



Okeanos Explorer ROV Dive Summary

Dive Information

<p>General Location Map</p>	
<p>General Area Descriptor</p>	<p>U.S. Southeast, Blake Plateau</p>
<p>Site Name</p>	<p>Stetson Mesa South Scarp</p>
<p>Science Team Leads</p>	<p>Amy Wagner (CSUS) and Alexis Weinnig (Temple)</p>
<p>Expedition Coordinator</p>	<p>Kasey Cantwell (NOAA-OER)</p>
<p>ROV Dive Supervisor</p>	<p>Chris Ritter (GFOE)</p>
<p>Mapping Lead</p>	<p>Shannon Hoy (NOAA-OER)</p>

ROV Dive Name

<p>Cruise</p>	<p>EX1903L2</p>
<p>Dive Number</p>	<p>DIVE03</p>

Scientists Involved (provide name, affiliation, email)

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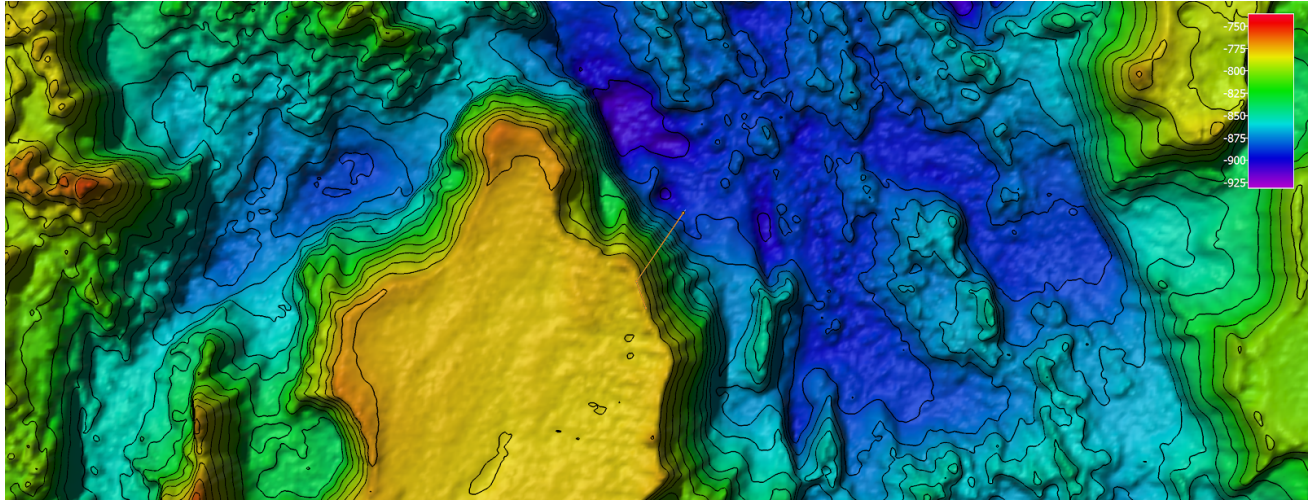
Dive Purpose	This dive will explore the Stetson Mesa South Scarp, part of the Blake Plateau. This area is part of the Stetson Miami Terrace Habitat Area of Particular Concern (HAPC) and was mapped on the first leg of the Windows to the Deep 2019 Expedition. The area has the potential to be a suitable habitat for deep sea corals and sponges. This area is a high priority region for the Southeast Deep-Sea Coral Initiative (SEDCI) from the NOAA Deep-Sea Coral Research and Technology Program.
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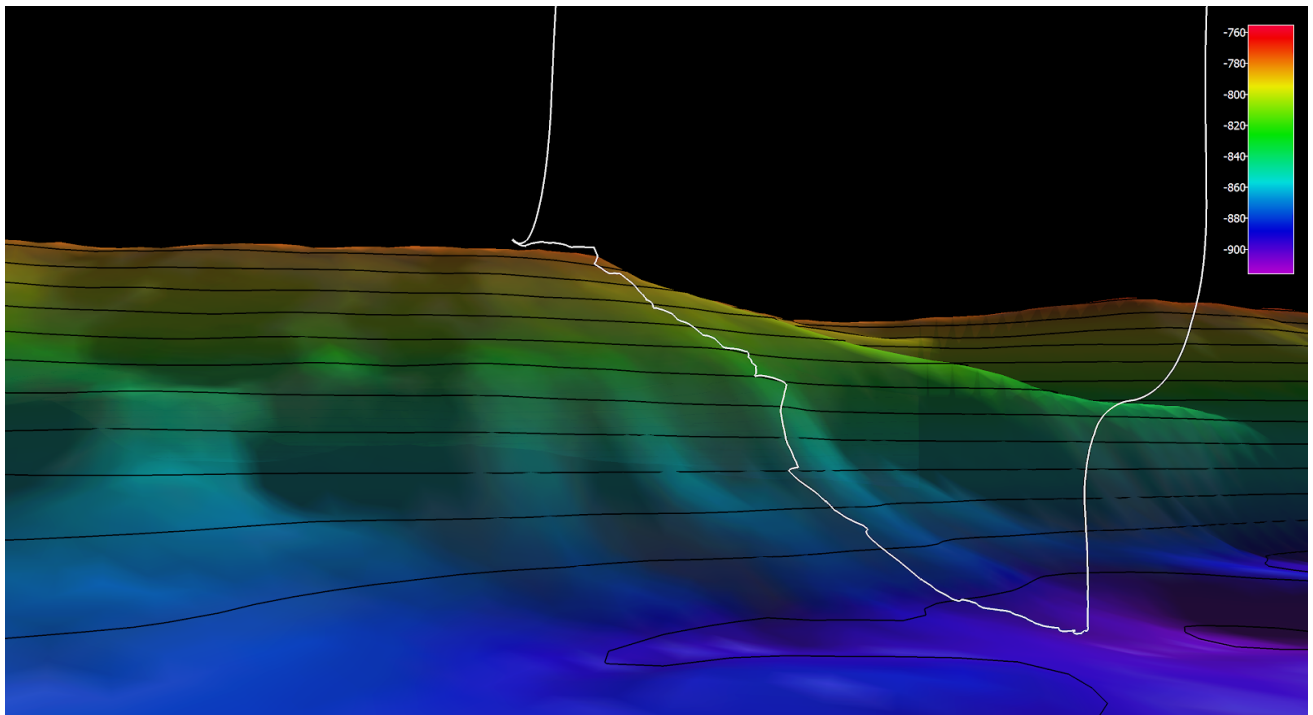
Dive Description	<p>This dive was conducted roughly 100 miles off of the Florida coast at the Stetson Mesa South Scarp. The ROV was launched at 12:20 UTC and there were divergent currents on the surface and at depth that the ROV team had to work around to keep the ship and vehicle in good position. The ROV reached bottom at 14:47 and 891 meters. From the moment we encountered the seafloor there was a layer of cold-water coral rubble, which persisted throughout the dive. There were a few manganese encrusted carbonate