



Okeanos Explorer ROV Dive Summary

Dive Information

<p>General Location Map</p>	
<p>General Area Descriptor</p>	<p>U.S. Southeast, NC canyons</p>
<p>Site Name</p>	<p>“Roanoke Minor” Canyon (unnamed minor canyon offshore of Roanoke VA)</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 13</p>

Scientists Involved (provide name, affiliation, email)

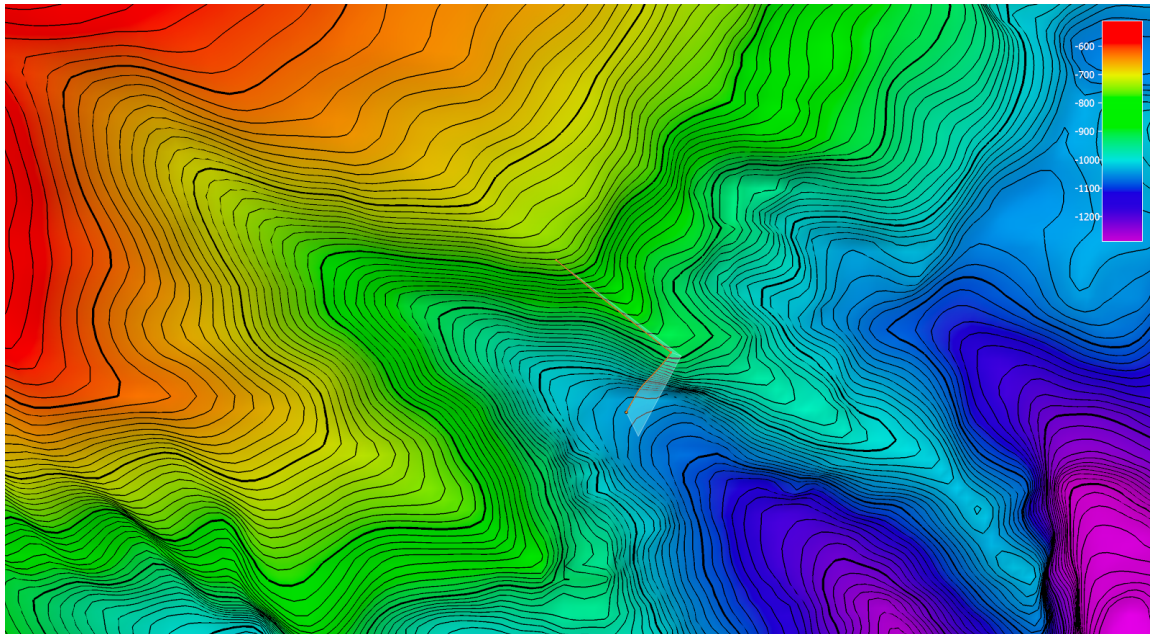
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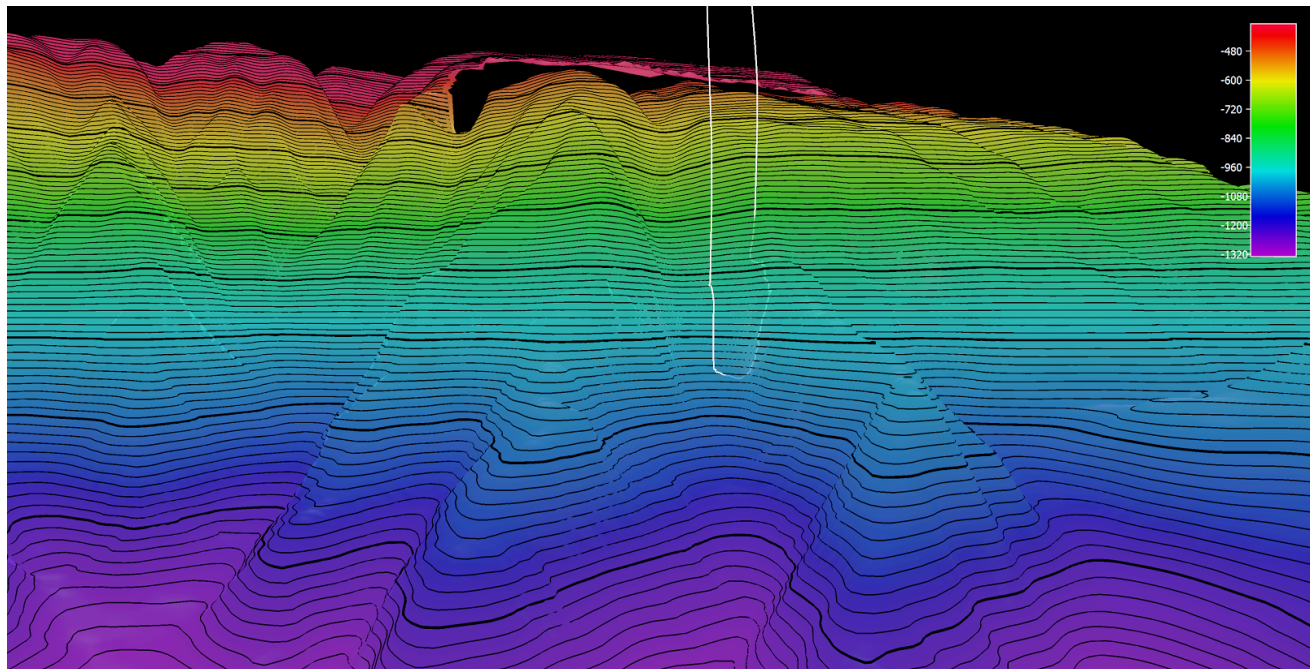
Dive Purpose	The primary objective of this dive was to explore and characterize a small canyon that has the potential to be suitable habitat for deep-water coral, sponges, and associated fauna.
Dive Description	This dive was a cephalopod safari. We landed on a flat spot in a small canyon off the North Carolina coast at a depth of 1,041 m on a soft, silty seafloor at 13:27 UTC. There was still a good amount of marine snow and fine sediment in the water column but visibility was far better than it had been on the previous two dives. Upon reaching the bottom, we noticed a large number of short-finned squid (<i>Illex sp.</i>) darting around the bottom. In addition, we observed a number of cutthroat eels, eel pouts and a number of fly-trap anemones. Shortly into the dive, we observed the first, of what turned out to be many, octopods (<i>Bathypolypus bairdii</i>). Two bobtail squid were seen in addition to a warty octopus (<i>Graneledone sp.</i>), a dumbo octopus (<i>Stauroteuthids sp.</i>) and a whip-lash squid (<i>Magnoteuthis magna</i>). Aside from the cephalopods, many pallid sculpin (<i>Cottunculus thomsonii</i>), snailfish (Liparidae), several species of large venus flytrap-type anemone, and several red crabs (<i>Chaceon sp.