ROV Dive Summary
EX2306, Dive 17, September 11, 2023

General Location Map

Dive Information

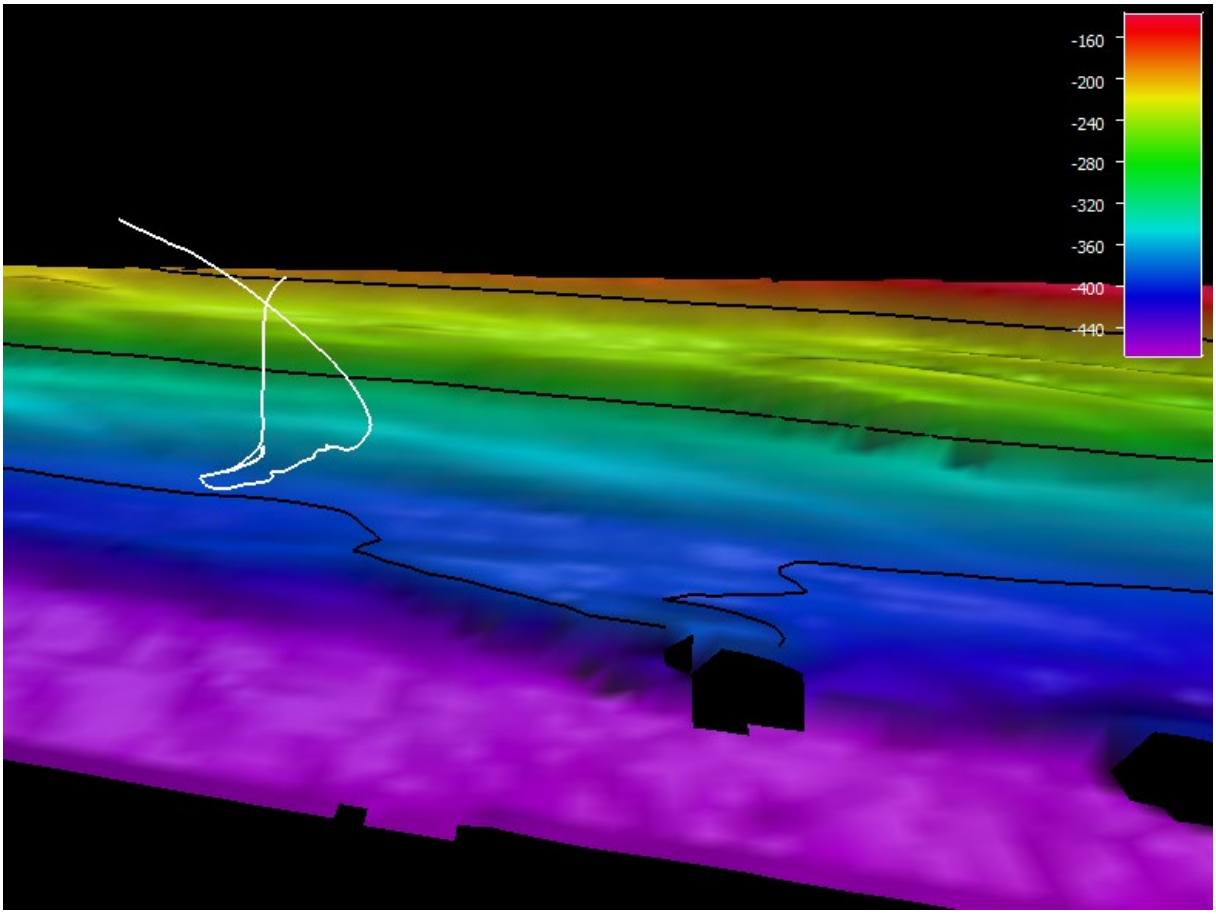
Site Name	Storey Island
General Area Descriptor	Prince William Sound
Science Team Leads	Merlin Best (Bio); Jamie Conrad (Geo)
Expedition Coordinator	Sam Candio
ROV Dive Supervisor	Lars Murphy
Dive Purpose	Visibility issues during Dive 16 resulted in a new location in Prince William sound being selected. The goal was to explore rocky habitat in Prince William Sound at depths of 250-400 m just to the northwest of Storey Island. There are very little data on the benthic fauna found deeper than 100 m in this area, so this dive aimed to fill in this data gap with observations and collections.
Maritime Heritage Restrictions	No
ROV Dive Summary Data	Dive Type: Normal In Water: 2023-09-11T22:11:52.910115 60.76035580587538 ; -147.37315347922916 On Bottom: 2023-09-11T22:46:38.866029 60.760182 ; -147.37226921565923 Off Bottom: 2023-09-12T00:15:56.270866 60.75883260399085 ; -147.3740997359939 Out Water: 2023-09-12T00:36:00.805665 60.758208162723285 ; -147.37058004318507 Dive Duration: 2:24:07 Bottom Time: 1:29:17 Max Vehicle Depth: 396.4 m Min Seafloor Depth: 358.1 m Distance Traveled: 189.6 m