outcrops throughout the dive but the bottom type primarily consisted of coral rubble. A number of fishes were observed around the coral rubble including a Pluto skate (<i>Fenestraja plutonia</i>), small gray hake with black fin margins and barbels (<i>Laemonema barbatula</i>), small macrourid (<i>Nezumia bairdii</i>), small shark (<i>Etmopterus sp.</i>), <i>Synaphobranchus</i> eels, and conger eel. There were many invertebrates living among the rubble as well including crinoids, sponges, bryozoans, octocorals, black corals, seastars, and isopods. When we reached the steepest portion of the scarp, which happened to be near the base (roughly 830 meters), we encountered some large and impressive bamboo (isididae) octocorals and turned out to be a highlight of the dive. As we continued up the scarp and through the rest of the dive we continued to document coral rubble and not as much hard bottom substrate as we had originally expected. We did reach the top of the scarp (roughly 774 meters) and did not document much live scleractinian coral, only a few small patches of <i>Madrepora sp.</i> and <i>Enallopsammia profunda</i> across the scarp. During this dive we collected 3 biological samples (Acturid isopod, bamboo coral, sponge shaped like a teapot) and 1 geological sample (carbonate rock).</p>
Notable Observations	
Community Presence/Absence (community is defined as more than two species)	<ul style="list-style-type: none"> ✓ Corals and Sponges ✓ Chemosynthetic Community ✓ High biodiversity Community ✓ Active Seep or Vent ✓ Extinct Seep or Vent ✓ Hydrates
Feature Type	colonized cold-water coral reef (cold-water coral mound)
SeaTube link (science annotations program)	https://data.oceannetworks.ca/SeaTubeV2?resourceTypeId=1000&resourceId=23621&divId=974



