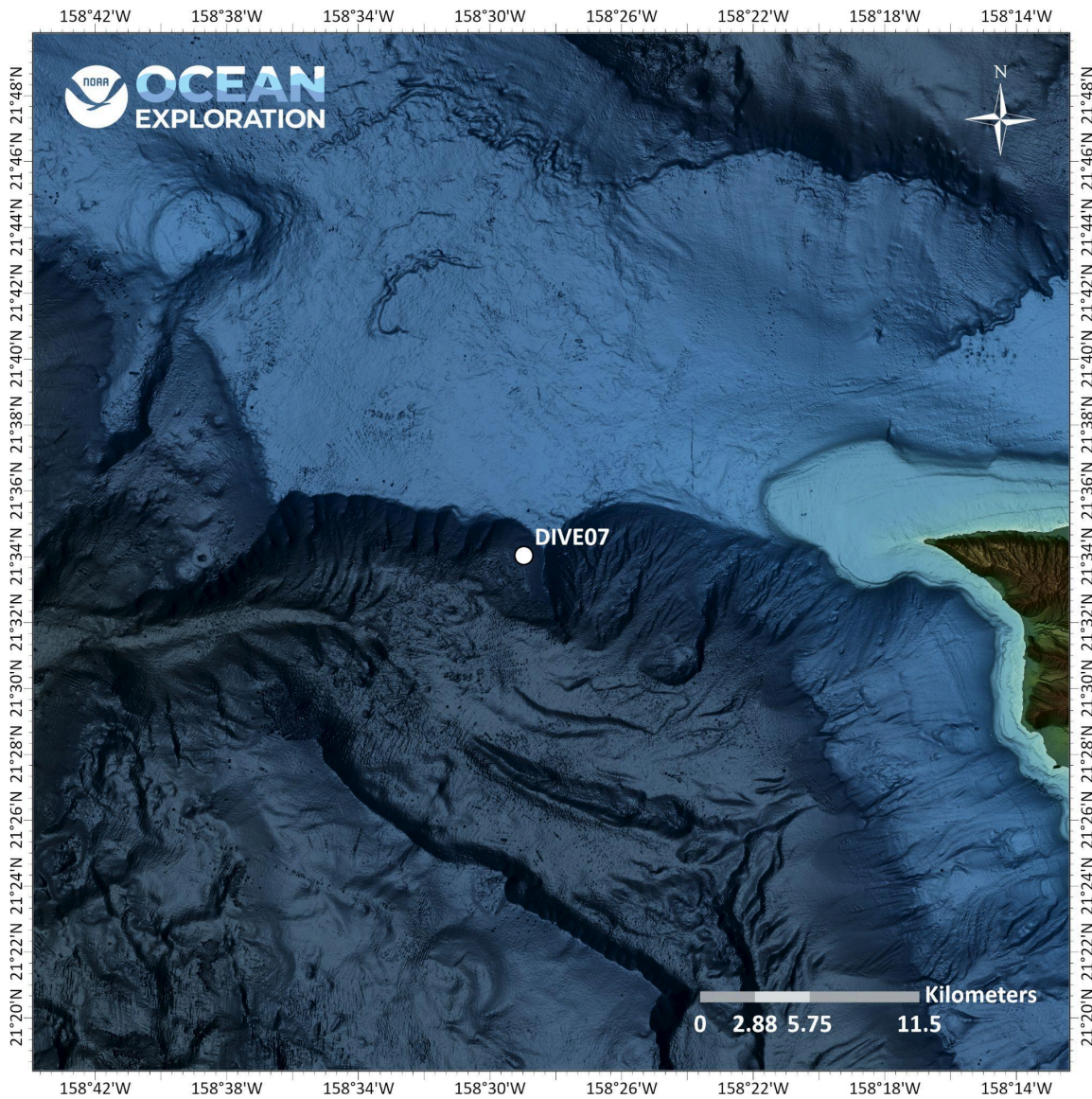


# ROV Dive Summary

## EX2502, Dive 07, March 25, 2025

### General Location Map



## Dive Information

Site Name	Ka'ena Point
General Area Descriptor	Hawaiian Islands
Science Team Leads	Trish Albano, Caitlin Ruby, Jennifer Green, Sahara Rios-Bonilla
Expedition Coordinator	Shannon Hoy
ROV Dive Supervisor	Chris Ritter
Dive Purpose	Conduct shakedown engineering objectives
Maritime Heritage Restrictions	No
ROV Dive Summary Data	<p>Dive Type: Normal</p> <p>In Water: 2025-03-25T20:59:53.904400 21.565293505284803 ; -158.48308587071082</p> <p>On Bottom: 2025-03-25T22:20:53.651740 21.56805251892725 ; -158.47938046477603</p> <p>Off Bottom: 2025-03-26T01:47:11.666493 21.569445463093004 ; -158.47651193483006</p> <p>Out Water: 2025-03-26T02:34:35.120996 21.57847954894104 ; -158.4746301790994</p> <p>Dive Duration: 5:34:41</p> <p>Bottom Time: 3:26:18</p> <p>Max Vehicle Depth: 1620.1 m</p> <p>Min Seafloor Depth: 1368 m</p> <p>Distance Travelled: 395.3 m</p>