Dive Description	***Geology*** This short dive explored mostly soft unconsolidated sediment on the bottom of Prince William Sounds at a depth of about 350-400 m. A few scattered boulders and, near the end of the traverse, apparent outcrops, largely covered in a thin veneer of sediment drape, were probably Early Tertiary thin- to thick-bedded sandstone of the Orca Group. ***Biology*** The brief dive off Storey Island was an interesting look at the soft bottom habitat of Prince William Sound, with several different species of fish (Sablefish, Northern Smoothtongue, and Halibut, among others). Every exposed rock we did see revealed associated fauna: zoanthids, brachiopods, and a Giant Pacific Octopus.
Notable Observations	Giant Pacific octopus
Community and Habitat Observations	Corals and Sponges — Present Chemosynthetic Community — Absent High biodiversity Community — Present Active Seep or Vent — Absent Extinct Seep or Vent — Absent Hydrates — Absent
CMECS Feature Type(s)	Basin Flat Ledge Outcrop/Rock Outcrop Shelf Valley Slope Submarine Canyon
SeaTube Link (science annotations)	https://data.oceannetworks.ca/SeaTubeV3?resourceTypeId=600&resourceId=6810

Equipment Deployed

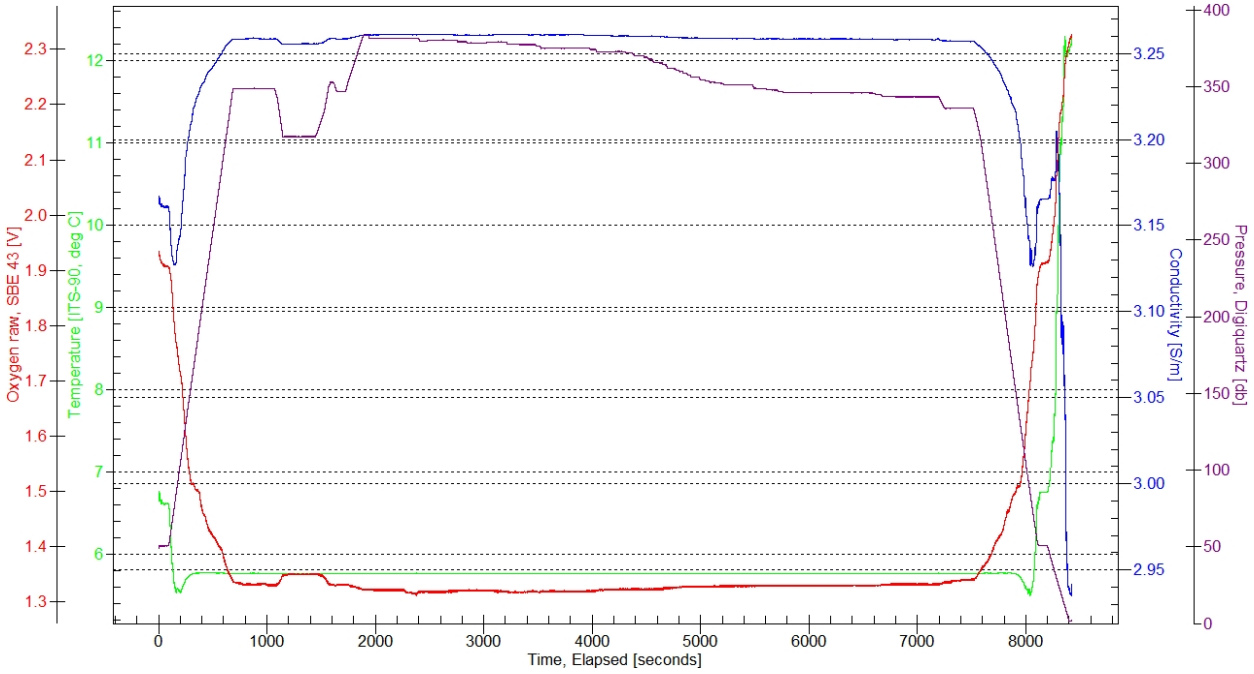
ROV	*Deep Discoverer*
Camera Platform	*Seirios*
ROV Measurements	The following ROV measurements, data streams and equipment are used on each ROV deployment: CTD, depth, scanning sonar, USBL position, altitude, heading, attitude, high-resolution cameras, low resolution cameras, manipulator arms, suction sampler, sample drawers and thrusters. The following row notes if any of these sensors were malfunctioning or not operational
Equipment Malfunctions	None