Overall Map of the ROV Dive Area



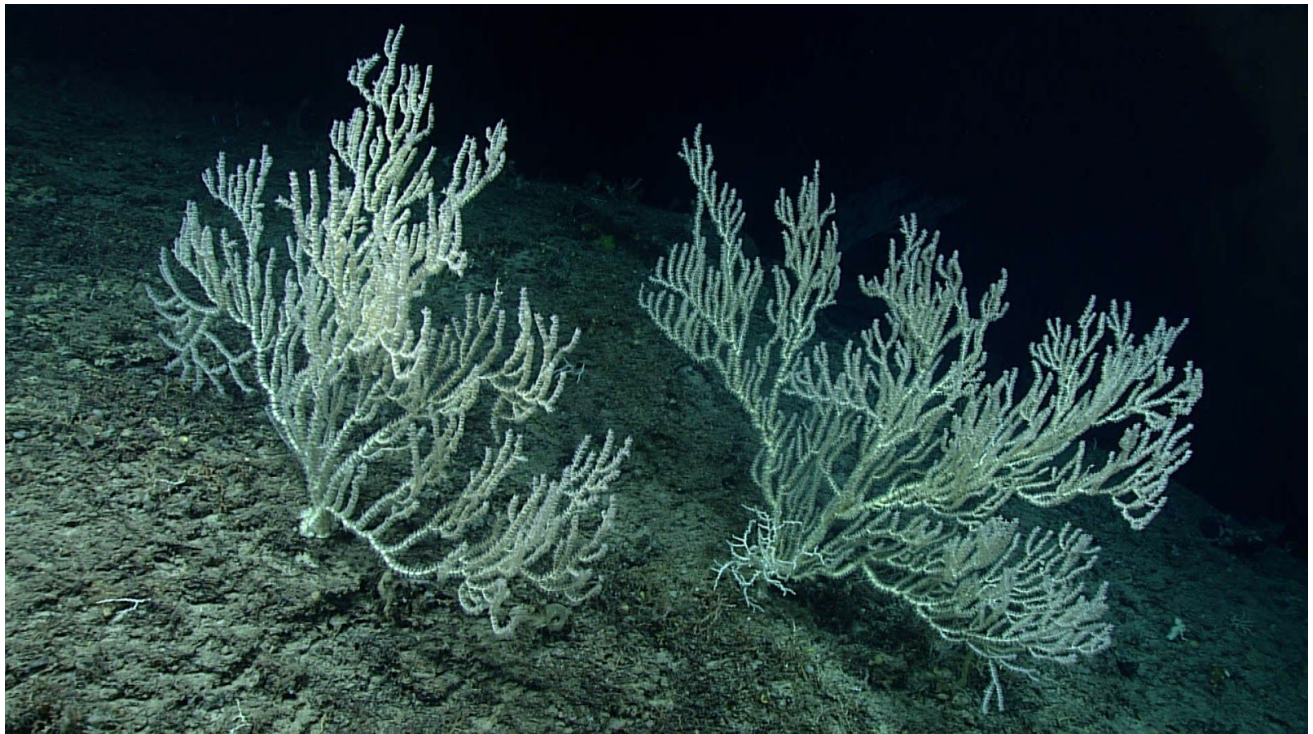
Close-up Map of Main Dive Site and Track



