OKEANOS EXPLORER ROV DIVE SUMMARY

Site Name	Ellis Seamount				
ROV Lead/Expedition Coordinator	Brian Bingham Kelley Elliott			The same	
Science Team Leads	Frank Parrish (Biology) Chris Kelley (Biology)				
General Area Descriptor	Main Hawaiian Islands – Geologists Seamounts				
ROV Dive Name	Cruise Season	Leg		Dive Number	
	EX1504	3		DIVE06	
Equipment Deployed	ROV:		Deep Discoverer		
	Camera Platform:	m: Seirios			
	⊠ ctd	□ Depth		☑ Altitude	
	Scanning Sonar	USBL Position		Heading	
ROV Measurements	Pitch	Roll		HD Camera 1	
	HD Camera 2	Low Res Cam 1		Low Res Cam 2	
	Low Res Cam 3	Low Res Cam 4		Low Res Cam 2	
Equipment Malfunctions					
ivialiunctions	Dive Summary: EX	1504L3 DIVE06			
	^^^^^^^^^^				
	In Water: 20	015-09-02T18:25:13.234000			
	19	9°, 14.075′ N ; 157°, 36.733′ \	V		
ROV Dive Summary (From processed ROV data)		2015-09-03T01:29:03.343000 19°, 13.179' N ; 157°, 37.081' W			
	Off Bottom: 2015-09-03T00:10:00.031000 19°, 13.642' N; 157°, 36.956' W				
		2015-09-02T19:39:38.812000 19°, 13.889' N ; 157°, 36.712' W			
	Dive duration: 7:	7:3:50			
	Bottom Time: 4:	ne: 4:30:21			
	Max. depth: 21	L53.1 m			
Special Notes					
Scientists Involved (please provide name / location / affiliation / email)	Frank Parrish, EX, PIFSC PSD, Frank.Parrish@noaa.gov Chris Kelley, EX, UH, ckelley@hawaii.edu Amy Baco-Taylor, FL, FSU, abacotaylor@fsu.edu Asako Matsumoto, Japan, CIT, amatsu@gorgonian.jp Chris Mah, DC, SI, mahch@si.edu Nicole Morgan, FL, FSU, nbmorgan11@gmail.com Scott France, LA, ULL, france@louisiana.edu Brendan Roark, TX, TAMU, broark@geos.tamu.edu Michael Garcia, UH ECC, UH, mogarcia@hawaii.edu Bruce Mundy, IRC ECC, PIFSC, bruce.mundy@noaa.gov Daniel Warren, TX, C&C Technologies, dan.warren@cctechnol.com Mary Wicksten, TX, TAMU, wicksten@bio.tamu.edu Steven Auscavitch, PA, Temple, steven.auscavitch@temple.edu				

Michael Parke, IRC ECC, PIFSC, Michael.Parke@noaa.gov John R. Smith, UH ECC, UH, jrsmith@hawaii.edu

Purpose of the Dive

This was the first dive ever conducted on Ellis Seamount located in the Geologist Seamounts group. The objective of this dive was to survey a rift zone ridge coming off the northern end of the seamount for corals and sponges, testing the hypothesis that high density communities can be found on ridge topography. Discovery of high density communities at this dive site will provide valuable information to NOAA's Deep Sea Coral and Technology Program (DSCTP). The dive plan was to survey the ridge crest at a depth of approximately 2100m. The survey employed the standard methodology of the D2 with the objectives of 1) making observations and collecting video and 2) collecting rock and biological samples.

Description of the Dive:

All of the dive objectives were completed. The full planned distance of the dive track was achieved for a total distance of roughly 800 m travel. From beginning to end the dive observed high densities of coral colonies with the most dominant taxa being species of Keratoisis, Isidella, and Acanella which was present as full size mature colonies throughout the survey track. Basalt rocks were collected on the flank of the ridge at the start of the dive and on the crest near the end of the dive. One bamboo specimen was collected inadvertently by the skid of the ROV and discovered when the vehicle was brought on deck.

Animals observed during the dive are listed below.

Cnidarians:

Keratoisis sp

Isadella sp

Isadella trichotoma

Acanella weberi

Eknomisis sp

Metallogorgia melanotrichos

Pleurogorgia pinnata

Iridigorgia magnaspiralis

Chrysogorgia sp

Primnoid

Isididae unbranched

Anthomastus sp. red

Metallogorgia melanotrichos

Zoanthidae

Bathypathes of alternate

Stauropathes sp

Unbranched isidid

Pseudoanthomastus steepstrupi

Candidella gigantea

Narella bowersi

Trissopathes sp

Chrysogorgia stellata

Sponges

Hexactinellida

Tretopleura sp

Caulophacus (Caulodiscus) sp

Bolosoma sp A and B

Farreidae

Saccocalyx of pedunculatus

Poliopogon sp

Walteria cf flemmingi

Farrea nr occa erecta

Echinoderms

Hippasteria sp

Ophiuroids

Holothurian

Brisinga sp

Evoplosoma forcipifera

Arthropods

Nematocarcinus tenuirostris

Uroptychus sp

Chirostylidae

Lebbeus sp

Aristeidae

Red shrimp

Fishes

Ophidiidae

Synaphabranchidae Ilyophine

Macrouridae

Trachonurus/Malacocephalus sp

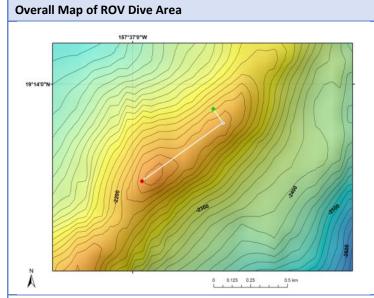
Bassogigas sp

Basozetus sp

Diplopomacantha sp (Bythididae)

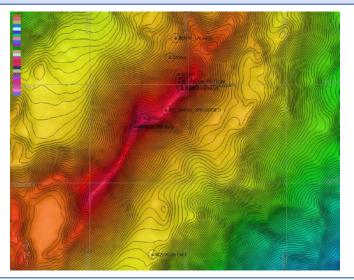
Other

Polynoid polychaete



Bathymetry data for the dive site. Planned dive start and end points are shown as green and red dots, respectively.

Close-up Map of Main Dive Site



Hypack screen grab showing waypoints dropped during actual ROV dive.

Representative Photos of the Dive



Dense community of bamboo corals (Isididae) found on the dive site from the beginning to the end of the dive.



One of the two rock samples obtained during the dive.

Samples Collected

Sample ID	D2_DIVE06_SPEC01GEO
Date (UTC)	September 2, 2015
Time (UTC)	20:08:46
Depth (m)	2135
Temperature (°F)	1.98
	Mn crusted basalt
Field ID(s)	



Comments

Sample ID	D2_DIVE06_SPEC02GEO
Date (UTC)	September 2, 2015
Time (UTC)	22:21:31
Depth (m)	2125
Temperature (°F)	1.98
	Mn crusted basalt



Comments

Field ID(s)

Sample ID	D2_DIVE06_SPEC03BIO
Date (UTC)	September 3, 2015
Time (UTC)	00:20:00
Depth (m)	2097-2150
Temperature (°F)	N/A
Field ID(s)	Isididae

