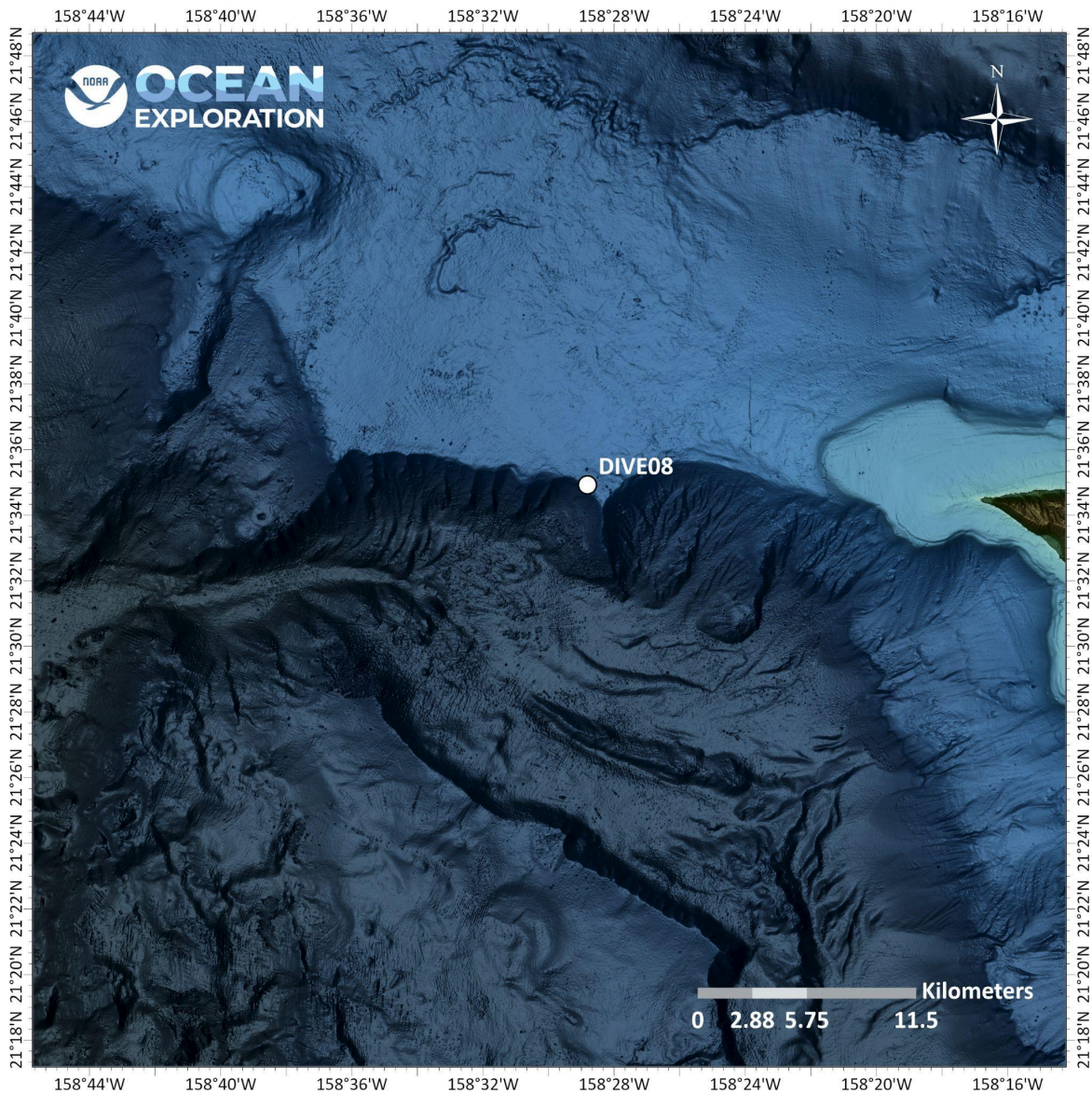


ROV Dive Summary

EX2502, Dive 08, March 26, 2025

General Location Map



Dive Information

| | |
|------------------------------------|---|
| Site Name | Ka'ena 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 | <p>Dive Type: Normal</p> <p>In Water: 2025-03-26T18:29:06.817968 21.56747764906697 ; -158.47685171546362</p> <p>On Bottom: 2025-03-26T19:51:49.952514 21.57044570428664 ; -158.47510044357003</p> <p>Off Bottom: 2025-03-27T00:29:09.085219 21.570851832338423 ; -158.4740209273632</p> <p>Out Water: 2025-03-27T01:02:32.626349 21.572184 ; -158.472927</p> <p>Dive Duration: 6:33:25</p> <p>Bottom Time: 4:37:19</p> <p>Max Vehicle Depth: 1205.1 m</p> <p>Min Seafloor Depth: 889.0 m</p> <p>Distance Travelled: 168.0 m</p> |
