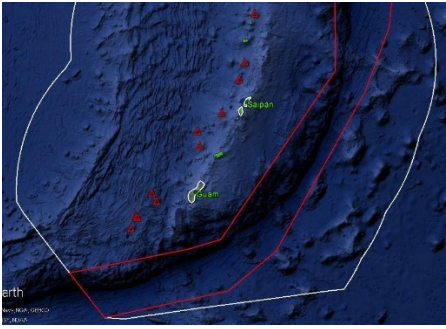


OKEANOS EXPLORER ROV DIVE SUMMARY

Site Name	NW Guam Seamount			
ROV Lead/Expedition Coordinator	Jim Newman / Kelley Elliott			
Science Team Leads	Deborah Glickson & Diva Amon			
General Area Descriptor	Southern Marianas			
ROV Dive Name	Cruise Season	Leg	Dive Number	
	EX1605	1	DIVE 08	
Equipment Deployed	ROV:	Deep Discoverer		
	Camera Platform:	Seirios		
ROV Measurements	<input checked="" type="checkbox"/> D2 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 1	
	<input checked="" type="checkbox"/> HD Camera 2	<input checked="" type="checkbox"/> ROV HD 2	<input checked="" type="checkbox"/> Seirios CTD	
	Temperature Probe	<input checked="" type="checkbox"/> D2 DO Sensor	<input checked="" type="checkbox"/> Seirios DO sensor	
Equipment Malfunctions				
ROV Dive Summary (From processed ROV data)	Dive Summary: EX1605L1_DIVE08			
	~~~~~			
	In Water:	2016-04-28T20:35:51.362000 14°, 01.492' N ; 144°, 38.432' E		
	Out Water:	2016-04-29T04:37:11.055000 14°, 01.303' N ; 144°, 38.415' E		
	Off Bottom:	2016-04-29T03:51:41.454000 14°, 01.268' N ; 144°, 38.200' E		
	On Bottom:	2016-04-28T21:32:38.679000 14°, 01.466' N ; 144°, 38.544' E		
	Dive duration:	8:1:19		
Bottom Time:	6:19:2			
Max. depth:	1343.3 m			
Special Notes				
Scientists Involved (please provide name / location / affiliation / email)	Maryjo Brounce, CA Institute of Technology; <a href="mailto:mbrounce@gps.caltech.edu">mbrounce@gps.caltech.edu</a> Scott France, UL Lafayette; <a href="mailto:france@louisiana.edu">france@louisiana.edu</a> Patty Fryer, UH; <a href="mailto:pfryer@soest.hawaii.edu">pfryer@soest.hawaii.edu</a> Tara Harmer Luke, Stockton University; <a href="mailto:Tara.Luke@stockton.edu">Tara.Luke@stockton.edu</a> Chris Kelley, UH; <a href="mailto:ckelley@hawaii.edu">ckelley@hawaii.edu</a> Machel Malay, U Guam; <a href="mailto:machel.malay@gmail.com">machel.malay@gmail.com</a> Asako Matsumoto, Chiba Institute of Technology; <a href="mailto:amatsu@gorgonian.jp">amatsu@gorgonian.jp</a>			

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 Les Watling, UH; [watling@hawaii.edu](mailto:watling@hawaii.edu)

**Purpose of the Dive**

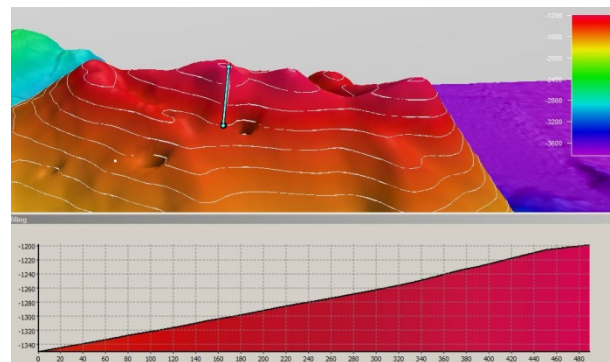
This extinct arc volcano is the last unexplored large arc seamount in the southern Marianas. Its summit region was expected to host extinct hydrothermal fields and mature summit communities, including fisheries. This dive was planned to begin at 1349 m, and to traverse 486 m upslope to the south, with the goal to reach the seamount summit (1198 m) and then explore along the summit.