Representative Photos of the Dive

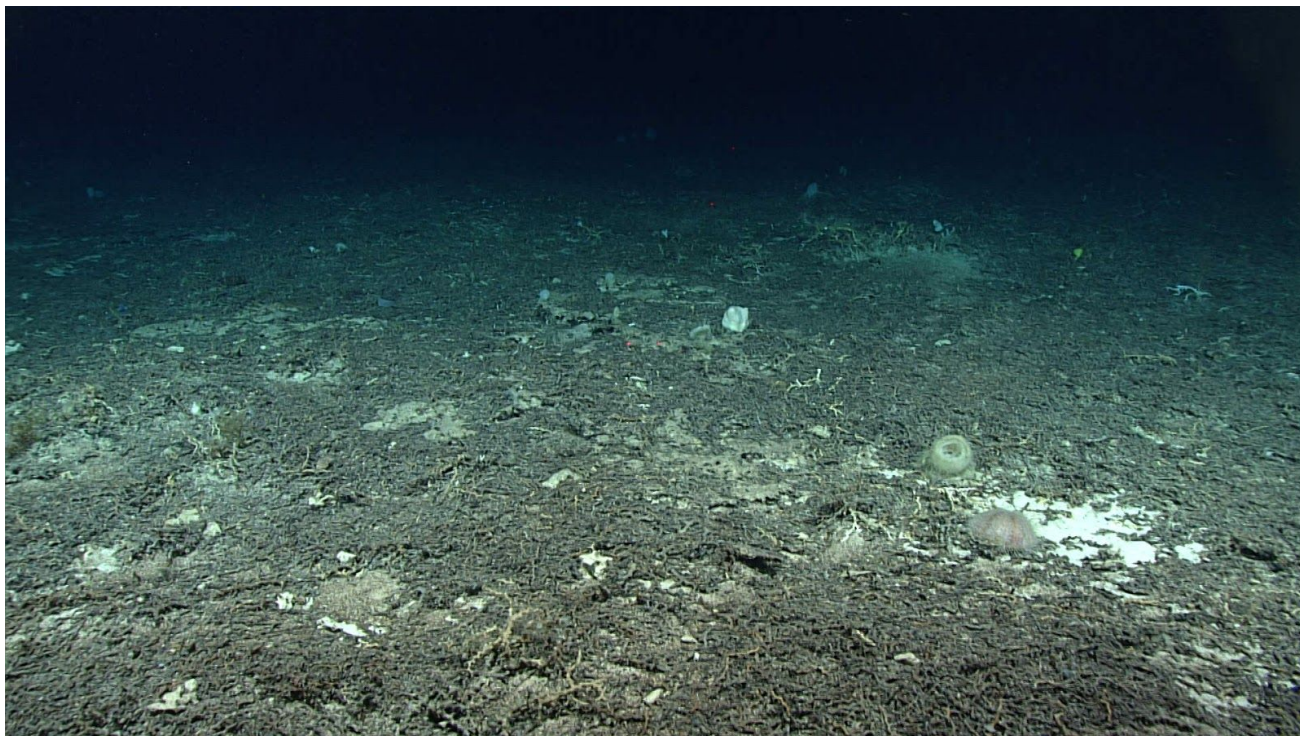


Ray (pull ID from chat) on coral rubble at roughly 800 meters.

