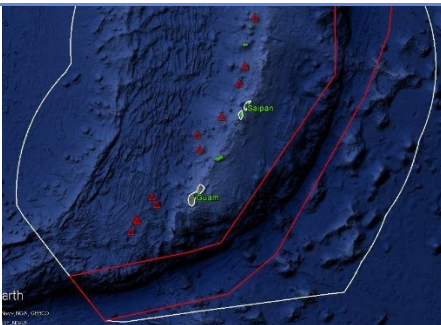


OKEANOS EXPLORER ROV DIVE SUMMARY

Site Name	Farallon de Menidilla			
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 17	
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	None.			
ROV Dive Summary (From processed ROV data)	Dive Summary: EX1605L1_DIVE17 ~~~~~			
	In Water:	2016-05-07T20:21:43.508000 16°, 08.389' N ; 146°, 04.651' E		
	Out Water:	2016-05-08T04:28:24.953000 16°, 07.900' N ; 146°, 04.634' E		
	Off Bottom:	2016-05-08T04:04:09.263000 16°, 07.900' N ; 146°, 04.633' E		
	On Bottom:	2016-05-07T20:56:04.936000 16°, 08.339' N ; 146°, 04.699' E		
	Dive duration:	8:6:41		
	Bottom Time:	7:8:4		
Max. depth:	508.7 m			
Special Notes				
Scientists Involved (please provide name / location / affiliation / email)	David Burdick, U Guam; burdickdr@hotmail.com Scott France, UL Lafayette; france@louisiana.edu Patty Fryer, UH; pfryer@soest.hawaii.edu Brian Greene, Association for Marine Exploration; bgreene@hawaii.edu Tara Harmer Luke, Stockton University; Tara.Luke@stockton.edu Chris Kelley, UH; ckelley@hawaii.edu Asako Matsumoto, Chiba Institute of Technology; amatsu@gorgonian.jp Tina Molodstova, Shirshov Institute of Oceanology; tina@ocean.ru			

Gene Rankey, KU; grankey@ku.edu
Sonia Rowley, UH; srowley@hawaii.edu

Purpose of the Dive

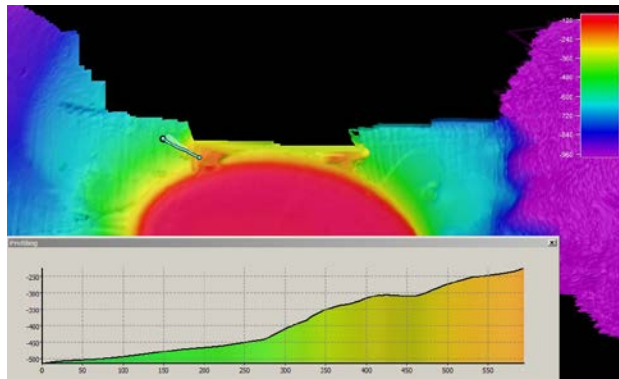
This dive was on the slope of Farallon de Medinilla (FDM) to explore for high density communities of deep-sea corals, in this case precious corals that are under the management of NOAA Fisheries. While the precious coral fishery is listed as a managed fishery in Guam and CNMI, no precious coral beds have been identified to date and only anecdotal accounts have been published of their presence in this region of the Pacific. This particular site was chosen to also survey bottomfish fishery habitat, which has also not been characterized in Guam/CNMI and to determine if there is a depth and site overlap between the two fisheries. The dive was planned to begin at a depth of 500 m and to move upslope to the SE for ~700 m to a depth of 250 m.

Description of the Dive:

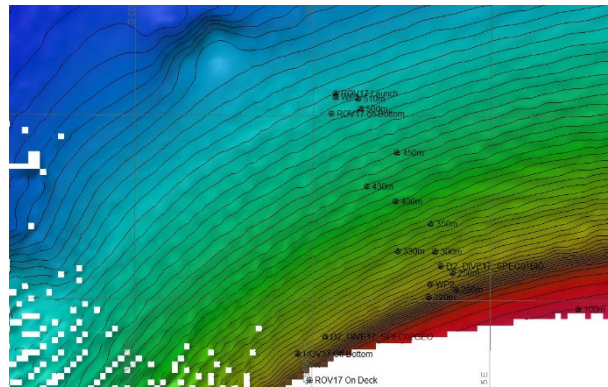
We had originally planned to dive along a pinnacle/ridge feature seen on the bathymetry. When the ship collected some new bathymetry, this feature disappeared, so we ended up diving on a gentle, featureless slope. This dive began at a depth of 500 m and moved upslope to a depth of about 250 m. In the 400-500 m range, the seafloor alternated between areas of shelly fragments (Halimeda sp., cidarid echinoid spines, echinoid tests, rhodoliths, etc.) and rock cobbles that were likely composed of carbonate. Both of these could be remnants of old reef, perhaps of Pleistocene age. As we moved up into the 300-250 m range, the character of the seafloor changed, with areas of limestone (possibly karstic w/dissolution pits) and cemented carbonate crusts, with some shell hash between them. A carbonate rock was collected towards to end of the dive (D2_DIVE17_SPEC02GEO).