Dive Description	<p>Dive07 was an engineering shakedown dive focused on testing the ROV's camera and updated lighting systems. The ROV ascended up a sloped escarpment with substrate consisting of ~50% Basaltic Lava Boulder Field and ~50% Fine Unconsolidated Substrate. Many deep sea coral and sponge species were observed, including: soft corals, glass sponges, and a stony coral. Fish observations were sparse. No physical samples were collected; five water samples were collected and processed for eDNA.</p>
Notable Observations	Many coral and sponge species, including: Iridogorgia and Hexactinillids. Red stemmed crinoids (Proisocrinus ruberrimus).
Community and Habitat Observations	<p>Corals and Sponges — Present</p> <p>Chemosynthetic Community — Absent</p> <p>High biodiversity Community — Absent</p> <p>Active Seep or Vent — Absent</p> <p>Extinct Seep or Vent — Absent</p> <p>Hydrates — Absent</p>
CMECS Feature Type(s)	Scarp / Wall

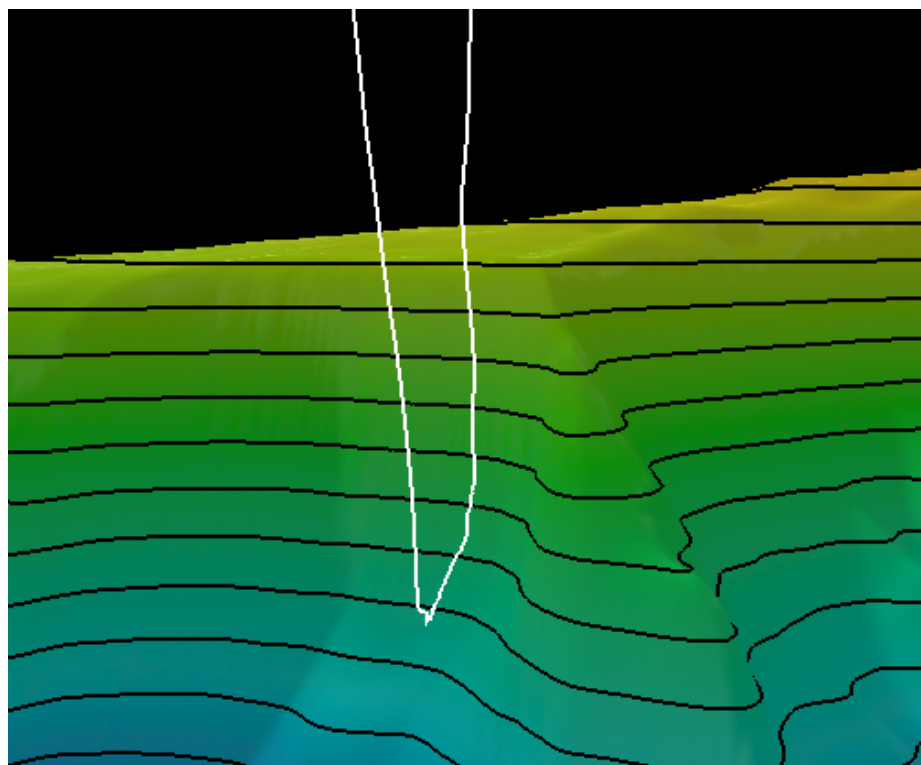
SeaTube Link (science annotations)

<https://data.oceannetworks.ca/app/dive-logs/20900>

## 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.
Equipment Malfunctions	

## Close-Up Map of Main Dive Site



Smoothed ROV dive track in white on 61x61 cell size bathymetry, 3x vertical exaggeration, depth in meters, 100 meter contours.



