OKEANOS EXPLORER ROV DIVE SUMMARY

Site Name	4aW		EX 1103 GALREX - SITES OF INTEREST SECOND S	
ROV Lead/ Expedition Coordinator	Dave Lovalvo/ Jeremy Potter		Nac.	The state of the s
General Area Descriptor	X km NX of x Island, Galapagos Islands		1000 NOON	BY ON SECON SECON SECON SECON SECON SECON
ROV Dive Name Equipment Deployed	Cruise Season	Leg		Dive Number
	EX1103 ROV:	2	2 DIVE09	
	Camera Platfom:	Little Hercules Seirios		
ROV Measurements		□ 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_DIVE10 ^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^^			
Special Notes	Click here to enter text.			
Scientists Involved (please provide name / location / affiliation / email)	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			

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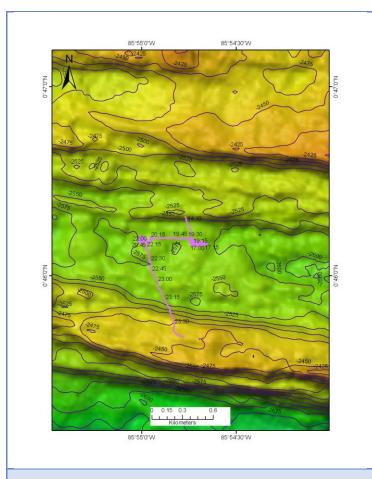
Purpose of the Dive

To descend with ROV *Little Hercules* on Dive 10 of this program to the active hydrothermal field we discovered on the previous dive on the eastern limb of the Galapagos Rift just north of a east-west running fissure. The goal of this dive is to relocate the field, document what we believe to be small recently colonizing animals (e.g., tubeworm and mussels), and determine the E-W extent of the field, before continuing our exploration to the west.

Description of the Dive:

Once on bottom, ROV Little Hercules relocated the diffuse hydrothermal vent field with abundant anemones on lobate lavas and proceeded into the Riftia community imaged on Dive 09 before heading east over dead clam shells and live mussels. We then moved to the south over fields of clam shells and imaged dandelions and serpulid worms on the edge of the vent field. Little Hercules extended tether out to the N/NE and found no signs of active venting, then extended to the east to see the boundary of the clam field and came back NE to look at the Northern extent of the field. We then made another pass through the center of the diffuse vent field, heading NE over active shimmery water and Riftia, limpets, mussels colonizing in cracks and brachyuran crabs. We observed white staining on the margins of rock and small Riftia living among dead clam shells. At the Western edge of the vent field, the vertical port thruster on Little Hercules malfunctioned and that signaled the end of the dive.

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





Representative Photos of the Dive

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