

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 cf 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 cf 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

Synphobranchidae Ilyophine

Macrouridae

Trachonurus/Malacocephalus sp

Bassogigas sp

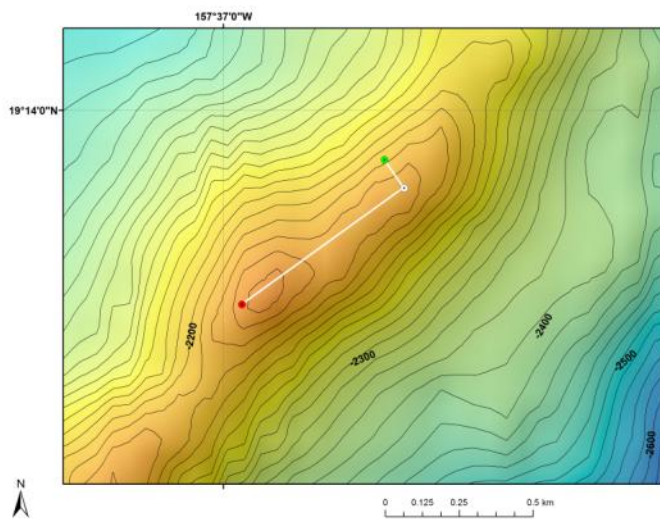
Basozetus sp

Diplopomacantha sp (Bythidae)

Other

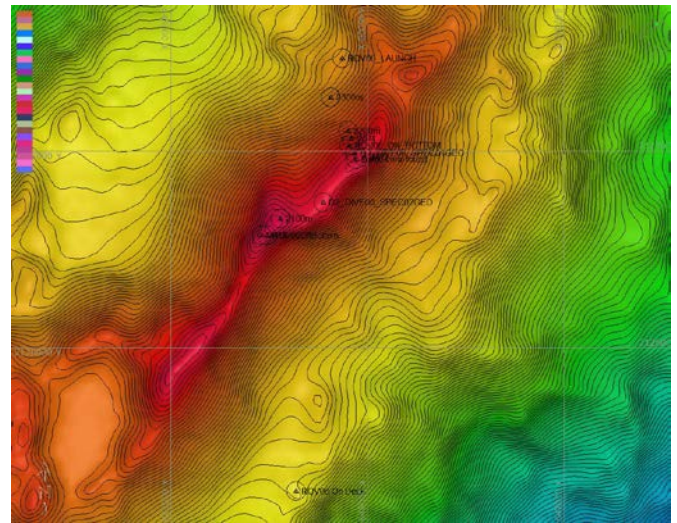
Polynoid polychaete

Overall Map of ROV Dive Area



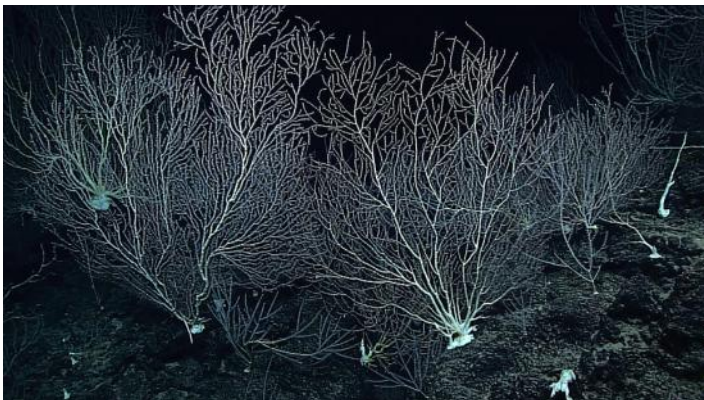
Bathymetry data for the dive site. Planned dive start and end points are shown as green and red dots, respectively.

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

		
Comments	Specimen was found on the bottom of the ROV after recovery. Time of collection was therefore considered to be the time off bottom.	
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