



Okeanos Explorer ROV Dive Summary

Dive Information

<p>General Location Map</p>	
<p>General Area Descriptor</p>	<p>U.S. Southeast</p>
<p>Site Name</p>	<p>Deep Pamlico Canyon</p>
<p>Science Team Leads</p>	<p>Amy Wagner (CSUS) and Alexis Weinnig (Temple)</p>
<p>Expedition Coordinator</p>	<p>Kasey Cantwell (NOAA-OER)</p>
<p>ROV Dive Supervisor</p>	<p>Chris Ritter (GFOE)</p>
<p>Mapping Lead</p>	<p>Shannon Hoy (NOAA-OER)</p>

ROV Dive Name

<p>Cruise</p>	<p>EX1903L2</p>
<p>Dive Number</p>	<p>Dive 12</p>

Scientists Involved (provide name, affiliation, email)

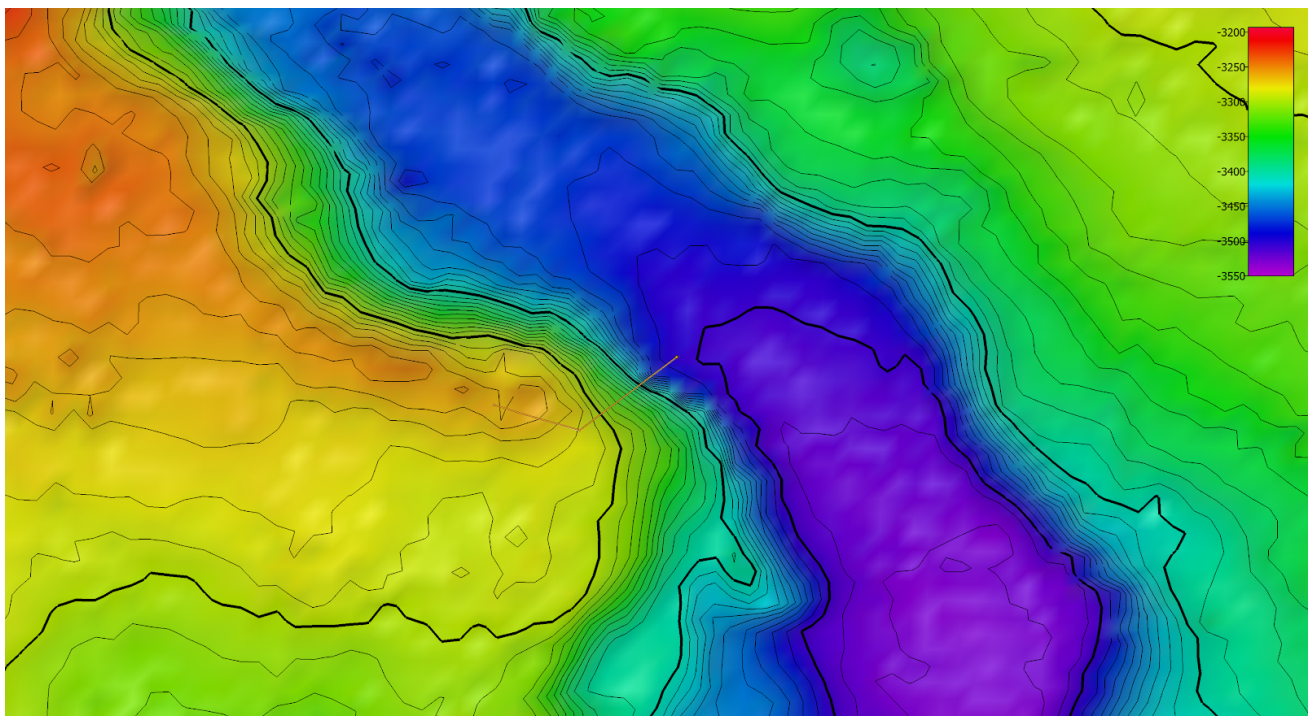
First Name	Last name	Affiliation	Email
Ryan	Gasbarro	tuj64508@temple.edu	Temple University
Kenneth	Sulak	jumpingsturgeon@yahoo.com	U.S. Geological Survey (Emeritus)
Megan	McCuller	megan.mcculler@naturalsciences.org	North Carolina Museum of Natural Sciences
Christopher	Mah	brisinga@gmail.com	Dept. of Invertebrate Zoology, NMNH Smithsonian
Scott	France	france@louisiana.edu	University of Louisiana at Lafayette
Robert	Carney	rcarne1@lsu.edu	LSU, Oceanography, emeritus
Tara	Harmer Luke	luket@stockton.edu; tara.luke@stockton.edu	Stockton University
Alexis	Weinnig	aweinnig@temple.edu	Temple University
Amy	Wagner	amy.wagner@csus.edu; amywagner98@gmail.com	California State University, Sacramento
Danielle	Power	danielle.l.power@noaa.gov	NOAA Ship Okeanos Explorer
J	Dunn	christopher.dunn@noaa.gov	NOAA OER
Kevin	Jerram	kjerram@ccom.unh.edu	UNH
Shannon	Hoy	shannon.hoy@noaa.gov	NOAA OER

