


# OKEANOS EXPLORER ROV DIVE FORM

<b>Site Name</b>	Rocky Scarp #1				
<b>ROV Lead/Expedition Coordinator</b>	Dave Lovalvo/Jeremy Potter				
<b>General Area Descriptor</b>	~150nm southwest of Tampa, Florida				
<b>UTC Date &amp; Time</b>	Deployment	3/20/2012 12:46 PM			
	Recovery	3/20/2012 20:15 PM			
<b>Bottom Time [HH:MM]</b>	7:69				
<b>Landing Time &amp; Location</b>	UTC Time	13:03		Depth [m]	444
	Latitude	26	°	27.99	' N
	Longitude	84	°	46.676	' W
<b>Off Bottom Time &amp; Location</b>	UTC Time	20:15		Depth [m]	395
	Latitude	26	°	28.045	' N
		84	°	46.49	' W
<b>ROV Dive Name</b>	Cruise Season	Leg		Dive Number	
	EX1202	LEG02		ROV1	
<b>Equipment Deployed</b>	ROV:	Little Hercules			
	Camera Platform:	Seirios Camera Platform			
<b>ROV Measurements</b>	<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			
<b>Equipment Malfunctions</b>	None				
<b>Special Notes</b>	Click here to enter text.				
<b>Scientists Involved</b> <i>(please provide name / location / affiliation / email)</i>	<p>Tim Shank (on-board Science Lead), EX, WHOI, <a href="mailto:tshank@whoi.edu">tshank@whoi.edu</a>  Pen-Yuan Hsing, PSU, <a href="mailto:penyuan.hsing@psu.edu">penyuan.hsing@psu.edu</a>  Santiago Herrera, WHOI, <a href="mailto:sherrera@mit.edu">sherrera@mit.edu</a>  Taylor Heyl, WHOI, <a href="mailto:theyl@whoi.edu">theyl@whoi.edu</a>  Eleanor Bors, WHOI, <a href="mailto:ekbors@gmail.com">ekbors@gmail.com</a>  Catriona Munro, WHOI, <a href="mailto:cmunro@whoi.edu">cmunro@whoi.edu</a>  Bob Carney, LSU, <a href="mailto:rcarne1@lsu.edu">rcarne1@lsu.edu</a>  Erik Cordes, Temple, <a href="mailto:ecordes@temple.edu">ecordes@temple.edu</a>  Andrea Quattrini, Temple, <a href="mailto:andrea.quattrini@temple.edu">andrea.quattrini@temple.edu</a>  Peter Etnoyer, NOAA, <a href="mailto:Peter.Etnoyer@noaa.gov">Peter.Etnoyer@noaa.gov</a>  Mike Vecchione, Smithsonian, <a href="mailto:VecchioneM@si.edu">VecchioneM@si.edu</a></p>				

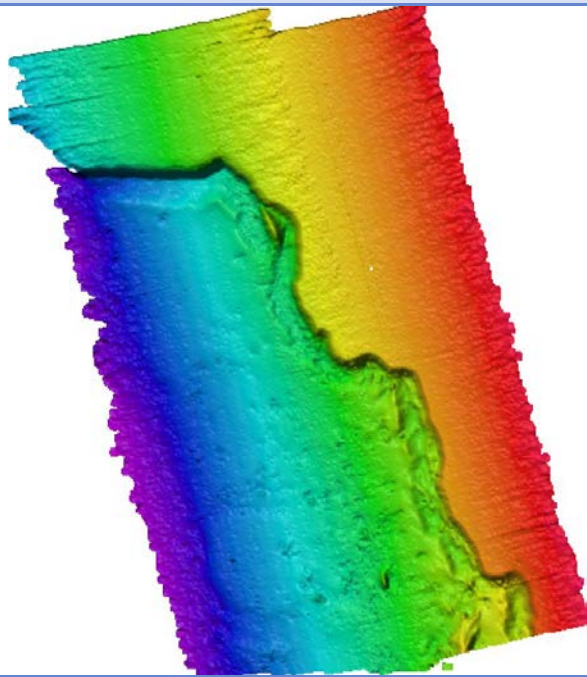
### Purpose of the Dive:

To explore the upper rocky scarp terrain and biology along features east of the West Florida Escarpment. This site represents the highest priority submitted by shore-side scientists, with the goal of exploring habitats associated with this shallow scarp feature (in comparison to the deeper West Florida Escarpment proper to be explored on subsequent dives). The desired dive track would start below this upper scarp and proceed transiting east upslope. The expectation is that we will encounter a large rocky wall on the scarp, with various attached fauna (including corals) as we traverse up and down the scarp to the south.

