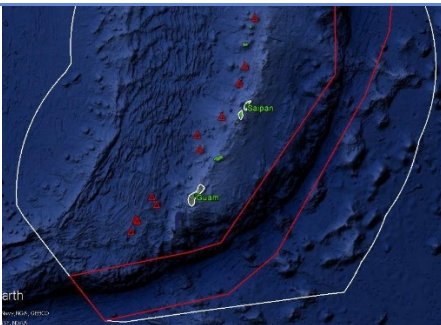


OKEANOS EXPLORER ROV DIVE SUMMARY

Site Name	Pigafetta Guyot			
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 14	
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_DIVE14			
	~~~~~			
	In Water:	2016-05-04T20:43:14.933000 15°, 53.824' N ; 148°, 53.338' E		
	Out Water:	2016-05-05T04:32:42.010000 15°, 53.449' N ; 148°, 53.374' E		
	Off Bottom:	2016-05-05T03:25:42.012000 15°, 53.462' N ; 148°, 52.959' E		
	On Bottom:	2016-05-04T21:52:49.109000 15°, 53.778' N ; 148°, 53.191' E		
	Dive duration:	7:49:27		
Bottom Time:	5:32:52			
Max. depth:	2038.9 m			
Special Notes				
Scientists Involved (please provide name / location / affiliation / email)	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> Allison Miller, National Park Service; <a href="mailto:a33miller@gmail.com">a33miller@gmail.com</a> Tina Molodtsova, Shirshov Institute of Oceanology; <a href="mailto:tina@ocean.ru">tina@ocean.ru</a>			

Bruce Mundy, NOAA PIFSC; [bruce.mundy@noaa.gov](mailto:bruce.mundy@noaa.gov)  
 Andrea Quattrini, Harvey Mudd College; [aquattrini@g.hmc.edu](mailto:aquattrini@g.hmc.edu)  
 Sonia Rowley, UH; [srowley@hawaii.edu](mailto:srowley@hawaii.edu)  
 Robert Stern; [rjstern@utdallas.edu](mailto:rjstern@utdallas.edu)  
 Les Watling, UH; [watling@hawaii.edu](mailto:watling@hawaii.edu)

**Purpose of the Dive**

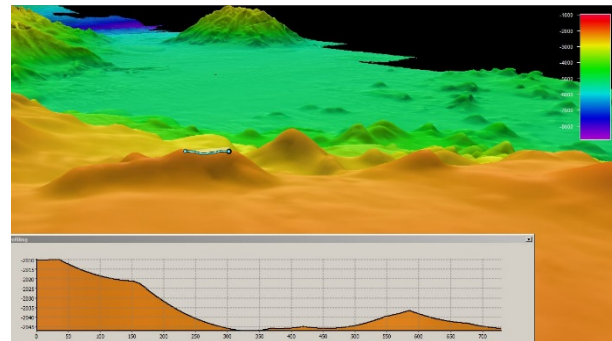
This dive was on Pigafetta Guyot, a Cretaceous seamount just to the east of the trench. The dive's objectives were to explore for high-density communities of deep-sea corals and sponges and do an initial characterization of Mn-crust habitats on one of the presumed oldest seamounts on the Pacific plate. The dive was planned to begin at a depth of 2045 m and to move along the ridge to the S-SW for ~725 m, to a depth of 2010 m.