| Dive Description | This engineering shakedown dive was focused on testing the ROV's camera and updated lighting systems. The ROV ascended up a Basalt wall that terraced with the occasional flat areas. Coral density appeared to increase as the ROV moved upslope into shallower waters until reaching a coral garden at the top. One glass sponge was collected; three water samples were collected and processed for eDNA. |
| Notable Observations | Numerous deep sea coral and sponge species, including: Acanthogorgiidae, Chrysogorgiidae, Keratoisididae, Paragorgiidae, and Hexactinillidae. |
| Community and Habitat Observations | <p>Corals and Sponges — Present</p> <p>Chemosynthetic Community — Absent</p> <p>High biodiversity Community — Present</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 |

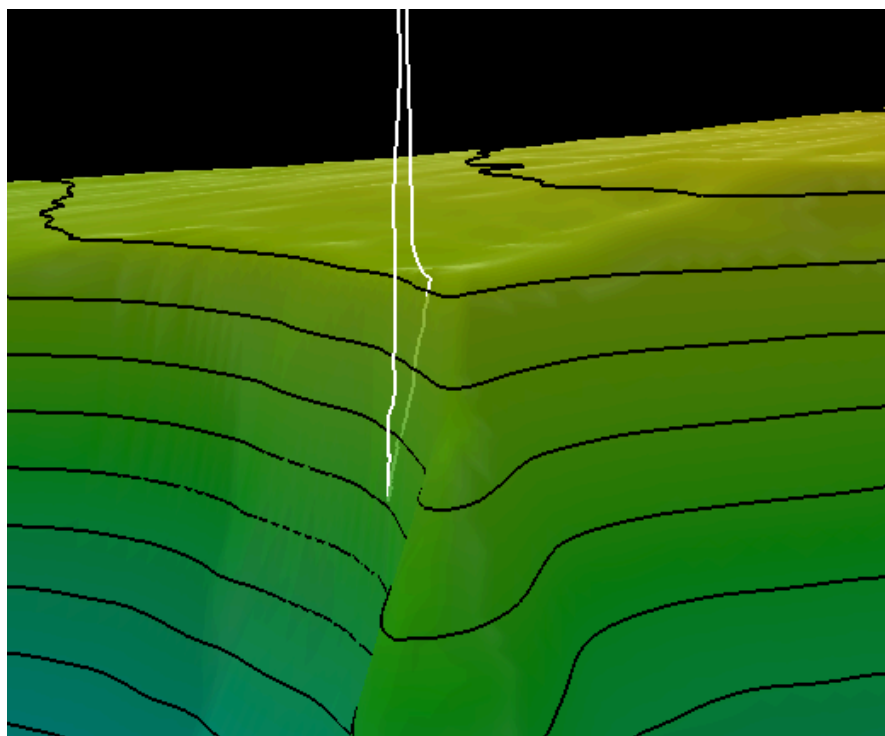
SeaTube Link (science annotations)

<https://data.oceannetworks.ca/app/dive-logs/805>

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



Anemone on steep slope of scarp feature.