Close-Up Map of Main Dive Site



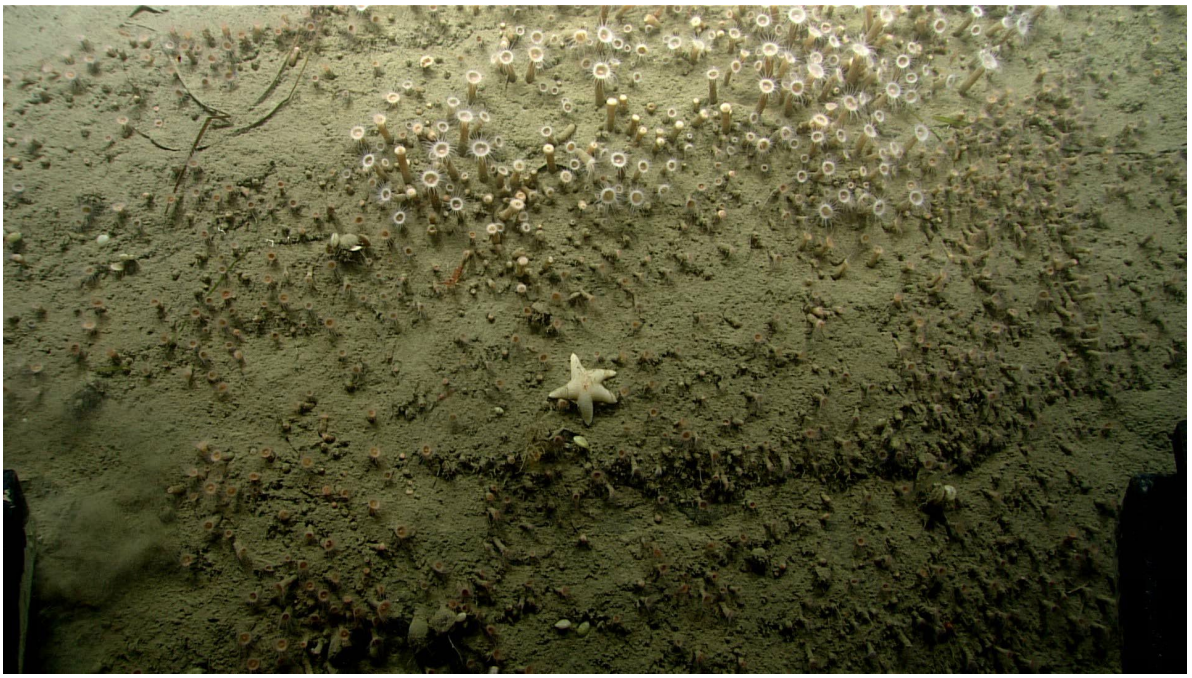
Smoothed ROV dive track in white on 25x25 cell size bathymetry, 1x vertical exaggeration, depth in meters, 100 meter contours.

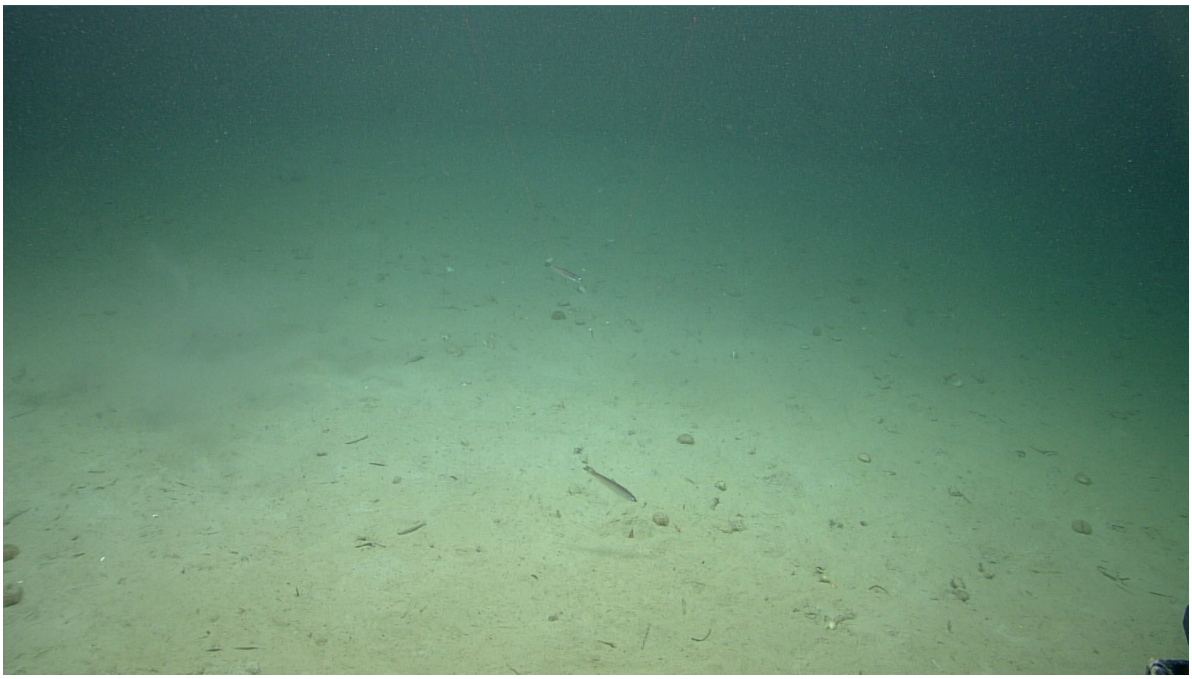
Sound Speed Manager Image of ROV CTD Profile