</i>), and a large king crab (Lithodidae) were seen. We also observed a number of patches of sculpin eggs laid on the surface of flat rocks and we witnessed a <i>Chaceon sp.</i> eating a bed of pallid sculpin eggs. Throughout the dive, we transited up the canyon wall and encountered some areas of exposed hard rock. We ended the dive at a depth of 822 m at 20:02 UTC. We attempted two biology samples, a sea pen (Pennatulacea) and a whelk (<i>Buccinum sp.</i>), but the sea pen was not recovered. The sea pen displayed a very interesting behavior when it completely retracted into the sediment when it was nudged by the manipulator arm.
Notable Observations	Many cephalopods including <i>Bathypolypus bairdii</i> , the “warty” octopus (<i>Graneledone sp.</i>), a “dumbo” octopus (<i>Stauroteuthids sp.</i>), many short-finned squid (<i>Illex sp.</i>), a <i>Magnoteuthis magna</i> and two bobtail squid (subfamily Rossiinae). We also observed a number of patches of sculpin eggs laid on the surface of flat rocks and we witnessed a <i>Chaceon sp.</i> eating a bed of pallid sculpin eggs.
Community Presence/Absence (community is defined as more than two species)	<ul style="list-style-type: none"> X Corals and Sponges ✓ Chemosynthetic Community ✓ High biodiversity Community ✓ Active Seep or Vent ✓ Extinct Seep or Vent ✓ Hydrates
Feature Type	Mid-depth canyon, submarine canyon, Scarp/Wall
SeaTube Link (science annotation system)	https://data.oceannetworks.ca/SeaTubeV2?resourceTypeId=1000&resourceId=23621&divId=1463