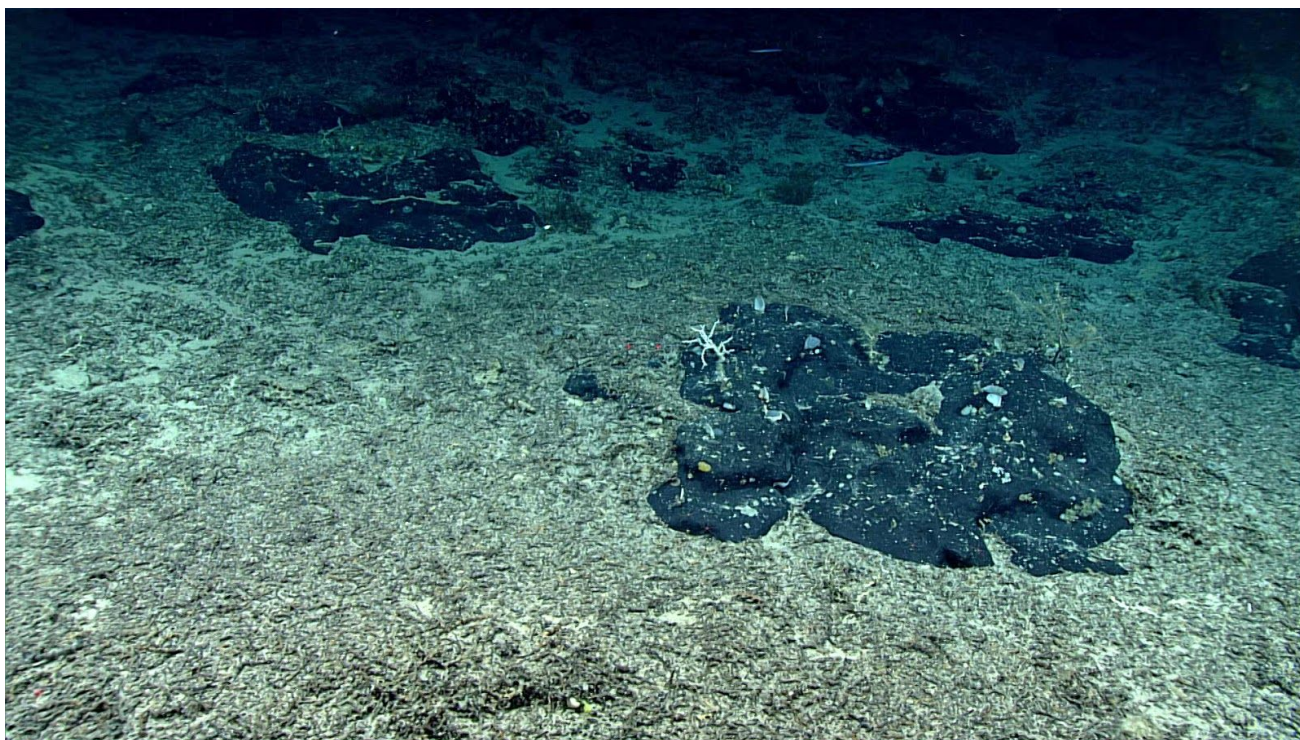


Two bamboo (Isididae) octocorals on the steepest part of the scarp slope.





