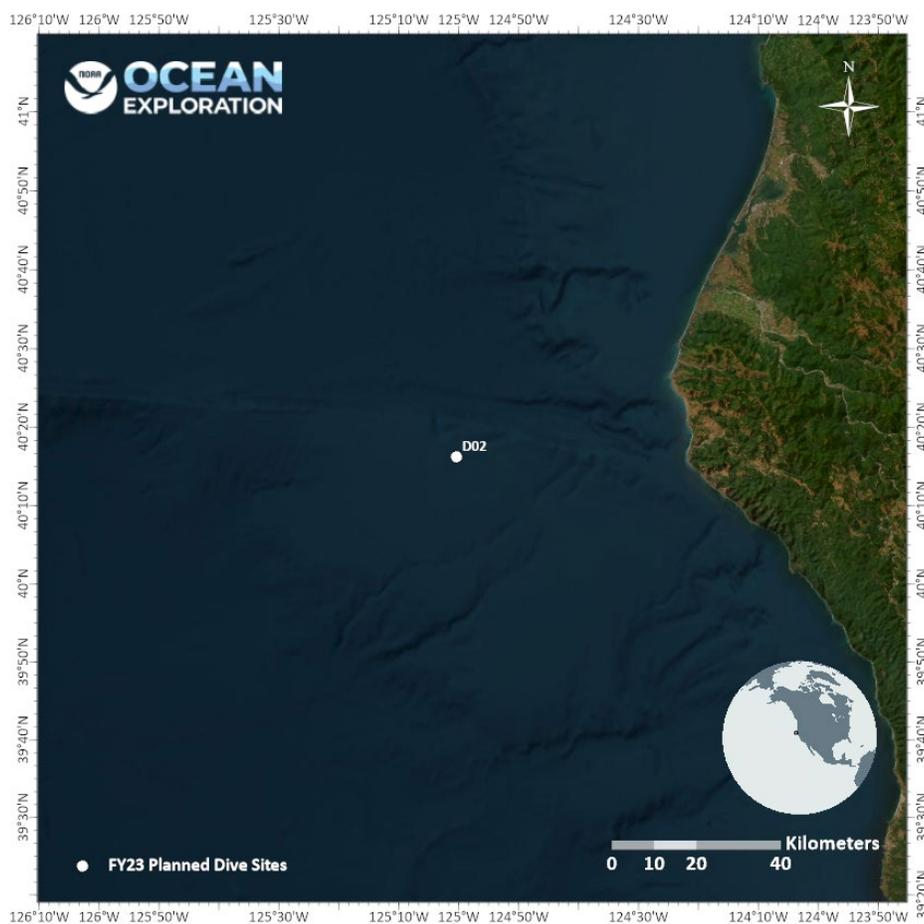


ROV Dive Summary

EX2301, Dive 02, April 17, 2023

General Location Map



Dive Information

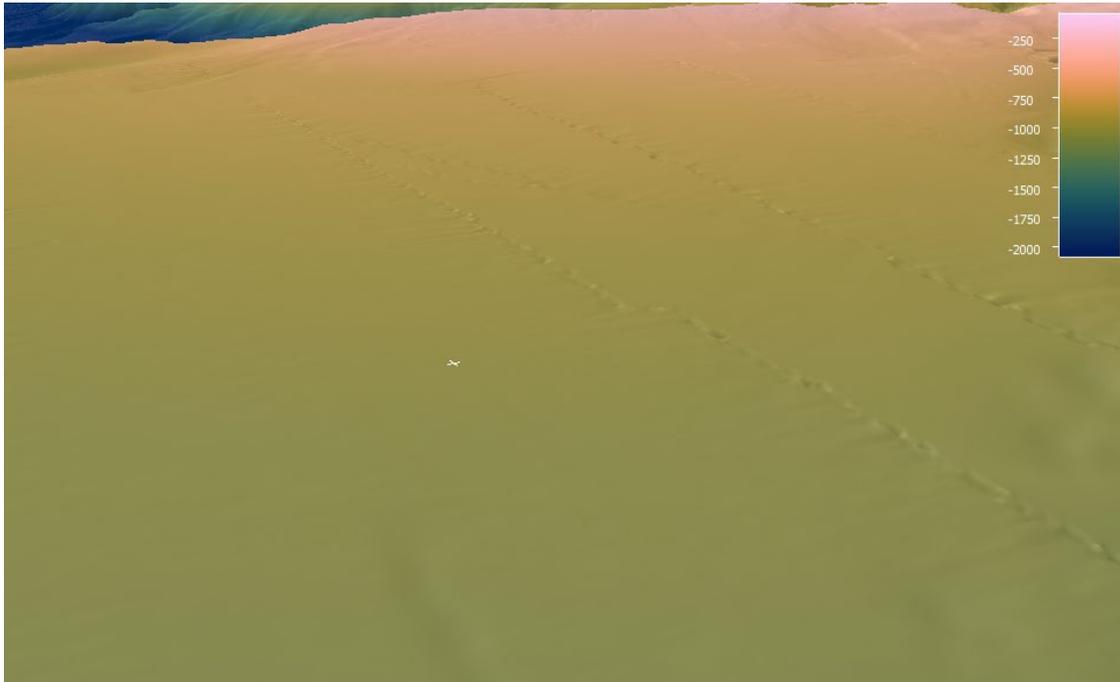
Site Name	Mendocino Flats (Shakedown)
General Area Descriptor	Relatively flat bottom, likely sedimented area around 1000m
Science Team Leads	Alexis Weinnig, Paige Koenig
Expedition Coordinator	Thomas Morrow