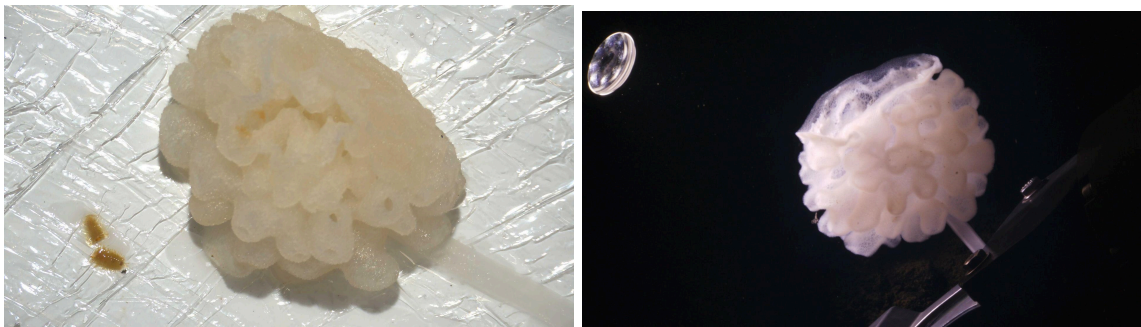


Holothuria in water column with Schilling arm light beam.



Coral garden at the top of scarp feature.

Samples Collected



| | |
|-----------------------------|-------------------|
| Sample ID | EX2502_D08_01B |
| Date (UTC) | 20250326 |
| Time (UTC) | 202247 |
| Depth (m) | 1183.0400390625 |
| Latitude (decimal degrees) | 21.5704727172852 |
| Longitude (decimal degrees) | -158.474945068359 |

| | |
|-------------|---|
| Temp. (°C) | 3.46399998664856 |
| Field ID(s) | Hexactinella |
| Comments | firm, cream white in color, audibly crunchy, 16 cm long including stalk, top sponge is approximately 6cm tall and 8 cm diameter |

| | |
|-----------------------|---------------------|
| Associates Sample ID: | EX2502_D08_01B_A01B |
| Field Identification: | Polychaeta |
| Count: | 1 |

Niskin Sampling Summary

| | |
|-----------------------------|-------------------|
| Sample ID | EX2502_D08_02W |
| Date (UTC) | 20250326 |
| Time (UTC) | 202548 |
| Depth (m) | 1183.68200683594 |
| Latitude (decimal degrees) | 21.5704708099365 |
| Longitude (decimal degrees) | -158.474945068359 |
| Bottle Number | Niskin Bottle 1 |
| Temperature | 3.47300004959106 |
| Dissolved Oxygen (mg/L) | 1.86099994182587 |
| Treatment | DNA/RNA Shield |

| | |
|------------|----------------|
| Sample ID | EX2502_D08_03W |
| Date (UTC) | 20250326 |
| Time (UTC) | 235147 |

| | |
|-----------------------------|-------------------|
| Depth (m) | 949.713012695313 |
| Latitude (decimal degrees) | 21.5707950592041 |
| Longitude (decimal degrees) | -158.473785400391 |
| Bottle Number | Niskin Bottle 2 |
| Temperature | 4.48400020599365 |
| Dissolved Oxygen (mg/L) | 1.557000041008 |
| Treatment | DNA/RNA Shield |

| | |
|-----------------------------|-------------------|
| Sample ID | EX2502_D08_04W |
| Date (UTC) | 20250327 |
| Time (UTC) | 002318 |
| Depth (m) | 896.810974121094 |
| Latitude (decimal degrees) | 21.5708827972412 |
| Longitude (decimal degrees) | -158.473663330078 |
| Bottle Number | Niskin Bottle 3 |
| Temperature | 4.7189998626709 |
| Dissolved Oxygen (mg/L) | 1.45299994945526 |
| Treatment | DNA/RNA Shield |

Direct inquiries to:

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