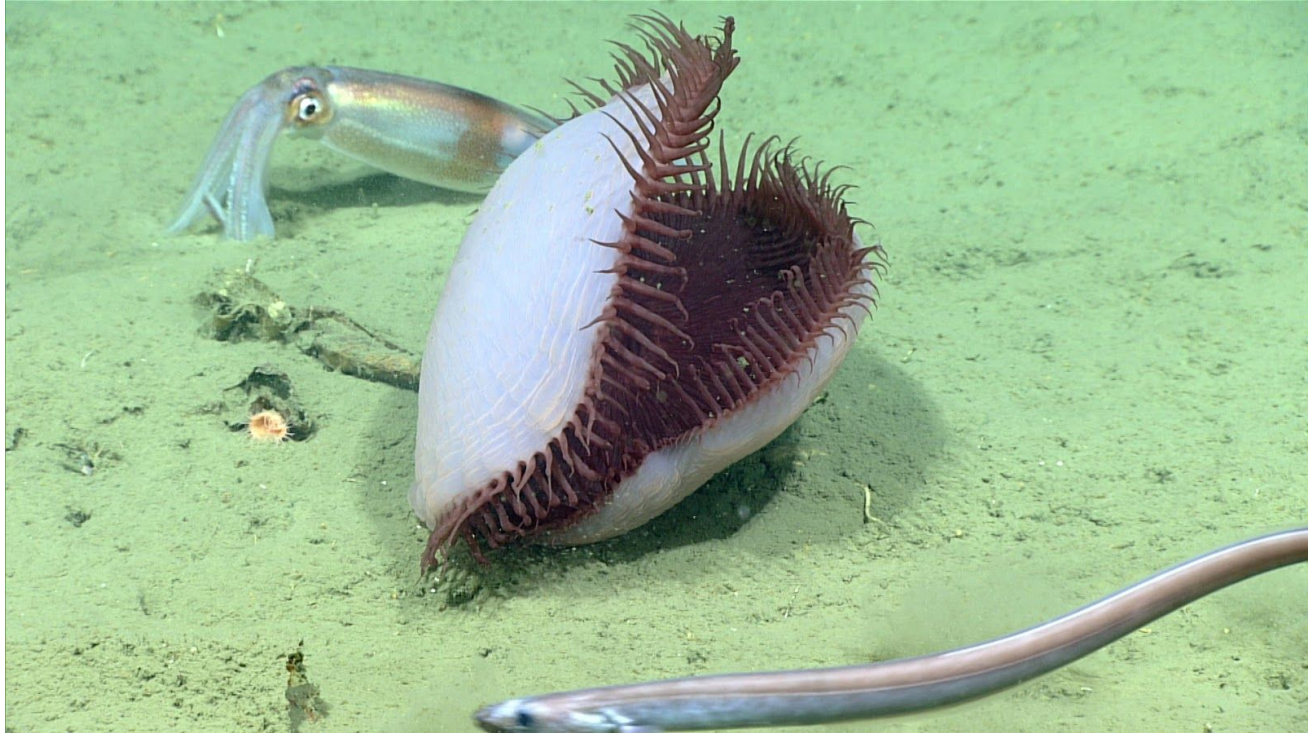
Overall Map of the ROV Dive Area



Close-up Map of Main Dive Site



Representative Photos of the Dive

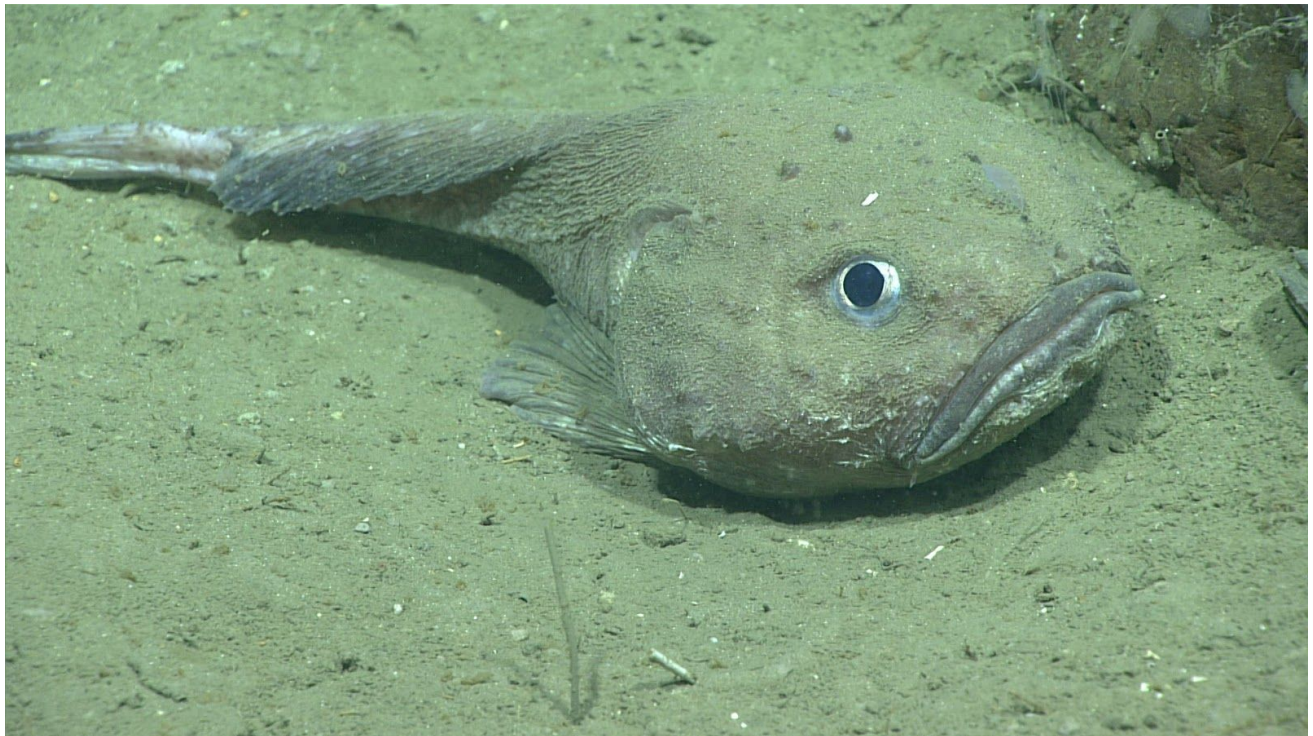


Short-finned squid (*Illex sp.*), venus flytrap-type anemone, and cusk eel (Ophidiidae)



One of two bobtail squids (subfamily Rossiinae) seen on the dive.





Pallid sculpin (*Cottunculus thomsonii*) commonly seen throughout dive.



Red crab (*Chaceon sp.*) feeding on pallid sculpin (*Cottunculus thomsonii*) eggs.

Samples Collected



Sample ID	EX1903L2_D13_01B		
Date (UTC)	20190705		
Time (UTC)	195801		
Depth (m)	860.3		
Temp. (°C)	4.762		
Field ID(s)	Snail (Gastropoda)		
Associates	Associates Sample ID	Field Identification	Count
	No associates		
Comments			

Please direct inquiries to:

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