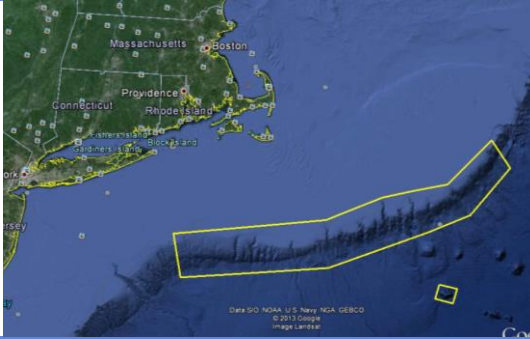


OKEANOS EXPLORER ROV DIVE SUMMARY

Site Name	Lydonia Powell Intercanyon			
ROV Lead/Expedition Coordinator	David Loalvo/ 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	DIVE11	
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:	2013-08-12T12:24:54.939000 40°, 20.986' N ; 067°, 32.346' W		
	Out Water at:	2013-08-12T20:38:40.456000 40°, 21.419' N ; 067°, 31.694' W		
	Off Bottom at:	2013-08-12T20:22:05.157000 40°, 21.442' N ; 067°, 31.755' W		
	On Bottom at:	2013-08-12T12:49:57.168000 40°, 20.994' N ; 067°, 32.200' W		
	Dive duration:	8:13:45		
	Bottom Time:	7:32:7		
	Max. depth:	662.8 m		
Special Notes				
Scientists Involved (please provide name / location / affiliation / email)	Primary			
	Amanda Demopoulos (Science Lead), USGS, ademopoulos@usgs.gov			
	Andrea Quattrini, Temple, andrea.quattrini@temple.edu			
	Brian Kennedy, NOAA OER, Brian.Kennedy@noaa.gov			
	Erik Cordes, Temple, ecordes@temple.edu			
	Esprit Saucier, UL Lafayette, heestand.saucier@louisiana.edu			
Jamie Austin, UT, jamie@ig.utexas.edu				
Les Watling, UH, watling@hawaii.edu				

Martha Nizinski (Science Lead), NOAA NMFS, nizinski@si.edu
Morgan Kilgour, UCONN, morgan.kilgour@uconn.edu
Rhian Waller, U of Maine, rhian.waller@maine.edu
Taylor Heyl, WHOI, theyl@whoi.edu
Tim Shank, WHOI, tshank@whoi.edu

Passive

Brad Stevens, UMES, bgstevens@umes.edu
Erick Geiger, U of Delaware, egeiger@udel.edu
Thomas Ritter, MSU, thomas.ritter@msu.montana.edu

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 and 2) groundtruth a model of predicted deep-sea coral occurrence. The New England and Mid-Atlantic Fisheries Management Councils are particularly interested in intercanions to provide more information on depth boundaries for deep-sea coral protection.

Description of the Dive:

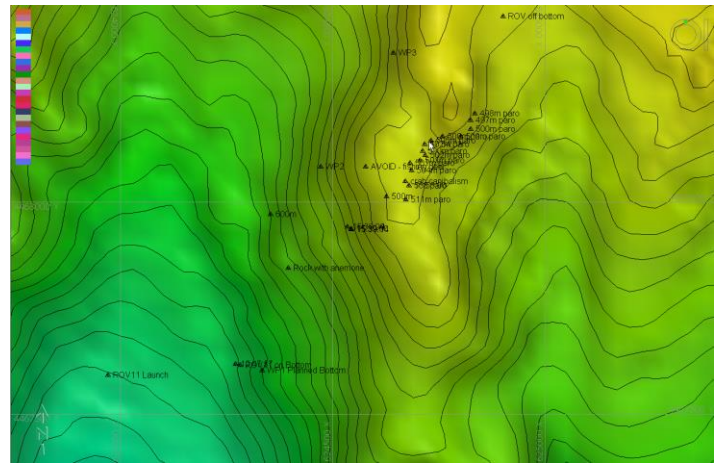
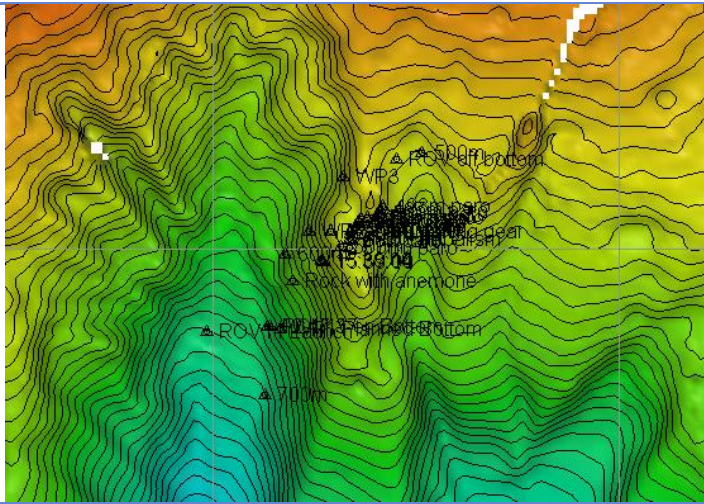
Today's dive followed a shallow dive track along the northeastern wall of an intercanyon between Powell and Lydonia Canyons. The ROV was on bottom at 13:10 UTC at a depth of 655m. The dive track traversed similar sedimented terrain from start to finish. The soft sediment was punctuated by small to large rocks that were typically populated by flytrap anemones, sponges (yellow and white), hydroids, shrimp, squat lobsters, and fish (longfin hake and *Sebastes* sp.). Other fish observed included witch founder, black belly rose fish, goosefish, eelpout, rattails, synbranchid eels, skate, and a juvenile cf. *Beryx*. One unidentified fish with distinct dorsal and pectoral fins, with extremely elongate posterior region was observed. Epifauna on the soft sediments was dominated by *Hyalinoecia* sp. (quill worms), small zoanths?, *Cancer* sp. and *Chaceon quinquegens* crabs. Rocks included boulders with a moat developed around periphery and various sized gravel scattered around. Rounded rocks considered to be dropstones were observed throughout the dive.

In the water column, we observed midwater fish (*Stomias* sp. and myctophids), snipe eels, barracudina, squid (*Brachioteuthis* sp.), siphonophores, salps, amphipods, two types of ctenophores (beroid and lobate), and shrimp including *Sergestes* sp.

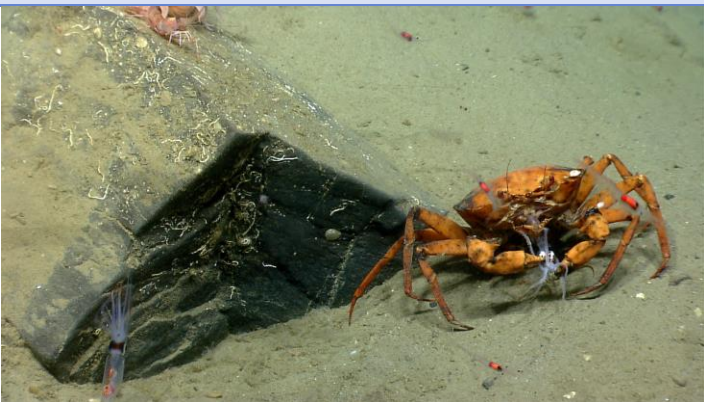
Notable observations included a possible pink flatworm (not observed on dives to date), *Brachioteuthis* mating, mating red crabs sharing a fish, several other predation events, including a red crab eating a squid, anemone catching a midwater fish and squid (got away), Cancer crab eating a red crab, and a swordfish knocking over a red crab perched on a boulder. Only one piece of trash, tentatively identified as a sheet of metal, was observed on the dive.

Overall Map of ROV Dive Area

Close-up Map of Main Dive Site



Representative Photos of the Dive



Please direct inquiries to:

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