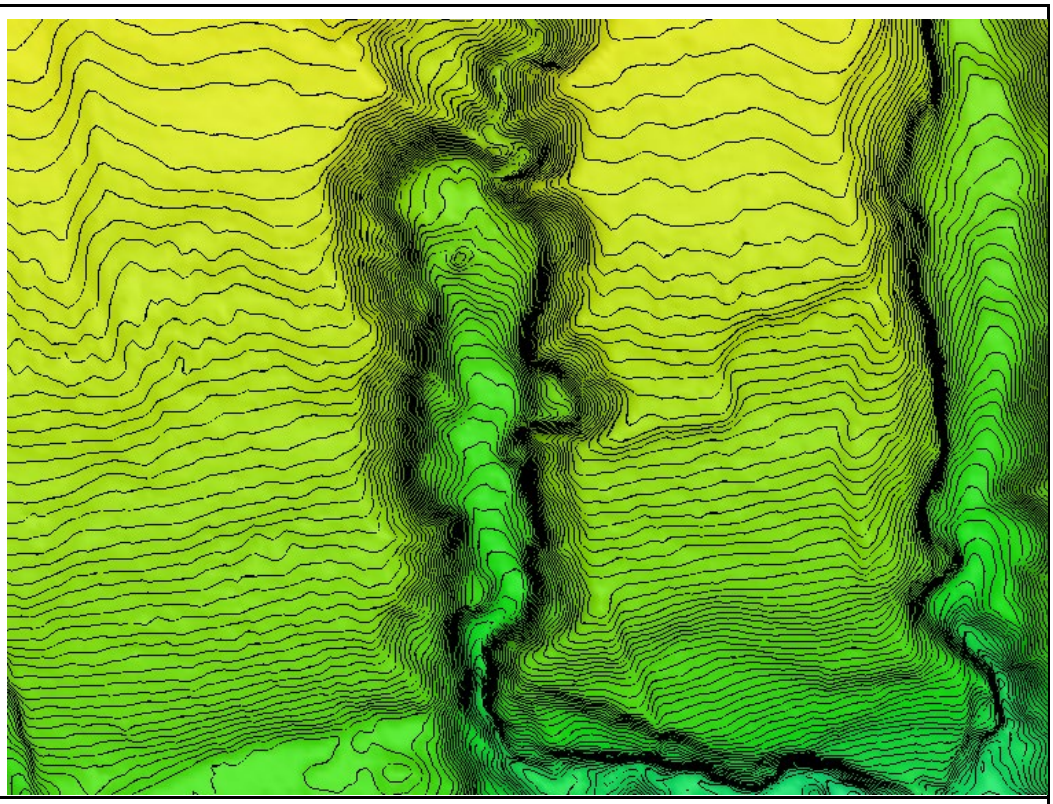
Okeanos Explorer ROV Dive Summary: EX-19-04, Dive 06, July 31, 2019

Dive Information

General Location Map	
General Area Descriptor	U.S. Northeast
Site Name	Block Canyon Deep
Science Team Leads	Michael Jakuba (WHOI), James Partan (WHOI), LCDR Chris Dolan (WHOI/USN)
Expedition Coordinator	Michael P. White (NOAA-OER)
ROV Dive Supervisor	Daniel Rogers (GFOE)
Mapping Lead	Michael P. White (NOAA-OER)

