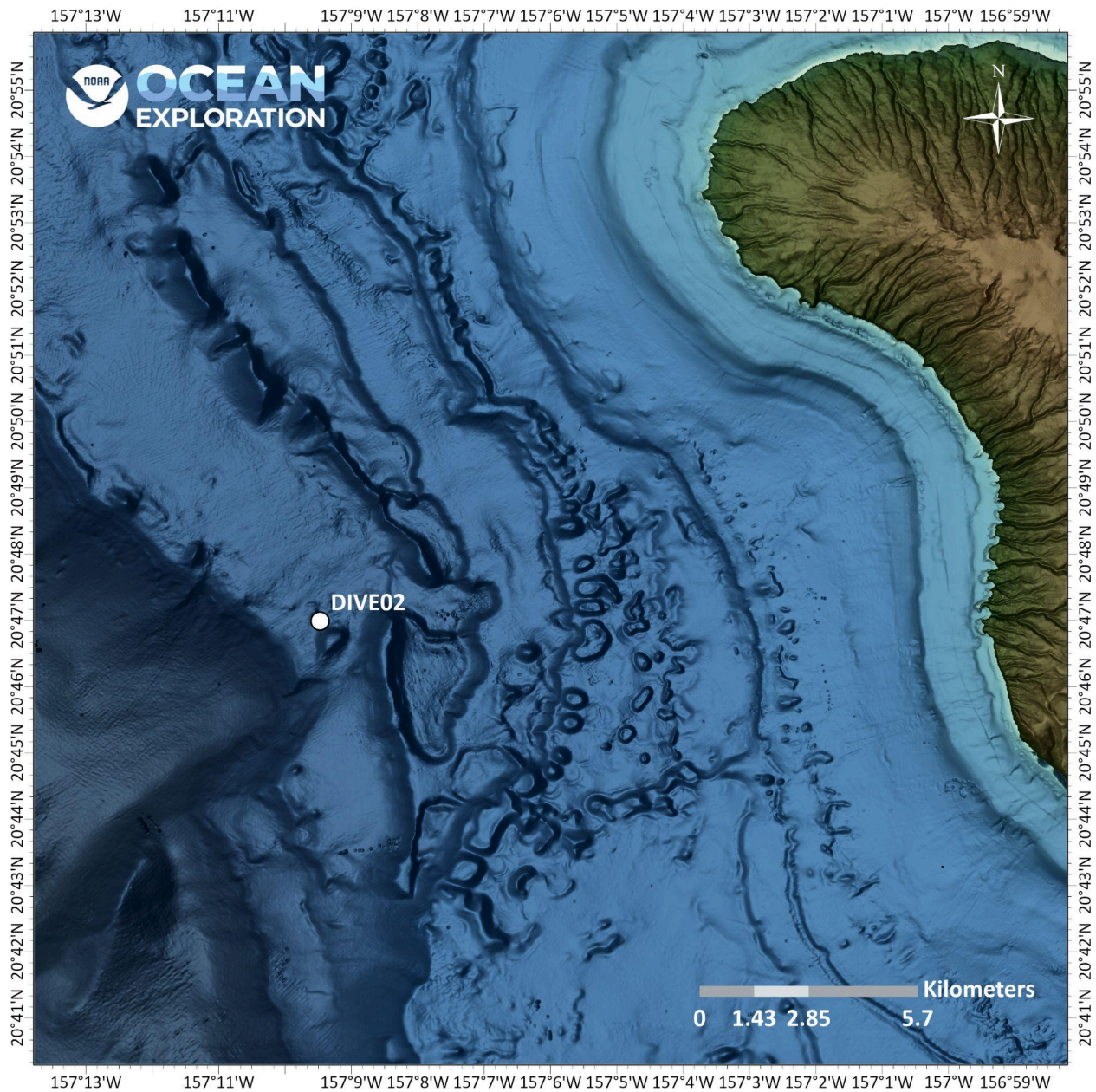


ROV Dive Summary

EX2502, Dive 02, March 20, 2025

General Location Map



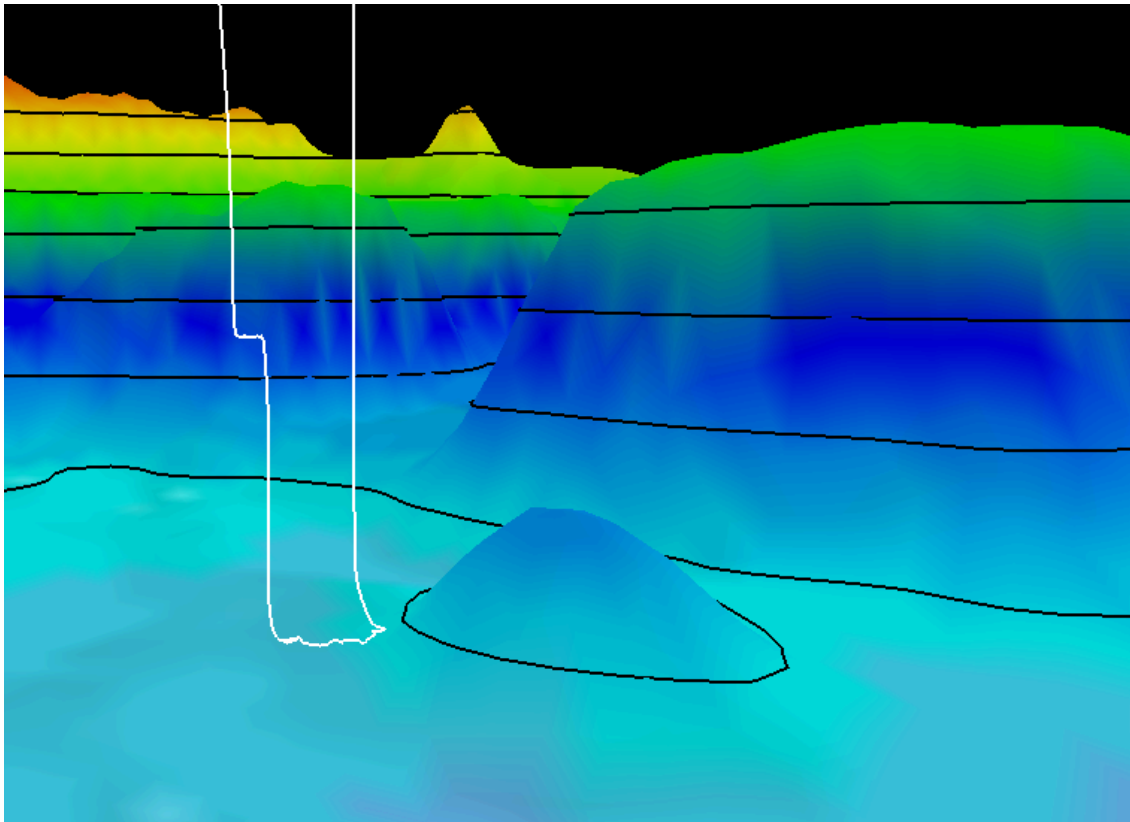
Dive Information

Site Name	Lānaʻi Slope
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	Dive Type: Normal In Water: 2025-03-20T20:53:39.832680 20.785323237990237 ; -157.1602243634985 On Bottom: 2025-03-20T22:33:25.222412 20.78413337281991 ; -157.15533752078514 Off Bottom: 2025-03-21T00:42:06.593815 20.782663849148417 ; -157.15539580656937 Out Water: 2025-03-21T01:38:54.174135 20.78188745159748 ; -157.1418409856173 Dive Duration: 4:45:14 Bottom Time: 2:08:41 Max Vehicle Depth: 1232.9 m Min Seafloor Depth: 1213.9 m Distance Travelled: 39.4 m
Dive Description	This was an engineering dive as part of the 2025 ROV Shakedown. ROV pilots and video engineers conducted system tests on a ~1200m flat area southwest of Lānaʻi Island.
Notable Observations	Echinoderms, Bathysaurus (lizardfishes), Hexactinellid (glass sponges), corals. Mostly flat, sandy bottom with the occasional rock / boulder.
Community and Habitat Observations	Corals and Sponges — Present Chemosynthetic Community — Absent High biodiversity Community — Absent Active Seep or Vent — Absent Extinct Seep or Vent — Absent Hydrates — Absent
CMECS Feature Type(s)	Flat
SeaTube Link (science annotations)	https://data.oceannetworks.ca/app/dive-logs/20300

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 50x50 cell size bathymetry, 3x vertical exaggeration, depth in meters, 100 meter contours.

Representative Photos of the Dive



Brittle star on coral with shrimp in water column



Shrimp inside sponge



Coral with brittle star, anemone

