


OKEANOS EXPLORER ROV DIVE FORM

Site Name	West Florida Escarpment Canyon					
ROV Lead/Expedition Coordinator	Dave Lovalvo/Jeremy Potter					
General Area Descriptor	~190nm west of Tampa, Florida					
UTC Date & Time	Deployment	3/23/2012 12:32PM				
	Recovery	3/23/2012 20:30PM				
Bottom Time [HH:MM]	7:98					
Landing Time & Location	UTC Time	14:23		Depth [m]	2140	
	Latitude	27	0	54.839N		N
	Longitude	86	0	2.068W		w
Off Bottom Time & Location	UTC Time	20:30		Depth [m]	1671	
	Latitude	27	0	91614		N
	Longitude	86	0	03557		w
ROV Dive Name	Cruise Season	EX1202		Leg	LEG02	
	Dive Number	ROV3				
Equipment Deployed	ROV:	Little Hercules				
	Camera Platform:	Seirios Camera Platform				
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		
	<input checked="" type="checkbox"/> Low Res Cam 1	<input checked="" type="checkbox"/> Low Res Cam 2				
Equipment Malfunctions	None					
Special Notes	Click here to enter text.					
Scientists Involved <i>(please provide name / location / affiliation / email)</i>	<p>Tim Shank (on-board Science Lead), EX, WHOI, tshank@whoi.edu Pen-Yuan Hsing, PSU, penyuan.hsing@psu.edu Santiago Herrera, WHOI, sherrera@mit.edu Taylor Heyl, WHOI, theyl@whoi.edu Eleanor Bors, WHOI, ekbors@gmail.com Catriona Munro, WHOI, cmunro@whoi.edu Bob Carney, LSU, rcarne1@lsu.edu Erik Cordes, Temple, ecordes@temple.edu Andrea Quattrini, Temple, andrea.quattrini@temple.edu Peter Etnoyer, NOAA, Peter.Etnoyer@noaa.gov Mike Vecchione, Smithsonian, VecchioneM@si.edu</p>					

Purpose of the Dive:

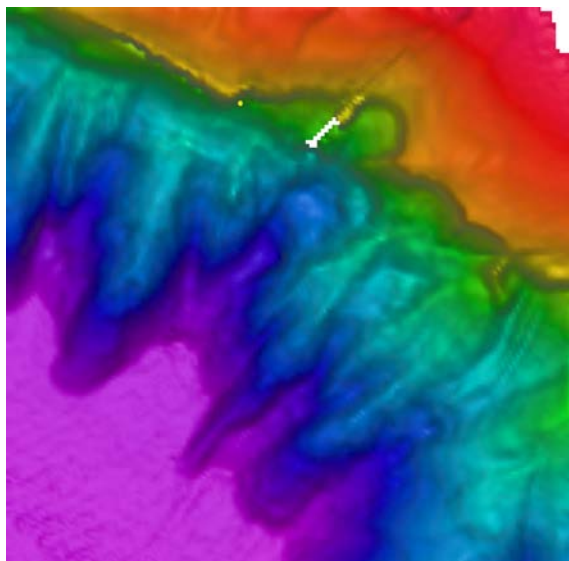
To explore an area on a West Florida Escarpment Canyon at 27° 54.84N 86° 02.05W at a depth of 2100m, beginning at the base of the escarpment wall on the inward side of the canyon basin on sedimented slope near 2100m depth. The plan is to explore this sedimented region, the base of the escarpment and then progress up the face of the scarp to the top at about 1700m.

Description of the Dive:

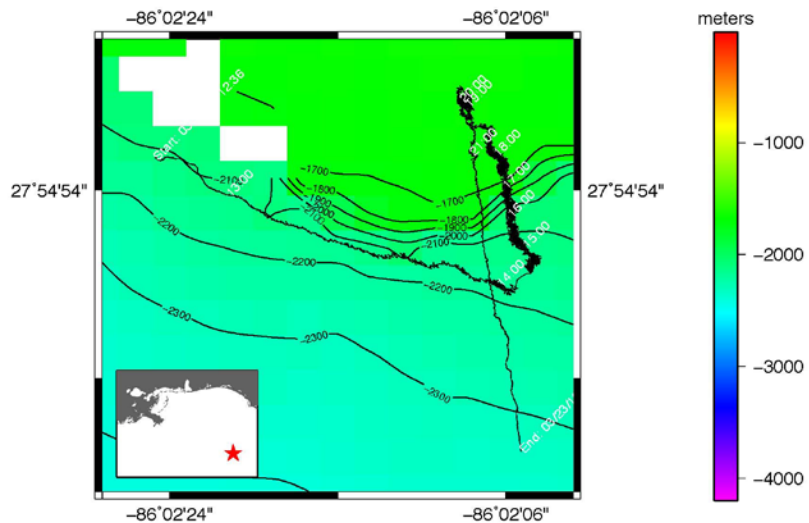
Dive 3 of this program began at 1423, 27 54.839N 86 2.068W at an area on the West Florida Escarpment Cayon. Once on bottom, LH faced a sedimented 45 degree slope covered with pteropod shells, at a depth of 2140m and prepared for a move upslope. Holothurians, nematocarcinid shrimp and exposed rocky carbonates with worm tubes were common on soft sediment as we moved upslope. Given this precarious terrain, LH was not able to set down quickly for imaging and most imaging was done on the fly. At 1507, we placed a virtual target on WFL-16 Pseudostichopus holothurian at 27 54.852N 86 02.083W, depth 2127. At 1512, LH continued moving upslope, over heavily sedimented carbonate rock with no attached or mobile fauna visible, depth 2118m. Exposed carbonate rock and pteropod shells seen on sediment, few worm tubes and more Pseudostichopus holothurians. 1536, seeing more hard substrate as we move upslope but not much attached fauna at 7.91446N, -86.03486W, depth 2104m. At 1605, LH transiting upslope in a "zig zag fashion" to the tether length to see more seafloor, terrain has steepened. 1612, imaged a cup coral and dropped virtual target WFL-17 - Octocoral on scarp, depth 2048m. Encountered chrysogorgiid coral with reddish polychaete associate and several other corals on the wall, including a paramuricea as we moved upslope. At 1630, 27.91481, -86.03485 LH stopped to image diversity of corals on this wall, including an iridogorgia, bamboo coral and paramuricea as well as small burrow openings and pteropod shells on sediment at the base of the rock. 1655, imaging paramuricea coral with ophiuroid associate. Two species of hexactinellida sponge, shrimp, and several more corals were observed as LH moved closer to the rock wall. 1727 we imaged red/pinkish octocoral, Anthomastus at 27.91534, -86.03502, depth 1951m and a purple spherical sponge at 1744 before moving to image a second sponge, possibly Euritidea, that appeared to be dead.

At approximately 200m from the top of this steep rocky, and heavily sedimented slope, we encountered several sponges, corals, including iridogorgia, and holothurians and dropped a virtual target before deciding to move as quickly (and safely) as possible upslope to the rim. Crinoids were visible and multiple sponges as we crossed 1800m on an almost vertical and less sedimented rock face. At 1833, 27.91582, -86.03544 we dropped a virtual target ("Coral on underside of overhang") for this site with multiple large corals, including Isidid and Stichopathes depth 1680m. A distinctive band of high coral and crinoid density was observed just below the top rim of the canyon and the goal for the remainder of this dive was to image/document this band. Predatory asteroids were observed on several bamboo corals and LH was repositioned to image them. We then imaged white gorgonian corals and madrepora with a zig zag pattern at 1904, 27.91620, -86.03560, depth 1671m before moving slightly upslope to image a yellow madrepora with close up imaging on polyps at 1920. We imaged a primnoid coral at 1928 and shortly after, a Bathypathes at 27.91621, -86.03557. At 1948 LH moved in to image pinkish COR Irridogorgia with gravid shrimp and crinoid associates before dropping virtual target "WFL018 Area of most coral videos". Shortly before the end of this dive at 2004, 27.91619, -86.03568, LH imaged a Paramuricea, primnoid, small white ophiuroid, and Anthomastus, growing on what may be a dead coral base with hydroid associates at depth 1671m.

Overall Map of ROV Dive Area



Close-up Map of Main Dive Site



Representative Photos of the Dive



EX1202L2_IMG_20120323T142812Z_ROVHD_HOL_3
A close-up of a benthic holothurian on heavily sedimented carbonate rock.

EX1202L2_IMG_20120323T172913Z_ROVHD_COR_AUDIO
Red/pinkish octocoral Anthomastus imaged at a depth of 1951 meters on a carbonate wall.

Please direct inquiries to:

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