ROV Dive Name

Cruise	EX1904
Dive Number	DIVE06

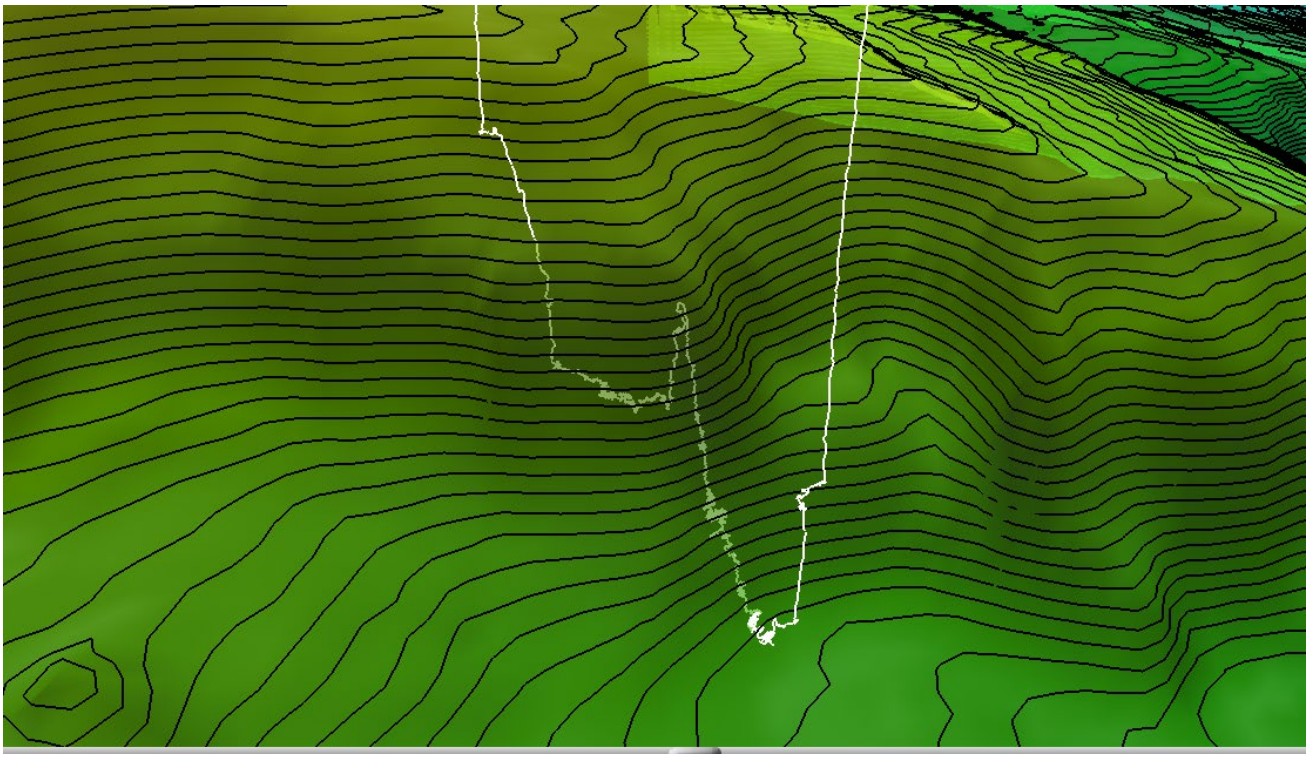
Equipment Deployed

ROV	*Deep Discoverer*		
Camera Platform	*Seirios*		
ROV Measurements	✔CTD	✔Depth	✔Altitude
	✔Scanning Sonar	✔USBL Position	✔Heading
	✔Pitch	✔Roll	✔HD Camera 1
	✔HD Camera 2	✔Low Res Cam 1	✔Low Res Cam 2
	✔Low Res Cam 3	✔Low Res Cam 4	✔Low Res Cam 5
Equipment Malfunctions	None		
ROV Dive Summary Data (from Processed ROV)	Dive Summary: EX1904_DIVE06 ^^ In Water: 2019-07-31T12:44:57.066852 39°, 48.432' N ; 71°, 15.78' W On Bottom: 2019-07-31T13:56:52.293916 39°, 48.457' N ; 71°, 15.85' W Off Bottom: 2019-07-31T19:25:16.743057 39°, 48.69' N ; 71°, 15.671' W Out Water: 2019-07-31T20:30:12.569528 39°, 48.399' N ; 71°, 16.216' W Dive duration: 7:45:15 Bottom Time: 5:28:24 Max. depth: 1209.0 m		
Special Notes			

Dive Purpose	Testing of Woods Hole Oceanographic Institution One-Way-Travel-Time inverted ultra-short-baseline (OWTTIUSBL last accessed May 2020)
Dive Description	Testing of the OWTTIUSBL piggy-backed a 'normal' OER ROV dive. Vehicles arrived on bottom in the canyon and traversed up the eastern wall. The dive targeted steep slopes in the hopes of finding hard bottom were deep water communities may be present. Throughout the dive a number of species were observed, including deep water coral and sponges, bivalves (scallops), cephalopods, and skates. During the dive steep, sometimes nearing vertical, rock outcrops were observed. The geologic strata were layered, with some stratigraphy more resistant to erosion than others.
Notable Observations	

Community Presence/ Absence (community is defined as more than two species)	Corals and Sponges - Yes Chemosynthetic Community - No High biodiversity Community - No Active Seep or Vent - No Extinct Seep or Vent - No Hydrates - No
Feature Type	Canyon Wall

