ROV Dive Summary EX2301, Dive 05, April 21, 2023

General Location Map



Dive Information

Site Name	Horseshoe (Shakedown)
General Area Descriptor	Continental slope with bottom around 1880m depth
Science Team Leads	Alexis Weinnig, Paige Koenig

Expedition Coordinator	Thomas Morrow		
ROV Dive Supervisor	Chris Ritter		
Sample Data Manager	Caitlin Ruby, Ashley Marranzino		
Mapping Lead	N/A		
Dive Purpose	ROV Engineering Shakedown		
Maritime Heritage Restrictions	No		
ROV Dive Summary Data	Dive Summary: EX2301_DIVE05 AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		
	Bottom Time: 3:17:40 Max Vehicle Depth: 1817.0 m Min Seafloor Depth: 1791.4 m Distance Travelled: 244.7 m		
Dive Description	This was an engineering shakedown dive. Originally scoped as an Underwater Cultural Heritage (UCH) dive, the target was not located and instead we dove on a horseshoe shaped feature with a slope that was not very steep. It was a sedimented bottom but we observed a few fish (<i>Zoarcidea</i> (eelpouts), Nezumia, <i>Coryphaenoides, Antimora</i> <i>microlepis</i>), echinoderms (<i>Hymenaster</i> , Ophiuroidea, Brisingida, <i>Dendrochirota, Pannychia moseleyi</i>) and octocorals (<i>Radicipes stonei</i> , Pennatulacea). No samples were collected because the vehicles lost power and the dive was aborted early.		
Notable Observations			



Community and Habitat	Corals and Sponges — Present		
Observations	Chemosynthetic Community — Absent		
	High biodiversity Community — Absent Active Seep or Vent — Absent		
	Extinct Seep or Vent — Absent		
	Hydrates — Absent		
CMECS Feature Type(s)	Slope		
SeaTube Link (science	https://data.oceannetworks.ca/SeaTubeV3?resourceTypeId=600&		
annotations)	resourceId=2793		

Equipment Deployed

ROV	Deep Discoverer
Camera Platform	Seirios
ROV Measurements	The following ROV measurements, data streams and equipment are used on each ROV deployment: CTD, depth, scanning sonar, USBL position, altitude, heading, attitude, high-resolution cameras, low resolution cameras, manipulator arms, suction sampler, sample drawers and thrusters. The following row notes if any of these sensors were malfunctioning or not operational
Equipment Malfunctions	Vehicles lost power during the dive and were recovered without incident.



Close-Up Map of Main Dive Site



Main dive site for ROV shakedown on 50m bathymetry, depth in meters. 2X vertical exaggeration.



Sound Speed Manager Image of ROV CTD Profile



ROV CTD profiles for Dive 05

Representative Photos of the Dive



White holothurian imaged on dive 05.





Anemone and shrimp on the seafloor.

Samples Collected

N/A

Niskin Sampling Summary

N/A

Scientists Involved

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