## Representative Photos of the Dive

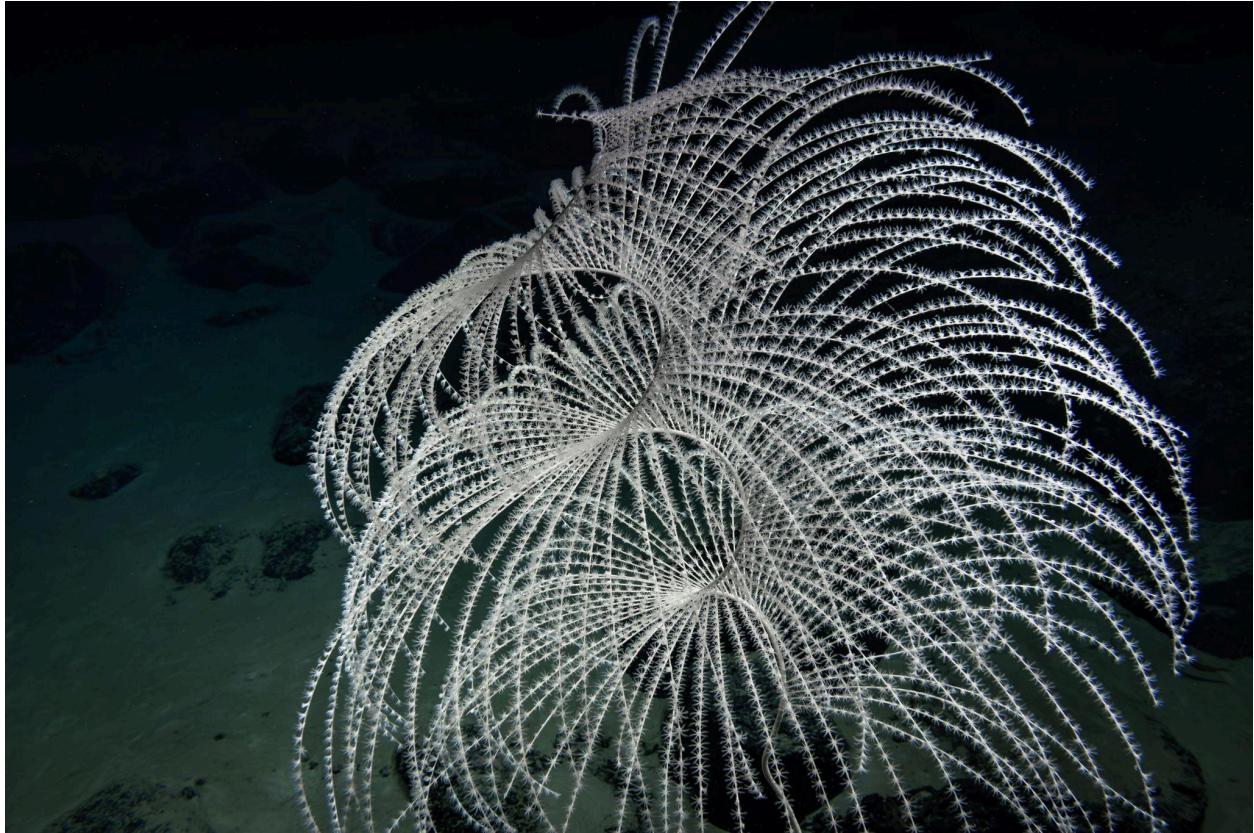


*Crinoidea* and *Actiniaria* on slope feature.



*Holothuria* swimming in water column.





*Iridigorgia* on slope feature.

## Samples Collected

### Niskin Sampling Summary

Sample ID	EX2502_D07_01W
Date (UTC)	20250326
Time (UTC)	012518
Depth (m)	1353.85302734375
Latitude (decimal degrees)	21.5697383880615
Longitude (decimal degrees)	-158.476379394531
Bottle Number	Niskin Bottle 1

Temperature	3.13700008392334
Dissolved Oxygen (mg/L)	2.02900004386902
Treatment	DNA/RNA Shield

Sample ID	EX2502_D07_02W
Date (UTC)	20250326
Time (UTC)	013824
Depth (m)	1323.90197753906
Latitude (decimal degrees)	21.5699024200439
Longitude (decimal degrees)	-158.476226806641
Bottle Number	Niskin Bottle 2
Temperature	3.24900007247925
Dissolved Oxygen (mg/L)	1.96399998664856
Treatment	DNA/RNA Shield

Sample ID	EX2502_D07_03W
Date (UTC)	20250326
Time (UTC)	014820
Depth (m)	1280.75903320313
Latitude (decimal degrees)	21.5693302154541
Longitude (decimal degrees)	-158.476501464844
Bottle Number	Niskin Bottle 3
Temperature	3.41799998283386
Dissolved Oxygen (mg/L)	1.91100001335144

Treatment	DNA/RNA Shield
-----------	----------------

Sample ID	EX2502_D07_04W
Date (UTC)	20250326
Time (UTC)	014930
Depth (m)	1241.29504394531
Latitude (decimal degrees)	21.5693054199219
Longitude (decimal degrees)	-158.476486206055
Bottle Number	Niskin Bottle 4
Temperature	3.57399988174438
Dissolved Oxygen (mg/L)	1.84899997711182
Treatment	DNA/RNA Shield

Sample ID	EX2502_D07_05W
Date (UTC)	20250326
Time (UTC)	015045
Depth (m)	1200.67199707031
Latitude (decimal degrees)	21.5692501068115
Longitude (decimal degrees)	-158.476486206055
Bottle Number	Niskin Bottle 5
Temperature	3.74300003051758
Dissolved Oxygen (mg/L)	1.79200005531311
Treatment	DNA/RNA Shield



**Direct inquiries to:**

NOAA Ocean Exploration

1315 East-West Highway (SSMC3 2nd Floor)

Silver Spring, MD 20910

[ex.expeditioncoordinator@noaa.gov](mailto:ex.expeditioncoordinator@noaa.gov)