CMECS Feature Type(s)	Flat bottom composed of silty, unconsolidated sediment
SeaTube Link (science annotations)	https://data.oceannetworks.ca/SeaTubeV3?resourceTypeId=600&resourceId=2763

Equipment Deployed

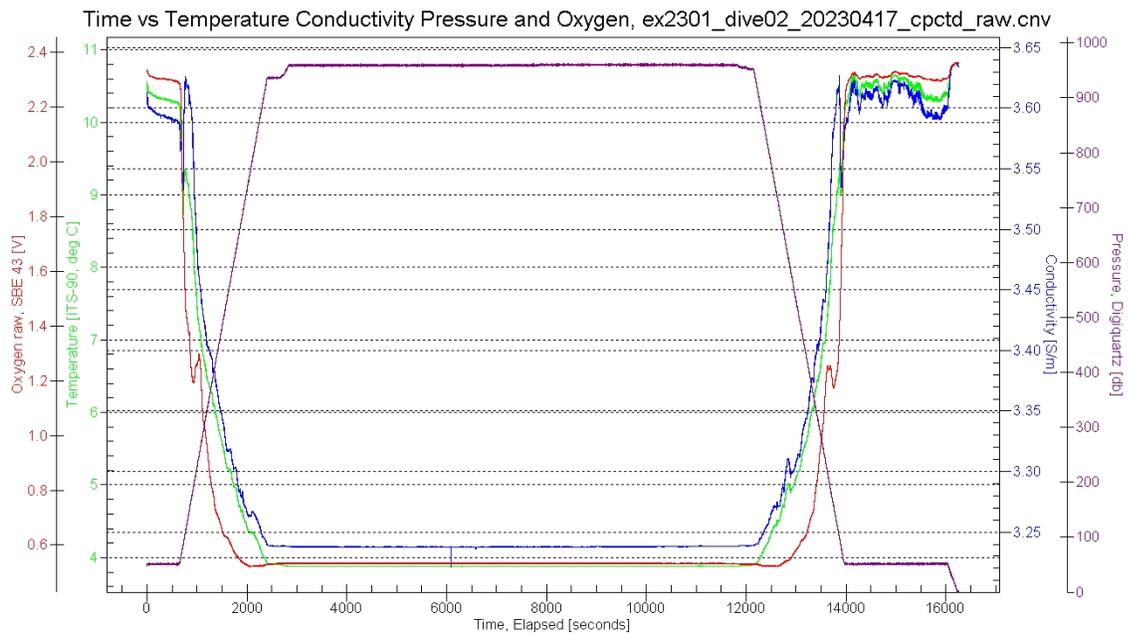
ROV	<i>Deep Discoverer</i>
Camera Platform	<i>Seirios</i>
ROV Measurements	The following ROV measurements, data streams and equipment are used on each ROV deployment: CTD, depth, scanning sonar, USBL position, altitude, heading, attitude, high-resolution cameras, low resolution cameras, manipulator arms, suction sampler, sample drawers and thrusters. The following row notes if any of these sensors were malfunctioning or not operational
Equipment Malfunctions	

