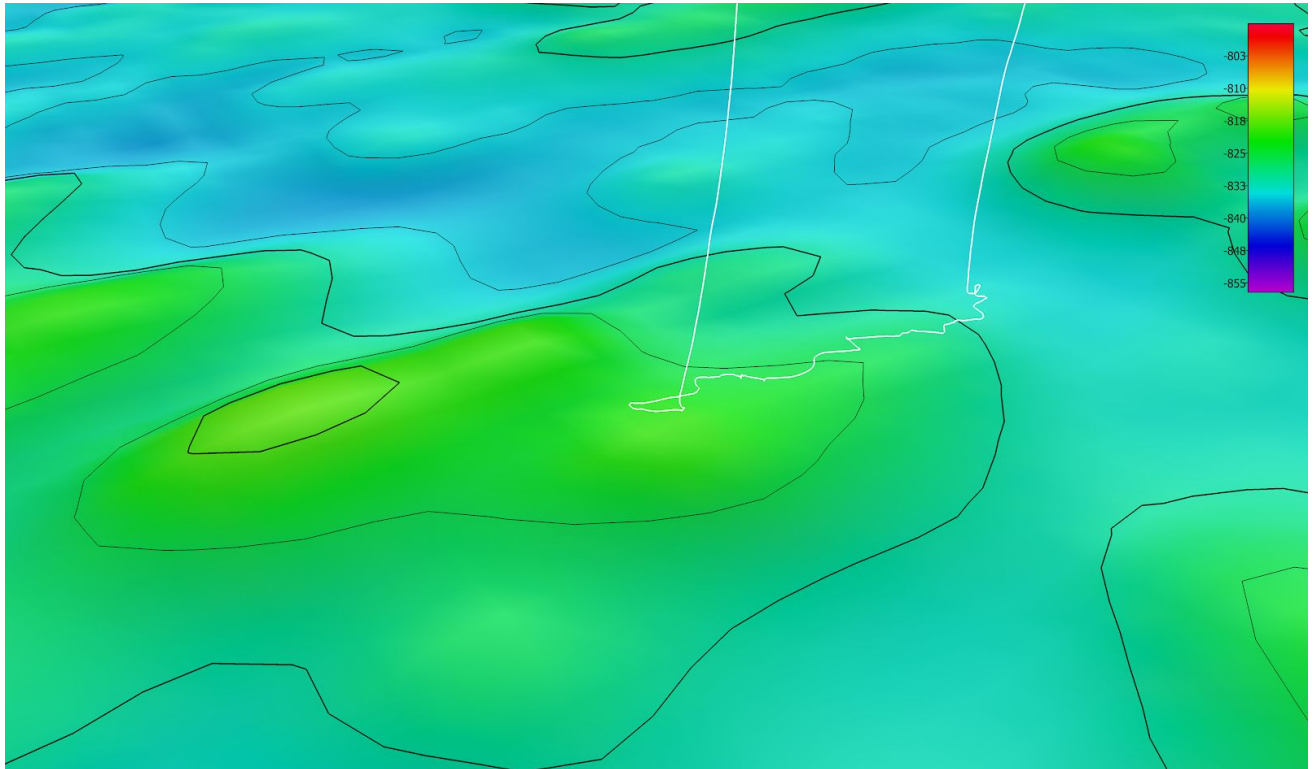


Community Presence/Absence (community is defined as more than two species)	<p>X Corals and Sponges</p> <ul style="list-style-type: none"> ✓ Chemosynthetic Community ✓ High biodiversity Community ✓ Active Seep or Vent ✓ Extinct Seep or Vent ✓ Hydrates
CMECS Feature Type	Mounds, Slope
SeaTube Link (science annotation system)	https://data.oceannetworks.ca/SeaTubeV2?resourceTypeId=1000&resourceId=23621&divId=3790