Samples Collected

Niskin Sampling Summary

Sample ID	EX2502_D02_01W
Date (UTC)	20250320
Time (UTC)	231944
Depth (m)	1224.15100097656

Latitude (decimal degrees)	20.7831592559814
Longitude (decimal degrees)	-157.155380249023
Bottle Number	Niskin Bottle 1
Temperature	3.4909999370575
Dissolved Oxygen (mg/L)	1.7940000295639
Treatment	DNA/RNA Shield

Sample ID	EX2502_D02_02W
Date (UTC)	20250320
Time (UTC)	234618
Depth (m)	1222.36999511719
Latitude (decimal degrees)	20.7825145721436
Longitude (decimal degrees)	-157.155578613281
Bottle Number	Niskin Bottle 2
Temperature	3.52999997138977
Dissolved Oxygen (mg/L)	1.77499997615814
Treatment	DNA/RNA Shield

Sample ID	EX2502_D02_03W
Date (UTC)	20250321
Time (UTC)	000249
Depth (m)	1219.98400878906
Latitude (decimal degrees)	20.7823638916016
Longitude (decimal degrees)	-157.155410766602

Bottle Number	Niskin Bottle 3
Temperature	3.53900003433228
Dissolved Oxygen (mg/L)	1.75399994850159
Treatment	DNA/RNA Shield

Sample ID	EX2502_D02_04W
Date (UTC)	20250321
Time (UTC)	004349
Depth (m)	1186.1240234375
Latitude (decimal degrees)	20.7827110290527
Longitude (decimal degrees)	-157.15544128418
Bottle Number	Niskin Bottle 4
Temperature	3.69400000572205
Dissolved Oxygen (mg/L)	1.7059999704361
Treatment	DNA/RNA Shield

Sample ID	EX2502_D02_05W
Date (UTC)	20250321
Time (UTC)	005018
Depth (m)	1004.31298828125
Latitude (decimal degrees)	20.7826728820801
Longitude (decimal degrees)	-157.155456542969
Bottle Number	Niskin Bottle 5
Temperature	4.31199979782104

Dissolved Oxygen (mg/L)	1.46099996566772
Treatment	DNA/RNA Shield

Direct inquiries to:

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