

Activity Summary

CrsID

Blake2003

CrsProjID

PRJ0004

Blake Ridge Diapir

7/26/2003

Windows to the Deep: Blake Ridge Mapping

Overview of Human Occupied Vehicle Dive Alvin 3909 (Blake2003_ACT0004) at Blake Ridge Diapir

Activity Vitals			Participants	Overall Dive Site Ratings	
Dates/Times/Depth	Bndg Coordinates	System(s)	No participants recorded.	<i>1 = low; 10 = high</i>	
Start 7/26/2003 7:54:00	North 32.5004	Alvin		Uniqueness	8
End 7/26/2003 15:23:00	South 32.4931			Health	7
Time zone EDT UTC -04	East -76.1838	Data Collected		Disturbance	3
MaxDepth (m): -2876.3	West -76.1923	Samples Multimedia Data		Biodiversity	9
				Relief Variation (meters):	2

Objectives

Conduct samples for biology and chemistry.

1. Niskin bottles at bottom approach (to collect water)
2. Push cores (background; live, dead and mixed clams; tubeworms; methane hydrate; healthy and unhealthy mussels; bacterial mat)
3. Document methane-hydrate site with good video before sampling. With Lasers.
4. Other Samples (slurp live clams, slurp tubeworms, sample mussels)
5. Deploy markers at clam sites a, b, c and at methane hydrate.

Dive Track Description

Dive started approx. 150 m NNE of the intended target, marker E on the Blake Ridge Diapir. Our landing site was in a large field of clams with spots of bacterial mats. At this spot, we took 3 cores of dead clams and 3 cores of bacteria mats. We proceeded toward marker E passing more clam beds and some broken mussle beds. Arriving in the site we completed a quick visual survey and then proceeded to collect live mussels, including adults and juveniles. We then collected live clam push cores and mixed cores of both live and dead clams. A worm bed was observed and 3 cores were collected. Individual worms were collected using the slurper. Moving now toward the SE, we passed between markers E and D and then directly overtop of the hydrate mound. After completing a tight turn, we reapproached the mound traveling north. From this angle, two areas of exposed hydrate could be visualized. Only video was taken to preserve the site. Two sets of 3 cores were then collected; one in the center of the feature but not on any clams, and the other was an off-site control.

Living Habitat Structure

Type	% Cover
Sponges	2

Sediments

Type	% Cover
Nothing recorded.	

Geomorphology

Type	% Cover
mounds	50
ridges	10
rock outcrops	10
Other	10

Anthropogenics

Type/Description
Discarded Gear
Crab Trap, Alvin weights
Buoys or Markers
Guide markers

Living Marine Resources Abundance

None (0) Single (1) Few (2-10) Many (11-100) Abundant (>100)

Pelagic Fish	Many	Other Benthic
Bottom Fish	Many	Nothing recorded.
Crustacean	Abundant	
Mollusk	Abundant	
Echinoderm	Many	

Observations and Comments on Living Marine Resources:

No other comments.

Unique or Rare Invertebrates Unique or Rare Vertebrates

Nothing recorded. Nothing recorded.

Fish Observation and Abundance

None (0) Single (1) Few (2-10) Many (11-100) Abundant (>100)

Rat Tails-many, crynoid-many, sea cucumber-many, shrimp-many, snails-many, sea fans-many, octopus-few

Other Comments/Notes

NOAA Office of Ocean Exploration



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