**Description of the Dive:**

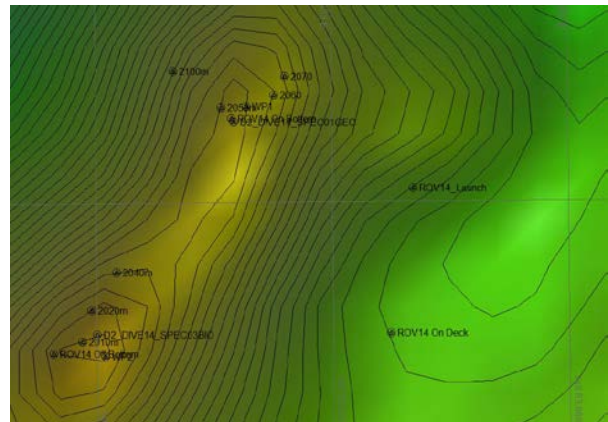
This dive began at a depth of 2005 m along a ridge on the lower terrace of Pigafetta Guyot. We believe that this ridge might be a slump block that was faulted away from the higher plateau. We landed in area of heavy sediment with ripple marks. We then saw some loose Mn-crust rocks and collected one (D2_DIVE14_SPEC01GEO). As we moved up the slope, we saw smoothly rounded, low-relief morphologies for the rocks or indurated sediment, all covered with a heavy crust of botryoidal Mn crust and moderate to heavy sediment cover. Some of these areas were quite fractured or fissured, leading to an assumption of cemented sediment or Mn crust. Later in the dives, we found a few areas that looked like they could be possible outcrop of pillow lavas, although still covered with Mn crust and sediment. We had hoped to collect a sample of one of these rocks but were unable to. When we reached the local high at WP 2, the "pillow" morphologies were gone and the whole area was covered in sediment and Mn crust, with no indication of possible volcanics.

Most of the biology encountered on this dive was comprised of large coral colonies and sponges (*Tretodictyum* and *Tretopleura*). The number of *Iridigorgia* individuals seemed to increase to dominate the community as we moved up slope. There were two biology samples collected: Bolosominae (likely undescribed) (D2_DIVE14_SPEC02BIO) and an isidid coral with strange veining on the branches (D2_DIVE14_SPEC03BIO).

**Map of ROV Dive Area**

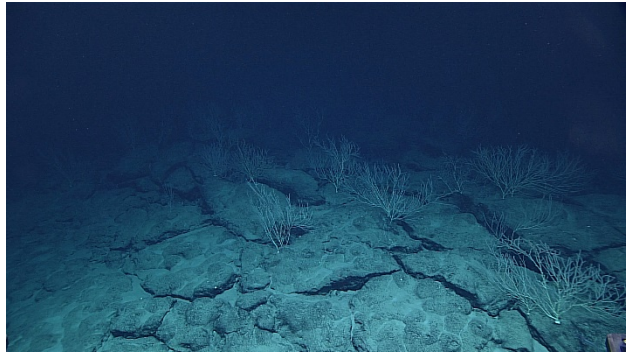


Fledermaus map of planned dive EX1605L1-DIVE14 track.



Hypack screengrab of actual dive EX1605L1-DIVE14 track.

**Representative Photos of the Dive**



The substratum was mostly comprised of Mn-crust. These were colonized by octocorals, including from the family Isididae (pictured here).

A *Chaunacops coloratus* encountered on Dive 14.

**Samples Collected**

Sample ID	D2_DIVE14_SPEC01GEO
Date (UTC)	20160504
Time (UTC)	22:05:29
Depth (m)	2004.65
Temperature (°C)	2.071
Field ID(s)	Mn-crust rock




Comments: There were three commensal hydroids of the same morphotype (D2_DIVE14_SPEC01GEOC01).

Sample ID	D2_DIVE14_SPEC02BIO
Date (UTC)	20160505
Time (UTC)	00:48:16
Depth (m)	2027.86
Temperature (°C)	2.091
Field ID(s)	Bolosominae sp. (morphotype 3)



Comments: No commensals.

<b>Sample ID</b>	D2_DIVE014_SPEC03BIO	
<b>Date (UTC)</b>	20160505	
<b>Time (UTC)</b>	03:05:15	
<b>Depth (m)</b>	1965.64	
<b>Temperature (°C)</b>	2.133	
<b>Field ID(s)</b>	Isididae sp.	
<b>Comments</b>	No commensals.	
<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	