Close-Up Map of Main Dive Site



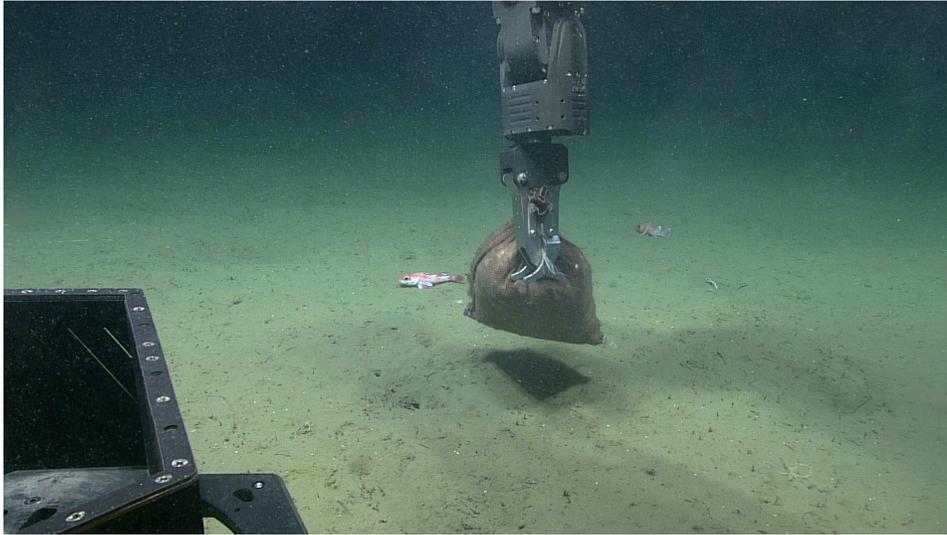
Main dive site for ROV shakedown on 50m bathymetry, depth in meters, 2X vertical exaggeration.

Sound Speed Manager Image of ROV CTD Profile



ROV CTD profile for Dive 02

Representative Photos of the Dive



ROV engineering team practicing with the manipulator arm. Thorny head fish, located in the background, were common at this dive site.



Several sea stars were found at this dive site, including this sea star imaged here.



Swimming sablefish joined by a thorny head which were fairly common on this dive.

Samples Collected

Niskin Sampling Summary

Sample ID	EX2301_D02_01W
Date (UTC)	20230417
Time (UTC)	20:09:01
Depth (m)	843.5440063
Latitude (decimal degrees)	40.17287064
Longitude (decimal degrees)	-124.8924789
Bottle Number	NISKIN 1
Temperature (°C)	4.09100008
Dissolved Oxygen (ml/L)	0.833999991
Treatment	1.75 L collected, 1 L filtered through 0.22µm filter. Filter stored in freezer.

Sample ID	EX2301_D02_02W
Date (UTC)	20230417

Time (UTC)	20:09:50
Depth (m)	820.188
Latitude (decimal degrees)	40.17288971
Longitude (decimal degrees)	-124.8924713
Bottle Number	NISKIN 2
Temperature (°C)	4.171999931
Dissolved Oxygen (ml/L)	0.643999994
Treatment	1.75 L collected, 1 L filtered through 0.22µm filter. Filter stored in freezer.

Sample ID	EX2301_D02_03W
Date (UTC)	20230417
Time (UTC)	20:10:23
Depth (m)	804.5050049
Latitude (decimal degrees)	40.17287827
Longitude (decimal degrees)	-124.8924942
Bottle Number	NISKIN 3
Temperature (°C)	4.204999924
Dissolved Oxygen (ml/L)	0.623000026
Treatment	1.75 L collected, 1 L filtered through 0.22µm filter. Filter stored in freezer.

Sample ID	EX2301_D02_04W
Date (UTC)	20230417
Time (UTC)	20:11:25
Depth (m)	777.90802
Latitude (decimal degrees)	40.17290497
Longitude (decimal degrees)	-124.8924332
Bottle Number	NISKIN 4
Temperature (°C)	4.303999901

Dissolved Oxygen (ml/L)	0.474000007
Treatment	1.75 L collected, 1 L filtered through 0.22µm filter. Filter stored in freezer.

Sample ID	EX2301_D02_05W
Date (UTC)	20230417
Time (UTC)	20:12:14
Depth (m)	755.2329712
Latitude (decimal degrees)	40.17289734
Longitude (decimal degrees)	-124.8924484
Bottle Number	NISKIN 5
Temperature (°C)	4.372000217
Dissolved Oxygen (ml/L)	0.509999999
Treatment	1.75 L collected, 1 L filtered through 0.22µm filter. Filter stored in freezer.

Sample ID	EX2301_D02_BLW
Date (UTC)	20230417
Treatment	500 mL of distilled water filtered through 0.22µm filter. Filter stored in freezer.

Scientists Involved

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