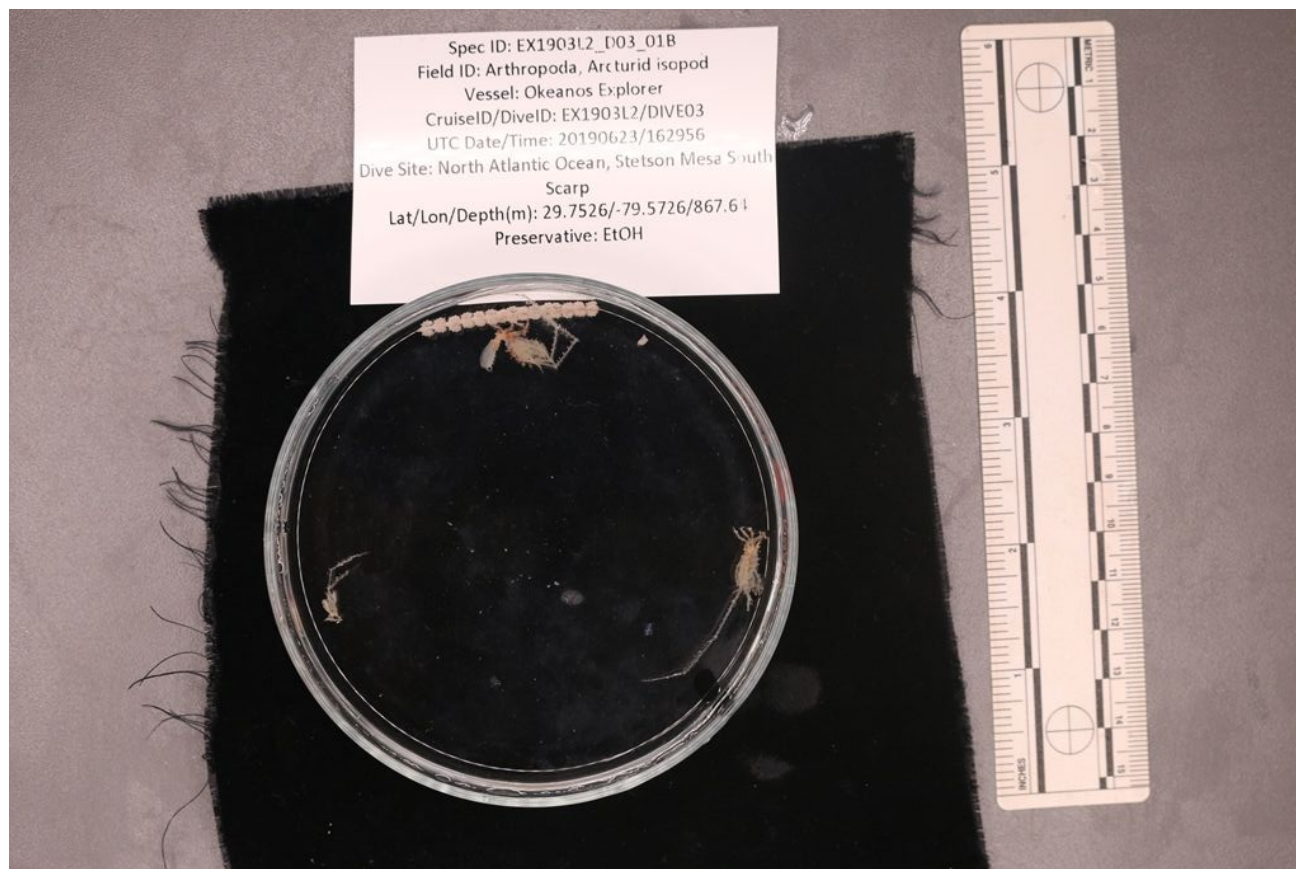
Representative photo of coral rubble and benthic community throughout the majority of the dive.