**Description of the Dive:**

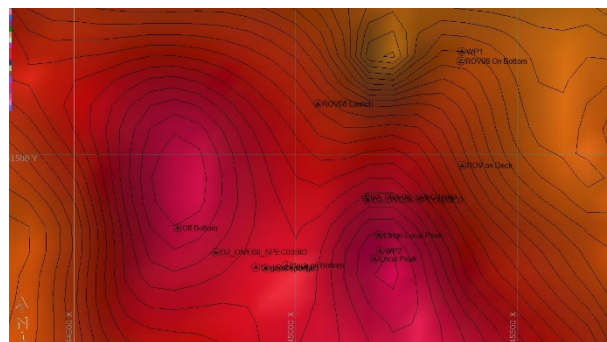
The dive began at a depth of 1319 m on the upper slope of the NW Guam Seamount. We slowly traversed upslope to the south through sedimented, weathered outcrops and talus all coated with a manganese crust. The Mn crust was quite heavy, with a pebbled or botryoidal texture. There were some areas with a platey or sheet-like texture, but it was impossible to tell its lithology. About two hours into the dive, we encountered a dike outcrop, with columnar jointing and fractures (rock collected here – D2_DIVE08_SPEC02GEO). After reaching the summit, we flew down to the saddle between two of the local highs and headed upslope to the west. In this area, the sediment showed ripple marks and was later stratified into dark and light sediments with sinuous, low-relief mounds. The few outcrops encountered on the second slope were heavily weathered and covered in Mn crust.

The biology on this dive was very exciting, with many new sightings for this expedition! It included many octocorals with commensal ophiuroids and chirostylid squat lobsters, as well as many antipatharians, likely *Trissopathes*. There were also many interesting fish noted: a hagfish, a *Hydrolagus chimaera*, and a sedentary angler. There was also a large lobster encountered guarding a very extensive burrow network, perhaps *Acanthacaris* sp. There were also several echinoderms including several Echinothuriidae urchins and a likely new genus of stalked crinoid.

**Map of ROV Dive Area**

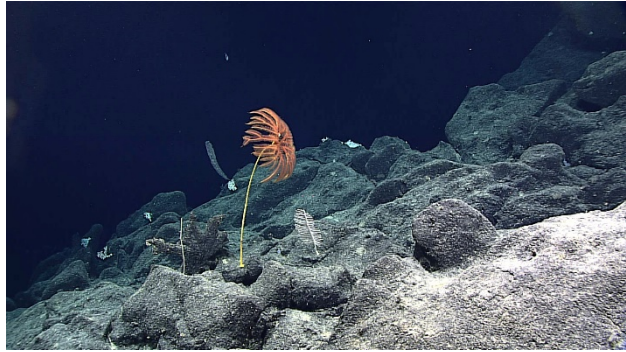


Fledermaus map of planned dive EX1605L1-DIVE08 track.



Hypack screengrab of actual dive EX1605L1-DIVE08 track

**Representative Photos of the Dive**

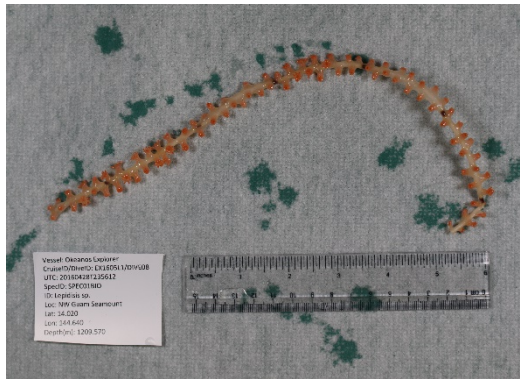


A likely-new genus of stalked crinoid imaged during DIVE 08.

A unknown species of lobster guarding its burrow home imaged during DIVE 08.

**Samples Collected**

Sample ID	D2_DIVE08_SPEC01BIO
Date (UTC)	20160428
Time (UTC)	23:56:12
Depth (m)	1209
Temperature (°C)	3.601
Field ID(s)	<i>Lepidisis</i> sp.
Comments	No commensals.



Sample ID	D2_DIVE08_SPEC02GEO
Date (UTC)	20160429
Time (UTC)	00:10:53
Depth (m)	1209
Temperature (°C)	3.759
Field ID(s)	Basalt
Comments	No commensals.



Sample ID	D2_DIVE08_SPEC03BIO
Date (UTC)	20160429
Time (UTC)	03:18:07

<b>Depth (m)</b>	1229	
<b>Temperature (°C)</b>	3.436	
<b>Field ID(s)</b>	Sponge	
<b>Comments</b>	No commensals. 1 cm of this sample was preserved in 95% ETOH and placed in the freezer, and the remainder was preserved in 4% formalin which was then transferred to 85% ETOH after 24 hours.	
<b>Please direct inquiries to:</b>	NOAA Office of Ocean Exploration & Research 1315 East-West Highway (SSMC3 10 th Floor) Silver Spring, MD 20910 (301) 734-1014	