


OKEANOS EXPLORER ROV DIVE FORM

Site Name	Site G					
ROV Lead	Dave Loyalvo					
General Area Descriptor	100km N of Bitung, Indonesia					
UTC Date & Time	Deployment	7/25/2010 12:20 AM				
	Recovery	7/25/2010 8:39 AM				
Bottom Time [HH:MM]	05:11					
Landing Time & Location	UTC Time	02:11		Depth [m]	1928	
	Latitude	2	°	15.98998	'	N
	Longitude	124	°	50.120479	'	E
Off Bottom Time & Location	UTC Time	07:22		Depth [m]	1790	
	Latitude	2	°	16.143478	'	N
	Longitude	124	°	49.657205	'	E
ROV Dive Name	Cruise Season	EX1004		Leg	LEG03	
				Dive Number	ROV03 (16)	
Equipment Deployed	ROV:	Little Hercules				
	Camera Platform:	Phoenix 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>Santiago Herrera (on-board Science Lead), EX, WHOI, sherrera@whoi.edu Rainer Troa, EX, renertroa@gmail.com Tim Shank (on-shore Science Lead), USA, WHOI, tshank@whoi.edu Eleanor Bors, ECC Seattle, WHOI, ekbors@gmail.com Catriona Munro, WHOI, WHOI, c.munro@ucl.ac.uk Elizabeth Sibert, WHOI, WHOI, esibert@ucsd.edu Noorsalam, ECC Jakarta Nurchahyo, ECC Jakarta Marza, ECC Jakarta Jeremy Potter, ECC Jakarta, NOAA, Jeremy.Potter@noaa.gov Sam Zelin, ECC Seattle, UMass Amherst Joe Resing, ECC Seattle, NOAA, Joseph.Resing@noaa.gov Jonathan Rose, U. Victoria, U. Victoria, jonmrose@uvic.ca</p>					

Purpose of the Dive: To explore unexplored areas on the summit of Site G, and of potential hard bottom in this region of the south to compare to site "T" and sites in the north over depth zones.

Description of the Dive:

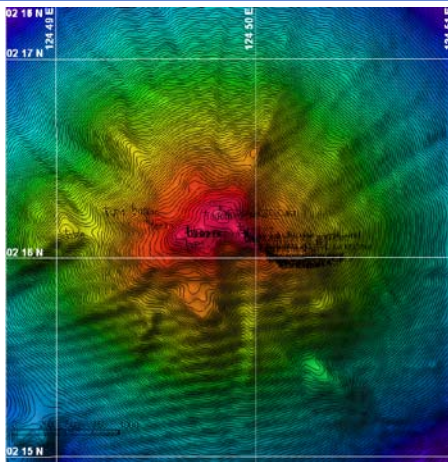
The dive began at WP1 on the SE slope of the main cone of the volcano at 1926m (water temperature 3.69C and salinity 34.58; were largely constant throughout the dive). In this area, the seafloor was covered in yellow sediment (photodebris?), scarce benthic fauna observed, mostly ophiuroids. Burrows were observed (apparently biogenic), and pieces of wood with distinctive fauna: tubeworms, amphipods and some limpets?; possible chemosynthetic ecosystem. As we progressed upslope toward the SE peak of the summit, the amount of exposed rock and abundances and diversity of fauna increased gradually. There was a predominant upwelling current heading 273d, 0.15 Knots.

A strong demarkation in substrate from soft mud to exposed basalt (large boulders) was observed at the SE peak of the summit (~1800m). Large abundances of corals particularly bamboo corals and black corals, and also few paramuricids and paragorgiids were present. Abundant coral epibionts, especially ophiuroids, were observed.

As we moved along the summit toward WP2, we passed a saddle between the two peaks (SE and N). Seafloor was also covered in yellow sediment (photodebris?), and scarce epifauna were observed, similar to what was seen at the beginning of the dive. Apparent higher abundance of large burrows. This continued until we reached the northern peak of the summit, WP2. We then moved on SW toward WP3 at the SW peak of the summit.

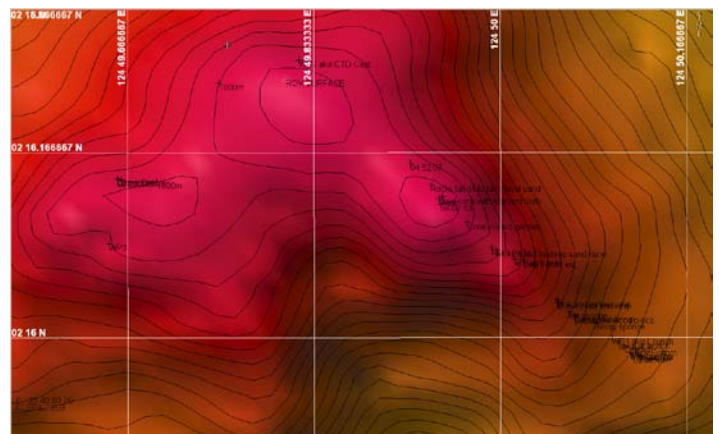
In this last segment explored, the seafloor was completely covered with soft sediment, as observed previously, except for one large boulder observed at the end of the dive (with abundant coral and crinoid fauna as observed in the SE region of the summit near WP1). The current at the summit of the volcano was largely at a constant speed and heading (NW) throughout the dive.

Overall Map of ROV Dive Area



Overview of Site G

Close-up Map of Main Dive Site



Hypack screen grab of dive Targets

Representative Photos of the Dive



20100725_03h28m30s10_ROVHD_OCTOCORAL

The seafloor was covered in yellow sediment (photodebris?), very scarce epifauna observed, mostly ophiuroids.

20100725_05h24m54s26_ROVHD_PINK_CORAL_STARS

Completely exposed basalt (large boulders) was observed at the SE peak of the summit (~1800m). Very high abundances of large corals, especially bamboo corals and black corals, and also few paramuricids and paragorgiids. Abundant associates, especially ophiuroids.

Please direct inquiries to:

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