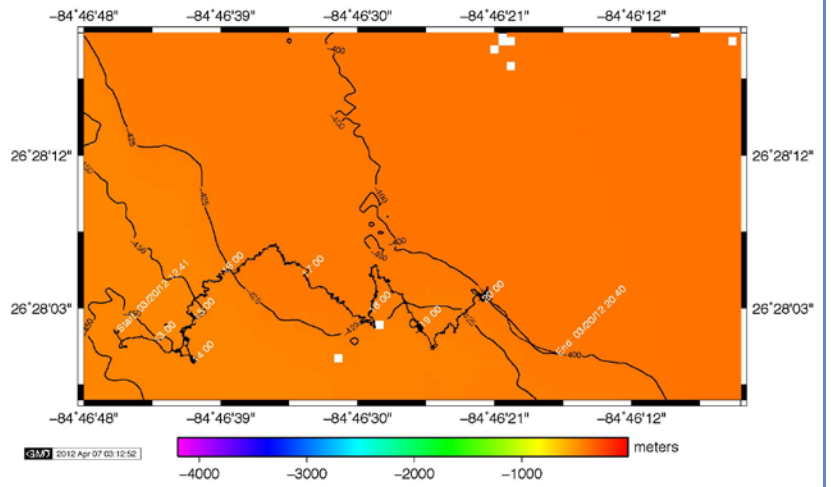
### Description of the Dive:

EX1202 L2- Dive 1 focused on the edge of a relatively shallow (400m depth) rocky scarp east of the deep West Florida Escarpment at 26 27.982N -84 46.665W, where the upper scarp on the West Florida Escarpment extends toward the west. We completed a multibeam/back scatter survey centered over this site the night before this dive. This survey indicated that hardbottom seafloor was scattered at the base of the scarp. We began the dive on the margin of the high backscatter ~230m (bearing 130) from the base of the scarp (444m depth), and explored these scattered "hardbottom" areas on the margin of the scarp. Just 16m away from our landing position, a cretaceous rock outcrop at 26 27.99N 84 46.676W (virtual target EFL-1) was encountered, on which octocorals, *Lophelia*, *Emunida picta* crabs, golden crabs, stylasterids, sponges, bryozoans, sabellid worm tubes, *Corallium* corals, *Anthomastus* with short pinnules, and fish (at least 3 species) were observed. At 10am, we then ran ~north northeast to the scarp base, locating more outcrop/blocky boulders, WFL-2 site, at 1012, 440m, where fish observed in rocky hole, live Sabellid worm duster out of tubes. At 1041, moved over rock outcrops in this area- depth 444m – hosting mostly corals and sponges, including an **unidentified red coral** at 1046 and 1054. We proceeded upslope over sediment hosting fish to other rock formations that were in general more elongate and then more weathered carbonate, both cemented and pitted with biological activity. Prior to reaching the top of the scarp (40m elevation), we encountered an *Iridigorgia*-like and *Bathypathes* black coral (with 2 gravid shrimp). This site was located at a depth of 446m 26 28.043N 84 46.679W (WFL-3). At 1121 and 1153, encountered diverse encrusting sponges on a line of large boulders (~3m tall) surrounded by sediments. At 1200, noted dissolution cavities in rock at mudline. At 1215, we were at a depth of 403m at 26 28.096N -84 46.608W almost at the top of the scarp, and noted stichopid holothurian in this area. By 1230, we were at 26 28.037N 84 46.673, exploring at a depth of 401m traversing on top of the scarp seeing ophiuroids on sediment, small rocks with maroon terribellid worm patches on their margins and what appeared to be scattered xenophyophores. On top of the scarp, small rocks hosting encrusting sponges and small corals and stylasterids and more terribellid worm patches were observed. From the top, we traversed to the SE down the scarp toward another backscatter anomaly/mound until reaching a high backscatter anomaly- rock formations with octocorals, stylasterids, and fish. At 1355, started a transit to the northeast from the bottom of the scarp along another backscatter anomaly, again proving to be hardbottom hosting multiple coral species, fish, sponges. Mudstone was found in the area. At 1510, 26 28.02N 84 46.41W, depth 424, bottom of scarp, and now moving up again. Scattered hard bottom targets were persistent in Little Herc's sonar. This region was traversed back up to the top of the scarp where a *Leiopathes* black coral was observed hosting two crabs. This coral and two crab species living on the coral were imaged until leaving the bottom at 1615.

Overall Map of ROV Dive Area



Close-up Map of Main Dive Site

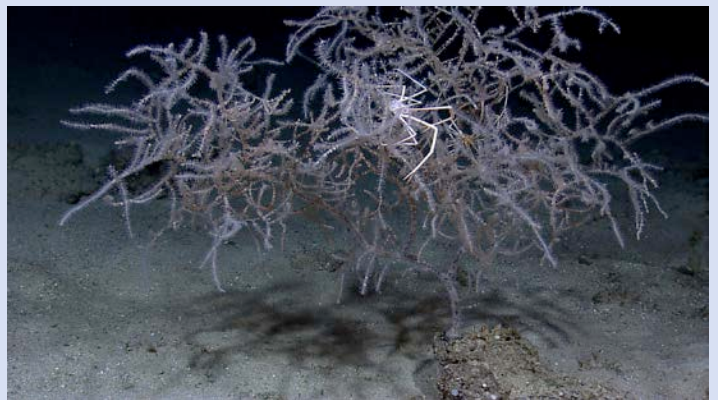


Representative Photos of the Dive



EX1202L2\_IMG\_20120320T140039Z\_ROVHD\_FSH\_TUBEWORMS\_WI

At the base of the scarp, we encountered rocky boulders and outcrops hosting small stands of *Lophelia* coral, sponges, tubeworms, and crabs.



EX1202L2\_IMG\_20120320T200821Z\_ROVHD\_CORB\_OPH

One of two *Leiopathes* black coral observed on scattered rocks below the rim of the scarp. This coral hosted two distinct species of crab associates, one resembling a stone crab (in distance) and one resembling a *Gastroptychus* crab (foreground)

Please direct inquiries to:

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