OKEANOS EXPLORER ROV DIVE SUMMARY

Site Name	Ecuadorian Rift (EcRift)		EX 1103 GALREX - SITES OF INTEREST STORY BROWN BROWN BROWN BROWN BROWN E
ROV Lead/ Expedition Coordinator	Dave Lovalvo/ Jeremy Potter		E Company of the Comp
General Area Descriptor	~390 nm northeast of the	e Galapagos Islands	SCOW SCOW SCOW SCOW SCOW SCOW SCOW
ROV Dive Name Equipment Deployed	Cruise Season	Leg	Dive Number
	EX1103 ROV:	2	Little Hercules
	Camera Platform:	Seirios	
ROV Measurements	 CTD Scanning Sonar Pitch Low Res Cam 1 	□ Depth □ USBL Position □ Roll □ Low Res Cam 2	Altitude Heading HD Camera
Equipment Malfunctions	None		
ROV Dive Summary (From processed ROV data)	Dive Summary: EX1103L2_DIVE12_20110725 AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
Special Notes Scientists Involved (please provide name / location / affiliation / email)	Click here to enter text. Timothy M. Shank/ Okeanos Explorer Lead Scientist/WHOI/tshank@whoi.edu Edward T. Baker/NOAA-PMEL, Washington/Edward.baker@noaa.gov Robert W. Embley/NOAA-PMEL, Oregon/Robert.w.embley@noaa.gov Stephen Hammond/ NOAA-PMEL, Oregon/Stephen.r.hammond@noaa.gov James F. Holden/ UMASS Amherst/jholden@microbio.umass.edu Scott White/University of South Carolina/swhite@geol.sc.edu Sharon L. Walker/ NOAA-PMEL, Washington/sharon.l.walker@noaa.gov Santiago Herrera/ WHOI Exploration Command Center/WHOI/sherrera@whoi.edu T. Jennifer Lin/UMASS Amherst/tjennlin@gmail.com Catriona Munro/ WHOI Exploration Command Center WHOI/catmunro89 @gmail.com		

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Purpose of the Dive

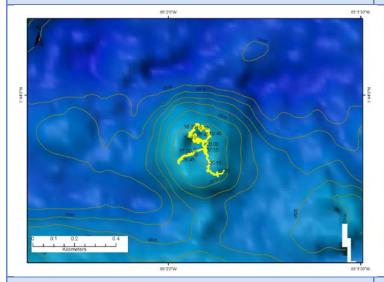
To dive with ROV Little Hercules to an axial volcano near 85 01.967W 1 43.806N on the eastern side of the Ecuador Rift. There had been no previous visits to this volcano.

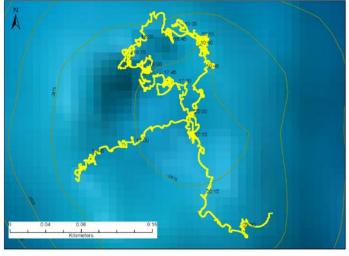
Description of the Dive:

During this dive, we explored the volcano's caldera, which has two deeper craters in it to the north and northeast. Starting from a depth of 2870m, we crossed over the rim on the SW side and entered into the volcano's caldera. We found old pillow lavas approximately 110 meters SW from the flat summit and headed Northeast into the first crater. Corals, sponges, fish and shrimp were observed on pillow lavas heavy with sediment. We explored to the south briefly before moving north toward the inner crater at a depth of 2875m. Little Hercules moved up the western wall of the southern crater along cut pillow lavas with collapsed talus at the base, then traversed over talus slope with many corals and sponges on truncated pillow lavas. Moving to the next crater and heading due East, we discovered a wall covered with corals and sponges. We then moved along the margin of the NE crater and traversed down in to confirm bottom lava morphology, wall structure, and proceeded to the east and out of the crater. Once out on top, we ran along the crater margin to the SE and continued across the caldera summit. On the northern wall of the NE crater we saw sponges and the base of the wall had a small bench-like structure and contact with talus at a depth of 2869 meters.

Overall Map of ROV Dive Area

Close-up Map of Main Dive Site





Representative Photos of the Dive





Much of the dive included pillow lava covered with heavy sediment.

This area of the crater wall had few attached fauna.

Please direct inquiries to:

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