Dive Purpose	The primary objective of this dive is to explore and characterize a small canyon that has the potential to be suitable habitat for deep-water coral, sponges, and associated fauna.
Dive Description	<p>The ROV reached the bottom at 14:26 UTC at 3490 m water depth. The bottom was a very soft, silty sediment with a high amount of sediment in the water column. After consultation with the ROV and science team, a new dive target and track were identified and the ROV ascended to 3100 m to be towed to the new site. The ROV reached the bottom for the second time at 16:33 UTC at 3273 m to a similar bottom and only slightly better visibility. The ROV pilots were able to keep D2 and the tether in view so we proceeded with the dive.</p> <p>Throughout the dive, the bottom remained very soft and silty with poor visibility. A relatively small abundance and diversity of fauna was observed but included several abyssal grenadier (<i>Coryphaenoides armatus</i>), sea cucumber (Holothurian) and brittle stars (Ophiuroidea). Additionally, a few hermit crabs with zoanthid (<i>Epizoanthus sp.</i>) "house", a <i>Radicipes</i> octocoral and a few species of sea pens (order Pennatulacea) were also observed.</p> <p>ROV began ascent at 18:40 UTC and was recovered at 20:58 UTC.</p>



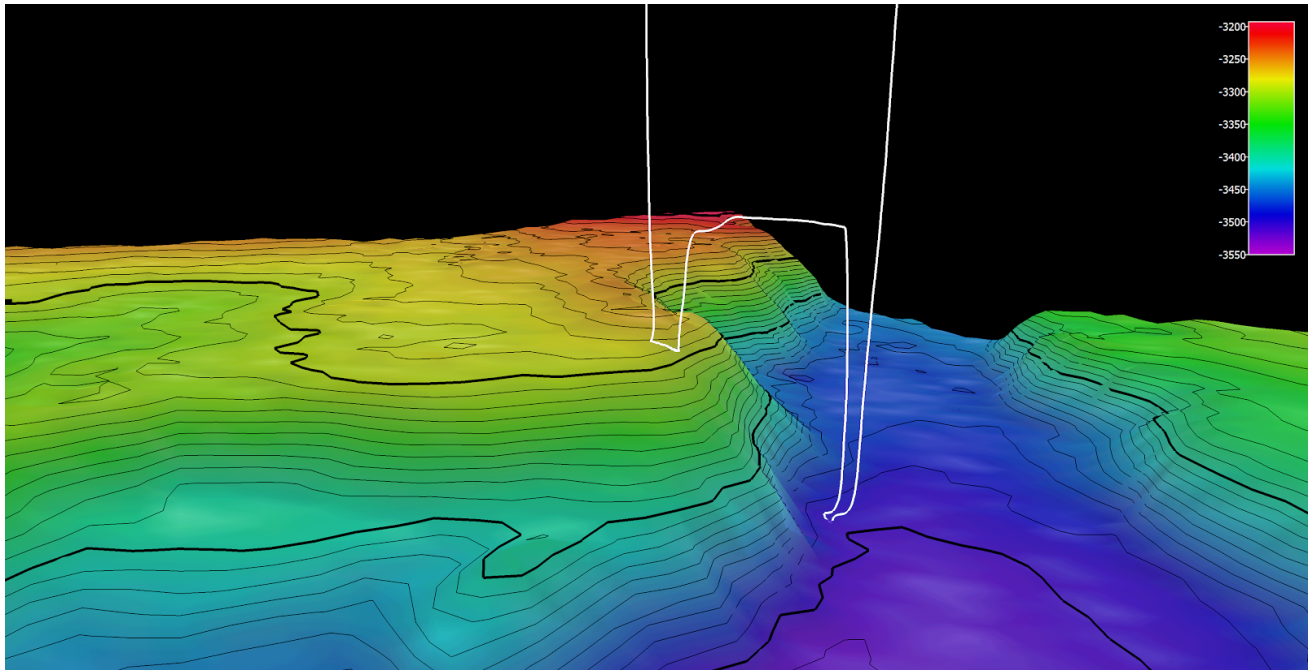
Notable Observations	
Community Presence/Absence (community is defined as more than two species)	<p>X Corals and Sponges</p> <ul style="list-style-type: none"> ✓ Chemosynthetic Community ✓ High biodiversity Community ✓ Active Seep or Vent ✓ Extinct Seep or Vent ✓ Hydrates
Feature Type	Deep canyon base, submarine canyon
SeaTube Link (science annotation system)	https://data.oceannetworks.ca/SeaTubeV2?resourceTypeId=1000&resourceId=23621&divId=1453

Overall Map of the ROV Dive Area



Close-up Map of Main Dive Site





Representative Photos of the Dive



View from Sierios camera looking down at D2 when the ROV reached bottom at 3,500 m. Evidence of the low visibility that required a move up to 3,200 to continue the dive.



A few *Coryphaenoides armatus* fish that were commonly seen throughout the dive



A hermit crab (Paguridae) with zoanthid (*Epizoanthus sp.*) "house"



Seapen (Order Pennatulacea) in the soft sediment bottom

Samples Collected

There were no samples collected on this dive.

Please direct inquiries to:

NOAA Office of Ocean Exploration & Research
1315 East-West Highway (SSMC3 10th Floor)
Silver Spring, MD 20910
(301) 734-1014

