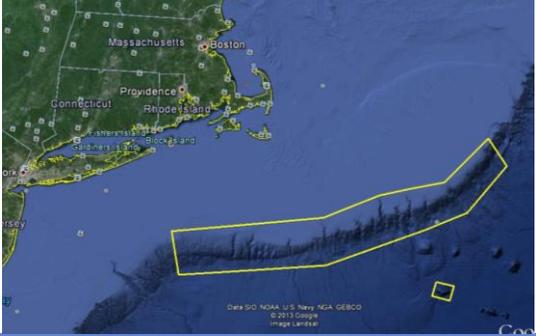


OKEANOS EXPLORER ROV DIVE SUMMARY

Site Name	Nygren Mid Deep			
ROV Lead/Expedition Coordinator	David Lovalvo/ Brian Kennedy			
Science Team Leads	Amanda Demopoulos Martha Nizinski			
General Area Descriptor	Northwest Atlantic Ocean; Northeast U.S. Canyons			
ROV Dive Name	Cruise Season	Leg	Dive Number	
	EX1304	2	DIVE06	
Equipment Deployed	ROV:	Deep Discoverer		
	Camera Platform:	Seirios		
ROV Measurements	<input checked="" type="checkbox"/> CTD	<input checked="" type="checkbox"/> Depth	<input checked="" type="checkbox"/> Altitude	
	<input checked="" type="checkbox"/> Scanning Sonar	<input checked="" type="checkbox"/> USBL Position	<input checked="" type="checkbox"/> Heading	
	<input checked="" type="checkbox"/> Pitch	<input checked="" type="checkbox"/> Roll	<input checked="" type="checkbox"/> HD Camera 1	
	<input checked="" type="checkbox"/> HD Camera 2	<input checked="" type="checkbox"/> Low Res Cam 1	<input checked="" type="checkbox"/> Low Res Cam 2	
	<input checked="" type="checkbox"/> Low Res Cam 3	<input checked="" type="checkbox"/> Low Res Cam 4	<input checked="" type="checkbox"/> Low Res Cam 2	
Equipment Malfunctions				
ROV Dive Summary (From processed ROV data)	In Water at:	2013-08-06T12:29:26.669000 40°, 43.645' N ; 066°, 39.613' W		
	Out Water at:	2013-08-06T20:39:07.149000 40°, 43.930' N ; 066°, 39.920' W		
	Off Bottom at:	2013-08-06T19:45:37.602000 40°, 43.799' N ; 066°, 39.691' W		
	On Bottom at:	2013-08-06T13:20:39.685000 40°, 43.620' N ; 066°, 39.652' W		
	Dive duration:	8:9:40		
	Bottom Time:	6:24:57		
	Max. depth:	1590.4 m		
Special Notes				
Scientists Involved (please provide name / location / affiliation / email)	Primary			
	Amanda Demopoulos (Science lead), USGS, ademopoulos@usgs.gov			
	Amy Baco-Taylor, FSU, abacotaylor@fsu.edu			
	Andrea Quattrini, Temple, andrea.quattrini@temple.edu			
	Bernie Ball, Duke, bernieb@duke.edu			
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Purpose of the Dive

The purpose of the dive was to characterize 1) the submarine canyon geomorphology and benthic habitats, including possible coral and sponge communities at a depth of ~1300-1600 m on the southwestern wall of Nygren Canyon and 2) groundtruth a model of predicted deep-sea coral occurrence.

Description of the Dive:

Dive #6 at Nygren Canyon was very exciting. The ROV was on bottom at 1325 UTC at a depth of 1579 m. While traversing over soft sediments, the seafloor was scattered with shell debris that transitioned to more abundant shell, coral skeleton, and small, dark rocks. Abundant organisms observed over or on the sediments included synphobranchid eels, unicellular xenophyophores, and ophiuroids. There were a few sea pens and sea urchins also observed. The slope changed to more rugged topography, composed of dark, manganese encrusted rock. The hard substrate was populated by several taxa that have been documented previously on this expedition, including limid bivalves, stony corals, and sponges. On the rock surface, a coiled, pink mass, possibly a gastropod egg mass was observed. At 1558 m, the rock face changed to a lighter color, consistent with carbonate, and multiple patches of mussels populated cracks within the rock. We had discovered a seep. Other organisms found within the mussel patches included serpulids, scaleworms, gastropods, and bacterial mats. Light, white fluffy material floated away from one of the mussel patches. This white fluff also was present at the seeps to the west (near Veatch and Nantucket Canyons).

Several species of corals were documented throughout the dive, most of which occurred on the exposed rock face, but some were also found within the softer sediment at the beginning of the dive (e.g., sea pens). At least 17 octocoral



Please direct inquiries to:

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