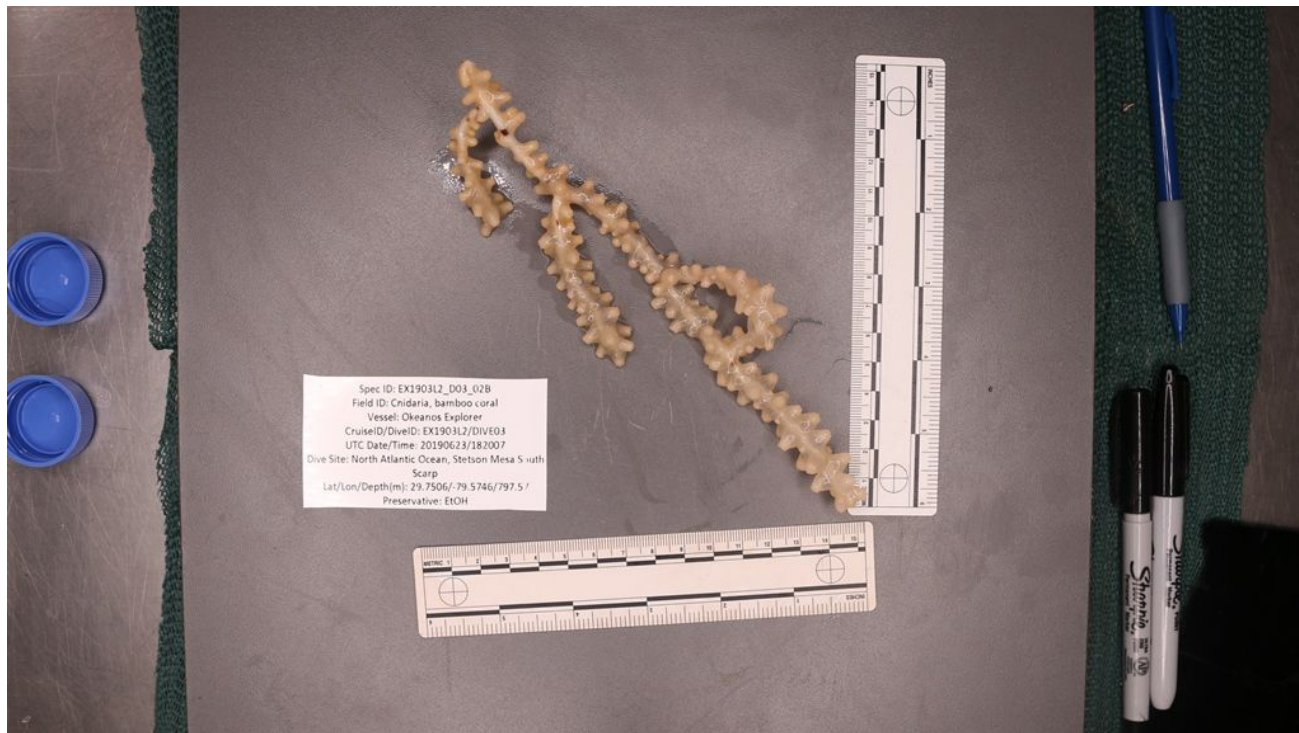
Manganese-encrusted carbonates surrounded by coral rubble



Samples Collected



Sample ID	EX1903L2_D03_01B	
Date (UTC)	20190623	
Time (UTC)	162956	
Depth (m)	867.6	
Temp. (°C)	7.429	
Field ID(s)	Arcturidae (Arcturid isopod)	
Associates	Associates Sample ID	Field Identification
	EX1903L2_D03_01B_A01	Plexauridae
	EX1903L2_D03_01B_A02	Primnoidae
	EX1903L2_D03_01B_A03	Hydrozoa
	EX1903L2_D03_01B_A04	Ophiuroidea
	EX1903L2_D03_01B_A05	Plexauridae
Comments		



Sample ID	EX1903L2_D03_02B	
Date (UTC)	20190623	
Time (UTC)	182007	
Depth (m)	797.6	
Temp. (°C)	7.301	
Field ID(s)	Isididae	
Associates	Associates Sample ID	Field Identification
	No Associates	
Comments		



Sample ID	EX1903L2_D03_03G	
Date (UTC)	20190623	
Time (UTC)	185707	
Depth (m)	775.1	
Temp. (°C)	7.265	
Field ID(s)	Rock sample	
Associates	Associates Sample ID	Field Identification
	EX1903L2_D03_03G_A01	Plexauridae
	EX1903L2_D03_03G_A02	<i>Enallopsammia</i> skeleton
	EX1903L2_D03_03G_A03	Caryophylliidae
Comments		



Sample ID	EX1903L2_D03_04B	
Date (UTC)	20190623	
Time (UTC)	195526	
Depth (m)	774.3	
Temp. (°C)	7.291	
Field ID(s)	Porifera	
Associates	Associates Sample ID	Field Identification
	EX1903L2_D03_04B_A01	Ophiuroidea
	EX1903L2_D03_04B_A02	<i>Enallopsammia profunda</i>
Comments		

Please direct inquiries to:

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and Research**