Plot of ROV CTD profile, showing temperature, conductivity, pressure, and dissolved oxygen over time.

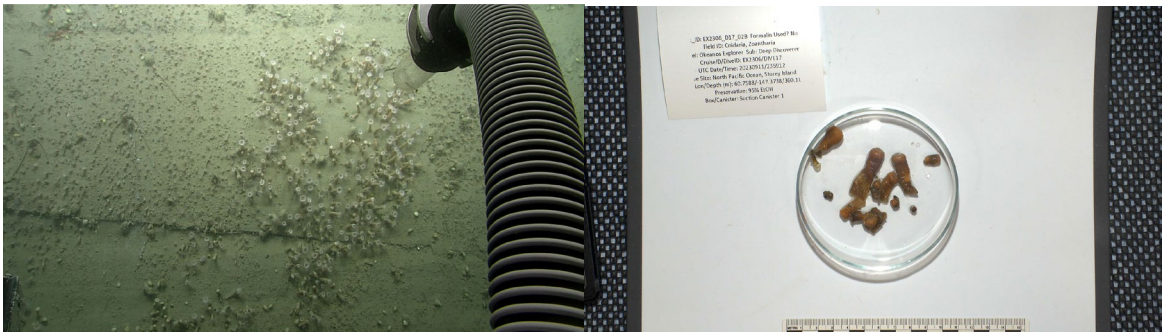
Representative Photos of the Dive





Top: zoanthids and Asteroidea on hard substrate; Bottom: soft substrate with Leuroglossus schmidti

Samples Collected



Sample ID	EX2306_D17_02B
Date (UTC)	20230911
Time (UTC)	235912
Depth (m)	360.106994628906
Latitude (decimal degrees)	60.7587776184082
Longitude (decimal degrees)	-147.373809814453
Temp. (°C)	5.78000020980835
Field ID(s)	Zoantharia
Comments	Likely Epizoanthus sp.

Associates Sample ID:	EX2306_D17_02B_A01B
Field Identification:	Amphipoda
Count:	1

Associates Sample ID:	EX2306_D17_02B_A02B
Field Identification:	Brachiopoda
Count:	1

Associates Sample ID:	EX2306_D17_02B_A03B
Field Identification:	Decapoda
Count:	3

Associates Sample ID:	EX2306_D17_02B_A04B
Field Identification:	Chaetognatha
Count:	2

Associates Sample ID:	EX2306_D17_02B_A05B
Field Identification:	Polychaeta
Count:	1

Niskin Sampling Summary

Sample ID	EX2306_D17_01W
Date (UTC)	20230911
Time (UTC)	225049
Depth (m)	395.4580078125
Latitude (decimal degrees)	60.7602119445801
Longitude (decimal degrees)	-147.372573852539
Bottle Number	Niskin Bottle 1
Temperature	5.75899982452393
Dissolved Oxygen (mg/L)	4.8289999961853
Treatment	DNA/RNA Shield

Sample ID	EX2306_D17_03W
Date (UTC)	20230912
Time (UTC)	000102
Depth (m)	358.861999511719
Latitude (decimal degrees)	60.7587699890137
Longitude (decimal degrees)	-147.373779296875
Bottle Number	Niskin Bottle 2
Temperature	5.76700019836426
Dissolved Oxygen (mg/L)	4.92000007629395
Treatment	DNA/RNA Shield

Sample ID	EX2306_D17_04W
Date (UTC)	20230912
Time (UTC)	002715
Depth (m)	165.740997314453
Latitude (decimal degrees)	60.7588844299316
Longitude (decimal degrees)	-147.37336730957
Bottle Number	Niskin Bottle 3
Temperature	5.77299976348877
Dissolved Oxygen (mg/L)	5.76800012588501
Treatment	DNA/RNA Shield

Scientists Involved

Name	Affiliation
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