OKEANOS EXPLORER ROV DIVE SUMMARY

Site Name	Mytilus Seamount South		
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	DIVE05
Equipment Deployed	ROV:	Deep Discoverer	
	Camera Platform:	Seirios	
ROV Measurements	☒ CTD	☒ Depth	☒ Altitude
	☒ Scanning Sonar	☒ USBL Position	☒ Heading
	☒ Pitch	☒ Roll	☒ HD Camera 1
	☒ HD Camera 2	☒ Low Res Cam 1	☒ Low Res Cam 2
	☒ Low Res Cam 3	☒ Low Res Cam 4	☒ Low Res Cam 2
Equipment Malfunctions			
ROV Dive Summary (From processed ROV data)	In Water at:	2013-08-05T12:31:44.920000 39°, 21.267' N ; 067°, 12.291' W	
	Out Water at:	2013-08-05T23:05:49.147000 39°, 21.817' N ; 067°, 12.801' W	
	Off Bottom at:	2013-08-05T21:32:06.855000 39°, 21.930' N ; 067°, 12.249' W	
	On Bottom at:	2013-08-05T14:27:36.956000 39°, 21.345' N ; 067°, 12.387' W	
	Dive duration:	10:34:4	
	Bottom Time:	7:4:29	
	Max. depth:	3262.3 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 Brian Kennedy, NOAA OER, Brian.Kennedy@noaa.gov Cheryl Morrison, USGS, cmorrison@usgs.gov Jason Chaytor , USGS, jchaytor@usgs.gov Jay Lunden, Temple, jlunden@temple.edu Les Watling, UH, watling@hawaii.edu Martha Nizinski (science Lead), NOAA NMFS, nizinski@si.edu		

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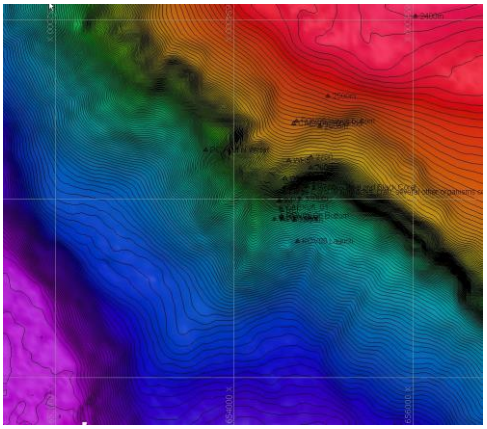
Purpose of the Dive

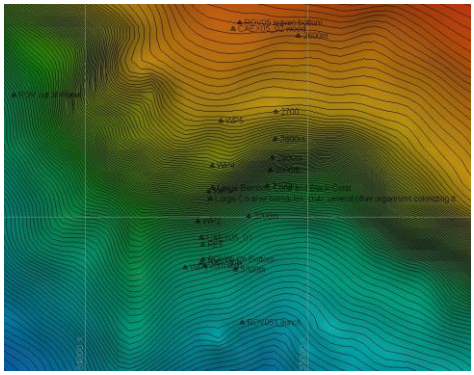
Despite a significant level of past effort, the New England seamounts, a major chain of undersea mountains, remains largely unexplored. Building on previous work, we will conduct the first ecological explorations of the New England seamounts. Of those seamounts within the US EEZ, Mytilus Seamount has yet to be visited in this regard. This dive will explore steep terrain along the south side of the seamount to characterize deep sea coral and sponge communities.

Description of the Dive:

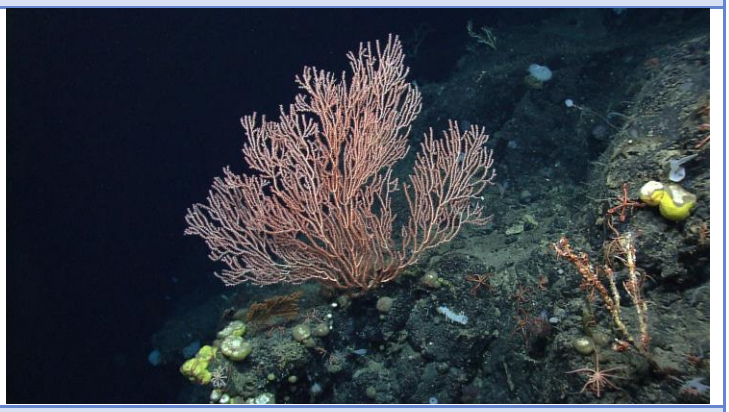
Our 5th dive on the south side of Mytilus Seamount contrasted with the north wall dive in many ways. The ROV was on bottom at 1422 UTC at 3262 m. The terrain was gently sloping sandy sediment with scattered cobbles, including darker colored manganese-coated basalt and lighter colored stones, potentially composed of carbonate. A few fish, including an ophidiid, *Bathysaurus*, holosaur, synaphobranchid, and *Bathychaunax* were present mostly on the sedimented areas at the beginning and end of the dive. High abundances and diversity of sponges were noted throughout the dive once we ascended to hard substrate, including several types observed on Mytilus dive #4: "tulip" shaped, vase sponges, and some new forms, primarily hexactinellids. A few crustaceans were observed, including hermit crabs with anemone houses, shrimp, and squat lobsters (Munidopisidae). The first coral noted on the dive was a sea pen observed on the sedimented seafloor. The general substrate throughout the dive was composed of large basalt ledges with thin to thick sediment drape, steep rocks, and some smooth basalt pillars transitioning to mostly sediment with cobble at approximately 2697 m. Up to 13 octocorals were observed during the dive, including our first observation of *Calyptrophora*. Other corals observed during the dive included several species noted on the north wall: *Corallium*, *Jasonisis*, primnoids, *Chrysogorgia*, *Paragorgia*, stoloniferous octocorals, and 3 types of black corals (*Bathypathes*-related, *Stauropathes*, and *Bathypathes*). *Anthomastus* did not appear to be as abundant on the south wall as on the north, while the density of *Convexella* appeared to be greater on the south wall. We noted discrete zonation present on a bamboo coral, with ophiuroids, barnacles, and zoanthids covering different sections of the mostly dead coral. A few seastars observed during yesterday's dive were also noted today, including cf. *Evoplosoma* (coral eating type), *Hymenaster*, and *Pteraster*. At the end of the dive, we noticed a piece of wood that was heavily bored, with squat lobsters perched on one end. The ROV was off bottom at 2126 UTC leaving from a depth of 2593 m.

Overall Map of ROV Dive Area	**Close-up Map of Main Dive Site**





Representative Photos of the Dive



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