This substrate was not conducive to the commercial species of coral that we were targeting and thus none were seen. However, the dive was more successful with regard to bottomfish. At the beginning of the dive, a number of interesting fish and invertebrates were noticed: an unidentified crab, an armoured sea robin (*Scaligus engyceros*), a squid resting on the seafloor, a moray eel, *Chironema chryseres*, and a dragonet (Callionymidae). Around the 250 m contour, a number of the commercial bottomfish that we were targeting were noticed: *Pristipomoides zonatus*, *P. argyrogrammicus*, *P. auricilla* and *Saloptia powelli* (golden grouper). There were many hydrozoans, stylasterids and plexaurids such as *Paracis*. A number of colourful shallow water fish were also noted: squirrelfish (Holocentridae), *Randallichthys filamentosus*, a batfish (Ogcocephalidae), *Odontanthias*, slopefish (*Symphysanodon* sp.). One plexuarid was collected (D2_DIVE17_SPEC01BIO).

Map of ROV Dive Area

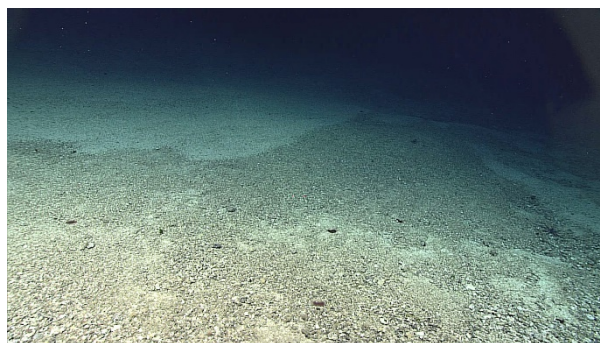
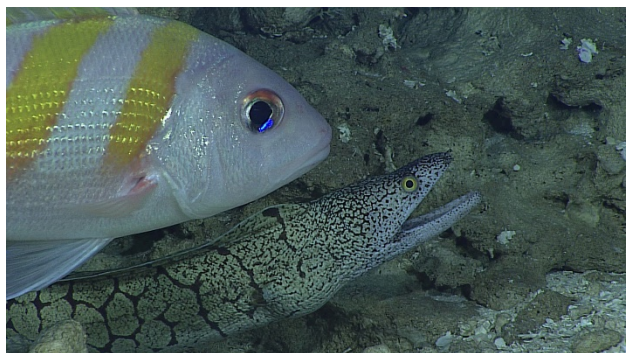


Fledermaus map of planned dive EX1605L1-DIVE17 track.



Hypack screengrab of actual dive EX1605L1-DIVE17 track.



Representative Photos of the Dive



Oblique-banded snapper (*Pristipomoides zonatus*), a commercially-sought fish, with a moray eel, seen on Dive 17.

The seafloor of the slope of Dive 17 was comprised of broken corals, shells, urchin spines, *Halimeda* sp. etc.

Samples Collected

Sample ID	D2_DIVE17_SPEC01BIO	
Date (UTC)	20160508	
Time (UTC)	00:32:20	
Depth (m)	279.960	
Temperature (°C)	15.3	
Field ID(s)	Plexauridae sp.	<p>Vessel: OCEANAS ENFLORA CruiseID/DiveID: FARGAS//SHEET UTC: 201605080320 SpecID: SPEC01BIO ID: PLEXAURIDAE Loc: PARALAN DE MENTIDILLA Lat: 6.130 Lon: 151.080 Depth(m): 279.960</p>
Comments	No commensals.	
Sample ID	D2_DIVE17_SPEC02GEO	
Date (UTC)	Dive 20160508	
Time (UTC)	03:25:13	
Depth (m)	258.390	
Temperature (°C)	18.25	
Field ID(s)	Carbonate rock	<p>Vessel: OCEANAS ENFLORA CruiseID/DiveID: FARGAS//SHEET UTC: 201605080325 SpecID: SPEC02GEO ID: CARBONATE ROCK Loc: PARALAN DE MENTIDILLA Lat: 6.130 Lon: 151.080 Depth(m): 258.390</p>
Comments	No commensals.	
Please direct inquiries to:	NOAA Office of Ocean Exploration & Research 1315 East-West Highway (SSMC3 10 th Floor) Silver Spring, MD 20910 (301) 734-1014	