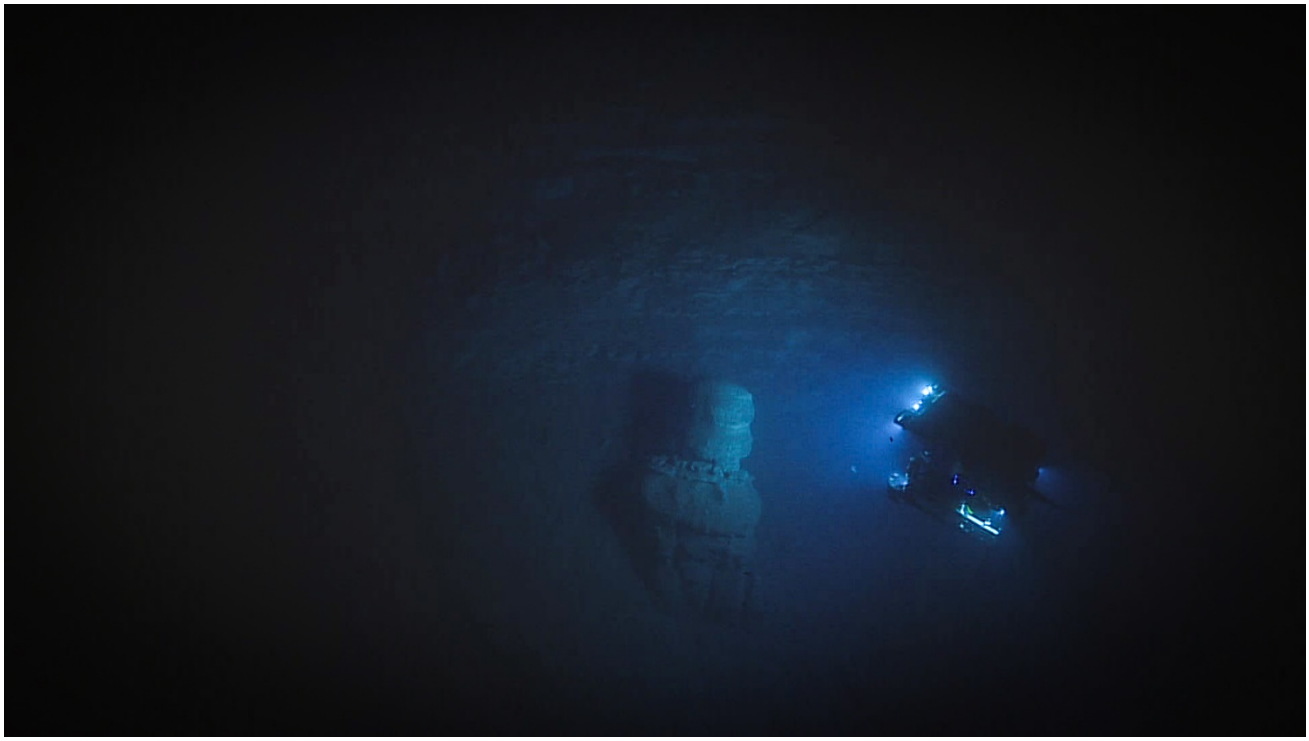
Close-up Map of Main Dive Site



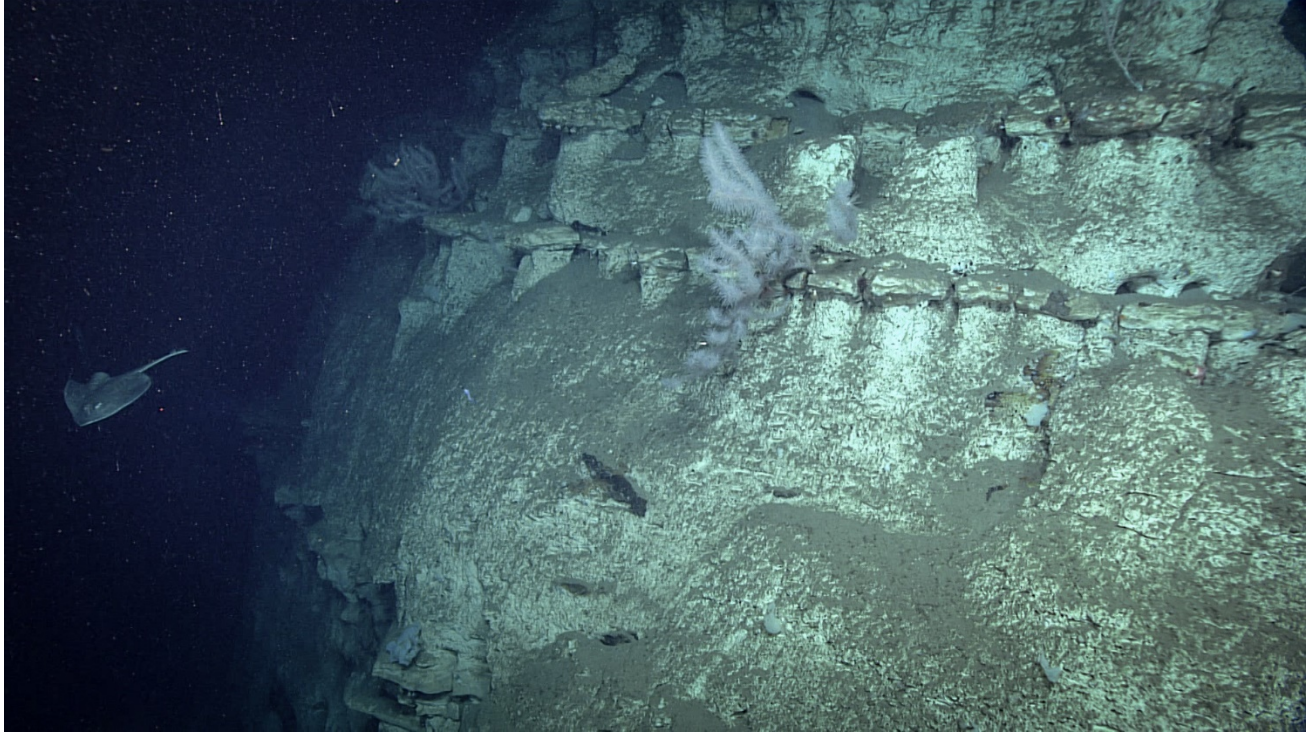
EM302 Bathymetry with 1 Hz ROV Dive track in red. Vertical exaggeration 3x, 10 meter depth contours in black, 50 meter cell size, bathymetry 40% transparent.

Representative Photos of the Dive

Skate observed during Dive 06.