Overall Map of the ROV Dive Area



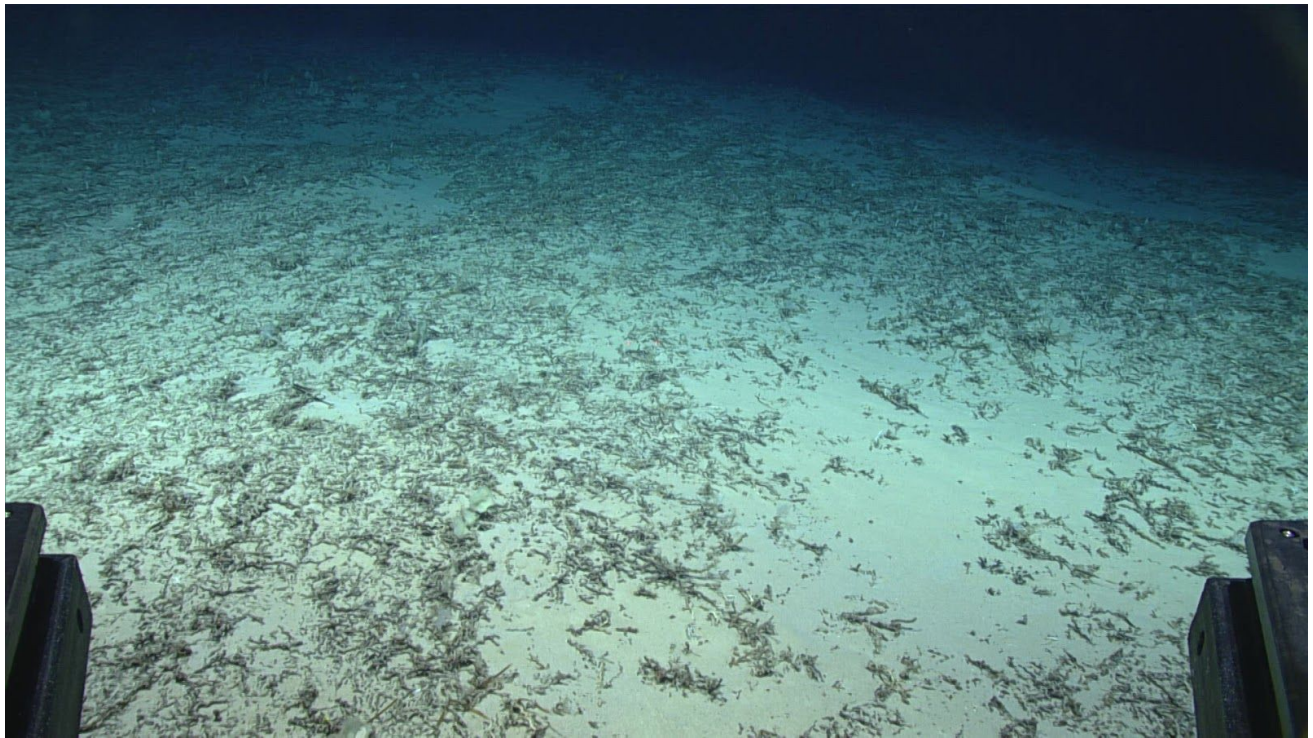
Close-up Map of Main Dive Site



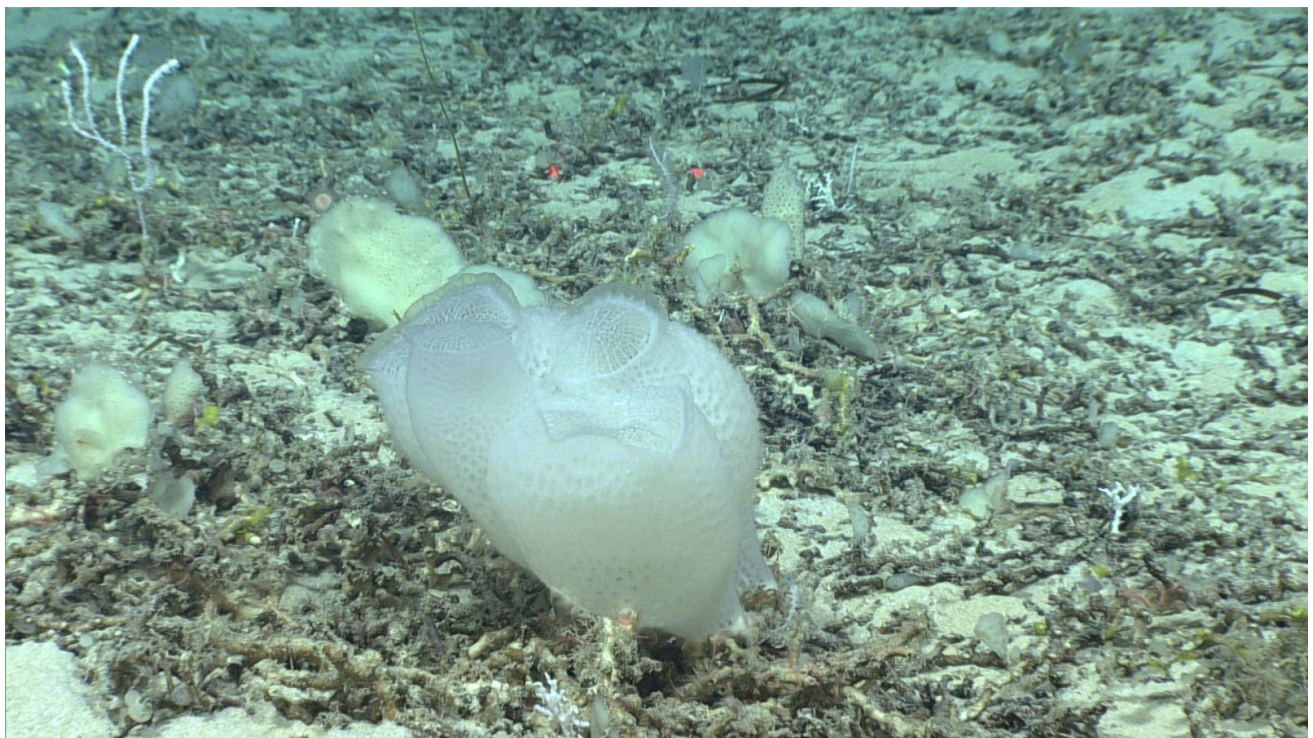
Representative Photos of the Dive



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Typical slope of mound covered in dead Lophelia rubble and sediment.



Cluster of Euplectellidae all with a well extended "marginalia" around the top border.





Possible syphon of a subsurface infaunal clam (not confirmed).



Tiny Goniaster eating the polyps of an octocoral.

Sample Collected -



Sample ID	EX1907_D05_01B														
Date (UTC)	November 05, 2019														
Time (UTC)	20:12														
Depth (m)	814m														
Temp. (°C)	8.56856														
Field ID(s)	Hexactinellida (glass sponges; hexactinellid sponges) ID: 22612 [WORM]														
Associates	<table border="1"> <thead> <tr> <th>Associates Sample ID</th> <th>Field Identification</th> <th>Count</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>			Associates Sample ID	Field Identification	Count									
	Associates Sample ID	Field Identification	Count												
Comments	20 cm wide, 5 mm thick- potato chip sponge. thin folded plate, amphitheater shape attached along most of the base. white.														

Please direct inquiries to:

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