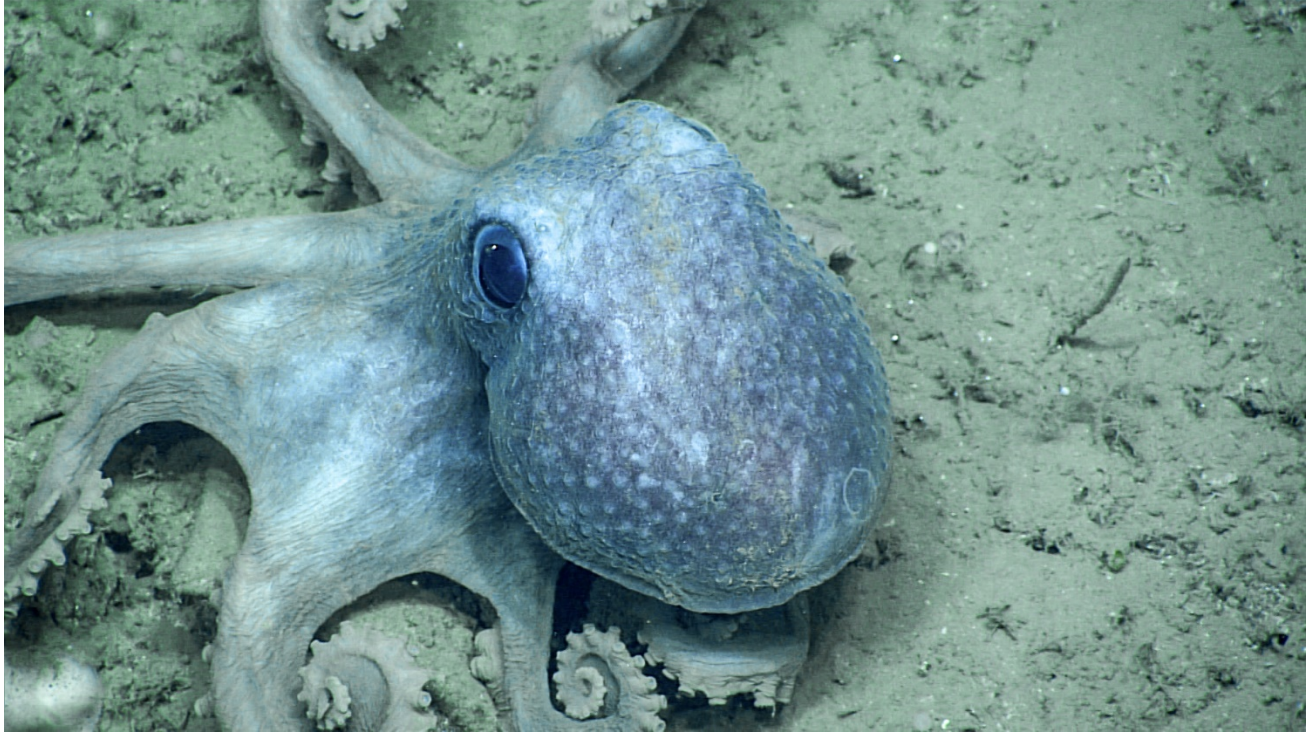


Example of rock outcrops and pinnacle like features observed throughout the dive.

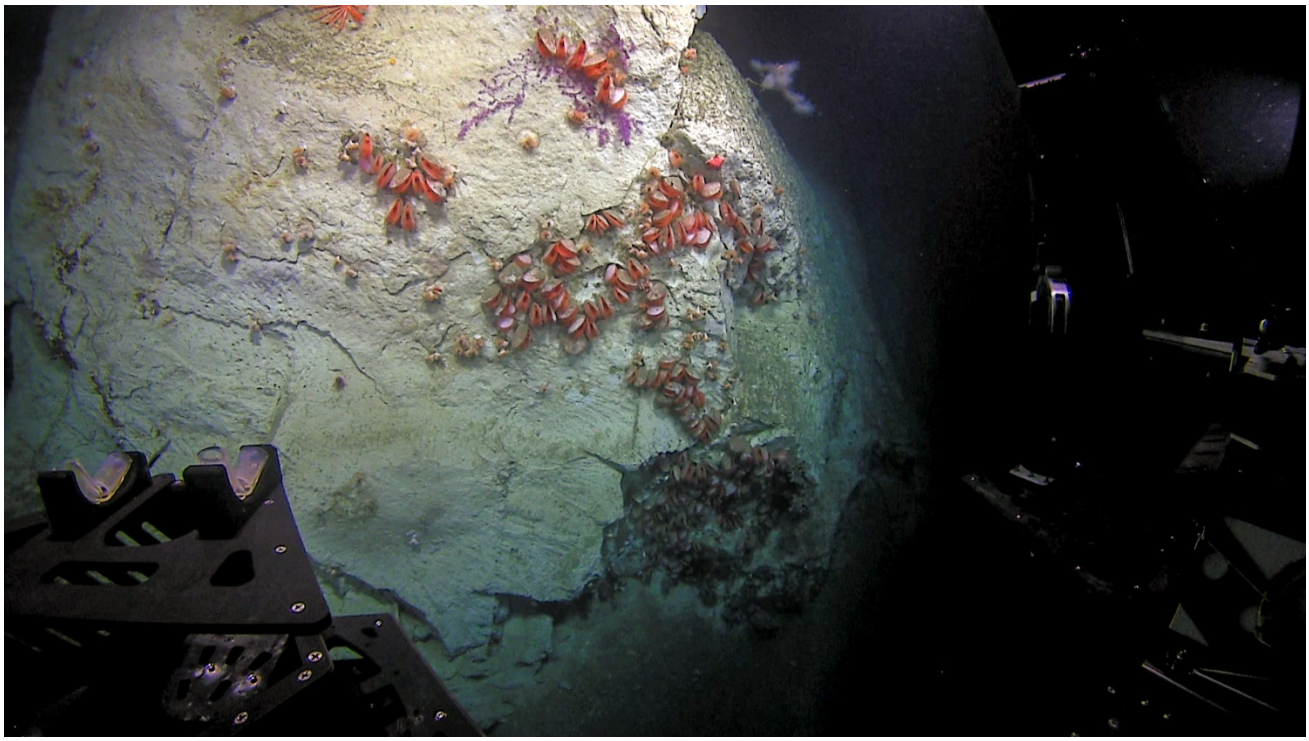


Example of layered strata with deep water coral communities.

Bivalves observed throughout the dive attached to the rocky outcrops.



Octopus observed throughout the dive.



Another example of bivalves attached to rock outcrops.

Samples Collected - No samples were collected on EX1904

Please direct inquiries to:

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